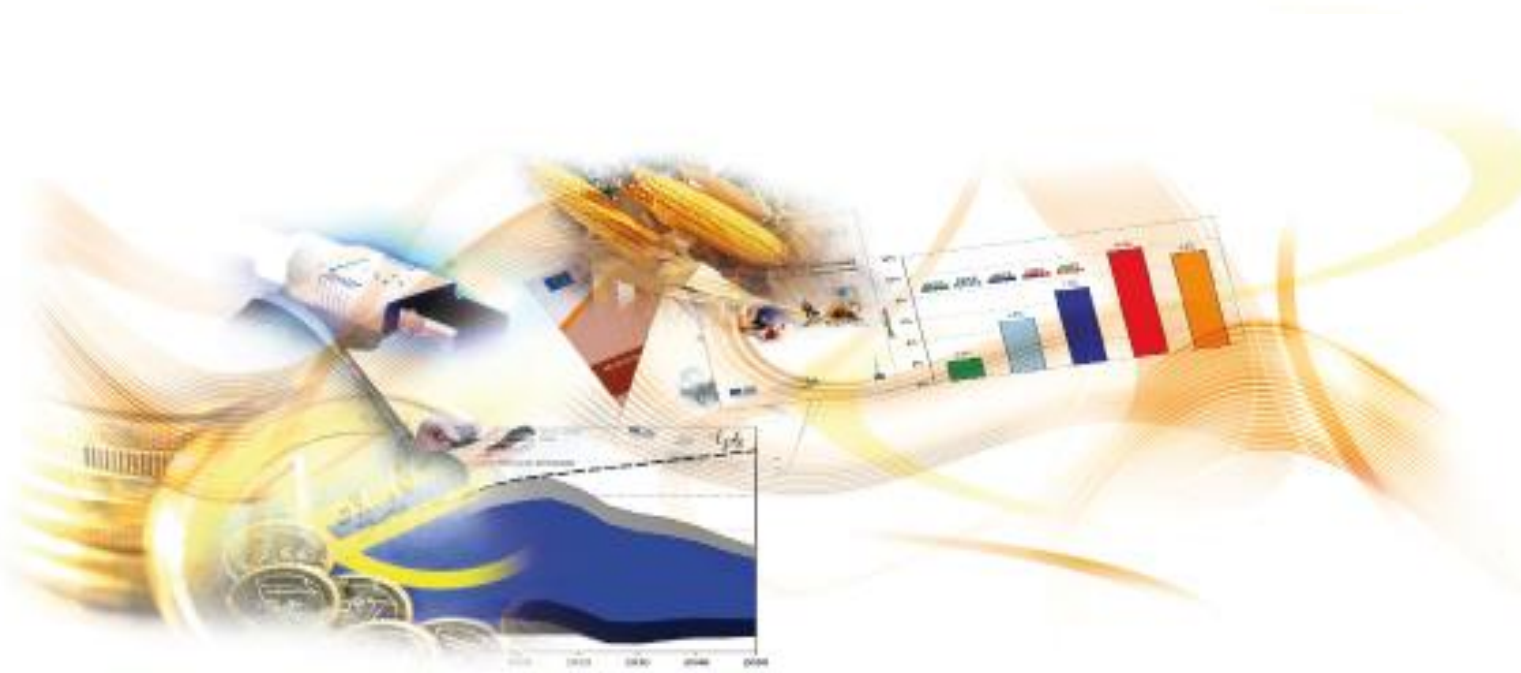


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Entrepreneurship Competence: An Overview of Existing Concepts, Policies and Initiatives

In-depth case studies report

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Abstract

Entrepreneurship is recognized by the European Union as one of the eight key competences for lifelong learning, and thus necessary for all members of a knowledge-based society. It is also regarded as an enabler for economic recovery, growth, job creation, employment, inclusion, poverty reduction, and also innovation and productivity. As such, it has become a policy priority and measures have been taken to incorporate entrepreneurship into different policy fields, including education. Education and training systems across Europe are indeed taking entrepreneurship progressively into account. This report presents 10 case studies, which address how entrepreneurship as a key competence is taught and learnt in real settings across all levels of education (i.e. primary, secondary, tertiary) and learning contexts (i.e. formal, non-formal and informal) in Europe. The in-depth analysis of the 10 cases was carried out through several rounds of desk research, direct enquiries and face-to-face or telephone interviews, and expert consultation. This comparative analysis highlights similarities and differences in the development of entrepreneurship competence in terms of pedagogical approaches, assessment practices, evaluation strategies, impact, factors of transferability and sustainability. This report is an interim output of the JRC-IPTS funded study 'Entrepreneurship Competence: An overview of existing concepts, policies and initiatives (OvEnt)' conducted by CARSA. The OvEnt study is part of the wider research agenda of JRC-IPTS on 'ICT for Learning and Skills' that aims to provide evidence on how skills and key competences that our digital society needs are acquired, certified and recognised.

Foreword

Reigniting the entrepreneurial spirit as a means of bringing Europe back to growth and promoting new jobs is a top priority. However, what the skills are that make individuals enterprising is not yet clearly defined.

The present report is an interim output of the study **Entrepreneurship Competence: An overview of existing concepts, policies and initiatives (OvEnt)**. OvEnt was funded by JRC-IPTS as a preliminary step to the *Entrepreneurship Competence Framework* study, which is being conducted on behalf of the Skills and Qualification Unit of *DG Employment, Social Affairs and Inclusion*. Its objective is to define a European competence reference framework for the key competence for lifelong learning '*Sense of Initiative and Entrepreneurship*'.

The report presents 10 case studies, which address how entrepreneurship as a competence is taught and learnt in real settings in formal, non-formal and informal learning contexts, across all levels of education and a wide geographical spread. The in-depth analysis of these cases compares and contrasts different approaches to the promotion of entrepreneurship competence, highlighting recurrences and differences.

The reader will find concrete examples of how entrepreneurial learning is implemented when the focus is on enterprise functions, and also when nurturing the entrepreneurial mind-set and behaviour of the learner is the main aim of the initiative. Initiatives of the first type tend – for example – to promote *financial and economic literacy* no matter what the education level of the learner is. Initiatives of the second type place greater emphasis on the development of transversal skills such as *autonomy, teamwork and collaboration, idea generation, ability to learn from failure*, along with *self-efficacy, self-awareness, awareness about and recognition of the skills of others*.

The in-depth case study analysis provides insights not only into what entrepreneurship competence means in terms of knowledge, skills and attitudes, but also describes what pedagogical approaches are available to help learners build this competence, and what the learning settings and the diverse ways of assessing its acquisition are. Evidence of impact, sustainability and transferability for each of the initiatives analysed is also provided. In addition, the drivers and barriers that need to be addressed when promoting the development of an entrepreneurial culture through education are suggested.

This report is part of the work of the JRC-IPTS "ICT for Learning and Skills" team on identifying the skills and competences that our digital economy and society need. This research looks at how these skills and competences are acquired, certified and recognized in order to support European policies in creating a bridge between the worlds of education and work.

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Executive Summary

Entrepreneurship is crucial for economic recovery, growth, job creation, employment, inclusion, poverty reduction, and also innovation and productivity. As such, it has become a policy priority in Europe and the European Union and Member States are taking measures to incorporate entrepreneurship into different policy fields. Entrepreneurship, defined as “*sense of initiative and entrepreneurship*”, is recognized by the European Union as one of the eight key competences for lifelong learning,¹ and thus necessary for all members of a knowledge-based society. **Entrepreneurship as a competence** is being progressively incorporated² into school and vocational training curricula and efforts are being made to create frameworks and tools to operationalise entrepreneurship, among other transversal skills, in education, training and youth fields.³

The current report is part of the 'Entrepreneurship Competence: An overview of existing concepts, policies and initiatives (OvEnt)' study, which seeks to establish the state of the art on entrepreneurship competence by identifying and comparing different theoretical and practical approaches from the academic and non-academic world.

In particular, the report presents **10 case studies which address entrepreneurship as a competence** from all educational levels and diverse geographical origins. The cases are drawn from school curricula, project-based activities, mini-company programmes, certification schemes, measurement tools, incubation and executive programmes and comprehensive entrepreneurship competence frameworks. Furthermore, they represent different levels of maturity - some initiatives are fairly recent having only completed their first year of implementation after the piloting phase, whereas others have been implemented and mainstreamed for decades.

The final beneficiaries are mainly young children, students and adults, though several initiatives operate at a more systemic level and deal with teachers, schools and even their respective authorities (regions, teacher training institutions etc). All initiatives involve business representatives and other players from the local community.

Besides presenting the individual case studies in great detail, a cross-case analysis has been carried out, which looks at the following themes:

- Entrepreneurship competences,
- Setting up phase,
- Pedagogical approach, including educator training and support,
- Strategies for assessing entrepreneurship competences,
- Evaluation and impacts
- Transferability and sustainability.

Overall, most of the case studies address all components of entrepreneurship competence, in terms of **knowledge, skills and attitudes**; yet the intensity with which these are addressed varies. Certain patterns are observed with respect to the education level and type of initiative. Some **elements of entrepreneurship** recur across the selected cases. It was observed that

¹ European Parliament and Council (2006). Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning. Official Journal of the European Union, (2006/962/EC).

² Eurydice (2012). Entrepreneurship Education at School in Europe National Strategies, Curricula and Learning Outcomes. March 2012. doi:10.2797/80384

³ For example, initiated by the European Commission - DG Education and Culture, together with High Level Group on Education and Training, ET 2020 Working Group on Transversal Skills (E03002) and Thematic Working Group on Entrepreneurship Education (E02676).

entrepreneurship competence has two dimensions – a narrow one tied closely to enterprise functions, and a, wider one, linked to the learner’s entrepreneurial mind-set and behaviour. Regarding the first dimension, elements of *financial and economic literacy* are emphasized by the case studies across all education levels. Concerning the second dimension, frequent key elements are: *autonomy, teamwork and collaboration, communication, sense of responsibility, idea generation, organisation and management, taking the initiative, negotiation, and decision-making. Ambiguity, uncertainty and ability to learn from failure*, alongside with *self-efficacy, self-awareness, awareness about and recognition of skills of others* are also important.

‘*Social responsibility*’ – ethics, environmental, societal and social aspects - can be found in many of the initiatives analysed, although a different approach is taken to how these aspects are incorporated. This is done via an ‘integrated approach’, a dedicated competence category or a dedicated initiative.

There is no clear conclusion about which entrepreneurship competences are addressed most effectively by **which teaching methods and in which learning environments**. However, one may claim that the more diverse the learning settings and teaching methods applied, the broader the learning experience is and the broader the set of competences that may be stimulated. Overall, face-to-face interaction is crucial, while information and communication technologies reinforce learners’ experiences in many ways – through media resources and visuals, ICT learning tools or other aspects of ICT which may be blended into the learning process. Nevertheless, it has to be noted that ICT use in teaching and learning varies greatly among the case studies.

As regards pedagogy, most of the initiatives analysed concentrate on student-centred teaching and learning. Learning-by-doing and collaborative learning are the main pedagogical approaches while self-directed learning is increasingly important from lower education levels onwards. Interestingly, a competitive element is employed in the case studies across all education levels. However, in primary school settings the feedback showed rather negative effects of such a competitive environment, creating unhappiness among teachers and pupils. Teaching methods which address creativity, risks, and uncertain situations or which use learning from failure are increasingly used. As a result, approaches targeting these competences have emerged, as expressed by challenge-based learning, curiosity-based learning, and the combination of divergence thinking and convergence thinking.

The connection to the outside world and involvement of business or other representatives (entrepreneurs) is equally emphasized by all the case studies and seems to be indispensable for entrepreneurial learning. Alumni involvement is frequently used to reinforce the learning experience and motivate younger students. Along the same lines, **mentoring** and **networking** are not restricted to higher or adult education level only. The changing role of teachers and their importance for entrepreneurial learning is highlighted, along with the need for teacher training and a more holistic approach in this respect. Opening teaching environment to the outside world remains an important task.

Traditional pedagogical practice could be meaningfully adapted to the needs of entrepreneurship competence, e.g. by means of integrating real-world examples into the content or by connecting with the local environment through study visits and guest speakers. However, creative entrepreneurial development also requires new innovative and well-aligned teaching and assessment methods.

Reflecting the changing pedagogical approach, the most common **assessment methods** are project work and self-assessment followed by peer-evaluation, presentations, pitches, events and external review. Overall, formative assessment strategies dominate and different methods are used to assess different components of entrepreneurship competence. Interestingly, traditional start-up methods (pitches, competitions, events, business or idea plan) have been adapted and applied to some extent to assessment across all education levels.

Most of the case studies have in place a **strategy** to evaluate the initiative's impact though the approaches differ. Where the evaluation is more systematic, a survey of graduates/alumni, an external evaluation by independent organisation, or an in-house continuous monitoring tool is often employed.

Most of the **case studies focus on achieving impacts in four areas:**

1. employment/employability;
2. entrepreneurship as a career option or start-up foundation;
3. personal development; and
4. further education.

The lower the educational level, the more focus is shifted towards the learner; hence, 'personal development' and 'entrepreneurship as a career option' is communicated. 'Employability/employment' seems to be a rather general impact area across all case studies. Interestingly, 'start-up foundation' became a key area of impact from secondary education level upwards, whereas 'entrepreneurship as a career option' and 'personal development' is particularly important in primary schools.

The initiatives selected are financed in different ways. Two case studies are financed by private resources only, and three case studies rely solely on public resources. One of the initiatives relies mainly on public funding but supplements this with proprietary resources. Another one uses public-private partnerships as a complementary source of funding. Three of the case studies receive mixed public-private funding, and one of these combines fairly diverse sources of funding, including sponsors and a licence fee.

Some **key sustainable and success factors** recur in several initiatives. The quality of educators and their ongoing training and professional development is highlighted as important in nearly all the initiatives. Equally important is connectivity to business and alumni, often encouraged through company visits and mentors from business. In addition, a systemic and holistic approach to entrepreneurship, a proven and tested model, and continuous communication and knowledge sharing are addressed by several initiatives. Language and understandable terminology is often emphasized by initiatives in lower education levels.

Most of the initiatives may be considered as highly **transferable across education levels or geographically**. Initiatives are more likely to be easily transferable if:

- they base their approach on central coordination and local implementation;
- have solid partners from several countries or connect to the European network;
- involve partners with specific knowledge and experience in targeted education level;
- develop a solid strategy for future expansion right from the start.

The case study analysis is an interim output of the OvEnt study and will feed into the final report.

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1 Introduction

This report presents the case study analysis conducted within a JRC-IPTS-funded study **Entrepreneurship Competence: An overview of existing concepts, policies and initiatives (OvEnt)**. The report is one of the interim outputs of this study.

1.1 Entrepreneurship Competence: An Overview of Existing Concepts, Policies and Initiatives (OvEnt)

Fostering entrepreneurship has become a policy priority in Europe,⁴ and the EU and the Member States are taking measures to incorporate entrepreneurship into different policy fields. In the educational sector, entrepreneurship education is high on the agenda of policy-makers. Entrepreneurship as a competence⁵ is being introduced⁶ into school and vocational training curricula and efforts are being made to create frameworks and tools to operationalise transversal skills in the education, training and youth fields.⁷

Against this background, IPTS commissioned CARSA⁸ to carry out a study, which seeks to gain a comprehensive overview of existing concepts and frameworks of the key competence “Entrepreneurship”. The overview is composed of (1) a literature review which looks at definitions and frameworks of the entrepreneurship as a competence, (2) an inventory of existing European initiatives which promote entrepreneurship competence at national/regional/local level and (3) 10 in-depth case studies to understand how entrepreneurship as a competence is conceptualized, translated into learning objectives and implemented in practice.

The OvEnt study seeks to establish the state of the art on the topic of entrepreneurship competence by identifying and comparing different theoretical approaches from the academic and non-academic world. Furthermore, it aims to explore general and specific characteristics and create a broad typology of existing initiatives that support the acquisition of entrepreneurial skills, knowledge and attitudes by citizens. Finally, the in-depth analysis of case studies sheds light on the specific components, arrangements and processes involved in the implementation of initiatives which seek to enhance entrepreneurship competence.

The scope of the project is wide. Geographically, the study covers EU-wide initiatives as well as national and regional / local ones. The study includes initiatives from all educational levels: primary, secondary, tertiary, general education or vocational education and training (VET); education outside of schools (e.g. workplace, professional development, start-up initiatives). Learners from all the population groups are covered (students, adults, etc), and there are initiatives which target entrepreneurship educators. Moreover, the initiatives studied originate from both the private and the public sector.

⁴ This is, for example, reflected in: European Commission (2013a). Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Entrepreneurship Action Plan 2020, Reigniting the entrepreneurial spirit in Europe, COM(2012) 795 final. Brussels, 9.1.2013

⁵ The European Reference Framework of Key Competences for Lifelong Learning Entrepreneurship recognized entrepreneurship as one of the key competences necessary for all members of a knowledge-based society.

⁶ Eurydice (2012). Entrepreneurship Education at School in Europe National Strategies, Curricula and Learning Outcomes. March 2012. doi:10.2797/80384

⁷ For example, initiated by DG EAC, together with High Level Group on Education and Training, ET 2020 Working Group on Transversal Skills and Thematic Working Group on Entrepreneurship Education.

⁸ <http://www.carsa.es/es/>

1.2 Case Study Methodology

The main objective of the OvEnt case studies was to gain a profound understanding of entrepreneurship competence concept as it currently translates into learning objectives, curricula, teaching guidelines, and practical courses, through an in-depth examination of case studies. Overall, 10 cases studies were selected based on a set of criteria (Table 1). The objective was to capture a diversity of initiatives which promote entrepreneurship as a competence while maintaining a balance between educational levels, geographical coverage and maturity level.

The case study methodology then aimed to investigate the background information, components and activities, the targeted entrepreneurship competences, the geographical scope and target audience. Also subject to in-depth scrutiny were the set-up of learning objectives and practical activities, learning settings (incl. use of information and communication technologies), the pedagogical approach and assessment strategy, as well as evaluation and impacts of the initiative.

While it is interesting to carry out a comparative analysis of different initiatives which target entrepreneurship competence throughout Europe, certain limitations inevitably arise. For example, the large diversity of initiatives covered at times makes it difficult to draw conclusions and back them up with solid empirical evidence.

Regarding education level, the initiatives selected include two cases in primary education, three in secondary education, one case in higher and further education, one case applicable to any age (learners from 13-60 years old) and two cases which target entrepreneurs, innovators and business leaders in general of which one deals with social innovations. One specific case study targets teachers, aiming to assess their teaching practices. The geographical scope of the initiatives includes three EU-level cases and six national initiatives - Austria, Denmark, Finland, Ireland, Italy and United Kingdom. One case study – an executive programme – is considered international although it is based in Spain. The implementation of some of the initiatives with European scope varies in different Member States as regards, for example, applied settings, teaching methods and teaching material. In other cases, implementation is not consistent across schools depending strongly on teachers' preferences. The scope of the case studies also varies: four out of ten initiatives are comprehensive while others are more specific.

It is also important to note that the case studies have been intentionally selected according to the definition of 'entrepreneurship' as a key competence (European Parliament and Council, 2006)⁹ and not as a 'skill' or 'attitude'. On the other hand, examining initiatives such as executive or incubation programmes allowed the analysis to draw upon the tradition of business-oriented education and training.

The case studies in this report include reflective analysis. As a result, they do not always describe the initiative in a comprehensive way, but focus on those parts most relevant to the purpose of the OvEnt study. Therefore, the case studies in this report do not necessarily represent the full picture of the initiative(s) and any re-use of the text should be carried out with care.

The case study methodology is the result of a comprehensive process. The case studies have been carried out on the basis of several rounds of desk research, direct enquiries and face-to-face or telephone interviews with leading personnel. Moreover, preliminary case study findings were presented at the Expert Workshop on Entrepreneurship Competence Framework held in Seville on 24 -25 March 2015. The feedback received from the workshop has been integrated into this final deliverable.

⁹ European Parliament and Council (2006). Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning. Official Journal of the European Union, (2006/962/EC).

1.3 Structure of the report

Chapter 1 provides an introduction to the OvEnt study and the angle and methodology of the case studies.

Chapter 2 includes a general analytical summary and conclusions. Thereafter, the 10 selected cases are presented briefly and more detailed analytical findings are presented in greater depth for six main thematic areas: Competences and Learning Objectives; Teaching and Learning Entrepreneurship Competence in diverse settings; Assessment of entrepreneurship competences; External stakeholders and alumni involvement; Evaluation and Impact; and Sustainability and transferability.

The Chapters 4 to 12 describe the individual case studies in depth, covering a multitude of different aspects:

- At the beginning of the report on each case, a **summary, information table** (InfoBox) and a **timeline** provide a general overview of the initiative.
- **Background information** on each initiative is also included, giving its main **objectives**, its **key components and tackled competences**, targeted **educational level**, primary and secondary **target groups**, **geographical scope** and existing **links to other initiatives** and networks.
- The next thematic area presents how the **entrepreneurship competence concept** is **translated into the learning objectives and practical courses** during the setup phase of the initiative.
- In the fourth thematic area, **teaching and learning arrangements are analysed in-depth**. The applied teaching methods are specified, and whether different entrepreneurship competences are taught differently is investigated. How teaching methods are implemented in relation to the activities/components of the initiative (face-to-face, online, etc) is analysed. Furthermore, teaching guidelines and teacher training aspects are identified and analysed.
- The fifth thematic area deals with assessments and impacts of the initiative. It examines which **methods are used to assess entrepreneurship competence**. It also investigates evaluation and monitoring strategies and impacts achieved so far. In addition, success stories resulting from the initiatives are described.
- **Sustainability and transferability** are central to the sixth thematic area of analysis. Here, the focus is on the particularities of the business and financial model, the key sustainable aspects of the initiative, and actions undertaken or envisaged to transfer the initiatives elsewhere.
- Last but not least, each initiative closes with **key lessons and observations** which look at success factors in general, and teaching combinations/patterns.
- We include a **reference list** in each case study chapter.

The report concludes with a **glossary of terms and abbreviations**.

CASE STUDIES ANALYSIS

2 Case Study Analytical Summary and Conclusions

This report describes and analyses ten case studies selected for the OvEnt study. The case study cross-analysis aims to compare the different initiatives, their interpretations of entrepreneurship as a competence and their delivery mechanisms. The overall objective is to discover repeating patterns in the diverse settings represented by the case studies.

In this section, we present an analytical summary and the conclusions we have drawn from the cases examined.

2.1 Brief summary of selected initiatives

Overall, the case studies examined reflect the wide diversity of initiatives targeting entrepreneurship competence.

Case 1: LUT Measurement Tool for Enterprise Education (LUT MTEE)¹⁰ by Lappeenranta University of Technology (LUT)

Geographical scope: Finland and European countries; teachers from over 20 countries used the tool in 2014.

LUT Measurement Tool for Enterprise Education™ is the world's first entrepreneurship education self-assessment tool developed for primary, secondary and vocational school teachers and principals. The tool is a simple structured, web-based questionnaire, which allows teachers to evaluate their own practice, develop their know-how in entrepreneurship and enterprise education, and monitor their learning progress. In addition, it provides systematic feedback and useful tips for developing more effective practice and it reinforces entrepreneurial teaching. The tool evaluates contents, modes of operation, and methods of teaching. As such, it could also be used effectively by schools or by national authorities to benchmark entrepreneurial education. The tool was developed by Lappeenranta University of Technology. It was first implemented at primary education level, and is now spreading across education levels and geographically.

Case 2: The Entrepreneurial Skills Pass (ESP)¹¹

Geographical scope: Europe and beyond.

The **Entrepreneurial Skills Pass (ESP)** is an initiative of Junior Achievement- Young Enterprise Europe (JA Europe)¹², Europe's largest provider of entrepreneurship education programmes. The main idea behind the initiative is to develop a tool to certify entrepreneurship competence levels gained by graduates after mini-company experiences. The ESP builds on the well-established JA Company programme and then focuses on developing new tools to assess entrepreneurship competences. The ESP has three components: (1) the JA Company programme, which provides the real experience, (2) the ESP self-assessment and (3) the ESP exam. The ESP was piloted in 2013/2014 and is now in its first year of implementation.

Case 3: Youth Start Initiative

Geographical scope: Austria, activities spreading to Europe.

¹⁰ Lappeenranta University of Technology - Koulutus- ja kehittämiskeskus. Available at:

<http://developmentcentre.lut.fi/hankesivusto.asp?hid=7&alasisivu=53> (Finnish)

Measurement tool for Enterprise Education - Lappeenranta University of Technology (LUT). Available at: <https://developmentcentre.lut.fi/muut/enterprise> (English)

¹¹ Entrepreneurial skills Pass (ESP). [general website]. Available at: <http://entrepreneurialskillspass.eu>

¹² Junior Achievement - Young Enterprise (JA Europe). [general website]. Available at: <http://www.JA.org>

YouthStart is a larger initiative comprising several activities and projects that complement each other. The Youth Start framework of reference for entrepreneurship competence¹³ consists of statements of what learners can do and is used as a planning and design tool, which mainly targets educators and school governance in secondary and vocational education institutions. The framework is not tied to a single project but embedded into a series of activities implemented by EESI-Impulszentrum¹⁴ and IFTE¹⁵ which have been developing entrepreneurship education in Austria during the last 20 years. These activities are: (a) the TRIO Model for Entrepreneurship Education; (b) the Next Generation Entrepreneurship Challenge Programme; (c) the Certification of Entrepreneurship Schools and (d) Teacher Training.

The work on the YouthStart Framework was initiated in 2011/2012, building on previous experience with entrepreneurship education in Austria. Since 2014/2015, the YouthStart Framework version 15 has been included in the syllabus of Austria's New Middleschool (11-14 year old students – upper secondary education).

Case study 3 represents one of the more comprehensive cases.

Case 4: SEECEL Instrument for Entrepreneurial Learning - Key Competence Approach - ISCED level 1 (SEECEL Instrument)¹⁶

Geographical scope: SEET – South East European countries - Albania, Bosnia and Herzegovina, Croatia, Kosovo¹⁷, The Former Yugoslav Republic of Macedonia, Montenegro, Serbia - and Turkey.

The Instrument for Entrepreneurial Learning - Key Competence Approach (SEECEL Instrument) was developed and is managed by the South East European Centre for Entrepreneurial Learning (SEECEL). SEECEL is a regional think tank which focuses on human capital development, particularly lifelong entrepreneurial learning and the promotion and development of entrepreneurship as a key competence with a view to enhancing regional competitiveness. The Instrument for Entrepreneurial Learning - Key Competence Approach in ISCED level 1 includes a framework of learning outcomes defined in terms of knowledge, skills and attitudes, and corresponding teaching and assessment methods ('entrepreneurial learning package'). In-service (continuous) teacher training forms an essential part of the instrument and specific Teacher Training Modalities are provided. Pre-service (initial) teacher training, however, is addressed by another SEECEL instrument, developed for ISCED level 5 and 6. The primary target groups are teachers and schools (school management) at primary education level, teacher training authorities and national governmental bodies. It was piloted in 2013/2014 and its first year of implementation at 32 participating schools has followed. Moreover, the initiation of the instrument in ISCED level 1 followed successful experience with implementation at ISCED level 2. Case study 4 represents one of the most comprehensive cases analysed.

Case 5: NextLevel programme¹⁸

Geographical scope: Denmark.

¹³ YouthStart Framework of Reference for Entrepreneurship competences. (2014, Version 15). Impulszentrum für Entrepreneurship Education (eesi) des bmbf and Initiative for Teaching Entrepreneurship (ifte), Vienna 2014. [paper poster].

¹⁴ Impulszentrum für Entrepreneurship Education (EESI-Impulszentrum). [general website]. Available at: <http://www.eesi-impulszentrum.at>

¹⁵ Initiative for Teaching Entrepreneurship (IFTE). [general website]. Available at: <http://www.ifte.at>

¹⁶ ISCED 1 – SEECEL - South East European Centre for Entrepreneurial Learning (n.d.). Available at: <http://www.seecel.hr/isced-1>

¹⁷ This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo declaration of independence.

¹⁸ NextLevel - Fonden for Entreprenørskab - Young Enterprise. Available at : <http://eng.ffe-ye.dk/programmes/nextlevel/about-nextlevel>

The **NextLevel** is a programme run by the Foundation for Entrepreneurship – Young Enterprise (FEE-YE)¹⁹ an organisation established in line with the Danish government’s overall strategy for entrepreneurship education. The main idea behind the NextLevel initiative is to provide lower secondary education students and teachers with the opportunity to participate in projects where they can apply knowledge gained from the curriculum in an ‘outside-school’ environment. Therefore, NextLevel creates a link between school and the real world. The programme is very flexible to allow teachers and students to develop entrepreneurship projects and put them into practice. The Nextlevel programme was set up in 2011 and has been running for almost 4 years now. The programme is currently the subject of an in-depth review and will be re-launched for the upcoming school year (2015/2016).

Case 6: Junior Entrepreneur Programme (JEP)²⁰

Geographical scope: Ireland

The Junior Entrepreneur Programme (JEP) is an Irish initiative marketed as an entrepreneurial awareness and skills enhancement programme for primary school children. Its primary objective is to encourage children to value enterprise and entrepreneurship and contribute to raising awareness and understanding of the role that entrepreneurs play in the community. The programme is aligned to the national school curriculum and delivered via a 10/12-week company programme, which allows children to connect to the wider world. The programme targets mainly primary school children between 8-12 years of age. Interestingly, it has been conceived and managed by entrepreneurs. It is delivered via the JEP country partners - local entrepreneurs - who manage the programme at county level ensuring its delivery at no cost for parents or schools.

Case 7: Owners and Entrepreneurs Management Program (OEMP)

Geographical scope: international

The **Owners and Entrepreneurs Management Program (OEMP)²¹** is offered by the IE Business School²², an international institution dedicated to educating business students and leaders through programmes with a strong entrepreneurial character. The OEMP provides ‘executive education’ for business leaders and top level management, giving them the competences to raise their companies to the next level. The programme has been designed by entrepreneurs for entrepreneurs. Three participant profiles are: the self-made business owner, the opportunity taker and the inherited entrepreneur. The OEMP is an in-class teaching programme consisting of 3 modules of one week addressing different knowledge, e.g. basic business management, internationalisation and innovation. Additional benefits include connection to a network of graduates and advisors, backed up by a top-class faculty, Instituto Empresa.

Case 8: Enterprise and Entrepreneurship Education at University of Wales Trinity Saint David (UWTS/D/IICED) according to the QAA guidance

Geographical scope: the UK (Wales)

The University of Wales Trinity Saint David (**UWTS/D**)²³ is a key UK university. It specialises in entrepreneurial higher and further education and has drawn up the guidelines for enterprise and

¹⁹ Fonden for Entreprenørskab - Young Enterprise / Foundation for Entrepreneurship – Young Enterprise (FEE-YE) [general website]. Available at: <http://www.ffe-ye.dk>

²⁰ Junior Entrepreneur Programme (JEP) [general website]. Available at: <http://www.juniorentrepreneur.ie/>

²¹ Owners and entrepreneurs Management Programme - Executive Education. IE Business School. Available at: http://www.ie.edu/execed/oemp?_adptlocale=en_US

²² Instituto Empresa (IE) – Business School <http://www.ie.edu/business-school>

²³ University of Wales Trinity Saint Davis (UWTS/D) [general website]. Available at: <http://www.uwtsd.ac.uk>

entrepreneurship education²⁴ across multiple education programmes. **The International Institute for Creative Entrepreneurial Development (IICED)**, as part of the UWTSD, is the body responsible for the implementation of entrepreneurship education at the University. A curriculum-based 'Art and Design' studies and a new extra-curricular activity 'Life Design' are among several examples in our case study which show how entrepreneurship competences (in particular skills and attitudes) are addressed by innovative and non-traditional teaching and assessment methods. The UWTSD/IICED also developed a teacher training programme - the Postgraduate Certificate in Education (PGCE) and Post Compulsory Education and Training (PCET) - which is the first of its kind. Here, teachers and also professionals can learn how to teach entrepreneurship. Case study 8 represents one of the most comprehensive cases analysed.

Case 9: Programme SIMULIMPRESA²⁵

Geographical scope: Italy (link to the international network EuropenPen)

SIMULIMPRESA is the Italian version of the Practice Enterprise model - also called practice firm or virtual enterprise - developed within the European Practice Enterprise Network (EuropenPEN²⁶). The Italian Central Office at the Institute of Don Calabria Ferrara has been running this programme since 1994 in diverse education settings (i.e. secondary schools, initial VET, universities and adult learning centres), targeting people from 11 to 60 years old. From a real office, each practice firm simulates a real world enterprise while financial and business operations are simulated online. SIMULIMPRESA's main goal is to prepare trainees for the world of work by enhancing their enterprise-related competences (following department and work placement) and also their behavioural and transversal competences (e.g. autonomy, responsibility). The programme includes an important train-the-trainer element.

Case 10: TRANSITION incubation programme²⁷

Geographical scope: European Countries (7 countries, including 6 scaling centers)

The Transnational Network for Social Innovation Incubation - TRANSITION - is a 2.5 year on-going project, launched in response to the EU call for more social innovation.²⁸ It brings together established partners in the fields of social innovation and innovation-based incubation. The project focuses on developing an effective scaling-up model for social innovations using the Social Innovation Journey²⁹ concept. It consists of large-scale events called "spark sessions", followed by selection of social innovations which undergo an intensive incubation programme delivered by 6 scaling centres established in 6 countries. The exact delivery of the TRANSITION scaling-up model varies from centre to centre. In general, it has two components: thematic workshops and obligatory one-to-one mentoring or coaching. Additionally, the project aims to share learning among participating organisations and to develop a methodology for evaluating the impact of social innovation support programmes.

Table 1 below presents the key characteristics of the case studies, which were also decisive in the selection of the case studies. As demonstrated, for the purposes of the OvEnt study, specific categories have been set up in order to carry out a more meaningful analysis. The categories

²⁴ The Quality Assurance Agency for Higher Education (QAA) (2012). Enterprise and entrepreneurship education: Guidance for UK higher education providers. September 2012. ISBN 978 1 84979 692 7

²⁵ SIMULIMPRESA [general website]. Available at: <http://www.simulimpresa.com>

²⁶ EUROPEN-PEN International [general website]. Available at: <http://www.europen.info>

²⁷ TRANSITION project [project website]. Available at: <http://transitionproject.eu>

²⁸ The EU effort related to the social innovation and the Innovation Union Flagship Initiative, commitment 27-B; and more precisely, call for proposals No FP7-CDRP-2013-INCUBATORS

²⁹ Meroni, A., Fassi D. & Simeone G. (2013). 'Design for social innovation as a form of designing activism. An action format'. [conference paper]. Social Frontiers: The Next Edge of Social Innovation Research. Published online by NESTA in scribd.com. December 2013.

include “competences” according to ‘*The Common European Framework of Reference*’³⁰, while “focus areas” and “impact areas” are linked to the parallel activity of the study, OvEnt Comprehensive Inventory. For “focus areas” the following options are available:

- i. learning/teaching entrepreneurship competences corresponding to diverse activities ranging from delivery of curricular or extra-curricular activities to delivery of innovation support;
- ii. (new) teaching/support methods and models;
- iii. (new) assessment methods and tools; and
- iv. (new) entrepreneurship competences framework.

Meanwhile, the category “impact areas” distinguishes essentially between the following: further education; employment/employability; start-up foundation/considering entrepreneurship as a career option; accelerating start-ups/increasing company’s competitiveness and growth; quality of entrepreneurship education; personal development/empowerment/citizenship; increasing regional competitiveness and social impact.

³⁰ European Parliament and Council (2006).

Table 1: Comparative overview of initiatives' characteristics

Initiative Aspect	LUT MTEE (Case study 1)	ESP (Case study 2)	You(th) Start Framework (Case study 3)	SEECEL Instrument ISCED level 1 (Case study 4)	NextLevel (Case study 5)	JEP (Case study 6)	OEMP (Case study 7)	UWTS/D/IICED (Case study 8)	SIMULIMPRESA (Case study 9)	TRANISTION (Case study 10)
Education level	Other / Further adult <i>Indirectly: primary, secondary, VET, and most recently tertiary education</i>	Secondary (upper) including VET	Secondary (lower and upper) including VET	Primary	Secondary (lower)	primary	Other / further adult	Tertiary and further adult	Secondary, VET, tertiary, further adult	Other / further adult
Geographical scope (N° countries as to 2013/2014)	National (Finland) and European (currently over 20 countries)	European (16 countries)	National (Austria)	European (8 SEET countries)	National (Denmark)	National (Ireland) (expanding to UK)	International / based in Spain	National (UK)	National (Italy)	European (7 countries / 6 implementing centres)
Target groups 1: primary target	Teachers and principals	Upper Secondary students	Teachers and school mgt/ school governance authorities.	Teachers, school mgt/ school governance, relevant authorities, business associations	Pupils (13-17 years old)	Pupils (10-12 years old)	Business leaders	Tertiary students and adults, including teachers	Students/Trainees (11 - 60 years old), incl. specific groups (disabled, unemployed, women...	Social innovators
Target group 2: secondary target with an active role	School governance and regional authorities (Finland)	Teachers and Business representatives	Primary beneficiaries are students (involved directly and indirectly)	Indirectly – final beneficiaries: students	Teachers	Teachers, Business representatives	-	Teachers, local entrepreneurs and community, alumni	Trainers and teachers from diverse organisations, mentor companies,	Business support organisations, e.g. Incubators, accelerators; mentors
Focus area	New assessment methods and tools <i>for teachers/entrepreneurship education</i>	Learning entrepreneurship competences New assessment tools and methods	a comprehensive framework; learning entrepreneurship competence; (new) teaching methods	a comprehensive framework; learning entrepreneurship competence; teaching and assessment methods	Learning entrepreneurship competences	Learning entrepreneurship competences	Learning entrepreneurship competences	Learning entrepreneurship competences New teaching (and assessment) methods	Learning entrepreneurship competences	New business support models; Learning entrepreneurship competences
Competences: K-Knowledge, S-Skills, A-Attitude	<i>students:</i> Knowledge / Skills (Attitudes in a very limited way)	Knowledge / Skills / Attitudes	Knowledge / Skills / Attitudes	Knowledge / Skills / Attitudes	Skills/Attitudes	Knowledge/ Skills / Attitudes (focus on S and A)	Knowledge / Skills	Knowledge / Skills / Attitudes	Knowledge / Skills / Attitudes (S dominating)	Knowledge / Skills attitude in a limited way
Impact areas	Quality of entrepreneurship education; regional competitiveness	Further education, employability/employment; start-ups foundation	Quality of entrepreneurship education; Personal development; entrepreneurship/start-up foundation	Quality of entrepreneurship education; regional competitiveness and indirectly – personal development, further education, employability/employment, entrepreneurship career	Personal development; employment/employability; entrepreneurship/start-up foundation	Further education; Personal development; Employment / employability; entrepreneurship career	Company growth and competitiveness; Employment	Quality of entrepreneurship education; further education; personal development; Employability/Employment; Start-ups foundation	Further education; Personal development; Employment / employability; entrepreneurship/start-up foundation	start-up foundation; company growth

Source: prepared by CARSA

2.2 Detailed analytical findings and conclusions per field of analysis

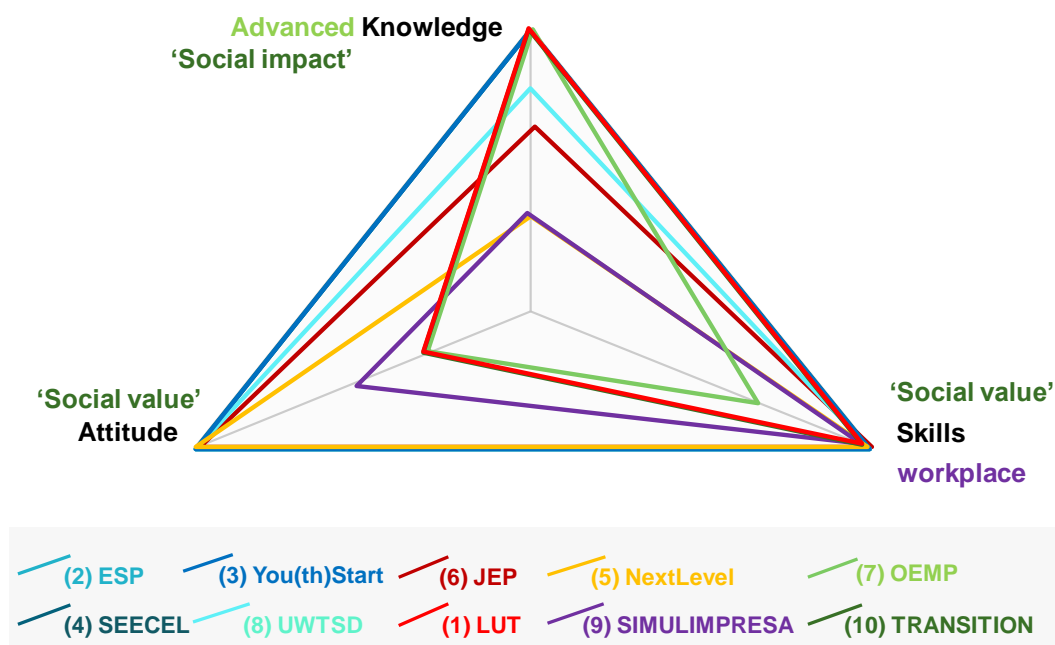
The following chapters present analytical findings and conclusions related to the 6 main thematic areas: (1) competences and learning objectives; (2) teaching and learning entrepreneurship; (3) assessment of entrepreneurship competence; (4) external stakeholders and alumni involvement; (5) evaluation and impacts and (6) sustainability and transferability.

2.2.1 Competences and Learning Objectives

Most of the case studies address all components of entrepreneurship competence, in terms of **knowledge, skills and attitudes** (K-S-A components for short). However, the intensity in which these are addressed varies. The variation may be explained by the study team's choice to explore in the case studies certain aspects in greater detail; or be due to differences determined by the targeted education level and initiative type, among others. Though it is hard to see a clear pattern, the case studies have **certain elements of entrepreneurship in common**. These elements may even be emphasized repetitively: for instance, 'social responsibility' can be found in many of the initiatives analysed, although different approaches are taken to how these aspects are incorporated.

Components of Entrepreneurship Competence

Figure 1 presents individual case studies and their coverage of K-S-A, followed by explanatory notes and conclusions.



Source: prepared by CARSA

Figure 1: Components of Entrepreneurship Competence

It has been observed that initiatives targeting lower educational levels - JEP and NextLevel - give more weight to **Skills and Attitudes** applied to diverse areas including culture, community, and sports. Meanwhile, our examples at more 'advanced' education levels -OEMP targeting executives and business owners and TRANSITION targeting social innovators - are more focused on specific **Knowledge** than **Skills**, while Attitude is hardly tackled. This is justified by the fact that participants already have a certain level of attitude when entering the programme. Building on their initial entrepreneurial activity, they seek to obtain advanced knowledge and skills and apply these in their respective companies or 'to-be' companies.

In relation to the type of initiative, NextLevel and SIMULIMPRESA, both initiatives at secondary level, aim to complement the knowledge gained through a curriculum by project-based activities which enhance skills and attitudes. YouthStart and SEECEL have developed comprehensive frameworks of entrepreneurship competences and address a wide range of K-S-A components. UWTSO, a comprehensive case study at tertiary and further education level, is focused on creative entrepreneurial development and thus explores skills and attitudes applied across different curricular and extra-curricular programmes. The ESP also takes a comprehensive approach to entrepreneurship components, by exposing students to a mini-company experience and certifying students' competences in all aspects. The LUT MTEE, on the other hand, targets teachers specifically and incorporates competences indirectly into the self-assessment questionnaire's section on teaching practice. The questions concerning the 'attitude' component are very limited, on the basis of the rather positive mindset of Finns towards entrepreneurship.

Elements of Entrepreneurship Competence

When cross-analysing the case studies, two competence dimensions can be observed: a narrow one closely tied to the traditional business perspective, and a wider one, linked to entrepreneurial mindset and behaviour. This is evident in the SIMULIMPRESA case study where one group of competences is determined by simulated enterprise functions, in terms of department and work place, while another group is more behavioural and transversal.

The case studies all deal with certain recurring competences, e.g. **autonomy, teamwork and collaboration, communication, and sense of responsibility**. In addition, **idea generation, organisation and management, taking the initiative, negotiation, and decision-making** are also addressed frequently.

Interestingly, elements such as **ambiguity, uncertainty** and **ability to learn from failure** are explicitly approached in the case studies from lower secondary to tertiary education (NextLevel, UWTSO). Sharing stories about success and failure is a way of learning in the case of 'other' adult education e.g. OEMP.

Self-awareness and **awareness and recognition** about the skills of others are two important parts of the JEP programme in primary schools, while **self-efficacy** appears in NextLevel and UWTSO case studies.

Though there is no evident pattern across education levels, it can be seen that competences related to autonomy, responsibility and self-learning are particularly important at lower education levels (e.g. SEECEL, JEP). These competences are prerequisites in the field of 'other' adult education (e.g. TRANSITION, OEMP). Furthermore, self-learning appears to be seen as an important competence that should be acquired at early age in line with changing pedagogical approaches (see below).

From primary education onwards, the case studies integrate **financial and economic literacy**; some even highlight it as an important element of entrepreneurship competences from early age (ESP, SEECEL). Financial literacy may be formulated initially as *'dealing with pocket money'* or *'understanding of a suitable financial model and different financial sources'* later on.

IT literacy emerges either specifically within the learning objectives (e.g. JEP, YouthStart) or is otherwise blended into the activities carried out by learners (e.g. ESP, SIMULIMPRESA, TRANSITION). In the case of ESP and TRANSITION, the learning subject - project or idea - may be based on digital technologies (e.g. mobile app). SIMULIMPRESA, on the other hand, uses simulation and communication online. Here, IT literacy is a pre-requisite for participating in the programme, although it is not specified as a competence otherwise.

Grouped by the study team under the term 'social responsibility', **ethics, environment, society and social issues** come up in several initiatives, not only in the comprehensive frameworks. In some cases such as SEECEL and YouthStart however, 'social responsibility' is more evident.

Social responsibility is more often integrated across learning outcomes in the case studies operating at lower education levels, e.g. SEECEL, Youth Start, NextLevel. For instance, NextLevel recognizes social leadership, ethical value, and understanding of social impacts; the SEECEL Instrument includes knowledge of environmental risks, environment pollution and human activities and responsibility for public goods. Besides this integrated approach, in case of Youth Start, the 'social responsibility' is escalated by embodying a whole specific category called '*Acting as a visionary*'.

Similarly, the SEECEL Instrument highlights the importance of the competences to recognise scarcity and to understand necessity.

A different approach is taken by other case studies (e.g. Mentor Company, ESP, SIMULIMPRESA, UWTSD) which do not mention these competences clearly, but nonetheless embrace them through their choice of idea/project.

An additional observation emerged in the case of TRANSITION, a specific incubation programme for social innovations. The project is entirely focused on social entrepreneurship. The social aspect is a pre-requisite for entering the programme which further advances the knowledge and skills specific to social value, thus tackling the social perspective. From this case, we learn that traditional incubation can learn from social innovation incubation and vice versa. Besides competences that widen the traditional innovation perspective with social concerns, those that deal with 'users' and 'the community' rather than 'clients' are also needed.

In general, progress in acquiring competences is expected to vary according to educational level. This is confirmed by OEMP and TRANSITION, where advanced and specific competences are taught as compared to a general understanding of concepts in lower education levels. An interesting example in this regard is the YouthStart Framework, where progress in entrepreneurship competence is expressed by can-do statements representing the European Common Framework for Foreign Language (ECFFL) levels (A1-C2).

Definition of learning objectives or learning outcomes

The learning objectives/outcomes are defined as statements describing what a learner should know, understand and/or be able to do upon completion of the learning process. The examined cases show disparities in how detailed learning objectives or learning outcomes are formulated, mainly depending on the characteristics of the cases. The definition of learning objectives is common in formal institutional learning, applicable especially to curricular programmes and courses (e.g. UWTSD, JEP).

When formulating entrepreneurial learning outcomes for the comprehensive SEECEL Framework, the revised Blooms Taxonomy³¹ has been used. In YouthStart, the can-do statements and the entire initiative are underpinned by the TRIO Model. This is considered to be part of an emancipatory approach, which views entrepreneurship education as a means of helping young people achieve autonomy and self-responsibility in the process of creating a society of 'citizens'.³² This model has three levels/phases: entrepreneurial core education, entrepreneurial culture and entrepreneurial civic education.

Where learning objectives are defined, the process usually involves external stakeholders such as education experts, business representatives and sometimes even alumni. For the latter, a 'Continuous conceptual review model'³³ is used by UWTSD. This model has been selected as an

³¹ SEECEL (2011a). The taxonomy originates from: Bloom et al. (1956). The Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook I: Cognitive Domain

³² Aff, J & Fortmüller, R. (2006). Entrepreneurship-Erziehung. Published in wissenschaftplus. Available at: http://www.wissenistmanz.at/wissenplus/zeitschrift/archiv/heft-1-06-07/wp_1_06_07c.pdf

³³ See Figure 31 and Penaluna, A. & Penaluna, K. (2008). Business Paradigms in Einstellung: Entrepreneurship Education, A Creative Industries Perspective. Journal of Small Business and Entrepreneurship; 21(2), 2008.

international best practice by the Internationalizing Entrepreneurship Educating and Training Conference Committee in Brazil³⁴.

In cases which deal with extra-curricular activities (e.g. NextLevel), or innovation support services (e.g. TRANSITION), the learning objectives are often not defined. In the social innovation incubation programme (i.e. TRANSITION) we see that learning objectives are defined by individual entrepreneurs. In particular, the social innovators set up their individual learning objectives in their application to join the incubation programme. The NextLevel programme design was kept intentionally flexible in order to allow project-based activities to complement diverse curricular subjects. As such, the curricular subjects determine the learning objectives of diverse projects under the NextLevel programme. Interestingly, a new extra-curricular programme ('Life Design'³⁵) launched by UWTSO in 2015 combines flexibility with an individual approach to setting up learning objectives. Here, students define their learning objectives and reflect on them continuously. 'Life Design' uses a self-directed approach typical of an extra-curricular activity but uses it in a more systemic way.

2.2.2 Teaching and Learning Entrepreneurship Competence in diverse settings

Most of the cases, with some exceptions, have much in common with regard to learning settings and teaching methods applied in order to develop entrepreneurship competence:

Diverse learning settings and teaching methods allow broader learning experience

There is no clear cut evidence with regard to which entrepreneurship competences are addressed most effectively by which teaching methods and in which learning environments. However, based on the comprehensive case studies (LUT MTEE, SEECOL, UWTSO), one may claim that the more diverse learning settings and teaching methods are, the broader the learning experience is.

It may be said that curricular activities bound by national quality assurance processes usually adapt to the full needs of entrepreneurship education at a slower pace. Although extra-curricular activities may provide more flexibility, applying them on their own without curricular activities tends to reduce target-orientation and effectiveness. In addition, they are limited in scope, for instance by the number of participating students.

Face-to-face interaction is crucial, especially when learning entrepreneurship skills and attitudes, and in early education; while ICTs reinforce learners' experience in many ways

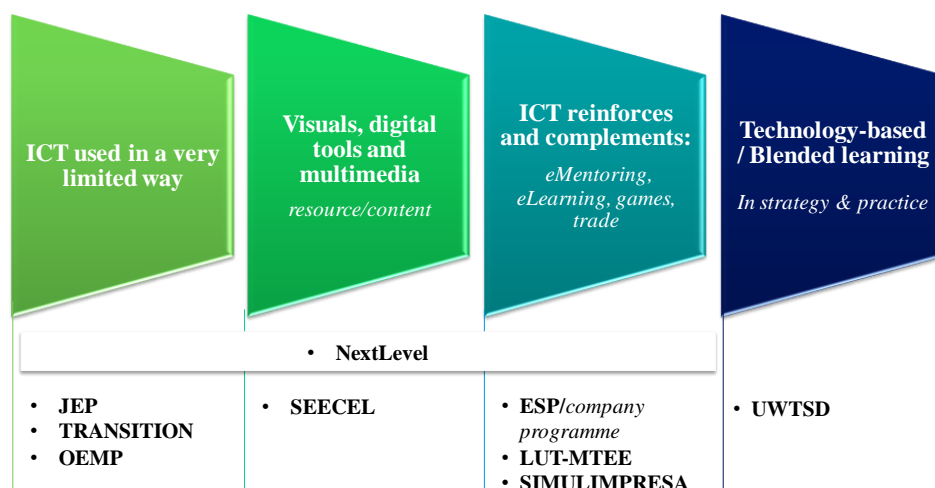
The majority of cases emphasise the importance of face-to-face learning when fostering entrepreneurial competences. However, information and communication technologies are frequently highlighted as being a very important part reinforcing the face-to-face experience. This is mostly evident at University level (blended learning, flipped classrooms etc), and also in the upper secondary level, where ICT in the form of eMentoring or eLearning complements learning. In addition, ICTs are important in cases where distance does not allow continuous face-to-face interaction (e.g. incubation services at international level).

In other words, the extent to which ICT is incorporated into learning and teaching varies across the different selected cases and is partly influenced by education level, partly by geographical scope, but also by entrepreneurship education stage.

Special Issue: A Panoramic Overview Of Entrepreneurship: Insights From Different Regions Of The World, pages 231-250

³⁴ Internationalizing Entrepreneurship Education and Training – Conference. July, 9th –12th 2006 in São Paulo, Brazil. Available at: http://www.intent-conference.de/structure_default/ePilot40.asp?G=621&A=1

³⁵ See Chapter 10.2.2.3 for more information.



Source: prepared by CARSA

Figure 2: Use of ICT in teaching-learning

The more traditional executive programme OEMP (alongside the TRANSITION incubation programme) hardly uses ICT in teaching except in a limited number of project activities where it can be a tool to overcome distance. The JEP programme, set up in primary schools, focuses essentially on face-to-face interaction with children, who, use tools to visualize and present their big idea and for marketing purposes. The NextLevel programme is flexible in its design; intentionally leaving teachers more freedom to use technologies as they like.

An insight into learning forms at primary education level was also given by the SEECCEL Instrument which suggests that visuals, digital tools and multimedia should be used as part of the teaching methods. As commented by the case study owner, blended or technology-based learning is not yet targeted since ‘entrepreneurial schools’ in the SEET region have not reached such an advanced level yet³⁶. Besides digital multimedia in the teaching content, other initiatives use ICT as a teaching tool to reinforce the face-to-face learning experience, for instance, in the form of eMentoring or eLearning platforms (ESP case study). ICT can also enable trade and financial operations between simulated enterprises (SIMULIMPRESA)³⁷. Finally, from the LUT MTEE case study, which focused on assessing entrepreneurship education-related teaching practices, we learn that ICT represents an effective way of enriching the learning experience, for instance, by using games.

In the tertiary level case study, UWTSU, ICTs are an established part of the teaching methods and flipped classrooms, and video pitches are used. There is also a concrete strategy for blended learning in place³⁸.

The pedagogy is centred on student-centred teaching and learning. Learning-by-doing and collaborative learning are the main pedagogical approaches while self-directed learning is increasingly important from lower education levels.

In many cases, student-centred teaching is emphasized, side by side with self-directed learning, while the teacher’s approach to the learner is oriented towards the individual rather than the group.

³⁶ See Chapter 6.4.1 for more information.

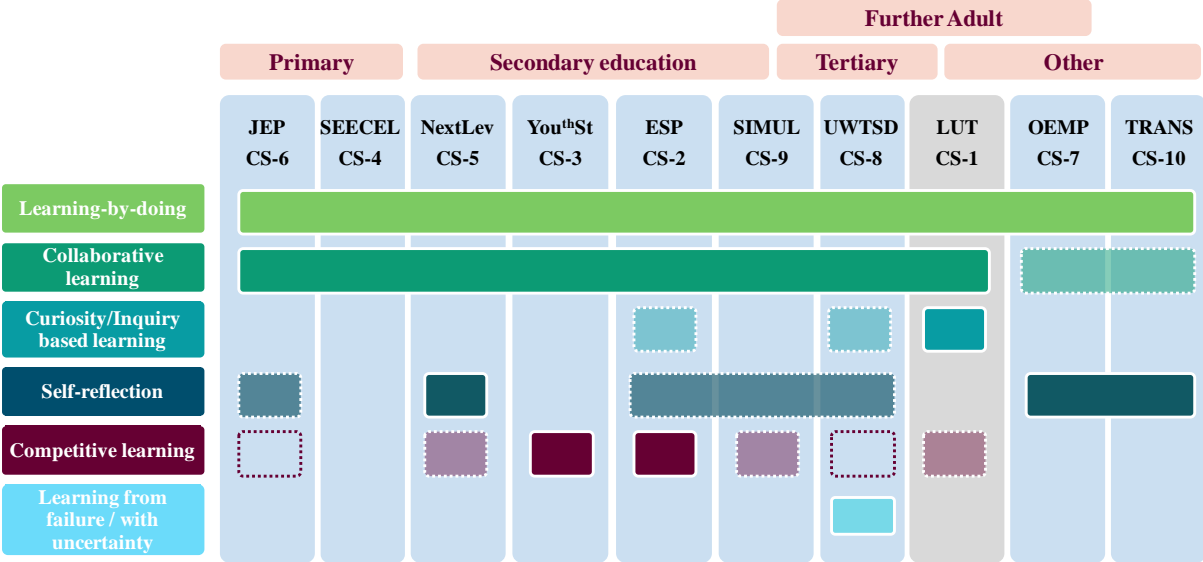
³⁷ Note: ESP initiative is placed in the upper secondary education level, while the majority of SIMULIMPRESA trainees are from upper secondary schools (40 %) and adults (44 %).

³⁸ See Chapters 10.2.1 and UWTSU. Learning, Teaching and Enhancement Strategy 2011/12 - 2013/14. Available at:

http://www.trinitysaintdavid.ac.uk/en/media/uniweb/content/documents/theuniversity/learning_teaching_enhancement_strategy.pdf

These are typical features in traditional incubation programmes (TRANSITION) and programmes for executives which use an individual approach. Self-learning becomes an important part of pedagogies in early education (JEP, SEECCEL, SIMULIMPRESA).

As Figure 3 shows, the most common teaching approaches employed by the initiatives are **learning-by-doing**³⁹, **collaborative learning** followed by **self-reflection** and a **competitive element**. Learning-by-doing seems to be the key to learning entrepreneurship competences.



Source: prepared by CARSA; Note: In general, the main method is limited to 3 options. This rule does not apply for more comprehensive initiatives.

Figure 3: Pedagogical approach

Collaborative learning in the further (adult) education/other education level (TRANSITION, OEMP) appears to be a secondary method. In these cases, learning-by-doing consists of actual or to-be entrepreneurs developing a real idea, project or company. Self-directed learning, where learners are engaged in self-reflection processes, is also typical for these two examples of advanced learner programmes.

Competitive learning elements such as competitions or challenge programmes are an important part of two case studies (Youth Start, ESP/company programme) while they are used in complementary methods by other initiatives (e.g. NextLevel, SIMULIMPRESA). In the LUT measurement tool for entrepreneurship education, competitive learning is only addressed to a small extent.

An interesting insight into the use of *competitions at an early age* was provided by JEP initiators. The pilot study found that a programme solely based on competition created unhappiness and dissatisfaction among children and their teachers. After the pilot, this programme was revised accordingly and the competitive element is now only included in activities side-by-side with collaboration. Now when groups of children compete with their ideas, a joint class decision follows. This competing “for fun” aspect while working together on the winning ‘big idea’ appears to be a promising model that could help pupils and students to deal with a competitive environment in the future.

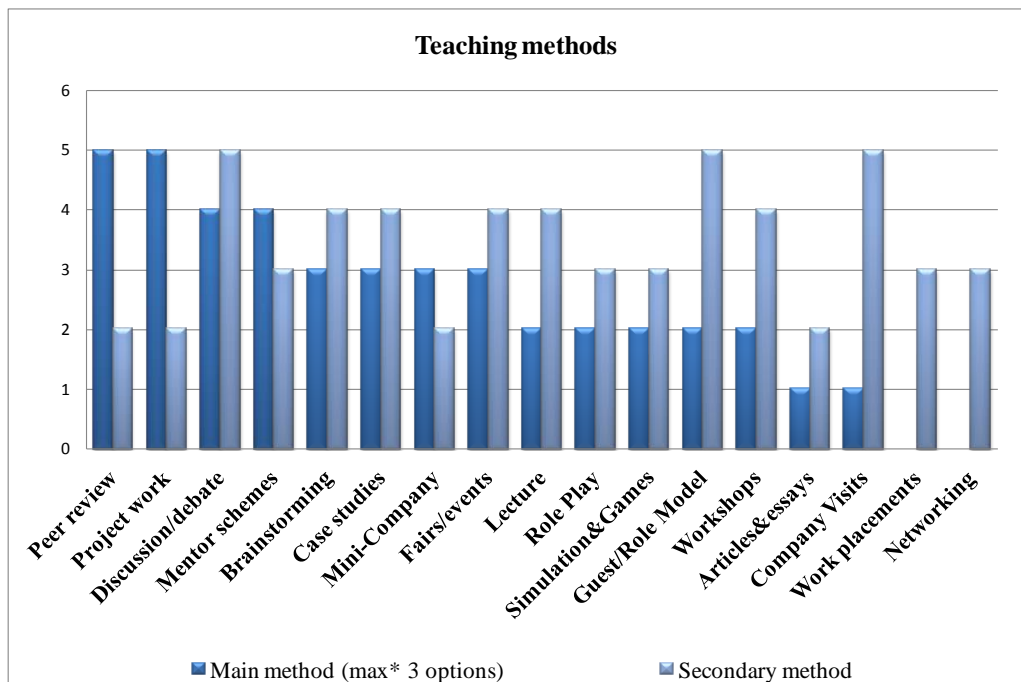
³⁹ Note: learning by doing approach includes: Project-based learning, problem-based learning or challenge-based learning.

On a final note to competitive learning, the case study at higher education level (i.e. UWTSD/IICED) does not focus on developing it. In this case, we explored new pedagogical approaches to creative entrepreneurial development (explained below).

When they implemented the framework, the Youth Start initiators actively promoted specific pedagogic approaches - among others, entrepreneurial Challenge-Based Learning (CBL) and 'Co-operative Open Learning' (COOL)⁴⁰. While challenge-based learning encourages learners to solve small and large real-world problems often involving stakeholders from the community, Co-operative Open Learning focuses on the promotion of self-organised learning strategies and the development of personal qualifications for improving social skills.

UWTSD also uses specific techniques to enhance learners' entrepreneurial development. For example, **curiosity-based learning** is used as a method to enhance creativity, especially idea generation. Curiosity-based learning is often applied in combination with ICTs which support students' instincts to carry out research. What is more, both **divergence thinking** and **convergence thinking** are blended into the UWTSD way of teaching, making it possible to generate creative ideas and explore many possible solutions. The innovation is put as a priority to the implementation phase ('do as instructed'). In the UWTSD case study, the pedagogy introduces forms of uncertainty, which require students to adjust and engage in creative thinking in order to overcome unpredictable challenges. For example, deadlines can be shifted and multiple deadlines set.

Figure 4 presents the main and secondary methods used by the initiatives.



Source: prepared by CARSA; note: (*) regarding three comprehensive case studies more than three options were allowed.

Figure 4: Teaching Methods

As regards the figure above, it should be noted that in all cases where lectures are used as part of the teaching methods, case owners highlighted interactivity as being an important element.

⁴⁰ Cool Impulszentrum: COOL [general website]. Available at: <http://www.cooltrainers.at>

Project work and **peer review** are the key methods for five cases out of 10. A “**peer mentoring**” or “**buddy-system**” –a learning setting where peers are older and more experienced persons but still students/trainers– seem to be a popular emerging learning model for entrepreneurship education (SEECEL, YouthStart, UWTSD, LUT MTEE, NextLevel, ESP) but also relevant to the incubation programme (TRANSITION).

As proven by the experience of the TRANSITION case study, advanced learners - advanced social innovators - often resort to informal learning methods such as **mentoring** and **networking**. This is also supported by the OEMP case study where networking and forums provide additional learning experiences for executives and top managers.

Interestingly, **traditional mentoring**, where external business experts are involved, is no longer limited only to higher education. The mentoring scheme is also an important part of mini-company programmes in upper secondary schools (ESP, SIMULMPRESA⁴¹).

This may suggest that traditional business and innovation-oriented initiatives can inspire useful and functional activities across educational levels.

Moreover, the TRANSITION support programme for social innovators argued that a similar set of methods or tools traditionally used to support innovations applies. What differs is the perspective of application, e.g. revised Canvas model for social innovators⁴² as compared to the traditional one⁴³.

Enlarging the teaching environment and opening teaching to the outside world remains an important task

As shown by LUT MTEE and generally confirmed by the SEECEL Instrument, discussions, debates and case studies are easy **ways of making an effective connection with the real world** in the classroom. Overall, LUT MTEE research into Finnish teaching practices revealed that a considerable number of frequently employed methods take place in classrooms, whereas only a few take place outside. Surprisingly, Finnish primary and secondary teachers prefer to go on study visits than to invite a visitor to the classroom. Moreover, LUT MTEE research revealed that teaching methods that encourage creativity, ability to handle and manage risks and ability to learn from failure are increasingly needed.

Similarly, NexLevel’s goal, in line with its effectuation approach⁴⁴, is to provide lower secondary education students and teachers with the opportunity to apply curricular-based knowledge in an “outside-school” environment. Thus, the project work carried out helps to develop those entrepreneurship competences developed by situations of uncertainty (e.g. risk-taking, opportunity identification and decision making), which would be difficult to recreate on school premises.

Overall, all the case studies emphasise the importance of connecting the learning experience with the outside environment, and involving business or community representatives in teaching.

New teaching approaches and appropriate assessment methods need to be developed for formal settings and applied to curricular activities.

Besides adapting traditional teaching methods to entrepreneurship education principles by involving external players or by incorporating real examples into the teaching content, new and more

⁴¹ Note: SIMULMPRESA is considered to be both a mini-company programme and a simulation.

⁴² The social business canvas model – the accelerator (n.d.). Available at: <http://www.growingsocialventures.org/course-content/social-business-model-canvas>

⁴³ Osterwalder, A. & Pigneur, Y. (2009). Business Model Generation. Self-published. ISBN: 978-2-8399-0580-0

⁴⁴ As indicated by the NextLevel case study owner, the NextLevel was designed in line with effectuation approach: Sarasvathy, S. (2008). Effectuation elements of entrepreneurial expertise. Cheltenham, UK: Edward Elgar.

innovative methods are still needed, especially in curricular activities. The UWTSD case study with its in-house International Institute for Creative Entrepreneurial Development (IICED)⁴⁵ has successfully developed and implemented the following new teaching approaches:

- **Avoiding 'Premature Articulation'**: intentionally creating a situation in which the student is given incomplete information upon which he/she has to act and draw conclusions. Additional information is provided in phases, or only after the assessment.
- **'Glorious Failure'**: students are allowed to 'fail', so long as they reflect upon why and articulate their reasoning.

Also highlighted by the UWTSD case study, the new teaching methods would not be able to emerge without support from national quality assurance bodies, such as QAA and the Guidance for Enterprise and Entrepreneurship Education⁴⁶.

Educators must have training and support, and they must also be motivated and recognised

The role of an entrepreneurial educator is seen as a key success factor in all the case studies. Because of the pedagogical shift to more self-directed and student-centred learning and the multidisciplinary character of entrepreneurship, teachers must be prepared for their new role. Teachers are now facilitators rather than instructors: they help individuals to learn rather than instructing the entire class.

Moreover, teachers should understand the key concepts related to entrepreneurship, including key business and economic terms (ESP, SEECEL, JEP, UWTSD). Teachers should also be trained in how to use pedagogical methods and resources in support of entrepreneurship.

Educator training and support is an important element of each initiative. However, even though many initiatives emphasise this, not all of them address educator training to the same degree. For instance, the SEECEL, YouthStart, ESP, SIMULIMPRESA and UWTSD cases serve as good examples of the effective consideration of educator training, each for different reasons.

LUT MTEE is a specific tool which not only measures entrepreneurship education, but also allows teachers to reflect on their performance and make recommendations on how to improve their teaching practice. LUT MTEE highlights the need for a holistic approach, creating, for instance, multidisciplinary teacher teams. Several case studies - JEP, LUT MTEE, SIMULIMPRESA, UWTSD, Youth Start - have put forward teacher networking with colleagues and with the outside world.

SEECEL takes a systemic approach to teacher training. It has developed a teacher training model, modules of which are adapted for each SEET country. SEECEL's direct collaboration with teacher training authorities ensures the implementation of this model in the long-term. The SEECEL Instrument developed in each ISCED level integrates these modules as in-service teacher training for immediate impact, while ISCED level 5 and 6 tackle pre-service teacher training directly.

UWTSD tackles initial and continuous teacher training through its IICED centre. It incorporates novelties in creative entrepreneurial development and has developed an initial teacher training programme which is the first of its kind. This, the new method 'glorious failure' and peer review, and the high degree of adaptation to the context of teachers' experience are key success factors⁴⁷. Educator training is essential to UWTSD, especially, when it comes to understanding creativity

⁴⁵ International Institute for Creative Entrepreneurial Development (IICED) [general website]. Available at: <http://www.uwtsd.ac.uk/iiced/>

⁴⁶ The Quality Assurance Agency for Higher Education (QAA) 2012, Enterprise and Entrepreneurship education, Guidance for UK higher education providers available at: <http://www.qaa.ac.uk/en/Publications/Documents/enterprise-entrepreneurship-guidance.pdf>

⁴⁷ See Chapter 10.2.2.4.

evaluation through an understanding of divergent and convergent thinking strategies. Basic neuroscience knowledge is taught to teachers to help them better understand how the human brain works and the process of learning entrepreneurship competences such as creativity or innovativeness.

A valuable aspect of teacher training in the JEP and SIMULIMPRESA case studies is 'differentiation'. In line with the above mentioned student-centred and individual approach to teaching, 'differentiation' recognises that children differ from one another in how they learn and in what they can learn. Approaches to teaching and learning should therefore be adapted to learners, along with the targets set. Differentiation also takes into account children's interests, levels of motivation, previous learning experience and pace of learning.

All said, it seems important to motivate and recognize entrepreneurial teachers (SEECCEL, LUT, and SIMULIMPRESA). The enchantment of motivation among teachers in SUMILIMPRESA case study⁴⁸ considers aspects such as insecurity, ability to teach in different fields, knowledge of business world, assessment confronting and change of roles. UWTSD highlights the motivating effect when teachers keep in contact with students after graduation, whereas LUT MTEE considers the introduction of teacher awards.

2.2.3 Assessment of entrepreneurship competences

The assessment of entrepreneurial competences is commonly regarded as a major challenge and seems to be the least advanced. Initiatives often tackle assessment methods once they have gained some experience with entrepreneurial learning outcomes and teaching methods. This point is more evident across several case studies.

The SEECCEL comprehensive framework focused initially on defining a minimum number of entrepreneurial learning outcomes. Its assessment methods, although suggested within the framework, will be subject to profound revision once a critical mass of "entrepreneurial schools" is achieved. In 2014, SIMULIMPRESA celebrated 20 years of successful work in its 'practice firms' programme (in which mini companies are simulated). Since 2001, the initiative has implemented a more systematic assessment strategy, and at European level – as part of the European network of practice enterprises – SIMULIMPRESA contributed to the development of quality standards which certify trainees and the competences they acquire⁴⁹. The ESP case has followed a similar path. Building on the well-established mini-company programme in Europe which has been running since 1963, the ESP initiative has developed concrete tools for the assessment of students' entrepreneurship competences⁵⁰.

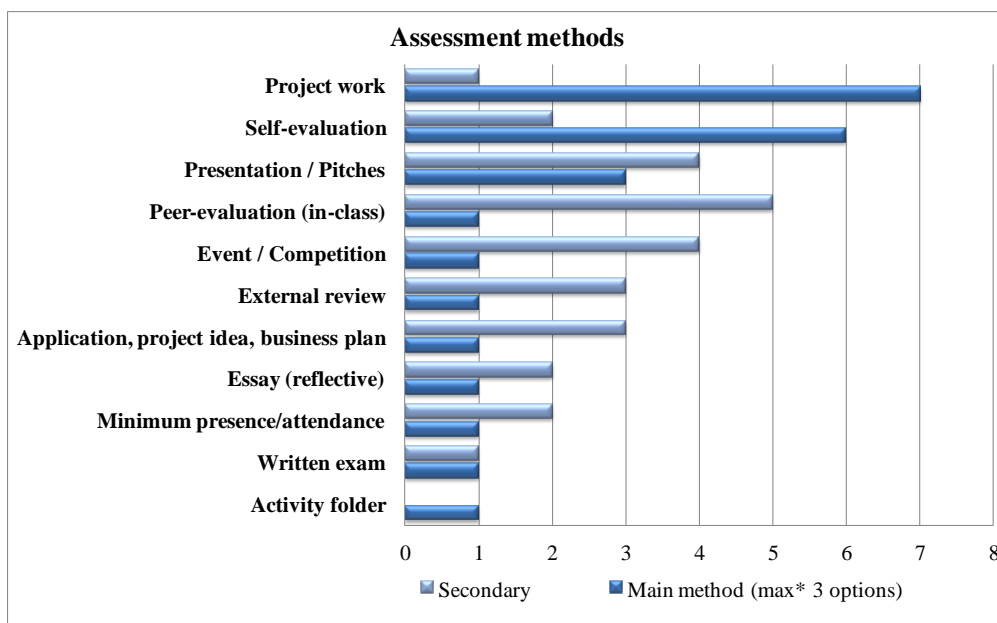
Figure 5 shows⁵¹ that project work and self-evaluation are the most used assessment methods, followed by presentations and pitches. The latter, along with peer-evaluation, events and competitions, appear to be most commonly used as complementary methods. External reviews and the assessment of applications, project ideas or business plans are also employed on a regular basis.

⁴⁸ "How to motivate young people - Italian PF's Central Office experience" (n.d.). Istituto don Calabria – Ferrara – Italy. [pdf presentation]. Not available online.

⁴⁹ See more at Chapter 11

⁵⁰ See more at Chapter 4

⁵¹ LUT MTEE does not address assessment methods applicable to students and thus, does not appear in this table.



Source: prepared by CARSA; note: (*) regarding three comprehensive case studies more than three options were allowed

Figure 5: Assessment Methods

It has been observed that external stakeholders are usually part of the project work, presentation, pitches, events and competitions. In addition, reflective essays and self-evaluation may be seen as two sides of the same coin. While essays take the form of short compositions, self-evaluation strategies tend to be questionnaire based.

Interestingly, traditional start-up methods (pitches, competitions, events, business or idea plan) are to some extent applied across all education levels, often in an adapted way. For instance, the JEP uses less business-like terminology when asking children in primary schools to describe and present their 'Big idea' to the 'Dragon panel'⁵².

A different approach is taken to the executive programme (OEMP), which only requires a minimum attendance to pass the course⁵³. Eliminating assignments and 'home work' from the assessment strategy was the result of a programme review after the first edition in line with the feedback from course participants. This decision was made bearing in mind that executive managers are usually very motivated to take the course but do not have enough time to pursue the programme if additional work beyond the course is required of them.

Formative assessment strategies dominate

Figure 5 shows that formative methods are often used more. This may be due to difficulties in assessing entrepreneurship as a competence, especially with regard to cognitive, behavioural and attitudinal aspects. Moreover, the pedagogical focus on student-centred and self-directed learning appears to be reflected also in the predominance of formative assessment approaches.

In primary schools, the JEP programme introduced several formative methods incorporating an external review to validate the work in progress. Children are also required to submit an 'Activity folder' reporting on all work completed and tasks accomplished⁵⁴. This 'dossier' may be considered

⁵² See Chapter 8.2.2

⁵³ See Chapter 9

⁵⁴ For this purpose, JEP provides with a classroom kit including a set of 'activity sheets'.

as a summative equivalent for formative project work and an equivalent to the traditional written exam.

Different methods assess different components of entrepreneurship competence

There is no accurate answer as to which assessment method is more appropriate for which competences. Based on the case study cross-analysis, our conclusions are summarised in the following diagram.



Source: prepared by CARSA

Figure 6: Assessment Methods

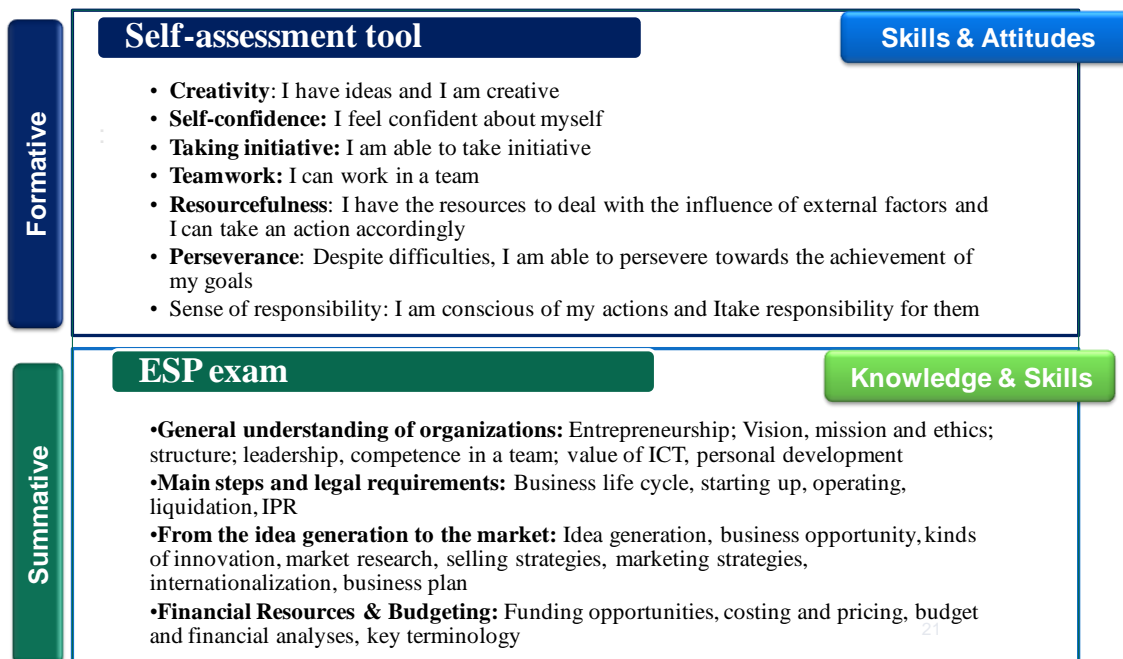
Skills and attitudes components of entrepreneurship seem to be mainly addressed by self-assessment techniques, peer and external evaluation, and by presentations and pitches. The latter strongly focus on communication-related elements. Peer and external reviews, including presentations and events, have a strong validation character, and are thus important for both assessment and teaching.

On the same topic, the SEECCEL Instrument suggests a set of assessment methods for each competence component: **for 'Knowledge'** – a short text report, presentation and project/group work; **for 'Skills'** – practical assessment, field work, presentation, project work and self/peer reflection; and **for 'Attitudes'** – practical assessment, field work, presentation and discussion, project/group work, self/peer reflection and event (fair, exhibition)⁵⁵.

The ESP case study has employed two key techniques⁵⁶: a self-assessment tool and a written exam both via an online platform.

⁵⁵ See Chapter 6

⁵⁶ Note: besides the EPS two key assessment techniques, other formative methods are used as part of the mini-company programme.



Source: prepared by CARSA

Figure 7: Assessment strategy – the ESP case study

The self-assessment tool targets secondary students involved in the entrepreneurial experience. They reflect on their own progress in acquiring practically-oriented **skills and attitudes** - *creativity, self-confidence, taking initiative, teamwork, resourcefulness, perseverance, taking responsibility*. The final exam aims to assess, validate and certify students' theoretical and factual **knowledge** and their **cognitive and practical skills** in the most important basic business issues and concepts.

Creative entrepreneurial development requires new innovative and well-aligned teaching and assessment methods

UWTSD employs a variety of assessment strategies in accordance with QAA guidance⁵⁷. This case study has shed light on the assessment of those entrepreneurship elements related to creativity, highlighting the importance of formative assessment methods, next to the final mark.

Moreover, UWTSD/IICED is heavily involved in discussions on entrepreneurship policies at global level. There is an interesting dichotomy between the traditional approach to measuring students' performance against fixed, consistent and predicted learning outcomes, and entrepreneurship competences (e.g. creativity, flexibility and adaptability) which are novel, surprising and unpredictable.⁵⁸ It was suggested⁵⁹ that traditional, less well-aligned teaching and assessment methods may not work when developing or assessing future-proof skill sets. This is further reflected in the innovation versus implementation approach taken with regard to learning and

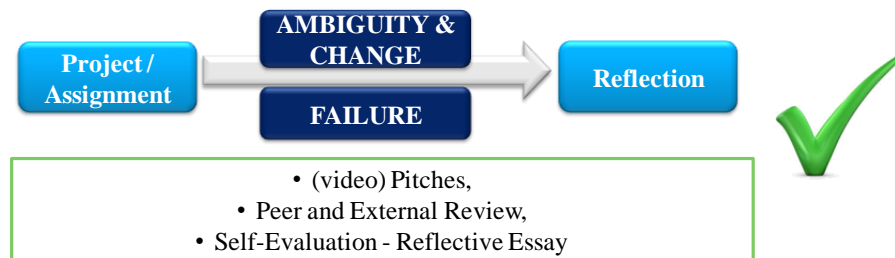
⁵⁷ <http://www.qaa.ac.uk/en/Publications/Documents/enterprise-entrepreneurship-guidance.pdf>

⁵⁸ e.g. Penaluna, K., Penaluna, A., Jones, C., & Matlay, H. (2014). When did you last predict a good idea? Exploring the case of assessing creativity through learning outcomes. *Industry and Higher Education*, 28(6), December 2014. Pp 399-410(12).

⁵⁹ Presented at the HEA enhancement event by Professor Andy Penaluna, director of IICED UWTSD; HEA enhancement event keynote asks "are we future-proofing learning and teaching?" (2014, December 4). [news online]. The Higher Education Academy. Available at: <https://www.heacademy.ac.uk/about/news/10246>

assessment; in other words, into the ‘lenses’ of *innovation and creativity* linked to ‘doing as asked to’ formula.

Thus, appropriate assessment methods have become important when assessing entrepreneurship competences, where diverse teaching methods such as ‘**Divergent Production**’ (divergent thinking) are often used. These techniques take into account a number of diverse solutions to a challenge rather than just one. ‘Avoiding Premature Articulation’ and ‘Glorious Failures⁶⁰’, where the learning conditions for learners are not set in a traditional way, are other examples where teaching and assessment techniques need to be well-aligned.



Source: prepared by CARSA

Figure 8: Learning from a failure and in an ambiguous environment

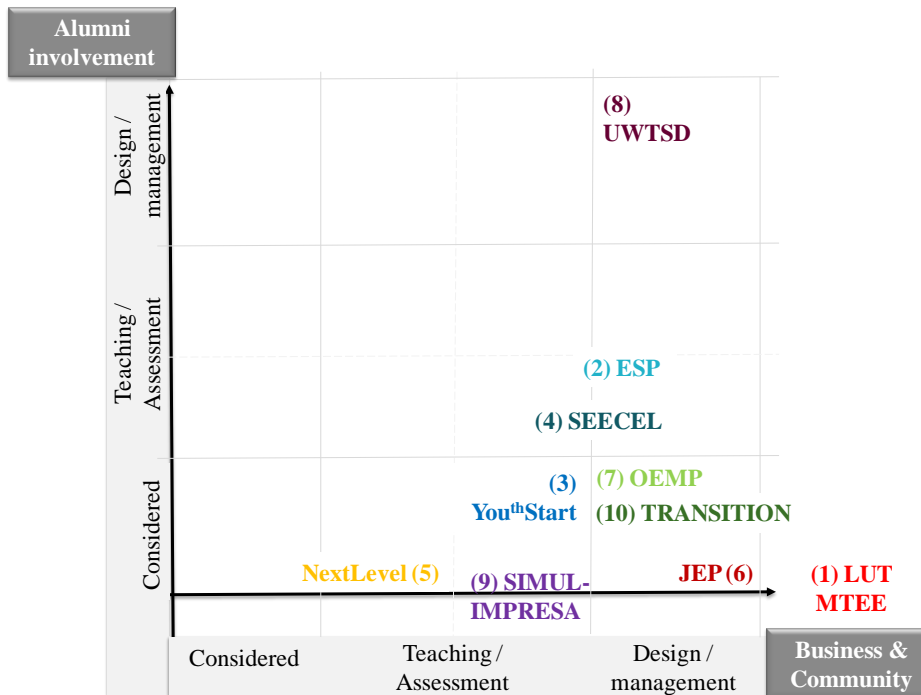
Concerning the latter two examples, Figure 8 displays the journey from the task assignment through an ambiguous situation where initial information provided to the student is incomplete or intentionally wrong. Even when students fail the assignment, the feedback from peers and other reviewers, concluded by reflection on the project work, ensures that students follow a ‘successful learning path’.

2.2.4 External stakeholders and alumni involvement

As already discussed, it is crucial for learners to connect with the outside world. Being mainly based on learning-by-doing this approach (i.e. connecting learners with the outside world) seems highly relevant. Moreover, the majority of case owners highlighted the involvement of business representatives among the key success factors of their initiative.

There is, however, a difference in how external stakeholders are involved in the case studies. Initially, they may be involved in teaching, later they may participate in the assessment and validation processes. The contribution of business representatives to the design phase also appears to be powerful. Certain cases involve business representatives in the working groups (ESP, SEECCEL, UWTSD), some initiatives are steered strategically by business representatives (initiator of ESP), while others are entrepreneur-driven (JEP). Alumni may also be involved. However, the following figure shows that all case studies strongly involve representatives from the business sector in teaching and assessment activities but only one fully exploits the potential of graduates / alumni (UWTSD).

⁶⁰ See page 40 of this document.



Source: prepared by CARSA; note: LUT MTEE

Figure 9: Involvement of key players in entrepreneurship education

The UWTSO case involves external stakeholders and especially alumni in the entire learning/teaching process from set up to assessment and may be considered an example of good practice in this field⁶¹.

Just as business representatives are very important for the entrepreneurial side of education, so are other external stakeholders. Besides the specific social innovation incubation programme (TRANSITION), other initiatives are open to the non-business community, including cooperatives, social entrepreneurs, charities or prisons, depending on the type of project/studies/mini-company. Regarding lower-education initiatives, NextLevel includes a welfare and society category⁶², while the ESP's initiator organises a specific social enterprise award for mini-companies which have social impact. Furthermore, Youth Start incorporates aspects linked to 'social responsibility'⁶³, and SIMULIMPRESA and UWTSO, both initiatives with a wide scope, cover adult education.

A specific characteristic of the executive programme OEMP is that the teachers are often experienced entrepreneurs, or business leaders.

Another reason for including business and community representatives and alumni has been noted in the ESP experience. Students do not always see how entrepreneurship education could be important for their future. Business or other representatives can encourage them via real world activities, and alumni can explain how they were influenced and how the initiative contributed to their success.

The JEP case study sheds light on the legal and ethical aspects of alumni and external visitors to classrooms in primary schools. It designed the mini-company programme keeping in mind the children's best interests. Legal agreements are signed with schools, parents and entrepreneurs ensuring among other aspects that an external visitor is available for each participating classroom, providing rules and guidelines. However, the JEP initiators highlighted ethical issues in maintaining

⁶¹ Chapter 10.3.2.

⁶² Chapter 7.2.2.

⁶³ Chapter 5.2.2.1 and 5.2.2.22.

contact with alumni. The initiative is currently considering the best solution since, for instance collecting email addresses of young children for future use is not regarded as an ideal solution. Close relations with parents may be necessary for this purpose.

2.2.5 Evaluation and Impact

Though the monitoring and impact assessment of the initiatives are generally judged to be adequate, there are still noticeable differences among the initiatives. Admittedly, one reason is that some of the initiatives are not advanced enough to produce meaningful conclusions. In general, it may be said that all initiatives include an evaluation strategy among their activities. An evaluation strategy is particularly important for cases where evidence-based policy making is employed (SEECCEL) or for cases that are strongly linked to research (LUT MTEE).

Where an evaluation strategy is put in place, the following methods are often considered:

- surveys of graduates/alumni (UWTSD, ESP/mini-company programme, OEMP) or teachers (SEECCEL, LUT MTEE);
- external evaluation by an independent organisation (SEECCEL, ESP);
- in-house continuous-monitoring tools and use of data collected online (SEECCEL, YouthStart, LUT-MTEE, ESP, UWTSD);
- specific evaluation forms (OEMP).

Where a strategy for the evaluation of impacts is not systematically in place, more qualitative feedback from participants and teachers is collected during the implementation, often using events, fairs, showcase days or teacher training (SIMULIMPRESA, JEP). In addition, mandatory deliverables and (self-)assessment reports are frequently used, including additional questions on programme/initiative-related aspects (e.g. SIMULIMPRESA, JEP). As mentioned above, legal and ethical issues arose at primary education level (JEP), where ethical concerns constrain effective follow up of children for the purposes of evaluating the programme's impact.

Observed impact areas across different education levels

For the purposes of the OvEnt study, the following impact areas have been used for case study categorisation and cross-analysis:⁶⁴

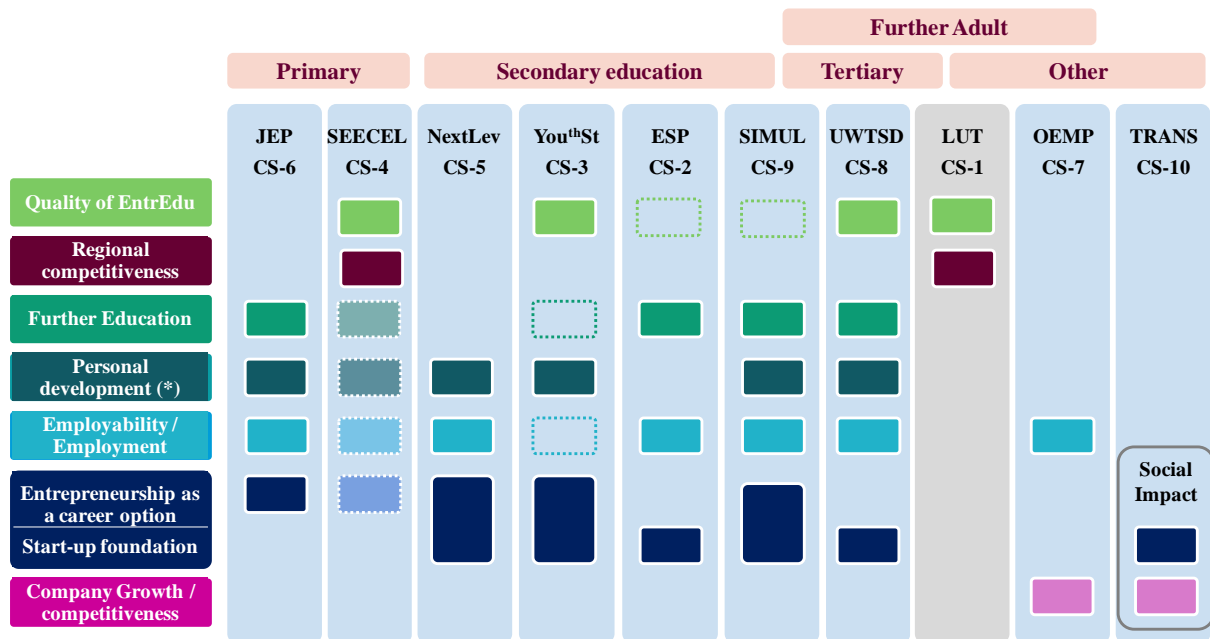
- Improving the **quality of entrepreneurship education**, through a strong focus on teacher training, working with schools, quality standards and similar.
- **Regional competitiveness** covers impacts at a more systemic level.
- **Further education** refers to areas related to making future education more interesting and decreasing the number of drop outs, partly enhancement of self-directed learning, as well as adult education.
- **Personal development** tackles the individual learner level by dealing with areas such as skills enhancement, self-awareness, self-conception, and recognition of others, and also with youth empowerment.
- **Employability**, seen as the capability of people to acquire and maintain **employment**. addresses the transition from education to employment by means of the right set of competences.
- **Considering entrepreneurship as a career option** is regarded to have a positive impact on **start-up foundation**. These two are not always distinguished by the case studies, but in many cases the distinction provides a way how to communicate the key message in less business-oriented terminology.

⁶⁴ Original four areas presented at the Expert workshop on Entrepreneurship Competence Framework held in March 2015 in Seville have been revised in progress and adapted in line the experts' feedback.

- **Company growth and competitiveness** is the next stage, especially in enterprise or innovation-oriented initiatives.

Figure 10 shows that most of the case studies focus on four impact area groups, i.e. employment/employability, entrepreneurship as a career option or start-up foundation, alongside with personal development and further education. The lower the educational level, the more focus is shifted towards the learner; hence, ‘personal development’ and ‘entrepreneurship as a career option’ come to the fore. ‘Employability/employment’ seems to be a rather general impact area across all the case studies except TRANSITION. The executive programme (OEMP) narrows its focus on employability/employment to top management only.

LUT MTEE specifically addresses teachers and is categorized under “other” education. Its main impact area is quality of entrepreneurship education and regional competitiveness⁶⁵. Quality of entrepreneurship education goes hand in hand with initiatives (SEECEL, YouthStart, UWTSD) which are comprehensive and which, with the exception of UWTSD, address entrepreneurship competence at systemic (national) level. The ESP case’s impacts also include quality of entrepreneurship education to some extent⁶⁶. It achieves this mainly by maintaining a close link with the well-established mini-company programme which reaches out to a large number of teachers all around Europe, and by having well-integrated teacher training. In addition, new teaching material specifically for ESP assessment purposes is provided. Meanwhile, SIMULIMPRESA’s⁶⁷ central office works closely with trainers, communicating with them on a daily basis.



Source: Prepared by CARSA

Figure 10: Impact areas in different education levels

Interestingly, ‘start-up foundation’ became a key area of impact from secondary education level upwards, whereas ‘entrepreneurship as a career option’ and ‘personal development’ is important in primary schools. The impact areas follow the shift in pedagogical approach to self-directed learning. Moreover, many case studies highlight personal development and further education among their

⁶⁵ It should be noted that LUT MTEE shows additional potential impacts on research and research community.

⁶⁶ Chapter 4.4.2, page 99.

⁶⁷ Chapter 11.4.2, page 308.

targets. For instance, the JEP prepares children for the secondary education level, where they choose subjects and take steps to design their future professional careers.

Moreover, the JEP case study states that the potential impact of the JEP programme goes beyond the original objectives - entrepreneurship from the perspective of real entrepreneurs - since transversal skills are widely applicable and go beyond entrepreneurship skills.

It should also be noted that our case study in tertiary and further adult education does not represent a typical example. UWTDS concentrates on creative entrepreneurial development, and describes different aspects of entrepreneurship education, providing examples from both basic and adult education.

2.2.6 Sustainability and transferability

On average, the sustainability of the initiatives examined is judged to be rather high. The initiatives are based on diverse business models, mostly comprising a mix of financial sources (public or private).

Sustainability is further ensured by **strong partnerships** between key organisations in their respective fields, and sometimes by a **two-level approach** in terms of a commonly-agreed framework and individually adapted implementation where the regional or national context is taken into account, while the overall framework ensures a common understanding and quality standards (SIMULIMPRESA, ESP, TRANSITION, SEECCEL).

Another key factor that helps to ensure sustainability is that educators and their further training and professional development are considered to be of crucial importance. In view of the fact that nearly all the initiatives indicated that the quality of teachers was a key factor in delivering entrepreneurship competence, facilitating continuous training and development for teachers appears even more important. More connectivity to business and alumni was pointed out on several occasions.

The general approach to entrepreneurship education is also viewed as contributing to the sustainability of the initiative. UWTSD, SEECCEL, LUT MTEE, for example, emphasise a systemic and holistic approach to entrepreneurship education, facilitated by their strategy of implementing entrepreneurship education horizontally. The proven and tested model developed through participatory research, piloted and improved in line with feedback from all key stakeholders was also cited as important. Last but not least, the value of communication and constant knowledge sharing should not be underestimated. Especially in the lower education level, language and understandable terminology are considered to be important for the delivery of entrepreneurship education.

Most of the initiatives can be considered to be highly **transferable across education levels or geographically**. This judgement is based on existing transfers or demonstrably solid strategies for future extension. Entrepreneurship education is currently receiving increased attention and the number of initiatives has been growing in recent years. Accordingly, the initiators of entrepreneurship competence projects have either already engaged in transferability efforts or are currently in the process of considering them. These actions and considerations range from geographical extension (e.g. ESP, NextLevel, JEP, LUT MTEE) to transferring the initiative to different education levels (e.g. ESP, JEP, LUT MTEE, SEECCEL).

CASE STUDY DETAILED REPORTS

3 Case study 1: LUT Measurement Tool for Enterprise Education (LUT MTEE)

The Measurement Tool for Enterprise Education™ (LUT MTEE)⁶⁸ was developed by **Centre for Training and Development in Lappeenranta University of Technology** (LUT)⁶⁹, Finland.

Lappeenranta University of Technology (LUT)⁷⁰ is an active player in entrepreneurship education and research, involved in national and European projects, among which LUT measurement tool has been developed. Established in 1963, the LUT became an international community in scientific research and academic education with more than 6,500 students and experts. Among others, the University's strategic fields of expertise are: energy-efficiency and the energy market, strategic management of business and technology, scientific computing, and modelling of industrial processes. As such, the activities combine the two complementary fields - technology and business studies⁷¹.

LUT / Centre for Training and Development is an adult education institute. It provides training services encompassing specialisation and professional studies, long-term and short-term continuing education, seminars, tailored corporate training, coordinating Master's programmes for mature students, Open University education or study counselling and guidance for mature students. Further, the LUT centre is involved in corporate, regional or industry-specific development projects. Overall, teaching methods are chosen according to the theme in question, including e.g. lectures, different case and practical exercises, web-based instruction and learning journals.

The Centre was established in 1987 and in 2007, its turnover was 4.0 million Euros and it employed 37 persons⁷².

⁶⁸ Lappeenranta University of Technology - Centre for Training and Development (n.d.-a). Available at: <http://developmentcentre.lut.fi/hankesivusto.asp?hid=7&alasivu=53>

⁶⁹ Lappeenranta University of Technology - Centre for Training and Development [general website]. Available at: <http://developmentcentre.lut.fi/english.asp>

⁷⁰ Lappeenranta University of Technology (LUT) [general website]. Available at: <http://www.lut.fi>

⁷¹ Measurement Tool for Entrepreneurship Education <Measure and Develop> (n.d.-a) Lappeenranta University of Technology. [brochure]. Available at: http://developmentcentre.lut.fi/files/muut/Yritt%C3%A4jyvyskasvatuksen_mittaristo_englanninkielinen_versi_o.pdf

⁷² Lappeenranta University of Technology - Centre for Training and Development. Forerunner in Multi-Field Expertise (n.d.-b). Available at: <http://developmentcentre.lut.fi/english.asp?show=esittely>

3.1 Summary

The Measurement Tool for Enterprise Education™ (LUT MTEE)⁷³ is a self-assessment online questionnaire addressed to teachers, and school management staff, with the main objective to assess entrepreneurship education. The tool has been established by **Lappeenranta University of Technology** (LUT), and developed, piloted and implemented in several phases, firstly targeting teachers and principals in primary school in Finland. It takes form of a web-based self-assessment questionnaire and a generated feedback. This response feedback contains numerical comparison and a text section encouraging and supporting progress, containing various links to resources for teacher professional development.

Teachers' self-reflection is in the core of the tool construct, alongside with concepts of both, entrepreneurship and intrapreneurship.

At the end of 2014, the LUT MTEE is used by Finnish teachers from primary, secondary schools and vocational education and training (VET) schools, and Universities of Applied Science. Moreover, the tool has been implemented as part of the teacher initial training – addressing student teachers. Beyond Finland, the LUT MTEE for secondary and VET schools has been adapted to eight national contexts. As such, the tool is available in three languages – Finnish, English and Swedish – but it will be translated also into other languages under 'The Entrepreneurial School' project⁷⁴.

The tool's value goes beyond assessing teachers' activities and providing advice on how to align these with the principles of entrepreneurship education. Analysing the database, the tool serves as a benchmark among teachers, schools, subject areas or regions.

In summary, the tool targets **teachers and school principals**. The questionnaire and the feedback vary among user groups and among education levels. Such difference involves the wording of the questions, the response texts, and/or the emphasis on certain aspects of entrepreneurship education. Moreover, the initiative closely collaborates with Finnish **regional policy authorities**.

The LUT MTEE questionnaire incorporates a variety of students' entrepreneurship competences, where 'Knowledge' and 'Skills' components dominate. 'Attitudes' are included in a very limited number of questions. Based on the evidence gathered during the tool implementation, **failure, risk** and **creativity** are identified as those competences rather less addressed by existing teaching methods.

The LUT tool is applied on "usual" teachers' and schools' activities, with the aim to enhance them in line with principles of enterprise and entrepreneurship education characterised by the following: the teacher as instructor and facilitator, **learning by doing and student-centred approach**. The evidence analysed⁷⁵ showed that Finnish teachers use a variety of teaching methods, among which learning by doing, real world simulations and creative problem solving techniques are rather frequent. Quite many of the frequently employed methods take place in classrooms, whereas only few outside. Interestingly, teachers rather use study visits than inviting a visitor to the classroom. Thus, it seems that **enlarging the teaching environment** and opening the teaching to other local players remains an important task for the near future. Alongside, a more holistic perspective to teaching, determined by multidisciplinary and cross-subject approach, but also by teachers working together in teams and their networking with external local community, is emphasized⁷⁶.

⁷³ Lappeenranta University of Technology - Centre for Training and Development (n.d.-a). Available at: <http://developmentcentre.lut.fi/hankesivusto.asp?hid=7&alasivu=53>

⁷⁴ The Entrepreneurial School (TES) [general website]. Available at: <http://theentrepreneurialschool.eu>

⁷⁵ Ruskovaara, E., Rytkölä, T., Seikkula-Leino, J., Pihkala, T. (2011a). Entrepreneurship Education in a Classroom – What's about Entrepreneurship there? [Conference Paper]. ESU Conference. Seville, 2011.

⁷⁶ Ruskovaara et al (2011a), interview with LUT representative.

Information and communication technologies has an interesting role in teaching, as delivery tool – e.g. games and simulations –, and as source of teaching content enriching the learners' experience – e.g. multimedia, web search.

The assessment strategy consists of a self-reflection component at individual teacher/principal level complemented by an external review carried out by researchers at global level when updating benchmark indicators. The users – teachers and principals – obtain assessment results about: (i) entrepreneurial pedagogy, (ii) entrepreneurship education contents used in the teaching, (iii) collaboration in networks, (iv) operating culture and learning environment, and (v) planning and evaluation of entrepreneurship education. **Self-assessment is most effective when performed every 6 months.**

The evidence collected so far⁷⁷ suggests that the tool positively influences **the quality of teaching practices** towards entrepreneurial learning. Interestingly, it has been shown that an entrepreneurial way of doing things is well understood by teachers while 'entrepreneurship' is, instead, a distant term at primary education level. Once reached a critical mass of users, the tool is able to produce statistics for entrepreneurship education per region, country or across education subjects, thus **contribute to the evidence based policy making**. For instance, the LUT advised eight Finnish regions with entrepreneurship education strategies on the next steps to undertake. With its database, the tool has potential for research community and may produce potential **scientific impact** on further research in entrepreneurship education.

The LUT Measurement Tool is based on a mixed public private financing model. When developing the tool, the participatory research method and the use of trial group highly contributed to the tool's usefulness and as such, to the tool's uptake by teachers. The key to the initiative's sustainability is **the wide applicability of the tool and the potential use of the growing database**. The success shown so far already attracted interest from other initiatives under which the tool is being further developed. The potential transferability has been proved geographically and across education levels, as well as from continuous to initial teacher training.

Briefly, the success factors lies in the collaboration with users from the design phase, resulting in an understandable terminology and language of the short, but comprehensive, questionnaire. Moreover, collaboration with regional authorities helped reaching critical mass of tool's users in Finland.

⁷⁷ Idem.

3.1.1 InfoBox

LUT measurement tool: InfoBox	
Implementation:	From 2008 pilot in Finland and for primary education level, from 2012/2013 in other European countries and for secondary education level (including initial 2-3 years for piloting) The LUT MTEE (self-assessment tool) takes 5 or 15 minutes to fill-in.
Focus Area	New assessment methods and tools (for teachers/entrepreneurship education)
Targeted education level	The tool is applicable for primary education level, and more recently, lower and upper secondary education level, including VET. <i>Initial teacher training is being currently piloted (2014-2015)</i>
Main target group of the initiative	Educators: Teachers
Secondary target group:	School governance and regional authorities, depending on the finish region, are actively involved.
Entrepreneurial competences	Knowledge / Skills - Attitudes is addressed by a very limited number of questions failure, risk or creativity are those competence rather less addressed by existing teaching methods <i>note: primary and secondary students' perspective</i>
Teaching methods	<i>Addressing students:</i> wide range of teaching methods, in particular: Learning-by-doing and Collaborative learning approaches; student-centred approach. More holistic approach is suggested, including multidisciplinary teams of teachers; and enlarging the teaching environment - opening to the outside and use of local stakeholders. Games have potential. <i>In relation to the teachers' development:</i> Self-reflection is used as a teaching method.
Learning settings	The usual learning setting on which the tool is applied is mainly face-to-face and institutional; curricular and extra. The tool is provided as an online questionnaire with an email feedback (targeting teachers)
Assessment Methods:	Teachers: Self-assessment and self-reflection (online) Students: not applicable
Impact area:	Quality of entrepreneurial education through continuous (professional) development and initial teacher training Regional competitiveness through entrepreneurship education policy Impact on Scientific community and research in entrepreneurship education
Output dimensions	<ul style="list-style-type: none"> - more than 3.000 primary and secondary teachers in Finland - 400 student teachers in Finland (in pilot 2012) - more than 300 teachers in more than 20 other European countries - 7 Finnish regions take actions for their regional Entrepreneurshipo Education strategy <p><i>Tools:</i></p>

	<ul style="list-style-type: none"> - tool for existing primary, secondary and VET teachers - longer and shorter version and different language versions - tool for Finnish teacher students - tool for Finnish teachers in Universities for Applied Science
Overall impacts	<ul style="list-style-type: none"> - Increased quality of teaching practices towards entrepreneurial learning - Increased evidenced based policy making at regional level – 7 Finnish regions - Scientific impact, on further research in entrepreneurship education - (Indirectly) potential impacts on increased entrepreneurship competences obtained by students. <p>The Nordic Council of Ministers and Nordic Innovation have selected the tool as the best practice in entrepreneur education in two consecutive years.</p>
Resource dimensions	<ul style="list-style-type: none"> - 30 primary and secondary teachers involved in the construction of the tool (in Finland) - group of researchers (around 10 researchers) - Finish tool version – 1mil Euros - 500.000 Euros in further development under other projects - Around 2mil Euros for all the tool family – Finish, English for primary and secondary schools, initial training and tool for teachers of Universities of Applied science.
Business model	<ul style="list-style-type: none"> - Mixed public (mainly) and private funding, LUT own sources and contribution from Finish foundation for entrepreneurship, Yksityisyrittäjien Säätiö, European social fund, Finish national funding, European grants (e.g. CIP).

3.1.2 Timeline and Key milestones

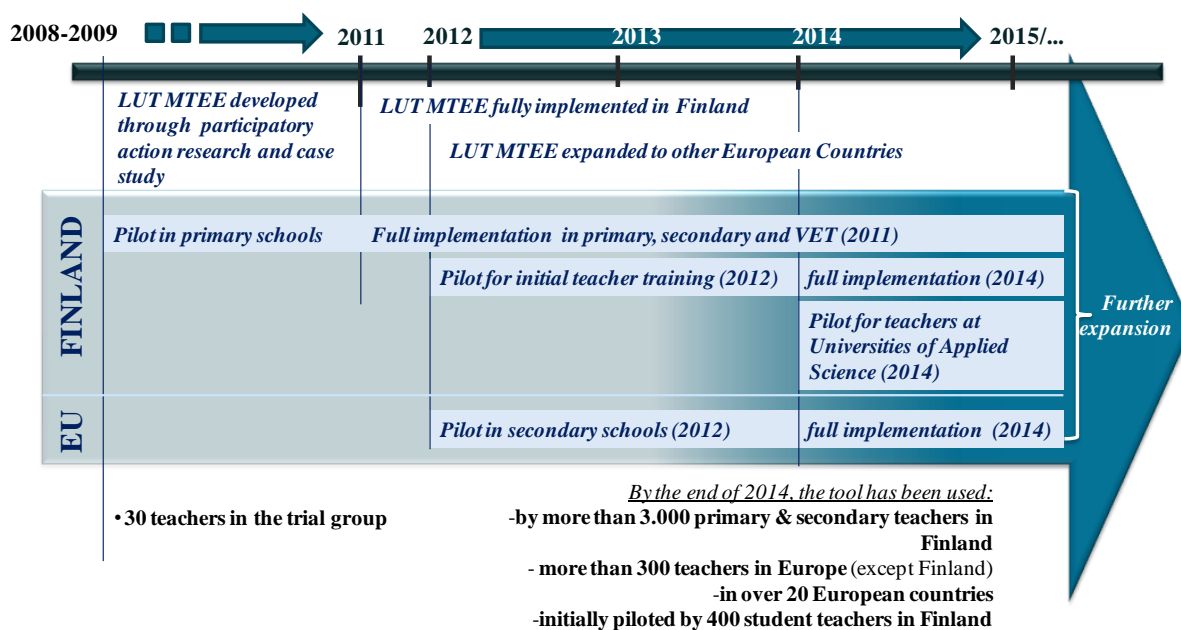


Figure 11: LUT MTEE's Timelines and key milestones

3.2 General characteristics and core activities

3.2.1 Objectives

LUT Measurement tool has the main objectives:

- to develop a self-evaluation tool for (primary and secondary level) teachers in order to support the implementation of entrepreneurship education, aiming at enhancing teachers reflection, learning and development, thereby providing a pedagogical aid for the planning, assessment, and development of teaching
- to clarify as well as further develop the effectiveness of national entrepreneurship education support systems through the use of the measurement tool (and the indicators)

More recently, the tool reached a critical mass in Finland, and as such the emerging objective is:

- to inform different Finnish stakeholders (high level, ministries, principles etc) about the entrepreneurship education and to identify bottlenecks to address; providing information concerning the situation in Finland, at national level, regional level, in certain schools, or across specific study fields (e.g. Finnish math teachers)

to answer questions about what is happening in with entrepreneurship education in Finland

3.2.2 Core activities and entrepreneurship competence dimensions

For the purpose of the OvEnt study, we identified the following components.

Table 2: LUT measurement tool – core activities (selected for the case study purposes)

Core activities/components:	Focus area:	Form:	Entrepreneurship competence:
LUT MTEE questionnaire and teacher self-assessment process	New assessment methods and tools <i>(for teachers)</i>	Online	Knowledge / Skills <i>(students*)</i>
LUT MTEE indicators and multi-purpose assessment	New assessment methods and tools <i>(for schools, policy makers as well as research)</i>	Online	n/a
LUT MTEE related manual (user manual)	Teaching/learning entrepreneurship competences	Online	Knowledge / skills <i>(teachers)</i>

Source: prepared by CARSA for the purpose of OvEnt study. Competences are incorporated in the questionnaire. These competences correspond to what students should learn through the teacher's practice.*

The LUT Measurement Tool (MTEE) is an easy-to-use web-based **entrepreneurship education self-assessment tool** evaluating contents, modes of operation, and methods of teaching allowing teachers and principals to develop their know-how in entrepreneurship and enterprise education and keep track of their learning progress. The tool is applicable across multiple subjects and on existing teaching activities implemented by individual teachers.

As mentioned earlier, the **LUT Measurement Tool (MTEE)** has been developed and implemented in several stages - starting in 2008. It has been **intended for primary education** in Finland⁷⁸ and is being modified for the purpose of **secondary education** and **VET**, and at European level. Later on, the tool has been opened for student teachers; as well it has been piloted at University level (in Finland). Therefore, **3 measurement tool questionnaires exist**, at the moment⁷⁹: Finish longer version (primary, upper secondary and VET), English longer version (secondary and VET, 15 min) and English shorter version (5 minutes). Overall, the LUT MTEE has been fully implemented in Finland for 3 years (primary, secondary and VET) and the English version has been piloted under the 'The Entrepreneurial School' (TES) initiative⁸⁰ coordinated by Junior Achievement-Young Enterprise (JA Europe)⁸¹ (see also case study 2 in Chapter 4).

Further, the **self-assessment tool is accompanied by a manual** explaining how to use the tool and unfolding the key concepts and methods commonly applied in entrepreneurship education, thus providing support to the teachers as well as support in the implementation of the tool.

The questionnaire is closely linked to **the entrepreneurship education indicators** with the aim to steer development of the tool and provide with understanding of entrepreneurship in education.

Areas of entrepreneurship education addressed by the LUT assessment tool⁸²:

- Teaching and working methods (13 items)
- Development of enterprising learners (19 items)
- Enterprise education from different perspectives (25 items)
- Forms of entrepreneurship education applied in the school (8 items)
- Planning and development of entrepreneurship education (7 items)
- Planning of education, teaching situations and learning environments (9 items)
- Assessment of teaching and other activity and the operating culture of the school (11 items).

Self-assessment process⁸³:

- Teachers need to register online at the LUT's self-evaluation tool website⁸⁴ incl. some of their personal details, professional experience with entrepreneurship education and in general, leave contact details (e-mail)
- Participation in a 15-minute (5-minute) questionnaire on their teaching contents, methods and operations modes while reflecting upon their situation.
- Based on the completed questionnaire feedback on teachers' performance is sent to the indicated e-mail address
- The e-mail message includes also tips for development and links to additional materials enabling teachers further to develop their operations with ease.

The outcomes of the measurement are useful for different purposes and to different stakeholders. For teachers, the tool represents a way how to professionally develop into entrepreneurship

⁷⁸ As part of a four year project co-funded by European Social Fund. Measurement Tool for Entrepreneurship Education (n.a.) Lappeenranta University of Technology. [brochure]. Available at: http://developmentcentre.lut.fi/files/muut/Yritt%C3%A4jyvyskasvatuksen_mittaristo_englanninkielinen_versi_o.pdf

⁷⁹ February 2015

⁸⁰ The Entrepreneurial School (TES) [general website]. Available at: <http://theentrepreneurialschool.eu>

⁸¹ Junior Achievement-Young Enterprise (JA Europe) [general website]. Available at: <http://www.JA.org>

⁸² Measurement Tool for Enterprise Education <Measure and Develop> (2013). Lappeenranta University of Technology. [Questionnaire, English longer version]. downloaded 8.11.2013. [not publically available].

⁸³ For more information about the process see Ruskovaara et al. (2009; 2015)

⁸⁴ Available at: <https://developmentcentre.lut.fi/muut/mittaristo/rekisterointi.aspx>

educators. To school governance, training authorities and policy makers the outcomes may provide useful information on the effectiveness of teachers' trainings (e.g. TES initiative), or the state of entrepreneurship education by comparing results at national level, regional level, by fields of education (e.g. languages, history, sports) or potentially, at international level. The tool is a useful follow-up system for assessing how successfully the aims stated in national curricula are being achieved in schools.

Regarding entrepreneurship competences for learners (pupils), it has been expressed on the TES project website⁸⁵, the LUT measurement tool is in agreement with such learning outcomes concerning of the following competences (see Table 3). The link between LUT tool and these competences is indirect. The tool, through questions, guides the teachers to implement such teaching methods and contents addressing the following competences:

Table 3: LUT MTEE – (students') competences

Competences:		
Knowledge	Skills	Attitudes
Business development and innovation*	Innovation and creativity*	Willingness to take risks*
Financial issues*/**	Financial capability / managing money*/**	Self-confidence*
Marketing**	Decision-making*	Positive attitude to failure / learning from one's mistakes**
Business plan**	Leadership*	Bearing uncertainty**
Entrepren. connected to subject**	Collaboration and social skills*	Take initiative*
Economic (news)**	Problem solving*	Self-responsibility**
Production process**		Goal-oriented / future-oriented**
Sales**	Self-assessment skills** and recognition of one's possibilities	
moral/ethical aspects of enterprise**	Independent work**	
	Seeking and exploring opportunities**	
	Commercial skills (bring and buy sales)**	
	Seek original ideas and different solutions to the traditional ones**	

*Source: prepared by CARSA based on information available at Measurement Tool for Enterprise Education (n.d.-b). TES.web. (agree with; *), and questionnaire (not available online (**)) and a feedback from the representative of LUT.*

The competences are integrated across different parts of the questionnaire, regarding both, the content and teaching methods. As expressed by interviewee, the attitude to entrepreneurship is

⁸⁵ Measurement Tool for Enterprise Education (n.d.-b). TES.web. Available at: <http://www.tesguide.eu/tool-method/measurement-tool-for-enterprise-education.htm>

rather positive in Finland. Attitude is not in the focus of the tool, rather knowledge and skills are visibly addressed by the questionnaire.

Based on the interview, **handling failure, risk** or **creativity** has been identified as those competences rather less addressed by current teaching methods (see Chapter 3.4.1).

3.2.3 Educational scope and target groups

The LUT Measurement Tool for Entrepreneurship Education is designed for **primary, secondary education and vocational education and training (VET) levels**⁸⁶ and involves teachers and school governance. Furthermore, the tool has use for policy decision makers, especially when certain critical mass is reached (e.g. in Finland). Pupils are the indirect but important target group.

Target groups and other groups involved (Learners, Educators, Other):

- **Teachers** are directly targeted by the self-assessment questionnaire allowing them to monitor their progress in becoming entrepreneurship educators and providing them with tips on how to do so (feedback and manual).
- **School governance / administrative officials** may see how teachers' actions, selected working methods and contents correspond to the aims of the school's entrepreneurship education or how to improve school quality management. This target group fills in certain questions and an adapted feedback is given to them.
- **National and regional decision-makers** who are interested in assessing the state of entrepreneurship education in their region or country (potentially also international comparison). The level of involvement varies across Finnish regions. Some decision makers (responsible for education in a certain city) participated in the development phase in discussion meetings and further closely discuss with LUT on how to collaborate, how to obtain and analyse data from LUT MTEE and how to implement the tool in the region more systematically. The closer collaboration is determined by imposing the use of the tool in the schools (all schools and teachers in the area use the tool), and by agreeing on the type of feedback from LUT - where to improve the entrepreneurship education and in which aspects. Also, the tool is relevant to the regional strategies on entrepreneurship education where it helps/assists with the implementation and monitoring – especially the tool provides with average.

Teachers, principals and municipalities are the direct beneficiaries of using LUT MTEE; however, there is also indirect and positive impact on pupils, students and the educational standards.

Other players:

- **Pupils and students** are indirectly and positively benefiting from the tool as their entrepreneurial learning experience improves.

Important to mention that a **trial group** of approximately thirty teachers from different parts of Finland were substantially involved in the development process of the tool. Next to acting as primary content developers / providers, the trial group was also involved in testing of the LUT measurement tool. In addition, they are also involved to promote and implement the LUT tool in schools all over Finland. The same approach has been used within the Entrepreneurial School where the tool has been developed in collaboration with other 7 countries (teachers and schools), in particular, commenting on its usability within national context.

⁸⁶ Since 2014, the LUT MTEE has been implemented for initial teacher training and, in the same year, piloting at tertiary education level - at Universities of applied science - has been initiated.

3.2.4 Geographical scope

The LUT Measurement Tool was developed as a national project in Finland and since 2008, it has been used by Finnish teachers.

Currently, the English version of the tool has been developed under 'The Entrepreneurial School' (TES)⁸⁷ project broadening its scope to fit on different European country settings. By the end of 2014, the tool has been used by teachers coming from 20 countries.

3.2.5 Links to other initiatives and networks

The LUT Measurement Tool is used in the framework of **The Entrepreneurial School**⁸⁸ project which will make full use of the tool and adapt in accordance to the needs of the 8 core countries (incl. Finland), and applicable to the secondary education level. In this project, LUT contributes with the assessment tool for teachers and is in charge of the overall Quality Assessment of the TES initiative.

YVI project⁸⁹, *developing entrepreneurship education in Finnish teacher education (2010-2014)*: LUT contributed to *The Virtual Learning Environment for Entrepreneurship Education*⁹⁰ which acts as a national platform for teachers, teacher educators and other interested parties, compiling all material, tools and information produced in the project. The aim is to help teachers, teacher educators and all parties interested find information and tools for planning, implementing and assessing, and networking in entrepreneurship education. YVI learning environment, as well as other cases of entrepreneurship education in Finland, is mentioned in the following publications of the European Commission: *Building entrepreneurial mindsets and skills in the EU (2012)*, *Entrepreneurship Education: A Guide for Educators (2013)*.

From the beginning of 2014 LUT has been an Expert Advisory Group member in "Entrepreneurship360" invited by OECD

Years 2012 and 2013, LUT representatives have been invited by European Commission as Expert Group members in three expertise areas, Entrepreneurship Education, Entrepreneurial Universities and Evaluation of Entrepreneurship Education.

LUT has been taking part in the processes where "Regional Strategies for Entrepreneurship Education"⁹¹ have been created (four different Finnish regions). Further, LUT has been an expert group member when Finnish Ministry of Education prepared "Guidelines for Entrepreneurship Education". Since 2008, LUT has participated in the Finnish National Board of Education.

More concretely linked to the LUT MTEE, a complementary initiative is being carried out under which 70-80 primary level teachers have been assigned to self-evaluate actions every 6 months. They provide feedback on additional aspects related to the LUT MTEE implementation, such as how they feel about their self-assessment and how they feel about the results and feedback received by the tool.

⁸⁷ The Entrepreneurial School (TES) [general website]. Available at: <http://theentrepreneurialschool.eu>

⁸⁸ idem

⁸⁹ Developing entrepreneurship education in Finnish teacher education. YVI PROJECT. Experiences and results 2010-14 [project report]. Available at: http://www.yvi.fi/images/YVI_results_2010-14.pdf

⁹⁰ The platform is available at: <http://www.yvi.fi/>

⁹¹ Opetusministeriö (2009). Guidelines for entrepreneurship education. Ministry of Education, Finland. ISBN 978-952-485-683-6 (PDF)

3.3 Entrepreneurship competence concept translated into the learning objectives, practical courses, and related tools (setting-up phase)

3.3.1 Defining learning objectives / learning outcomes

Being applied on existing pedagogical activities performed by teachers, the learning objectives or learning outcomes of pupils are not addressed under the LUT measurement tool. Learning objectives are established by individual schools under their regular practice (corresponding to the national curricular).

The LUT MTEE does not specifically define learning objectives or learning outcomes for teachers. However, by using it teachers should be able to self-evaluate and refine their teaching practices.⁹² Teachers learn to improve their entrepreneurial teaching performance through assessing their teaching contents and methods and receiving regular feedback on how to improve it.

3.3.2 Setting-up practical courses/curricula/activities

The setting-up of practical courses, curricula or other pedagogical activities are not addressed directly by the tool. It rather provides with direction to teachers (and schools) to adapt the pedagogical approach in line with the entrepreneurship education principles. It should be, however, noted that existing teachers' practices have been taken into account when constructing the tool.

3.3.3 About the process of the tool development (LUT measurement indicators and questionnaire)

As already mentioned, the LUT measurement tool has been constructed in multiple phases, firstly for primary and secondary schools in Finland (mainly between 2008 and 2012). The Measurement Tool has been formed by action research methods and guided by participatory action research, and case study. The collaboration and shared expertise of the users (teachers) and the designers (researchers) have been critical. In this respect, different stakeholders participated in the design and piloting, in particular **teachers, schools and researchers**, but also business representatives participated in the steering group of the project with a minor role. The work on the tool is continuous, improving and adapting the tool to different education levels and geographical scopes. With its expertise and knowledge the LUT contributes to variety of other initiatives.

The LUT tool initial construct: action research methods - participatory action research and case study⁹³

The follow table shows the key elements scoping the LUT measurement tool development, such as theoretical background (research) on entrepreneurship and entrepreneurship education, importance of teachers and meaningful teaching, as well as the initial scope of primary and secondary settings, finish context (in 2008) and the type of tool (assessment tool).

⁹² Measurement Tool for Enterprise Education (n.d.-b). TES.web.

⁹³ Ruskovaara, E. (2014). Entrepreneurship Education in basic and upper secondary education - measurement and empirical evidence. [PhD dissertation], ISBN 978-952-265-656-8, ISBN 978-952-265-657-5 (PDF), ISSN-L 1456-4491, ISSN 1456-4491;

Ruskovaara, E., Pihkala, T., Seikkula-Leino, J. and Rytkölä, T. (2015). Creating a measurement tool for entrepreneurship education: a participatory development approach. Chapter 2, Developing, Shaping and Growing Entrepreneurship. Edward Elgar Publishing, Edited by Fayolle, A., Kyrö, P. And Liñán, F. pp.40-59. DOI: 10.4337/9781784713584

Table 4: The conceptual and theoretical framework for the formation of the Measurement Tool for Entrepreneurship Education

Meaningful education and teaching (based on socio-constructivist and sociocultural educational concepts)	The teacher as an implementer of education and teaching	Entrepreneurship education: what is it and what should it be?
<p>Novak & Govin (1984): “meaningful learning”</p> <ul style="list-style-type: none"> • Goals • Contents • Work methods • Learning environment • Business culture • Assessment • Goals <p>Additionally Kolb (1984): experimental learning</p>	<p>Curriculum research that presents the teacher as a learner Shulman & Shulman (2004): emphasis on teachers’ self-reflection</p>	<p><u>Entrepreneurship education:</u> Gibb (2002; 2005): learning through/for/about entrepreneurship Hytty (2002): learning to understand entrepreneurship, learning to become entrepreneurial, learning to become an entrepreneur Kyrö (1997): self-oriented, internal, and external entrepreneurship Borba (1989): internal entrepreneurship</p> <p><u>Entrepreneurship:</u> Drucker (1985): bearing uncertainty Schumpeter (1934): making new combinations Kirzner (1973), and Shane and Venkataraman (2000): exploring opportunities Pinchot (1985), and Gartner (1988): emergence and creation of organization Johannisson and Nilsson (1989): community and social entrepreneurship</p>
<p>Management systems (political and administrative documents: EU, Finland, curricula)</p>		
<p>→ Primary and secondary education perspectives</p>		
<p>→ Assessment system, in this case, the development of the measurement tool</p>		

Source: Ruskovaara et al. (2015)

The theoretical level was explored on the basis of pedagogical concepts highlighting the importance of teachers in education incl. the principle of self-evaluation in teaching. Further, the construct used the five theories of entrepreneurship, as well as the concepts of ‘internal entrepreneurship’ dealing with entrepreneurial and enterprising behaviour – ‘intrapreneurship’ -, and ‘external entrepreneurship’, which is about doing business.⁹⁴

At empirical level a testing phase elaborated entrepreneurial practices and teaching methods of 30 teachers (trial group). Through an e-mail based survey, information was gathered on the goals, implementation, and results of entrepreneurship education as well as the position entrepreneurship education had in curricula and strategies. Additional insight was gathered from meetings between

⁹⁴ Ristimäki (2004) used by Ruskovaara et al. (2015).

researchers and teachers, a brainstorming session, individual essay writing or collaborative group work. Teachers participated in formulating assessment question. Prior to the first tool version development, the research focused on answering the following questions⁹⁵:

- 1) How do teachers understand entrepreneurship education?
- 2) How do they realise entrepreneurship education in practice?
- 3) How do teachers reflect on entrepreneurship education?

The mix of theoretical and empirical level allowed comparing theories, paradigm, research and practice. The trial results compared with the theory (see Table 4) suggested, that “... *entrepreneurship education was understood as being comprised of internal and external entrepreneurship, entrepreneurialism and learner-oriented operation were understood as comprising the content and method of teaching*”. (Source: Ruskovaara et al., 2011b)

The LUT self-assessment questionnaire, different profiles and a feedback⁹⁶

The LUT assessment questionnaire focuses on **teaching contents, methods and operations modes** and has been developed around seven selected theoretical topics (a) Entrepreneurship education actions; (b) Methods, work habits, other pedagogical solutions; (c) Network cooperation; (d) Learning environment; (e) Activity culture; (f) Strategies, curricula and (g) Taking entrepreneurship education into practice. Initially, 100-140 items were constructed, including background information on the teachers. The questions within the topics were formulated based on both, entrepreneurship theories and approved by the test and outcomes of the trial (by work of the trial teachers and researchers).The Questionnaire was tested in several rounds through feedback from teachers and statistical validation between 2008 and 2011.

<p>a. Entrepreneurship education actions</p> <p>“During the last six months, how many times have you ...”</p> <p>e.g.</p> <p>Q15: enabled entrepreneurship essays, interviews, mathematical problems etc.; Q 17: used entrepreneurship stories as teaching material; Q 18: used materials about entrepreneurship as supplementary teaching material; Q19: used entrepreneurship games; Q20: taken part (with the student) in an entrepreneurial competition; Q 21: promoted local entrepreneurship in teaching; Q22: used entrepreneurs in teaching; Q23: had study visits to companies; Q24: organized a visit by a company representative; Q25: guided students to utilize various specialists ; Q26: discussed (with students) about entrepreneurship connected to the subject you teach; Q30: guided students on how to manage their money; Q31: organized a voluntary work project with students; Q34: guided (or taken part in) a project where students have created an exhibition, newspaper, book, video etc.; Q35: enabled an entrepreneurship project; Q40: organized an entity connected with entrepreneurship</p>

Source: Ruskovaara et al (2015)

The next step was to develop different user profiles (specific questions clarified for specific user groups) as well as to develop the response texts according to the user profiles. As such, the tool differs between teachers and principals, but also between different school levels (e.g. primary versus VET teachers) in terms of wording of questions, text in the feedback and/or emphasis to the certain aspects. For instance, ‘organizing entrepreneurship course’ makes part of the VET profile while this aspect is not applicable to primary schools.

⁹⁵ Ruskovaara et al. (2015).

⁹⁶ Ruskovaara (2014), Ruskovaara et al. (2015).

Pilot results⁹⁷

At the beginning of the tool development (from 2008), the entrepreneurship education in primary and secondary schools seemed to be difficult to grasp. As shown by the pilot results, the assessment was considered challenging. Analyzing the data using Shulman's & Shulman's (2004) model of teacher self-reflection, Ruskovaara et al. (2015) discovered that, despite the teachers' motivation to develop entrepreneurship education, they lacked a clear vision and understanding of it. *"If these components of the teacher's actions are missing, the model does not work in all directions, nor can the self-reflection necessary for the development of teaching be achieved."* (source: Ruskovaara et al, 2015)

Thus, the teachers need to understand basic concepts and terminology to reflect upon. For this reason, the teachers' involvement in the tool development was very important in order to use a commonly understandable terminology (wording, scaling etc). Second important aspect of the tool development was to have an initial picture on what is actually happening in finish schools, which teaching methods are used etc. (see Chapter 4.1)

The findings of the piloting initial stage⁹⁸ of the LUT MTEE are the following⁹⁹:

- Basic and upper secondary level teachers' understanding of entrepreneurship education is rather limited, and internal entrepreneurship seems to be considered as the main goal of entrepreneurship education.
- Entrepreneurship education do not seem to be an integral part of everyday work at school, but rather implemented through separate projects and theme days
- Teachers have a great variety of aims and practices related to entrepreneurship education. Interestingly, the teachers answered about the aims for students, not for themselves.
- Teachers' reflection on entrepreneurship education seems also to be limited, which may be based on the above mentioned lack of in-depth understanding of entrepreneurship education.
- There seems to be no clearly visible links between the objectives, practices and the results of entrepreneurship education. Interestingly, many teachers commented on how difficult they felt it was to evaluate or measure the success of entrepreneurship education.

The findings show the important role of teachers' development and reflection processes, and highlight how an evaluation system should be structured as something that improves teachers' reflection. The study summarises the findings into two aspects. First, there is a need for the development of teachers' learning in terms of their reflection and the development of practical tools for self-reflection; and second, the objectives and results of entrepreneurship education need to be connected (source: Ruskovaara, 2014).

3.4 Teaching and Learning of entrepreneurship competence in diverse settings (implementation phase)

3.4.1 Teaching methods and channels - pedagogical approach

The LUT tool is applied on "usual" teachers' and schools' activities, with the aim to enhance them in line with principles of enterprise and entrepreneurship education. The LUT tool emphasize those teaching methods characterized by the following: the teacher as instructor and facilitator, Learning by doing, **Student-centred approach**, Utilising the learners' skills and strengths, Co-operative

⁹⁷ Ruskovaara (2014), Ruskovaara et al (2015).

⁹⁸ Note: Piloting phase, here, refers to the pilot carried out in Finland during 2008-2011.

⁹⁹ Ruskovaara (2014), p.85-86.

methods, Utilisation of real-life situations, Working-life projects, Optional courses, and club activities. The following table shows which teaching methods are incorporated in the LUT MTEE¹⁰⁰.

Table 5: LUT MTEE - teaching approach and methods

Teaching methods			
<i>Addressed by LUT MTEE</i>			
Collaborative learning		X	
Competitive learning		✓	
Learning-by-doing / Project-based learning / Problem-based learning / Challenge-based learning		X	
Curiosity-based learning / inquiry based learning		X	
New approaches allowing learning from failure / learning in ambiguous environment			
Self-reflection/Self-evaluation			
Technology-based learning / Blended learning			
<i>More specifically:</i>			
Lecturer (interactive, flipped)	✓	Simulations and business games	☒
Writing articles and essays	X	Student companies / mini-companies	☒
Brainstorming	X	Guest speakers / external visitors / role models	☒
Group Discussions / Debate	X	Company visits / community visits	☒
Role Play		Work placements	
Case studies	X	Mentoring schemes / tutoring	
Peer group presentations / peer editing/ peer review	X	Workshops, seminars and training	
Project work and group work	X	Fairs/events/bring-and-buy	☒

Source: Prepared by CARSA; 'X' stands for the key teaching method and is usually limited to three options while '✓' marks additional/complementary teaching methods. 'ICT' indicates (ICT) where it constructs a major part.

NOTE: The tool is addressed to teachers and incorporates questions on a wide range of methods without prioritizing them. In this table, those methods used more often (X) or less often (☒) are indicated, as shown by the tool findings in 2011, presented in Ruskovaara et al. (2011a) and GHK (2012).

The tool is applied on face-to-face teaching activities mainly, within curricular and extra-curricular activities.

¹⁰⁰ Measurement Tool for Enterprise Education <Measure and Develop> (2013). Lappeenranta University of Technology. [Questionnaire, English longer version]. downloaded 8.11.2013. [not publically available].

As mentioned earlier, the existing teaching methods have been analysed when developing the tool. Through trials, testing and further implementation of the tool, it has been shown that a large number of methods are applied to entrepreneurship education¹⁰¹, thus, variety of teaching methods is not a problem in Finnish schools. Most often **discussions** are used, which prove to be an easy solution for teachers to introduce entrepreneurship education regularly in their teaching practices. Facilitating student projects in schools, working in pairs, group work, cooperative methods, **learning by doing** and the use of **real world simulation** and **creative problem solving techniques**, these all are among the rather frequently used methods. About half of the teachers use study visits but only very few have organized a company visitor to school. Games and competitions are also used very seldom. In line, quite many of the frequently used methods take place in classrooms, whereas only few outside (see Table 6). In the pilot phase, the teachers also highlighted importance of cooperation between schools and businesses.

Based on various feedback provided by teachers and analysed by the LUT¹⁰², it seems that **enlarging the teaching environment remains** an important task for the near future. Teachers should be encouraged to open their teaching to other outside the classroom environment, to work with external stakeholders and network systematically. Also, learning games have significant potential to enrich the learning experience. Furthermore, analysis showed that **more holistic approach** is necessary, integrating the entrepreneurship education more systematically, in everyday teaching and into the activities within the school community. So far, it is realized through various projects and separate events. As suggested by interview, teaching teams, e.g. math teacher and sport teacher work together around one single project - may bring novel ideas for students.

Another remark has been expressed that the teaching approaches are mainly chosen by the teachers where the active role of students does not start in the early steps of learning processes.

As expressed by interviewee, competences rather less addressed by teaching methods are failure, risk or creativity.

¹⁰¹ Ruskovaara (2014).

¹⁰² The LUT analysis is summarized in Ruskovaara et al. (2011a) and GHK (2012). Interviewee provided with additional insights and suggestions.

Table 6: Working methods of entrepreneurship education used by Finish teachers

Table 2.4 Working methods of entrepreneurship education used by Finnish teachers

	Frequently used methods	Seldom used methods
Classroom activities	<ul style="list-style-type: none">▪ Talks/discussion on entrepreneurship, economic news▪ Entrepreneurship stories as teaching material▪ Guided students on how to manage their money▪ Students writing articles/essays about entrepreneurship	<ul style="list-style-type: none">▪ Helped students draw business plans▪ Presentation related to entrepreneurship▪ Organisation of an entrepreneurship course▪ Use of entrepreneurship games
Outside the classroom activities	<ul style="list-style-type: none">▪ Facilitated students' projects (party, other events)▪ Guided (took part) in a project where students have created a play, exhibition, newspaper, book, etc.	<ul style="list-style-type: none">▪ Organised a visit from a company▪ Enabled an entrepreneurship project▪ Enabled a product development process▪ Organised study visits to companies▪ Enabled students to organise a bring-and-buy sale▪ Enabled students to create their own company▪ Enabled students to create marketing/other material for companies

Source: Ruskovaara, E., Pihkala, T., Rytkölä, T. & Seikkula-Leino, J.

Source: GHK (2012)

Looking at the links between different methods used by teachers, four groups have been established through factor analysis¹⁰³:

- 1) Leading discussions about economics and entrepreneurship as well as the role of different players in the society,
- 2) Business-life related activities, like study visits and projects organized by students,
- 3) Guiding students financing matters, and
- 4) Using games and taking part in competitions connected to entrepreneurship.

It has been pointed out during the interview that a variety of different methods, such as enquiry-based learning, team work, projects and other learning-by-doing, if used in a correct way, they all can be effective to learn entrepreneurship competences.

Also, the older the students-are the more the teaching and learning can be connected to real-life enterprises.

Role of information and communication technologies in teaching and learning

In Finnish teaching practices, ICT is used as an enforcing element. For certain learning activities, it represents an integral part and useful tool to work with students, e.g. web-based games. To enrich the teaching content, multimedia and digital content, e.g. videos and entrepreneur stories on YouTube, are those used often.

3.4.2 Teachers training: teaching guidelines and train-the-educator

As mentioned in Ruskovaara (2014), the pilot results suggests that “...a student-centred approach has gained ground in Finnish teaching practice while it may be time to highlight the central role of

¹⁰³ Ruskovaara et al. (2011a).

teachers as a key factor, as implementer and promoter of entrepreneurship education, and therefore the teachers' role needs to be "rediscovered"." (page 86)

The LUT Measurement Tool has its important role in teachers' training either in their continuous professional development or as their initial training. With the LUT Measurement Tool for Entrepreneurship Education, teachers may evaluate their teaching performance, receive systematic feedback, and further develop practices related to entrepreneurship education.

LUT MTEE as a tool for Teacher continuous professional development

Teachers are the central actors of the initiative, facilitating the entrepreneurial learning experience of pupils and enabling improvements in entrepreneurship education overall.

Their continuous development in the areas of teaching contents, methods and operation modes constitutes the key element of the LUT measurement tool. When using the tool - self-assessing online questionnaire -, teachers receive feedback on their understanding of entrepreneurship and their current practices, as well as they obtain useful advice on where and how to improve their teaching performance. As such, the tool may be seen as a way in which teachers self-reflect and are virtually mentored by the tool's feedback in form of comparison with average and suggestions on where to improve and how (for more information about the feedback, see Chapter 3.5.2)

Among the teachers implementing the tool are those who participated in the trial group - primary and secondary teachers, including vocational education teachers from different parts of Finland. A group of these teachers provide additional comments on the usability and practicality of the tool. One of the findings shows that the tool's feedback to the teachers is quite easily translatable into the action through the tool's suggestions including external links.

The self-assessment tool is also designed for principals as a mean to test their understanding of entrepreneurship. The principles' interest lies in the aspect of how entrepreneurship education as a part of the Finnish curricula can be assessed, in particular regarding the crucial role played by educators. The tool provides feedback with grades and text responses adapted to each of the user groups - teachers and principals.

LUT MTEE related manual

As part of the tool, a manual is furnished to the teachers. This manual provide with information on:

- How to use the tool and why to use it.
- What is entrepreneurship education and why it is important for teachers and students.
- Definitions and explanation to the key concepts
- Training material

The manual has a significant potential when used as basis for discussions between teacher and principal. In particular, it may help with planning about how and where to develop professionally in the upcoming year(s), thus assisting with the teacher's continuous professional development.

LUT MTEE as a tool for initial teacher training

Since 2012, the LUT MTEE has its place also in the initial teacher training. The tool has been piloted among 400 student teachers in Finland and, since 2014 the tool is in its first year of implementation.

3.5 Assessment and Impacts

3.5.1 Strategy for assessment of entrepreneurship competence

The strategy on how to assess entrepreneurship competences gained by students is not in the core of the LUT MTEE.

3.5.2 Strategy for teachers' assessment

The following table presents key assessment strategy of the LUT MTEE when targeting teachers and school principals.

Table 7: Teachers' assessment methods – LUT MTEE

Assessment method:	LUT-MTEE
Essay	
Written Exam (written test, questionnaire based)	
Oral exam	
Self-evaluation / self-reflection	X (ICT)
Peer-evaluation (in-class) / group evaluation	
External review / Feedback from external stakeholders (including users side)	✓(ICT)
Project work (incl. simulation project work, or work on a real business idea) / assigned task achievement	
Presentation / pitches	
Event (e.g. faire exhibition)	
Minimum presence/attendance and activity in the class	
Application / project or business plan	

Source: Prepared by CARSA; 'X' stands for the key assessment methods and is usually limited to three options while '✓' marks additional/complementary assessment methods. 'ICT' indicates where it constructs a major part.

The self-assessment of teachers' understanding, modes of operation and teaching methods are the core of the initiative. The assessment process is implemented through web-based questionnaire (see questionnaire in Chapter 3.2.2). Moreover, **the teacher's self-reflection** has been the key element when constructing the tool. The self-reflection is taken as an assessment method but also a way how teachers develop their competences (see Chapter 3.4.2). The tool is available in three languages – Finnish, English and Swedish – but it will be also translated to other languages under 'The Entrepreneurial School' project¹⁰⁴.

Users register online and fill in the questionnaire, thus self-reflect upon their situation. Based on the completed questionnaire, a feedback on teachers' performance is sent by email, addressing the following themes (see Figure 12) and including tips for further development and links to additional material.

¹⁰⁴ The Entrepreneurial School (TES) [general website]. Available at: <http://theentrepreneurialschool.eu>

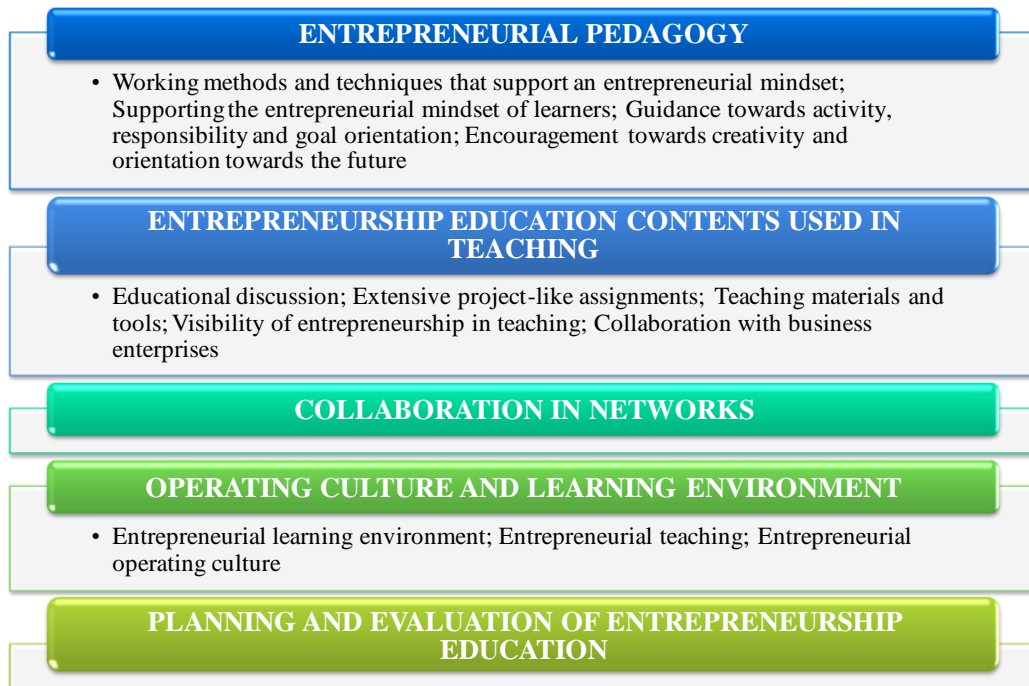


Figure 12: Areas of entrepreneurship education addressed by LUT MTEE (questions and feedback)

The purpose of the Measurement Tool is to give the user an instant assessment of the responses, which are constructed of four different alternative (evaluative) score: *developing, average, above average, and excellent*. The grades are accompanied by response text assessing the teachers' practices and providing with tips on how to improve.

This response text differs according to the different user profiles: *primary education, secondary education, VET and principals*. Some questions are not applicable to all the questionnaire profiles; but also, some aspects of entrepreneurship education have more importance for some users than others.

The assessment outcome provided to the teachers (users) by email has form of:

- numerical comparison, average comparison, diagrams, pie charts, etc.
- text sections encouraging and supportive of progress, contain various links to resources for developing know-how

The LUT tool, therefore, assesses the teacher's practices and provides with score and verbal feedback, which is shown in form of charts comparing teachers' capacities and capabilities in different dimensions to the average, while suggesting areas for further improvements with relevant teaching material and websites.

The self-assessment is most effective when performed every 6 months. The educators can keep track of his/her track record, thus, the tool allows teachers to monitor their progress against previously executed self-assessments. The self-assessment by individual teachers may happen any time. The online tool is always available to be used by teachers. The averages and some other variables are checked and updated in regular intervals which feed into new feedback generation.

As such, the self-reflection component at individual teacher level is complemented by **external review** carried out by researchers at global level.

3.5.3 Impact, evaluation and monitoring

The LUT MTEE evaluation and monitoring strategy is continuous and integrated in the tool functioning. Being based on an online self-assessment questionnaire, all responses are collected and stored in a database maintained by the LUT. The database and gathered data are carefully checked on monthly basis, while averages and benchmark scores, provided to teachers together with textual feedback, are updated every half a year.

The LUT measurement tool has been evaluated in the course of its development, as well as implementation. Firstly, the pilot in between years 2008-2009 provided important feedback to the tool's construction and finalization (see Chapter 3.3.3) looking at both, the existing teaching practices and understanding of entrepreneurship education. Second, a complementary initiative is running in parallel where validation group of selected 70-80 teachers provides a regular feedback on the LUT MTEE, its usability and practicality. Initially, lower scores showed that teachers had not known what to do and how to approach entrepreneurship education. Following the tips and feedback received from the tool, teachers learnt how to integrate more entrepreneurial teaching in their practice. This has been validated by the group reporting about fruitfulness of the tool.

Hence, **the tool positively influences the quality of teaching practices towards entrepreneurial learning.**

Overall, it has been shown that entrepreneurial way of doing things is well understood by teachers while 'entrepreneurship' as such is a distant term at primary level.

In general, the data collected by the tool are used for research and the database will have even greater potential when the users reach critical mass, in particular the tool will be able to produce **statistics for entrepreneurship education in certain region, country or across education subjects and contribute to the evidence based policy making.** Especially, the tool may potentially provide a feedback regarding the realization of the education policy goals in practice. This critical mass has been reached in certain regions where regional authorities collaborate closely with the LUT, impose the use of the tool, and in exchange, use the findings for their regional policy decisions.

In line, eight Finnish regions with strategy for entrepreneurship education use the tool to evaluate how the strategies are embedded and how they should be further developed. In the strategy process the tool has showed to be of great value, and some regions have guided their entrepreneurship education actions and resources based on the MTEE findings.

With its database, the tool has potential for research community and may produce **potential scientific impact on further research in entrepreneurship education.**

In long term, the LUT MTEE evaluation strategy includes;

- teachers who often use the tool, between 2009-2015;
- validation group of 70-80 teachers continuing to provide regular feedback on the practicalities and usability of the tool;
- meeting with teachers in order to obtain detailed insights into the usefulness and actual use of the tool.

3.5.4 Example of show cases

The LUT Measurement Tools for teachers and initial teacher training have been named as best practices by the Nordic Council of Ministers (2012), by Nordic Innovation (2013) and by the European Commission (2013).

3.6 Sustainability and transferability

3.6.1 Sustainable business and financial model

The LUT Measurement Tool is based on a mixed public private financing model. The project has been funded by European Social Fund, the Finnish National Board of Education, and private funding has been granted by Yksityisyrittäjien Säätiö (foundation for entrepreneurship). Different municipalities, regions and schools contribute to the implementation. Its further development under 'The Entrepreneurial School' is granted by European funds (namely Competitiveness and Innovation Programme (CIP)¹⁰⁵). In Finland, different local and regional level authorities contributed on behalf of European Social Fund. Around 11 Finnish municipalities took part in different development stages.

In total, the Finnish tool version cost around 1mil Euros with additional 500.000 Euros for further development under other projects. The entire 'LUT MTEE family', including its application in primary, secondary, VET schools, tertiary level at Universities of Applied Science and initial teacher training amounted to around 2 million Euros. Further funding maybe needed for different language versions.

The LUT contributes continuously to the database maintenance and further supports the team responsible for the tool.

As such, it is provided free of charge for Finnish teachers.

3.6.2 Key sustainable aspects

The success shown so far enforced by continuous effort of research team and additional support by the LUT (e.g. database maintenance), attracted interest from other initiatives under which the tool is being further developed.

When developing the tool, the participatory research method and the use of trial group highly contributed to the tools usefulness and as such, to the tool's uptake by teachers. This has been further reinforced by successful collaboration with several Finnish regions. It has been said that in Finland, the tool reached certain initial critical mass.

Hence, the key to the initiative's sustainability is **the wide applicability of the tool** (see potential transferability in Chapter 6.3) **and potential use of its growing database**.

Furthermore, the LUT MTEE initiator plans to organise teachers' awards in order to enhance motivation of teachers to use the tool and thus, to reach the critical mass of users.

3.6.3 Potential transferability

The initiative has high transferability factor. Already in the initial implementation stage, different options to transfer the tool have been considered, incl. further national and international expansion. Throughout this process LUT hoped to be able to further develop and improve its measurement tool.

In Finland, the tool has proved its potential to be transferred from the continuous professional development to the initiation teacher training, as well as among primary, secondary and VET schools. In 2014, a self-evaluation tool for Finnish teachers working at universities of applied sciences has been prepared.

The tool's successful incorporation into the TES project¹⁰⁶, under which it has been validated within national contexts of eight countries, demonstrates tool's transferability geographically. Moreover,

¹⁰⁵ Competitiveness and Innovation Framework Programme (CIP) – European Commission (website). Available at: <http://ec.europa.eu/cip>

¹⁰⁶ The Entrepreneurial School (TES) [general website]. Available at: <http://theentrepreneurialschool.eu>

4.000 European teachers have been trained on how to use the TES guide; during which they have obtained information about the LUT tool.

Further, the tool is applicable to all subjects, approaching entrepreneurship education from multidisciplinary and cross-curricular perspective.

As shown, the LUT tool develops by interacting and creating synergies with other initiatives, thus enlarging its transferability potential to different areas and levels. For instance, the tool may serve to assess effectiveness of teacher training programmes'. Yet this use of the tool is in development stage.

3.7 Key lessons and observations

The LUT MTEE is built around the following factors having an important share in the initiative's success.

The tool must be understandable – terminology and language

The teachers' involvement in the tool development was critical in order to understand how to ask about different aspects related to entrepreneurship education so that these are understood by all teachers. Understanding of the research and entrepreneurship terminology by teachers is not the same across all education levels. This insight resulted in different wording and scaling depending on the users' school level (e.g. VET vs. primary school teacher).

The implementation across several countries confirmed that such tool needs to be adapted to national context and validated by national stakeholders. Additionally, when using the tool by teachers in different countries, the language proved to be important. For example, Slovakian, Spanish, Portuguese or Italian teachers are not well familiar with English.

The questionnaire should be short, but comprehensive

The work on the Finnish version started with higher number of indicators, statements and questions adapting and reducing it to the length determined by 15 minutes, time to fill-in. The English version of the questionnaire takes around 5 minutes being short but enough to capture what is happening in entrepreneurship education in Europe.

Collaboration with regional authorities helps reaching critical mass of users (teachers)

In Finland, the LUT collaborated with several regions which have entrepreneurship education strategy at place. This collaboration helped diffusing the tool and reaching the critical mass of users so that the tool's potential could be exploited at systemic level.

3.7.1 Other remarks

Potential usefulness of the tool is wide

In summary, the tool's purpose and potential impacts are determined by its use at:

- Individual level; the tool is used by teachers for their individual professional development, allowing them to change their practices in line with principles of entrepreneurship education
- Organisational level: the tool provides principles with an insight about the entrepreneurship education practices at their school, as well as about the need for continuous professional development of teaching staff.
- Intermediary level: besides integrating the tool as a component of teacher training activity, the tool may provide a way how to assess effectiveness of teacher training programmes (e.g. comparing the data before and after the training course).
- Systemic (regional) level: the tool gives an insight into how the entrepreneurship policy objectives are being achieved, e.g. at schools, in the region, by teaching fields, and thus, it allows to take actions at regional level.

Thus, the tool becomes part of continuous teacher training and initial teacher training, but also, it allows evidence based organisational and policy decision making. Moreover, the LUT MTEE database has large potential for research community.

A holistic approach to entrepreneurship education is needed

It is evident that teachers play a crucial role in facilitating entrepreneurship education. As such, they became crucial for the LUT MTEE. As confirmed by the interview, a holistic approach should be applied to teaching. This includes multidisciplinary, entrepreneurship education across different subjects, but also teachers working together around one project (teacher teams) and teachers networking with external local community. The latter may broaden resource-base for entrepreneurship education. Some stakeholders are available free of charge, easily accessible by teachers yet, they are not fully employed when teaching.

Modern technologies has its place in teaching in primary and secondary schools

Information and communication technologies do not seem to be an ultimate solution. They may become a very useful tool, e.g. for games and simulations, or they may significantly enrich the teaching content, videos, search for information etc.

Understanding of entrepreneurship education by teachers differs

It has been shown that entrepreneurial way of doing things is well understood by teachers while 'entrepreneurship' as such is a distant term for teachers at primary level.

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Interviewed was carried out with Elena Ruskovaara, project manager, LUT

4 Case Study 2: The Entrepreneurial Skills Pass (ESP)

The Entrepreneurial Skills Pass (ESP)¹⁰⁷ is an initiative carried out by Junior Achievement (JA) Europe¹⁰⁸ in cooperation with the Austrian Federal Economic Chamber (WKO)¹⁰⁹, the European Business Network for Corporate Social Responsibility (CSR Europe)¹¹⁰ and Danish Foundation For Entrepreneurship-Young Enterprise (FFE-YE)¹¹¹.

JA Europe is Europe's largest provider of education programmes for entrepreneurship, work readiness and financial literacy, reaching 3.2 million students in 39 countries in 2014. JA Europe is a not-for-profit association registered in Belgium founded in 2001 when Young Enterprise Europe and Junior Achievement International Europe merged. JA Europe is the European Regional Operating Centre for JA Worldwide

JA member organisations offer programmes to primary, secondary and university students aiming at strengthening their financial literacy, their understanding of the business world and overall broadening their horizons regarding entrepreneurship and their role in tomorrow's economy, while teaching them about enterprise, entrepreneurship, business and economics in a practical way¹¹². Funded by businesses, institutions, foundations and individuals, JA Europe and its member organisations bring the public and private sectors together to provide young people in primary, secondary and higher education with high-quality education programmes.

As outlined in one of the latest studies of the European Commission¹¹³, JA Europe approach is based on a progression model where the learning outcomes are spelled out across the curricula and across educational levels. The core programmes of JA member organisations¹¹⁴ are adjusted to each education level, to better serve the needs and goals of each age group. Specific initiatives, such as The Entrepreneurial Skills Pass, take place in Europe and beyond by JA Europe, offering students broader opportunities to develop their skills and understanding¹¹⁵.

JA Europe's strategy is focused on measuring the impact of its programmes. A significant number of relevant studies carried out by JA member organisations provide abundant information on immediate results (e.g. learning outcomes, increased engagement, intention to start a business, etc.), intermediate outcomes (e.g. enhanced employability, better earnings, higher rate of start-up businesses) and global impact of entrepreneurship education (e.g. on economic growth)¹¹⁶.

The most widely known programme run by JA member organisations across Europe is the **Company Programme**¹¹⁷. Recognised by the European Commission Enterprise Directorate General as a 'Best Practice in Entrepreneurship Education', the Company Programme is implemented in

¹⁰⁷ Entrepreneurial skills Pass (ESP). [general website]. Available at: <http://entrepreneurialskillspass.eu>

¹⁰⁸ Junior Achievement Europe (JA Europe). [general website]. Available at: <http://www.jaeurope.org>

¹⁰⁹ Austrian Federal Economic Chamber (WKO). [general website]. Available at: <https://www.wko.at>

¹¹⁰ European Business Network for Corporate Social Responsibility (CSR Europe). [general website]. Available at: www.csreurope.org

¹¹¹ Danish Foundation for Entrepreneurship-Young Enterprise (FFE-YE). [general website]. Available at: <http://eng.ffe-ye.dk>

¹¹² JA Europe factsheet (2014). Available at: http://archive.JA.org/Download/jave/JA_fact_sheet_FINAL.pdf

¹¹³ European Commission (2015). Entrepreneurship Education: A road to success. 13 Case studies. Prepared by GHK. Available at: http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=8056&lang=en

¹¹⁴ JA – Core Programmes (n.d.). Available at: <http://www.jacoreprogrammes.org>

¹¹⁵ "JA Europe has a number of initiatives in 39 countries in Europe and abroad" (n.d.). JA Europe. Available at: <http://JA.org/programmes/european-initiatives>

¹¹⁶ For further information, see European Commission (2015).

¹¹⁷ The Company Program began in the USA in 1919 and took root in the UK in 1963. It then spread across Europe. Today it is a global program running in 123 countries supported through the JA Worldwide network.

cooperation with schools at secondary level education and it provides students with the possibility to be involved in a mini-company experience.

In this context, **the Entrepreneurial Skills Pass (ESP) is an initiative built around the Company Programme**. It aims to give students participating in the Company Programme the possibility to certify the knowledge, competences and skills they acquire during their 1 year mini-company experience at school. A previous international qualification called the YE (Young Enterprise) Exam was certified and administered by Cambridge University from year 2000 until year 2009. Thousands of young people in 12 countries took it in their local language or in English on a fixed day each year. It consisted of a series of questions and a case study related to the Company Program experience. Like the ESP aims to do now, it does not only served as a 'check-up' on students' learning, but also provided an assessment instrument that was trans-national and helped ensure that the experience students were getting with the Company Program was as consistent as possible from country to country. The YE Exam was discontinued more than 5 years ago, hence the initiative to create a new edition called the Entrepreneurial Skills Pass.

4.1 Summary

The Entrepreneurial Skills Pass (ESP)¹¹⁸ is an international qualification certifying that students (15-19 years old/vocational and secondary education level), who have had a real entrepreneurship experience, have gained the necessary knowledge, competences and skills to start a venture of their own or be successfully employed.

ESP consists of three key elements: (a) a practical entrepreneurial experience (1 school year mini-company experience), (b) an assessment of entrepreneurial competences (pre-mid-post self-assessment), (c) an examination of business, economic and financial knowledge (1 hour-online exam).

Only the students fully participating in the three elements of the ESP and correctly answering 70% of the questions of the exam get the final certificate, which is issued at international level by CSR Europe¹¹⁹, EUROCHAMBRES¹²⁰ and JA Europe¹²¹ and its member organisations.

The Entrepreneurial Skills Pass ran as **pilot programme during the school year 2013-2014** with **more than 2,000 students from 16 countries participating. Year 2014-2015 is the first year of full implementation**. Students took the self-assessment at the beginning of the school year. The mid- assessment is planned in March/April 2015. The post assessment and the final exam will be taken in May-June 2015.

With reference to the OvEnt study, the ESP focuses on two key areas: (i.) **learning/teaching through real entrepreneurship experience** i.e. using well established JA Company Programme, and (ii.) **assessing entrepreneurship competences acquired by students** (two components being recently piloted - ESP self-assessment tool and ESP exam).

The ESP addresses a variety of entrepreneurship competences covering all components - **knowledge, skills and attitudes** - and employs wide range of teaching methods, in particular based on **learning by doing and collaborative and competitive learning dynamics**. The

¹¹⁸ Entrepreneurial skills Pass (ESP). [general website]. Available at: <http://entrepreneurialskillspass.eu>

¹¹⁹ European Business Network for Corporate Social Responsibility (CSR Europe). [general website]. Available at: www.csreurope.org

¹²⁰ Eurochambers [general website]. Available at: www.eurochambres.eu

¹²¹ Junior Achievement - Young Enterprise (JA Europe). [general website]. Available at: <http://www.JA.org>

practical learning experience is implemented in various learning settings depending on each country¹²². The key success factors rely on training teachers and involving people from business/industry. **Teachers play an active role** in guiding students through the mini-company experience, supporting and providing feedback about their self-assessment results and preparing them for the final exam. As such, they are supported by trainings and other teachers' material. The **engagement of volunteer mentors from the business sector** plays an important role as well, helping students make the connection between what they are learning and the world outside school. Their role as expert advisor is an excellent complement to the role of the teacher in the classroom. Such face-to-face interaction is a key element while e-mentoring - using online meeting tools - is also popular. Overall, ICT is used as tool to deliver the self-assessment/final exam and, depending on the countries, to enhance students' experience with multiple types of online delivery and content.

Obviously, it is still early to discuss the impact of the ESP. However, the results of the pilot run in 2013-2014 were satisfying. Delivered in English, it revealed a good successful rate, even if some students had problems with financial knowledge - contrary to marketing where the majority achieved superior results. In progress, the self-assessment tool will provide with comparable data on students' self-reflected entrepreneurship competences across Europe¹²³.

The initiative draws upon experience and knowledge of many other national or European initiatives and shows **solid future plans, high levels of sustainability** as well as **high potential to be transferred** to other regions and across educational levels.

The ESP is co-funded by the European Commission (Leonardo da Vinci Programme) as well by private sponsorships and partnerships. The consortium behind the ESP has concentrated on links with Europe-wide networks such as EUROCHAMBRES and CSR Europe to help raise awareness, generate endorsements from the employer community and bring in more private sector engagement on the ground in schools.

Apart from the financial sustainability, JA Europe provides a solid structure enabling the uptake of the ESP across Europe and potentially beyond vocational and secondary education level. Furthermore, alumni and business representatives voluntary involvement and close partnerships at both, national/regional level as well as European level, helps to engage private and public stakeholders and link them with the schools. Other success factors lays in the quality of teaching including teachers' motivation, students' motivation and effective incentivization as well as a proper use of national languages when addressing students at secondary level.

¹²² Depending on the countries, JA Company Programme is implemented as part of the curriculum or as an after-school programme.

¹²³ Self assessment platform (n.d.): Available at: <http://self.entrepreneurialskillspass.eu>

4.1.1 InfoBox

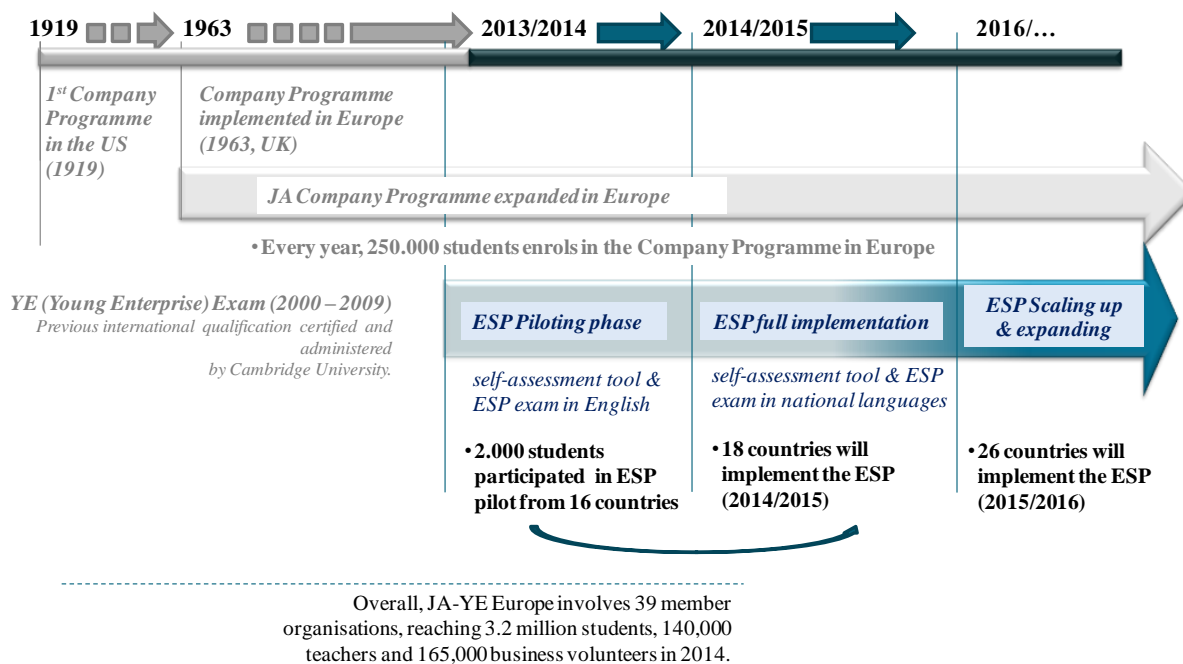
Table 8: Entrepreneurial Skills Pass – InfoBox

Entrepreneurial Skills Pass - InfoBox	
Implementation:	<p>ESP Piloting phase in 2013/2014 school year, its first full implementation in 2014/2015.</p> <p>The ESP is built around well-established Company Programme which takes place over the course of 1 school year.</p>
Focus Area	<p>Learning/teaching entrepreneurship competences (well established).</p> <p>New assessment tools and methods (development).</p>
Targeted education level	(Upper) Secondary education, including VET.
Main target group of the initiative	Learners - Students (age 15-19 years old).
Secondary target group:	<p>Educators: Teachers - Business Representatives.</p> <p>Increasing importance of alumni involvement.</p>
Entrepreneurial competences	<p>Knowledge / Skills / Attitudes.</p> <p>Emphasized need for financial/economic literacy.</p>
Teaching methods	<p>Learning-by-doing (mini-companies), including mentoring from business people/entrepreneurs.</p> <p>Collaborative and competitive learning dynamics.</p> <p>Self-assessment tools.</p>
Learning settings	Vary across countries, mainly curricular but also elective and extra-curricular. Face-to-face teacher-volunteer partnerships in-school and out-of-the-school setting. Variable use of ICT to enhance students' experience.
Assessment Methods	<p>Participation in the Company programme, Self-assessment (pre,mid,post) and Online Questionnaire based exam are the key assessment methods.</p> <p>Linked to the mini-company programme, peer-evaluation, external review, presentations are used.</p> <p>Self-assessment method addresses mainly skills and attitudes; online exam mainly knowledge and skill-based tasks.</p>
Impact area:	Further education, employment/employability, start-up foundation
Output dimensions	<ul style="list-style-type: none"> - 2.000 JA Company Programme students from 16 countries participated in 2013/2014 ESP pilot - Comparable data on students' knowledge and self-assessed competences across Europe <p><i>Target Outcomes under the ESP-EU funded project (2013-2016, focus on VET):</i></p> <ul style="list-style-type: none"> - 5.000 JA Company Programme students who successfully obtain the certificate, - 200 businesses which guarantee youth opportunities, - 200 VET teachers trained,

	- 200 participating VET schools.
Overall impacts	<p>A monitoring and evaluation plan is in place to assess the project as well as the quality of the outputs through a set of both quantitative and qualitative metrics (e.g. n. of students who completed the exam; n. of students who passed the exam compared to the n. of students who took the exam; increase in the n. of students taking the exam compared to the n. of students who completed the Company Programme from project start to project end; n. of students taking the self-assessment; outcomes of the self-assessment; satisfaction of target groups, etc.).</p> <p>In the long run, the impact of JA Company programme will be reinforced by the ESP - by tracking what happens to a certain representative of the ESP holder over 3 years:</p> <ul style="list-style-type: none"> - Improved entrepreneurship competences, - Higher success in career, - Higher likeliness to start own business, - Positive impact on skills development.
Resource dimensions	<p>Total amount from EU (VET focus): 600.000 €.</p> <p>Total budget: 861.885 €.</p>
Business model	<p>EU grant (Leonardo da Vinci programme); national or regional funds; private sponsorships and partnerships; eventual fees and licensing (ESP exam).</p>

4.1.2 Timeline and key milestones

Shown in the figure below, the ESP initiative is currently in its implementation stage expanding in Europe.

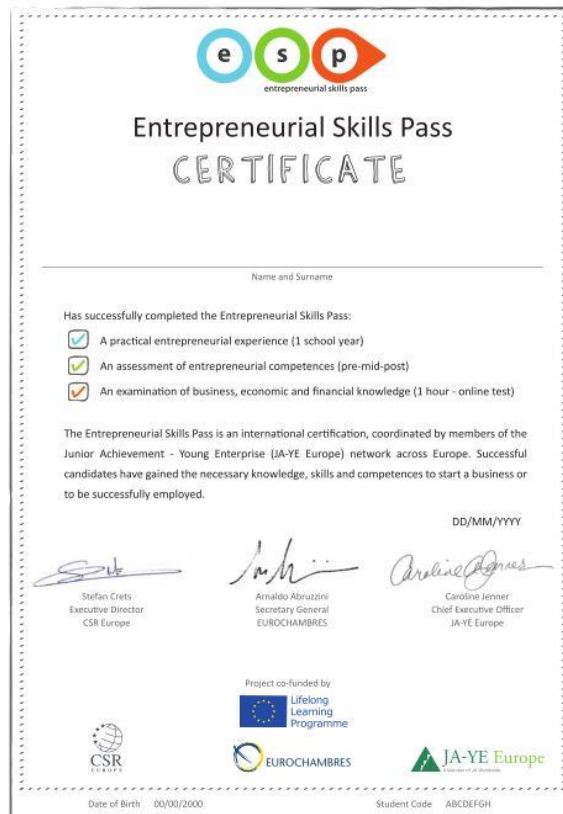


Source: prepared by CARSA

Figure 13: ESP timeline and key milestones

4.2 General characteristics and core activities

The Entrepreneurial Skills Pass (ESP)¹²⁴ is an international qualification certifying that students (15-19 years old/vocational and secondary education level), who have had a real entrepreneurship experience, have gained the necessary knowledge, competences and skills to start a venture of their own or be successfully employed. The certificate is shown below¹²⁵.



Source: "Call for Action for ESP" (2014)

Figure 14: ESP certificate

4.2.1 Objectives

Overall, the ESP's objectives can be defined as **further education**, **employment** and **start-ups**. More specifically, the main objectives of the ESP are:

Regarding students:

- To **provide as many young people as possible with the opportunity to have a practical entrepreneurial experience** before they leave secondary school.
- To **certify the business, economic and financial knowledge** as well as the **skills and competences students gain through the mini-company experience** (Company Programme).

¹²⁴ ESP [general website]. Available at: <http://entrepreneurialskillspass.eu>

¹²⁵ "Call for Action for ESP" (2014). [news online]. CSR Europe. November 12, 2014. Available at: <http://www.csreurope.org/call-action-esp#.VLZHpyG3uac>

- To provide an **internationally recognised qualification** able to improve students' job prospects and act as more comprehensive proof of the skills and competences employers are looking for.

Regarding teachers:

- To help teachers to **improve their teaching methods and become more entrepreneurial educators**.
- To **create a direct link between the entrepreneurial experience and the exam**, focused on skill-based tasks with an emphasis upon applied understanding and practical scenarios rather than solely assessing knowledge and factual recall.
- To **train and certify more teachers – especially in vocational schools** - to use the tools that lead to the certification.

Regarding business organisations (employers):

- To **engage and involve business and industry** by having them participate in entrepreneurship education activities in schools, as well as endorse the certificate by offering further opportunities for successful candidates.
- To **help employers meet their requirements for qualified and committed graduates** with entrepreneurial experience and basic business skills.

4.2.2 Core Activities and entrepreneurship competence dimension

The Entrepreneurial Skills Pass (ESP) consists of the following 3 core activities/components:

Table 9: ESP case study core components

<i>Core activities:</i>	<i>Focus area:</i>	<i>Form:</i>	<i>Entrepreneurship competence:</i>
1. JA Company programme	Learning/teaching entrepreneurship competences	Face-to-face with supporting ICT- digital tools	Knowledge / skills / attitudes
2. Self-assessment	Assessing	Online	Skills / attitudes
3. Exam	Assessing	Online	Knowledge / skills

Source: prepared by CARSA for the purpose of OvEnt study.

4.2.2.1 The JA Company Programme

The JA Company Programme targets secondary education students (15-19 years old) applying learning-by-doing approach - a practical entrepreneurial experience where students have to set up and run a “real” mini-company while being at school - and involves teachers and business volunteers in a role of coaches and mentors. JA mini-companies are the most widespread mini-company programme in Europe. It is running in 39 countries. The JA Company Programme embraces all components of entrepreneurship competence - a broad spectrum of knowledge, skills and attitudes.

Table 10: JA Company programme - competences

JA Company programme – competences:	
Knowledge / Experience about¹²⁶	Enterprising skills, attitudes and behaviours¹²⁷
Company structure and roles (**)	Creative thinking and problem solving (*)
Idea generation and business opportunity (**)	Confidence and a can-do attitude (*)
Customer/User Focus (**)	Taking initiative (*)
Marketing Strategies (**)	Teamwork and leadership (*)
Business Plan (**)	Being resourceful (*)
Design and Production (**)	Perseverance, negotiation and decision-making (*)
Sales strategies (**)	Ability to take responsibility and manage risks (*)
Financial literacy (**)	Ability to apply math science, language, writing, technological or specialised skills (**)
Presentation techniques and communication skills (**)	

Source: prepared by CARSA based on available public sources; () indicates the elements tested by the self-assessment tool while (**) indicates those elements tested by the ESP exam*

The Company Programme is based on a clear set of steps and learning outcomes and mainly focused on learning-by-doing methodologies and practical application of students' basic skills. As already mentioned above, teachers' training and the involvement of the business/industry are key factors for its success. Apart from engaging companies' human capital and expertise by coaching and mentoring students at school, the business/industry sector can endorse the ESP by sponsoring students or offering successful candidates further opportunities in terms of further training, work experience or start-up support.

4.2.2.2 The self-assessment tool

The self-assessment tool targets secondary students involved in the entrepreneurial experience (JA Company Programme) reflecting on their own progress in acquiring practically oriented skills and attitudes: **creativity, self-confidence, taking initiative, teamwork, resourcefulness, perseverance, taking responsibility.**

The self-assessment is carried out in the form of a pre, mid, and post self-assessment test¹²⁸. Students must have completed the three questionnaires of the self-assessment in order to qualify for the ESP.

Teachers have been provided with teaching materials to support students' understanding of the concepts behind the self-assessment and their main role in this phase is to provide feedback and discuss the results with each student.

¹²⁶ Info based on: "Entrepreneurship Experience" (n.d.). Entrepreneurial Skills Pass. Available at:

<http://share.jayeapps.com/ESP/components/entrepreneurship-experience>

¹²⁷ Information based on: Company programme, Secondary school (n.d.). JA Europe. [JA Company programme brochure]. Available at <http://archive.JA.org/Download/company-programme.pdf>

¹²⁸ About (n.d.). Self-assessment platform. Available at: <http://self.entrepreneurialskillsPASS.eu/content/about>

4.2.2.3 The exam

The exam, as a final examination, aims at assessing, validating and certifying students' theoretical and factual knowledge as well as their cognitive and practical skills about the most important basic business issues and concepts.

Teachers help students with the preparation for the exam. They have been provided with teaching materials, including a syllabus and glossary covering the topics and the concepts of the exam. Additional (online) courses have been suggested to students as well as teachers by JA Europe after the pilot phase.

Like most international examinations, the exam has a participation fee. Therefore, the exam is not mandatory, but the incentive for students is that it is good proof of the knowledge, skills and competences they have gained through their mini-company experience. It is a strong addition to their CV or online profile, which can set them apart from others when applying for jobs and other opportunities. Employers and organizations endorsing the ESP are offering unique 'further development opportunities' to ESP holders for this reason.

4.2.3 Educational scope and target groups

The ESP is specifically designed for the **secondary education level and vocational schools** and involves all groups, i.e. learners, educators - including business mentors and school governance

Target groups and other groups involved (Learners, Educators, Other):

- Secondary education and VET students (15-19 years old): The main target group are secondary education students in between 15-19 years-old. The students participate in JA Company Programme developing a set of entrepreneurial skills and competences, which they self-assess and ultimately get certified by the ESP exam.
- Secondary education and VET teachers from any subject area: Teachers are considered as one of the key success factors, guiding students through learning process and providing with feedback on their assessment results. The ESP targets teachers with appropriate training and other teaching material aiming at increasing the number of entrepreneurship educators and improve the quality of their entrepreneurial teaching methods.
- Employee volunteers from the business community and entrepreneurs: Involvement of businesses and industry is another key success factor. Businessmen and entrepreneurs act as mentors giving advice to students, take part in national competitions in a role of judge, or provide their production facilities.

Moreover, the ESP involves the following other groups:

- School directors: School governance is involved in order to incentivize them to introduce the ESP in their schools and promote the project to other schools.
- Parents: Parents and family are important when encouraging children to participate in the ESP and contributing to the project's objectives by supporting entrepreneurial activities.
- Ministries and policy makers: Policy makers are targeted to raise awareness on the importance of incorporating entrepreneurship education in school curricula as well as of certifying this kind of entrepreneurial knowledge, skills and competences.

Additionally to the above mentioned target groups and key involved stakeholders, JA Europe and its network plays a crucial role of promoter and facilitator, ensuring the quality of both the learning experience and the assessment/evaluation process.

4.2.4 Geographical scope

The ESP is a **European and international initiative** including several countries (26 so far) that decided to join the pool of organisations following and/or working on the project. When involving countries, the following specific conditions need to be considered:

- **9 countries are part of the ESP under the grant agreement** with the European Commission (DG EAC – Leonardo da Vinci Programme) which focuses on VET schools: Austria, Czech Republic, Denmark, Estonia, Greece, Italy, Romania, Slovakia and Switzerland.
- Together with these 9 countries, **other 7 countries decided** to join the initiative and **to take part in the pilot** that took place in 2013-2014 (Belgium, Bulgaria, Malta, Portugal, Spain, Russia, the UK).
- By the end of the EU grant (2016) the ESP will be running in **other 10 countries** (Albania, Finland, France, Germany, Ireland, Netherlands, Norway, Serbia, Sweden, Turkey).

4.2.5 Links to other initiatives and networks

Regarding the assessment and evaluation components, the ESP combines knowledge and expertise of previously tested and implemented projects and initiatives.

Following an evaluation of a pilot project in Austria dating back to 2010, where students took part in the Company Programme and simultaneously went through online exams of the modular **Entrepreneur's Skills Certificate**¹²⁹, JA Europe and the Austrian Chamber of Commerce (WKO) decided to combine both initiatives and develop the ESP in order to reach the so much needed impact on the development of the entrepreneurial mind-set as well as entrepreneurial competences.

Also the self-assessment comes from a previous experience. The tool was initially developed by Entreprenre Pour Apprendre¹³⁰ (JA France) and then tested in five countries (Estonia, Finland, France, Romania and Slovakia). Within ESP, the self-assessment has been translated in several languages and adapted to the European organisations implementing the Company Programme. An online platform has been set up by JA Europe in order to gather the results¹³¹.

ESP is also part of the **European Business Campaign on Skills for Jobs**¹³², an initiative promoted by CSR Europe and JA Europe convening companies to provide an answer to business risks related to skills and employability such as an ageing workforce, a growing skills gap and stagnating socio-economic development.

Moreover, JA Europe is leading other European initiatives, which are relevant for ESP:

- **The Entrepreneurial School (TES)**¹³³ and **its Virtual Guide**: with more than 125 entrepreneurial tools and methods in several languages, as well as good practice examples and self-assessment tools, the TES Guide¹³⁴ offers material for educators helping them to apply entrepreneurial learning in any subject area and for any age group.

¹²⁹ Entrepreneur's Skills Certificate. [general website]. Available at:

https://www.wko.at/Content.Node/kampagnen/ufs_en/index.en.html

¹³⁰ Entreprenre Pour Apprendre. [general website]. Available at: <http://www.entreprenre-pour-apprendre.fr>

¹³¹ "The self-assessment in a few words..." (n.d.). Entrepreneurial Skills Pass. Available at:

<http://share.javeapps.com/ESP/components/entrepreneurship-experience/self-assessment>

¹³² Skills for jobs (n.d.). CSR Europe. Available at: <http://www.csreurope.org/skills-jobs>

Entrepreneurship for Job Creation (n.d.). CSR Europe. Available at: <http://www.csreurope.org/skills-jobs/entrepreneurship-job-creation#.VTtyTOb3Oac>

¹³³ TES [project website]. Available at: <http://theentrepreneurialschool.eu>

¹³⁴ TES Guide. [project website]. Available at: www.tesguide.eu

- **ASTEER project**¹³⁵ (**Assessment Tools and Indicators for Entrepreneurship Education**) for assessment approach overall: ASTEE offers a set of tools for measuring the impact of Entrepreneurship Education (EE) on students' entrepreneurial competences across all educational levels.

Finally, JA Europe is leading the recently awarded project **Innovation Cluster for Entrepreneurship Education (ICEE)**¹³⁶, in collaboration with five Ministries of Education (Estonia, Finland, Flanders, Italy, Latvia), three research institutes (Eastern Norway Research Institute, The Foundation for Entrepreneurship – Young Enterprise Denmark, Josip Juraj Strossmayer University in Croatia), and five national JA organizations (in Belgium, Estonia, Finland, Italy, and Latvia). The project will study the impact of entrepreneurship education at 50% penetration by carrying out a 27-month field trial (2 school years) using mini-companies in 20 schools (academic as well as VET schools) across 5 countries. The research will involve quantitative and qualitative methods and aim to analyse learning outcomes, drivers and hindrances as well as community effects. Moreover, the in-depth analysis of national strategies, content and tools, teachers training and assessment will provide valuable input to a “progression model” explaining how entrepreneurship education can flow from primary to upper secondary level. The project started on 1st February 2015 and the final results will be available by January 2018.

Another important initiative worth mentioning is the **European Entrepreneurship Education NETWORK (EE.HUB)**¹³⁷ – a new multi-stakeholder initiative that aims to promote entrepreneurship education and make policy recommendations that can be put into effect by national school systems. The network is organised by JA Europe, EUROCHAMBRES¹³⁸, The South East European Centre for Entrepreneurial Learning (SEECEL)¹³⁹, and European Providers of Vocational Education and Training (EUproVET)¹⁴⁰. It consists of 47 expert advisors from across Europe that will seek to be an advisory body to ministries, politicians and EU institutions. The objective is to develop a pan-European entrepreneurship education “hub” bringing together existing European and national expertise, in line with proposals included in the Entrepreneurship 2020 Action Plan. The activity will have a strong focus on stimulating further developments and progress in broadening the spread and impact of entrepreneurship education across Europe, based on learning from existing best practices and on sharing information – 85 outreach activities are planned to take place in the first 3 years¹⁴¹.

¹³⁵ Assessment Tools and Indicators for Entrepreneurship Education (ASTEER). [project website]. Available at: www.asteeproject.eu

¹³⁶ “JA Europe and 5 countries embark on impact research to mobilize entrepreneurship education in schools” (2015). JA Europe. [press release]. Brussels, 26 January 2015. Available at: <http://JA.org/-/JA-europe-and-5-countries-embark-on-impact-research-to-mobilize-entrepreneurship-education-in-schools-2455>

¹³⁷ “European expert NETWORK established to increase uptake of entrepreneurship education in Europe” (2015). JA Europe. [EE.HUB press release]. Brussels, 11 March 2015. Available at: <http://JA.org/-/european-expert-network-established-to-increase-uptake-of-entrepreneurship-education-in-europe-2581>

¹³⁸ Eurochambers [general website]. Available at: www.eurochambres.eu

¹³⁹ South East European Centre for Entrepreneurial Learning (SEECEL). [general website]. Available at: www.seecel.hr

¹⁴⁰ European Providers of Vocational Education and Training (EUproVET). [general website]. Available at: <http://www.euprovet.eu>

¹⁴¹ The project is co-funded by the European Commission, Executive Agency for Small and Medium-sized Enterprises (EASME) under the COSME Programme -HUB.EU)

4.3 Entrepreneurship competence concept translated into the learning objectives and practical courses (setting-up phase)

4.3.1.1 Learning objectives

Learning objectives incorporated in the ESP are drawn from the experience of JA Europe and the JA Company programme, and they are defined alongside the programme's topics:

Table 11: JA Company programme learning objectives

Topic:	Key learning objectives ¹⁴² : <i>The students will be able to:</i>
Organising JA Company	<ul style="list-style-type: none"> - summarise the responsibilities of the jobs and describe leadership opportunities within the JA Company Programme, - evaluate the leadership, educational and social opportunities gained from the JA Company Programme, - organise a company, sell stock, produce a product, market a product or service, and maintain financial records.
Developing business plan	<ul style="list-style-type: none"> - demonstrate leadership ability, - develop a business plan, - carry out the plan, - establish production and sales goals for a product or service.
Managing a JA Company	<ul style="list-style-type: none"> - develop an effective sales presentation, - differentiate between production and productivity and monitor quality control, - describe the effect on productivity of employee attitudes and skills, - evaluate the impact of technology, management, and government regulations on productivity.
Liquidating a JA company	<ul style="list-style-type: none"> - describe and compute the taxes the company will have to pay, - explain how dividends are determined and paid, - evaluate the impact of entrepreneurs on the local economic system.

Source: based on information available at JA - Core Programmes - Company programme (n.d.).

4.3.1.2 About the process of defining learning objectives

During the ESP setting-up phase, the learning objectives of the Company Programme were **discussed during several rounds with different working groups**, including firstly JA network members, then other stakeholders, such as teachers, business representatives, at EU and national level. The results of these discussions led towards agreement on the learning objectives and outcomes of the Company Programme and put the basis for the development of the task items/questions of the ESP exam.

The contents developed in this phase were tested by involving a sample of students but also asking teachers to provide input. The feedbacks gathered in that phase were extremely positive. They welcomed the qualification, perceived the exam very positively and appreciated the general concept. From teachers' point of view, the ESP syllabus is complete as it covers all basic business topics. Its articulation in Categories-Topics-Objectives provides clear classroom guidelines. They agreed that the exam is of high level and it requires students' attention, critical and productive thinking. Direct

¹⁴² Information taken from: "Session plan" (n.d.). JA Europe - Core Programmes - Company Programme. Available at:

http://JAcoreprogrammes.org/company_programme/index.php?pageid=64&action=showlinks&id=148

teaching in addition to the Company Programme and/or individual study for the exam would be necessary.

4.3.2 Setting-up practical courses, curricula or activities

The implementation of the Company Programme is responsibility of JA Europe member nations. **JA Europe provides them with support and guidelines** but the national strategies, the schools systems, the learning needs, the technologies available and the overall framework at national level is very different from country to country. This generates **differences in the implementation** of the Company Programme from country to country.

When implementing the Company Programme, JA member organisations have the following role:

- Solicit endorsement from the Ministry of Education and necessary support for the programme implementation in selected schools;
- Provide training for teachers and students, based on the recognized curriculum of the Company Programme;
- Identify companies as a source of classroom volunteers, identify volunteers and provide training to them;
- Publish all training materials and arrange for them to be provided to participants attending the Company Programme (the JA member organisation will possess the copyright for all texts and materials);
- Implement activities complementary to the standard curricula which introduce the fundamental concepts and principles of economics, market economy and free enterprises;
- Organize student-focused events such as: “Company of the Year” or “Trade Fairs”;
- Make efforts to encourage the involvement of the business and civil society communities during program implementation, provided that ethical and professional standards are respected.

Trainings for teachers are well planned and effectuated, on a regular basis, prior and in continue. A teacher training has also been considered prior to setting up the ESP and it is incorporated into the ESP on a continuous basis.

School teachers play a key role during the whole qualification process. This is the reason why they are supported when delivering the self-assessment and provided with materials they can use to improve students preparation for the final exam (e.g. syllabus, glossary, online courses, etc.)

The objective is to help teachers to run the certification, to gain valuable knowledge and skills in entrepreneurship education methods and to access good assessment tools. At the same time, teachers benefit from being part of an international network of VET educators sharing experience and results.

4.4 Teaching and Learning of entrepreneurship competence in diverse settings (implementation phase)

As explained before, the Company Programme has been in place for several decades and its implementation at national level may vary according to the local strategies and policies. This chapter, therefore, focuses on general characteristics and teaching methods of the learning path.

4.4.1 Teaching methods and channels - pedagogical approach

The idea behind the Company Programme is to involve students and teachers in setting up and running a “real” mini-company while being at school, through an education programme based on a clear set of steps and learning outcomes and mainly focused on learning by doing methodologies and practical application of students’ basic skills.

During the whole process, students have to work in teams and learn how to cooperate with others to achieve a result. By the end of the learning path, they participate in trade fairs and in national and international competitions where they have the opportunity to interact and compete with other teams from other countries. Learning by doing activities as well as collaborative and competitive dynamics takes place during the Company Programme in a setting where technologies are often used to enhance the learning experience.

Therefore, there is a great variety of teaching and learning methods used in the Company Programme. The following table provides with the list of general approaches and specific methods.

Table 12: JA Company programme teaching approach and methods

Teaching methods			
<i>Case study 2: ESP including JA Company programme</i>			
Collaborative learning			X
Competitive learning			X
Learning-by-doing / Project-based learning / Problem-based learning / Challenge based learning			X
Curiosity-based learning / inquiry based learning			✓
New approaches allowing learning from failure / learning in an ambiguous environment			
Self-reflection/Self-evaluation			✓
Technology-based learning / Blended learning			✓
<i>More specifically:</i>			
Lecturer		Simulations and business games	
Writing articles and essays		Student companies/mini-companies / practice firm	X
Brainstorming	✓	Guest speakers/external visitors/role models	✓
Discussions/Debate	✓	Company visits/community visits / field visits	✓
Role Play		Work placements	
Case studies	✓	Mentoring schemes / Tutoring	X
Peer group presentations / peer editing	✓	Workshops, seminars and training	✓
Project work and group work	✓	Fairs/events/bring-and-buy	✓

Source: Prepared by CARSA; 'X' stands for the key teaching method and is usually limited to three options while '✓' marks additional/complementary teaching methods. 'ICT' indicates (ICT) where it constructs a major part.

Main characteristics of the JA Company programme's pedagogical approach

The Company programme is mainly integrated within the curriculum; however, it may have its place as an elective and extra-curricular activity (after-school programme). The learning experience happens in the school but also in an out-of-the-school setting.

The main characteristics of the education programme are: **learning by doing activities, mentoring from experienced business people, collaborative (working groups) and competitive dynamics (competitions).**

Ministries of Education endorse the programmes and determine placement in the curriculum. The average number of contact hours for the Company Programme in Europe is 74,6 hrs. Teacher training is required and people from the business community are engaged as advisors and mentors.

The formal learning consists of a real experience, a structured mini-company programme. The engagement with business people from a variety of sectors make this even stronger as it helps students to see a direct connection between their studies and the world outside.

As of non-formal and informal learning, this may include benefits from a network of participating schools; the interaction with the business community; 1-3 days of extra-curricular activities (trade fairs, competitions or innovation camps); and contact with former alumni.

Basic steps of the JA Company programme are:

1. Motivation and ideas: creativity and brainstorming to generate a business idea;
2. Organising: deciding on the name of the company and the brand, contacting the business volunteers, defining the roles and jobs in the company, and establishing the boards;
3. Shaping and establishing: generating start-up capital, defining the product and the market, finalising the business plan, and going international;
4. Getting ready for action: dealing with procurement and production, proceeding with sales, budgets and bookkeeping;
5. Competing and closing: closing the company, reporting and participating in competitions¹⁴³.



Source: JA Europe (2013). *Making an impact: Annual Report 2013*

Figure 15: Basic steps of the JA Company programme

¹⁴³ JA Europe (2013). *Making an impact: Annual Report 2013*. JA Europe. Available at: http://archive.JA.org/Download/jaye/Annual_Report_2013.swf

Involvement of different target groups in teaching

Teachers play an important role in the whole learning process. They teach entrepreneurship competences to students by guiding them through the steps of setting up and managing a mini-company, they provide feedback or help the students by discussing available options and results achieved. During the whole learning path, important economic and financial concepts are experienced and students apply their skills in numeracy and math in many different ways.

Secondly, **business people** are engaged as volunteer mentors or advisors. They can be business owners/entrepreneurs or employees from companies. Their involvement is a key for the success of the learning experience. They visit the school and also communicate with the students online. They are a source of practical advice and experience as well as encouragement and motivation throughout the year. They are important role models, too.

Moreover, to produce a product or a service, students collaborate with different external companies or fabrication laboratories and they take part in specific workshops.

Additionally, not on a regular basis, **JA alumni** are invited to present their experience with the programme and explain how the mini-company experience influenced their future career. This also represents one of the incentivizing elements for students.

Role of information and communication technologies in teaching

The JA network uses **ICT enabled teaching and online tools** more and more. This is both in terms of content, mentoring, and more efficient and cost-effective training or delivery.

In the Company Program, for example, students learn how to use technologies for business purposes from basic skills like to write a document on word or to draft a budget on excel to more advanced things as for instance to design communication materials or to use the digital media for marketing purposes. A critical understanding of how technologies can help individuals and organisations to be more effective with a particular focus upon communication, networking, marketing, research, process management and security/privacy issues is required to pass the ESP exam.

Digital literacy is a transversal topic in the Company Programme. Even if the face to face element is central, ICT is used to **reinforce and enhance the experience of students**, for instance by allowing remote communication with other students and business volunteers. ICT is blended into the learning path whenever and however possible (depending on national implementation of the programme – e.g. some countries use eMentoring, eLearning platforms, etc.).

In ESP, ICT is used to deliver the self-assessment questionnaires as well as the final exam, thus by increasing the capacity of the students of dealing with evaluation platform and environment.

Acting upon the findings from the ESP pilot, JA identified a valuable learning resource under existing **HP LIFE e-learning courses**¹⁴⁴. Courses have been matched with the ESP students' needs and are specifically recommended in order to prepare more effectively for the final exam.¹⁴⁵

4.4.2 Teaching guidelines and train-the-educator

Teachers are constantly trained and equipped with various tools to facilitate entrepreneurial learning in order to increase the quality of their teaching practices.

A set of tools is made available for teachers involved in the ESP: the syllabus, a specific session of the website, e-learning courses, etc. The objective is to provide them with information about the 3

¹⁴⁴ General information about HP LIFE Learning initiative for entrepreneurs can be found at: <http://www.life-global.org/en/LEARN-ONLINE/HP-Life-e-Learning>

¹⁴⁵ 5th E-BRIEF October 2014. Available at: <http://entrepreneurialskillspass.eu/e-brief>

components (company programme, self-assessment and exam) of ESP and how to guide students through each step. According to the ESP pilot findings, an **entrepreneurial mind-set** and a **common terminology for entrepreneurship/doing business** are two elements to be obtained by teachers running the Company Programme and involved in ESP. For this reason a specific glossary for teachers has been produced in order to provide key terms and definitions including a bibliography with links and other sources to learning material in respective countries. This glossary should help teachers in coaching students through the ESP experience till their final exam.¹⁴⁶

In addition to this, the ESP makes use of JA Company Programme's and other initiatives' teaching material. As applicable for JA Company Programme overall, JA provides school teachers with training activities. The standard basic teacher training takes teachers through the key concepts of the programme and establishes networking groups so participants are not left alone¹⁴⁷. Training activities are organized and coordinated in cooperation with the Ministries or relevant education authorities as part of teachers' usual training days/continuous professional development. The training is implemented face-to-face at both, European/central and national level, using '**train-the-trainer**' approach.

¹⁴⁶ Idem.

¹⁴⁷ European Commission (2013). Entrepreneurship Education: a guide for educators. Prepared by ICF-GHK Available at : http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/files/education/entredu-manual-fv_en.pdf

4.5 Assessment and Impact

4.5.1 Strategy for assessment of entrepreneurship competence

The ESP has the objective to certify what students learn by participating in the mini-company experience. Two tools have been developed with the aim to assess entrepreneurial competences as well as the business, economics and finance knowledge students have gained as a result of this experience.

Table 7: ESP Assessment methods

Assessment method:	ESP initiative
Essay	
Written Exam (written test, questionnaire based)	X (ICT)**
Oral exam	
Self-evaluation/self-reflection	X (ICT)*
Peer-evaluation (in-class)/group evaluation	✓
External review/Feedback from external stakeholders (including users side)	✓
Project work (incl. simulation project work)/assigned task achievement	✓
Presentation/pitches	✓
Event (e.g. fair exhibition)	✓

Source: Prepared by CARSA; 'X' stands for the key assessment method which is usually limited to three options while '✓' marks additional/complementary assessment methods. 'ICT' indicates (ICT) where it constructs a major part; (*) relates to the ESP self-assessment tool, (**) indicates ESP exam while the rest relates to the "ESP real experience" through JA company programme.

The assessment strategy, therefore, consists of two parts, **a self-reflexive tool** and **the final exam**, providing an interesting insight into both perceptions of students as well as their actual progress in acquiring entrepreneurship competences. The ESP self-assessment tool and the ESP exam **use an online platform**.

Furthermore, applicable to the JA Company programme, project work including peer evaluation, presentations, public events and competitions are the formative assessment methods integrated in the ESP "real experience".

4.5.1.1 The self-assessment tool

The self-assessment tool is a reflexive tool assessing **mainly skills and attitudes**.

The tool was initially developed by Entrepreneurs Pour Apprendre (JA France). As explained on the ESP main website¹⁴⁸, with financial support of Citi Foundation, the tool was tested in France and in four other countries (Estonia, Finland, Romania and Slovakia). Within the ESP, the self-assessment

¹⁴⁸ "The self-assessment in a few words..." (n.d.).

has been translated into several languages and adapted to the country contexts of the participating organisations. An online platform¹⁴⁹ has been set up in order to gather the results.

Table 13: Competences assessed by ESP self-assessment tool

Competences assessed by ESP self-assessment tool (skills and attitudes):	
Creativity	I have ideas and I am creative
Self-confidence	I feel confident about myself
Taking initiative	I am able to take initiative
Teamwork	I can work in a team
Resourcefulness	I have the resources to deal with the influence of external factors and I can take an action accordingly
Perseverance	Despite difficulties, I am able to persevere towards the achievement of my goals
Sense of responsibility	I am conscious of my actions and I take responsibility for them

Source: ESP website

The self-assessment tool is composed of 2 main parts: **students express their understanding of competences** (e.g. from a list of terms select those which are associated with creativity) and **students self-evaluate their competences** based on set of statements/questions linked to each competence element (e.g. how good are you in brainstorming?).

The self-assessment is taken 3 times during the school year: at the beginning of the Company Programme, middle way – before the mini-company starts conducting activities, at the end – after the mini-company concludes the activities. The self-assessment takes between 10-30 minutes, depending on the phase.

An important aspect of the self-assessment exercises is the fact that the results are discussed in the classroom with the teachers.

4.5.1.2 The ESP exam

Although inspired by the Austrian entrepreneurial skills certificate (WKO)¹⁵⁰, the ESP exam has been developed from scratch.

It focuses on four main categories that describe the main areas of knowledge students should have acquired during their entrepreneurial experience. Each category is composed of a set of topics. They are defined in terms of learning outcomes with a statement describing what a learner should know, understand and/or be able to do upon completion of the learning process. Each learning outcome is further described alongside the didactic objectives providing details about what the student is expected to learn, know and understand for each topic.

The fundamental objective of the Entrepreneurial Skills Pass is to show a direct link between the activities experienced in the entrepreneurial experience and the exam. Therefore, its questions are

¹⁴⁹ Self assessment platform (n.d.). Available at: <http://self.entrepreneurialskillspass.eu>

¹⁵⁰ Entrepreneur's Skills Certificate. [general website]. Available at: https://www.wko.at/Content.Node/kampagnen/ufs_en/index.en.html

focused on skill-based tasks with an emphasis upon applied understanding and practical scenarios rather than solely assessing knowledge and factual recall.

The following table provide with a glimpse on the competences assessed by the ESP exam. The full framework remains confidential.

Table 14: Competences assessed by ESP Exam

Competences assessed by ESP exam (knowledge and skills):	
Categories:	Topics:
1. General understanding of organizations	Entrepreneurship; Vision, mission and ethics; structure; leadership, competence in a team; value of ICT, personal development
2. Main steps and legal requirements	Business life cycle, starting up, operating, liquidation, IPR
3. From the idea generation to the market	Idea generation, business opportunity, kinds of innovation, market research, selling strategies, marketing strategies, internationalization, business plan
4. Financial Resources and Budgeting	Funding opportunities, costing and pricing, budget and financial analyses, key terminology

Source: JA Europe summary of ESP syllabus (not publically available)

Organisations supporting the assessment

Next to WKO¹⁵¹, other partners with experience in assessing entrepreneurship competences are FFE-YE (JA Denmark)¹⁵² which is the applicant of the EU grant, and bitMedia¹⁵³, the IT provider of the online platform used for the final exam.

4.5.2 Impact, evaluation and monitoring

The key impact areas of the ESP focus on: further education, including reducing dropouts, boosting financial/economic literacy, improving employability, developing future career prospects and laying the foundations for start-ups. The ESP is monitored and evaluated at several levels.

4.5.2.1 JA Company programme evaluations

The JA Company Programme has been evaluated in many occasions, at worldwide, European or national level¹⁵⁴. In general, evaluations focus on the following elements:

- a. **Immediate results:** learning outcomes, students' satisfaction about the programme and the quality of teaching, increased engagement, intentions for the future, etc. monitored pre- and post- considering the school year,
- b. **Intermediate outcomes:** future career development, enhanced employability, higher rate of start-up businesses, etc. assessed several year after the students participated in the programme.

¹⁵¹ WKO [general website]. Available at:

https://www.wko.at/Content.Node/wir/Austrian_Economic_Chambers_Home.html

¹⁵² FFE-YE. [general website]. Available at: <http://eng.ffe-ye.dk>

¹⁵³ BitMedia. [general website]. Available at: <http://www.bitmedia.at>

¹⁵⁴ E.g. European Commission (2015), JA Worldwide (2014). Impact: Making a Measurable Difference.

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Some studies also provide evidence of global impact, namely on economic growth¹⁵⁵.

Impact is usually assessed by means of national studies employing questionnaire based surveys, for example, addressing alumni circles in relation to the number of enterprise founders, professions pursued per sector, etc¹⁵⁶. In some cases, interviews and focus groups are also used. For comparison a control group is often set up.

However, total numbers on students, teachers, schools and businesses involved are collected at European level in regular intervals.

Impacts of the JA Company programme

The research and studies available offer significant evidence of the positive impact of the Company Programme on participants. For instance¹⁵⁷, the JA Europe Company Programme 2007 Survey Report investigates the level of entrepreneurial activity among alumni. The main findings include:

- 15% had started their own businesses (between the ages of 20 and 29),
- 36% plan to establish a business within the next three years,
- 84% would recommend Company Programme to others,
- 85% of the JA students are still running their company.

In 2008 Young Enterprise UK¹⁵⁸ launched an alumni evaluation to find out what impact the Company Programme has had on their lives (compared with a control group). The key findings of the evaluation were that alumni:

- Have better future earnings (in the 30+ age group alumni earn a third more than their peers).
- Are twice as likely to start their own business.
- Have a greater appreciation of their skills and the opportunities available to them on leaving school.
- Are more passionate about their jobs than their peers.
- Are more successful in their careers than their non-participating counterparts.
- Are more likely to get involved in voluntary work.
- Ranked Company Programme as the most significant experience they drew upon when establishing and building their own ventures.
- Felt that Company Programme contributed to their skill development more than anything else, including work experience, extra-curricular activities and school.
- Said Company Programme was the activity that best prepared alumni for work.

Among teachers, **90% of the teachers will recommend this way of teaching to their colleagues**¹⁵⁹.

¹⁵⁵ See for instance, Tucker J. (2011). Making an impact. Assessing Junior Achievement of Canada's valued creation'. BCG the Boston Consulting Group. January 2011. Available <https://www.jaworldwide.org/inside-ja/Reports/2011%20Making%20an%20Impact%20JA%20Canada.pdf>

¹⁵⁶ Studies and reports can be found at: What we measure - JA Europe (n.d.). Available at: <http://JA.org/our-impact/what-we-measure> or Our reports – JA Worldwide (n.d.). Available at: <https://www.jaworldwide.org/inside-ja/Pages/Our-Reports.aspx>

¹⁵⁷ Evaluations related to the JA Company programme: Evaluations (n.d). JA - Core Programmes - Company programme. Available at: http://JAcoreprogrammes.org/company_programme/index.php?pageid=66&action=showlinks&id=154

¹⁵⁸ idem

¹⁵⁹ European Commission (2013).

As outlined in European Commission's study "A road to success"¹⁶⁰, impact on individuals includes participants' perceptions of entrepreneurship, business knowledge, attitudes towards further education, etc. This means that JA Europe and its member organisations do not only consider the business element of entrepreneurship when assessing the impact of the Company Programme and other education initiatives. The wide range of individual impact types examined allows policy makers and researchers to address entrepreneurship education programmes with different objectives, viewing entrepreneurship both as business creation and as a key competence. Regarding the impact on the economy and society, it is interesting to note the definitions attributed by the relevant studies. For example, the 'Impact 50 Years of Young Enterprise' study defines societal impact as the direction that participants took, i.e. whether they pursued further studies, employment or entrepreneurship. Therefore, it could be claimed that this indirectly assesses the benefits for the society of lowering the rates of young people not in employment, education and training (NEETs).

4.5.2.2 ESP assessment tools and ESP initiative evaluations

The ESP initiative is ongoing. The Entrepreneurial Skills Pass ran as pilot in English during the school year 2013-2014. The results of the ESP exam pilot were satisfying. In general, students rated the exam to be of a high level and reported problems in understanding the concepts in English. The pilot also revealed that the students lacked above all financial/budgeting knowledge and skills; contrary to marketing where the majority achieved good results.

Year 2014-2015 is the first year of full implementation of the ESP. Students took the self-assessment at the beginning of the school year. The second phase of the self-assessment is planned for March/April and the third one for May-June. The final exam will be available in all the languages of the participating countries and it will be taken in June 2015.

Apart from the assessment and certification of the individual student's competences, the data obtained from both tools has **high informative potential when analysed in combination and in long term**. It is planned to analyse data on a **yearly basis** with the objective to gain further insight and review the assessing tools consequently. Comparing the two sets of results or the results at country level, the evaluations may provide valuable information relevant for the ESP tools as well as the Company programme future development.

A monitoring and evaluation plan is in place to assess the initiative as well as the quality of the outputs through a set of both quantitative and qualitative metrics (e.g. n. of students who completed the exam; n. of students who passed the exam compared to the n. of students who took the exam; increase in the n. of students taking the exam compared to the n. of students who completed the Company Programme; n. of students taking the self-assessment; outcomes of the self-assessment; satisfaction of target groups, etc.).

4.5.2.3 EU grant level

Evaluation will be carried out as part of the ESP activities financed from EU grant. The overall impact of the EU grant will be evaluated at the end of the grant's duration (3rd year) by an external evaluator which will monitor the project's progress throughout the grant's duration (i.e. October 1, 2013 - September 30, 2016)¹⁶¹.

A series of stakeholder questionnaires and interviews will be completed by headmasters, teachers, students and business representatives engaged in the project. The final evaluation will assess the

¹⁶⁰ European Commission (2015).

¹⁶¹ "Call for tender (monitoring, evaluation and impact assessment)" (n.d.). Entrepreneurial Skills Pass. Available on <http://share.jayeapps.com/ESP/latest-news/call-for-tender--monitoring--evaluation-and-impact-assessment--1814>

project as a whole and will analyse the future plans and sustainability of the project. It will focus on both, the effective management and the outcomes/output of the project.

Examples of measurable indicators are:

- Number of VET schools engaged in the project ,
- Number of teachers trained,
- Number of students completed the student company experience,
- Number of students involved in the 3 phases of the self-assessment,
- Outcomes of student self-assessments,
- Number of students completed the written exam (75% minimum score),
- Number of businesses which endorse the ESP.

Evaluation will focus on the project's Relevance, Efficiency, Effectiveness, Impact and Sustainability.

4.5.3 Example of show cases

The JA Company Programme has generated a range of decision-makers in politics and business. Most prominently, the current **Estonian Prime Minister, Taavi Roivas**, is a JA company programme alumnus. Roivas reflected on his own Junior Achievement experience as an alumnus during the 25th anniversary of the Company of the Year competition in Tallinn, Estonia¹⁶².

Many of JA's alumni have founded companies and today act as CEOs of highly successful enterprises. To provide a few examples, **Shaun Harvey, the Chief Executive of Leeds United Football Club**, is a Company Programme alumnus who claims today that JA first exposed him to the world of business teaching him the basics of how to manage a company while obtaining invaluable mentorship from active businessmen. The 2010 UK Entrepreneur of the Year¹⁶³, **Nick Ogden, Founder of Voice Commerce Group and creator of WorldPay**, was equally part of the JA company programme.

The value of the company programme to contribute to the employability of company professionals can be demonstrated at the example of the today's successful employees. **Rachel Miller, communicator and award winning blogger**, emphasises the value of the programme in relation to the experience to present a business plan or strategy in public, a situation that she masters today as an employee working in corporate communications.

More success stories can be found in the JA studies¹⁶⁴.

4.6 Sustainability and transferability

4.6.1 Sustainable business and financial model

JA Europe, the leader of the ESP initiative, is a not-for-profit association registered in Belgium, funded by businesses, institutions, foundations and individuals. Each member of JA Europe is also a non-profit entity with its own national board of directors, infrastructure and network. Each manages its own financing from private and public sources.

¹⁶² "Tallinn: JA Network Hosts its Largest Youth Entrepreneurship Competition Ever" (2014). JA Europe. [news posted: Brussels, July 25, 2014]. Available at: <http://JA.org/-/tallinn-JA-network-hosts-its-largest-youth-entrepreneurship-competition-ever-2002>

¹⁶³ "Nick Ogden hailed Entrepreneur of the Year at 2010 National Business Awards "(2010). New Business. [posted: November 16th,2010)]. Available at: <http://www.newbusiness.co.uk/articles/entrepreneurs/nick-ogden-hailed-entrepreneur-year-2010-national-business-awards>

¹⁶⁴ Our reports – JA Worldwide (n.d.).

The ESP takes a sensible approach by using the existing fundraising capacity, technical resources, people, know-how and infrastructure at the national and European level.

The ESP has been awarded with EU grant (Leonardo Da Vinci programme¹⁶⁵) and is supported by private sponsorships and partnerships; eventual fees and licensing may apply to the ESP exam.

4.6.2 Key sustainable aspects

The ESP's sustainability and growth is linked to that of the Company Programme, which is an already well-established scheme and anchored at school level in each country.

JA has always offered built-in assessment tools and the ESP is an example of innovation in this area. There has been keen interest from different stakeholders (e.g. Ministries, businesses, school governance, etc.).

Moreover, once the operating model has been formalized, JA Europe will pursue an expansion plan that will extend ESP to more countries, incentivizing more educators to move into entrepreneurship education and ensuring a broad-spectrum engagement from small, medium and large enterprises.

Besides the sustainable financial model and concrete future vision, **cooperation with business representatives** and the **two-level approach** - i.e. EU central coordination and scaling up and national level implementation - strengthen the long-term potential of the ESP.

The ESP private sector partners today already include many individual companies as well as the umbrella business networks CSR Europe and EUROCHAMBRES.¹⁶⁶

4.6.3 Potential transferability

The ESP initiative is co-owned by JA Europe and the Austrian Chamber of Commerce (WKO).

The ESP is being implemented in several European countries and the tools are being tested. The future of the ESP is geographical (extending across the JA network) and its concept will be adapted for other JA programmes at different levels of the curriculum from primary through to university.

4.7 Key lessons and observations

The ESP is built around the following factors having an important share in the initiative's success. The lessons have been learnt from the JA Company Programme and ESP pilot phase.

Business involvement

Involvement of business representatives has high importance ensuring that **the mini-company offers a real experience**, and that **future opportunities** for ESP/JA Company Programme participants can be further pursued. This ranges from employment, traineeship or opportunities in further education and training.

FabLab facilities: Experience has shown that FabLab facilities are used increasingly when producing mini-company products. It indeed has a great potential for the mini-company programmes in general, especially with the new 3D technologies.

Matching the pool of students with endorsing companies: a LinkedIn group/functionality to facilitate this matching is under development in order to further improve the business involvement and increase ESP's impact. In line with the 3 pillars of ESP further opportunities, the

¹⁶⁵ Lifelong Learning Programme – European Commission. Available at: http://ec.europa.eu/education/tools/llp_en.htm

¹⁶⁶ See for instance the call to action for companies and organisations across Europe launched by JA Europe and CSR Europe: "Call for Action for ESP" (2014). [news online]. CSR Europe.

main aim of the linked-in group will be to: engage companies in provision of further training/education, increase employability and internships, and increase the advice from companies to start-ups.

Teaching quality

The ESP is greatly dependent on the quality of teachers to convey the principles provided in the guidelines and bring entrepreneurship closer to the students. During the pilot phase, teachers reported in multiple cases to struggle with entrepreneurship/business terms. In response, the ESP developed a glossary ensuring appropriate use of the key terminology.

National and European Competitions

Competitions are a good occasion to meet students and teachers from other countries. They strongly motivate students and teachers; allow to involve the community overall (local media, industry representatives as judges etc.) and have showed consistency in the long- run.

National Languages

The final exam has been piloted in English and it has been confirmed that versions in national languages are needed since students at secondary level do not necessarily have a good level of English.

Providing incentives to students

The hitherto experience shows that not all students see the added-value in obtaining a certificate at the end of it. This is the reason why JA Europe is working on students' incentives (short and long term). This is also made with the objective to counteract myopic behaviours of students not understanding the value of a qualification like ESP e.g. involvement of alumni presenting what they learnt and how they have been influenced by graduating (role models).

Appropriate learning settings for entrepreneurship competence

Teaching entrepreneurship competences requires face-to-face settings and learning by doing activities. Interaction is needed when delivering learning outcomes relating to attitudes and skills, which is very difficult to do using only online learning environment.

Guidance by teachers requires a fluid balance between giving the students enough space to discover and learn on their own and controlling them to ensure that progress is steady. The extent to which teachers become involved thus depends on the pro-activeness and autonomy of the students.

4.7.1 Other remarks

Another interesting aspect is the long term potential of the data collected from the ESP providing comparable data on the students' self-reflexion as well as obtained knowledge and skills while covering large number of countries.

For instance, the self-assessment and final exam platform will allow JA Europe to have comparable European data on the impact of its Company Programme that enrolls 250,000 students throughout Europe every year.. Within the context of the Leonardo EU grant, the 3-year project data will be publicly available in aggregate.

Interestingly, through its diverse activities across different education levels, JA Europe reaches to 3,2 million of student every year¹⁶⁷ which is comparable with the number of students involved in the EU Erasmus programme between 1997/1998 and 2012/2013¹⁶⁸ (university level).

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Interview carried out with Ms. Veronica Mobilio, JA Europe, Project Manager ESP

5 Case study 3: Youth Start Initiative in Austria

The **Youth Start initiative** is the result of joint efforts by several organisations, mainly the Initiative for Teaching Entrepreneurship (IFTE)¹⁶⁹ and *Entrepreneurship Education as School Innovation* (EESI-Impulszentrum)¹⁷⁰. The Initiative for Teaching Entrepreneurship (IFTE) was set up as a non-profit association founded in 2000/2001. The aim of IFTE is to promote young people's entrepreneurial spirit and values for self-employment and professional independence – as an instrument for equal opportunities. IFTE's entrepreneurial-educational approach originates from the economic-ethical rationale of a market economy committed to the individual and to society. Apart from business objectives this approach also observes the responsibility for disadvantaged persons in our society. IFTE is internationally engaged in further education and training for teachers within projects in South East Europe¹⁷¹. Since 2008 IFTE is the official host of the Global Entrepreneurship Week in Austria.

In addition, IFTE will participate in a new initiative set up in April 2015 within the European Network for Teaching Entrepreneurship (NFTE)¹⁷² of which it is an active member. This initiative will promote a newly established European network titled "Youth Start Europe"¹⁷³. European partners are from non-governmental organisations in Austria, Belgium, Bulgaria, France, Germany, Ireland, the Netherlands and the UK.

The sister organisation of IFTE is EESI-Impulszentrum, which was founded and is financed by the Austrian ministry of Education at the Schumpeter College in Vienna¹⁷⁴. Since its foundation in 2006/2007, its vision has been to incorporate entrepreneurship education as an education principle in line with the school curriculum and to encourage teachers in secondary education to develop entrepreneurial spirit among their students. The EESI-Impulszentrum offers seminars, teaching materials and other support, in collaboration with local teams across Austria, maintaining also strong ties to universities and institutions of teacher education, e.g. University College for Teacher Education Wien/Krems (KPH)¹⁷⁵. What is more, IFTE and EESI-Impulszentrum both cooperate also with business and the governmental sector, in particular with various Ministries, the chamber of commerce, trade unions, the chamber of labour as well as regional enterprises.

¹⁶⁹ Initiative for Teaching Entrepreneurship (IFTE). [general website]. Available at: <http://www.ifte.at>

¹⁷⁰ Impulszentrum für Entrepreneurship Education (EESI-Impulszentrum). [general website]. Available at: <http://www.eesi-impulszentrum.at>

¹⁷¹ Rotarian educational co-operations in Bulgaria and Bosnia-Herzegovina since 2007. [general website]. Available at: <http://www.young-entrepreneur.eu>

¹⁷² European Network for Teaching Entrepreneurship (NFTE) [general website]. Available at: www.nfte.com

¹⁷³ The initiative will be available under the domain <http://www.youthstart.eu> in April/May 2015.

¹⁷⁴ Schumpeter Handelsakademie und Handelsschule Wien 13. [general website]. Available at: <http://www.bhakwien13.at/>

¹⁷⁵ KPH is the biggest private University College for Teacher Education of Christian Churches. (KPH Wien/Kerma. [general website]. Available at: <http://www.kphvie.ac.at>

5.1 Summary

Youth Start may be seen as a large initiative comprising several activities and projects implemented in different phases and mutually complementing each other. The **Youth Start framework of reference for entrepreneurship competence**¹⁷⁶ consists of statements of what learners can do and is used as a planning and design tool addressed principally to **educators and school governance in secondary and vocational education** institutions. The framework is implemented in the entrepreneurship education syllabus for VET/Professional Schools and the 'New Middle School'¹⁷⁷ in Austria.

The framework is not tied to a single project but embedded into a series of activities implemented by EESI-Impulszentrum (eesi)¹⁷⁸ and IFTE¹⁷⁹ which have evolved in entrepreneurship education in Austria during the past 20 years. These activities are: (a) the TRIO Model for Entrepreneurship Education; (b) the Next Generation' Entrepreneurship Challenge Programme; (c) the Certification of Entrepreneurship Schools and (d) Teacher Training.

With reference to the OvEnt study, Youth Start focuses on two key areas: (i.) (new) teaching/support methods and models through the competence framework, school syllabus incorporation of entrepreneurship education, certification of entrepreneurship schools and (ii.) teaching/learning entrepreneurship competence through a range of curricular and extra-curricular activities, e.g. the Next Generation Entrepreneurship Challenge Programme.

The Youth Start framework tackles a **wide range of entrepreneurship competences including knowledge, skills and attitudes**. By formulating "can-do-statements" in the categories (1) Developing Ideas, (2) Implementing Ideas and (3) Thinking Sustainably, each consisting of 2 sub-categories, the framework sets out the competences youths are expected to possess at different educational levels (represented by A1-C2). The TRIO Model can be considered an emancipatory approach which views entrepreneurship education as a means to reach autonomy and self-responsibility of youths in the process of creating a society of 'citizens'.¹⁸⁰ As the theoretical fundament of EESI-Impulszentrum's and IFTE's overall activities, **competences related to ecological, social and societal issues** are an integrate part of the framework. These competences are present under each category and more concentrated in 'Thinking sustainably - Acting as a visionary'. Financial literacy has also its place in the framework, under 'Thinking sustainably - Financial Sustainability', ranging from '*using pocket money*' to more advanced '*financing concept for my business model according to the motto 'brain versus capital'*'¹⁸¹. IT literacy is included as a way to work together.

On its own, the Youth Start Framework does not address how the competences should be learned or assessed. Thus, the case study explores related activities of EESI-Impulszentrum (eesi) and IFTE showing how the framework can be applied in practice. These activities are at times put into practice, e.g. the 'Next generation' business plan competition; other activities have more of a

¹⁷⁶ YouthStart Framework of Reference for Entrepreneurship competences. (2014, Version 15). Impulszentrum für Entrepreneurship Education (eesi) des bmbf and Initiative for Teaching Entrepreneurship (ifte), Vienna 2014. [paper poster].

¹⁷⁷ Neue Mittelschule. [general website]. Available at: <http://www.neuemittelschule.at>

¹⁷⁸ Impulszentrum für Entrepreneurship Education (EESI-Impulszentrum). [general website]. Available at: <http://www.eesi-impulszentrum.at>

¹⁷⁹ Initiative for Teaching Entrepreneurship (IFTE). [general website]. Available at: <http://www.ifte.at>

¹⁸⁰ Aff, J & Fortmüller, R. (2006). Entrepreneurship-Erziehung. Published in wissenschaftplus. Available at: http://www.wissenistmanz.at/wissenplus/zeitschrift/archiv/heft-1-06-07/wp_1_06_07c.pdf

¹⁸¹ Faltin, G. (2013). Brain Versus Capital; Entrepreneurship for Everyone - Lean, Smart, Simple. Stiftung Entrepreneurship, Berlin, 2013. ISBN-13: 978-3000409042.

supporting character, e.g. entrepreneurship school certification. When implementing the framework, Youth Start initiators actively promote specific pedagogic approaches, among others, entrepreneurial **Challenge Based Learning (CBL)** and **'Co-operative Open Learning' (COOL)**¹⁸², the latter being a proprietary learning method. Moreover, teaching methods associated with Youth Start are based on **hands-on learning (learning-by-doing)**, **competitive learning** – applied through business idea and business plan competitions – as well as debates, **buddy systems**, project and group work, role plays, etc. Youth Start initiative comprises activities supported by ICT tools for students, e.g. an online business planer for 'Next Generation'¹⁸³ competition participants and the crowdfunding platform 'Starte DEIN Projekt'¹⁸⁴.

Although the assessment of entrepreneurship does not constitute a key cornerstone of Youth Start, there are **several assessment forms** practiced and suggested in relation to Youth Start activities, **summative as well as formative** ones. The main summative assessment form is through the 'Next Generation' business plan and business idea competitions where students are assessed on the basis of the application form as well as on the pitch they present at the competitions final. Formative assessment forms are **coaching, mentoring** as well as **buddy systems (peer-review)**. As a special complement, EESI-Impulszentrum promotes the **EES, a self-assessment software**¹⁸⁵ applied by educators testing students' personality traits and attitudes in relation to entrepreneurship.

The Youth Start Initiative shows **high levels of sustainability** backed up by public resources that fund both, EESI-Impulszentrum's project related activities as well as its day-to-day operations. Further sustainable aspects of the initiative include the incorporation of entrepreneurship education within the school syllabus in VET/professional schools dating back to 1996, the incorporation of the revised Youth Start Framework within the 'New Middle School', and close and fructuous co-operation with the Austrian Ministry of Education. What is more, the **certification of entrepreneurship schools** allows EESI-Impulszentrum (eesi) to drive forward the development of entrepreneurial schools and create schools of excellence. Ultimately, the large-scale **training of teachers in entrepreneurship education** allows EESI-Impulszentrum and IFTE to maintain an effective pool of experts giving feedback on new initiatives.

Given the linkages of various activities of EESI-Impulszentrum and IFTE, starting with the TRIO Model as a foundation stone, **transferability** is partially already ensured within Youth Start activities. Although being mainly implemented in secondary schools and VET institutions in Austria, the Framework is generally applicable across different education levels. Efforts to expand and transfer activities are pursued actively, e.g. by extending the framework to 8-9 year old pupils within the UStart project¹⁸⁶, thus transferring some of the entrepreneurial challenges included in the Youth Start framework, as well as by including an Italian school within the certification of Entrepreneurship Schools.

¹⁸² Cool Impulszentrum: COOL [general website]. Available at: <http://www.cooltrainers.at>

¹⁸³ The "Next Generation" Entrepreneurship Challenge Programme is an annual competition carried out in collaboration with the Bank of Austria for more than 9 years for students in secondary vocational education (BMHS)

¹⁸⁴ Starte Dein Projekt [project website]. Available at: www.startedeinprojekt.at/projekte

¹⁸⁵ "15. Entrepreneurship" (n.d.). Available at: http://www.abc.berufsbildendeschulen.at/upload/1276_E_15%20-%20Entrepreneurship%20und%20DCFA%20%2810.2007%29.pdf

¹⁸⁶ The Youth Start Entrepreneurial Challenges (UStart) project is funded under Erasmus + key action 3, Policy Experimentation with grant number '388460-EPP-1-2014-2-PT-EPPKA3-PI-POLICY'. Since the project has only been awarded at the end of 2014, no project description is out in the public domain. All the information presented in the case study was provided by Mr. Johannes Lindner during the case study interview.

The initiators emphasise the **importance of connectivity to business for entrepreneurship education** activities, e.g. by organising visits from entrepreneurs, partnerships for internship programmes, etc. Further the **ad-hoc and continuous teacher training** allows EESI-Impulszentrum to spread their entrepreneurship education philosophy. What is more, entrepreneurship education should aim to encourage self-responsibility for the learning outcomes of learners. Last but not least, the **multi-dimensional approach to entrepreneurship education** practiced at EESI-Impulszentrum and IFTE, composed of several dimensions, e.g. the curricular dimension, the pedagogical dimension, to mention a few, is an important aspect ensuring a broader uptake of entrepreneurship education at school.

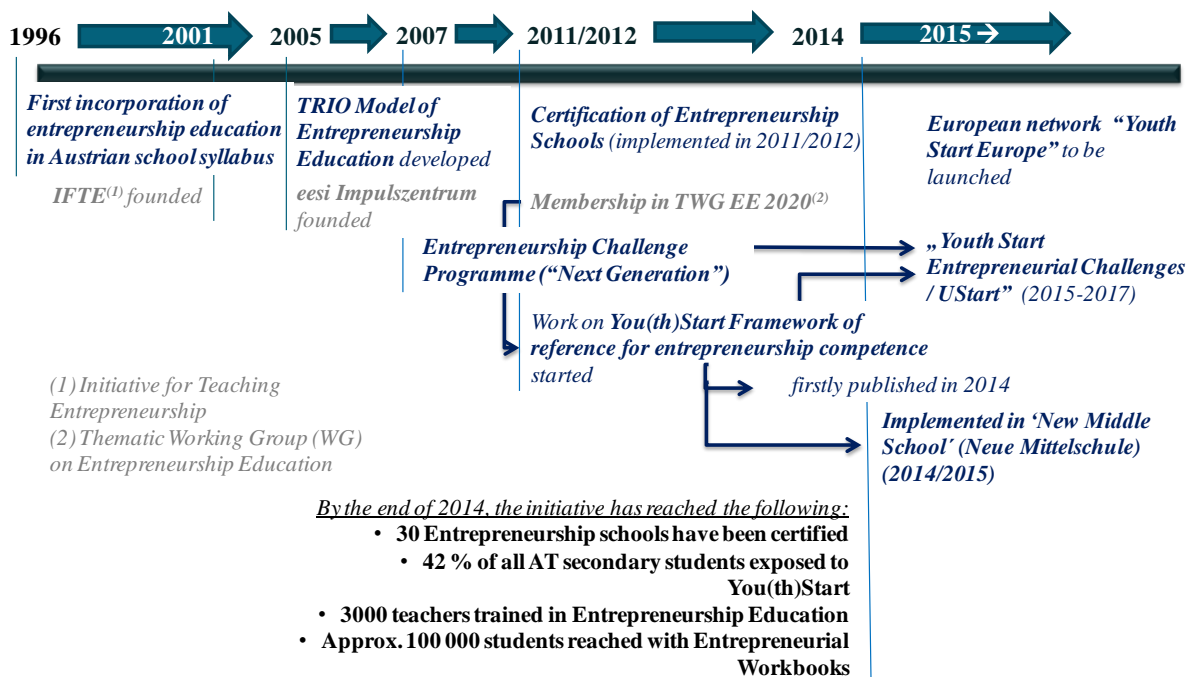
5.1.1 InfoBox

Table 15: Youth Start – InfoBox

Youth Start: InfoBox	
Implementation:	Based on experience with entrepreneurship education in Austria since 1996, You th Start framework was initiated in 2011 and its first version was published in 2014. In 2014/2015, the Framework has been implemented in new type of secondary schools in Austria. From 2015, You th Start Europe Initiative will be launched and new “You th Start Challenge programme” is to be implemented.
Focus Area	(new) entrepreneurship competences framework; (new) teaching/support methods and models, teaching/learning entrepreneurship competence
Targeted education level	(lower and upper) secondary education level (particularly vocational)
Main target group of the initiative	Educators: Teachers; others: school management, school governance and authorities (those developing syllabus)
Secondary target group:	Primary beneficiaries are students between 11-14 and 15-19 years old
Entrepreneurial competences	Knowledge / Skills / Attitudes – A1-C2 levels; a comprehensive framework of statements within 6 levels (A1-C2) and under three categories – developing ideas, implementing ideas and thinking sustainably. Attitude, Identify Opportunities, Organising, Working Together, Acting as a Visionary and Financial Literacy are emphasized in form of sub-groups of statements. Aspects related to the corporate social responsibility are integrated under the ‘thinking sustainably’ category (‘Acting as a visionary’ sub-category)
Teaching methods	Entrepreneurial challenge based learning characterized by Collaborative learning, Challenge Based Learning, hands-on learning (Learning-by-doing), complemented by Competitive learning
Learning settings	Formal, institutional, face-to-face mainly with some ICT components; curricular and extra-curricular activities; in the classroom and outside.
Impact area:	Quality of entrepreneurship education, personal development / youth empowerment; (considering) entrepreneurship as a career option
Output dimensions	<ul style="list-style-type: none"> - 3.000 teachers trained in Entrepreneurship Education - Approximately 100.000 students reached with Entrepreneurial Workbooks - Implementation of entrepreneurship education syllabus at VET/Professional Schools (accounting for around 42 % of all Austrian secondary students) and the ‘New Middle School’ - 30 certified Entrepreneurship Schools, with Entrepreneurship as School programme

Overall impacts	<ul style="list-style-type: none"> - Increased use of entrepreneurial teaching methods - Increased interest in entrepreneurial teaching from the side of teachers, school management, regions... - Increased entrepreneurship competences of students - Youth learn how to participate in society – sustainable; emancipation
Resource dimensions	<ul style="list-style-type: none"> - Employment: 5 employed people at EESI-Impulszentrum; 1 contact point in every Federal State in Austria
Business model	<ul style="list-style-type: none"> - Funded mainly from public sources - Public-private partnerships for new programmes and competitions - Award as social entrepreneur from Ashoka

5.1.2 Timelines and key milestones



Source: prepared by CARSA

Figure 16: The YouthStart initiative – timeline and key milestones

5.2 General characteristics and core activities

5.2.1 Objectives

Main objective of the Youth Start Framework are:

- To create a comprehensive framework for entrepreneurship competences in the form of matrix with 'can-do' statements within six progress levels - A1, A2, B1, B2, C1, C2.
- To help educators and school governance to anchor entrepreneurship education into school syllabuses and design activities in the field of entrepreneurship education to be implemented in secondary education in Austria
- At a wider level: To foster and promote entrepreneurial education across educational levels in Austria and Europe and contribute to forming a society of self-responsible citizens

5.2.2 Core activities and entrepreneurship competence dimensions

For the purpose of the OvEnt study, we focus on the following 5 main activities/components:

Table 16: Youth Start – core activities (selected for the case study purposes)

Core activities/components:	Focus area:	Form:	Entrepreneurship competence:
You th Start Framework for Entrepreneurship Competences	(new) entrepreneurship competence framework	n/a	Knowledge / skills / attitudes
TRIO Model for Entrepreneurship Education	(new) teaching/support methods and models	n/a	Knowledge / skills / attitudes
'Next Generation' Entrepreneurship Challenge Programme	Learning/teaching entrepreneurship competences	Face-to-face	Knowledge / skills / attitudes
Certification of Entrepreneurship Schools	(new) teaching/support methods and models	n/a	Knowledge / skills / attitudes
Teacher Training	(new) teaching/support methods and models	Face-to-face	Knowledge / skills / attitudes

Source: prepared by CARSA for the purpose of OvEnt study.

5.2.2.1 Youth Start Framework of References for Entrepreneurship Competences

The Youth Start framework is a sequential, gradually evolving competence framework grid supporting the planning and design of entrepreneurial education activities in accordance to different educational levels covering basic education and, most essentially, secondary vocational education. The framework uses six progress levels of Common European Framework of Reference for Foreign Languages (CEFR)¹⁸⁷ to distinguish between the level of entrepreneurial competences obtained by learners in 3 competence categories: (1) Developing Ideas, (2) Implementing Ideas and (3) Financial Sustainability. The competences addressed include knowledge, skills and attitudes, each competence formulated in the form of can-do-statements (learning challenges).

¹⁸⁷ Council of Europe (2001). Common European Framework of reference for languages: learning, teaching, assessment. Language Policy Unit, Strasbourg. Cambridge University Press - ISBN Hardback 0521803136 Paperback: 0521005310.

The origins of the Youth Start framework draw upon eesi's membership within the Thematic Working Group (WG) on Entrepreneurship Education¹⁸⁸ set up by the European Commission in 2011. The WG was established as a platform of experts from several Member States providing input to guide the Commission in issues related to entrepreneurship while ensuring compatibility with developments and needs occurring at national level. As a follow-up project Austria further elaborated the reference framework in order to match the identified competences with the entrepreneurship competences included in the syllabus of secondary vocational schools in Austria, in which creation and revision Mr. Lindner was involved from the very beginning (since 1996).

Table 17: Framework for Entrepreneurship Competences Youth Start - competences

Competences:		
Knowledge	Skills	Attitudes
supply and demand (DI, A)	creativity (DI, A), creative problem-solving (DI, IO) (II, O)	self-confident (DI, A), sustainable thinking (TS, V)
financial	able to recognise and seize opportunities (DI, IO)	goal oriented and ambitious (DI, A)
risks in everyday life (DI, IO)	presentation skills (DI, IO)	stand up for others and societal issues (DI, A)
business plan (DI, IO)	able to identify and develop ideas (DI,IO)	motivated (DI, A)
market (DI, IO)	decision-making (DI,IO)	competitive (being able to face a competition) (DI, A)
social enterprise business model (DI,IO)	teamwork (DI,IO) (II, WT)	responsible (for tasks) (DI, A)
SWOT analysis	able to identify, evaluate and manage risks (DI, IO)	value recognition (DI, IO)
business/organisation analysis (DI, IO)	planning and resource management (II, O)	risk awareness (DI, IO)
decision making processes (II, O)	independent work (II, O)	persuasive (DI, IO)
marketing and financial plan (II, O)	team leading, team management (II, O)	initiative (DI,WT)
economic, ecological and social issues (TS,V)	persuasion skills (II, WT)	ethical behaviour and thinking (TS,V)
fair trade (TS, V)	negotiation skills (II, WT)	
ecologically and socially sensitive business models (TS, V)	ability to plan step by step project management approach (II, O)	future-oriented ecologically and socially sensitive behaviour (TS,V)
literacy (investments, financing sources,...)	project management (II, O)	

¹⁸⁸ Group Details - Commission Expert Group (2011). Register of Expert Groups and Other Similar Entities. 19.12.2014 [last update]. Available at: <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=2676>

price and value of a product (DI, A) (TS, F)	communication skills (II, WT)	
career options (DI, A)	networking (II, WT)	
	cooperation (II, WT)	
	strategic thinking skills (II, WT)	
	use modern technologies (II, WT)	

Source: prepared by CARSA based on the YouthStart Framework of Reference for Entrepreneurship competences. (2014, Version 15) and inputs from ESSI

5.2.2.2 TRIO Model

The TRIO Model is a three-stage theoretical approach developed by Josef Aff and Johannes Lindner¹⁸⁹ and used as the main foundation of the entrepreneurship education approach at IFTE and at the EESI-Impulszentrum. The TRIO Model approach is based on an empirical experiment¹⁹⁰ carried out by the 'Federal Austrian Commercial Academy (BHAK)¹⁹¹ at secondary schools for business (so called "Handelsakademie"¹⁹²). It is part of the emancipatory school of entrepreneurship education¹⁹³ providing a socio-pedagogical perspective on entrepreneurship education. The model views entrepreneurship education primarily as a mean to empower youth by fostering **independence** and **self-responsibility** towards a society of citizens and foster equal opportunities (Lindner, 2012a). As such, the Model goes beyond enterprise foundation, to personal development and socialisation process including social responsibility and citizenship.

The 3 phases are:

- **Level 1: Entrepreneurial Core Education** is concerned with establishing a basic understanding of entrepreneurial learning and become familiarised with developing ideas and putting them into practice, e.g. through business plan competitions in order to gain a taste of entrepreneurial activity. The Core education is directed to foster Entrepreneurial Autonomy Foundation of enterprises/start-ups) as well as Professional Autonomy (Partner, intrapreneur)
- **Level 2: Entrepreneurial Culture** deepens the core education through more advanced activities in the field of entrepreneurship. These activities seek to consolidate/encourage an entrepreneurial culture contextualising entrepreneurial ways of thinking within society. The idea is also to expand and test entrepreneurial competence through different forms of entrepreneurial activity (e.g. creativity, taking risks, risk awareness, determination, team building)
- **Level 3: Entrepreneurial Civic Education:** Encouragement of a culture that promotes maturity, autonomy, personal responsibility and solidarity (value basis). The ultimate goal is to create a sustainable and dynamic civil society of citizens ("citoyens").

¹⁸⁹ Aff. J./Lindner, J. (2005):

¹⁹⁰ Idem.

¹⁹¹ In German: 'Bundeshandelsakademie und Bundeshandelsschule' Wien. Available at: <http://www.bhakwien11.at>

¹⁹² In Austria these are referred to as Berufsbildende Mittlere Schulen (BMS) and Berufsbildende Höhere Schulen (BHS).

¹⁹³ The emancipatory school of entrepreneurship education was used as a term by Mr. Johannes Lindner with reference to a school of thought promoted by a group of authors, e.g. Bengt Johannisson, Günter Faltn who see entrepreneurship education as an instrument of emancipation to achieve equal opportunities for disadvantaged youths.

The TRIO Model suggests a gradual development of entrepreneurship competence in a step by step approach (see also Figure 17). According to the model, it is necessary to obtain a basis of entrepreneurial experience/understanding before an entrepreneurial culture and mindset can emerge. The model advocates for an early incorporation of entrepreneurship education across the educational curriculum.

5.2.2.3 Certification of Entrepreneurship Schools

With the aim to firmly root entrepreneurship education in school curricula EESI-Impulszentrum developed criteria for the certification of Entrepreneurship Schools. The certification serves to confirm that a particular school has implemented entrepreneurship activities uniformly, targeted and long term in school life, while ensuring that learning and teaching activities are planned and designed in an "entrepreneurial" fashion.

The certification of an entire school comprises the following criteria¹⁹⁴:

- Activities at School,
- Basics for Teachers,
- Organisational Framework,
- Additional optional criteria.

Schools can be accredited at Level 1: Basic, requiring the matching of 20 criteria from the abovementioned criteria, and Level 2: Advanced where additional criteria have to be met (altogether 29). The accreditation criteria were implemented in schools for the first time in 2011/2012. Schools have to apply in order to become accredited and attach specific proof and planning tools in line with the accreditation manual¹⁹⁵ where all the specific criteria are listed and explained. Certificates hold a validity of 2 years and are typically awarded at the Global Entrepreneurship Week. Once a school has received a certification, further certifications are possible where the continuity of the teaching and learning activities will be at the core of the evaluation.

5.2.2.4 “Next Generation” Entrepreneurship Challenge Programme and Youth Start European Entrepreneurship Award

The “Next Generation” Entrepreneurship Challenge Programme is an annual competition carried out in collaboration with the Bank of Austria for more than 9 years for students in secondary vocational education (BMHS). In addition to disseminating the Entrepreneurship Education thought the programme seeks to promote entrepreneurial thinking and action and promote self-responsibility and commitment of youth.

It consists of two different categories: (1) Real market: Best business involving the development of a complete **business plan** taking into account the current market situation. This category involves the creation of a start-up or acquisition of an existing company. The components are to define the target group, plan a product launch and develop an entire **marketing and financial plan** and is suitable for 17-19 year-olds; (2) Idea competition “Best business idea” centred on developing a business idea where the degree of **innovativeness and creativity** are prioritised. Here, a description of the business idea as well as the marketing, planning and start-up costs are needed to

¹⁹⁴ Lindner, J. (2014a). Empowering Youth through Entrepreneurship Education in Austria. [conference presentation]. Fostering Entrepreneurial Youth, 11 - 13 November 2014, Vienna. Available at: http://www.unido.org/fileadmin/user_media_upgrade/Media_center/2014/Events/ECP_Conf_Session_IV_Lindner_13Nov2014.pdf

¹⁹⁵ eesi Impulszentrum & BM BF Bundesministerium für Bildung und Frauen (BM BF) (2014). Zertifizierung von Entrepreneurship - Handelsakademien und Handelsschulen. Version March 2014, ON-Richtlinie 42001. Available at: <http://www.eesi-impulszentrum.at/wp-content/uploads/2014/09/Zertifizierungshandbuch-EE-032014.pdf>

participate in the programme. Next to students from Austria, also students from South Tirol (Italy), Albania, Bulgaria and Liechtenstein are eligible to participate in the competition. After regional competitions the best proposals are invited in order to pitch their ideas with winners obtaining prizes of up to worth €1.000.

On top of the national competition a European competition, the so-called Youth Start European Entrepreneurship Award is organised. At this competition all the national champions compete in both categories ('idea' and 'real market') during the Entrepreneurship Summit, the main event of the Global Entrepreneurship Week (GEW) in Austria¹⁹⁶.

5.2.2.5 Teacher Training

The continuous formation of teachers is a cornerstone of IFTE's and eesi's entrepreneurship activities. This is why IFTE and EESI-Impulszentrum offer a variety of different workshops and seminars for teachers actively engaged in entrepreneurship education or striving to do so. The topic and duration of the workshops and seminars varies considerably. The Initiative for Teaching Entrepreneurship (IFTE) has been providing teacher trainings for approximately 15 years.

5.2.3 Educational scope and target groups

Youth Start Initiative focuses on lower and upper secondary and vocational education and involves students, teachers and school governance.

Target groups and other groups involved (Learners, Educators, Other):

- **School governance/principals/authorities** in educational policy are targeted through the Framework of Reference of Entrepreneurship Competence and the Entrepreneurship School Accreditation.
- **Teachers** are addressed through a number of workshops and seminars in the field of entrepreneurship education. The competence framework can serve as orientation to incorporate entrepreneurial learning into their teaching.
- **Students** participate directly in the Next Generation Entrepreneurship Challenge in order to improve their entrepreneurship competences. In addition, they are the ultimate beneficiaries of Youth Start through improved quality of entrepreneurial education.

5.2.4 Geographical scope

The Youth Start framework is the result of a **national initiative in Austria** which has been incorporated in the curriculum at national level in several VET/Professional Schools since 1996 and recently also in the New Middle School¹⁹⁷ ('Neue Mittelschule') in 2014/15. The related initiatives presented in this case study report are mainly national (in Austria), while some of them open to other countries (e.g. schools certification).

5.2.5 Links to other initiatives and networks

The Youth Start framework shows strong linkages with other initiatives driven by EESI-Impulszentrum and the Initiative for Entrepreneurship Teaching (IFTE). Even before EESI-Impulszentrum was created, entrepreneurship education had been incorporated into the syllabus of secondary vocational and education schools since 1997. In Austria, syllabuses are revised every 10 years.

¹⁹⁶ Global Entrepreneurship Week (n.d.). EESI. Available at: <http://www.eesi-impulszentrum.at/global-entrepreneurship-week>

¹⁹⁷ Neue Mittelschule. [general website]. Available at: <http://www.neuemittelschule.at>

Related initiatives are the project ‘**Starte DEIN Projekt**’¹⁹⁸, a crowdfunding platform allowing students with project ideas to present their ideas for crowdfunding to the wider public, and the Entrepreneurship Summit¹⁹⁹, an annual conference within the global entrepreneurship week. In this time several entrepreneurship events are carried out including many activities in the field of entrepreneurship education targeted at educators and principals.

The Youth Start Framework is used as a base for the adaptation of the “Next Generation” Entrepreneurship Challenge concept into the “Youth Start Entrepreneurial Challenges Programme” within the EU-financed project „Youth Start Entrepreneurial Challenges / UStart”²⁰⁰, a cooperation between Portugal (leading), Austria, Slovenia, Luxembourg and Spain at ministry level. The project aims at developing an innovative, scalable and transferable programme for Entrepreneurship Education for European schools, which will be tested through field trials and evaluated by an external organisation. The duration of the project will be 3 years (from January 2015 to December 2017).

5.3 Entrepreneurship competence concept translated into the learning objectives and practical courses (setting-up phase)

5.3.1 Defining learning objectives

Learning objectives are formulated in the framework of reference of entrepreneurship competences in the form of ‘can-do-statements’ illustrated in Table 18 below. The learning objectives combine knowledge, skills and attitudes strongly incorporating competences related to ethical and ecological issues.

The learning objectives of the Youth Start Framework of Reference for Entrepreneurship Competence draw upon the TRIO Model (see Chapter 5.2.2.2). The TRIO Model views entrepreneurship education as a tool to empower (disadvantaged) youths by fostering independence and self-responsibility towards a society of citizens. Entrepreneurship is understood as a principle and mentality in which human beings get involved in business and society by recognising what needs to be done and exploring appropriate solutions. The model stresses the importance that youth obtain a balance of entrepreneurship knowledge of issues related to economy, ecology and sustainability.²⁰¹

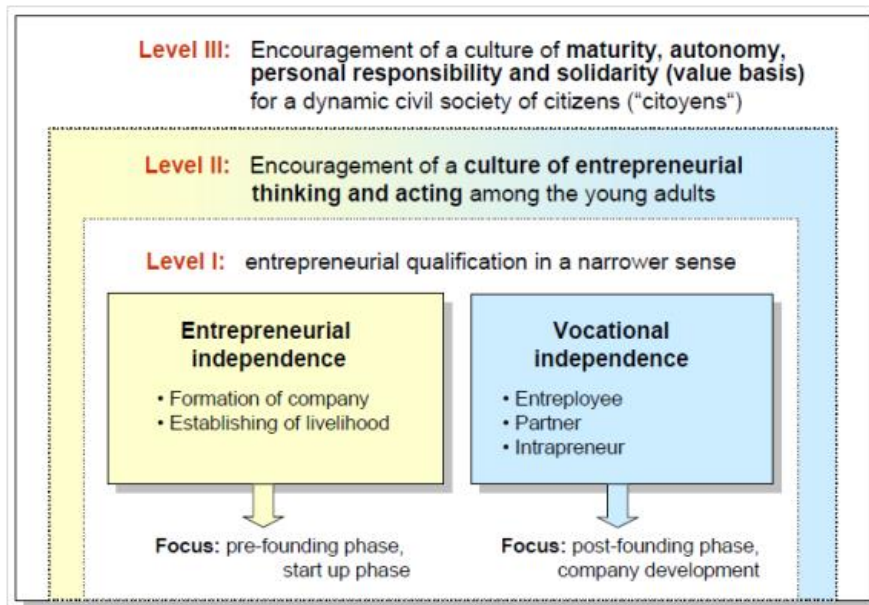
Hence, ethical and value-based components are represented in the learning objectives to a stronger degree as compared to other learning objectives, e.g. in relation to ecological and social consciousness and sensitivity, as spread throughout the categories ‘attitudes’ and ‘acting as a visionary’.

¹⁹⁸ Starte Den Projekt [project website]. Available at: www.startedeinprojekt.at/projekte

¹⁹⁹ Global Entrepreneurship Week (n.d.). EESI. Available at: <http://www.eesi-impulszentrum.at/global-entepreneurship-week>

²⁰⁰ The project is funded under the Erasmus+ programme – key action 3, Policy Experimentation with a number ‘388460-EPP-1-2014-2-PT-EPPKA3-PI-POLICY’

²⁰¹ Lindner, J. (2012b). Sustainability meets Entrepreneurship oder die Next-Practice mitgestalten lernen. Fachdidaktik. GW-Unterricht Nr. 127 / 2012. Available at: <http://www.gw-unterricht.at/onlineausgaben/category/18-gwu127?download=132:gwu127-lindner>



Source: Lindner (2012a)

Figure 17: TRIO Model

Thematic Working Group on Entrepreneurship Education²⁰²

As a further factor leading to the creation of Youth Start's learning objectives the work of the Entrepreneurship Education Working Group deserves mentioning. The work of the subgroup "Future Learning" involved categorising 90 case studies in the field of entrepreneurship education in accordance to different competences targeted by the initiatives.

In this sub-group, stakeholders were involved in the course of the working process across several EU Member States. The task to categorise entrepreneurship competences required the coordination of different public stakeholders representing 7-8 European countries. The public stakeholders were also engaged in consultations with further stakeholders at national level.

Incorporation of Entrepreneurship Education in national syllabus

As a follow-up project EESI-Impulszentrum and IFTE further elaborated the reference framework in order to match the identified competences with the entrepreneurship competences included in the syllabus of secondary vocational schools in Austria. At the same token, the development of the framework benefited greatly from the Austrian school syllabus developed previously in 2003/2004. Indeed, EESI-Impulszentrum has largely shaped school syllabus of Austrian schools by anchoring entrepreneurship education contents since 1996.

As noted earlier, Austrian law prescribes that the contents of educational syllabuses are subject to revision every 10 years. The process of revision required comprehensive multi-stakeholder consultations involving business as well as social partners. What is more, a group of 30 entrepreneurship teachers trained by EESI-Impulszentrum provided continuous feedback and validated the competence framework.

In the context of revising the school syllabus for vocational schools, a consulting and feedback process with Austrian stakeholders is by law put in place. The stakeholders include representatives from business as well as social partners.

²⁰² Group Details - Commission Expert Group (2011).

Table 18: Youth Start's learning objectives (in the form of can-do-statements)

Topic		Level	Key learning objectives: <i>The students will be able to:</i>
DEVELOPING IDEAS	Attitude	A1	<ul style="list-style-type: none"> ➤ I can identify areas which I m good at ➤ I think about what I will do in the future ➤ I am able to fulfil simple tasks
		A2	<ul style="list-style-type: none"> ➤ I can undertake simple tasks and focus on completing them successfully ➤ I can explain supply and demand, e.g. how it can determine the market price of a product ➤ I can reflect in my education and job prospects in the future
		B1	<ul style="list-style-type: none"> ➤ I can identify my strengths and weaknesses ➤ I can set goals to improve my skills where needed ➤ I am comfortable in taking responsibility for a task ➤ I can face potential competition in the implementation of tasks ➤ I can describe my own professional goals ➤ I know that people have different career options
		B2	<ul style="list-style-type: none"> ➤ I can identify my own strengths and weaknesses ➤ I pursue my goals persistently ➤ In the process I am willing to take responsibility and work to overcome potential difficulties
		C1	<ul style="list-style-type: none"> ➤ I am motivated to further develop my abilities ➤ I can set myself long-term targets to achieve my goals ➤ I can take over a task and complete it successfully ➤ I am ready to take over a task and complete it successfully, also in competitive situations
		C2	<ul style="list-style-type: none"> ➤ I can justify and evaluate my own goals and values ➤ I respect others and am actively committed to dealing with societal issues ➤ I can take over a task and complete it successfully, also in competitive situations
		A1	<ul style="list-style-type: none"> ➤ I can develop my creative ideas and recognise their value
	A2	<ul style="list-style-type: none"> ➤ I can develop creative ideas which solve problems and recognise opportunities in the market and in society ➤ I can develop a collection of ideas and I can record them e.g. in an Innovation Savings book (a notebook to support young entrepreneurs) ➤ I can present my own ideas ➤ I can identify risks in everyday life and reflect on how to avoid them 	
	B1	<ul style="list-style-type: none"> ➤ I can develop ideas and provide justifications why they should be implemented ➤ I can identify and seize opportunities ➤ I am aware of risks and take over responsibility for my own actions ➤ I can present a draft concept and understand the purpose of a business plan 	
	B2	<ul style="list-style-type: none"> ➤ I can develop ideas into business proposals, and evaluate their innovative approaches and their market potential ➤ I can evaluate business risks using case studies and make appropriate decisions ➤ In a discussion with others I can find arguments for my ideas in a structured way 	
	C1	<ul style="list-style-type: none"> ➤ I can read, interpret and evaluate business plans ➤ I can design mu own business plan within/for a social enterprise business model ➤ I can interpret the entrepreneurial risks of my own business mode and can take decisions based on controlled risk management 	
	C2	<ul style="list-style-type: none"> ➤ I can create a business plan for a business model including a SWOT analysis ➤ I deal with risks in a controlled way when implementing a business model ➤ I can analyse the concept of an organisation or a business, and can make suggestions for further development 	
	Identify opportunities		

IMPLEMENTING IDEAS	Organising	A1	➤ I can apply simple planning skills and show an understanding for limited resources
		A2	➤ I can plan goals and outline decision-making processes ➤ I can generate added value from available resources (e.g. seemingly 'worthless' things)
		B1	➤ I can plan goals and implement a supervised project ➤ I can come up with ideas for effective marketing
		B2	➤ I can plan goals, develop work packages for their implementation and carry out a project ➤ I can plan strategic marketing based on tactical approaches ➤ I can plan and correctly deal with finances
		C1	➤ I can initiate and develop project-based collaboration with others, and evaluate individual roles
		C2	➤ I can work with others and negotiate decisions ➤ I can evaluate the impact of my own negotiation and persuasion skills
	Working together	A1	➤ I can work with others
		A2	➤ I can work with others, agree on responsibilities and deal with possible problems
		B1	➤ I can work with others and maximise the use of individual skills ➤ I can take the initiative to convince others when making group decision ➤ I can communicate with other people
		B2	➤ I can develop appropriate strategies to deal with difficult situations while working together ➤ I am good at networking and at developing cooperation ➤ I can use modern technologies
		C1	➤ I can initiate and develop project-based collaborations with others, and evaluate individual roles
		C2	➤ I can work with others and negotiate decisions ➤ I can evaluate the impact of my own negotiations and persuasion skills
THINKING SUSTAINABLY	Acting as a visionary	A1	➤ I can see the importance of economic, ecological and social issues for our lives
		A2	➤ I am aware of economic and societal issues we face, and have considered how I can contribute in everyday life
		B1	➤ I would like to contribute my ideas to a future-oriented ecologically and socially sensitive behaviour in business and society ➤ I can see ethical problems ➤ I can explain my ideas about fair trade
		B2	➤ I take ecological and social considerations into account when planning and implementing a business model and discuss these
		C1	➤ I implement my ideas (my business model) in an ecologically and socially sensitive way ➤ I see ethical problems and solve them where possible
		C2	➤ I can integrate economic, ecological and social criteria into medium and long-term business plans and this achieve competitive advantage
	Financial literacy	A1	➤ I can explain and compare the price and value of products
		A2	➤ I can plan what I use my pocket money for
		B1	➤ I can explain different possibilities to finance my ideas ➤ I can give an overview of the different possibilities to save money and I can choose the most suitable
		B2	➤ I can analyse and justify alternatives of funding based on case studies ➤ I can give an overview of instruments and choose the most suitable
		C1	➤ I can come up with a financing concept for my business model according to the motto 'brain versus capital'

Source: Youth Start Framework of Reference for Entrepreneurship Education. In: Lindner (2014)

5.3.2 Setting-up practical courses/curricula/activities

The YouthStart competence framework is built on almost 20 years of experience in anchoring / incorporating entrepreneurship education across various educational levels in Austria. The initiators of the framework also hold ample experience as authors of educational materials, targeting students as well as educators, e.g. books, films, teacher trainings.²⁰³ The Youth Start framework and its linked components focus on improving the conceptual level of entrepreneurship education, i.e. through the provision of curricular and extra-curricular activities. **The curricular level** is mainly tackled through the incorporation of entrepreneurship education in school syllabuses whereas **the extra-curricular level** is addressed through the certification of entrepreneurship schools.

With the exception of the Entrepreneurial Challenge Programme and the Teachers Training IFTE and EESI-Impulszentrum do not directly implement pedagogical activities. Instead, they suggest them, in line with the pluralism of methods it frequently advocates. This is particularly valid for the TRIO Model and the Certification of Entrepreneurship Schools.

Suggested activities using TRIO Model

The TRIO Model proposes that all levels of entrepreneurship education are accompanied by a number of extra-curricular activities in order to consolidate an entrepreneurial culture and create a society made up of autonomous, self-responsible citizens. While the model does not specify precisely how it should be implemented, IFTE and EESI-Impulszentrum support educational institutions in developing a repertoire of appropriate activities.

The level of entrepreneurship education activities included per educational level is pictured in the following table:

Table 19: TRIO Model level and suggested entrepreneurial activities

TRIO Model Level	Suggested entrepreneurial activities
Level I	Business models
	Idea and business plan competition
	Interviews/visits involving entrepreneurs
	Case studies (cases)
Level II	Extra-curricular workshops
	Coaching/mentoring
	Buddy system (peer review)
Level III	Games encouraging vertical thinking
	Debates

Source: prepared by CARSA based on Lindner (2014)

Activities suggested by the Accreditation/Certification scheme

The certification of Entrepreneurship Schools does not only concern activities in entrepreneurship education taught at schools but also involves change structures and communication between school governance, educators, students and parents (EESI-Impulszentrum, 2014). Commercial academies wishing to be certified as entrepreneurship

²⁰³ Mr. Lindner has been the author of 17 school books for both educators and students, as well as further entrepreneurship education materials (entrepreneurial design thinking) to be used in the classroom.

schools need to lay down evidence to have implemented a range of mandatory and optional criteria, mostly referring to extra-curricular activities. To provide an overview of the activities Table 20, Table 21 and Table 22 are provided as follows:

Table 20: Examples of activities in entrepreneurship activities at school in accordance to 'certification guidebook' by EESI-Impulszentrum

Activity	Level	Objective	Description/conditions
Organization of an entrepreneurship education day within certification period	P1	<ul style="list-style-type: none"> • First familiarization the students / in line with the theme Entrepreneurship • Education as a teaching principle • Activation of students • Cooperation economic educator and class teacher 	<ul style="list-style-type: none"> • For all 1st year courses / classes across disciplines • Duration: about 4 hours • use of "trading games" (instructions by eesi HP) • related to various counter-produce stands (e.g. Mindmap) • Interdisciplinary work-up of the exercise • Participation at least a businesswoman and a businessman
Exploration of a business	P1	Insights into real business world	<ul style="list-style-type: none"> • For all students starting from the 2nd school year • Within classroom or individually • Organisation by students • Students prepare questions before the business idea, entrepreneur, competitive advantage, etc. • Possibly using the survey guide
Participation in a competition of ideas outside the school to a business idea	P1	<ul style="list-style-type: none"> • Promotion of creativity • Inclusion of general subjects 	<ul style="list-style-type: none"> • develop their own business idea and submit it to the contest • participation of 25% of the students in 2nd year HAK in a school year of certification period (25%)

Source: Eesi Impulszentrum & BM BF (2014).

Table 21: Examples of basic criteria for teachers

Activity	Level	Objective	Description/conditions
Hold a basic teacher training on the topic of entrepreneurship education	P1	<ul style="list-style-type: none"> • Participation of Economic Educators and teachers, e.g. in the context of an educational day • Implementation at the beginning of the certification phase 	Concept development, see HP (3-hour program) participation: <ul style="list-style-type: none"> • school management • min. 70% of all teachers the site • For further certification: Retraining of new teachers
Visit of relevant seminars on entrepreneurship education	P1	Discussion of current topics on entrepreneurship education	<ul style="list-style-type: none"> • Attending seminars with content on the implementation of entrepreneurship education (e.g. Kitzbühl summer college) ç • Disclosure and discussion of

			implementation options in appropriate Professional Group
Programme for Directors	P1	<ul style="list-style-type: none"> • Build knowledge about the specific aspects of teaching based on entrepreneurship education and accelerate accordingly in the school • Definition of EE-goal from the quality matrix as a school goal 	Participation in: <ul style="list-style-type: none"> • symposia • Global Entrepreneurship Week events • Academic Events • Director / inside-conferences on entrepreneurship education

Source: Eesi Impulszentrum & BM BF (2014)

Table 22: Examples of Organizational framework

Activity	Level	Objective	Description/conditions
School Mission Statement	P1	Anchored entrepreneurship education in the mission statement	The topic of entrepreneurship education philosophy of the school is represented in the mission statement
Website	P1	Documentation of entrepreneurship activities at school	Organization e.g. as "optional exercise" at the school
Documentation of entrepreneurship activities and achievements	P1	Communicate visible entrepreneurship activities at the school after all and document	Current visualizations in the school to inform all students / inside, Teacher / and parents (e.g.: "Entrepreneurship Corner", showcases)
Entrepreneurship education managers	P1	Two managers are defined: <ul style="list-style-type: none"> • min. one teacher and • one Business Educator 	The leaders perceive the coordinating role for the implementation of development activities and support the school administration and the teachers' team at school. They serve as contact persons.

Source: Eesi Impulszentrum & BM BF (2014).

Initial and continuous teacher trainings are both linked to the Youth Start framework. EESI-Impulszentrum trained a group of entrepreneurship teachers in order to disseminate an entrepreneurship education philosophy (TRIO Model) using the framework of entrepreneurship competence as a basis for teaching practices.

Regular assessments of the overall school syllabus form an integral part of the Austrian education system. In Austria are different formats for assessments are used e.g. Portfolios Methods, Case Studies.

5.4 Teaching and Learning of entrepreneurship competence in diverse settings (implementation phase)

5.4.1 Teaching methods and channels - pedagogical approach

Given the framework's embedment into broader activities, a wide variety of teaching methods are applicable. What is more, both the Certification of Entrepreneurship Schools and the TRIO Model approach use a wide range of teaching methods in order to make entrepreneurship education work at school.

Table 23: Youth Start teaching approach and methods

Teaching methods			
Youth Start			
Collaborative learning			X
Competitive learning			X
Learning-by-doing / Project-based learning / Problem-based learning / Challenge based learning			X
Curiosity-based learning / inquiry based learning			
New approaches allowing learning from failure / learning in an ambiguous environment			
Self-reflection/Self-evaluation			
Technology-based learning / Blended learning			✓
<i>More specifically:</i>			
Lecturer		Simulations and business games	✓
Writing articles and essays	✓	Student companies / mini-companies / practice firm	✓
Brainstorming	✓	Guest speakers / external visitors / role models	✓
Group Discussions / Debate	X	Company visits / community visits / field visits	✓
Role Play	X	Work placements	✓
Case studies	✓	Mentoring schemes / tutoring	✓
Peer group presentations / peer editing/ peer review	X	Workshops, seminars and trainings	✓
Project work and group work	X	Fairs/events/bring-and-buy	✓

Source: Prepared by CARSA; 'X' stands for the key teaching method and is usually limited to three options while '✓' marks additional/complementary teaching methods. 'ICT' indicates where it constructs a major part.

The main characteristics of the pedagogical approach employed are: **Challenge based learning, competitive learning as well as collaborative learning forms.** Teachers are encouraged to employ systematic as well as creative teaching methods in order to exploit the full potential of entrepreneurial education. **Collaboration with regional business** and industry in terms of company visits, guest speakers, case study examples, work placements are part of the Youth Start's teaching method portfolio. Important informal learning forms are peer review – 'buddy systems', coaching, but also more creative methods, e.g. role games, simulation games, are addressed within Youth Start related initiatives.

Importantly, debating is regarded as an important method reinforced by the '**debate club**' (Debattierklub Wien²⁰⁴), since the ability to debate is an important competence/ability towards becoming a fully participating citizen in society²⁰⁵.

As a business plan and business idea **competition**, the Entrepreneurial Challenge Programme is an integral extra-curricular activity of the Youth Start framework. It is designed in order to familiarise the students with the idea development and implementation of a project of their own and reinforce vertical thinking and develop the competences needed for this process. IFTE and EESI-Impulszentrum also offer related workshops for students, e.g. on how to best sell their business idea, elevator speeches, etc.

Entrepreneurial Challenge Based Learning

Youth Start makes considerable use of Entrepreneurial Challenge Based Learning. This approach is best described as an engaging multidisciplinary approach to teaching and learning, encouraging learners to solve small and large real-world problems. The approach is collaborative and hands-on, asking students to work with peers, teachers, and experts in their communities and around the world to ask good questions, develop deeper subject area knowledge, accept and solve challenges, take action and share their experience.²⁰⁶

COOL - Co-operative Open Learning

As a proprietary learning approach 'Co-operative Open Learning (COOL)²⁰⁷ is integrated in Youth Start activities. The teaching concept was developed in upper-secondary vocational schools in Austria under the sponsorship of the Federal Austrian Ministry of Education. It focuses on the promotion of **self-organised learning strategies** and the development of **personal qualifications for improving social skills**. Further the approach uses teamwork among teachers and among students, collaborative methods, class-meetings to reflect on the learning process and evaluate outcomes.²⁰⁸

Role of information and communication technologies in teaching

Youth Start activities make use of a range of different ICT and online tools integrated in the classroom as well as in extra-curricular activities. For example, a set of cartoon video clips for children (Sparefroh TV)²⁰⁹ explain how to manage finances for children offered in cooperation with partners.

²⁰⁴ Debattierenklub Wien [general website]. Available at: <http://www.debattierklubwien.at>

²⁰⁵ Debattieren an Schulen (n.d). Debattierenklub Wien. Available at: <http://www.debattierklubwien.at/projekte/debattieren-an-schulen>

²⁰⁶ This info was provided during the interview with Mr. Lindner.

²⁰⁷ Cool Impulszentrum: COOL [general website]. Available at: <http://www.cooltrainers.at>

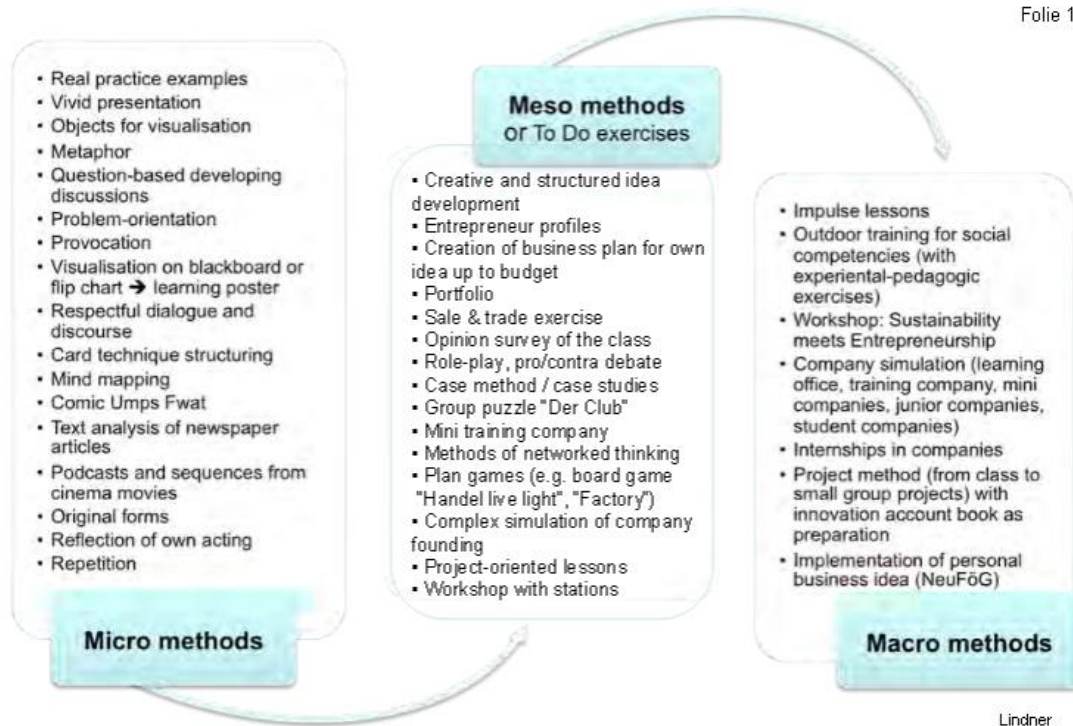
²⁰⁸ Thematic Working Group on Entrepreneurship Education (2014). Final Report. Brussels, November 2014. Available at: http://ec.europa.eu/education/policy/strategic-framework/archive/documents/entrepreneurship-report-2014_en.pdf

²⁰⁹ Sparefroh TV – Sparefroh. Available at: <http://www.sparefroh.at/de/Geld-Wissen/Sparefroh-TV>

Additionally, the 'Starte DEIN Projekt' crowdfunding platform can serve to teach students how to obtain funding and market their project to investors.

What is more, students of the 'Next Generation' business plan competition have access to a software from the Bank Austria²¹⁰. The software is a comprehensive tool which takes users through the steps of creating an effective business plan. It allows users to map their company, import data (e.g. from excel, Access), prepare business planning processes and allows for individual reporting.

Folie 16



Source: Lindner (2012a)

Figure 18: Micro, meso and macro methods used within Youth Start related initiatives

The majority of Youth Start activities apply learn-by-doing learning approaches providing students with a complete set of entrepreneurship competence in form of knowledge, skills and attitudes.

The Entrepreneurship Challenge Programme 'Next Generation' is a slight exception. As a business idea and business plan competition, the 'Next Generation' competition fosters above all entrepreneurial skills through competitive learning. In an idea pitch setting, skills such as communication, presentation, creativity, idea development, etc are encouraged. On the contrary, the development and presentation of the business idea/business plan requires a combination of entrepreneurial competence combining a set of different knowledge fields and skills, e.g. marketing, business, from idea to implantation, planning, organisation, financial literacy, etc.

Business coaches are available for each of the 500 teams participating in the "Next Generation" competition. In addition, some entrepreneurs provide "Start your project – Workshops" about entrepreneurial design thinking and project playground.

At the yearly Entrepreneurship Summit (2014: number 12) entrepreneurs, teachers and students are cooperating.

²¹⁰ Bank Austria BusinessPlanner [general website]. Available at: <http://www.businessplanner.at>

5.4.2 Teachers training: teaching guidelines and train-the-educator

The provision of teacher trainings is a key activity of EESI-Impulszentrum and IFTE and vital complement of the competence framework in order to ensure that entrepreneurship education is carried out appropriately at schools. In fact, the framework itself is also used during the teacher trainings as a tool to plan entrepreneurship activities.

Teacher trainings are offered at two main levels:

- (a) Initial teacher training at the university teacher college (KPH) Wien/Krems and the University Vienna.
- (b) Summer seminars for teachers.
- (c) Continuous workshops and training of teachers.

Moreover, teacher training is an integral part of the Certification Process (see Chapter 5.2.2.3) with more or less all teachers from the school participating, together with the school governance.

Initial teacher training

The training of educators was already a key component when entrepreneurship education was first introduced into the Austrian school syllabuses in 1996. Next to helping school governance and educators incorporate entrepreneurship education and design appropriate curricular and extra-curricular activities, the education of entrepreneurial teachers soon became a priority in order to ensure that teachers take a proactive role to foster an entrepreneurial culture at educational institutions. The training was implemented in the form of a series of face-to-face workshops which also included training on how to use provided training material, e.g. manuals, guidelines, etc.

Summer seminars

IFTE's primary train-the-educator activity consists in providing intensive summer workshops for Entrepreneurship Education in Kitzbühel, Austria. The annually held courses last for one week and targets teachers from vocational schools and colleges as well as general secondary education tracks.

The subjects of the seminars are diverse ranging from entrepreneurship within educational philosophy over business ethics to ideas creation. What is more, the seminars also comprise more technical aspects related to implementation of teaching incl. change management processes seeking to increase the innovativeness of schools. In terms of teaching approaches, experiential learning is prioritised. Train-the-educators staff is composed of educators from business, universities and schools.²¹¹

Continuous workshops and training of teachers

IFTE and EESI-Impulszentrum both provide teacher trainings through multiple workshops. The topic of the courses offers a wide spectrum, targeting different aspects of entrepreneurship education ranging from effective coaching to informative workshops on how to apply/implement concepts that are included in the EESI-Impulszentrum & IFTE catalogue (e.g. "Starte DEIN Projekt"). The duration of the workshops is in between 1-3 days. Workshops are given face-to-face.

Co-operation with business and industry is also reflected by other training schemes, e.g. 'teachers into business' (Lehrer/innen in die Wirtschaft), offering teachers the opportunity to complete an enterprise internship in one of more than 50 collaborating Austrian enterprises, thus becoming familiarised with processes and skill demands in the private sector.

²¹¹ Hatak, I. (2011). Innovation in Entrepreneurship Education in Europe: An Analysis of New Initiatives, Implementation Processes and Associated Success Factors. Available at: http://www.wu.ac.at/ic/ricc/en/forschung/researchreports/researchreport2011_3

5.5 Assessment and Impacts

5.5.1 Strategy for assessment of entrepreneurship competence

Similarly to the pluralism of teaching methods, there are **several assessment forms** practiced and suggested in relation to Youth Start activities, **summative as well as formative** ones.

The primary assessment methods include external review through coaching and mentoring, project work and presentation / pitches of business plans and business ideas. Concerning formative methods external coaching, mentoring and buddy systems (peer review) are a vital part of the assessment strategy suggested within the TRIO Model as well as EESI-Impulszentrum's certification practice of entrepreneurship schools. Meanwhile, the primary summative evaluation of entrepreneurship competence is through business plan and business idea competitions as demonstrated by the Entrepreneurship Challenge Programme (see below).

Table 24: Assessment methods linked to the Youth Start framework

Assessment method:	You th Start
Reflective Essays	✓
Written Exam (written test, questionnaire based)	
Oral exam	
Self-evaluation / self-reflection	✓ (ICT)**
Peer-evaluation (in-class) / group evaluation	✓
External review / Feedback from external stakeholders (including users side)	X
Project work (incl. simulation project work, or work on a real business idea) / assigned task achievement	X**
Presentation / pitches	X*
Event (e.g. faire exhibition)	
Competition application and similar	✓*

Source: Prepared by CARSA; 'X' stands for the key assessment methods and is usually limited to three options while '✓' marks additional/complementary assessment methods. 'ICT' indicates where it constructs a major part; *refers to the Entrepreneurial Challenge Programme; ** refers to the certification of Entrepreneurial Schools

Entrepreneurship Challenge Programme

After the submission of applications at regional level, regional juries evaluate the proposals and invite the best proposals in order to pitch their ideas. The regional winners then are invited for the final "Next Generation" competition. Prizes of up to €1.000 are awarded to the winners.

Table 25: Assessment criteria of the Entrepreneurial Challenge programme

Criterion	Category I	Category II
Basic elements and structure	25%	15%
Business idea/implementability/innovative character	15%	30%
Market/marketing plan/	25%	20%
Financials/Start-up costs	20%	15%
Autonomy (reference list, ...)	10%	10%
Layout	5%	10%

Source: Lindner and Wegscheider (2014).

At the European final co-operation with external stakeholders is put in place through a jury of entrepreneurs. The jury is in charge of evaluating the business ideas as well as business plans of the final candidates.

Software tool to measure personality traits and attitudes towards entrepreneurship

The Impulse Centre of Entrepreneurship Education (EESI-Impulszentrum) is promoting a software tool to evaluate entrepreneurial attitudes and skills titled EEP. More specifically, the tool seeks to measure personality traits and attitudes towards entrepreneurship (identification of current status) and any changes to attitudes as a result of special training measures.²¹²

The software was created within the framework of a national research project funded by the Austrian Ministry of Education.²¹³ This software tool has been made available free of charge to all VET schools and colleges.

5.5.2 Impact, evaluation and monitoring

The monitoring of impacts in relation to entrepreneurship education is carried out through several of Youth Start's instruments.

- In the Challenge Programme the number of applications received, competition results are monitored for the purpose of measuring the impact of the programme. The programme is also interested in following up on the professional development of former participants. IFTE and EESI-Impulszentrum also attempt to involve previous winners within other activities in the form of role models.
- 'Starte DEIN Projekt'; a platform where students can search for crowdfunding activities. The platform facilitates the monitoring of successful business ideas. Often the business ideas presented on the platform formerly participated in the Challenge Programme.
- Certification of Entrepreneurship Schools; the certification system allows for monitoring, collection of data on the entrepreneurship activities, changed structures, etc of the entrepreneurship schools. In view of the possibility to provide further certification of schools that have already obtained prior certification, eesi can follow up on the deepening of entrepreneurship education activities.

Impacts of Youth Start related initiatives

Youth Start's activities show impacts regarding the **extension of entrepreneurship education throughout Austria's schools**. EESI-Impulszentrum has witnessed a considerable increase in the interest by teachers, school management and regions in Austria facilitating to further extend co-operation, e.g. in the framework of the school certification system. The increasing exposure of students to entrepreneurial learning has, according to EESI-Impulszentrum, equally led to increased entrepreneurship competence which is also reflected by a more sustainable participation in society. However, the latter has to-date not been investigated by means of an empirical study.

At a more general level, an impact assessment study was drawn up several years ago in cooperation with the economic university of Vienna regarding Entrepreneurship Education in Austria but the results cannot be deducted to Youth Start activities.

²¹² Hatak, I. (2011). Innovation in Entrepreneurship Education in Europe: An Analysis of New Initiatives, Implementation Processes and Associated Success Factors. Available at: http://www.wu.ac.at/ic/ricc/en/forschung/researchreports/researchreport2011_3

²¹³ "15. Entrepreneurship" (n.d.). Available at: http://www.abc.berufsbildendeschulen.at/upload/1276_E_15%20-%20Entrepreneurship%20und%20DCFA%20%2810.2007%29.pdf

5.5.3 Example of show cases

'ReGreen' is a company founded by three students of the *Schumpeter Handelsakademie und Handelsschule Wien 13* who participated in the Youth Start Entrepreneurship Camp. The project's idea is to compensate harmful emissions caused by automotive vehicles through investments into projects on renewable and green technologies. This is achieved by a Verified Emission Reduction (VER) system which can be purchased at petrol stations when refilling the tank or from ReGreen directly at an annual basis. The amount of Co² emissions provoked by the concerned citizen will be invested into projects with VER Gold Standard. Re-green won the business plan competition within the Next Generation Entrepreneurial Challenge Award in Austria. In addition, the project won the LIBRO audience prize, awarded within the „Youth Start – European Entrepreneur of the Year” awards.

A further success story is provided by a group of students from the vocational business school in Gänserndorf (BHAK Gänserndorf²¹⁴). In the framework of marketing project a disposable bottle shredder that crushes plastic bottles and minimises space in the community garbage bags.²¹⁵ After the group of students had won the regional competition in the region of Niederösterreich the shredder was presented as "Shreddys Einwegshredder 5000" at the national competition sponsored by Bank Austria where it won the first prize in the section 'best business idea'.

5.6 Sustainability and transferability

5.6.1 Sustainable business and financial model

EESI-Impulszentrum was set up by the Austrian Ministry of Education and Women (Bildungsministerium für Bildung und Frauen) and is financed mainly by public funds. Contrary to other public organisations EESI-Impulszentrum also provides of funds which come directly from the system, i.e. not all of its financing derives are project based giving it more flexibility while exerting less pressure to constantly obtain new project funds.

IFTE, on the other hand, counts more on co-operation with the private sector. For example, enterprises are partners/sponsors of its Entrepreneurial Challenge Programme.

5.6.2 Key sustainable aspects

The primary factor making the competence framework sustainable is its incorporation within the syllabus(-es) of Austrian VET/Professional Schools and also New Middle Schools. As a result, the can-do-statements (competences) included in the framework have been accepted and implemented. Since syllabuses are revised and adjusted in 10-year intervals, sustainability is ensured.

Close and year-long collaboration between EESI-Impulszentrum (as a centre set by public exams) and the Ministry of Education also significantly contributes to the sustainability of the initiative. In practice, this means that a mutually beneficial relationship has been established accompanied by a culture of openness from both sides. As a result, the Ministry of Education firmly takes into account the suggestions made by EESI-Impulszentrum giving it high impact on decisions made by the Ministry within a collaborative environment.

The certification of Entrepreneurship Schools²¹⁶ also contains sustainable side effects. It successfully creates models of excellence which can serve as a 'test bed' to pioneer entrepreneurial

²¹⁴ Bundeshandelsakademie und Bundeshandelsschule Gänserndorf (BHAK-BHAS Gänserndorf) [general website]. Available at: <http://www.hakgaenserndorf.ac.at>

²¹⁵ "Projektgruppe "Shreddys" erhält Sustainability Award" (n.d.). BHAK-BHAS Gänserndorf: Auszeichnungen. Available at: <http://www.hakgaenserndorf.ac.at/index.php?id=auszeichnungen>

²¹⁶ This applies to vocational education institutions: commercial academies and schools (BMHS).

education in certain institutions. Potential success stories may spill over to other education institutions leading to a domino effect of entrepreneurship education excellence.

Last but not least, the initial as well as continuous training of teachers is an important aspect contributing to the sustainability of the initiative. Entrepreneurship teachers were trained to spread entrepreneurship education to many institutions. In practice, the entrepreneurship teachers act as a de facto network of educators who themselves give trainings on the topic and are also involved in providing feedback / validation of new tools/criteria set up by EESI-Impulszentrum.

5.6.3 Potential transferability

The Youth Start framework has already been subject to transferability today. It is the basis for the Youth Start policy experimentation project “Youth Start Entrepreneurial Challenges” (UStart²¹⁷) which aims to have a significant impact on practical experiential learning at the compulsory school level in the partner countries Portugal, Austria, Luxembourg, Slovenia and Spain. Within that project, an Austrian team of experts coming from IFTE and EESI-Impulszentrum will be the authors of the “Youth Start Entrepreneurial Challenges Programme”, which then will be implemented in all participating countries with a mid-term aim to scale the Programme to many other European Countries, which are planned to form the “Youth Start Europe”²¹⁸ platform for Entrepreneurship Education.

Through the UStart project, EESI-Impulszentrum and IFTE also seek to extend the incorporation of entrepreneurship across educational levels to 8-9 year old pupils, thus transferring some of the entrepreneurial challenges included in the Youth Start framework.²¹⁹

What is more, a first foreign school from Italy has recently passed the certification as entrepreneurship school. In the future EESI-Impulszentrum plans to further extend the certification model to further European countries.

5.7 Key lessons and observations

Youth Start is built around the following factors having an important share in the initiative’s success.

Collaboration with business and local entrepreneurs outside the school environment is crucial.

The Youth Start framework emphasises the importance of collaborating with business outside the school environment. Connectivity to business, e.g. partnerships in terms of internship programmes, business visits, interviews with entrepreneurs is considered a very important aspect.

Systemic approach to the training– initial, ad-hoc and continuous – is very important, alongside a pool of entrepreneurial educators at disposal.

Initial, ad-hoc and continuous training of educators is considered a key critical success factor. Establishing a pool of entrepreneurship educators has proven an effective tool to ensure further dissemination of entrepreneurship education as well as to maintain a pool of educators validating new teaching tools/entrepreneurship activities.

²¹⁷ As noted earlier, this project is funded under Erasmus+ programme – key action 3, Policy Experimentation with a number ‘388460-EPP-1-2014-2-PT-EPPKA3-PI-POLICY’. No further public information is available at point in time, all the information on the project was provided by Johannes Lindner.

²¹⁸ YouthStart Europe [general website]. Will be available at: www.youthstart.eu

²¹⁹ This information was provided by Johannes Lindner during the case study interview.

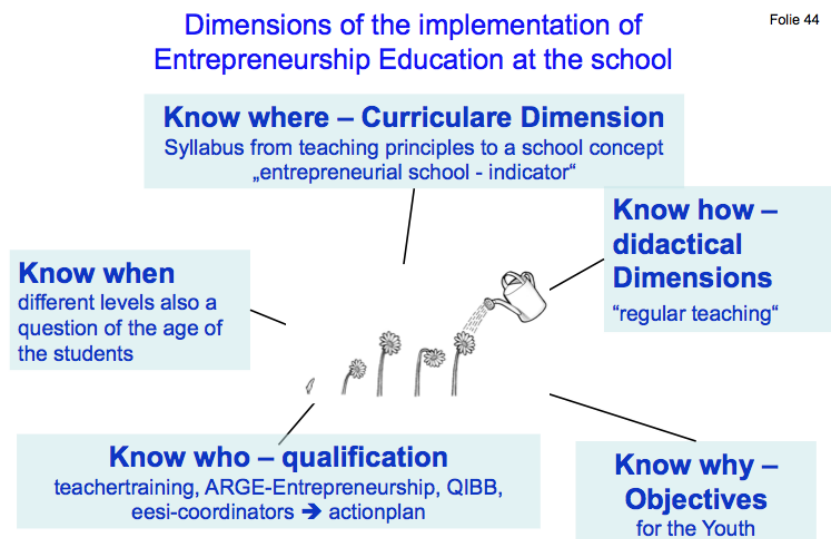
Students are approached as individuals while enhancing self-directed learning.

The Youth Start initiators emphasise the importance to foster an understanding of students that they are themselves responsible for their own learning results. An effective means to accomplish this is by introducing self assessment instruments. Project oriented learning (e.g. encouraged by 'start your project') have also proven to be effective to foster self-initiative. Moreover, mentoring and buddy systems provided by fellow students or educators in the role of a coach can serve as valuable complements.

5.7.1 Other remarks

Systemic and holistic approach to entrepreneurship education

Last but not least, the Youth Start initiators owe part of their success to the multidimensional approach taken to the implementation of entrepreneurship education. As portrayed in Figure 19 below these dimensions refer to an effective interplay between the curricular dimension, didactical dimension, quality assurance dimension as well as tailored age dimension and motivational dimension. These factors together create a fertile environment where entrepreneurship can develop effectively.



Source: Lindner (2012a)

Figure 19: Dimensions of implementing Entrepreneurship Education at school

Recognition for entrepreneurial schools and students

Interestingly, the certified entrepreneurial schools and winners of the YouthStart related competitions are awarded at the Entrepreneurship Summit. This gives the opportunity to motivate them in their future work, but also, it recognizes publicly their effort and thus, creates "role models" for students but also for schools.

Appropriate learning settings for entrepreneurship competence

As noted earlier, Youth Start advocates a pluralism of curricular and extra-curricular entrepreneurship education activities and linked teaching methods. In accordance to the experience gained within Youth Start a combination of systematic and creative teaching elements are implemented in the classroom depending on the particular competence and target group. For example, competences linked to social entrepreneurship (ethical components, environmental awareness) do not work well with teacher centred lectures, since social interaction is a prerequisite to obtain social entrepreneurship competences.

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Interview carried out with Johannes Lindner, eesi / IFTE

6 Case Study 4: SEECEL SEECEL Instrument for Entrepreneurial Learning - Key Competence Approach - ISCED level 1

The Instrument for Entrepreneurial Learning - Key Competence Approach has been developed and managed by **South East European Centre for Entrepreneurial Learning (SEECEL)**²²⁰, a regional think tank institution focused on human capital development, particularly lifelong entrepreneurial learning (LLEL) and promotion and implementation of entrepreneurship as a key competence with a final goal of rising regional competitiveness. SEECEL was established in 2009 in Croatia, on request of the South East European countries. Through SEECEL, South East European countries jointly express interest in developing LLEL in line with EU policies. SEECEL works closely with its member states, European Commission (EC)²²¹, European Training Foundation (ETF)²²², the Organisation for Economic Co-operation and Development (OECD)²²³ and Regional Cooperation Council (RCC)²²⁴. SEECEL has an international governing board composed of appointed representatives from eight SEECEL member states (one from the ministry of education and one from the ministry responsible for the implementation of the Small Business Act for Europe) and representatives of the European Commission's Directorate-General for Neighbourhood and Enlargement Negotiations. (DG NEAR)²²⁵ and the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROWTH)²²⁶, the European Training Foundation (ETF), all voting members; further the RCC and the OECD as non-voting members.

The SEECEL Instruments for Entrepreneurial Learning - Key Competence Approach ('SEECEL Instrument') are being developed for all educational levels - ISCED 1-3 and ISCED 5/6 - and comprise learning outcomes, teaching methods and assessment methods (as an entrepreneurial learning package), together with teacher and school management training. All Key Competence Instruments developed by SEECEL are linked to the EU Key Competence Framework however the recommendations are fully applicable to the European Qualification Framework (EQF). **Our case study focuses on ISCED level 1**²²⁷ which has been fully developed, and currently is in its first year of initial implementation. Besides development of Key competence frameworks for EL, SEECEL has developed a Training Needs Analysis (TNA) tool²²⁸ to support the up-skilling of entrepreneurs in the region as a mean to increase the competitiveness and sustainability of regional economies. Further, SEECEL focuses on women entrepreneurship as a job creation engine for South East Europe²²⁹ and Small Business Act (SBA) assessment²³⁰.

²²⁰ South East European Centre for Entrepreneurial Learning (SEECEL). [general website]. Available at: <http://www.seecel.hr>

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²²⁷ ISCED 1 – SEECEL – South East European Centre for Entrepreneurial Learning (n.d.). Available at: <http://www.seecel.hr/isced-1>

²²⁸ TNA/QA – SEECEL – South East European Centre for Entrepreneurial Learning (n.d.). Available at: <http://www.seecel.hr/UserDocsImages/tna-qa>

²²⁹ Women Entrepreneurship – SEECEL – South East European Centre for Entrepreneurial Learning (n.d.). Available at: <http://www.seecel.hr/UserDocsImages/women-entrepreneurship-5060>

6.1 Summary

The **Instrument for Entrepreneurial Learning - Key Competence Approach in ISCED level 1**²³¹ is publically funded initiative developed and managed by South East European Centre for Entrepreneurial Learning (SEECEL)²³², a regional think tank institution focused on human capital development. As expressed in its Strategic Plan 2013-2016, SEECEL believes that entrepreneurial learning should be approached from lifelong perspective starting from pre-primary till tertiary and further to adult education. Despite the consensus on the importance of embedding entrepreneurship in education systems, there had not been a systemic effort in SEECEL member states. Programmes at ISCED 1 level targets fundamental and transversal competences for social and personal development, in preparation for further education.

The SEECEL Instrument includes **a framework of learning outcomes** defined in terms of knowledge, skills and attitudes, and corresponding **teaching and assessment methods**. **In-service teacher training** forms an essential part of the instrument providing with concrete 'Teachers Trainings Modalities' while initial teacher training is interestingly addressed by another instrument developed for ISCED level 5 and 6²³³. The initiation of the instrument in ISCED level 1 followed successful experience with ISCED level 2. The Instrument in primary education has been piloted in 2013/2014 followed by first year of its initial implementation in 32 participating schools²³⁴ in eight SEET countries (South East European Countries and Turkey)²³⁵.

The primary target groups **are teachers and schools (school management)** in primary education level, alongside with **teacher training authorities and national governmental bodies**. These players are actively involved in the instrument development and implementation. The final beneficiaries are pupils from 5/7 to 11 years old. The instrument also involves universities and other teacher training institutions, business associations or women entrepreneurship ambassadors, as well as parents.

While learning outcomes are well defined having been the priority of the framework at the initial phase, the assessment methods are yet the least developed. Further enhancement of the framework in terms of assessment methods and teaching methods is yet to become a priority when certain critical mass of entrepreneurial schools having implemented the existing instrument is reached. Being said that, the SEECEL Instrument addresses large variety of entrepreneurship competences covering all components - **knowledge, skills and attitudes - comprehensively**. In total, the Instrument consists of 34 learning outcomes, out of which 14 are defined under 'knowledge', 14 under 'skills' and 6 under 'attitude' component.

Interesting agreement was reached by the network of SEECEL experts, that the key *financial and economic concepts* are an integral part of the overall entrepreneurial literacy. It is also noted²³⁶

²³⁰ SBA - SEECEL - South East European Centre for Entrepreneurial Learning (n.d.). Available at: <http://www.seecel.hr/sba-12030>

²³¹ ISCED 1 – SEECEL - South East European Centre for Entrepreneurial Learning (n.d.). Available at: <http://www.seecel.hr/isced-1>

²³² South East European Centre for Entrepreneurial Learning (SEECEL). [general website]. Available at: www.seecel.hr

²³³ ISCED 5/6 – SEECEL - South East European Centre for Entrepreneurial Learning (n.d.). Available at: <http://www.seecel.hr/isced-5-6-5058>

²³⁴ In most of the SEE countries (except Turkey), the same school establishments participate in both, ISCED level 1 and ISCED level 2.

²³⁵ Albania, Bosnia and Herzegovina, Croatia, Kosovo, The Former Yugoslav Republic of Macedonia, Montenegro, Serbia, Turkey

²³⁶ South East European Centre for Entrepreneurial Learning - SEECEL (2014a). Entrepreneurial Learning –A Key Competence Approach ISCED Level 1. Available at: http://www.seecel.hr/UserDocsImages/Documents/ISCED1-Entrepreneurial_Learning_A_Key_Competence_Approach.pdf

that financial and economic literacy is deficient in the primary school curricula in the SEE region. Furthermore, such items as *understanding of scarcity and necessity* are also considered to be important from early education level.

As a comprehensive instrument suggesting how the entrepreneurial learning should be implemented, it incorporates a wide range of teaching methods. The main approaches are a **student centred (competence based) and a life-story approach**, including active, collaborative and induced learning. Taking this into consideration, the teacher is placed to the role of facilitator rather than the one of instructor, facilitating the learning of individuals rather than the entire class. The instrument emphasizes **learning activities outside schools, case studies and practical entrepreneurial experience** making necessary connection with the real world. These are the short term priorities which allow immediate action. A **“peer mentoring”**, a learning where peers are older and more experienced but still students (e.g. ISCED level 2 students), is an interesting and useful model emerging in the schools. SEECEL instruments are not focused on technology based learning mainly due to the stage in which schools are not yet ready; however, visuals, digital tools and multimedia are represented among the teaching methods.

Overall, the focus is not on business related activities (applicable on ISCED level 1 – ISCED level 3) but rather on **thinking entrepreneurial, being generator of new ideas, being innovative and thinking out-of-the-box**.

By prioritizing at the development stage, proposed assessment methods are oriented to towards ‘attitude’ component. Main differences are observed in the way how to assess ‘knowledge’ versus ‘skills’ / ‘attitudes’. While short **text report** is suggested for assessing knowledge, **self/peer reflection**, and **field-work** is seen in the skills/attitudes category, and **event** is used to enhance attitudes only.

The main impact area may be seen in the **quality of entrepreneurial education**. At more individual level and indirectly, the SEECEL targets **developing entrepreneurial behaviour in any situation** and **change of mindset of the individual and the society**. Thus, the Instrument’s potential impacts go beyond creation of more start-ups. It is yet too early to see the concrete impacts of the ISCED Level 1 instrument. However, **an increasing interest of teachers, schools and regions** in entrepreneurial learning has been observed.

The ISCED level 1 Instrument draws upon experience and successful implementation of the instrument in secondary level and by design, is implemented in eight south east European countries. Thus, the initiative has shown **high levels of sustainability** as well as **high potential of the initiative to be transferred** to other regions, across educational levels and sectors.

SEECEL and its activities are mainly funded from public sources. Besides solid financial model, the key sustainable aspects of the ISCED level 1 Instrument lays in the SEECEL **systemic approach to all its activities and involvement of players with relevant expertise and decision making power**. Interestingly, the SEECEL is steered by relevant ministries of its member states and works closely with national teacher training authorities and teacher training institutions while exploiting synergies with parallel activities in different education levels. The SEECEL takes multi-disciplinary and cross curricular approach and thus, the framework is applicable to all subjects. Teacher training modalities (in-service training) being an integral part of the framework ensures its effective delivery. Moreover, building on European reference frameworks and tools supports the sustainability and transferability of the SEECEL Instruments. The central coordination, continuous support to practice sharing and discussions represent the additional success factor of the initiative. Among other positives, this overcomes drawbacks of the instrument implementation and uptake related to the existing country differences.

6.1.1 InfoBox

Table 26: SEECEL Instrument – InfoBox

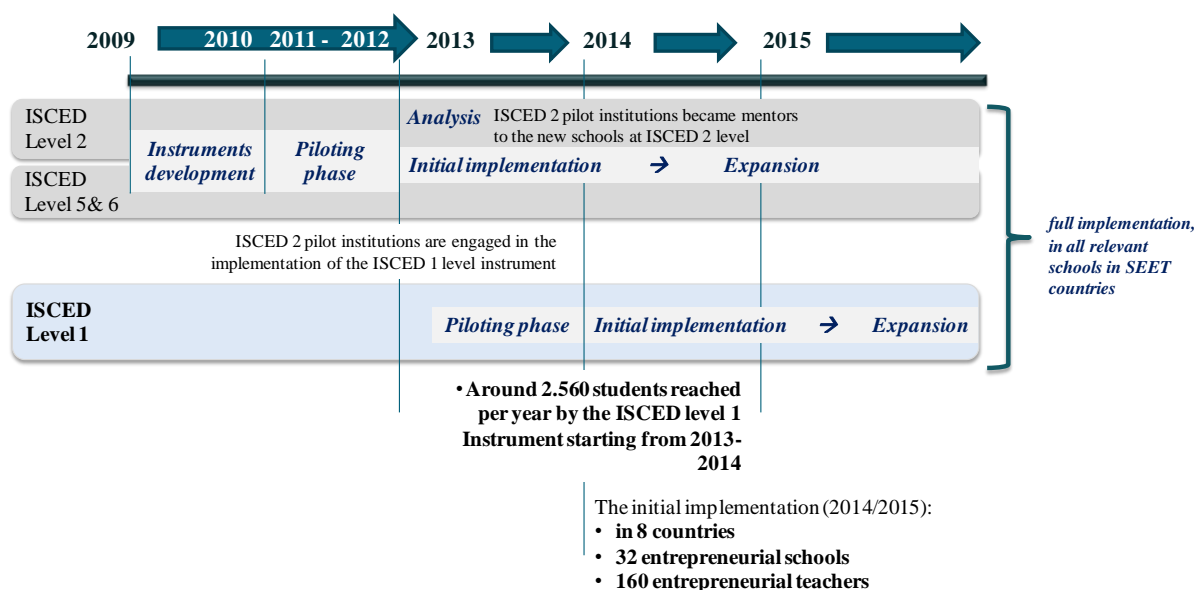
SEECEL Instrument: InfoBox	
Implementation	Piloting phase ISCED level 1: 2013-2014 First year of implementation in ISCED level 1: 2014/2015
Focus Area	Through (new) Entrepreneurship Competences Framework, SEECEL addresses learning/teaching entrepreneurship competences; propose teaching methods and assessment methods.
Targeted education level	The case study report focuses on the primary (ISCED level 1) <i>Note: SEECEL Instruments address also other education levels (including secondary and tertiary)</i>
Main target group of the initiative	Educators: Teachers Others: School managers / schools; responsible for policy development and implementation; teacher training institutions, business associations
Secondary target group:	Final beneficiaries are learners: pupils between 5/7 and 11 years old ²³⁷
Entrepreneurial competences	Knowledge / Skills / Attitudes emphasizing: financial and economic literacy, scarcity and necessity
Teaching methods	Student-centred / competence learning, learning-by-doing, collaborative learning are the main pedagogical approaches; Immediate priority is given to: case studies, study visits and peer mentoring.
Learning settings	face-to-face, in school premises and outside; institutional
Assessment Methods:	Wide range of assessment methods suggested per each component (knowledge-skills-attitudes)
Impact area:	Quality of entrepreneurial education; change towards entrepreneurial mindset of individual and society with the ultimate goal to increase region growth and competitiveness. (indirectly) personal development, considering entrepreneurship as a career option, further education, employment/employability
Output dimensions	<ul style="list-style-type: none"> - 32 entrepreneurial schools²³⁸ participating directly in the initial implementation in 8 countries - Entrepreneurial learning outcomes with appropriate teaching and assessment methods embedded in the schools curricular in all subjects; e.g. in 8 different subjects in Croatia in 6 subjects in Turkey. (languages, social science, etc) - Since 2013, around 2.560 students exposed by SEECEL Instrument in ISCED level 1

²³⁷ See 'Table 1: Grades and age in ISCED 1 level in SEECEL Member States', SEECEL (2014a), page 14.

²³⁸ Since schools corresponding to ISCED level 1 and level 2 are based in the same establishment in vast majority of countries (except Turkey), it can be said that the same schools participated in previous phase relating to ISCED level 2 Entrepreneurial learning package. The teachers participating in ISCED level 2 instrument become mentors to ISCED level 1. Overall, the participating schools become mentor schools for future expansion and full implementation.

	<ul style="list-style-type: none"> - Around 160 entrepreneurial mentor teachers (for the instrument expansion) - International (regional) network of entrepreneurial school established - Working Groups for development of the Entrepreneurial learning package, developed IT tools (On line Community of Practice, Taskbox, Teacher Knowledge Base) for constant online communication
Overall impacts	<ul style="list-style-type: none"> - Increased interest in entrepreneurial learning as a key competence by governments, schools and teachers <p><i>expected:</i></p> <ul style="list-style-type: none"> - Increased quality of entrepreneurship learning in South East European countries - Increased number and quality of entrepreneurial schools and teachers - All schools in SEET countries implemented the SEECEL Instrument in the future - Developed entrepreneurial behaviour for any situation and change of mindset
Resource dimensions	<ul style="list-style-type: none"> - participating schools in the pilot (in 2013/2014) - around 160 participating teachers in the pilot (in 2013/2014) - 3.000.000 Euros SEECEL budget for 2013-2016 (including other Instruments and initiatives)
Business model	<p>SEECEL's activities are mainly funded from public national and European sources - SEECEL Member states, Croatian government, Swedish government, and European institutions.</p> <p>For SEECEL activities, including ISCED 1, but also ISCED 2, ISCED 5 and 6, in-service teacher training and training needs assessment tool, and Small Business Act assessment:</p> <ul style="list-style-type: none"> - 3.000.000 Euros for the period 2013-2016, 85 % from IPA Multi – beneficiary Programme and 15 % by Croatia

6.1.2 Timeline and key milestones



Source: prepared by CARSA

Figure 20: SEECEL Instrument ISCED level 1 - timeline and key milestones

6.2 General characteristics and core activities

6.2.1 Objectives

The main objective of the **SEECEL Instrument for Entrepreneurial Learning (EL)** is to embed the lifelong entrepreneurial learning (LLEL) in education systems in South East Europe and Turkey, in a systemic way.

As expressed by SEECEL²³⁹, “LLEL at ISCED 1 presents the earliest opportunity to cultivate a culture of entrepreneurship and entrepreneurial competences in future full-fledged members of the society. As such, entrepreneurial learning in ISCED 1 level presents the first stepping stone in building the entire LLEL system.” The Instrument should help the schools to provide pupils with entrepreneurship as a transversal competence and to trigger their “entrepreneurial mindset”.

Overall, SEECEL’s main objective, is defined in the Strategic Plan²⁴⁰: “to promote a more concerted approach to evidence-based policy-making amongst the countries concerned and to encourage innovation in the area of entrepreneurship key competence development (ISCED level 1 and 2)”

With the Instruments, the SEECEL more specific objectives are²⁴¹:

- to develop learning outcomes, curriculum adjustment and implications for the teaching and learning process for the entrepreneurship key competence with particular reference to the EU’s Oslo recommendations²⁴² for entrepreneurship in early education and the EU education ministers’ recommendations for entrepreneurship promotion within national learning systems
- to build a system for piloting innovative solutions for entrepreneurship as a key competence in participating countries, concentrating on curricula, teacher training, learning processes, school management and education-economy cooperation.

6.2.2 Core activities and entrepreneurship competence dimensions

The SEECEL Instrument for Entrepreneurial Learning – Key Competence Approach outlines a framework for Learning Outcomes (LOs), teaching and assessment methods for ISCED level 1 (also called ‘entrepreneurial learning package’), and suggests Teacher Training Modalities (TTM), as a tool to embed the entrepreneurial learning (EL) at schools.

The following figure presents the ‘entrepreneurial learning package’ as part of an entrepreneurial learning process leading to an entrepreneurial student and an entrepreneurial society.

²³⁹ SEECEL (2014a), page 14

²⁴⁰ South East European Centre for Entrepreneurial Learning – SEECEL (2013a). Strategic Plan 2013–2016 – Think to Act Entrepreneurially. Zagreb 2013. Available at: <http://www.seecel.hr/UserDocsImages/Documents/SEECEL%20Strategic%20Plan%202013%202016.pdf>

²⁴¹ South East European Centre for Entrepreneurial Learning – SEECEL (2011a). Entrepreneurial Learning – a key competence approach ISCED Level 2. Zagreb, 2011. ISBN 978-953-56732-0-0.

²⁴² Entrepreneurship Education in Europe: Fostering Entrepreneurial Mindsets through Education and Learning. [Conference]. Oslo, 26-27 October 2006. Outcomes available at: http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/education-training-entrepreneurship/policy-framework/2006-conference/index_en.htm



Source: SEECEL (2011a), page 30, Figure 3

Figure 21: Entrepreneurial learning process towards Entrepreneurial society

For the purpose of the OvEnt study, we defined the following key components of the case study:

Table 27: SEECEL Instrument – EL – Key Competence Approach – core activities (selected for the case study purposes)

Core activities/components:	Focus area:	Form:	Entrepreneurship competence:
Developing the SEECEL Instrument	new entrepreneurship competences framework	(n.a.)	Knowledge / Skills / Attitudes
Implementing the SEECEL Framework – ‘entrepreneurial learning package’	learning/teaching entrepreneurship competences	Institutional, formal, face-to-face with ICT element	Knowledge / Skills / Attitudes
Teacher and School Management Training Modalities (in-service and pre-service ^(*))	teaching and assessment methods	Institutional; formal; face-to-face	Knowledge / Skills / Attitudes

Source: prepared by CARSA for the purpose of OvEnt study; (*) pre-service teacher training is addressed by a separate Instrument for ISCED level 5 and 6 and as such it is not described in detail by the current case study.

SEECEL published a document which serves as guidelines for teachers and schools piloting the Instrument and overall the document shows the Instrument and the methodology behind²⁴³.

6.2.2.1 Developing SEECEL Instrument for Entrepreneurial Learning – Key Competence Approach (ISCED level 1)

SEECEL instrument is based on the following Entrepreneurial learning definition²⁴⁴: “A concept of education and training which supports an entrepreneurial way of thinking and is based on the development of individuals, including the basic principles of efficiency in everyday life without a particular focus on business start-up – all of which leads to entrepreneurial literacy for the society as a whole.” (Source: SEECEL, 2014a, page 16)

²⁴³ The documents are available on SEECEL website: ISCED 1 – SEECEL - South East European Centre for Entrepreneurial Learning (n.d.). Available at: <http://www.seecel.hr/isced-1>

²⁴⁴ South East European Centre for Entrepreneurial Learning - SEECEL (2014a). Entrepreneurial Learning –A Key Competence Approach ISCED Level 1. Zagreb, 2014. ISBN 978-953-56732-9-3.

In all its operations, SEECEL follows EU Open Method of Coordination (OMC)²⁴⁵ principles and Evidence-based policy making, thus Member States participated equally with their experts in respective fields when developing ISCED 1 level Instrument.



Source: SEECEL (2014a), page 17, Table 4.

Figure 22: SEECEL Development Phases of Evidence Based Policy Making

The first generation of the Instrument is tested during the piloting phase. The Instrument's 2nd generation is followed by initial implementation - 32 schools for ISCED level 1 -, after which, SEECEL disseminates further the instrument and extends it towards full implementation, i.e. reaching all schools in SEET countries in relevant education level.

The instrument was developed in collaboration with national experts, together with regional and international facilitators who agreed to use previous experience and tools related to the ISCED level 2 and 5/6. As such, the ISCED level 1 Instrument is an integral part of a whole set of SEECEL Entrepreneurial Learning (LE) Instruments building an entrepreneurial society. Main objective of the experts work was to create a tool to facilitate implementation in each country, focusing at a minimum on the definition of Learning Outcomes (LOs) for ISCED 1 students and the proposition for teacher training modalities (TTM) for primary schools. For this purpose, two working groups have been created, one focused on the Framework / 'Entrepreneurial Learning Package', another developing the TTMs.

While learning outcomes are well defined being the priority of the framework, teaching methods are in focus, and assessment methods are yet the least developed part (see Table 30 in Chapter 6.3).

The following table presents the Entrepreneurship Competences incorporated in the framework of learning outcomes.

²⁴⁵ Glossary – Open Method of coordination. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV:open_method_coordination

Table 28: SEECEL Framework in ISCED level 1- competences

Competences:		
Knowledge	Skills	Attitudes
an entrepreneur (K1)	ability to work individually and in teams (S1)	Take responsibility to complete tasks and to meet deadline (A1)
scarcity in the immediate surroundings (K2)	ability to communicate ideas to others (S2)	Take the initiative to meet others and get involved in groups (A2)
product and service (K3)	ability to create objects (S3)	ability to work independently (A3)
income and expenses (expenditure) (K4)	ability to lead a group (S4)	ability to respect others (A4)
bills and receipts (K5)	ability to collect ideas from others (S5)	ability to help and support others (A5)
benefits and costs of your goal (K6)	ability to take decision and explain it (S6)	responsibility for public goods (A6)
jobs/occupations (K7)	ability to recognize and list risks (S7)	
Opportunities (K8)	Identify consequences of their activities (S8)	
entrepreneurial ideas (K9)	ability to solve problems together with others (S9)	
environmental risks (K10)	ability to evaluate results from a group work (S10)	
environment pollution and human activities (K11)	ability to plan an activity (S11)	
public goods (K12)	Present personal assets and abilities (S12)	
Consumers and producers (K13)	Recognize job opportunities (S13)	
how people's choices determine what will be produced (K14)	Calculate your monthly pocket money (S14)	

Source: prepared by CARSA based on SEECEL (2014a), page 22-25

Self - evaluation reports from all EL schools and other monitoring and evaluation carried out by SEECEL highlighted the necessity to have all three components of competence - knowledge, skills and attitudes. Interesting agreement was reached by the network of SEECEL experts, "... *that the key **financial and economic concepts** are an integral part of the overall LLEL methodology, curricula,*

learning outcomes, and trainings, in other words of entrepreneurial literacy.” It is also noted²⁴⁶ that financial and economic literacy is deficient in the primary school curricula in the SEET region.

Further, such items as **understanding of scarcity and necessity** are also considered to be important from early education level.

6.2.2.2 Implementing the SEECEL Framework

After piloting and final revision, the SEECEL Framework is being implemented by 32 participating schools in ISCED level 1 in 8 countries²⁴⁷. All participating schools implement the entrepreneurial learning in their educational activities across their curricula and in the schools’ existing subjects, fully following the Instrument.

The initial implementation is carried out in 4 schools in each SEECEL member state, while the objective is to fully implement the Instrument in every school of the 8 countries in the future. The time to the full implementation will vary from country to country, e.g. Montenegro has population around 700 000 compared to Turkey with 70 millions.

6.2.2.3 Teacher (and School Management) Training Modalities

As expressed by SEECEL²⁴⁸, the teaching profession, and the education system, is changing. SEECEL experts and work groups have concluded that teachers and school management must understand entrepreneurship, be entrepreneurial literate and be able to teach using active teaching/learning methods and a student centred approach.

Teacher Training Modalities (TTM) - in-service teacher training - has been developed alongside the framework for Entrepreneurial Learning – Key Competences Approach, targeting the issue in short-term (i.e. immediate training of current teachers) and mid-term (i.e. continuous training and facilitating the transfer of experience between teachers). Further, since 2009, the SEECEL has worked on ISCED level 5 and 6 Instrument, where two non-economic faculties from each SEET country participate, one of which must be a faculty of teacher education. Thus, SEECEL also addresses the issue in long-term by the pre-service teacher training.

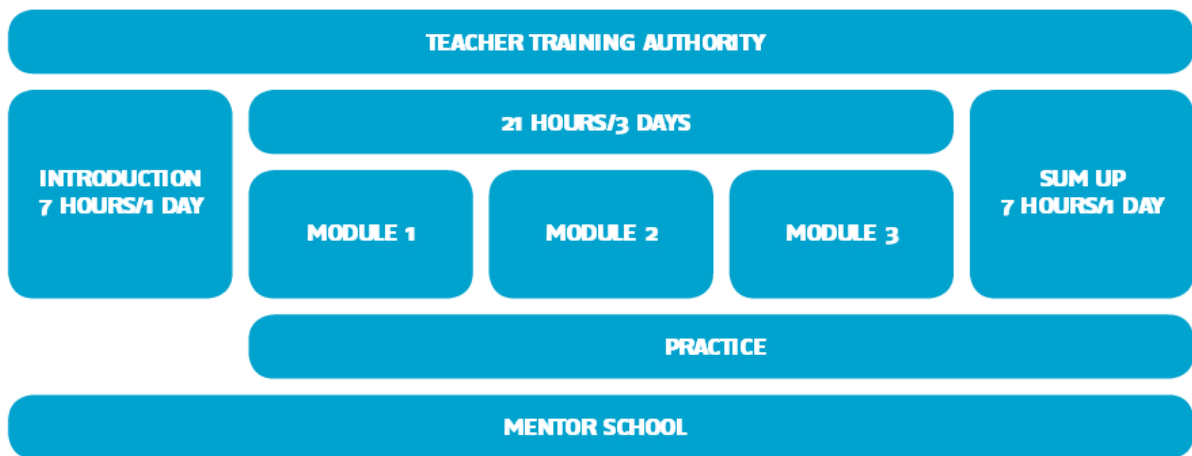
SEECEL identifies four key players²⁴⁹- National Teachers Training Authority (TTAs), School Management, Teachers and Mentor schools - and ensures their active involvement in the TTM development and implementation, as well as supports discussion among them.

²⁴⁶ SEECEL (2014), p. 16.

²⁴⁷ List of schools can be found at: <http://www.seecel.hr/isced-1-12032>

²⁴⁸ SEECEL (2014a), p. 25.

²⁴⁹ More information about the four key stakeholder groups and their role is described in SEECEL (2014a), p. 28.



Source: SEECEL (2014a), page 26, Figure 5

Figure 23: Proposed model for Entrepreneurial Learning In-Service Teacher Training

The model above includes a one day event for each school, **introducing the concept of the “entrepreneurial school”**, targeting both, the teachers and school staff (management). Module 1-3 as a teachers training workshop (three days) present the content and methods that provide practicing and learning by doing. The three modules are:

Module 1 – Why LLEL? Explaining why lifelong entrepreneurial learning is important, how it relates to the lifelong learning competences of citizens and familiarize teachers with key concepts such as scarcity, opportunity costs, budgets, innovation, decision making, and many others;

Module 2 - What is LLEL?, in other words, organisation and planning of entrepreneurial learning in line with the goals of learning outcomes and agreed framework (time, space, support, economy and partnerships)

Module 3 – How to implement LLEL? Presents the basics of student-cantered learning and how it affects the entrepreneurial learning.

The modules are complemented by **practical experience** implementing gained knowledge at schools. Additionally, **sum-up session** has a main objective to share knowledge.

The following Table 29 presents competences incorporated in the TTM, thus targeting teachers.

Table 29: SEECEL Teacher Training Modalities (TTM) - competences

Competences:	
Knowledge	being an entrepreneur and acting entrepreneurially; scarcity necessitates decision making; products in supply and demand; benefits and costs; Productivity and comparative advantages; Opportunity costs; externalities and sustainable planning (think green); Phases of entrepreneurial activity in the classroom; active verbs to describe knowledge, skills and attitudes for ISCED level 1 and 2 students; an entrepreneurial plan; Risks; Environmental consequences; Interaction between economy, environment, technology and society
Skills	Facilitate problem solving and decision-making in a student group; ability to evaluate results and processes from group work; Apply methods to improve students' entrepreneurial competence (planning, seeking information, problem solving, delegation, communication, cooperation, decision making, presentation and resolving conflicts in a constructive manner through negotiation); Plan and organise; methods for students' evaluation of study-visits in terms of risk-taking, opportunity-seeking, social responsibility, and thinking green
Attitudes	positive attitudes towards entrepreneurs and entrepreneurship; social responsible behaviour and ethics in entrepreneurship; take the initiative and responsibility for the consequences

Source: prepared by CARSA, based on SEECEL (2014a), p.31-32.

Based on the teacher training model (Figure 23), teacher training authorities (TTAs) further developed training modules **in line with specific national education systems and national contexts**. In doing so, TTAs cooperate with mentor school²⁵⁰. As a result, there is one model for TTM with different modules and different teachers' material implemented in the participating countries. Each country has been asked to identify and use the best national resources.

The teacher training model and national modalities have been piloted and are being implemented initially in relation to the framework for learning outcomes. This exercise has given a basis for the future development and implementation of the teacher training in SEET countries, imposed by Teacher Training Authorities in collaboration with mentor schools, HEI or other training institutions. SEECEL's objective is to ensure that each of the SEECEL country's the entrepreneurial learning TTM is sustained and operative under the responsibility of national teacher training authority. It is expected that the model and national modalities will be changed and improved in the future.

6.2.3 Educational scope and target groups

SEECEL developed Instruments – Entrepreneurial Learning (EL) – Key Competence Approach for most of the educational levels (ISCED 1, ISCED 2, ISCED 3 and ISCED 5/6). Under this case study, we focus on ISCED 1 (primary education). The initiative directly targets school managers and teachers while pupils 5/7-11 years old are the main impact group (final beneficiaries).

Target groups and other groups involved (Learners, Educators, Other):

- **Teachers** at primary schools (ISCED 1) are targeted as agents of change, those who deliver education

²⁵⁰ Mentor schools are those schools involved in developing and implementing ISCED Level 2 Instrument in the period 2009-2013. They were involved as a pioneers and their role is now to assist (mentor) other schools in different ISCED levels with the new Instrument(s) implementation.

- **Schools (school managers)** are targeted as “nucleus of change”, embedding the entrepreneurial learning
- **National training authorities (TTA)** shall be in charge of further implementation of teacher training modalities in SEE countries, ensuring the uptake of the initiative’s outcomes

Other players:

- **National institutions** responsible for Small Business Act (SBA) and education policy in each SEECEL member states are represented in the steering committee of SEECEL and ensure prompt implementation of entrepreneurial learning activities in national systems.
- **Other policy makers in the local and state level**
- **HEIs and other teacher training institutions** or departments dealing with teacher training shall provide teacher trainings according to the suggested modules and in line with the TTAs further work.
- **Business Associations**, representing national economies, ambassadors for women entrepreneurship, but also young entrepreneurs associations are directly involved in the SEECEL initiatives, as trainers of trainers and as reviewers and supporters. They are also part of the working groups.

Final beneficiaries:

- **Pupils** of 5/7-11 age are targeted as those acquiring key entrepreneurship competences

Overall, two working groups have been set up in order to develop and implement the ISCED level 1 instrument, one aiming at the framework for learning outcomes, another addressing the teacher training modalities.

Further, schools have great connection with parents, as well as they have to connect with entrepreneurs (micro-small-medium) and strongly involve them.

The SEECEL assists with implementing of the Instrument and monitors the progress. SEECEL collects feedback and, together with working group(s), revises the Instrument. Further, SEECEL disseminates the Instrument and extend the network of schools implementing it.

6.2.4 Geographical scope

SEECEL Instrument for Entrepreneurial Learning – Key Competence Approach in ISCED level 1 (as well as other ISCED levels) is a **European initiative** including 8 SEET countries - South East European region (namely Albania, Bosnia and Herzegovina, Croatia, Kosovo²⁵¹, The Former Yugoslav Republic of Macedonia, Montenegro, Serbia) and Turkey.

6.2.5 Links to other initiatives and networks

SEECEL is an organisation established as an initiative of SEET countries and the European Commission. SEECEL is involved in many other activities in the SEET region and beyond. **SEECEL Instruments** has been firstly developed for ISCED level 2 and 5/6, and then, the Entrepreneurial Learning – Key Competence Approach has been extended to other **ISCED levels (1 and 3)**. **Teacher training** (in-service) is an integral part of each of the instruments while pre-service is part of the ISCED level 5/6.

²⁵¹ This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo declaration of independence.

SEECEL takes part of the policy dialogue on lifelong entrepreneurial learning, e.g. as a member of Thematic Working Group on Entrepreneurship Education²⁵² as well as Transversal skills²⁵³.

Examples of other projects and activities carried out by SEECEL targets **women entrepreneurship**²⁵⁴ or **Training Needs Analysis** tool²⁵⁵ for up-skilling of entrepreneurs with Development and Advisory Network for Enterprises Training (DANET), comprised of experts from most representative business associations from SEECEL member states.

Further, SEECEL takes part of the **EU-OECD Entrepreneurship360** initiative²⁵⁶, where SEECEL Director, Ms. Efka Heder, functions as an ambassador, promoting the initiatives and acting as a permanent panel member to ensure that the adaptability of the initiative to the different local contexts.

SEECEL take part of the **European Entrepreneurship Education NETwork (EE-HUB.EU)**²⁵⁷, a 3 years project (January 2015 – 31 January 2018) co-founded by the European Commission under the COSME Programme²⁵⁸. Partners are Junior Achievement Young Enterprise (JA) Europe²⁵⁹, Eurochambers²⁶⁰ and European Providers of Vocational Education and Training (EUproVET)²⁶¹. JA Europe and the business partners well complement SEECEL activities in terms of extra-curricular focus.

SEECEL was also involved in projects focusing on **young entrepreneurs**.

6.3 Entrepreneurship competence concept translated into the learning objectives and practical courses (setting-up phase)

6.3.1 Defining learning outcomes

Rather than learning objectives, learning outcomes together with teaching methods and assessment methods are proposed by the SEECEL Instrument²⁶². The figure below provides with the comprehensive Framework.

²⁵² Group Details - Commission Expert Group (2011). Register of Expert Groups and Other Similar Entities. 19.12.2014 [last update]. Available at:

<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=2676>

²⁵³ Group Details - Commission Expert Group (2014). Register of Expert Groups and Other Similar Entities. 19.12.2014 [last update]. Available at:

<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=3002&NewSearch=1&NewSearch=1>

²⁵⁴ Women Entrepreneurship - SEECEL - South East European Centre for Entrepreneurial Learning (n.d.). Available at: <http://www.seecel.hr/UserDocImages/women-entrepreneurship-5060>

²⁵⁵ TNA/QA - SEECEL - South East European Centre for Entrepreneurial Learning (n.d.). Available at: <http://www.seecel.hr/UserDocImages/tna-qa>

²⁵⁶ Entrepreneurship 360 - Organisation for Economic Co-operation and Development [general website]. Available at: <http://www.oecd.org/site/entrepreneurship360/>

²⁵⁷ EE-HU.eu – European Entrepreneurship Education NETwork [general website]. Available at: <http://ee-hub.eu>

²⁵⁸ COSME. Europe's programme for small and medium-sized enterprises – European Commission [general website]. Available at: http://ec.europa.eu/growth/smes/cosme/index_en.htm

²⁵⁹ Junior Achievement - Young Enterprise (JA Europe) [general website]. Available at: <http://www.JA.org>
JA Europe is an initiator of Case Study 2: The Entrepreneurial Skills Pass (ESP) – see Chapter 4)

²⁶⁰ Eurochambers [general website]. Available at: www.eurochambres.eu

²⁶¹ European Providers of Vocational Education and Training (EUproVET) [general website]. Available at: <http://www.euprovet.eu>

²⁶² SEECEL (2014a)

Table 30: Learning Outcomes at ISCED Level 1 (including teaching and assessment methods)

KNOWLEDGE		
LEARNING OUTCOMES	TEACHING AND LEARNING METHODS	ASSESSMENT METHODS
<p>K1 Describe an entrepreneur</p> <p>K2 Recognize scarcity in the immediate surroundings</p> <p>K3 Examine difference between product and service</p> <p>K4 Describe income and expenses (expenditure)</p> <p>K5 Describe bills and receipts</p> <p>K6 List the benefits and costs of your goal</p> <p>K7 Describe different jobs/occupations</p> <p>K8 List examples of opportunities</p> <p>K9 List examples of entrepreneurial ideas</p> <p>K10 Identify environmental risks</p> <p>K11 Relate environment pollution with human activities</p> <p>K12 List examples of public goods</p> <p>K13 Give examples of people acting as consumers and producers</p> <p>K14 Explain how people's choices determine what will be produced</p>	<ul style="list-style-type: none"> • Case studies • Discussion • Group work • Guest speakers • Idea generation • Lectures • Life-story approach • Peer group presentation • Projects • Role-playing/simulation • Field visits • Visuals, digital tools and multimedia • Practical entrepreneurial experience 	<ul style="list-style-type: none"> • Short text report • Presentation • Project / group work

SKILLS		
LEARNING OUTCOMES	TEACHING AND LEARNING METHODS	ASSESSMENT METHODS
<p>S1 Demonstrate the ability to work individually and in teams</p> <p>S2 Demonstrate the ability to communicate ideas to others</p> <p>S3 Demonstrate the ability to create objects</p> <p>S4 Demonstrate the ability to lead a group</p> <p>S5 Demonstrate the ability to collect ideas from others</p> <p>S6 Demonstrate the ability to take decision and explain it</p> <p>S7 Demonstrate the ability to recognize and list risks</p> <p>S8 Identify consequences of their activities</p> <p>S9 Demonstrate the ability to solve problems together with others</p> <p>S10 Demonstrate the ability to evaluate results from a group work</p> <p>S11 Demonstrate the ability to plan an activity</p> <p>S12 Present personal assets and abilities</p> <p>S13 Recognize job opportunities</p> <p>S14 Calculate your monthly pocket money</p>	<ul style="list-style-type: none"> • Case studies • Discussion • Group work • Guest speakers • Idea generation • Lectures • Life-story approach • Peer group presentation • Projects • Role-playing/simulation • Field visits • Visuals, digital tools and multimedia • Practical entrepreneurial experience 	<ul style="list-style-type: none"> • Practical assessment • Field work • Presentation • Project work • Self /peer reflection

ATTITUDES		
LEARNING OUTCOMES	TEACHING AND LEARNING METHODS	ASSESSMENT METHODS
A1 Take responsibility to complete tasks and to meet deadlines A2 Take the initiative to meet others and get involved in groups A3 Demonstrate the ability to work independently A4 Demonstrate the ability to respect others A5 Demonstrate the ability to help and support others A6 Demonstrate responsibility for public goods	<ul style="list-style-type: none"> • Case studies • Discussion • Group work • Guest speakers • Idea generation • Lectures • Life-story approach • Peer group presentation • Projects • Role-playing/simulation • Field visits • Visuals, digital tools and multimedia • Practical entrepreneurial experience 	<ul style="list-style-type: none"> • Practical assessment • Field work • Presentation and discussion • Project / Group work/ • Should include event (fair exhibition) • Self /peer reflection

Source: SEECEL (2014a), p. 21-23

Learning outcome statements are characterised by active verbs and experts **applied Blooms Taxonomy**²⁶³

Table 31: Blooms Taxonomy – Cognitive Domain

COGNITIVE DOMAIN	ACTION VERBS
KNOWLEDGE:	List, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, outline, recognise, state
COMPREHENSION:	Summarise, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend
APPLICATION:	Apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, compute
ANALYSIS:	Analyse, separate, order, explain, connect, classify, infer, arrange, divide, compare, contrast, select, distinguish
SYNTHESIS:	Combine, integrate, modify, rearrange, substitute, plan, create, design, compose, formulate, prepare, compile
EVALUATION:	Assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, support, conclude, compare, appraise, evaluate, justify, interpret, critique

Source: SEECEL (2011a), p. 32

²⁶³ SEECEL (2011a). The taxonomy originates from: Bloom et al. (1956). The Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook I: Cognitive Domain

Moreover, SEECEL employs EU policy making principle and rules, including the requirement for learning outcomes to be SMART²⁶⁴. And, the involved experts also seek to connect the framework with European Qualification Framework (EQF)²⁶⁵.

Besides the theoretical underpinnings of revised Blooms' taxonomy, the Framework of learning outcomes for ISCED level 1 has been developed by SEECEL, in collaboration with national experts, and regional and international facilitators. A working group have been set up with the overall objective to develop the learning outcomes. They worked together face-to-face and through online Community of Practice (CoP)²⁶⁶, a web based platform to facilitate sharing of good practices and discussing between experts and working groups.

Working group experts have been nominated by governmental bodies (members of the SEECEL steering committee) **being from education but also business side**, having experience in the area of entrepreneurship competences and learning outcomes development. This group has been facilitated by international expert professor Lassaâd Mezghani²⁶⁷ from Tunisia and regional expert PhD Željko Burcar²⁶⁸.

Moreover, **mentor schools and mentor teachers** – as those participating within ISCED level 2 Instrument, hence having experience with the instrument implementation – have a strong role in the current instrument development and refinement, collaborating with the working groups but also with new participating teachers.

When defining Learning Outcomes (LOs), the following methodology has been used²⁶⁹:

- Step 1. Identify and define basic competences and the program level LOs. LOs were firstly defined at programme level in order to provide countries and schools with flexibility to initiate the development of entrepreneurship as a competence in different subjects (e.g. depending on the available teaching staff and opportunities/possibilities). The programme LOs have been validated.
- Step 2. Develop detailed LOs, in terms of action verbs²⁷⁰ (see Table 31) specifying the type of knowledge, skills and attitudes.
- Step 3. Compare / cross-check with LO from ISCED level 2 for coherence. The cross-checking is important to avoid redundancy and to ensure the logical evolution in the learning process for pupils.
- Step 4: Select appropriate learning (teaching) methods, especially considering the age of pupils and the types of subjects they have
- Step 5. Select appropriate/corresponding assessment methods in order to ensure that the LOs can be evaluated coherently in line with the selected teaching and learning methods.

²⁶⁴ SMART – Specific, Measurable, Achievable, Realistic, Timely.

²⁶⁵ European Parliament and Council (2008). Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualification Framework for lifelong learning. Official Journal of the European Union, (2008/C 111).

²⁶⁶ CoP - SEECEL - South East European Centre for Entrepreneurial Learning (n.d.). Available at: <http://www.seecel.hr/cop>

²⁶⁷ Chargé de Mission auprès du Ministre de l'Enseignement Supérieur, de la Recherche Scientifique et des TIC Professeur à IHEC Carthage.

²⁶⁸ Mr. Burcar is experienced as school manager and now works as a teacher in one of pilot schools (it should be noted that in Croatia and in majority of SEECEL member states, schools in ISCED level 1 and 2 are based in the same establishment) also he teach in one Croatian faculty.

²⁶⁹ SEECEL (2014a), p. 19.

²⁷⁰ Revised Bloom's taxonomy is applied; as referred by SEECEL (2014a, p. 19): Krathwohl, D. R. (2002). A Revision of Bloom's Taxonomy: An Overview. *Theory Into Practice*, 41(4), 212-218.

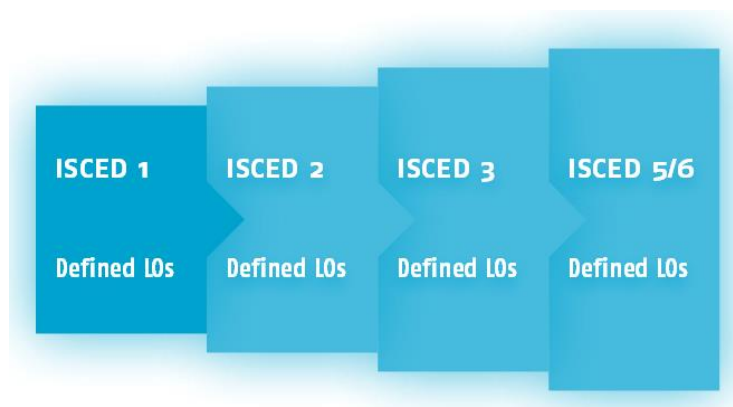
All SEECEL Instruments are piloted; the feedback is collected and discussed after which, the Instrument is revised (see also Figure 22). The instrument for ISCED level 1 is being initially implemented in the selected schools (32 schools in ISCED level 1) with the goal of having full implementation in all schools in SEECEL member states in the future.

Besides the definition of the instrument, SEECEL supports its implementation through a “teacher knowledge” place where teachers share lesson plans and experience on how the learning outcomes can be implemented in the classrooms. Overall, Community of Practices²⁷¹ platform supports the discussions during developing but also implementing phase.

Learning outcomes applicable for different education levels

Based on the SEECEL experience with Instruments in different education levels, it may be concluded that similar learning outcomes are applicable for all educational levels with the main difference remaining in the level of progress corresponding to the EQF approach and characterised by Bloom’s Taxonomy (see Table 31). For instance, every student needs to possess some kind of knowledge of scarcity and necessity which is closely connected with bloom taxonomy for different levels.

SEECEL’s process model of developing EL competences through learning outcomes across different education levels is presented in the figure below.



Source: SEECEL (2014a), page 14

Figure 24: Process model for developing EL competences

SEECEL asked the working group to monitor the connection of the SEECEL frameworks for learning outcomes with both EU frameworks – the European Qualification Framework (EQF)²⁷² and the EU Framework for lifelong learning²⁷³ – where ‘attitude’ element represent EQF’s ‘competences’ in narrow sense.

6.3.2 Setting-up practical courses/curricula/activities

The SEECEL Instrument for Entrepreneurial Learning – Key Competence Approach is applied with cross-curricular approach and on schools’ existing subjects.

All piloting schools in ISCED level 1 (except Turkey) had gained certain experience through the ISCED level 2 instrument. While the same school establishments (except Turkey) take part in both ISCED

²⁷¹ CoP - SEECEL - South East European Centre for Entrepreneurial Learning (n.d.).

²⁷² European Parliament and Council (2008). Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualification Framework for lifelong learning. Official Journal of the European Union, (2008/C 111).

²⁷³ European Parliament and Council (2006). Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning. Official Journal of the European Union, (2006/962/EC).

levels²⁷⁴, not the same teachers implement the two instruments. Thus, the teachers from ISCED level 2 have become mentors for ISCED level 1 instrument implementation within the school. The mentoring addresses overall process, at both, the initiative level – how to deal with the reporting towards SEECEL –, but also individual level – how to deal with the framework, and how to translate it into the concrete lessons plans.

Besides the link between ISCED level 2 and 1, a general rule apply. The schools (and teachers) participating in the pilot phases in each ISCED level take role of mentors in the same ISCED level when the instrument is in its expansion phase.

Each teacher prepares a lesson plan, where he/she explains the particular activities to be implemented, the addressed learning outcomes, and used teaching methods and assessment methods (following the SEECEL framework, Table 30). Additionally, teacher describes the required materials and provide with other remarks about the students’ reactions and about the lesson implementation. These lesson plans are collected by SEECEL and shared among teachers, thus inspire other teachers when setting up their lessons’ activities.

Only to be reminded here, the teacher training has been considered when setting up the practical activities, as an integral part of the Instrument. The SEECEL together with one of the working groups jointly develop teacher training modalities. Striking and sustainable element is the direct involvement of the teacher training authorities who are responsible for future and systemic implementation of teacher training in the national systems.

6.4 Teaching and learning of entrepreneurship competence in diverse settings (implementation phase)

6.4.1 Teaching methods and channels - pedagogical approach

The following table shows the teaching methods suggested by SEECEL Instrument – Entrepreneurial Learning – Key Competence Approach for ISCED Level 1. The comprehensive framework including teaching methods per set of learning outcomes is presented in the Table 30, page 143.

Table 32: SEECEL Instrument for ISCED level 1- teaching approach and methods

Teaching methods	
<i>SEECEL Instrument for ISCED level 1</i>	
Collaborative learning	X
Competitive learning	
Learning-by-doing / Project-based learning / Problem-based learning / Curiosity-based learning	X
Curiosity-based learning / inquiry based learning	
New approaches allowing learning from failure / learning in ambiguous environment	
Self-reflection/Self-evaluation	
Technology-based learning / Blended learning	

²⁷⁴ In SEE countries, education in ISCED levels 1 and 2 is implemented by a single structure.

<i>More specifically:</i>			
Lecturer (interactive/flipped classroom/...)	X	Simulations and business games	X
Writing articles and essays		Student companies / mini-companies	
Brainstorming / Idea generation/idea development	X	Guest speakers / external visitors	X
Group Discussions / Debate	X	Company visits / community / field visit	X
Role Play	X	Work placements	
Case studies	X	Mentoring schemes / tutoring	
Peer group presentations / peer editing / 'Peer Mentoring'	X	Workshops, seminars and training	X
Project work and group work	X	Fairs/events/bring-and-buy	
visuals, digital tools and multimedia	X	Practical entrepreneurial Experience	X

Source: Prepared by CARSA based on the SEECEL (2014a); 'X' stands for the Key teaching method which is usually limited to three options while '✓' marks additional/complementary teaching methods. 'ICT' indicates where these technologies construct a major part; in bold, the methods are emphasized by SEECEL for immediate implementation and impact

The SEECEL Framework is implemented at schools across all curricular subjects. Learning mainly happens face-to-face at schools as part of formal education, but the Instrument encourages activities to connect with outside world and suggests the use of visuals, digital tools and multimedia as one of the teaching methods.

As a comprehensive instrument suggesting how the entrepreneurial learning should be implemented, it incorporates a wide range of teaching methods. The main approaches are a **student centred (competence based) and a life-story approach, including active, cooperative and induced learning**. Taking this into consideration, the teacher is placed to the role of facilitator rather than the one of instructor, facilitating the learning of individuals rather than the entire class.

Short term priorities for immediate implementation and impact are: **case studies, study visits and peer reviewing**, especially going outside schools premises makes the necessary connection with the real world and the local community. **Idea generation** as well as **practical entrepreneurial experience** are the essential built-in characteristics. The practical entrepreneurial experience follows the Entrepreneurship 2020 Action Plan recommendations²⁷⁵.

Overall, the focus is not on business related activities (applicable on ISCED level 1 – ISCED level 3) but rather on **thinking entrepreneurial, being generator of new ideas, being innovative and thinking out-of-the-box**. SEECEL is not interested in how to start a business in ISCED level 1, and therefore, does not use a business plan creation as a tool for entrepreneurial learning. The idea generation and development is presented as a teaching method, in this regard. It may concern ideas on how to spend mother day, father day, sport day, or visit while teachers lead pupils through the process.

²⁷⁵ European Commission (2013). Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Entrepreneurship Action Plan 2020, Reigniting the entrepreneurial spirit in Europe, COM(2012) 795 final. Brussels, 9.1.2013

This goes hand in hand with **practical entrepreneurial experience** that may have different forms. For example in Croatia for already 50 years, 'School Cooperatives'²⁷⁶ group students and address entrepreneurial experience in different fields. Some schools grow olive trees and students are to choose a product to produce (e.g. olive oil or soaps), after, they sell the product to receive money and re-invest them in order to expand the activities. Another example of entrepreneurial experience is cake selling. For instance, Croatian traditional colourfully decorated biscuits (licitar) may be used in different ways. Besides being directly eaten, they may serve as Christmas tree decoration, or calendars filling. It is up to kids to generate the idea, decide, produce, sell and use the money for additional activities. In this concept, the organisation is not a company, it is not lead by a businessmen. Recently, the 'cooperatives' concept has turned its focus to social entrepreneurship.

In most of the schools, SEECEL finds situations in which students want to work with youngsters. This "peer" learning where peers are older and more experienced but still students (ISCED level 2 students) seems very interesting and useful model - **"Peer mentoring"**.

As analysed by independent external evaluation²⁷⁷, the pupils, facilitated by the teacher, undertake the following sequential steps²⁷⁸:

- Identification of a problem / challenge,
- Research on the origins of the problem,
- Identification of a goal / objective to solve the problem,
- Development of an innovative / creative problem solving strategy. This includes the identification of resources / knowledge and skills / assistance needed,
- Implementation of the strategy,
- Evaluation of results.

As expressed by the Independent External Evaluation, 2012, page 57, *"this problem-solving approach, which is elementary to competence based learning and to entrepreneurial learning, can be characterised as a process of self-organisation – this being the main indicator for achieving empowerment and ownership"*²⁷⁹.

Role of information and communication technologies in teaching

The SEECEL instruments are not focused on digital tools mainly due to the stage in which schools are not yet ready. Some schools are getting prepared for blended learning, but in some countries this is not yet relevant. Thus, digital and technology based learning is not yet in SEECEL's focus. Teachers are trained on the ICT tools and visuals, while digital tools and multimedia are one of the teaching techniques emphasized.

²⁷⁶ E.g. Oš Frana Krste Frankopana – učenička zadruga (n.d.). Available at: http://www.osfkf.hr/aktivnosti_3.html; Osnovna škola Stjepana Radića Brestovec Orehovički – školska zadruga (n.d.). Available at: http://os-sradica-brestovec.skole.hr/skola/knjiznica/kolska_zadruga

²⁷⁷ Independent External Evaluation (2012). Evaluation report of the SEECEL Activities 2009-2012. Dr. Van 't Rood R. and Dr. Maleković S. (Evaluators). Under Grant Contract 2009/225-746. Final Report. May 31, 2012; Available at: <http://www.seecel.hr/UserDocsImages/Documents/SEECEL%20Evaluation%20-%20Final%20Report.pdf>

²⁷⁸ Although the independent external evaluation has targeted ISCED level 2, the steps presented here are also applicable on ISCED level 1.

²⁷⁹ On Empowerment, ownership and competence based approaches, see appendix 2 to the Independent External Evaluation (2012).

Teaching methods addressing the various dimensions of entrepreneurship competences

The following example²⁸⁰ from a class ‘world around us’ shows how the teachers implement different activities, address different entrepreneurship competences by following the SEECEL framework. For instance, by playing a “miming game” students are expected to learn how to describe an entrepreneur (K1) providing with an example (K8). By watching short film about people and their professions students learn about different jobs/ occupations (K7) while discussing upon it the students develop the ability to present ideas to others through discussion (S2). Also, the students acquire the ability to describe different jobs (K7) by individual work on a worksheet.

Moreover, the students are expected to develop abilities of both individual and team work (S1), and to develop values of taking responsibility for tasks completing and meeting deadlines (A1), as well as demonstrate ability to work individually (A3).

Involvement of different stakeholders in teaching process

How different stakeholders are involved directly in teaching differ from case to case. However, it has been concluded that creative thinking and acting during all lessons and providing students with practical experience are necessary. Collaboration between schools, enterprises and local community should be intensified.

As mentioned, **pupils from previous phase of ISCED level 2** are “peer mentoring” younger pupils (ISCED level 1), sometimes directly and actively participating in the lessons. **Students’ parents** in some cases are involved in the teaching process directly. **Community stakeholders** of any type are participating on study visits while **business associations** are also activity involved.

The SEECEL’s experience shows that involvement of entrepreneurs is necessary in each education level. Parents (entrepreneurs) may be very helpful. At the lower level they need to introduce their professions, and in higher level they can be involved as co-teachers or mentors in some activities.

6.4.2 Teacher training initiatives: teaching guidelines and train-the-educator

SEECEL identifies teachers and teacher training authorities as key players for the Instrument. Besides the in-service teacher training which is directly linked to each ISCED level under Teacher Training Modalities (TTM), SEECEL requires that teacher education faculties participate in the ISCED level 5 and 6 instrument (University level). Thus, the pre-service teacher training (initial teacher training) is tackled in parallel and future teachers are aimed with appropriate set of learning outcomes to obtain entrepreneurial competences prior to their teacher careers²⁸¹.

Further, a crucial aspect of the SEECEL initiative overall is its close work with national teacher training authorities and teacher training institutions.

In the previous phase (2009-2013), the ISCED level 2 instrument brought different models and different solutions at school level on how to train teachers - in other words, 32 examples of train the teacher activities. For example, in Turkey, the schools started directly collaborated with Universities and faculties of economy, including teachers’ certifications. In Croatia, the schools used entrepreneurs, especially social entrepreneurs, in order to provide teacher training, in particularly for the part of economic and financial literacy. Hence, for ISCED level 1, SEECEL started working closely with Teacher Training Authorities (TTA) and created a separate working group on TTM while using ISCED level 2 participating schools as “mentor schools”.

²⁸⁰ An example of a lessons plan has been provided by SEECEL for the purpose of this study. Numbered capital letters in parenthesis correspond to the Learning Outcomes presented in the Table 30. Lessons Plan for entrepreneurial learning as a key competence (2013). SEECEL. LP No: ISCED1--42-2014. [not publically available].

²⁸¹ South East European Centre for Entrepreneurial Learning – SEECEL (2011b). Entrepreneurial Learning – a key competence approach ISCED Level 5-6. Zagreb, 2011. ISBN 978-953-56732-1-7.

The working group on TTM – one of the two expert groups working on the SEECEL Instrument for ISCED level 1 – consists of experts with an experience in entrepreneurship programmes development representing teacher training authority and nominated by SEECEL governing board members (i.e. SBA national coordinators and Ministry of Education). The working group with 8 national experts, led by international expert (Mr Hans Jørgen Knudsen from Denmark), and SEET regional expert (Ms Maja Jukić from Croatia), developed a common EL in-service TT Model (Figure 23: Proposed model for Entrepreneurial Learning In-Service Teacher Training). With the idea that Teacher Training Authorities plays a key role in developing and delivering the TTM, the TTM are well linked to the credit system, measurable in 2 ECTS²⁸² (a total of 50 to 60 hours for training and practice).

The basic elements of the EL TT are proposed as follow²⁸³:

- **One-day event for each school** (seven hours), explaining the concept of “the entrepreneurial school”
- **Teacher-training workshop** (three days). The training can take place at the provider’s institution, or at the participating schools. The main issue should be the content and methods that provide practicing and learning by doing;
- **Independent practical work** in which teachers try to organise and deliver entrepreneurial learning, supported by experienced coach. Each country decides on the form of communication (virtual, face-to-face, combination) on the length of the work and on the particular role of the coach. Practical experience is considered to be very important. During the implementation phase, teachers will face issues. Some teachers may need more support than others.
- **Knowledge-sharing event** (around seven hours), again may differ from country to country. The primary goal is to share experiences among the participating schools and teachers, while facilitator may facilitate and mentor may contribute with their experience and provide advice.

In order to obtain systematic solution through strong link with a national system, SEECEL approach is not focusing on the number days but on passing the theoretical and practical knowledge of 60 hours to get to the appropriate ECTS. SEECEL also emphasizes the importance of recognition at national level, for an entrepreneurial teacher versus a teacher, in terms of e.g. Teachers beginners, Teachers, Teachers mentors and Teachers advisor.

In each participating country, TTA takes charge of the TTM implementation, being responsible for contacting relevant higher education or other training institutions, adapting the modules to the national context, including the teachers’ material in national languages while drawing on the best practices in the country. For instance in Serbia, materials and experience of local JA Europe member²⁸⁴ are being used thanks to their strong collaboration.

Teacher training authorities may rely on existing experience of SEECEL pilot institutions (mentor schools), the developed SEECEL entrepreneurial network, and SEECEL’s Community of Practice (CoP)²⁸⁵. Through the CoP platform, individual schools and teachers may discuss relevant issues, but also may obtain support on daily basis from the working group, SEECEL and business (women)

²⁸² European Credit Transfer and Accumulation System.

²⁸³ SEECEL (2014a).

²⁸⁴ JA Europe is a membership based organisation covering 39 countries. More information is presented in this report, Chapter 4, in relation to another case study. JA Europe [general website]. Available at: <http://www.JA.org>

²⁸⁵ A web-based platform to promote sharing of good practices, knowledge and experiences through facilitating the work and discussions of experts, working group members, practitioners and beyond. Available at <http://www.seecel.hr/cop>

entrepreneurs and other stakeholders. Interaction and SEECEL support, therefore, happens on daily basis. SEECEL coordinates the discussion but also collects the information and translates this into the improvements.

In line with the initiative phases, the TTM (the model and modules developed at national level) have been piloted and currently they are in the initial implementation phase (i.e. involving 32 schools). The level of TTM implementation varies among countries. For example in Montenegro being small country, all teachers at ISCED level 1 and 2 received the one day event and all teachers involved in the implementation passed the whole programme. In Bosnia, on the other hand, three different entities with three different teacher training authorities exist. Bosnian leading institution was assigned, but overall, the implementation of TTM need to be more organized and therefore requires more time (more modules, more meetings and more workshops).

SEECEL provide support for TTA both, content-wise and financially. Regarding the additional sources of content, SEECEL collaborates with Kaufmann Foundation²⁸⁶. Furthermore, SEECEL is preparing 27 different inspirational good practice stories from women entrepreneurs, mainly on three areas: customers, financial and leadership. These stories result from another SEECEL initiative on women entrepreneurship²⁸⁷ and will be provided to teachers and teachers' trainers as a training material.

Overall, the training material is yet in the development process and is one of the outputs that should be improved at the end of the initial implementation period (by 2016). SEECEL will publish best examples and materials to be used online (www.seecel.eu) and in paper version.

Learning outcomes for the pilot programme, including the three modules and practical experience are presented in the Table 33:

Table 33: In-service TT – learning objectives

Key learning objectives for In-service TT (SEECEL Instrument – TTM):	
<i>Upon successful completion of the three modules and practical experience, participants should:</i>	
Knowledge:	<ul style="list-style-type: none"> - Explain the difference between being an entrepreneur and acting entrepreneurially and give an example for both. - Explain why scarcity necessitates decision making. - Analyse what products are in supply and demand at the local and national level. - Explain and distinguish benefits and costs. - Explain productivity and justify comparative advantages. - Interpret and give an example how to use opportunity costs in decision making processes. - Determine the importance of externalities and sustainable planning (think green) for entrepreneurial activities. - Explain how to organise the phases of entrepreneurial activity in a classroom and at the school level (cooperation with local enterprises and the local community included). - Give examples of active verbs to be used when describing knowledge, skills and attitudes at the ISCED 1/2 level. - Explain how to set up an entrepreneurial plan. - Identify and list risks. - Identify and address environmental consequences of particular entrepreneurial activities. - Give an example of interaction between economy, environment, technology and society.

²⁸⁶ Ewing Marion Kaufman Foundation [general website]. Available at: www.kauffman.org

²⁸⁷ Women Entrepreneurship - SEECEL - South East European Centre for Entrepreneurial Learning (n.d.).

Key learning objectives for In-service TT (SEECEL Instrument – TTM):

Upon successful completion of the three modules and practical experience, participants should:

Skills	<ul style="list-style-type: none"> - Facilitate problem solving and the social decision-making process in students' groups. - Demonstrate the ability to evaluate results and processes from group work. - Apply methods to improve students' entrepreneurial competence in terms of planning, seeking information, problem solving, delegation, communication, cooperation, decision making. - presentation and resolving conflicts in a constructive manner through negotiation. - Plan and organise students' co-operation with local enterprises. - Use methods for students' evaluation of study-visits in terms of risk-taking, opportunity-seeking, social responsibility, and thinking green. - Demonstrate how to write educational plans and lessons at the ISCED 1and2 levels in terms of Los.
Attitudes	<ul style="list-style-type: none"> - Demonstrate positive attitudes towards entrepreneurs and entrepreneurship. - Demonstrate and promote social responsible behaviour and ethics in entrepreneurship. - Demonstrate ability to take the initiative and responsibility for the consequences of their own or jointly agreed decisions

Source: extracted by CARSA from SEECEL (2014a), page 31-32

The effective aspects of the EL TTM are listed as follow²⁸⁸:

- address teacher and student needs.
- be long-term, on-going, sequenced and cumulative in order for teachers to reflect on changes in their practice.
- focus on students LOs in ways that enable teachers to use their new competences.
- use active teaching methods.
- use formative and summative evaluation.

Besides the TTM described here and targeting existing teachers, the Framework for ISCED Level 5 and 6 presents a proposal for pre-service teacher training and lists learning outcomes for student teachers²⁸⁹.

6.5 Assessment and Impacts

6.5.1 Strategy for assessment of entrepreneurship competence

The following table shows the assessment methods emphasised by SEECEL Instrument for ISCED Level 1. The full SEECEL framework, including learning outcomes, teaching and assessment methods per each of the three competence dimensions are also introduced in the Table 30, page 143.

²⁸⁸ SEECEL (2014a), p.40

²⁸⁹ SEECEL (2011b), p. 54-57

Table 34: Assessment methods – SEECEL Instrument LE-KCA for ISCED level 1

Assessment method:	SEECEL Instrument – LE – Key Competence Approach for ISCED 1 level		
	Knowledge	Skills	Attitudes
Essay Short text report	X		
Written Exam (written test, questionnaire based)			
Oral exam			
Self-evaluation / self-reflection		X	
Peer-evaluation (in-class) / group evaluation		X	X
External review / Feedback from external stakeholders (including users side)			
Project work (incl. simulation project work, or work on a real business idea) / assigned task achievement	X	X	X
Presentation / pitches	X	X	X
Event (e.g. faire exhibition)			X
Practical assessment		X	X
Field work		X	X

Source: Prepared by CARSA; 'X' stands for the key assessment method which is usually limited to three options while '✓' marks additional/complementary teaching methods. 'ICT' indicates where it constructs a major part

The set of assessment methods per each competence dimension is suggested, including, **for 'Knowledge'** - short text report, presentation and project/group work; **for 'Skills'** - practical assessment, field work, presentation, project work and self/peer reflection; and **for 'Attitudes'** - practical assessment, field work, presentation and discussion, project / group work, should include event (fair, exhibition), self/peer reflection.

Two aspects influenced the suggested assessment methods. Firstly, in the initial development stage, the working group's priority was to define the framework in terms of LOs per each component of the entrepreneurship competence (i.e. knowledge, skills and attitudes) rather than focusing on teaching and assessment methods. Second, the working group experts were asked to focus on those methods assessing 'attitudes' since 'knowledge' is somehow covered by the traditional methods. When developing the instrument, the working group greatly discussed about two options, having a set of assessment methods relevant across all subjects or having an additional exam/assessment addressing the entrepreneurial learning explicitly. The working group agreed on the complexity of this issue and need for future attention.

SEECEL is currently following this part of the Instrument in order to take necessary steps for its improvements. After having a critical mass of the entrepreneurial schools and teachers, and all the system at place, SEECEL plans to focus its attention to the assessment methods. The current discussions lead towards involving National centres for external evaluation in order to ensure the systemic approach and sustainability.

Different assessment methods for different components

Main differences between proposed assessment methods can be seen in knowledge versus skills/attitudes. While short **text report** is suggested for assessing knowledge, **self/peer reflection**, and **field-work** is seen in the skills/attitudes category, while **event** is used to enhance attitudes.

This goes hand in hand with the student-centred approach, where more formative and less summative assessments are typical²⁹⁰. As mentioned earlier, this area of the framework still needs to be developed, and it will be in SEECEL's focus in upcoming years.

As an example from the lesson plan of the subject presented in relation to the teaching methods in Chapter 6.4.1, the evaluation of the lesson is taking place through each lesson part/activity: (i) evaluation of the students' work by the teacher by means of observing, explaining, asking questions, analyzing the results of work, (ii) students' self-evaluation. Besides, the students evaluate the lesson by providing a feedback written on sticker which they give to the teacher.

6.5.2 Impact, evaluation and monitoring

Applying evidence-based policy making in all the operations, SEECEL recognizes the importance of on-going monitoring and period evaluation activities. Thus, SEECEL uses an internal and future oriented monitoring and evaluations, aligned with outputs-results-outcomes-impact matrix (when relevant). Being co-financed by public funds, SEECEL full set of activities is also evaluated externally by independent experts (every three years).

Every year, around 2.500 students in each ISCED level is exposed to the SEECEL instrument.

The main impact area may be seen in the **quality of entrepreneurial education**. At more individual level and indirectly, the SEECEL targets **developing entrepreneurial behaviour in any situation and change of mindset of the individual and the society**; that is impact wider than creating more start-ups only. In other words, the SEECEL Instrument may have potential strong effects on:

- the entrepreneurship competences and entrepreneurial mindset of pupils from early stage
- the teachers capacities to teach entrepreneurially
- the institutions to develop into the entrepreneurial schools
- the national systems to adapt and embed the entrepreneurial learning into the system (curricula, teacher trainings etc).

On a regular basis, the participating schools and other organisation report to the SEECEL using self-evaluation reports. For instance, the interim report from strategic piloting comprises the following aspects²⁹¹:

- Activities and progress, including outputs, but also obstacles and shortcomings with the corrective measures undertaken
- Issues and Challenges impacting the development, implementation, as well as achievement of targets; but also reporting on unexpected achievements
- Collaboration and Support including the collaboration with SEECEL network but also outside, listing also publicity activities
- Conclusions with action plan and reasons for reschedule (if relevant)
- Financial overview provides with the overview on the expenditure for the related activities

Collected input from participating schools through self-evaluation reporting but also questionnaires and interviews is analysed by SEECEL and translated into the improvements. For ISCED level 1, the interim evaluation is soon to be published (May 2015).

So far, the teachers and school management staff have been the target group of the assessment strategy using a questionnaire. The study on strategic piloting of ISCED level 2 Instrument²⁹²

²⁹⁰ E.g. Crumly, Cari (2014). Pedagogies for Student-Centered Learning: Online and On-Ground. p. 26. ISBN 1451489536.

²⁹¹ A template for 'Interim Report on Implementation of the Strategic Piloting' has been provided by SEECEL for the purpose of this study. [not publically available].

focused on answering the main question about what impacts the instrument, and in particular the teacher training, have on the teachers' and school management staff's, and the difference:

- between four curricular areas (language curriculum; social science curriculum; science curriculum; arts, technical and physical education curriculum).
- among the participating countries.
- between schools.

Examples of the aspects (questions) about which the perceptions were measured before and after the piloting phase are: entrepreneurship as the basis of wealth creation, benefiting us all; entrepreneurs are welcome in my classroom; Innovations are a central factor in the life of our school; I believe entrepreneurial competence can be developed.

In upcoming years (after 2016), the SEECEL plans to develop different assessment strategy targeting also pupils.

Independent external evaluation carried out in 2012²⁹³ focused on relevance, efficiency, effectiveness, sustainability and impacts, including recommendations, as well as lessons learnt on entrepreneurial learning (EL) concept, EL implementation at classroom, national coordination, bridging the gap between theory and practice, risk of exhaustion and de-motivation and SEECEL coordination. The external evaluation covered SEECEL activities in the period of 2009-2012, including:

- Development of the entrepreneurship key competence (ISCED 2 level).
- Promotion of the entrepreneurship / entrepreneurial learning at the third level education (ISCED 5/6 level) within non-business disciplines.
- Enterprise-driven training needs analysis.
- Dissemination and promotion of good policy and good practice.

Similar exercise will be carried out in the future, therefore, covering also ISCED level 1 Instrument.

Impacts - SEECEL ISCED level 1

It is yet too early to see the impacts of the ISCED Level 1 instrument. However, one of the clear impacts may be seen in **an increasing interest of teachers, schools and regions** in entrepreneurial learning. One example has been mentioned earlier when, Government of Montenegro and their institute for education asked SEECEL to use the teacher training model as a credit part of their regular teacher training system.

Based on experience through regional cooperation in SEECEL LLEL activities in Bosnia and Herzegovina, they started with the national EU IPA Project „Entrepreneurial Learning in Bosnia-Herzegovina's Education Systems – Phase II“. The building of national education systems follows SEECEL approach, definition and developed instruments and focuses on ISCED 1, 2 and 3 level of education²⁹⁴.

Based on interviews with participating schools in ISCED level 2, the independent external evaluation report (2012) several times noted interest of pupils in the learning approach (e.g. page 17, 22 and

²⁹² South East European Centre for Entrepreneurial Learning - SEECEL (2013b). School Professional Toolkit. Entrepreneurial Learning. Quantitative Section of the Study of Strategic. Zagreb, 2013. ISBN 978-953-56732-3-1.

²⁹³ Independent External Evaluation. Evaluation report of the SEECEL Activities 2009-2012. Dr. Rogier van 't Rood (TL) & Dr. Sanja Maleković (Evaluators). Under Grant Contract 2009/225-746. Final Report. May 31, 2012.

²⁹⁴ For more information, please visit: Entrepreneurial learning in BiH Education System –Phase II. [general website]. Available at: <http://www.eles.ba>

24). For instance, some interviewees expressed that pupils find classes more interesting, they ask more questions, show more creativity, take more initiatives and their self-confidence seems growing. Although this external evaluation have been carried out in the scope of 2009-2012 and therefore addressing ISCED level 2, similar findings could be expected with regards to the primary schools.

6.5.3 Example of show cases

For SEECEL instrument in ISCED level 1, the show case example is represented by

Osnovna škola Veljko Drobňaković, JU OŠ "Veljko Drobňaković", (<http://www.skolarisan.org>) which has been selected by Entrepreneurship 360 initiative (EC-OECD) as a good practice²⁹⁵.

Other showcase examples have been given at a country level, in the Chapter 6.5.2, namely:

- Government of Montenegro have been integrating the SEECEL teacher training model as a credit part of their regular teacher training system. They developed training materials and are constantly discussing it with SEECEL.
- EU IPA Project „Entrepreneurial Learning in Bosnia-Herzegovina's Education Systems – Phase II“

6.6 Sustainability and transferability

6.6.1 Sustainable business and financial model

SEECEL activities, including the Instrument for ISCED Level 1, are mainly co-financed from the EU Instrument for Pre-accession Assistance - IPA Multi-Beneficiary programme²⁹⁶ (2.550.000 Euros for 2013-2016) corresponding to 85 % of the budget, and Croatian government, who provides with the additional 450.000 Euros.

Separately to the above funded activities, which includes ISCED level 1, other SEECEL activities are financed as follow:

- 1.000.000 Euros for ISCED 3 (IPA multi-beneficiary programme).
- 1.000.000 Euros for Women Entrepreneurship (Swedish development Agency).

Moreover, in 2013, SEECEL member states agreed on solidarity principle related to the co-financing and contribute with a small membership fee of 10.000 Euros per year. The solidarity principle strengthens the participation and ownership of the SEECEL initiatives.

There is no private financing and no aim at having it. No sponsorship is used.

To provide with a full picture, SEECEL recently obtained technical assistance from the Western Balkans Investment Framework - WBIF²⁹⁷ to support construction of the SEECEL new premises, with the overall goal to serve as a centre for strengthening entrepreneurship and entrepreneurial learning, as well as to better enable the peer learning and knowledge sharing in the SEE region and beyond (30 million Euros; European Regional Development Fund).

²⁹⁵ Call for Case studies, Results (n.d.). Blog - Organisation for Economic Co-operation and Development. Available at: <http://www.oecd.org/site/entrepreneurship360/blog/callforcasestudiesresults.htm>

²⁹⁶ Overview - Instrument for Pre-accession Assistance (n.d.). Neighbourhood – Enlargement - European Commission. Available at: http://ec.europa.eu/enlargement/instruments/overview/index_en.htm

²⁹⁷ Western Balkans Investment Framework [general website]. Available at: <http://www.wbif.eu>

6.6.2 Key sustainable aspects

The key sustainable aspect of the ISCED level 1 Instrument lays in the SEECEL **systemic approach to all its activities and involvement of players with relevant expertise and decision power**. This is incorporated in several elements.

The governance of SEECEL is represented by ministry of education and ministry responsible for small business act, thus, two representatives per each country connecting the world of business with the world of education while having power at national level.

Framework of learning outcomes is **applicable across different curricula and to all subjects**. This has been prerequisite to the framework development due to the participation of eight different countries and primary schools being characterized by rather general studies. **Teacher training modalities** (in-service training) are an integral part of the framework ensuring its effective delivery.

Working groups for both, entrepreneurial learning and teacher training are composed by relevant national experts while representation of participating countries is equally balanced. Moreover, regional and international experts complement and facilitate the groups. In particular, the close collaboration and involvement of **teacher training authorities and teacher training institutions** shall sustain the teacher training in the future. Also here, the SEECEL future oriented vision and systemic approach is considered to have potential strong impacts on the initiatives' sustainability.

SEECEL builds on previous experience and exploit parallel initiatives. For instance, mentor schools and mentor teachers are used to guide newly participating teachers and schools across different ISCED levels (in particular ISCED level 1 and 2 being usually placed in the same establishment) but also when expanding the Instruments' implementation within the same ISCED level. Outstanding approach to pre-service teacher training has been taken when setting up a requirement for teacher education faculties to take part of the piloting and initial implementation of the instrument in ISCED level 5 and 6. SEECEL also identified synergy with women entrepreneurship initiative preparing "teaching material".

Continuous support to practice sharing and discussions is applied during all phases (design or implementation) and at all levels (individual, institutional or national). Community of Practice platform has been created and serves for this purpose.

Besides, SEECEL has clear vision as which parts of the instrument should be further improved, when and how, with understanding of corresponding development stages. In this respect, SEECEL clearly emphasizes case studies and study visits as a priority put before blended learning implementation. Also, the framework has been firstly focused on learning outcomes and teaching methods, to some extent, while assessment methods will be developed when critical mass of entrepreneurial schools is reached and collected data analysed. To the latter mention, SEECEL's current discussions lead towards involving national centres for external evaluations in order to ensure the systemic approach and sustainability.

6.6.3 Potential transferability

SEECEL Instrument for ISCED level 1 has high transferability potential in terms of education levels and geographically, and this has been already proven.

By design, the initiative has high potential of transferability across different education levels, being already proven by the parallel work on ISCED level 3 (piloting and initial implementation) while ISCED level 2 and 5/6 are in a further stage of expansion having been implemented in earlier period. The knowledge is transferred among participating schools and teachers, as well as national

authorities thanks to the SEECEL coordination and continuous communication (e.g. communities of practice).

Regionally, the transferability has been proven in the SEET region. The Instrument is applied in 8 countries of South East Europe and Turkey from the very beginning. The Instrument as well as the methodology has high potential to be transferred also in other countries (European or non-European). The interest from some EU member states and partnering countries (eastern and Mediterranean) has been expressed to the SEECEL.

SEECEL frameworks are well received in the EU member states and have served as reference documents for entrepreneurial learning oriented working groups and related discussions. Following the request of European Training Foundation, the Instrument for ISCED level 2 has been translated also into Russian and disseminated in the Eastern Partnership Countries.

Through SEECEL activities at international level (e.g. EU-OECD Entrepreneurship 360²⁹⁸ or Pan-European Entrepreneurial Learning Initiative²⁹⁹), the initiative has also high possibility to be transferred further.

6.7 Key lessons and observations

SEECEL Instrument – Entrepreneurial Learning – A Key Competence approach for ISCED level 1 (in other words, ISCED level 1 Instrument) is built around the following factors having an important share in the initiative’s success. The lessons have been learnt from both, pilot and initial implementation, but also from other instruments, in particular for ISCED level 2.

Building on European reference tools supports the sustainability and transferability of the SEECEL Instruments

Very relevant to both, the sustainability and transferability of the initiative is its connection to the EU frameworks. SEECEL Framework of learning outcomes uses three categories of competences: knowledge, skills and attitudes based on the European Reference Framework for Key competences for life-long learning (European Parliament and Council, 2006), while all relevant stakeholders have been also asked to consider European Qualification Framework (European Parliament and Council, 2008). Moreover, teacher training model is based on the European Credit Transfer and Accumulation System (ECTS). The EU tools incorporation seems to determine significantly potential for sustainability and transferability in the future.

Systemic approach and open method for cooperation help to overcome barriers related to the decentralization of entrepreneurship education policy area

Systemic approach is considered as one of the factors sustaining the initiative and ensuring its success. When developing and implementing different SEECEL instruments, all relevant key players are correctly involved for all of the initiatives’ components: teaching/learning or teacher training. As expressed by SEECEL, policy makers need to be at least aware of the importance of entrepreneurship education and key lifelong learning competences.

Under SEECEL governance, ministries of education and ministries responsible for small business act have to collaborate to find solutions, agree on them and jointly take decisions in the area of entrepreneurship education. This is forced by the SEECEL governing structure, as well as through the establishment of the working groups.

²⁹⁸ Entrepreneurship 360 –OECD [general website]. Available at: <http://www.oecd.org/site/entrepreneurship360>

²⁹⁹ Project awarded under Call for proposals; COS-ENTEDU-2014-4-06: EE-HU.eu [general website]. Available at: <http://ee-hub.eu>

Continuous supporting and coordinating effort at central and national level to overcome national differences, and not only

In the development phase, all stakeholders had to consider national context and national system. Differences in national systems and the country size might turn into the serious barrier. As SEECEL expressed, this has been overcome through coordination and by continuous communication and sharing.

Once the Instrument is developed and once the institution start building on the Instrument in their respective national environment, the Instrument implementation and the involved institutions must be serviced. The independent external evaluation³⁰⁰ shows that pilot schools and universities (ISCED level 2 and 5 and 6) are working hard towards instrument development and implementation, the same applies to business sector institutions (e.g. chamber of commerce). Despite approval and certain support by ministries at national level, the effective entrepreneurial learning coordination and leadership is yet needed.

On the same note, the independent experts express the importance of SEECEL central coordination which has been so far almost perfect. Any decentralization of the central coordination role could put the initiative at risk.

Nourishing cooperation and practice sharing among relevant experts is critical to all phases (from the design to the full implementation)

Established working groups and the SEECEL network appear to be great success, containing experts in the area (entrepreneurship and education) willing to work with SEECEL on long term basis. Language remains yet the most critical factor for SEECEL initiatives as much as for any regional/international cooperation. Community of Practice web based platform seems to serve well to share and discuss issues among different players.

Motivation to be involved is critical

For all involved stakeholders, motivation to be involved and actively participate is also among the critical success factors. Lack of motivation may turn into the barrier while correct motivation may push for progress.

Especially to enhance teachers' motivation, certain recognition of 'entrepreneurial teachers' is seen as an effective mechanism. The teachers' demotivation on long run may jeopardize their important role in the phase of Instruments' full implementation, in particular in case of mentor-teachers³⁰¹.

6.7.1 Other remarks

Role models for teachers, schools and regions

With the role of coordinator, constantly discussing with others, identifying good practices, monitoring and evaluating the instrument, SEECEL creates and disseminates examples for teachers, schools but also regions. As said, identifying and recognising teachers, schools and regions provide with a powerful tool to motivate all participants and involve new ones.

Systemic approach to teachers training

Conclusions from the independent external evaluation report urged the need for further development of EL competences by teachers. Taking this into account, SEECEL have made a step forward to more systemic approach for teachers training under ISCED level 1, when involving closely national teacher training authorities and providers.

³⁰⁰ Independent external evaluation (2012), page 58

³⁰¹ Idem.

Further, the in-service teacher training integrated within each ISCED level instrument is complemented by involvement of teacher education faculties under ISCED level 5 and 6, thus, addressing initial teacher training in parallel. This is seen a very important connection.

Appropriate learning settings for entrepreneurship competence

Current discussions by working groups and schools are concentrated on the learning settings and teaching methods appropriate to the individual components of entrepreneurship competence. Overall, it may be said that modern teaching methods, more interactive, student-centred, learning-by-doing types, are more appropriate for entrepreneurial learning.

Entrepreneurship competences from wide perspective

Overall, SEECCEL expressed that focus of the entrepreneurial learning (applicable on ISCED level 1 – ISCED level 3) is put into **thinking entrepreneurial, being generator of new ideas, being innovative and thinking out-of-the-box**, in contrast with rather narrow business related activities (for profit, start-up oriented). To this, the competences for both, pupils and teachers, include such items as ethics, environmental risks, pollution and health impact, scarcity or responsibility for public goods, bringing the entrepreneurial learning closer to the sustainable entrepreneurship, rather than profit driven entrepreneurship.

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Interview carried out with Maja Ljubić, assistant Director, senior education expert, SEECEL

7 Case Study 5: The NextLevel Programme

The NextLevel Programme is managed by the Foundation for Entrepreneurship – Young Enterprise (FFE-YE)³⁰², Danish member of the JA Europe³⁰³ network. FEE-YE was set up in 2009 as a result of an inter-ministerial partnership between four ministries and on the basis of the then government's overall strategy for entrepreneurship education. It is a private commercial foundation primarily supported by the four-ministerial partnership. A range of large and small companies support the Foundation's work through sponsorships,

The mission of the Foundation is to *“ensure that the ability to be innovative becomes a fundamental element in all educations from primary school to PhD”*. In other words, FFE-YE allocates funding for the (further) development of education with a focus on innovation and entrepreneurship at all levels of the education system. The Foundation also creates and publishes its own educational material, advises on the implementation of entrepreneurship in teaching, and facilitates the co-operation and networking about entrepreneurship education. In addition, it undertakes research on entrepreneurship teaching, for example by monitoring and assessing the impact of entrepreneurship education in Denmark.

FFE-YE runs JA core programmes – the Start-up Programme (18+) and Company Programme (15-18) – as well as other national programmes – NextLevel and Edison. FFE-YE also supports activities within teaching and education in entrepreneurship through projects grants and provides support to students with good ideas in order to promote entrepreneurship as a career path through micro-grants.

FFE-YE has also participated in a wide range of European projects and has accumulated high-level expertise in introducing entrepreneurship competence in school curriculum as well as the assessment of entrepreneurship competences (e.g. ASTEE project³⁰⁴).

³⁰² NextLevel - Fonden for Entreprenørskab - Young Enterprise. Available at : <http://eng.ffe-ye.dk/programmes/nextlevel/about-nextlevel>

³⁰³ Junior Achievement Young Enterprise [general website]. Available at: www.JA.org

³⁰⁴ ASTEE project [general website]. Available at: www.asteeproject.eu

7.1 Summary

The NextLevel programme is a Danish programme run by **the Foundation for Entrepreneurship – Young Enterprise (FFE-YE)**, a private commercial foundation primarily supported by four-ministerial partnership in Denmark. Rather than prescribing a fixed programme, NextLevel is **a broader framework for secondary schools project development**, aiming at a common goal. The main idea is to provide lower secondary education students³⁰⁵ and teachers with the opportunity to apply curricular based knowledge in **an “outside-school” environment creating a link between school and the professional world.**

The Nextlevel programme was set up in 2011 being implemented for almost 4 years now. The programme is currently subject to a profound review of the programme and will be re-launched from the upcoming school year (a more elaborated and complete model will be published in June 2015). The review is implemented in line with a reform in Danish secondary education which will anchor entrepreneurship more firmly within the Danish education system.

NextLevel’s main component is the **‘project course’** in which students develop a project idea, plan its implementation and take their idea to the “next level” by attempting to implement part of the idea, for example by reaching out to potential clients in business or engaging with community organisations. In general, the NextLevel programme provides four different categories (Movement, Knowledge and the world, Welfare and Society, Language and culture) for student project development. Next to the project module students have the opportunity to participate in **national competitions** yet participation is not a mandatory part of the NextLevel programme.

*With reference to the OvEnt study, the NextLevel focuses on one key area: learning/teaching through real project based work. The programme focuses on the learning of entrepreneurial competences, rather on **skills and attitudes** than on business/entrepreneurship knowledge. The main competences targeted by the initiative are creativity, entrepreneurial attitude, e.g. self-confidence, accept failure and handle ambiguity and contextual understanding (e.g. market and economic understanding). As a project oriented programme to gain experience in a **non-school environment**, the primary teaching methods are learning-by-doing, collaborative learning supported by competitive learning, and the programme is based on effectuation perspective. The programme combines institutional learning in the classroom with non-formal or informal learning elements, chosen in accordance to the teachers’ preferences. Learning happens face-to-face, in the initial in-class activities as well as the outside of class activities. ICT is a supporting tool with teaching/learning material available on NextLevel’s online portal including links to further learning process guides available on other websites. The NextLevel programme is currently an extra-curricular activity but within the upcoming school reform, it can be used as a curricular component in Danish lower secondary school.*

The primary target group are lower secondary students with a very active role of teachers. Co-operation with business is not a focus of the programme; however business has been involved marginally as partner in the competitions and in the framework of the students’ project courses.

Supported by the ‘Partnership for innovation and entrepreneurship in education’³⁰⁶, **NextLevel is fully sustained by public financial resources.** In the near future an **English version of**

³⁰⁵ The Danish education system typically comprises primary education (grades 1-6), lower secondary education (grades 7-9/10 and upper secondary education (grades 11-12) in case of the general education qualifying for university. Source: Danish Ministry of Education [general website]. Available at <http://eng.uvm.dk/Education/Primary-and-Lower-Secondary-Education>

³⁰⁶ Four-ministerial partnership founded FFE-YE and supports all its activities. As stated on the websiste, the government has appointed a Partnership for innovation and entrepreneurship in educations to strengthen and coordinate the efforts to incorporate innovation and entrepreneurship in the educations. The

Nextlevel will be set up and discussions on how to replicate NextLevel in other European countries are ongoing with FEE-YE's core European project partners.

The FEE-YE is currently evaluating the NextLevel programme but it is too early to reveal any conclusions and decisions made on the basis of that evaluation. Feedback from former participants (students) and teachers indicate that that students show increased levels of **willingness to engage in further entrepreneurial activity**. Observations also suggest that NextLevel participants are reassured of their social and leadership skills and are more likely to act as leaders in further school projects.

On the other hand, the FEE-YE carries out **annual studies on the impact of entrepreneurship education in Denmark**, which contributes to FFE-YE initiatives' design, e.g. a study in 2012 found that more recent perspectives in entrepreneurship education, e.g. Sarasvathy's effectuation perspective seem – in comparison with the traditional perspectives – to have the most positive effect on students.³⁰⁷

appointment of the Partnership is a follow-up on the educational initiatives in the government's national innovation strategy 'Denmark – a nation of solutions'. – see more on <http://eng.ffe-ye.dk/the-foundation/the-organisation/about-the-organisation>

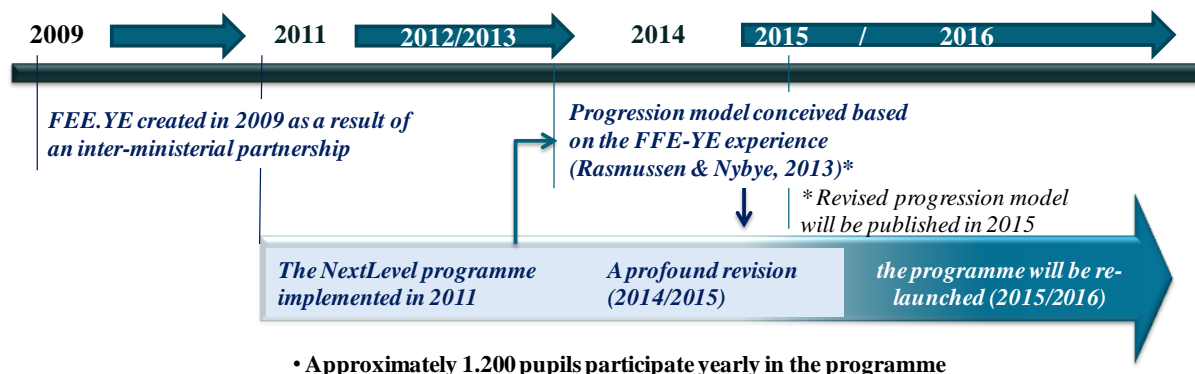
³⁰⁷ FEE-YE (2012). Impact of Entrepreneurship Education in Denmark in Denmark. Executive summary. Retrieved January 5 2014, from: <http://eng.ffe-ye.dk/media/45278/Executive-Summary-Impact-of-EE-in-Denmark-2012.pdf>

7.1.1 InfoBox

Table 35: NextLevel - InfoBox

NextLevel: InfoBox	
Implementation:	NextLevel has been set up in 2011, a revision has been carried out in 2014/2015 and the revised programme will be launched in the upcoming school year (2015/2016) The NextLevel projects lasts usually for a period of 7 months (October to April)
Focus Area	Learning entrepreneurship competences
Targeted education level	Lower secondary education (grades 8-10)
Main target group of the initiative	Learners: Lower secondary education students (typically 13-17 year olds)
<i>Secondary target group:</i>	Teachers in secondary education
Entrepreneurial competences	Skills / Attitudes are in the main focus
Teaching methods	Learning-by-doing, Collaborative learning, Competitive learning, <i>Effectuation perspective</i>
Learning settings	Face-to-face in the classroom and outside of the classroom
Assessment methods:	Project work, Peer-evaluation, Self-evaluation; Competition application for those participating in a competition.
Impact area:	Personal development – through enhanced skill development; Employment/Employability, and in a long term, foundation of start-ups or (considering) entrepreneur as a career option.
Output dimensions	<ul style="list-style-type: none"> - Approximately 1.200 students take part in NextLevel per year - 72 projects where submitted to the competition in 2014 (note: pupils only submit their project if their teacher ask them to do so)
Overall impacts	More profound evaluation of NextLevel programme is currently being carried out (20104/2015). Based on feedback and observations indicates so far that NextLevel participants: <ul style="list-style-type: none"> - are more willing to engage in further entrepreneurial activity - are reassured of their social and leadership skills and are more likely to act as leaders in further school projects
Resource dimensions	<ul style="list-style-type: none"> - NextLevel Budget: Approx. Dkr. 150,000. (≈ € 20,000) - Teachers' effort between 30-60 hours (estimation; no official records)
Business model	The business model is based on public funding mainly.

7.1.2 Timeline and key milestones



Source: prepared by CARSA

Figure 25: The NEXTLEVEL programme – timeline and key milestones

7.2 General characteristics and core activities

7.2.1 Objectives

The NextLevel Programme's main objective is to give lower secondary pupils and teachers the chance of participating in **an entrepreneurial project-oriented educational activity** creating a link between school and the professional world which is based on:

- **Creativity:** to use and develop subject core knowledge, to view this knowledge in different contexts and to acquire experience with creative processes and methods.
- **Innovation:** to assess and reflect on new ideas and solutions, to organise these so that they give value to others and to use tools and methods for planning real-life projects.
- **Entrepreneurship:** to give the pupils experiences with implementing something in practice, to realise projects which they themselves have developed and to create meaning and a link between school and the outside world.

7.2.2 Core Activities and entrepreneurship competence dimension

The NextLevel Programme consists of 2 main activities/components:

Table 36: NextLevel case study core components

Core activities/components:	Focus area:	Form:	Entrepreneurship competence:
Project course	Learning entrepreneurship competences	Face-to-face	Skills / attitudes
Competition	Learning entrepreneurship competences	Face-to-face	Skills / attitudes

Source: prepared by CARSA for the purpose of OvEnt study.

Concerning the above mentioned activities/components, FFE-YE currently provides teaching guidelines, online materials for students (application guidelines for the NextLevel competition) and online materials for teachers (creative and innovative process guidelines).

The project course is the main component of the NextLevel programme. With the support of guidelines for students and teachers pupils must on their own identify and act on a specific problem. The goal is to develop ideas for a product, an event, a process, or something else that gives joy and value to others. The value can be financial, cultural, or social giving the programme a dimension that goes beyond commercial value with many projects developed in the cultural and social entrepreneurship field. In NextLevel the pupils must work **project-oriented**; they must on their own **find an idea to work with** as well as **plan the process from idea to implementation**.

The project course provides pupils with the opportunity to create **a link between school and the professional world** while further developing **their skills/attitudes concerning creativity, innovation, cooperation, project management, and communication**.

Within NextLevel pupils are asked to develop 'a professional idea' in line with their interests and translate this into action to create potential or actual value for others. Students are particularly encouraged to take steps to implement their project idea, i.e. to design the product/service, to explore potential clients, to talk to businessmen, community stakeholders or their parents about the implementation processes, etc.

In the process of an ongoing Danish school reform entrepreneurship has become more rooted as a cross curricular theme throughout the primary and lower secondary school education and it can be implemented in all subjects. In lower secondary level (from 7th to 10th grade) pupils can choose an elective course in which they can focus on entrepreneurship, but it is not a mandatory part of the school curriculum.

NextLevel students can present project ideas in 4 different categories which are interpreted widely. The 4 categories include:

- **Movement:** Movement is understood either as physical display or spiritual movement.
- **Knowledge and the world:** In this category it is primarily the scientific subjects which are brought into play.
- **Welfare and Society:** is about creating a new form of service, process or fundraising. Inspiration is drawn from the local community, from the welfare system, or from the global world.
- **Language and culture:** This category is typically used in Danish, English or German but also in History, Religion or Social studies.

Typically, the classroom is divided into several groups composed of 3-5 students each. The students agree on one of the above NextLevel categories and develop a professional group work. Throughout the classroom groups may develop professional ideas in different categories.

The competences addressed in the NextLevel programme are close to the Progression Model³⁰⁸, a pedagogical model developed in-house by the FEE-YE.³⁰⁹ The following competences table has been developed on the basis of the Progression Model and completed in collaboration with the FEE-YE.

³⁰⁸ Rasmussen, A. & Nybye, N. (2013).

³⁰⁹ The Progression model was developed in the aftermath of the NextLevel programme which was introduced in 2011. However, the competences addressed in NextLevel and the Progression Model show considerable overlap.

Table 37: Entrepreneurship Competences in NextLevel project course component

Competences per entrepreneurial dimension:		
<i>NextLevel – project course component</i>		
Knowledge	Skills	Attitudes
Cultural understanding (Environment)	Value creation (Action)	Initiative (Action)
Contextual understanding (Environment)	Communication (Action)	Belief in own abilities (Attitude)
Market understanding (Environment)	Cooperation/team work (Action)	Handle ambiguity (Attitude)
Economic understanding (Environment)	Idea creation and transformation (creativity)	Accept failure (Attitude)
Understanding of entrepreneurship	Analytical thinking (creativity)	Ethical values (Attitude): Understanding your social impact
Product/service design	Alternative solutions (creativity)	Social leadership
	Planning and organisation of idea	Risk taking
	Project management	Entrepreneurial self-efficacy

Source: prepared by CARSA based on Progression Model (action, creativity, environment, attitude) and in collaboration with FFE-YE

Which competences are covered precisely from the ones mentioned above in the table, depends on what students make out of the experience. Older students are, for example, more likely to be engage in analysing the project idea, to understand the social impact of a project and develop awareness regarding entrepreneurial self-efficacy than 8th grade students.

The NextLevel Programme is currently undergoing a profound revision. The programme is assessed and improvements are made on the basis of this assessment. Changes to the programme are currently being piloted and will be available for students from lower secondary schools from the upcoming school year onwards. While details about the exact features of the revision remain unsettled, it is certain that an improved evidence base of the Progression Model³¹⁰, a revised teacher training model³¹¹ and additional aspects on feedback, evaluation and assessment in entrepreneurship education will all be addressed in the revision.

7.2.2.1 Competition

Next to the project module students have the opportunity to participate in two competitions: **the Denmark Championship** – a competition linked exclusively to NextLevel – and **the Danish Entrepreneurship Award**, an independent competition not linked to NextLevel. Although participation in competitions is not a mandatory part of NextLevel, the organisers greatly encourage

³¹⁰ Rasmussen, A. & Nybye, N. (2013).

³¹¹ The teacher training model will provide best practices on entrepreneurship education. In addition, NextLevel teachers will in the upcoming school year have the possibility to participate in training courses in order to become more acquainted with entrepreneurship education and be informed about applicable teaching practices (Info provided during the interview with Nikolaj Hansen and direct inquiries to Anders Rasmussen, who is involved in the development of FFE-YE progression model and the future revised teachers model).

students to expose their project ideas to a larger audience through these competitions. FEE-YE deems this to be important in order to engage in a competitive learning environment and enhance related entrepreneurship skills and attitudes. According to the FEE-YE, **participation provides an additional opportunity to test the robustness of a project idea on a larger stage.**

The following competences are based on the progression model and validated with FFE-YE:

Table 38: Entrepreneurship Competences in NextLevel competition component

Competences per entrepreneurial dimension:		
NextLevel – competition component		
Knowledge	Skills	Attitudes
Product/service design	Communication (Action)	Initiative (Action)
	Idea creation and transformation (creativity)	Belief in own abilities (Attitude)
	Cooperation/team work (Action)	Handle ambiguity (Attitude)
	Analytical thinking (creativity)	Accept failure (Attitude)
		Ethical values (Attitude)
		Risk taking

Source: prepared by CARSA based on Progression Model (action, creativity, environment, attitude) and in collaboration with FFE-YE

The Denmark Championship selects 5 projects in each category to compete in the finals with the first three winning cash prizes. The winner of each category then competes for the NextLevel Championship (still part of the Denmark Championship).

Students apply for the competition by filling out the student form, a structured questionnaire addressing 5 given topics. Guidelines with explanations for the completion of the form are provided in the online material section. In addition, pupils have the opportunity to enclose / attach documents, such as video (max. 2 min), presentations (max. 5 PowerPoint slides), images (max. 10 images), or other documentation from teachers / parents / management / business helping them to prepare or implement the idea. Students/teachers interested in the programme may participate to obtain a better idea of the competitions processes and contents.

The NextLevel programme also actively encourages students to participate in **the Danish Entrepreneurship Award**. Secondary education students have the opportunity to participate in two different competitions schemes:

The Danish Entrepreneurship Award targets all secondary education students in Denmark with two general competition schemes (Competition and more specialized science and technology ‘Da Vinci’)³¹². Moreover, the Award introduced a specific scheme for NextLevel students inviting students to submit their project ideas in the same 4 NextLevel categories.

³¹² “The Competition” which provides students with four different tracks: Science and Technology, Society and Globalization, Business and Service or Trade and Skills and in light of the written and oral presentation crowned a winner per track and Da Vinci, a more specialised science and technology competition with tracks in technology (HTX), science (STX), crafts (vocational training) and social science (STX).

7.2.3 Educational scope and target groups

The NextLevel programme focuses on **(lower) secondary education students** and involves secondary education teachers.

Target groups and other groups involved (Learners, Educators, Other):

- **Lower secondary education students:** The primary target group of the project are secondary education students between grades 8-10. The students engage in developing a project idea, e.g. an event, a product, a process; and explore ways to implement this idea. Students can also participate in two competitions.
- **Lower secondary education teachers:** Educators in secondary education are given the opportunity to engage in an outside school environment where they can use subjects actively and fulfil common objectives. Further, teachers are encouraged and inspired to deepen their experience with creative and innovative teaching processes.

7.2.4 Geographical scope

The NextLevel programme is a **Danish initiative** only including students in Denmark.

7.2.5 Links to other initiatives and networks

The NextLevel programme is not directly linked to any other national or European initiative. However, the Danish Foundation for Entrepreneurship - Young Enterprise is JA Europe 's Danish member coordinating JA core programmes (incl. Company programme). Moreover, FFE-YE is actively involved in different European projects, notably as project coordinator of the ASTEE project³¹³ as well as core partner in the Entrepreneurial Skills Pass (ESP). Therefore, FFE-YE possesses considerable experience in developing entrepreneurship education initiatives with expertise in the assessment of entrepreneurial competences.

FFE-YE developed the already mentioned theoretical "progression model"³¹⁴ and is currently finalizing a "teaching model"³¹⁵ in which best practices will on specific teaching methods will be better described. Both these models result from FFE-YE experience (including NextLevel programme) and will be incorporated in the FFE-YE programmes and activities (ref. to the revision of NextLevel).

7.3 Entrepreneurship competence concept translated into the learning objectives and practical courses (setting-up phase)

7.3.1 Defining learning objectives

7.3.1.1 Learning objectives

Learning objectives are not defined separately for NextLevel programme. Being a cross curricular programme, the learning objectives largely depends on which category and subject the teacher choose as base for the programme. In this respect, the learning objectives are closely aligned with those of selected specific subjects.

For instance, e.g. a teacher in the subject 'Danish', used the following learning objective: *"The pupil must be able to give an oral and a written presentation of a known subject"*, whereas in the subject 'social science' the learning objective includes, e.g.: *"The pupils must show that they have knowledge*

³¹³ ASTEE project [general website]. Available at: www.asteeproject.eu

³¹⁴ Rasmussen, A. & Nybye, N. (2013).

³¹⁵ The "teaching model" is not yet publicly available and may appear with different name.

about political, cultural, social and economical issues.”. Other relevant subjects may be ‘English’, ‘Physics and Chemistry’, ‘Maths’. Comprehensive list of learning objectives per subject can be found on EMU.dk portal³¹⁶.

It should be however noted that the NextLevel programme is currently undergoing a robust revision.

7.3.1.2 About the process of defining learning objectives

As mentioned, the learning objectives for NextLevel had not been established separately to the ones generally accepted per each subject relevant to the four NextLevel categories. This is also linked to the the fact that there is **no systematic assessment of entrepreneurship competence** which renders assessment indicators and an assessment strategy redundant.

Within the NextLevel programme’s revision, learning objectives are currently in the process of being aligned with the learning objectives of the Progression Model, FEE-YE’s proprietary pedagogical concept.

The Progression Model³¹⁷ is a framework for understanding entrepreneurship as part of an educational system. It has been well received in national and international contexts, and it was adapted by the Danish Ministry of Education as part of recent reforms of public school (primary-lower secondary). The **progression model**, however, **does not distinguish learning objectives between different educational levels** (primary, secondary or tertiary education). The following Table 39 stems from the Progression Model’s corresponding publication:

Table 39: Key learning objectives according to the “Progression model”

Topic:	Key learning objectives: <i>The students will be able to:</i>
Action	<ul style="list-style-type: none"> - initiate long-term activities on their own, and on the basis of mature reflection they can create economic, social or cultural value (Initiation) - use their professional competence in value-creating initiatives, either through their own businesses, existing organisations or as a project team (Value-creation) - vary their written, verbal and digital communication in a strategic manner depending on the target group and situation (Communication) - cooperate in different social contexts and reflect on these. Students can build and be part of a team. They can professionally use and extend networks (Cooperation)
Creativity	<ul style="list-style-type: none"> - see opportunities and can moreover create ideas and opportunities that can be transformed into economic, social or cultural value (Ideas and opportunities) - combine and transform their professional knowledge in new ways. They can both act in a structured and analytical way and break with conventional knowledge and structured procedures (Applied knowledge) - find alternative ways and solutions, when they meet with obstacles, and do it with limited resources (Solutions)
Environment	<ul style="list-style-type: none"> - analyse and reflect on cultural conditions that mean some-thing to individuals, groups and decisions. They are able to challenge established assumptions on the basis of their extensive knowledge about different cultures and culture patterns (Culture)

³¹⁶ Please see learning objectives for various subjects with the grade 8 and 9 being relevant to the NextLevel target group, at: <http://www.emu.dk/omraade/gsk-lærer>

³¹⁷ Rasmussen, A., Nybye, N. (2013).

Topic:	Key learning objectives: <i>The students will be able to:</i>
	<ul style="list-style-type: none"> - use their professionalism in various private industries and public areas through entrepreneurship, locally, nationally and globally (Contexts) - evaluate and use different strategies for entering a private market or a public area. Students understand economy and market as an integrated part of society (Market) - analyse economic problems, seek financing and participate in strategic meetings with investors and other stake-holders (Economy)
Attitude	<ul style="list-style-type: none"> - can handle complex situations and create visions that can be transformed to value-creating scenarios in the real world (Belief in own abilities) - act in situations characterised by ambiguity and handle risk. They can reflect on risks and on activities in relation with these (Handle ambiguity) - to acknowledge and learn from their own failures and reflect on others' failures and successes (Accept failure) - take a position on ethical problems at a high level of abstraction and reflection in relation to their professional knowledge, as well as consider transformative actions in relation to culture, democracy and sustainability in a globalised world (Ethical values)

Source: prepared by CARSA based on the "progression model"

The Progression Model is based on different pedagogical concepts and literature on entrepreneurship education. On page 4, Rasmussen, A. et al. (2013), states that the model *prescribes a **continuous development of learning outcomes for entrepreneurial skills and competences** to be acquired by students throughout their education – viewed as a joint and continual effort in a diverse school and education system.* The model shows overall entrepreneurial dimensions within which, the learning outcomes shall be developed in the school and education system but whose validity has to be verified in practice.

Along with NextLevel, a new "teaching" model will be part of the programme's review to be published in spring 2015. This new model will provide a revised, more elaborated definition, changes in the structure of the model's dimensions (Action-Creativity-Environment-Attitude), an alignment of specific entrepreneurial learning outcomes to the EQF (and the corresponding Danish qualification framework) level 1, 4 and 7; an attempt to describe how the four dimensions can be practised by teachers, based on theories off teaching and learning and on impact research, some first thoughts on feedback, evaluation and assessment related to entrepreneurship education, and how feedback and assessment can enhance learning and impact (and how knowledge skills attitudes are transformed into transferrable competences), all including more empirical evidence. The new revised "model" will therefore influence also the set-up of future NextLevel courses and activities.

7.3.2 Setting-up practical courses, curricula or activities

Overall, the FEE-YE can draw upon **significant experience introducing entrepreneurship competence** in curricular and other activities, through its **national as well as European activities**. As such, FFE-YE designs initiatives based on other good practices and its own research. For instance, FFE-YE is a Danish branch of JA Europe , and it has been in **involved in a series of pan-European projects** on the introduction of entrepreneurship competence in schools and the competence assessment (See Case Study 2 in Section 4; ESP initiatives³¹⁸ or ASTEE project³¹⁹). FFE-

³¹⁸ The Entrepreneurial Skills Pass (ESP) [general website]. Available at: <http://entrepreneurialskillspass.eu>

³¹⁹ ASTEE project [general website]. Available at: www.asteeproject.eu

YE creates the knowledge as a research foundation, e.g. the mentioned **Progression Model** developed in-house by FEE-YE provides an approach to entrepreneurship education across the primary, secondary and tertiary education levels.

The learning settings of the programme were established to leave teachers flexibility to select appropriate settings in line with the abilities of their students.³²⁰

In the context of the reform in the Danish education system and the programme's according review, **NextLevel can be employed within the school curriculum from the upcoming school year.**

Educator training is not a focus of the NextLevel programme and has, therefore, **not been considered prior to the set-up of the programme.** However, FEE-YE indicated that teacher training would become an integrated part of the programme as a result of the programme's current revision.

At the time of setting up the **NextLevel programme assessments were not planned**, nor were they foreseen in the course of the programme.

³²⁰ This is important since the programme involves students between 13-17 years of age where considerable differences in students' knowledge and competences can exist.

7.4 Teaching and Learning of entrepreneurship competence in diverse settings (implementation phase)

7.4.1 Teaching methods and channels - pedagogical approach

Table 40: NextLevel teaching approach and methods

Teaching methods			
<i>NextLevel programme</i>			
Collaborative learning			X
Competitive learning			✓
Learning-by-doing / Project-based learning / Problem-based learning / Challenge based learning			X
New approaches allowing learning from failure / learning in ambiguous environment			
Self-reflection/Self-evaluation			X
Technology-based learning / Blended learning			
<i>More specifically:</i>			
Lecturer	✓	Simulations and business games	
Writing articles and essays		Student companies / mini-companies	
Brainstorming	X	Guest speakers / external visitors / role models	✓
Discussions / Debate	X	Company visits / community visits	✓
Role Play		Work placements	
Case studies		Mentoring schemes / tutoring	✓
Peer group presentations / peer editing/ peer review	✓	Workshops, seminars and training	
Project work and group work	X	Fairs/events/bring-and-buy	

Source: Prepared by CARSA; 'X' stands for the key teaching method and is usually limited to three options while '✓' marks additional/complementary teaching methods. 'ICT' indicates where it constructs a major part.

The NextLevel programme is an **extra-curricular activity** characterised by a **mixed learning setting**. Its fundamental principle is a curricular knowledge based action (effectuation approach) outside school-environment, and reflection upon doing. NextLevel, thus, helps to develop such entrepreneurship competences that cannot be well learnt in the school environment only (e.g. risk-taking).

The NextLevel programme provides a **general framework of teaching methods** without going into much detail about the specific methods used in the classroom, i.e. idea generation in the project

course, group work and competitive learning through the competitions are consistent parts of the programme. The programme is set up to allow for significant flexibility of teaching methods in accordance to educators' preferences. As a result, teachers often employ additional teaching methods, for example to prepare students better for the competitions; therefore, **methods can vary considerably from teacher to teacher**. While discussions/brainstorming, project work and group work and competitions are employed in nearly all classrooms, lectures, peer group presentations/peer review, debate, mentoring schemes and company visits belong to the additional methods applied by the educators. **Teachers may also employ elements of informal learning**, e.g. by organising company visits, using business mentors, coaching etc.

While the NextLevel programme is linked to a classroom environment (school, teacher), it urges students to go beyond the classroom and be confronted with two key entrepreneurship features: **(1) real-world experience and (2) value creation**. Students are expected to **go beyond the school context to interact meaningfully with stakeholders and test their project ideas**, e.g. from the business community, non-profit sectors, and/or other potential clients/business partners or even to seek advice from their parents. Through this experience students learn that their ideas can create value and make a difference for others.

According to the FEE-YE **teachers employ face-to-face methods with ICT tools used as a complement**, yet to different extents. While some teachers employ ICT tools, the majority of teachers use above all face-to-face settings.

7.4.2 Teaching guidelines and train-the-educator

The NextLevel programme provides **guidelines for educators on the FEE-YE web platform**. The guidelines comprise 2 principal documents: **a teacher's guide and a process guide**. The teacher's guide supplies with some details on the specific character of the programme including the evaluation criteria that learners will be judged on in the Denmark Championship. Meanwhile, the process guide presents ideas/inspiration for creative and innovative exercises to be performed in the classroom in support of the project course, e.g. as provided by 3D cases of "the creative platform".³²¹

The teaching guidelines provided on the web platform are rather of a **general character not distinguishing explicitly between various dimensions of entrepreneurship competence**. However, they include examples of how to design creativity and innovation processes in the classroom in a multi-step approach distinguishing clearly between these two competences.

The **acquisition of entrepreneurship competence by educators is not specifically targeted at programme level**. Given the wide range of different teaching methods applied by educators, it would depend case by case whether teachers acquire entrepreneurship competences themselves in the course of the programme. In general, the majority of teachers are found to have a good understanding of entrepreneurship education. Nevertheless, the **FEE-YE will strengthen the teacher training component** significantly in the revised NextLevel version. An **introductory teacher training** will be set up and implemented face-to-face. As noted earlier, a **teacher model** including best practices on teaching methods will further reinforce the educators' training in the revised NextLevel programme.

³²¹ 3D cases are based on the "3D Didactic" and applied with the objective to stimulate creative thinking. They typically involve students to change of their own perspective, for example, by adopting the perspective of a famous person or by imagining behaviour in a future setting. Available at: <http://www.uka.aau.dk/The+Creative+Platform/What+is+The+Creative+Platform/>

School governance is at present not involved in providing teachers trainings. Given the current revision of the programme, it is not yet possible to know whether school governance are involved in the revised programme launched most likely with the new school year.

7.5 Assessment and Impacts

7.5.1 Strategy for assessment of entrepreneurship competence

Table 41: NextLevel - assessment methods

Assessment method:	NextLevel
Essay	
Written Exam (written test, questionnaire based)	
Oral exam	
Self-evaluation	✓
Peer-evaluation (in-class) / group evaluation	✓
External review / Feedback from external stakeholders (including users side)	
Project work (incl. simulation project work, or work on a real business idea) / assigned task achievement	X
Presentation	✓
Event (e.g. faire exhibition)	
Competition application form (structured text) ³²²	✓

Source: Prepared by CARSA; 'X' stands for the key assessment methods and is usually limited to three options while '✓' marks additional/complementary assessment methods. 'ICT' indicates (ICT) where it constructs a major part

Assessment in the project courses component

In the Nextlevel programme **entrepreneurship competence is not systematically validated or assessed in the classroom.** Instead, the core idea is to expose students to an outside-school environment without assessing the knowledge, skills or attitudes they have learned throughout the programme.

Depending on the learning setting and teaching methods applied by the respective educator, **formative assessment forms** are at times employed to improve students' project ideas within **the project course**, e.g. though **feedback on project idea presentations through the teacher or self-evaluations/peer-evaluations.**

Assessment in the competition component

Students participating in the Denmark Championship are assessed on their submitted project idea. After submission, the project idea is assessed in accordance to evaluation criteria set up on the basis of the five themes detailed in the student form (see upcoming table for details on the student form requirements) as well as additional audiovisual components, e.g. a video, slide presentation, pictures etc. which the students can attach to their project idea.

³²² Not a mandatory component of the programme.

Table 42: Contents for project ideas submission to competitions

Required contents for submitted project ideas	
Topic:	Requirements
Basic Idea	Describe the idea (it is important that outsiders can understand what your project is about), explain the added value and whom the project will benefit
Expertise	Which subjects are included and used in the project? Describe how knowledge is used and what new professional knowledge is included
Action	Make a course description and detail the main activities undertaken in the project. Describe the extent to which the project is realized. (If the project is not carried out in practice, the score will be low)
External Environment	Describe the network used and how businesses, organizations or other external partners are involved in the project
Learning and Evaluation	Describe how the project is evaluated, and what the conclusion of this is. Describe, in general, what the project team has learned and whether this meets the expectations and goals set up beforehand

Source: CARSA developed based on information from NextLevel's website

The evaluation criteria comprise the originality of the project idea, relevance of the project, feasibility, value for others as well as involvement of external partners.

Those project ideas competing for the Denmark Championship are again assessed by the competition's jury in order to decide on the NextLevel Champion. During the competition the project ideas are judged on their knowledge and insight, idea and value creation, concrete actions and acts of interaction with the outside world and their ability to evaluate and reflect on their own learning.

The FEE-YE indicated that within the programme's revision feedback, evaluation and assessment in entrepreneurship education will be incorporated into NextLevel resulting in a judgement of all projects ideas.

The assessment is not based on a defined strategy to assess entrepreneurship competence, but to assess the project idea of students. The assessment of the project ideas is not clearly tied to the assessment of different entrepreneurship competences. Therefore, it does not distinguish between different entrepreneurship competences.

To date there have been no assessments carried out regarding the effectiveness of entrepreneurship competence acquisition/inclusion into the curriculum.

7.5.2 Impact, evaluation and monitoring

To date **no programme level impact assessment has been carried out for NextLevel**. The FEE-YE is currently evaluating the NextLevel programme but it is too early to reveal any conclusions and decisions made on the basis of that evaluation.

The impacts of the programme are to date **not backed up by in-depth research undertaken in the form of empirical evidence**. A set of interviews conducted with former participants and feedback received from involved teachers have indicated that students show increased levels of **willingness to engage in further entrepreneurial activity**. Observations also suggest that NextLevel participants are reassured of their social and leadership skills and are more likely to act as leaders in further school projects.

The FEE-YE carries out **annual studies on the impact of entrepreneurship education in Denmark**. Some of the studies assess the impact of different types of entrepreneurship and appropriate teaching/learning methods. For example, the study in 2012 found that more recent perspectives in entrepreneurship education, e.g. Sarasvathy's effectuation perspective seem – in comparison with the traditional perspectives – to have the most positive effect on students.³²³ Next to the more general assessments on entrepreneurship education, the **impacts of the Company Programme have been assessed at several occasions** along with more scattered assessments of national projects.

In general, FFE-YE has profound research capacity. The foundation carries out continuous measurements of the impact of entrepreneurship education and investigates on the immediate and longer-term effects of the education through questionnaire surveys and quantitative analyses. This research covers all three levels of the education system and builds up a considerable database to be used in later research³²⁴. Further, FFE-YE maps the exposure of Danish students in all levels to the entrepreneurship education³²⁵.

7.5.3 Example of show cases

There are several examples of students who as a result of NextLevel participation have **further pursued and improved their project idea**. For example, three girls designed cardboard boxes with educational value used to distribute food contents in humanitarian action programmes of UNICEF. The girls even engaged in marketing the idea to the Danish Red Cross, unfortunately unsuccessfully.

Another group of informatics students created a software application helping companies/institutions to better incorporate cross-cultural communication within their organisations.

7.6 Sustainability and transferability

7.6.1 Sustainable business and financial model

Fully financed by FEE-YE's proprietary portfolio, **NextLevel is sustained by public financial resources** reflecting investments by the Danish government to introduce entrepreneurship in primary and secondary education. In general terms, FEE-YE is a private commercial foundation **supported by four Danish ministries** (the Ministry of Business and Growth, the Ministry of Education, the Ministry of Culture, and the Ministry of Science, Innovation and Higher Education) together forming a Partnership for innovation and entrepreneurship in education. The foundation equally comprises a board of management and a board of representatives, composed of members from business and research.

7.6.2 Key sustainable aspects

One of the key sustainable aspects of the NextLevel programme is characterised by a **light financial structure** with financial resources used for the programme development (e.g. guidelines for students and teachers) and activities related to the competitions.

The continuous work of FFE-YE in the field of introducing entrepreneurship in all educational levels contributes highly to the sustainability of the NextLevel programme. The reality of this is proved by

³²³ Fonden for Entreprenørskab - Young Enterprise (2012). Impact of Entrepreneurship Education in Denmark in Denmark. Executive summary. Available at: <http://eng.ffe-ye.dk/media/45278/Executive-Summary-Impact-of-EE-in-Denmark-2012.pdf>

³²⁴ NextLevel - Fonden for Entreprenørskab - Young Enterprise [general website] Available at: <http://eng.ffe-ye.dk/knowledge-centre/knowledge-analysis/impact>

³²⁵ idem

the revision of the NextLevel in line with the state-of-art knowledge coming from FEE-YE research capacity and its experience in implementing various initiatives (practice), as well as EU-wide collaboration and its own research capacity.

For the Denmark Championship in 2014 NextLevel formed a **partnership with a private sponsor** which was handing out the prize, in this case it was a Danish Science/Adventure Park which sponsored a weekend stay in the park. FEE-YE envisages to extend collaboration with private entities in support of the competitions.

In the future the FEE-YE considers to **enable every student to present his/her project idea in front of a jury**, similar to participating in one of the competitions. However, how this will be put in practice is not yet defined, e.g. whether existing competitions will be scaled up or other means will be employed.

7.6.3 Potential transferability

FEE-YE is **considering to replicate the NextLevel programme to other countries in Europe**; yet, for the moment there is no concrete transfer plan. Currently, FEE-YE is in discussions with its European partners on how NextLevel components can be successfully replicated elsewhere in Europe. In the near future an English version of the programme will be created and attempts will be made to transfer the programme to interested countries by means of the English version. FEE-YE has been contacted by a Dutch authority that was interested in obtaining more information on the programme with a view to consider running a similar programme.

7.7 Key lessons and observations

NextLevel is built around the following factors having an important share in the initiative's success. The lessons have been learnt on the basis of 4 implementations years as well as the Progression Model.

Active involvement of students

The core of the project lies in the active involvement of students going beyond the classroom to the "next level". **It is important that students find their own problem in line with their interests which requires reflecting on the issues they like to work with.** A well-designed project idea is typically blending the own perspective of students with contents that give value for the people, for society.

Role of business and community

In many cases NextLevel is the first professional interaction of students with the world of work, often through contacts with social and cultural organisations but also with business and the community in general. It is important to make use of this opportunity and interact with external partners as much as possible. Working with external partners may also encourage students to think more closely about their professional future, which general direction to take, etc.

Role of teachers

Although the core of the programme takes place outside of school, teachers play an important role as facilitators and mentors throughout the programme ensuring that students are actively involved. Teachers' support may be required at several stages of the programme, for example students may need support from students when approaching businesses to present their business ideas.

The revised NextLevel project will provide teaching practices for entrepreneurial educators seeking to emphasise and standardise the particular role of teachers in NextLevel.

Outside school environment

NextLevel encourages the curricular knowledge based action (effectuation approach) in an outside school-environment, and reflection upon doing. Risk taking is a very difficult competence to achieve in a school context.

Appropriate learning settings for entrepreneurship competence

The programme does not provide of in-depth experience concerning the effectiveness of some learning settings versus others. In general, difficulties exist regarding the teaching of entrepreneurship attitudes. According to the FEE-YE **entrepreneurship attitudes, e.g. managing risks, overcoming uncertainties, is best achieved outside of the school environment**, in making students learn from their own experience and failures.

References to the NextLevel Programme

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Interview carried out with Mr. Nikolaj Hansen, FFE-YE, project manager.

8 Case study 6: Junior Entrepreneur Programme (JEP)

The Junior Entrepreneur Programme is an Irish entrepreneurial education programme, implemented as a 10/12 weeks mini-company programme, targeting pupils in primary schools. It has been running since 2010 in Ireland, and it is embedded in the principles of the Northern Ireland primary school curriculum.

The Junior Entrepreneur Programme (JEP)³²⁶ was conceived by **Mr. Jerry Kennelly (Tweak.com)**³²⁷, **Dr. Jerry Clifford** from the **Institute of Technology Tralee, ITT**³²⁸ and **Ms. Marie Lynch** from the **Shannon Development's Kerry Technology Park**³²⁹, based on their experience with other programmes targeting different age groups, and in conjunction with **Curriculum Development Unit (CDU) of Mary Immaculate College in Limerick**³³⁰. The programme is currently run by the not-for profit organisation **Nurture Entrepreneurs Ltd**, which was set up in 2012.³³¹

Mr. Jerry Kennelly was previously a photojournalist and a pioneering pre-press entrepreneur, founder of Stockbyte, which has been selected the Exporter of the Year and recognized in the Deloitte European Fast 500 and Fast 50 awards. Mr. Kennelly won the title of Ernst & Young Emerging Entrepreneur of the Year and has directorship in several organisations (e.g. The Kennelly Foundation Limited, Nurture Entrepreneurs Limited). He is honoured as a fellow of the Institute of Technology, Tralee and with an honorary Doctorate in Economics from the University of Limerick, Ireland.

Dr. Jerry Clifford is now the Commercial Director of the Technopath Group and owes directorship in several other organisations (e.g. The Kennelly Foundation Limited, Nurture Entrepreneurs Limited). The Group consists of a trio of companies whose scope includes the Healthcare, Biotech and Cleantech businesses. He is active as a mentor (startupbootcamp³³², among others). He is a graduate of University College Cork and the Royal College of Surgeons in Ireland, where he holds an Honorary Research Fellowship.

Ms Marie Lynch is currently a management consultant for Mary Lynch, previously manager of the Kerry Technology Park (Shannon Development). She is a graduate of University of Limerick and Dublin City University.

The JEP is part of a series of programmes targeted to different age groups:

- The Junior Entrepreneur Programme which is for children of 10-12 years old.
- The Young Entrepreneur Programme for students in their transition year, 16 years plus.
- The Endeavour Programme which is launch-pad for start-ups.

³²⁶ Junior Entrepreneur [general website]. Available at: <http://www.juniorentrepreneur.ie>

³²⁷ Tweak [general website]. Available at: <http://www.tweak.com>

³²⁸ IT Tralee [general website]. Available at: <http://www.ittralee.ie/en>

³²⁹ ITT and Shannon Development's Kerry Technology Park share a 113 acre campus. Both organisations have a shared vision for the integration of entrepreneurship education and the Kerry Technology Park became one of the successful business environments in Ireland.

³³⁰ <http://www.curriculumdevelopmentunit.com>

³³¹ Nurture Entrepreneurs Ltd is directed by Jerry Kennelly (chair), Fiona Stack, Vincent Cunnane, Rowland Blennerhassett and Jerry Clifford.

³³² <http://www.startupbootcamp.org/mentors/dr.-jerry-clifford.html>

8.1 Summary

The **Junior Entrepreneur Programme** (JEP)³³³ is a privately funded, not-for-profit Irish initiative organised on a county by county basis (county partner model). Interestingly, the JEP has been initiated by experienced entrepreneurs. It is centrally coordinated but implemented in collaboration with JEP County Partners (local entrepreneurs), who sponsor and deliver the programme to schools in the allocated counties. Academic partner, Curriculum Development Unit (CDU) of Mary Immaculate College in Limerick advises on the curriculum and teacher training. The JEP is an entrepreneurial awareness and skills enhancement programme for primary school pupils, implemented as a 10/12 week mini-company programme. The programme has been running in Ireland since 2010 **allowing the children to connect to the wider world and learn by doing**. Since then, the programme has expanded to 23 Irish counties and is currently being piloted in the UK.

The programme focuses on pupils in the 8-12 years age group. The aim is to teach the pupils the skills of setting up and running a business. This is done through: 1) helping children recognise entrepreneurship and enterprise; 2) raising awareness and understanding of the role of the entrepreneur in society; and 3) improving skills concerning initiative, creativity and independence. Interestingly, entrepreneurs are at the core of JEP's conception, management and implementation. Teachers play a crucial role in the JEP delivery at schools, being closely connected with children and their family environment.

The JEP addresses a variety of entrepreneurship competences covering all components: **knowledge, skills and attitudes** with skills and attitudes being central to the learning experience. Among skills, **teamwork and communication with others** are emphasized as a way to learn how to recognize one's skills and the skills of other pupils, and are mentioned in several occasions across the curriculum. **Self-awareness and self-esteem** are also in the focus alongside **creativity and innovation**. **Financial literacy** and **IT literacy** (using multimedia and software) are clearly incorporated in the learning objectives.

Accordingly, the key pedagogical approach is experiential learning; learning-by-doing and collaborative learning complemented by students' self-reflection. The teacher becomes a facilitator and self-directed learning is at the core of the programme.

The JEP is delivered through a well-defined and tested curriculum of 10/12 weeks, in line with the principles of the Primary School Curriculum. Face-to-face interaction is a crucial aspect of the programme. While the programme is mainly based at school premises, several activities may happen outside, in the local school environment (e.g. market research, production).

The assessment strategy is focused on the engagement, process and achievement; in other words, the completion of all activities anchored in the curriculum. Such portfolio of students completed activities takes form of 'JEP package', a folder submitted at the end of the programme. Among other documentation, the JEP package includes pre- and post- self-assessment of children enterprising skills. Other assessment components involve external entrepreneurs or other students, parents and teachers during two main events. The 'Dragon Panel' provides feedback at the initial stage and validates the 'Big Idea' on which students work during the programme, while the 'Showcase Day' validate the work at the end of the JEP. Additionally, students interact with their peers in the classroom, discuss and jointly decide about the course of actions for the realization of their 'big idea' (peer review).

The key impact areas of the JEP are: children's **personal development** - skills enhancement, self-awareness and recognition of others, **further education** - interest enhancement and self-directed

³³³ Junior Entrepreneur [general website]. Available at: <http://www.juniorentrepreneur.ie>

learning, and **considering entrepreneurship as a career option**, in terms of *'I want to become an entrepreneur'*. The latter may have indirect positive impacts on start-up foundation. Importantly, the JEP is preparing children for secondary education level where they choose subjects and direct their future.

It is too early yet to see the long term impacts. The future evaluation strategy is currently being treated with thoughtfulness. Legal and ethical constraints related to any follow-up communication with such young children beyond school establishment needs serious consideration before the evaluation strategy is put in place. Overall, JEP received positive feedback from both, students and teachers. Alongside improved communication skills, students seem to show more self-awareness and independence (self-direction); what is more, they seem to recognize better strengths and weaknesses of others. Teachers are positive about the value JEP brings to children and schools. Using business-like indicators, interestingly, the small business creation under JEP in schools in Ireland generated approximately ½ Mio. Euros turnover.

The JEP model shows **high levels of sustainability** as well as **high potential of the initiative to be transferred** to other regions and across educational levels. The initiative draws upon experience from a similar programme targeting a different age group as well as experience of academic partners with curriculum development. Further, it has initiated piloting phase in the UK, thus, expanding and transferring the activities geographically.

The business model is based on private funding, sponsored by local entrepreneurs and enabling the delivery of the JEP in the respective county free of charge for schools and parents. The JEP has successfully attracted and sustained local entrepreneurs, being proved by the growing number of participating counties.

Another sustainable aspect relates to the links with the national curriculum. The JEP programme materials have been reviewed by the Council of the Curriculum, Examination and Assessment (CCEA). Further the JEP programme is supported by the Irish Minister for Education and Skills Ruairí Quinn, who encouraged primary schools to become involved in it, and it has been identified as a good practice by the Committee of the Regions in 2011³³⁴.

Briefly, the key success factors rely on the involvement of local entrepreneurs in the role of county partners, motivation of teachers but also relations with parents. Positively seen is the strong legal and ethical base of the programme. Besides, using a competitive environment as the key pedagogical approach proved to be inadequate at primary education level creating unhappiness among students and teachers.

"We've had lots of light-bulb moments, but nothing has been as inspiring as what we've seen in primary schools with the Junior Entrepreneur Programme (JEP). There's something about the energy that exists in a primary school classroom. The ten to twelve year old pupils have not been impacted by the points race. They are open, creative and quick to learn." (Jerry Kennelly, co-founder of JEP; Junior Entrepreneur Programme, 2015)

³³⁴ European Union, Committee of the Regions (2012). Encouraging entrepreneurship at local and regional level. Best Practice Examples from EER Regions. CoR_1616/October 2012/EN. Available at: <http://cor.europa.eu/en/takepart/eer/Documents/encouraging-entrepreneurship-local-regional-brochure-2012-EER.pdf>

8.1.1 InfoBox

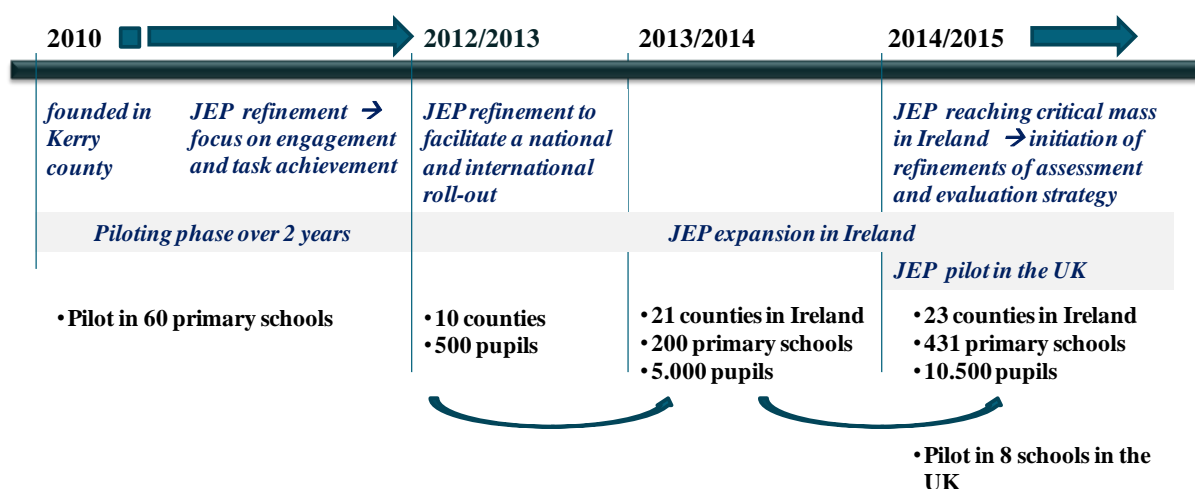
Table 43: The Junior Entrepreneur Programme - InfoBox

The Junior Entrepreneur Programme InfoBox	
Implementation	From 2010 in Ireland; in 2015 piloted in the UK 10/12 weeks mini-company programme; running every year between December and April
Focus Area	Learning / teaching entrepreneurship competences
Targeted education level	Primary education
Main target group of the initiative	Learners: pupils (10-12 years old)
Secondary target group	Teachers and Entrepreneurs
Entrepreneurial competences	Knowledge / Skills / Attitudes; with primary focus on attitude and skills
Teaching methods	Experiential learning; learning-by-doing and collaborative learning, complemented by self-reflection
Learning settings	Face-to-face learning, mainly in the classroom with possible outside school activities (e.g. market research, production). The programme is aligned with the Northern Ireland curriculum
Assessment Methods	Task achievement and engagement in all JEP activities is assessed on the basis of the 'JEP package' submitted at the end of the programme, including a self-assessment activity sheet and other documentation. Other assessment and validation components are the dragon panel (presentation) and showcase day incorporating external feedback. Peer review is part of the teamwork and joint decisions.
Impact area:	Personal development (enhanced skills and self-awareness), Further education (enhanced interest, selection of subjects in secondary schools), Employment / employability but more importantly, considering entrepreneurship as a career option
Output dimensions	<ul style="list-style-type: none"> - In Ireland, the number of involved children has doubled from 5.000 in 2013/2014 to 10.500 in 2014/2015³³⁵ - The number of schools has increased from 200 in 2013/2014 to 431 in 2014/2015 - The JEP programme is aligned with the Northern Irish curriculum for primary schools, - Improved teaching materials for entrepreneurial learning - In the Kerry county, 1.100 pupils have completed JEP since 2010, an estimated 50%-60% of primary school pupils in the region completed the programme
Overall impacts	It is yet early to indicate long term impacts of the JEP programme. Overall, the JEP has potential impact on:

³³⁵ School year of the JEP implementation

The Junior Entrepreneur Programme InfoBox	
	<ul style="list-style-type: none"> - Enhanced competences of the JEP participants; already showed by increased enthusiasm, self-esteem, communication skills but also self-awareness and recognition of skills of others - Enhanced self-directed learning approach taken by students; knowing what they like doing and what they want to do in the future - Improved entrepreneurial learning, allowing different methods of measuring success and being appropriate for all students including those with special needs and disabilities <p>Interestingly, small businesses created under the JEP in Irish schools (since 2010) have generated around ½ mil Euros turnover.</p>
Resource dimensions	<ul style="list-style-type: none"> - The programme currently involves 431 teachers (2014/2015 academic year) - The programme is supported by 23 entrepreneurs in 23 areas (2014/2015)
Business model	JEP is financed from private sources and rely on a number of sponsors (entrepreneurs and county partners)

8.1.2 Timeline and key milestones



Source: prepared by CARSA

Figure 26: The JEP programme – timeline and key milestones

8.2 General characteristics and core activities

8.2.1 Objectives

The Junior Entrepreneur Programme’s main objectives are:

- to introduce pupils to entrepreneurship and the opportunity to embrace entrepreneurship as part of their formative education (in primary schools),
- to help facilitate the emergence of entrepreneurial ecosystems in Irish counties.

More specifically, the JEP’s goals are:

- to promote awareness and understanding of the entrepreneur’s role in the community,
- to allow pupils to get a clear picture of what creating a business is all about and engage in learning new life skills,
- to nurture a greater understanding of the real world, e.g. how the value of goods and services is created,
- to introduce pupils to the real impact of risk and reward by investing a token amount of their own money in their projects.

8.2.2 Core activities and entrepreneurship competence dimensions

The JEP, as an entrepreneurial education programme closely linked with the primary school curriculum and lasting for 10-12 weeks, runs each academic year, between December and April. The 10-week programme includes a ‘Dragon Panel’ and concludes with a School Showcase Day. A maximum of four school classes is recommended to be involved in the programme at a time. The programme provides support to teachers and mentors. It is implemented at county level by local entrepreneurs and managed at national level, including appropriate coordination, monitoring and evaluation leading to continuous JEP improvements.

Table 44: The Junior Entrepreneur Programme – core activities (selected for the case study purposes)

Core activities/components:	Focus area:	Form:	Entrepreneurship competence:
JEP 10/12 weeks curriculum	Learning/teaching entrepreneurship competences	Face-to-face, formal, mainly in the classroom	Knowledge / Skills / Attitudes
Dragon Panel	Learning/teaching entrepreneurship competences partly, assessment/validation	Face-to-face, school premises	Skills (learning) Knowledge / Skills (validation)
JEP Showcase day	Learning/teaching entrepreneurship competences partly, assessment/validation	Face-to-face, school premises	Skills / attitudes (learning) Knowledge / Skills (validation)

Source: prepared by CARSA for the purpose of OvEnt study.

As expressed on the JEP website, the programme's objective is to improve the pupils' skills in creative thinking, storytelling, problem solving, presentation, writing, drawing, technology, research, numeracy, consumer awareness, listening, collaboration, etc. Another important component of the programme is the strong personal development impact it has on self-esteem, self-awareness, confidence-building and appreciation of individual skills/talents.

Table 45: The Junior Entrepreneur Programme - competences

Competences:		
Knowledge	Skills	Attitudes
Entrepreneurship, who an entrepreneur is and what he/she does (w1,w3)	Writing, Drawing, Listening, Storytelling, Numeracy	Creative thinking (w2)
Entrepreneurs in their local community, at national and international levels. (w1)	Creativity and innovation (***)	Self-esteem (w1,w2,w5); Self-confidence (w2); Self-awareness (w1,w2,w5)
Enterprising skills of a successful entrepreneur (w1)	Generate ideas (w2)	Handling conflicts
Understanding of product and service opportunities	Planning and organisation (***)	Initiation (w3)
Roles and responsibilities associated with each area of business; finance, marketing, production, sales and public relations teams (w5)	Communication(**)(***)	Thinking critically (w2)
Processes and stages of project implementation (w6-9)	Presentation skills (oral, visual, written) (w2,w6-9) (**)	
market research process and types, Consumer awareness (w4)	Self-reflection and self-evaluation (w1, w10)(***) ability to identify one's enterprising skills (w1) and ability to re-evaluate the skills (w10)	
	Collaborative skills, team work(***) and intra-team cooperation (w2,5,6-9), inter-team collaboration (w6-9) ability in collaboration with others (w2, w4)	
	Leadership (***)	
	Consultation with others in a hierarchy (parents, principle, teacher) (w3) Engage in discussions with others (w3)	
	Decision-making(***)	
	Problem-solving(***)	
	Negotiation with others (w2)	

Competences:		
Knowledge	Skills	Attitudes
	Interviewing skills (w3)	
	Evaluation skills (w10) and reflection on lessons learned (w3, w10)	
	Use /apply collected information in a specific context (project) (w4)	
how to calculate costs, source funding, monitor the budget and keep a record of all financial income and expenditure, Dealing with money (financial literacy) (w6-9) (***)		
IT literacy (technology) – marketing product design, use of video, audio, PowerPoint presentation (w6-9)		

Source: prepared by CARSA based on JEP website and in discussion with JEP national coordinator; (w1-10) indicates in which week the competence is taught (based on the learning outcomes; and where information available); () indicates the competences addressed by showcase day and (**) by Dragon panel; (***) addressed by self-reflecting activity carried out by pupils (Evaluation of Skills Checklist).*

The JEP seems to be strongly oriented towards teamwork and collaboration. **Teamwork** is considered as a way to learn how to recognize the skills of other pupils and of one-self. The importance of teamwork for business success is mentioned at several occasions. Discussions, consultations but also decision-making happens mainly within the team, partly with supervisors (e.g. teachers, parents) and additionally with ‘Dragons’ (panel composed by teachers, school staff and entrepreneurs). Learning starts with knowledge about entrepreneurship and entrepreneurs in the local context. Then, each week, a set of K-S-A is developed. **Financial literacy** seems to be a strong element, in the Weeks 6 to 9 where the “company’s operations” are running. **IT literacy** is present in a way to teach children how to use media and technology tools, e.g. for presentation, communication and marketing. Overall, skills and attitude components dominate and are in primary focus of the JEP.

Students invest in the programme and may generate profit. Some students donate the profit to charity.

The programme is organized around 7 steps: Introduction to Entrepreneurship, Exploring New Ideas, A Business Visit to the Classroom, Testing the Idea, Roles and Responsibilities, Making it all Happen and Evaluating the Success of the Project. These steps form 10/12 weekly lessons (source: Junior Entrepreneur Programme, 2015):

- **Lesson 1 / Week 1: Opening the Door to Entrepreneurship;** introduces the pupils to entrepreneurship and explores their baseline understanding about who an entrepreneur is and what an entrepreneur does;
- **Lesson 2 / Week 2: Exploring New Ideas;** the pupils brainstorm (generate ideas), identify one’s strengths and weaknesses and how to contribute to the team; present ideas to the ‘Dragon panel’³³⁶ (see a section below), consult ideas with dragons and teachers; in order to jointly select one (‘Big Idea’) to be implemented during the upcoming weeks;
- **Lesson 3 / Week 3: A Business Visitor to the Classroom;** a local business person visits the classroom to present his/her business story and to advise on how to ensure that JEP’s big idea is a success. The pupils prepare a set of questions to maximize their learning, then, they reflect on what they learn and how to use it in their ‘Big idea’ (JEP classroom project).

³³⁶ The dragon panel is composed by teachers or other school staff and compulsory by at least one entrepreneur.

An important part is a discussion with principles, teachers and parents on how to prepare, undertake and evaluate the visit.

- **Lesson 4 / Week 4: Will The Idea Work?:** Children learn about market research and how to use the information in the context of their project. The pupils create a questionnaire and survey their target market and present their findings with graphs, bar charts and pie charts making data in the Mathematics Curriculum more practical.
- **Lesson 5 / Week 5: Roles and Responsibilities;** the pupils learn about different roles and responsibilities associated with areas of businesses while understanding their own skills and talents and team-work to agree on roles and responsibilities, depending on the team dynamics, children are assigned to one or more of the business teams: Design and production team, Finance Team, Marketing Team and Story Telling team. The pupils develop the teams through games.
- **Lesson 6-9 / Week 6-9: Making It All Happen;** the four-weeks period is divided into three stages: designing and creating the product or service; costing and marketing it; and selling it. The pupils are encouraged to organize a showcase day for this purpose (see a section below).
- **Lesson 10 / Week 10: Evaluating the Success of yhe Project;** gives children the opportunity to evaluate each stage of the JEP programme and reflect on the lessons learnt. 'Evaluation of Skills Checklist' (an Activity Sheet is provided as part of the classroom kit) is available to re-evaluate the enterprising skills (ref to Week 1).

Each lesson 1-5 can be delivered as one lesson per week. Lesson 6-9 (making it all happen) is about turning the idea into the Project, thus, it takes between 4-6 weeks to complete. Lesson 10 is the final week of the programme when the pupils reflect on the success of their project.

Dragon Panel (week 2)

The teacher works with the class to explore new business ideas. A number of ideas is shortlisted and presented by individual teams to a panel of Dragons who then helps to decide on the winning one. This 'Big Idea' is approached by the entire class during 6 weeks. The Dragons are part of the JEP programme and consist of a minimum of three 'Dragons' including a minimum of one local entrepreneur. Parents' involvement in the panel is not recommended. Here, the competitive element goes hand in hand with team work and joint decision, recognition of one's strong and weak points as well as those of others.

JEP Showcase Day (week 6-9)

At the end of the programme, the selected and realized business idea will be presented at school, to parents, teachers and 'dragons'. This provides an opportunity for the pupils to show the result of their hard work. JEP encourages the pupils to invite the principal, other classes in the school, teachers, parents, and people from the local community and local businesses to attend. During/ for the showcase the class will receive a JEP flag recognising the group participation.

County Showcase Day (optional)

Not mandatory, in some counties a big showcase day for all schools is organized. It is a good opportunity for students to meet each other and present their point of view, for teachers to network with fellow teachers, and also for business and community representatives to meet with students and teachers. The JEP central coordination team participates in these events in order to acknowledge the work of all, but also, to obtain firsthand feedback.

JEP Project submission folder

A 'JEP Project submission folder' tells the story of the project in each classroom, including all material prescribed by the 'classroom kit', e.g. Activity sheets completed by the pupils and teachers, individual proposed ideas, the 'big idea', activities such as 'meet the Dragon' or 'the business visitor'

are documented, together with the findings of the market research. PowerPoint presentations, flyers and other material prepared by students, as well as a product sample, and finally, evidence of the fun School Showcase Day (e.g. video). JEP project folder is submitted to the county managers who verify its completeness and forward it to the JEP central coordinator.

Acknowledgment of JEP participation

After the JPE project submission folder is submitted, the school will be provided with:

- A certificate of Achievement for every participating pupil
- A project certificate for the class
- A JEP School Flag of the year.

Administrative and legal organisation of JEP

Each school taking part in the Programme must sign the 'School Terms and Conditions'. The pupils' parents are required to fill in a 'Parental Consent Form' which is forwarded to the local JEP Project Manager. The consent form grants permission for children to participate in the programme, as well as to be filmed. All children must be given permission to participate in the programme. If parents disagree with filming, it is in the responsibility of a school to comply with it during the JEP implementation.

Schools can take part only in those countries where a JEP county partner (local entrepreneur) is running the programme. In 2014/2015 school year, 23 entrepreneurs are selected as JEP partners. They lead the JEP programme in their assigned Irish territory.

8.2.3 Educational scope, target and other involved groups

The JEP is specifically designed for the **primary education level** and involves a number of actors with different roles. Primary beneficiaries are pupils; further JEP involves teachers and entrepreneurs (JEP county partners and sponsors).

Target groups and other groups involved (Learners, Educators, Other):

- **Pupils in primary schools** are the main target and beneficiaries of the initiative with the objective to introduce them to entrepreneurial activities at a young age. It is rather aimed at pupils in the senior grade of primary education (10-12 years old). They experience the project-based learning, take the 10 weeks programme during which they prepare a project plan and implement it, they participate in a show-day, and they obtain a certificate of JEP participation.
- **Primary school teachers** are seen as the primary mediators of the programme ensuring that the programme is well implemented in the classrooms. They are supported through a number of tools, e.g. a classroom kit, online teacher training.
- **Entrepreneurs** represent an essential element bringing the entrepreneurial experience to the programme, thus to the primary students. They participate actively on the programme, visiting classrooms, presenting his/her story, advising on business plan, selecting the best business idea on which the classroom will work on (Dragon panel) and providing guidance and coaching during the process. Moreover, selected local entrepreneurs take the role of a '**JEP county partner**' and the company they represent supports the delivery and funding of the programme in respective county. Thus, the programme is implemented at no cost for schools and parents.

Other players:

- **Parents and family** accompany their children in the learning process helping and guiding them. The consensus of the parents is mandatory to the programme since children are exposed to the outside school visitors and filmed during the course of the programme.

Interaction with other community stakeholders happens without any direct influence by the JEP model. For instance, some pupils give profit from the project to a charity, or they carry out market research in the local community.

Roles of JEP coordinators and partners at national and county level

Regarding the strategic management and coordination at central level, independent board of not-for-profit organisation **Nurture Entrepreneurs Ltd.**, chaired by **Jerry Kennelly (Tweak.com)** is in the lead control of the programme. They are responsible for the overall strategic direction and selection of JEP county partners (local entrepreneurs).

A JEP National Coordinator is assigned with the key role to create and monitor programme schedules and calendars, provide / ensure provision of training and ongoing support to JEP County Partners, Supporting Programme PR Activities, Management and update of website and online resources, database, responding to queries and requests for information from schools, parents, the media and the general public.

The JEP is supported by an academic partner with an advisory role, **Mary Immaculate College, Limerick**. CDU/Mary Immaculate College (University of Limerick, Ireland) is a nationally recognised centre of excellence in terms of curricular design and innovation, established in 1986, and as such, helping with the JEP curriculum development, production of the Teacher's Guide and other training material; among other.

At county level, **JEP County partners** run and sponsor the programmes. Each JEP County partner assigns a **JEP Project Manager**, e.g. from the same company, who takes lead in the management and organisation of the programme in their area, supporting the participating teachers and liaising with schools and monitoring the progress. The JEP project Manager reports to the Board of the Nurture Entrepreneurs Ltd (and National Coordinator) and is also the assigned contact person during the course.

8.2.4 Geographical scope

The JEP programme is a national initiative in Ireland, which works at the regional county level. JEP County Partners are given responsibility to coordinate JEP locally in each county. Schools can only take part in those counties which has a JEP County Partner assigned.

There is around 23 JEP County Partners who coordinates the programme in respective counties: Kerry, Cork, South Dublin, Cavan, Longford, North Dublin City, Mayo, Carlow, Tipperary, North County Dublin, Kilkenny, Limerick, Louth, Galway, Laois, Kildare, Wicklow, Derry, Down, Meath, Clare, Roscommon and Offaly.

JEP is expanding from an Irish initiative to the UK, currently (2015) being piloted in four schools.

8.2.5 Links to other initiatives and networks

The JEP programme is arranged on a county by county basis and is a national initiative in Ireland. The programme does not take part of a wider European or International network implementing similar methodology.

Further, the Junior Entrepreneur Programme can draw upon the experience of Young Entrepreneur Programme (YEP), which was created previously. Whereas JEP targets 8-12 year old pupils, the YEP concentrates on pupils in the 15-16 age group and they are thus complementary. Both, the YEP and JEP programmes are designed to fit within the existing education system.

The JEP contributed to the Kerry region success in 2011 European Entrepreneurial Region (EER) Award organized by the Committee of the Regions and is described as a best practice³³⁷. As such, JEP initiators have taken part of series of events and welcome visits to share their experience with other regions. Recently, a step has been taken further when the JEP methodology has been transferred to the UK (piloting phase in 2014/2015).

8.3 Entrepreneurship competence concept translated into the learning objectives and practical courses (setting-up phase)

8.3.1 Learning objectives

Junior Entrepreneur programme (2015) outlines the learning objectives per each of the 7 steps and Weeks (Table 46).

Table 46: The Junior Entrepreneur Programme - learning objectives

Topic:	Key learning objectives: <i>The students will be able to:</i>
Week 1: Opening the Door to Entrepreneurship	<ul style="list-style-type: none"> - The pupils will learn about who an entrepreneur is and will understand what it means to be an entrepreneur - Pupils will be able to identify the characteristics and basic skills of an entrepreneur. - The pupils will be able to describe a range of enterprising skills and will evaluate their own enterprising skill set - Pupils will be able to name entrepreneurs locally, nationally and internationally
Week 2: Exploring New Ideas	<ul style="list-style-type: none"> - The pupils will reflect upon their own strengths and personal qualities and their potential to contribute to a team. - Pupils will think critically and creatively in order to generate a range of potential entrepreneurship project ideas. - The pupils will work collaboratively to negotiate and agree a group project idea. - Pupils will use oral, visual and written presentation skills to communicate details of their agreed group project to the 'Dragons' and the class. - Pupils will prepare a range of questions to ask a business person or entrepreneur in order to maximise their learning during the forthcoming business person's visit to the classroom.
Week 3: A Business Visitor to the Classroom	<ul style="list-style-type: none"> - The pupils will learn about the world of business and entrepreneurship through the eyes and experience of a successful business person / entrepreneur. - Pupils will consult with the school principal, class teacher, school staff and parents in arranging, executing and evaluating the visit of the business person to the classroom. - The pupils will use interviewing skills to maximise their learning while engaging in discussions with the visiting entrepreneur. - Pupils will reflect upon the lessons learned from the business person's insights and will consider the implications of that learning for their

³³⁷ European Union, Committee of the Regions (2012). Encouraging entrepreneurship at local and regional level. Best Practice Examples from EER Regions. CoR_1616/October 2012/EN. Available at: <http://cor.europa.eu/en/takepart/eer/Documents/encouraging-entrepreneurship-local-regional-brochure-2012-EER.pdf>

Topic:	Key learning objectives: <i>The students will be able to:</i>
	chosen Junior Entrepreneur Project.
Week 4: Will The Idea Work?	<ul style="list-style-type: none"> - The pupils will learn about the market research process, its importance, and different types of market research. - Pupils will devise a questionnaire to undertake market research at an appropriate level for their Junior Entrepreneur project. - The pupils will present the findings from their market research using graphs, bar charts and pie charts. - Pupils will use the information acquired in the market research to inform development and planning in relation to their chosen project idea.
Week 5: Roles and Responsibilities	<ul style="list-style-type: none"> - The pupils will learn about the different roles and responsibilities associated with each area of business. - Pupils will identify their individual skills and talents in order to be assigned to the most appropriate business team. - The pupils will learn that team work and co-operation are essential in order for the project to be a success. - Pupils will be able to describe the roles and responsibilities of the finance, marketing, production, sales and public relations teams.
Week 6-9: Making it all Happen	<ul style="list-style-type: none"> - The pupils will learn about the various processes and stages involved in implementing their chosen Junior Entrepreneur project. - Pupils will work in teams and will learn about the importance of teamwork in order to ensure the successful completion of all stages of the project. - The pupils will learn how to calculate costs, source funding, monitor the budget and keep a record of all financial income and expenditure throughout the project. - The pupils will work collaboratively to make their chosen product or design their chosen service. - Pupils will design flyers, posters and other promotional materials to market their product or service. - Pupils will learn how to use video, photographs, audio, music and Microsoft Powerpoint to record the key stages of the project from start to finish. - The pupils will experience inter-team and intra-team collaboration in action as they progress through each stage of their Junior Entrepreneur project.
Week 10: Evaluating The Success of The Project	<ul style="list-style-type: none"> - The pupils will evaluate the stages of the project, review the various activities undertaken and reflect upon the final outcomes of their JEP project. - Pupils will re-evaluate their own enterprising skill-set having completed the JEP programme. - The pupils and teacher will reflect upon the lessons learned during the programme.

Source: Junior Entrepreneur Programme (2015), pages 12-15

8.3.2 About the process of defining learning objectives and practical courses/curriculum/activities setup

The JEP initiators draw on the previous experience with YEP programme and relied on cooperation with the **Curriculum Development Unit (CDU) of Mary Immaculate College in Limerick**. The

used material in the JEP programme has similarly been reviewed by the Council of the Curriculum, Examination and Assessment (CCEA) and is fully in line with the Irish national curriculum for primary schools.

As expressed in the Junior Entrepreneur Programme (2015) brochure, it is a Tried and Tested Model. Fifteen per cent of schools in the Kerry County took part in the pilot phase; as the programme expands, an estimated 50%-60% of primary school pupils in the region completed the programme. In 2012/2013, the JEP programme has been reviewed in order to facilitate a national and international roll-out. Lessons have been learnt from JEP participating teachers too and the JEP model is continuously fine-tuned in order to ensure success.

The assessment methods have been planned and developed in line with the learning objectives and the curriculum. Initially, the JEP was based mainly on a competition with one winner. During the pilot phase, the feedback showed rather negative effects of such a competitive environment, creating unhappiness among teachers and pupils. Accordingly, this approach has been changed to the current model. The most important element of the JEP is the engagement of the class in the process when all steps of the programme are completed by students.

Thus, the learning objectives and the whole curriculum incorporate several assessment and validation elements - self-assessment, peer review, external review - while a simple assessment rule is applied on the 'JEP package' submitted at the very end of the programme. This rule lies in assessing if the JEP package reached minimum standards or not and is the requirement to obtain a certificate of achievement.

Previous experience at other education level (Young Entrepreneur programme – YEP) revealed that the key difference is how the programme operates. For instance, secondary school students have different teachers for different subjects. Thus, the YEP cannot link the subjects, unlike the JEP which is much more integrated and realistic. As a result, pupils become absorbed by the subjects.

8.4 Teaching and Learning of Entrepreneurship Competence in diverse settings (implementation phase)

8.4.1 Teaching methods and channels - pedagogical approach

Table 47: The Junior Entrepreneur Programme - teaching approach and methods

<i>Teaching methods</i>	
<i>JEP</i>	
Collaborative learning	X
Competitive learning	
Learning-by-doing / Project-based learning / Problem-based learning / Challenge based learning	X
New approaches allowing learning from failure / learning in an ambiguous environment	
Self-reflection/Self-evaluation	✓ (enterprising skills)
Technology-based learning / Blended learning	

Table 44 continued

<i>More specifically:</i>			
Lecturer	✓	Simulations and business games	
Writing articles and essays	✓	Student companies / mini-companies	X
Brainstorming	✓	Guest speakers / external visitors / role models	X
Group Discussions / Debate	✓	Company visits / community visits / field visits	
Role Play	✓	Work placements	
Case studies	✓	Mentoring schemes / tutoring	
Peer group presentations / peer editing/ peer review		Workshops, seminars and training	
Project work and group work	✓	Fairs/events/bring-and-buy	X

Source: Prepared by CARSA; 'X' stands for the key teaching method and is usually limited to three options while '✓' marks additional/complementary teaching methods. 'ICT' indicates (ICT) where it constructs a major part.

Collaborative learning and project-based learning are the key pedagogical approaches, complemented by self-evaluation / self-reflection. Certain competition elements are incorporated; however, these do not impose a strong competitive environment to the pupils; it is rather about a joint business idea selection to work on. The teacher as a facilitator and self-directed learning is at the core of programme.

The teacher guidelines emphasize the following key pedagogical methods: Learning by doing, by experimentation, by risk taking and positive mistake making, by creative problem-solving, feedback through social interaction, by dramatization and role playing, by close exposure to role models, and in particular interaction with outside/adult world.

The JEP programme provides interactive lessons for participating pupils. It aims to encourage them to apply their creativity and ideas while working on a small scale entrepreneurship education **project** through **team collaboration**. Team work, including discussions or negotiation with others, is an important element of the JEP programme. Children need to cooperate in every aspect of the programme, from the very beginning until the very end. One project idea is implemented per classroom, and therefore, children cooperate to find different ideas, agreeing on which to present to the Panel of Dragons, as well as interaction and collaboration to implement the business idea selected. This way, children also learn how to make decisions in collaboration with others, solve problems, handle conflicts but also test their presentation skills (oral, written and visual).

Putting entrepreneurship into the local context, in other words, the knowledge about entrepreneurship and local entrepreneurs is addressed through case studies. Together with the visitors (local entrepreneurs) in the classroom, the case studies also target entrepreneurial awareness and attitude to the entrepreneurship as a career option (using a role models approach).

The visitor to the classroom (local entrepreneur) also helps students to develop the ability to ask right questions (interviewing skills) and ability to use/apply the information obtained.

Skills and knowledge relating to the business functions / activities, such as marketing, finances, production or market search is applied during the 4 weeks when the 'Big Idea' is produced.

Moreover, in the first and the last week of the programme, pupils self-evaluate their enterprising skills and **reflect on them** (and the difference), as well as on the lessons learnt from the JEP. Such self-reflected enterprising skills includes: Problem-solving and decision-making, creativity and

innovation, planning and organisation, communication, teamwork, leadership and innovation, managing money, and putting ideas into action.

The self-assessment activity contributes to the pupil self-awareness and understanding of one's strengths and weaknesses. Self-awareness is similarly addressed by the team/project work, in particular, when children discover the business/company functions and have to jointly agree on a role of each team member.

Finally, the showcase day proves the 'Big Idea' and test pupils' commercial and selling skills.

Learning mainly happens face-to-face, at the premises of the school following the JEP curriculum. Some schools arrange activities which take place outside, for instance, when carrying out market research or when producing a product (e.g. visit to the chocolaterie).

Role of information and communication technologies in teaching

Information and communication technologies are subject to learning not its means. In other words, children learn about ICT, they do not learn through it. The main reason is the age of the children and the need for real life interaction.

Role of different players – teachers, entrepreneurs, parents and alumni

It has been described how teachers and local entrepreneurs play a crucial role in the JEP programme's delivery (role of facilitator, external visitor, dragon panel). In this regard, parents, other teachers and students from the school interact during the Showcase Day. In some schools, where the classroom is mixed allowing for vertical grouping, children who have already participated in JEP support those who are taking part in the programme.

Currently, JEP initiators are looking at how to possibly involve 'alumni'. Due to the young age of participating children, legal and ethical issues arise alongside with attempts to keep contact with them in the future and thus involve JEP 'alumni' in the programme. In this regard, parents would have an important role in the process.

8.4.2 Teachers training: teaching guidelines and train-the-educator

The JEP programme provides assistance for the participating teachers in different ways. It takes place through face-to-face **information and networking evening prior to the start** of the programme, **online teacher training** and **the classroom kit** provided for the programme implementation. Further, teachers are supported by the Project Manager chosen by the local JEP County Partner, who, among other supporting activities, visits the classrooms and interacts directly with teachers.

Additionally, teachers can network and exchange views during the school's showcase day. If organized, County Showcase Day provides opportunity to meet teachers and students from other schools, as well as to meet with the JEP coordinating team.

After signing up for the programme, the teachers and principals will receive access to the online training and resources through www.juniorentrepreneur.ie. The "Participating Teachers' section is accessible before and during the programme and is regularly updated based on feedback from the involved teachers. Overall, the online resources focus on key aspects of entrepreneurship and the delivery of the JEP programme as well as administrative requirements.

Firstly, the teachers will complete **JEP Teacher Orientation** which takes approximately 5 hours; it includes several short videos, stories of successful entrepreneurs, articles on entrepreneurship education and suggestions for curriculum links. It concludes with an interactive learning assessment (quiz) enabling the participating teachers to get confident in the running of the programme. The purpose of the orientation is to provide background and case study examples that the teacher can

draw upon in the classroom. The links to the primary school curriculum is also emphasised. <http://www.junioentrepreneur.ie/#!faqs/c1mq>

Learning outcomes of JEP Teacher Orientation are to:

- develop an understanding of entrepreneurship education and its place within the Primary School Curriculum;
- plan for teaching a number of strands and strand units of the primary curriculum through entrepreneurship education;
- develop an understanding of how entrepreneurial spirit can be promoted in the classroom;
- become familiar with the history and back-story of some well-known brands and entrepreneurs;
- recognize how the JEP programme can be differentiated to meet varying needs within the classroom.

The following briefly presents the content of teachers' orientation:

PART 1:	Who entrepreneur is (definition), local and national examples, including small, large enterprises, social enterprises or farmers
PART 2	What are enterprising skills and how can you develop them in your classroom? Links to the national primary school curriculum: Math, English etc Definitions for product, services, market etc
PART 3	Positive approach to failure Differentiation as recognizing that children differ from one another in how they learn and in what they can learn; appropriately match teaching and learning approaches to the child with realistic and attainable targets; looking at the children's interest, level of motivation, previous learning experience and a pace. What is an entrepreneurial school
PART 4:	About JEP implementation per each week

Through the Teachers' Orientation, as well as other online resources, teachers obtain certain entrepreneurship competences, mainly basic knowledge about entrepreneurship; following the JEP programme (Table 46 is applicable here). However, all entrepreneurship competence dimensions are considered by the teachers' orientation and other resources. Knowledge is addressed by outlining key definitions (entrepreneur, market, product) while skills and attitudes are shown e.g. by listing the enterprising skills and appropriate teaching methods (Part 2); following the JEP curriculum (lessons) and the students' learning outcomes.

Moreover, the participating teachers will be invited to an **Information and Networking event** where they will be introduced and receive further information from the local JEP partner and Project Manager. During this initial information event teachers can familiarize themselves with the programme and network with other teachers who participate. The Teacher Information/Networking evening takes place every year.

The **JEP classroom kit** is provided to every participating class. It includes a **Teacher's Guide** offering step-by-step information on the content for each week and the tools needed to successfully carry out the programme in the classroom. It elaborates on the programme's focus and is designed to promote the imagination of participating pupils. The chapters of the Guide have instructions and information on activities, exercises and games which can be used to assist pupils in reaching their project goals, especially for brainstorming and teambuilding. In the kit, teachers can also find **vibrant posters and activity sheets** for each lesson.

Examples of such posters and activity sheets are presented here:



Source: Junior Entrepreneur Programme (2015), brochure

JEP and Mary Immaculate College have cooperated in developing the JEP classroom Kit.

Complementing the direct JEP support, Mary Immaculate College, runs a course called 'Learning's the Business: Entrepreneurship in Senior Primary Classes', as a 20-hour Summer Course, that entitles primary teachers who successfully complete it to 3 EPV (Extra Personal Vacation) Days.

JEP also encourages teachers to maximise their social interaction, encourage them in networking, develop their motivation and commitment, encourage calculated risk taking, seek and take up opportunities in an innovative fashion, and involve students in taking personal responsibility for the development of their learning.

To this point, it should also be noted that JEP coordinating team provides support not only to teachers but also to the JEP project managers assigned to each county. This has the form of yearly web conference and face-to-face meetings, but also potential meetings during the showcase days.

8.5 Assessment and Impacts

8.5.1 Strategy for assessment of entrepreneurship competence

Table 48: The Junior Entrepreneur Programme - Assessment methods

Assessment method:	JEP
Essay	
Written Exam (written test, questionnaire based)	
Oral exam	
Self-evaluation / self-reflection	X
Peer-evaluation (in-class) / group evaluation	✓
External review / Feedback from external stakeholders (including users side)	
Project work (incl. simulation project work, or work on a real business idea) / assigned task achievement	X

Assessment method:	JEP
Presentation / pitch	✓
Event (e.g. faire exhibition)	✓
Application / Project or business plan	
'JEP package' (JEP folder) submitted at the end of the programme	X

Source: Prepared by CARSA; 'X' stands for the key assessment methods and is usually limited to three options while '✓' marks additional/complementary assessment methods. 'ICT' indicates (ICT) where it constructs a major part

Overall, the assessment methods are seen formative while **the revision of the 'JEP package' against minimum standards** is the key assessment method used to validate the certificate acquisition at the final stage.

The key assessment elements of the JEP programme is the participation, thus, the project work and task/activities achievement which all are summarized in the '*JEP package*'. These include the following:

- self-assessment of pupils' enterprising skills in week 1 and 10 (pre and post) using prepared JEP Activity Sheet;
- selection of brainstormed ideas by the group;
- presentation of pre-selected ideas by individual teams from the class to the 'Dragon Panel' where 'Dragons' provide feedback and help the pupils to select the 'big idea' on which the entire class will work, and
- final showcasing during a school event.

Pre and post self-assessment

The enterprising skills are assessed by pupils through 12 simple statements and 1-5 scale. The self-evaluation in week 1 and 10 is marked to the same sheet while additional 2 questions are asked in both stages.

- I am a confident communicator,
- I am a good player,
- I am a problem solver,
- I come up with imaginative ideas,
- I am an effective leader,
- I follow instructions well,
- I am good at managing money,
- I drive a hard bargain,
- I plan carefully and I am well organized,
- I am hard-working and will fully complete tasks,
- I have an eye for detail,
- I am a good motivator.

Children then explain what they are good at and where they can improve (week 1), and what they have improved in and what they plan to do as a result of the JEP (week 10).

The self-assessment activity sheets are not yet systematically analysed (the collected sheets do not allow automatize analysis). As expressed by the interviewee, it is very interesting to see how students become more aware of their skills and more aware of what they like or not.

Dragon panel

The dragon panel evaluates the first selected ideas presented by the class. JEP suggests the following criteria to be considered during this evaluation:

- is the idea fun to work on?
- the level of creativity and added value (compared to the existing products),
- availability of ingredients or material necessary to be sourced,
- difficulty of a production process,
- workload and the time frame,
- seasonality (the products go on sale e.g. in March/April),
- is there likely to be a market for the product and can it make a profit?

After the JPE project submission folder is submitted, each pupil will receive a certificate of Achievement and one certificate per project for the class is distributed.

Showcase Day

As said earlier, during the showcase day, pupils test their business idea (product) by presenting it and selling it to parents, family, dragons and other local entrepreneurs or students of the school. In this respect, they have their hard work validated and recognised.

While the self-assessment focuses on enterprising skills, the dragon panel and especially showcase day may be seen as a validation of how the idea is turned into an action (product).

JEP Project Submission Folder (or 'JEP Package')

The JEP project submission folder, including all filled-in Activity Sheets and the work created, such as sample of a product, flyers or videos, are used in order to recognize the participation and provide certificates to the students and the classroom.

Initially, the county manager checks if all elements are submitted in the folder (JEP package). Then, the folder is assessed by the JEP coordinating team which determines whether it reaches the minimum standards. Each school receives an individual feedback (a report) from JEP's coordinating team based on the JEP packages submitted. As expressed by the JEP central coordinators, the standards of the JEP folders overreach expectations.

From 2014/2015 the folder assessment will be more systematic due to the high number of participating schools (431 primary schools as compared to 200 participating in the previous year).

8.5.2 Impact, evaluation and monitoring

The monitoring of the JEP is in hands of county managers, as regards implementation, and the JEP coordinator, for more central issues. For instance, the training material and online resources are regularly updated on the basis of the feedback of participating teachers by the JEP coordinating team.

The JEP is growing in numbers. Starting in Kerry County in 2010, 1.100 pupils have completed the JEP within county borders since then. The number of schools has increased from 200 in 20 counties to 431 in 23 counties, and in line, the number of children involved has increased from 5.000 to 10.500 for the last two school years (i.e. from 2013/2014 to 2014/2015).

The big vision expressed in JEP brochure (2015) is **to allow 250.000 pupils to participate in the JEP by 2020.**

JEP impact areas and evaluation strategy

The key impact areas of the JEP may be seen in: children's **personal development** - skills enhancement, self-awareness and recognition of others -, **further education** - avoiding drop outs,

enhancement of interest and self-directed learning -, as well as **employability** and in particular, **considering entrepreneurship as a career option** - in terms of 'I want to become an entrepreneur'. The latter may have to certain extent and indirectly positive impacts on start-up foundation. Importantly, the JEP is preparing children for the secondary education level where they choose subjects and direct their future.

The evaluation strategy has several layers, but it is yet in the initial stage. In 2014/2015 the JEP expanded to 23 counties and reached a critical mass of participating schools and pupils, based on which an evaluation carried out may provide valuable insight. For this reason, the JEP coordinating team is currently discussing about how to carry out the programme analysis, to partner with university or other external organisation, and systemize better the overall assessment process related to JEP. In parallel, the legal and ethical aspects are currently being considered in relation to tracking alumni and keeping in contact with them. This substantially influences the possibility to evaluate programmes' impacts in the future.

The main source of information is **the JEP package** with information about self-assessed enterprising skills by students (pre- and post-) but also feedback by students and teachers about the programme (something particularly strong and weak). An *Individual report* to the school is provided by the coordinating team based on the JEP packages revision and these reports are retained in a database. A *case study* per school is produced to assess more in detail.

Further, a feedback is also exchanged during **meetings with teachers and county managers**, as well as the JEP coordinating team takes the opportunity to speak with individual students during **the showcase days** (whenever possible).

Programme evaluation by teachers and students (in Week 10/12)

In Week 10/12, the last week of the JEP programme, students and teachers reflect on the lessons learnt (JEP provides with 'Activity Sheets' containing several questions).

Reflective Questions – Activity sheet 17 – to be asked to the students by teachers:

- did you enjoy participating in JEP?
- what was your favourite part of the programme and why?
- what aspect did you enjoy least and why?
- what was the most challenging part?
- were you happy about how the class selected the 'Big Idea'?

Teacher Evaluation of the Project – Activity sheet 19

- Overall implementation of JEP – main benefits for pupils and school, perception on pupils enjoyed participating in JEP?
- Orientation and support
- Links with the primary school curriculum
- Recommendations and suggestions

Insights from the JEP packages and other feedback received on the JEP programme

It is still too early to indicate long term impacts of the JEP programme. Interviewees expressed that the JEP contributes to the **improved entrepreneurial learning** by allowing different methods of measuring success and thus being appropriate for all students including those with special needs and disabilities. This is supported by the JEP design and teacher training, where differentiation - recognising that children differ from one another in how they learn -, teachers as a facilitator and self-directed learning approach are incorporated principles. On the same page, the JEP evaluation

by all teachers (ref. activity sheet 19) reflected that 100% of them felt that participation in the programme was valuable for the pupils and for the school³³⁸.

Feedback from teachers also suggests that the **teacher training resources and support** is very helpful and the quality of provided material is high. Negative points expressed by teachers remain the fact that the JEP implementation requires a significant amount of time and effort. Nonetheless, the quality of submitted JEP packages proves that participating teachers overcome this with their motivation.

The self-assessment activity sheets (see Chapter 5.1) but also other feedback from students and teachers indicate **positive impacts on JEP participants and their skills enhancement**. Children seem to show more involvement, enthusiasm and self-esteem. They seem to be more aware about their own competences (skills) as well as about what they like doing and what they would like to do in the future. This is a very important impact area of JEP having prepared children for secondary education level where they start selecting subjects.

Using business-like indicators, interestingly, small businesses created under the JEP in schools in Ireland have generated close to ½ Mio. Euros in turnover.

8.5.3 Example of show cases

Awards Ceremony 2013³³⁹

11-12 year old students from Moyderwell Mercy Primary School in Tralee were selected as the winner of the Junior Entrepreneur Awards for 2012. They developed a project which focussed on local shopkeepers and their control of the costs of their businesses. The pupils were coached by local business people during the process. After preparing a number of business ideas, one idea was decided upon a Dragons' den style presentation. They selected "The Moyderwell N.S. Lukcy Bag" as their product, which sold hundreds at their local school. At the beginning of the process, each pupil invested 5 Euros in the project – all had their capital returned as the project made €370 in profits.

Awards Ceremony 2012³⁴⁰

The Award for the Most Innovative School in 2012 went to Ardfert National School. The pupils had developed and sold a DVD of the local history sites around Ardfert. In the dvd production, class members and some local adults had dressed up in suitable costumes to advertise for their chosen nice locations. The DVD was sold at the showcase day arranged at their school and at local shops.

8.6 Sustainability and transferability

8.6.1 Sustainable business and financial model

The JEP programme is financed by private sources. An 'Entrepreneur', JEP County Partner, sponsors the implementation of the programme in each county, being free of charge for parents and schools. The schools may participate only in the counties where a JEP County partner is assigned. This financial model is sustainable since entrepreneurs are closely involved in the running of the programme. The increasing number of County Partners proves the success so far.

Further, the JEP is nationally supported by 'Tweak.com' and centrally operated by Nurture Entrepreneurs Ltd, a not-for-profit entity constituted for this purpose.

³³⁸ Nurturing Entrepreneurship in Kerry. (2014, November 27). by Citymart. Available at: <http://www.citymart.com/showcases-developing-innovative-businesses/2014/11/27/nurturing-entrepreneurship-in-kerry>

³³⁹ More information available at: <http://www.juniorentrepreneur.ie/#!news/cowb>, <accessed 30/03/2015>

³⁴⁰ More information available at: <http://www.mic.ul.ie/latestnews/Pages/CDUJEPAward.aspx>

These partners involved at county and national level jointly provides the JEP with financial sustainability.

8.6.2 Key sustainable aspects

Besides the financial aspects, the county partner model (as described in the section 6.1) brings sustainability of the programme overall. **Business representatives are at the core of the JEP management.** The JEP is strongly tied to the business world and proved to be successful, growing from one to 23 counties and JEP County partners – local entrepreneurs by 2014. The involvement of local entrepreneurs in the programme’s management seem to be sustainable as well, attracting only those entrepreneurs who have high and long term interest not only in sponsoring the JEP implementation but also in coordinating the JEP in their county. The local entrepreneurs can take part of JEP, as a Corporate Social Responsibility programme *“that is world class yet low cost, with huge payback to your community and your brand.”* (source: Junior Entrepreneur Programme, 2014b). As expressed in the same brochure, it is a co-branded opportunity.

The success and sustainability of this model is ensured by a 2-years contract which ensures the involvement and eases the management. As expressed during the interview, most of the JEP county partners continue after the first contract, the lack of time being the main reason not to.

To ensure the support to county managers, JEP organizes trainings and meetings through conference calls with headquarter in order to clarify any doubts. Further, county managers are met during the showcase days where the coordination team participates, if possible. Additionally, a face-to-face meeting takes place and includes training and discussion with all county managers while the JEP coordinating team receives feedback from them.

Another sustainable aspect relates to strong **links with the national curriculum.** The JEP programme materials have been reviewed by the Council of the Curriculum, Examination and Assessment (CCEA) in Northern Ireland. This seems to ensure a good uptake of the JEP into the schools. As expressed in the JEP corporate brochure (Junior Entrepreneur Programme, 2014a), *“the JEP programme is most closely aligned with the Social, Personal and Health Education (SPHE) Curriculum in Ireland and the Personal Development and Mutual Understanding (PD&MU) in Northern Ireland, encouraging children to make decisions, negotiate, resolve conflict and connect with the wider world.”* As such, the programme promotes skills which are useful in preparing children for the world of work.

Further, the choice of the Curriculum Development Unit at Mary Immaculate College, as a partner, seems to be contributing to the JEP sustainability. Besides the above mentioned link to Irish national curriculum, Mary Immaculate College organizes additional support course corresponding to 3 EPV (Extra Personal Vacation) Days.

A tried and tested model

Founded in 2010, it is a tried and tested model with over 6,500 pupil alumni and a successfully roll-out in 23 counties around Ireland (Junior Entrepreneur Programme, 2014b). JEP initiators constantly take into account feedback received from students, teachers as well as county project managers and fine-tune the JEP model in order to ensure its success.

The JEP programme is supported by the Irish Minister for Education and Skills Ruairí Quinn, who encouraged primary schools to become involved in it³⁴¹.

³⁴¹ Junior Entrepreneur [general website]. Available at: <http://www.juniorentrepreneur.ie/#!news/cowb>

8.6.3 Potential transferability

The programme has proved to be transferable across education levels and geographically. Since 2010, the JEP has grown regionally in Ireland following well designed curriculum and using local environment in implementing it. It is currently being piloted in the UK.

As regards education levels, the concept has proved to be transferable since the JEP is part of umbrella programmes, each in different education level. The model is also applicable to any sector.

8.7 Key lessons and observations

JEP initiators put the best interest of kids in the core of the programme and ensure its strong legal and ethical base

JEP ensures a good implementation of the programme from all aspects including legal and ethical. JEP has designed the programme so as to ensure that the heart of the programme is in the best interest for kids. Legal agreements are signed with schools, parents and entrepreneurs (county partners). Rules and guidelines are available for the entire process, e.g. never deal with children directly or alone, teacher should be always present.

Consideration of all legal and ethical implications makes an eventual assessment of the programme's impacts more difficult. For instance, collecting and using email addresses of young children for future use is not considered by JEP initiators to be a good practice.

County partner model seems to work well and attract local entrepreneurs

The JEP, based on the model in which local entrepreneurs manage and sponsor the implementation, seems successful in attracting local entrepreneurs creating an effective bridge to the real world to pupils. JEP partners are crucial for the its implementation. Moreover, the right choice of the person in the role of JEP county manager is a critical success factor . As explained in relation to the sustainable aspects, JEP puts in place a system to support the JEP managers, as well as to interact and communicate between individual JEP managers and the central coordinator. Further, it is advantageous to have JEP partners' make investments and being involved in the schools personally.

Central coordination leverages the county-by-county implementation

The JEP centrally provides training material, classroom kits, but also a code of conduct for any external visitor to the classroom. In addition, support and guidance is also provided to the JEP county managers. Coordination and support is given in the form of face-to-face meetings, online trainings or web conferencing. Additionally, the showcase days are leveraged for the purpose of meeting and networking with different involved players, at county only, or county and central level. This further provides the JEP coordinating team with an opportunity to obtain feedback from students, teachers and county partners.

The teachers are essential to the JEP, alongside with the parents and connection to the local environment

Teachers who have constant and familiar relationship with pupils play an important role for the JEP, alongside with their close parental and community contacts. The structure of primary school, where the classroom is led by one teacher, enables effective integration of the programme and all the curriculum subjects. Differentiation as recognizing that children differ from one another in how they learn and in what they can learn is important.

The key obstacle expressed by teachers is the time needed from their side for JEP's implementation. Despite this fact, the feedback from teachers shows their motivation and the submitted JEP folders prove this by the high quality.

Bringing teamwork, self-awareness and recognition of others to the primary schools while using mild competitive environment

The core of the teaching approach is to make pupils learn in collaboration with others on a real project. Certain competition elements are also brought to them; however, the decisions are made jointly in a group and presented as a joint work by the group. As demonstrated by the pilot, a strong competitive environment creates unhappiness among students and teachers. Children rather engage in teams, engage in all aspects of the curriculum. Connect with experiential learning. They are learning and growing their independent skills but also, they recognise others.

'Transversal skills' goes beyond 'entrepreneurship skills'

The interviewees expressed that the potential impact of JEP programme goes beyond the original objectives (entrepreneurship from a narrow perspective), since transversal skills are widely applicable and go beyond entrepreneurship skills.

Younger children are more open and creative

The experience with YEP - similar programme in secondary education level - shows that the age of the pupil is important. It has been expressed that pupils in primary school (10-12 years old) embrace creativity easier. Looking at the ideas they propose, the younger children show higher levels of creativity as compared to the 15-16 olds.

Refinement of the assessment and evaluation strategy when the critical mass of participating schools is reached

The assessment and evaluation is not yet fully exploited. This is due to the fact that the JEP has only reached the stage of critical mass of schools and students participating in the programme in 2014/2015. JEP initiators are considering how to systematize the assessment and evaluation of the higher number of 'JEP packages' and how improve the use of the information collected.

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9 Case Study 7: Owners and Entrepreneurs Management Program (OEMP) – Instituto Empresa

The OEMP is an executive programme offered by IE Business School (hereafter IE). The Business School is a faculty of the IE University, an international institution dedicated to educating business leaders through programmes based on the core values of global focus, entrepreneurial spirit and a humanistic approach. With campuses in Madrid and Segovia, IE University's educational programmes include Undergraduate, Master, and Doctorate degrees as well as Executive Education programmes. Their international staffs comprise approximately 500 members having educated more than 40,000 graduates across more than 100 countries worldwide.³⁴² On average, around 65% of students are non-Spanish representing the international character of the institution.³⁴³ The Institution maintains close ties to Spanish and international business and industry.

Entrepreneurial activity at IE is carried out through the Entrepreneurship and Innovation Centre, which has made IE business school an international reference in the field of entrepreneurship, placing it at the forefront of management education. IE works from a dual perspective of academic excellence and support for entrepreneurial initiatives aimed at generating growth and social wellbeing.

Moreover, IE is actively promoting the development and consolidation of business start-ups proposed and launched by IE students and alumni, both in Spain and worldwide, and to foster an ecosystem aimed at facilitating the funding of past, present, and future business projects as an engine for growth and social welfare. The IE Business School belongs to Europe's most prestigious business schools having received international recognition and numerous awards and top rankings, in Europe and internationally. Currently, it offers a Master in Management, several International MBA and Executive MBA programmes, several Masters in Finance programmes in addition to Executive and Doctoral Programmes. Moreover, IE carries out high quality research often linked to multidisciplinary and integrative education programmes. Its programmes are closely aligned to the market emphasising innovative learning by blending online and face-to-face teaching and learning.

³⁴² Instituto Empresa (IE) [general website]. Available at: <http://www.ie.edu>

³⁴³ About IE University. (n.d.). Available at: <http://www.ie.edu/university/why-ie-university>

9.1 Summary

The Owners and Entrepreneurs Management Programme (OEMP)³⁴⁴ is an international executive education programme designed for established business owners and entrepreneurs from all over the world. The main idea is to **provide participants with the knowledge and skills to bring their company to the next level**. The OEMP is predominantly an in-class programme structured around 3 1-week modules. The contents of the programme seek to refresh participants' knowledge and gain additional insights into 3 core topics: basic business management, internationalisation and innovation.

*With reference to the OvEnt study, the OEMP focuses on one key area: **Learning/teaching entrepreneurship competence**.* The main competences targeted are related to entrepreneurship relevant **knowledge** (marketing, human resources and economic analysis) and **skills** (team leadership, creativity, negotiations and managing risk/uncertainty).

As an international programme for business leaders, the course includes a **strong networking aspect**. As a result, it offers a range of extra-curricular activities with more informal learning character.

A particularity is that all of OEMP's teachers are entrepreneurs themselves. The main teaching methods are **collaborative learning and self-reflection/self-evaluation supported by competitive learning**, applied in some of the extra-curricular activities (e.g. Venture Lab). The programme focuses on institutional learning in the classroom with informal learning elements.

Being a 3-week in-class course blended with skills-focused sessions, the **teaching and learning happens face-to-face with ICT tools** (e.g. blackboard, etc) as a secondary supporting element.

Established in 2012, the OEMP is now in its 4th edition. Until today, the **OEMP has trained 40 business leaders** from all over the world. In spite of its recent set-up, there are a number of show cases in terms of successful entrepreneurs who have after completing the training programme successfully expanded their business operations. In line with its networking character, the OEMP has brought together business leaders of which some have teamed up in successful business partnerships.

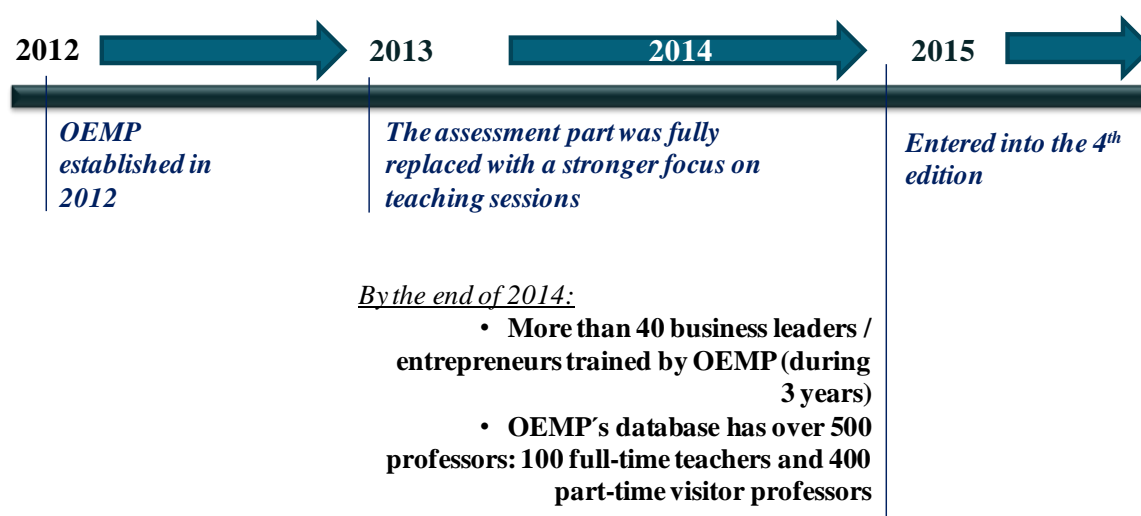
³⁴⁴ IE Executive Education. (n.d.). Available at: http://www.ie.edu/execed/oemp?_adptlocale=en_US

9.1.1 InfoBox

Table 49: Owners and Entrepreneurs Management Programme (OEMP) - InfoBox

OEMP: InfoBox	
Implementation	Executive Education programme at Instituto Empresa (IE)
Focus Area	Learning entrepreneurship competences
Targeted education level	Further (adult) education
Main target group of the initiative	Learners: Business leaders and entrepreneurs/business owners
Secondary target group:	Teachers – professors and entrepreneurs
Entrepreneurial competences	(Advanced) Knowledge and skills, 'knowledge' dominating.
Teaching methods	Self-reflection/self-evaluation; Learning by doing (real company)
Learning settings	Mainly face-to-face in the classroom
Assessment methods:	Minimum participation (80 %) /There is no other assessment method
Impact area:	Company growth and increased competitiveness; Employment (top executives)
Output dimensions	- In 3 years the OEMP has produced 40 trained entrepreneurs from all over the World
Business model	Private business school; active partnerships with business and industry

9.1.2 Timeline and key milestones



Source: prepared by CARSA

Figure 27: OEMP– timeline and key milestones

9.2 General characteristics and core activities

9.2.1 Objectives

The main objectives of the OEMP are:

- To respond to training needs of leading executives and entrepreneurs who seek to take their company and themselves to the next level
- To provide participants with applied business management knowledge and discuss concepts and strategies designed to sustain/enhance competitiveness in a changing global economy
- To inspire participants and provide new perspectives by integrating them within a long-lasting entrepreneurial network composed of a diverse group of entrepreneurs from different industries, countries and backgrounds
- To gain insights from IE's top-class faculty members, experienced in facing and resolving business challenges from their own projects
- To network and make contacts with potential new business partners, clients and peers

9.2.2 Core Activities and entrepreneurship competence dimension

The Owners and Entrepreneurs Management Programme (OEMP) is centred on the in-class teaching programme which consists of 3 in-class-modules of one week each:

- Laying the Foundations
- Going Global
- Innovating for sustainable success

In addition to the in-class programme, participants of the OEMP can access other complementary activities as shown in the table below.

Table 50: OEMP case study core components

Core activities/components:	Focus area:	Form:	Entrepreneurship competence:
OEMP teaching programme: In-class teaching / online sessions	Learning/teaching entrepreneurship competences	Face-to-face / online for the online sessions	Knowledge (mainly) and skills
Supporting and networking activities: Venture Lab, Venture Network, General networking	Learning/teaching entrepreneurship competences – informal learning (contacts and networking)	Face-to-face	Skills

Source: CARSA developed based on discussions with IE

9.2.2.1 OEMP teaching programme

Since an entrepreneur cannot invest more than a week to this programme, OEMP in-class teaching is structured into 3 modules of one week each with a 3-month free period from module to module. Each "active week" means 10 hours a day of work (Monday to Friday) and 5 hours on Saturday. Each module is composed of three content blocks: (1) core management content sessions (2)

specific sessions such as Investment Readiness Sessions and (3) Growth Leadership Competences Sessions.

Module 1: Laying the Foundations (structure the business to be able to grow)

As indicated by its title, this first in-class module provides participants with basic knowledge and background information, both personal and organizational, all directed to face the challenges of globalization and innovation on the way to profitable growth of the company.

Main content sessions

The main content sessions are designed to refresh the knowledge of course participants on key business issues. Based on the acquired knowledge participants create an action plan where they assess strengths and weaknesses with the objective to optimise the organization. The primary topics addressed during the main sessions include:

- international economic environment analysis,
- new approaches to define strategies,
- marketing,
- human resource management,
- finance for entrepreneurs,
- management control and information systems.

Investment Readiness Sessions

These complementary sessions give participants an introduction to the venture capital industry with basic knowledge on business valuation and how to design a fundraising strategy.

Growth Leadership Sessions

These additional sessions provide participants with insights concerning leadership competences and how to implement changes necessary to enhance their organisation's competitiveness.

Module 2: Going global (Growing through internationalisation)

This module has the purpose to effectively prepare leaders to internationalise their business operations, in particular how to manage the transition towards a global business operations (how to grow gaining new clients for the existing products).

Main content sessions

The main content sessions of this module seek to teach leaders on the practicalities of operating in foreign markets. This includes knowledge on the following issues:

- international strategy,
- marketing in international markets,
- supply chain logistics,
- creating high performance multi-cultural teams,
- strategic alliances,
- mergers and acquisitions,
- tax and legal aspects of international operations.

Next to an in-depth analysis of these issues, participants also identify the risks in the internationalization of a company and how to address these challenges.

Investment Readiness Sessions

The content of these sessions tied to the second module provides participants with insights and skills needed for relationships with professional investors, Business Angels and Institutional Funds. It includes features needed to prepare an Elevator Pitch, e.g. an Executive Summary, Slide Deck, etc. as well as an overview of contractual relationships.

Growth Leadership Sessions

Focusing on skills needed in international and multicultural environments, these sessions include training on negotiation skills and making deals (contract agreement). Further the sessions include insights on how to manage the diversity inherent in a global project.

Module 3: Innovating for sustainable success (growing through innovation)

The last module is centred on discussing and analysing strategies related to sustainable and profitable innovation in order to make organisations, its products as well as services, more competitive in today's globalised economy (how to grow commercialising new products).

Main content sessions

The content of the last module is designed to help participants understand different dimensions of innovation: as a systematic and repeatable process, but also as something to do with the entrepreneurial spirit resulting from the organization's culture and systems.

The topics addressed in the main sessions include the following:

- innovation development strategies in international markets,
- corporate venturing,
- R&D+I,
- portfolio management,
- new media in marketing (Social Media),
- marketing innovations in a globalized economy,
- the role of information technology and social innovation.

Investment Readiness Sessions

The third and final round of investment readiness sessions focuses on practical insights to present a project to investors. In addition, they also prepare leaders for other cases, e.g. exit strategies, including selling the company.

Growth Leadership Sessions

The content of these sessions addresses important skills of current business leaders: how to act in times of uncertainty and how to think creatively.

Online sessions

In addition to the face-to-face in-class training sessions, sometimes OEMP organizes an online session with an expert or a successful entrepreneur. These are additional contents aiming at reinforcing any issue covered in the project course.

9.2.2.2 Other supporting and networking activities (informal learning)

Venture Labs

Participants of the OEMP have the opportunity to participate in the Venture Lab, IE's business accelerator, helping them to transform their ideas into real ventures. The Venture Lab's highlight is the Venture Day, IE's investment forum, where the top five business plans pitch to investors; a

process that resulted in business funding at several occasions. The winners receive a further two years of intensive support on all fronts from IE Business School's Venture Academy.

The Venture Lab has helped start-ups and business owners obtain financing for their businesses ranging in between €500,000 and €3 Million.

In principle, this tool is not oriented to the OEMP students as they already theoretically have the money to invest, but if they want to participate they can do it as any other candidate.

IE Venture Network

The Venture Network is a network connecting start-ups and investors in changing locations and informal environments. The Venture Network's activities aim at networking, building relationships and practicing and improving potential project pitches. Entrepreneurs can practice their pitches and receive pitch coaching from real investors. This tool is being used a lot by the Spanish students at the OEMP (for international students it is quite difficult to attend the meetings).

General networking

The OEMP has a strong networking character bringing together business leaders/top management from all over the world. Informal sessions are organised where leaders have the opportunity to gain new perspectives and find new business partners/clients/consultants.

OEMP participants also have access to a series of activities that are not explicitly part of the programme: for example, the Venture Labs and IE Venture Network.

Entrepreneur's Corner

The Entrepreneur's Corner provides additional sessions carried out in a more casual format. They gather successful entrepreneurs to exchange experiences and views in order to obtain inspiration and new perspectives.

Table 51: Entrepreneurship competences in OEMP Competences

Entrepreneurship competences in OEMP		
Knowledge	Skills	Attitudes
Step back and think strategically	Growth and team leadership	Entrepreneurial spirit
Capability to see new business opportunities	Negotiations and making deals	
Ability to maintain and market innovation within the company	Change management	
International economic environment analysis	Creativity	
Human resource management	Communication/presentation (pitching)	
General control of all relevant aspects in a company	Managing risk/uncertainty	
Marketing (incl. new media)		
Management control and information systems		

Source: CARSA based on discussions with IE

9.2.3 Educational scope and target groups

The OEMP is mainly designed for **business owners** who have set up a successful business with annual sales exceeding 1€ million or who are in need of additional knowledge and insights to face existing challenges. OEMP participants typically want to **move on to the next level**, e.g. by expanding their business in an international environment or make their business more competitive.

In addition to the owners, some of the OEMP participants have included top managers and executives, but these need to be appointed by the owner to represent them in the programme.

As a result, the programme is not targeting start-ups or entrepreneurs with an idea to be validated. This is not the target at all. The IE suggests other programmes (mainly MBAs) to this group.

9.2.4 Geographical scope

The Owners and Entrepreneurs Management Programme is an internationally accessible entrepreneurship management training programme located in Madrid, Spain. It is open to business owners and top management staff all over the World. Targeted business owners should have annual sales exceeding 1 million €.

Students come from everywhere; on average the origins of students are:

- 40% of students come from Spain,
- 30% of students from the rest of Europe, and
- 30% of students from India, Middle East, Latin America and the USA.³⁴⁵

See Chapter 9.5.3 for more details on business show cases.

9.2.5 Links to other initiatives and networks

The programme belongs to the IE Business School. The School is a faculty of the private IE University offering a wide range of different Undergraduate (IE University), Master, and Doctorate degrees, and Executive Education programmes. IE University maintains the leading Entrepreneurship and Innovation Centre, a reference within management education circles running programmes known for its strong entrepreneurial character.

With respect to the OEMP, the IE does not maintain a formal link to other initiatives and networks, despite a scholarship agreement with AJE in Spain.³⁴⁶ In addition, IE incorporates professors from other international business schools (as they do with every single training programme they offer).

9.3 Entrepreneurship competence concept translated into the learning objectives and practical courses (setting-up phase)

9.3.1 Defining learning objectives

Learning objectives

Learning objectives are defined through the OEMP's Programme Structure in line with the 3 in-class modules.

³⁴⁵ These statistics have been provided during the interview with Stephen Adamson, IE.

³⁴⁶ Asociación de Jóvenes Empresarios (AJE) [general website]. Available at: - <http://www.ajemadrid.es>

Table 52: Learning objectives – OEMP modules

Topic:	Key learning objectives: <i>The students will be able to:</i>
Laying the foundations	<ul style="list-style-type: none"> - Step back and think strategically - Lead change - Manage and delegate
Going global	<ul style="list-style-type: none"> - See new business opportunities - Make changes - Manage and delegate
Innovating for sustainable success	<ul style="list-style-type: none"> - Maintain innovation within the company - Think and decide under uncertainty - Manage and delegate

Source: CARSA based on discussions with IE

About the process of defining learning objectives

The learning objectives together with the programme structure have been designed following the cycle as described in the following:

1. Two experts designed the initial basic programme. One of them is an all-life entrepreneur and the second one is a senior counsel in many companies and family businesses. Both are also University professors.
2. In parallel, IE contacted 50 entrepreneurs to identify the main challenges a programme targeted business leaders should address.
3. The IE analysed both inputs and set up a draft programme structure taking into account the time and resources entrepreneurs have available. The final programme structure reflected a compromise of collected inputs.

The learning objectives show that the OEMP cannot and should not teach fundamentals, for example in the subject finance. The objective for the entrepreneur is not to become an expert, but rather to be able to ask the right questions to the right person or to the team, and also to hire the right people to do it. The same happens with operations and other subjects.

In the same way, the OEMP does not teach "micromanaging", the programme teaches how to manage teams and how to delegate.

9.4 Teaching and Learning of entrepreneurship competence in diverse settings (implementation phase)

9.4.1 Teaching methods and channels - pedagogical approach

Table 53: Teaching methods used in the OEMP

Teaching methods			
<i>Owners and Entrepreneurs Management Program</i>			
Collaborative learning			✓
Competitive learning			
Learning-by-doing / Project-based learning / Problem-based learning / Challenge based learning			X
New approaches allowing learning from failure / learning in ambiguous environment			
Self-reflection/Self-evaluation			X
Technology-based learning / Blended learning			
<i>More specifically:</i>			
Lecturer	X	Simulations and business games	
Writing articles and essays		Student companies / mini-companies	
Brainstorming		Guest speakers / external visitors / role models	✓ ^(*)
Group Discussions / Debate	✓	Company visits / community visits	
Role Play		Work placements	
Case studies	X	Mentoring schemes / tutoring	✓
Peer group presentations / peer editing/ peer review		Workshops, seminars and training	✓

Source: Prepared by CARSA; 'X' stands for the key teaching method and is usually limited to three options while '✓' marks additional/complementary teaching methods. 'ICT' indicates (ICT) where it constructs a major part. (*) the business representatives are in-class teachers in the case of OEMP.

The OEMP is an in-class entrepreneurship training programme implemented to great extents through an institutional face-to-face setting. Across the 20 current staff members face-to-face teaching/learning is estimated to be employed in 95% of all teaching/learning with 5% online teaching/learning.

Entrepreneurship knowledge is principally conveyed through in-class sessions (main sessions) taught by teachers who have entrepreneurial projects of their own. The in-class modules combine lecture type learning with case studies. Additional material such as articles, books and studies are also part of the training programme.

Entrepreneurial skills needed for investor pitches, for example negotiation skills, leadership, creativity, managing uncertainty, are taught through the more practically oriented complementary sessions, called Investment Readiness and Growth Leadership sessions.

Participants actively reflect and evaluate their business operations which are raised, questioned and discussed in the classroom. Given the high concentration of entrepreneurs participating in the courses and the mostly entrepreneurial background of the teachers the courses have a strong experiential character with participants discussing their business experiences, successes and failures.

Courses are guided by the teacher but all students participate actively in the case study discussions. In addition to the in-class sessions, students can make use of other complementary tools such as the Venture Network, the Venture Lab as well as general networking sessions, etc.

Role of information and communication technologies in teaching

Concerning the ICT teaching elements IE business school has its own Online Campus (adapted from the Blackboard platform), they have Breede video also. OEMP students can and should access all these ICT facilities including the IE's library online. In fact, IE business school is trying to go paperless.

9.4.2 Teaching guidelines and train-the-educator

The OEMP director decides who should be the selected teachers for the programme. IE business school has a database with over 500 professors (100 full-time teachers and 400 part-time visitor professors). The OEMP programme usually changes teachers responding to the results of the evaluations (done by the students).

Teachers receive collective face-to-face instructions during a preparation meeting in advance of the programme to inform them about the structure, objectives, competences, skills and attitudes to be taught in the programme. During the preparation meeting, the OEMP director explains who the students are, specifically to target better the concrete participants.

After this session they are free to decide on the specific teaching tools. In any case, all IE's professors receive a teaching training beforehand. This is a procedural requirement to be recorded in the database of teachers at the IE business school. Concerning the specific contents of the programme, they change the materials and objectives every year based on the evaluations of the students.

9.5 Assessment and Impacts

9.5.1 Strategy for assessment of entrepreneurship competence

Table 54: Assessment methods in OEMP

Assessment method:	In-class teaching programme
Essay	
Written Exam (written test, questionnaire based)	
Oral exam	
Self-evaluation / self-reflection	
Peer-evaluation (in-class) / group evaluation	
External review / Feedback from external stakeholders	

Assessment method:	In-class teaching programme
(including users side)	
Project work (incl. simulation project work, or work on a real business idea) / assigned task achievement	
Presentation / pitches	
Event (e.g. faire exhibition)	
Minimum presence/attendance and activity in the class	X (80% of the sessions)
Application / project or business plan	

Source: Prepared by CARSA; 'X' stands for the key assessment methods and is usually limited to three options while '✓' marks additional/complementary assessment methods. 'ICT' indicates (ICT) where it constructs a major part

Due to the target group of the programme and as a result of 3-year long experience in offering the programme, the OEMP does not see the need to grade OEMP participants

In fact, the first edition of the programme included a final work that each student had to prepare. However, the programme management decided to replace this element and scaled up the programme by including more teaching sessions, since students also indicated not to need such assessment.

In this respect IE business school decided not to use any summative assessment. There is no assessment of the knowledge acquired by the student during the OEMP.

But there is a limitation in the number of sessions a student can miss if he/she wants to get the certificate. Students should attend a minimum of 80% of the sessions. But they also know that owners and entrepreneurs are a busy group with a lot of troubles to get the time to invest in training. Consequently, OEMP decided to give the opportunity to all students to take the three modules whenever they want (even in different editions if needed), thereby, adapting the training to the real and changing environment of entrepreneurs.

9.5.2 Impact, evaluation and monitoring

The OEMP collects information on the impact of its programme via two principle ways: (1) OEMP evaluation forms regarding the teacher and the programme and (2) information on impacts of IE activities and (3) career path information on alumni.

There is a well-established evaluation method in which students evaluate both, the programme itself (structure, content, materials, infrastructures...) and the professors at the OEMP. The evaluations are carried out on the basis of different well-designed questionnaires that are analysed in the aftermath. These evaluations allow for a continuous feedback cycle to improve the programme and teaching of the OEMP. The evaluations from the first 3 years have shown over 90% satisfaction levels.

Secondly, the OEMP measures the impact during the development of the programme and afterwards during the implementation of the networking oriented tools and events (Venture network mainly but other networking activities as well) mainly focusing on collecting success stories. In more general terms, IE business school also gathers success stories of their measures and training programmes through informal mechanisms and tools (networking meetings, story gathering tools, etc).

Hitherto impacts

Given the fact that the OEMP is in its 4th edition, it has until now generated 40 business leaders from all over the World.

More generally, IE states to generate more than 250 start-ups to become part of the entrepreneurship and innovation ecosystem³⁴⁷.

9.5.3 Example of show cases

Overall, OEMP graduates have been successful in their post-OEMP business undertakings. However, it is generally difficult to attribute this success to the achievements of the programme only.

A major success story is Borja Duque, a Spanish businessman who established Movework, a business analysis tool allowing enterprises to track and manage employee activity working away from the office through centralising data collection and storage. After the OEMP training he expanded to Spain and Portugal thanks to a business partnership he established with a fellow course participant. Thanks to OEMP, he improved his competences and skills related to managing a growing company. Borja's Movework was awarded with the first prize for innovation in the Languedoc-Roussillon region, France.³⁴⁸ What is more, he started a different business in Spain.

A second showcase is the owner of Nonabox³⁴⁹. An investor suggested to her to apply to an Executive Programme such as the IE OEMP in order to get his investment. A Spanish national, she started her business in her home country. After completing the OEMP, she expanded the company to other countries. Now she is even changing the business model.

Another success story is an Aerospace engineer in the US. He had a business in Germany with 50 employees, all of them engineers. The business had an annual income of over 40 Million. The company commercialised a very specific product for just two customers, NASA and ESA. The basic problem was that they were only engineers, so he needed other profiles to balance the team. The existing team did not have the skills to find new clients, manage the company, improving sales. After completing the programme, the entrepreneurial competences acquired were effectively put into practice and improved the team extending the client base to more than two clients.

9.6 Sustainability and transferability

9.6.1 Sustainable business and financial model

The OEMP is a tuition fee based programme with an annual fee of 18,500 €. The fee includes teaching sessions, program material, coffees, lunches and special events.

The programme has not been designed as a large scale programme; however, the interest of IE in offering programmes for business owners is very high. The definition of the programme's target group was carefully developed, targeting active successful entrepreneurs in need of further inputs to move forward and expand rapidly.

Moreover, the embedment of the programme within the wider context of IE's entrepreneurship oriented activities reinforces the programme's sustainable character. IE comprises an in-house Entrepreneurship and Innovation Centre initiating many extra-curricular activities incl. business accelerators, networking with successful entrepreneurs, etc, as described in part in the supporting activities of the programme. Hence, IE's specialised profile as well as the increased attention that

³⁴⁷ Owners and Entrepreneurship Programme (OEMP). Entrepreneurship - The Ecosystem. Available at: <http://www.ie.edu/entrepreneurship/the-ecosystem>

³⁴⁸ Solutions de traçabilité pour l'entreprise – MoveWORK [general website]. Available at: <http://www.movework.fr>

³⁴⁹ Nonabox [general website] - Available at: <https://nonabox.com>

entrepreneurship receives in politics and the academic field both effectively contribute to the sustainability of the initiative.

9.6.2 Key sustainable aspects

OEMP is already a sustainable programme within the IE business school as it brings many complementary benefits to the organization. The main reason behind this is that IE is a large and prestigious institution in the international entrepreneurs' world (IE has and feeds its own community of entrepreneurs), and OEMP helps IE maintaining and increasing such high status. Some of the benefits provided by OEMP on top of the tuition fees are:

1. The Entrepreneurs' community considers IE one of the main global actors in this field as IE is helping them with specific training, improving business, networking, raising investment, etc.
2. Participants in the OEMP become either investors and/or judge in the IE Venture Labs thus contributing to improve the IE's entrepreneur community.
3. The existing and potential partners of IE Worldwide are more willing to establish partnerships with the business school, and those partners can host the programme in other regions (US and India are probably the first two).
4. Participation of successful entrepreneurs in the OEMP programme can be the starting point for new students at either IE business school or IE University.

Some of the aspects considered today which are also key for the sustainability of the programme in the future are:

1. Quality of the contents;
2. Quality of the professors;
3. Flexibility of the programme to respond to the requirements of the entrepreneurs in terms of time and contents;
4. Absolute international programme considering students and teachers;
5. Networking (including access to potential customers and providers).

9.6.3 Potential transferability

On top of the generic interest that makes OEMP a stable programme for IE, IE is trying to transfer the programme to other regions. For this purpose a search for collaboration partners in India and the United States has started. It is worth mentioning that the potential attendees to the OEMP are a narrow group of entrepreneurs as they should run a company with over a 1 million € income. So far, the programme being developed in Madrid is approaching entrepreneurs from everywhere on the globe.

In any case, IE has identified 3 main profiles for their target entrepreneurs:

1. Family businesses entrepreneurs, usually in the second generation,
2. Self-made entrepreneur, sometimes even without university background,
3. Mature entrepreneur, usually with a lot of experience.

References to the OEMP programme

General Websites:

Asociación de Jóvenes Empresarios (AJE) [general website]. Available at: - <http://www.ajemadrid.es/>

Owners and entrepreneurs Management Programme - Executive Education. IE Business School .
Available at: http://www.ie.edu/execed/oemp?_adptlocale=en_US

Instituto Empresa (IE) [general website]. Available at: <http://www.ie.edu/>

Instituto Empresa (IE) - About IE University. Available at: <http://www.ie.edu/university/why-ie-university/>

Instituto Empresa (IE) IE Executive Education. (n.d.). Available at:
http://www.ie.edu/execed/oemp?_adptlocale=en_US

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<http://www.ie.edu/entrepreneurship/the-ecosystem>

Solutions de traçabilité pour l'entreprise – MoveWORK [general website]. Available at:
<http://www.movework.fr/>

Ownership and Entrepreneurs Management Program [brochure]. Available at:
<http://www.ownersandentrepreneurs.ie.edu/sites/default/files/Owners%20&%20Entrepreneurs%20Management%20Program%202014.pdf>

Other documents, studies, articles, web pages and information available online: Owners and Entrepreneurs Management Program (OEMP) – News. Available at:
<http://www.ownersandentrepreneurs.ie.edu/new?id=123#sthash.sTuFH5vA.dpuf>

Owners and Entrepreneurs Management Program (OEMP) – Videos. Available at:
<http://www.ownersandentrepreneurs.ie.edu/videos>

Owners and Entrepreneurs Management Program (OEMP) – Entrepreneurs. Available at:
http://openmultimedia.ie.edu/OpenProducts/emprededores_i/emprededores_i/frames.html

Interviewed organisation/persons: Stephen Adamson, OEMP, Associate Director Top Management Programs, 13.01.2014

10 Case Study 8: Enterprise and entrepreneurship education at University of Wales Trinity Saint David (UWTSD)

University of Wales Trinity Saint David (UWTSD)³⁵⁰ is a collegiate university operating on three main campuses in South West Wales: in Carmarthen, Lampeter, and Swansea, additionally to a campus in London. The University was formed through a merger of the University of Wales, Lampeter and Trinity University College Carmarthen in 2010; Swansea Metropolitan University was incorporated in 2013. UWTSD consists of 7 Faculties: Architecture, computing and engineering; Art and Design; Business and management; Humanities; Performance; Education and communities; International academy of voice and London Campus, and several institutes.

The University has duly incorporated entrepreneurship within its mission values and education philosophy. In line with one of its key mission statements, the University seeks to foster and reinforce employability and creativity by harnessing the entrepreneurial, research, creative and enterprising skills of its learners and to maximise graduates' opportunities on the labour market while developing their transferable skills.³⁵¹ Meanwhile, the key objective of UWTSD's entrepreneurship education is to make a relevant and up to date contribution to their students' learning experience - in order to enhance their future employability and enterprise skills and knowledge.³⁵²

The UWTSD International Institute for Creative Entrepreneurial Development (IICED)³⁵³, is widely recognised as one of the world's foremost institutions in creativity-based entrepreneurship education. IICED has not only been active in advising the UK government in the field of entrepreneurship education but its publications have also been leading discussions at international level.

³⁵⁰ University of Wales Trinity Saint David (UWTSD) [general website]. Available at: <http://www.uwtsd.ac.uk>

³⁵¹ University of Wales Trinity Saint David (n.d.-h). Mission and Vision. Available at: <http://www.uwtsd.ac.uk/mission>

³⁵² Idem.

³⁵³ International Institute for Creative Entrepreneurial Development (IICED) [general website]. Available at: <http://www.uwtsd.ac.uk/iiced>

10.1 Summary

The University of Wales Trinity Saint David (UWTSD)³⁵⁴ is one of the UK's leading universities in entrepreneurship education which has incorporated entrepreneurship education throughout many of its activities. Moreover, its staff has contributed to national and global discussions on entrepreneurship education policies and implementation in education. Indeed, the case of UWTSD represents one example of how entrepreneurship education is implemented in higher education with high standards, supported by the national quality assurance agency³⁵⁵. Its comprehensiveness is represented in the International Institute for Creative Entrepreneurial Development (IICED)³⁵⁶, the responsible body for entrepreneurship education at UWTSD seeking to become a good practice at international level.

With reference to the OvEnt study, the UWTSD case study focuses on teaching entrepreneurship competence, but also developing new innovative teaching and assessment methods.

The educational activities address a variety of entrepreneurship competences covering all components - **knowledge, skills and attitudes**. The case study, by choice and focus of the IICED centre, concentrates rather on skills and attitude, and in particular examine those competences related to the creativity and innovation. As such, it employs a wide range of teaching methods. The core pedagogical approach is based on **learning by doing, curiosity-based learning**, and collaborative learning. Techniques involving creative thinking, which requires students to make connection and engage in **divergent thinking**, are emphasized. New methods have been developed by UWTSD/IICED in this respect. For instance, '*Glorious failure*' technique allows to 'fail' if a student reflects upon why and articulate the reasoning. *Avoiding 'premature articulation'*, instead, allow the learning process to come closer to the real life situation by providing students with incomplete information, setting up multiple deadlines, shifting deadlines or introduce other forms of uncertainty or ambiguity.

The University provides students with a wide range of curricular and extra-curricular activities approaching entrepreneurship education from an interdisciplinary perspective. The majority of the entrepreneurial leaning/teaching is implemented face-to-face; however, technology-based learning is an important part identified also in the University's strategic document. To illustrate the teaching approach, the case study provides examples from curricular 'Art and Design' courses, and presents the newly developed extra-curricular 'Life Design' approach. Moreover, UWTSD provides the first of its kind 'post-compulsory education and training programme' open to teacher-students, existing teachers but also professionals. As such, UWTSD's tertiary education programmes primarily target University students, but also adults. Teachers are targeted by continuous training and development activities. Other involved groups include representatives from industry, business and the wider community, as well as alumni.

The learning objectives employed at UWTSD's – along with their formulation – are aligned with the QAA Guidelines³⁵⁷. It has been noted that the existence of such guidelines at the level of national Quality Assurance body enabled the UWTSD to implement new curricular and extra-curricular activities using more innovative teaching methods appropriate for creative entrepreneurship

³⁵⁴ University of Wales Trinity Saint Davis (UWTSD) [general website]. Available at: <http://www.uwtsd.ac.uk>

³⁵⁵ The Quality Assurance Agency for Higher Education (QAA) (2012). Enterprise and entrepreneurship education: Guidance for UK higher education providers. September 2012. ISBN 978 1 84979 692 7.

³⁵⁶ International Institute for Creative Entrepreneurial Development (IICED) [general website]. Available at: <http://www.uwtsd.ac.uk/iiced>

³⁵⁷ QAA (2012).

competences. When developing or updating educational activities, the UWTSD involves both, external stakeholders and alumni. This model - 'Continuous conceptual review model'³⁵⁸ has been selected as an international best practice.³⁵⁹

Teachers take on a prominent role in the delivery of learning objectives and entrepreneurship competences to students. Courses for active as well as emerging teachers are an important part of UWTSD's education programme and the University continuously invests into further development of its in-house education staff, including researchers. During these continuous or initial teacher trainings, educators acquire insights into: (a) the entrepreneurship dimension/specific knowledge, (b) the entrepreneurial way of thinking, alongside with (c) pedagogical methods and resources in support of entrepreneurship. Moreover, basics from neuroscience are presented to teachers in order to enlighten the human brain learning process.

UWTSD emphasizes the need for **well-aligned and innovative assessment techniques** reflecting pedagogical approach and the specific character of creative entrepreneurship. A multitude of assessment methods are employed at UWTSD both, formative and summative, ranging from project work evaluation, reflective essays on failure(s), to video pitches, but also self-evaluation/self-reflection, peer reviews and feedback from external stakeholder are important. More traditional exams are also used when appropriate; however the UWTSD focus has been shifted towards new techniques using design-based outcomes tools and 'Divergent Production' evaluation (e.g. relationship between contexts and triggers for the idea generation stage, or number, breadth and diversity of ideas offered). These techniques help to evaluate the learning journey rather than just a single output.

The University has accomplished to educate students who have become successful entrepreneurs, leading managers as well as persons with high social impact on society. Regarding its financial and business model UWTSD can be considered very sustainable with a diversified financial portfolio. The University's sustainability is further reinforced by close collaboration with alumni and external stakeholders as well as a number of sustainable activities, e.g. continuous methodological improvements.

UWTSD's entrepreneurship practices in entrepreneurship education show **high levels of transferability**, across educational levels as well as geographically. Thanks to the work of IICED, the University profits from good practice sharing with business world as well as at policy level.

Briefly, the **key success factors** rely on the connectivity, educators training and teachers' attitude, but also the Institution's continuous effort in entrepreneurship education research.

UWTSD is at the **forefront in experimenting with different learning settings and teaching and assessment methods.**

³⁵⁸ See Figure 31 and Penaluna, A. & Penaluna, K. (2008). Business Paradigms in Einstellung: Entrepreneurship Education, A Creative Industries Perspective. *Journal of Small Business & Entrepreneurship*; 21(2), 2008; Special Issue: A Panoramic Overview Of Entrepreneurship: Insights From Different Regions Of The World, pages 231-250.

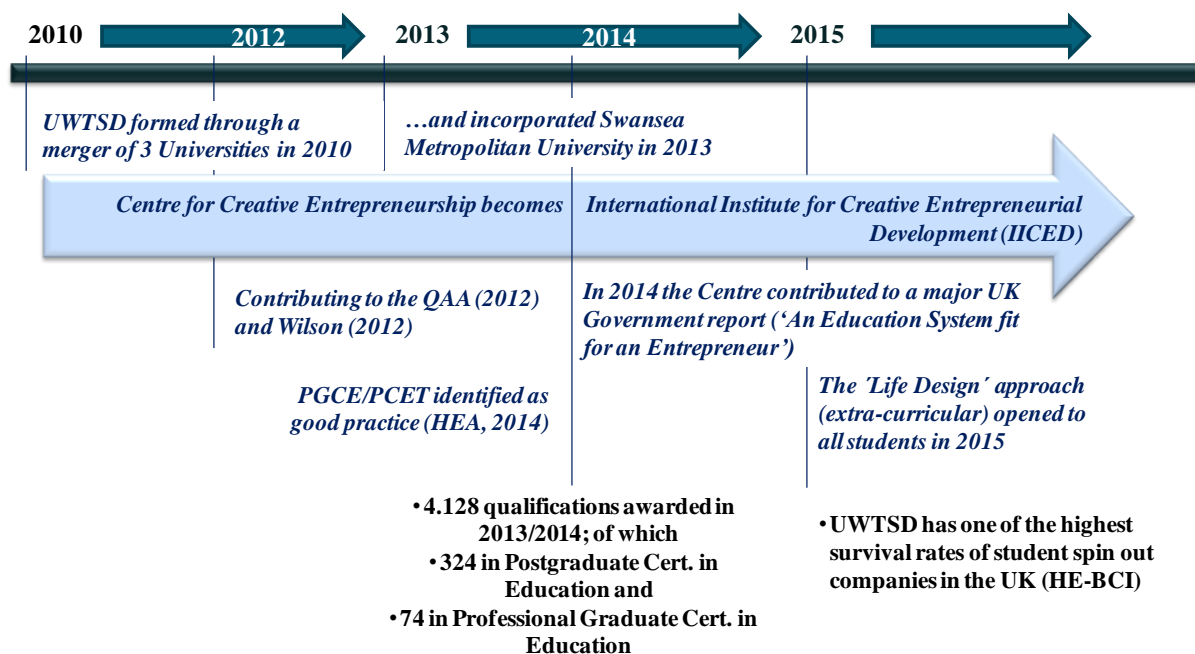
³⁵⁹ Internationalizing Entrepreneurship Education and Training – Conference. July, 9th –12th 2006 in São Paulo, Brazil. Available at: http://www.intent-conference.de/structure_default/ePilot40.asp?G=621&A=1

10.1.1 InfoBox

Table 55: UWTSD – InfoBox

UWTSD: InfoBox *	
Implementation:	Undergraduate and post-graduate courses covering a variety of disciplines; Initial and continuous teacher training; linked to the academic year/semester
Focus Area	Learning entrepreneurship competences New teaching/business support methods and models
Targeted education level	Tertiary education
Main target group of the initiative	Learners: Tertiary education students, future teachers Teachers: initial and continuous teachers training
Secondary target group:	Alumni and business / community representatives are actively involved in design, implementation and evaluation activities of UWTSD.
Entrepreneurial competences	Knowledge / Skills / Attitudes; In particular, the case study focuses on competences enhancing creativity and innovation
Teaching methods	learning-by-doing, self-reflection, collaborative learning, blended learning, (<i>and others</i>) New forms allowing learning from a failure ('Glorious Failures') and learning within ambiguous environment (avoiding 'Premature Articulation')
Learning settings	Curricular and extra-curricular activities are mainly face-to-face while technology-enhanced learning plays an important role. The activities happens at University premises and stakeholders'/community premises (where relevant)
Assessment methods:	Mix of summative and formative assessment methods Project work, presentation/pitches, self-reflection, but also a wide range of other methods, such as self-evaluation, peer evaluation, external expert review/feedback, events, and tests
Impact area:	Further education, Employability/Employment, Start-up foundation, personal development (especially linked to the creativity) and Quality of entrepreneurship education (especially related to the international institute for creative entrepreneurial development (IICED))
Output dimensions	- 4.128 qualifications have been awarded in 2013/2014; of which 324 in Postgraduate Certificate in Education and 74 in Professional Graduate Cert. in Education
Overall impacts	- UWTSD has one of the highest survival rates of student spin out companies in the UK - improving teacher's enterprising skills - established co- and extra-curricular activities within their personal teaching contexts (by teachers)
Resource dimensions	- Three campuses in Wales and one in London - 27,000 students - Total expenditures in 2013 amounted to £35,3 million of which staffing costs represented 57%
Business model	UWTSD is funded partly from the Higher Education Funding Council for Wales (22.9 % in 2013) and the rest from own generated income.

10.1.2 Timeline and key milestones



Source: prepared by CARSA

Figure 28: UWTSD– timeline and key milestones

10.2 General characteristics and core activities

10.2.1 Objectives

As stated on the UWTSD website³⁶⁰, the key objective, missions, values and defining characteristics are the following:

Key objective of UWTSD entrepreneurship education is:

To make a relevant and up to date contribution to our students' learning experience - in order to enhance their future employability and enterprise skills and knowledge.

UWTSD mission is centred on the "learner"

UWTSD seeks to establish a new educational 'system' of universities and colleges committed to educating students of all ages and backgrounds, and to stimulate economic development in the region and across Wales and beyond.

UWTSD's values stands on (among others):

To foster and reinforce employability and creativity by harnessing **the entrepreneurial, research, creative and enterprising skills of its learners**, UWTSD's educational programmes are designed to maximise graduates' opportunities on the labour market and to develop their transferable skills.

³⁶⁰ University of Wales Trinity Saint David (n.d.-h).

UWTSD's defining characteristics are listed as:

- **offering a well-defined undergraduate and postgraduate curriculum**, which delivers distinctive graduate **attributes in the areas of employability, enterprise**, sustainable education and global citizenship;
- **pioneering** new approaches to **work-based learning and professional practice** that enhance workforce and enterprise capabilities;
- **adding value** to the learning experience through a distinctive 'system-based' approach that combines traditional higher education with vocational, professional and academic research activities, delivered with academic rigour;
- **dedicated** to realising the potential of each individual student and to supporting students at all stages of their education;
- **committed** to all **aspects of sustainable development**.

Moreover, UWTSD's 'Teaching Learning and Enhancement Committee' specifies that (at least) 15 per cent of all students' experience has to be through the lens of employability and enterprise.

UWTSD in its totality incorporates **QAA guidance on enterprise and entrepreneurship education**³⁶¹ (hereafter referred to as QAA Guidance). Its main goal is to provide practical help to organisations and people working with students in higher education to foster their skills in enterprise and entrepreneurship, focusing, however, through curricular rather than just extra-curricular learning.

10.2.2 Core Activities and entrepreneurship competence dimension

UWTSD provides students with a **wide range of curricular and extra-curricular activities approaching the entrepreneurship education** not only as learning "about" also learning "for", within different sectors/areas (Interdisciplinary approach).

Given the wide spread of entrepreneurship education activities at the Institution, a selection of core study components was undertaken in terms of educational courses/institutional activities. The selection was made in collaboration with the interviewees seeking to focus on the courses/institutional activities providing the highest levels of entrepreneurship education and innovation of UWTSD's activities, according to the interviewees and confirmed through further research.³⁶² The selected educational courses/institutional activities are presented in the following Table 56:

³⁶¹ QAA (2012).

³⁶² For example, UWTSD stated that the BA in Advertising and Brand Design acted as a role model for QAA guidance implementation at UWTSD on whose basis further entrepreneurship education aspects were incorporated into UWTSD courses. Meanwhile, the formal/initial teacher training provision (PGCE/PCET) has been perceived as a best practice beyond UK borders. The IICED is the main body responsible for entrepreneurship education whose curricular and extra-curricular activities (e.g. continuous teacher trainings, "Life Design") are judged to be highly innovative and, therefore, of great use for the study.

Table 56: UWTSD case study core components

Core activities/components:	Focus area:	Form:	Entrepreneurship competence:
International Institute for Creative Entrepreneurial Development (IICED) / Centre for Creative Entrepreneurship	Teaching/learning entrepreneurship competence Teaching/business support methods and models Assessment and Evaluation	All forms considered	Knowledge / Skills / Attitudes
Art and Design Courses, e.g. from BA Advertising and Brand Design	Teaching/learning entrepreneurship competence	Face-to-face Technology-enhanced learning Curriculum	Knowledge / Skills / Attitudes
UWTSD/IICED Extra-curricular activities: e.g. Life Design	Teaching/learning entrepreneurship competence	Face-to-face Technology-enhanced learning Extra-curriculum	Skills / Attitudes
Postgraduate Certificate in Education (PGCE) and Post Compulsory education and Training (PCET) formal / initial teacher training provision	Teaching/learning entrepreneurship competence	Face-to-face Curriculum Technology-enhanced learning	Knowledge / Skills / Attitudes

Source: prepared by CARSA for the purpose of OvEnt study.

10.2.2.1 International Institute for Creative Entrepreneurial Development (IICED)

The IICED is the main unit **charged with introducing creative entrepreneurship across several of UWTSD’s disciplines and faculties**. IICED is a widely recognised institution in creativity-based entrepreneurship education. IICED grew from being a local, small centre to an internationally recognised institute advising Welsh and UK governments and contributing to EU and UN discussions³⁶³. In particular in this period, IICED’s main role is to streamline entrepreneurship within UWTSD’s educational activities of all merged campuses/faculties.

The Institute’s core aim is to act as an international best practice in enterprise, entrepreneurship and entrepreneurial teaching, learning and evaluation.

³⁶³ For example, the IICED played an integral part in the Wilson Review of Business-University Collaboration as well as in the development of the Quality Assurance Agency’s (QAA) Guidelines for Enterprise and Entrepreneurship Education. Furthermore, in June 2014 the IICED organised the first Global Summit of Entrepreneurial Educators centred on providing different approaches to transform entrepreneurship education practice into policy. IICED also works closely with the UK Government’s All Party Parliamentary Group for Micro Businesses, and helped to co-author their (2014) report ‘An Education System fit for an Entrepreneur’.

The belief of the centre is that the great majority of current education programmes fall short of effectively preparing students for the world of work, above all in business. Therefore, students need to be better equipped with **enterprising activities to become more entrepreneurial and ultimately employable**. The objective is to supply students with skills needed to plan, organise and run a business, along with commercial experience and industry placements.

According to IICED **the key entrepreneurship competences**³⁶⁴ serving students in all aspects of life include:

Table 57: Key entrepreneurship competences according to IICED

Key entrepreneurship Competences according to IICED
Skills / Attitudes
Communication
Visioning and thinking creatively
Opportunity identification
Self-efficacy, self knowledge and belief
Confidence and determination
Flexibility and adaptability

Source: prepared by CARSA based on the discussion with IICED and IICED website

The following presents examples of how enterprise education is embedded within the UWTSd, with assistance of IICED.

Entrepreneurship/enterprise education in UWTSd curriculum and extra-curricular activities

Throughout its educational programme UWTSd maintains several particularities aligning its educational courses with elements of entrepreneurship education, as demonstrated by the following examples:

- **HNC Business Information Technology**³⁶⁵: The programme combines business management and technology aiming to foster employability skills in demand by industry while gaining knowledge in the field of business and management.
- **BA Public Services**³⁶⁶: This undergraduate degree provides vocational education to prepare graduates for a career in the Public Services professions. Unlike other degrees in the field, strong ties with external organisations exist giving the students the opportunity to see theory in action and acquire valuable skills from year one.
- **BA Product Design**³⁶⁷: Focusing on human-centred aspects of product design, the degree offers practical fieldwork in different industry sectors and provides students with the possibility to participate in the innovative SMUDGE Enterprise programme giving them

³⁶⁴ Swansea Metropolitan University Centre for Creative Entrepreneurship. Available at: http://www.smu.ac.uk/cce/index.php?option=com_content&view=article&id=6&Itemid=25

³⁶⁵ University of Wales Trinity Saint David (n.d.-f). HNC Business Information technology. [course information]. Available at: <http://www.uwtsd.ac.uk/hnc-business-information-technology> - read course overview.

³⁶⁶ University of Wales Trinity Saint David (n.d.-b). BA Public Services [course information]. Available at: <http://www.uwtsd.ac.uk/ba-public-services> - working with external bodies from year 1.

³⁶⁷ University of Wales Trinity Saint David (n.d.-c). BA Product Design [course information]. Available at: <http://www.uwtsd.ac.uk/ba-product-design> - career opportunities state entrepreneurial.

advice to exploit their own intellectual property through the University's patenting and entrepreneurial initiatives.

- **BSc Music Technology³⁶⁸**: Providing students with intensive training in a wide range of music technology related skills and activities, the undergraduate degree comprises an entrepreneurship module focusing on providing students with the skills needed in the music technology business.
- **BA Business Management³⁶⁹**: The programme is designed to facilitate direct interaction with the University's external partnerships, including employers' organisations, professional associations, international partners and spin off entrepreneurial activities. What is more, it also comprises an entrepreneurship exercise seeking to foster skills in innovation and creativity. Making explicit innovation and creativity is yet unusual in business courses.
- **BA Advertising and Brand Design³⁷⁰**: (see below)

Even though many courses do not use the words enterprise or entrepreneurship per se in their titles, the degree has been set up in accordance to the QAA Guidance in such way as to serve graduates effectively in the creative industries and business.

Next to incorporating Enterprise and entrepreneurship in its curricular programmes IICED provides **extra-curricular activities** in which it is voluntary to participate. UWTSd received the Global Enterprise Week's High Impact Award for the range of entrepreneurship encouraging activities it offered on a weekly basis. On average, UWTSd provided an average of 22 entrepreneurship related events per week.

Among others, these include³⁷¹ the '**Enterprise Week**' and **Role Model workshops** through the '**Shut Up and Start Up**' initiative, where students can meet with inspirational graduates and work across all faculties and with all student groups. This has evolved into activities such as '**Pizza with a Pro**', where students have the opportunity to chat with entrepreneurs and business leaders. Further selected examples include³⁷²:

- **Intellectual Property and Design Thinking Workshops**. These workshops inform on the latest educational thinking and developments relevant for the UK Intellectual Property Office. In fact, the latter contracted IICED as consultants for a forthcoming new teaching tool – to be trialled for the first time at UWTSd with student teachers on 19 February 2014.
- **Creative Bubble network³⁷³** is a space and support tool for student led activities: Pop Up Shops, exhibitions, performance, fundraising.
- **Graduate Launchpad and role model workshops³⁷⁴**
- Meeting entrepreneurial alumni.

³⁶⁸ University of Wales Trinity Saint David (n.d.-e). BSc Music Technology [course information]. Available at: <http://www.uwtsd.ac.uk/bsc-music-technology> - specific entrepreneurship module.

³⁶⁹ University of Wales Trinity Saint David (n.d.-a). BA Business Management [course information]. Available at: - <http://www.uwtsd.ac.uk/ba-business-management> - entrepreneurship module (and makes explicit innovation and creativity – unusual in business courses).

³⁷⁰ University of Wales Trinity Saint David (n.d.-d). BA Advertising and Brand Design [course information]. Available at: <http://www.uwtsd.ac.uk/ba-advertising-brand-design>

³⁷¹ University of Wales Trinity Saint David (n.d.-x). Support. Available at: <http://www.uwtsd.ac.uk/iiced/support>

³⁷² University of Wales Trinity Saint David. Big Ideas Wales. Available at: <http://business.wales.gov.uk/bigideas/university-wales-trinity-saint-david>

³⁷³ Creative Bubble Network [Facebook page]. Available at: <https://www.facebook.com/swanseacreativebubble>

³⁷⁴ DISCOVER University of Wales Trinity Saint David – ISSUU. Available at: <http://issuu.com/trinitysaintdavid/docs/uwtsd-prospectus-english-web>

- University's unique '**Life Design**' scheme³⁷⁵ which has been developed to give students the chance to actively plot their own career in a creative way (see sub-chapter below). It is a career development model based on design thinking methods.

The most recent and pertinent example of collaborations with external start-up support organisations is 'Tech Hub Swansea'³⁷⁶, a community workspace for tech entrepreneurs. The University sponsors a working space desk in return for close liaison and collaboration in events such as the 'Start Up Weekend'.

Entrepreneurship/enterprise education for educators

IICED leads the University's teaching and learning initiatives on behalf of the Learning Teaching and Enhancement committee, including initial teachers training and continuous teachers' development. The centre has also been asked by external organisations (other UK Universities) to assist in teacher training activities. Education for educators also exists for researchers and staff.

Continuous improvements of educational activities and connection to the outside world

Another goal of IICED is to ensure continuous improvements throughout its educational activities. This involves improvements in line with the needs of industry/business/community learning from good practices at institutional level as well as to follow latest policy developments. Therefore, IICED communicates with the business sector being heavily engaged in policy developments and debates. IICED/UWTSD is constantly evolving, adapting to changes, and allowing the students to further develop their key entrepreneurship competences (e.g. flexibility and adaptability).

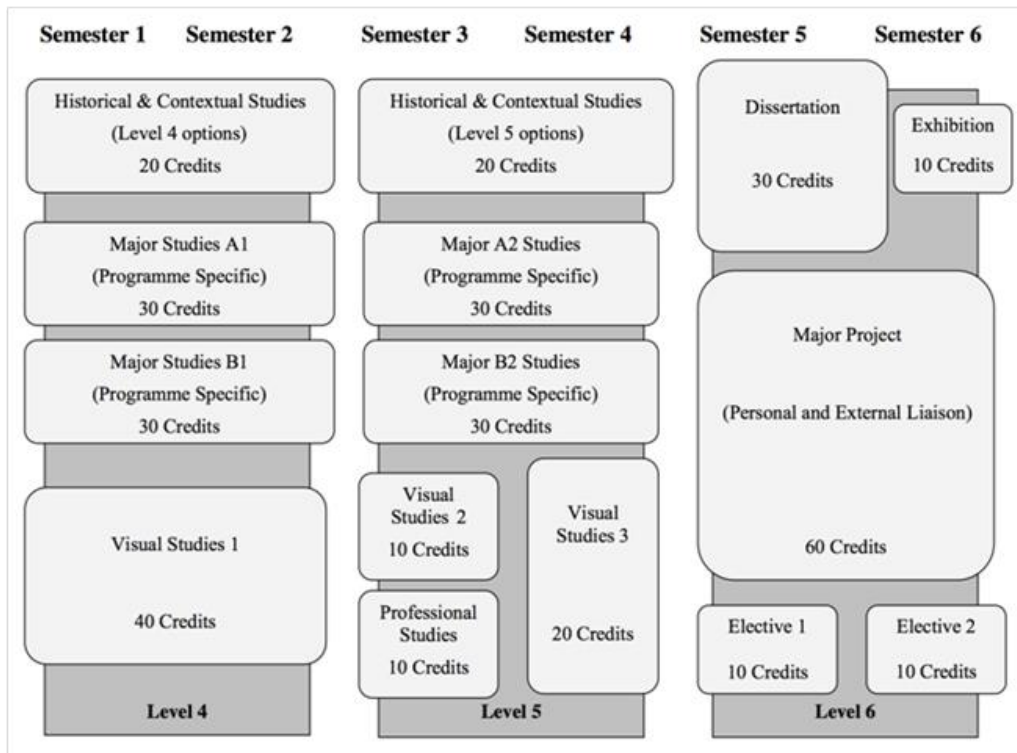
10.2.2.2 Art and Design: BA Advertising and Brand Design

The BA Advertising and Brand Design³⁷⁷ is a degree which seeks to educate **advertising professionals' creative ability**. The programme blends advertising and brand design with graphic design and business - all tied up with the latest technologies. The course involves working with all kinds of media, from magazine to social media, radio to TV and from billboards to public events. Students are also exposed to communication work for business and enterprise: for example, marketing lectures provide an opportunity to work within the Business School. The degree follows a structure of "**Art and Design Courses**" presented below:

³⁷⁵ Life Design (n.d). UWTSD. [course information]. Available at: <http://www.uwtسد.ac.uk/lifedesign>

³⁷⁶ Swansea Techhub [general website]. Available at: <http://swansea.techhub.com>

³⁷⁷ University of Wales Trinity Saint David (n.d.-d).



Source: provided by UWTSO

Figure 29: Art and Design curriculum (UWTSO)

The BA is a 3-year full-time programme. Typical Modules include:

- **Level 4:** Typography and copywriting; Graphic communication and the advertising environment; Visual and technical studies 1; Choice of historical and contextual studies
- **Level 5:** Lens-based and interactive design; Branding, corporate graphics and major Project; Visual and technical studies 2 and 3; **Professional studies**; Choice of historical and contextual studies
- **Level 6: Major project (personal and external); Advanced creative enquiry;** Dissertation; **Marketing promotion and exhibition** (for the modules in bold, we present some more information in the following chapters)

The Entrepreneurship competences incorporated in the BA, and generally, in all courses to some extent are:

Table 58: Entrepreneurship competences addressed by 3 year BA

Entrepreneurship Competences:		
Knowledge	Skills	Attitudes
<i>Knowledge on advertising and brand design</i>	Creativity and Innovation	Risk taking
	Conceptualisation	Capacity to discover...
Knowledge related to entrepreneurship and business	Team work and team management	Resilience / positive attitude to business

Entrepreneurship Competences:		
Knowledge	Skills	Attitudes
Marketing	Communicate to various audiences (incl. via new media) / interaction skills such as pitching and communicating to a range of audiences.	Adaptable, flexible / Sense of initiative
Management	Leadership, Project planning, financial considerations	Positive Attitude to change
Market environment analysis	Problem-solving / redefining problems	Self-confidence, self-drive, motivation
	Project management	Appreciate the uncertainty, ambiguity and limits of knowledge
	Strategic thinking	
	Action orientation and planning	
	Persuasion and negotiation	
	Critical analysis and judgement	
	Client relationship building	

SOURCE: prepared by CARSA in collaboration with IICED

Based on continuous discussions with both, business sector and students, **flexibility and adaptability** are two of the key competences for SMEs. Moreover, students who are interested in starting their own entrepreneurial venture have the possibility to start their micro-enterprise.

10.2.2.3 Life Design at UWTSD

The UWTSD has developed '**Life Design**'³⁷⁸ - an approach which starts from the position of viewing a professional career as part of the broader aim of enabling students to create **successful individual life outcomes** for themselves. It sees life and career as a 'wicked problem'³⁷⁹, i.e. a complex problem that may not have a single solution but can be addressed in multiple ways. The scheme will be open to all students from 2015 with multiple access points aimed at reaching the diverse range of students the institution welcomes.

Key features of the approach:

- Provides an added value opportunity open to all students, either as a workshop participant, through an embedded programme, or via drop-in and self-directed learning through online workshops and drop-in surgeries.
- Underpinned by a user-centred, participative approach to design, and to be developed and delivered in partnership with students and the SU. Offering flexible ways to access the resources and materials acknowledges the diversity of our student population and gives them the ability to stay in control of their own development.

³⁷⁸ University of Wales Trinity Saint David (n.d.-g). Life Design [course information]. Available at: <http://www.uwtسد.ac.uk/lifedesign>

³⁷⁹ Rittel, H. and Webber, M. (1973) 'Dilemmas in a General Theory of Planning', Policy Sciences, (4), 155-169.

- Considers the whole person and their needs and desires for a happy and successful future going beyond 'career success'. It encourages students to become more self-aware – considering their changing values and drivers and recognising the importance of aligning their career with these.
- Supports the development of autonomy and 'employability security' (Opengart and Short, 2002). The process becomes something students can use throughout their lives whenever they need to find a new direction, enabling them to take control of creating sustainable futures in a rapidly changing environment.
- Acts as a connector between embedded academic support and the range of extra-curricular support and opportunities available to students.
- An inclusive, collaborative process, where peers support each other and lifelong networks are created–enhancing students' social capital.
- Student-friendly, relevant, and easy for students to engage with, and will use of social media and other online tools to engage students without adding to their perceived workload.

Life design is a new extra-curricular provision in support of curricular work.

10.2.2.4 Postgraduate Certificate in Education (PGCE) in Post Compulsory education and Training (PCET) (teacher-training programme)

PGCE/PCET³⁸⁰ is a modular / credit bearing enterprising educator component that complements an existing formal teacher training qualification. It has been developed on the premise that that management and leadership programmes have proven ineffective in developing creative capacity and opportunity recognition skills. In an enterprising education context, teachers without the skills to develop such attributes could be putting their students at a disadvantage. The shortfall is addressed by educating educators within a teacher-training programme.

The **PGCE/PCE in Post Compulsory Education and Training (PCET)**³⁸¹ are designed for both, those actively teaching/training or wanting to pursue a career in post 16 contexts, e.g. higher, further, adult, community, vocational training in industry, commerce or other professions, school sixth forms, 14-19 school/tertiary courses. The PGCE PCET course provides a Master's level accredited teaching qualification for those who wish to gain employment in this sector. The module is worth 10 Credits at Level 6 and 7, commonly understood to be final year undergraduate and or first year Masters Level.

The full and part-time PCET programmes provide innovative and high quality training and education designed to help those **from many disciplines to obtain a teaching qualification**. It targets new graduates, career changers, applicants with industry or uniformed services experience.

The course employs a variety of teaching and learning strategies to encourage participatory learning and reflective analysis. The overall aim is to create a context for learning that acknowledges the special characteristics of adult learners.

There has been increasing interest from existing teachers who want to further develop their (entrepreneurial) teaching skills. These teachers are interested in the 10 credits module, not full graduation.

The 2 years include typically:

³⁸⁰ The Higher Education Academy (HEA) (2014). Enhancing employability through enterprise education: Examples of good practice in higher education". Ed. by Owens, J. & Tibby, M., November 2014. p.41

³⁸¹ University of Wales Trinity Saint David (n.d.-i).

- **Level 6 (Year 1) Modules:** Preparing to Teach, Promoting Effective Teaching, Learning and Assessment, Information and Communications Technology, Supervised Teaching Experience 1,
- **Level 7 (Year 2) Modules:** Teaching, Learning and Curriculum, Professional Role in the Context of PCET , Supervised Teaching Experience 2, Plus one option module, Some of the modules are offered at Masters Level.

Table 59: Entrepreneurship competences addressed by PGCE PCET

Entrepreneurship Competences - PGCE PCET	
Knowledge	Skills / Attitudes
Knowledge related to entrepreneurship understanding and context	Creativity and Innovation
<i>Knowledge on copyrights, patents and trademarks</i>	Identifying opportunities
Cognitive neurology and its impact within teaching and learning for enterprise	Idea generation
Teaching practice	Class preparation and strategic approaches that enable enterprise to be embedded into the curriculum

Source: prepare by CARSA based on the programme's websites and in collaboration with IICED

The PGCE/PCET brings about a shift in attitude and also positively influences business creation (among teachers).

10.2.3 Educational scope and target groups

UWTSD is a University focusing on the tertiary education level.

Target groups and other groups involved (Learners, Educators, Other):

- **University students** are the primary group targeted by the curricular and extra-curricular activities and other supporting services and activities.
- **Adults**, UWTSD is a dual sector institution that encompasses further as well as Higher Education
- **Students-teachers** - modules/programmes for future teachers as part of the initial teacher training (primary, secondary, PGCE)
- **Teachers** are the key success element when delivering the learning objectives to students; therefore, UWTSD implements continuous teachers' development activities.
- **Business and industry** cooperation is a key ingredient of UWTSD's educational programmes, e.g. through external partnership opportunities where the acquired knowledge can be put into practice and skills and attitudes needed in business can be acquired/improved.

Other players:

- The **larger community** is aimed to benefit from enhanced, sustainable education programmes seeking to stimulate economic development in the region and across Wales and beyond.
- **Policy-makers** are targeted and engaged through a series of commissioned expert studies supporting the evidence base of policy-making in the field of entrepreneurship education at national, European and international level (EU, OECD, UN). Another recent example, the Welsh

Government invited primary teacher group (student-teacher group) to the Senedd (Government House) in 2014.

10.2.4 Geographical scope

UWTSD is a UK based University (Wales) with influencing power in entrepreneurship education around the UK but also internationally (policy level, teaching and assessment methods, teachers education etc). Through its policy and research activities, IICED provides an international perspective.

10.2.5 Links to other initiatives and networks

The entrepreneurial character of UWTSD's educational programme is based on previous guidelines elaborated by QAA in the area of entrepreneurship education, e.g. **QAA Guidance** and through direct engagement with the **UK's Higher Education Academy**³⁸² (Lead Institution of the former Special Interest Group in Entrepreneurial Learning³⁸³).

The UWTSD draws on the knowledge of the **IICED (International Institute for Creative Entrepreneurial Development)** giving UWTSD access to good practices in entrepreneurship education in the UK and world-wide.

UWTSD is actively engaged with the UK network for entrepreneurial educators, **Enterprise Educators UK**³⁸⁴, and has Chaired its Board. EEUK has over 100 Universities in its network and through events such as best practice presentations and International conferences, is able to keep abreast of the very latest UK thinking (and beyond). EEUK's Board of Directors also has an international remit, run by a staff member from UWTSD.

UWTSD staff - Andrew and Kathryn Penaluna - plays a significant role in the **OECD-EU 360entrepreneurship platform**³⁸⁵. More precisely, they are involved in the strategic facilitation of an international learning system made up of educators and policy makers from several countries in Europe with a shared interest in deepening and spreading entrepreneurship education in primary, secondary and vocational institutions.

10.3 Entrepreneurship competence concept translated into the learning objectives and practical courses (setting-up phase)

10.3.1 Defining learning objectives

10.3.1.1 Learning objectives

Generally speaking, the theoretical learning objectives/outcomes for UWTSD's educational activities are based on the **QAA Guidelines**³⁸⁶. Learning outcomes are set for every module in the form of *outcomes statements*. The following presents learning objectives of 3 selected modules (applicable to the BA Advertising and brand Design). They support the more focussed / industry specialism such as advertising and brand design incorporating entrepreneurship education.

³⁸² The Higher Education Academy [general website]. Available at: www.heacademy.ac.uk

³⁸³ Entrepreneurial Learning Special Interest Group (SIG) - The Higher Education Academy (HEA). Available at: http://www-new1.heacademy.ac.uk/business/ourwork/sigs/entrepreneurial_learning_sig

³⁸⁴ Enterprise Educators [general website]. Available at: <http://www.enterprise.ac.uk>

³⁸⁵ OECD – Entrepreneurship 360 [general website]. Available at: <http://www.oecd.org/site/entrepreneurship360>

³⁸⁶ QAA (2012)

Professional Studies for Art, Design and Media (Year 2 Module)

Table 60: Outcome statements as key learning objectives for Art, Design and Media (year 2 module)

Key learning objectives:
<i>Upon successful completion of this module students will be able to:</i>
- Initiate, contextualize, define and develop either a business idea or project proposal for an external funding agency (e.g. bank, gallery, Arts Council or Regional Film Agency) including a clearly articulated range of enterprise skills required and marketing and indicative financial considerations
- Demonstrate an awareness of the contemporary professional context and/or related business practice issues in a particular specialist area
- Demonstrate effective key skills and team working ability, including planning, organisation, reflexive thinking, and decision-making, communication and group presentation / pitching skills

Major project, Personal and External Liaison (Year 3 Module)

Table 61: Outcome statements as key learning objectives for Major Project (year 3 module)

Key learning objectives:
<i>Upon successful completion of this module students will be able to:</i>
1. Identify potential areas for research and creative development within the multi- media context of their named award
2. Through speculative enquiry solve problems, using ideas and techniques, some of which are at the forefront of their discipline, and/or informed by leading practice and debate
3. Appreciate the uncertainty, ambiguity and limits of knowledge, whilst testing and selecting materials, processes and environments including appropriate personal and external considerations
4. Develop and produce a body of work of an innovative and individual nature in response to personal and client brief
5. Make decisions in complex and unpredictable contexts, during the project, from the statement of intentions to the dissemination of outcomes.
6. Document and articulate approaches, perspectives, ideas and resolution of the project demonstrating reflection on both personal and external influences

Advanced Creative Enquiry (Year 3 Module)

Table 62: Outcome statements as key learning objectives for Advanced Creative Enquiry (year 3 module)

Key learning objectives:
<i>Upon successful completion of this module students will be able to:</i>
1. Recognise critical and contextual dimensions of the students chosen discipline
2. Critically review information from a range of sources, including the work of other practitioners
3. Demonstrate a range of investigative and experimental approaches to their chosen medium

Marketing Promotion and Exhibition (Year 3 Module)

Table 63: Outcome statements as key learning objectives for Marketing Promotion and Exhibition (Year 3 Module)

Key learning objectives:
<i>Upon successful completion of this module students will be able to:</i>
1. Identify and respond to issues that arise from the artist or designers' relationship with audiences, clients, markets, employers, promoters and consumers.
2. Apply resourcefulness and enterprise to sustain their work, test market viability, and/or seek employment
3. Coherently communicate ideas and information in visual, oral and written forms, employing current and emerging media technologies if appropriate
4. Critically evaluate and make appropriate use of the interaction between intention, process, outcomes, context, the methods of dissemination and publicity
5. Deploy a high level of conceptual ability and expressive skill in the planning of an exhibition/presentation including advertising and marketing

Life Design in UWTSO

Life Design approaches the learning objectives at rather individual level. Based on established key characteristics, each student will **reflect on its individual needs and objectives to learn**. In this respect, "Life Design" may become a powerful tool addressing weak points of both, curricular and extra-curricular activities. On the one hand, curricular activities are tight by quality norms and standards, which may draw back some innovative teaching methods and approaches, since learning objectives are not always easily assessable. This becomes even truer for such competences as e.g. flexibility, adaptability, and positive attitude to uncertainty. On the other hand, extra-curricular activities are sometimes scattered with no precise trajectory and link to one's goal; Life Design can act as a recurrent theme connecting these pieces.

10.3.1.2 About the process of defining learning objectives

In UWTSO, learning objectives are defined along with assessment indicators and an assessment strategy, per each subject/module/department. Different stakeholders (internal and external) are involved in the setting-up of learning objectives, assessment strategies as well as their revision/improvements. In particular, alumni involvement became a good practice³⁹¹. Business partners are involved from the outset, and 'live' projects and experiences bring the learning to life.

Each new course, programme or its update goes through a staged validation process during which they are required to articulate where enterprise and entrepreneurship appear. These can also support, for example, employability and sustainability as some aspects are common. The expert

panel who considers the validation proposals includes experts from business and industry and past students (alumni) from the department concerned. An expert from another UK Higher Education establishment is also consulted and QAA Guidance helps to frame the discussions (creating a common understanding of entrepreneurship education, competences and characteristics of teaching).

Enterprise and entrepreneurship education: Guidance for UK higher education providers (QAA Guidance (2012))

Moreover, QAA guidance (2012) documents represent high level quality standards for higher education providing arguments supporting new innovative approaches to education enhancing entrepreneurship. This document (and QAA in general) helped overcome a general weakness of the Quality assurance/validation teams which not always consisted of experts in entrepreneurship education (i.e. experts understanding the particular characteristics of teaching methods or assessment methods). This especially applied to non-business faculties (art, theatre, archaeology etc).

The QAA Guidance (2012) is designed to enable educators to interpret and translate – in order to contextualise their own subject and topic areas (enabled entrepreneurship education across faculties and curricula). For example, in the humanities, enterprise is sometimes perceived as a money grabbing and materialistic domain, hence the language used is adapted to the roles and activities they develop for their own specialist curriculum³⁸⁷.

According to the QAA Guidance (2012), the ultimate goal of enterprise/entrepreneurship education is to develop entrepreneurship effectiveness. The figure below provides a link between the stages of development enterprise effectiveness and graduate outcomes of enterprising behaviours, attributes and skills.



Source: QAA Guidance (2012), p.15

Figure 30: Connecting the development of entrepreneurial effectiveness with graduate outcomes

The QAA Guidance document³⁸⁸ offers a broad framework that higher education providers can use to articulate learning outcomes applicable across a wide range of types of delivery.

³⁸⁷ See QAA (2012), p 8.

³⁸⁸ QAA (2012), p 15.

Table 64: Key learning objectives per QAA guidance

Topic:	Key learning objectives: QAA guidance / enterprise and entrepreneurship education
Behaviours	<p>Students should be able to demonstrate:</p> <ul style="list-style-type: none"> - the ability to seek out, be alert to, and identify opportunities (opportunity recognition) - creative and innovative approaches (problem solving) - the initiative to act on perceived opportunities while considering risk factors (taking action) - independent responsibility for managing projects (managing autonomously) - the ability to reflect and persevere in challenging environments in pursuit of achieving desired objectives or goals (personal awareness) - use of social skills to build trust, relationships and networks and to communicate ideas and information (networking and communication)
Attributes	<p>Students should be able to:</p> <ul style="list-style-type: none"> - recognise and achieve goals and ambitions, especially in response to challenge (goals and ambitions) - enhance self-confidence and belief through practice of enterprising skills and behaviours (self-confidence) - demonstrate perseverance, resilience and determination to achieve goals, especially within challenging situations (perseverance) - recognise that they are in control of their own destiny (internal locus of control) and use this understanding effectively within enterprising situations - take action and learn both from actions and active experimentation (action orientation) - innovate and offer creative solutions to challenging and complex problems (innovation and creativity)
Skills	<p>Students should be able to demonstrate the ability to:</p> <ul style="list-style-type: none"> - take creative and innovative approaches that are evidenced through multiple solutions and reflective processes (creativity and innovation) - persuade others through informed opinion and negotiate support for ideas (persuasion and negotiation) - manage a range of enterprise projects and situations appropriately, for example by proposing alternatives or taking a holistic approach (approach to management) - evaluate issues and make decisions in situations of ambiguity, uncertainty and risk (decision making) - use networking skills effectively, for example to build or validate ideas or to build support for ideas with potential colleagues or stakeholders (networking) - recognise patterns and opportunities in complex situations and environments (opportunity recognition) - model and propose business opportunities that take account of financial implications, legal implications and issues of intellectual property (financial and business literacy)

Source: prepared by CARSA based on QAA guidance (2012)

Regarding **different learning objectives for different levels of education**, in general terms everything has to be levelled; however, it is helpful to consider that what may be basic work in one department might be offered in more advanced courses in another. For example, issues surrounding finance might be first year in a business studies class, but are only introduced in year two in art and design.

UK University Guidance is termed 'Levels' – as part of the Framework for Higher Education. First year is Level 4 on the scale and this rises to Level 6 for year 3. Each Level is designed to build on the next³⁸⁹.

10.3.2 Setting-up practical courses, curricula or activities

IICED experience

The IICED focuses on introducing entrepreneurship and enterprise education in the UWTSD's faculties and programmes. Further, its approach to continuous improvement and international involvement helps maintaining state-of-the-art education activities at UWTSD, acquiring but also diffusing good practices to other higher education institutions.

Applicable also for the setting-up of practical courses/curricula/activities, the internal and external validation team approves and ensures that **learning objectives, courses, activities and assessment methods** are of a high standard, in line with the QAA guidance. Therefore, the following two elements determine the setting up phase: **QAA guidance** and **stakeholders' involvement/validation**, including business and alumni (Continuous conceptual review model).

Providing training to teachers is part of IICED's responsibilities. It is always considered prior to the educational activity but as part of a wider perspective, through continuous development, initial training of teachers and even extended to the research community of UWTSD.

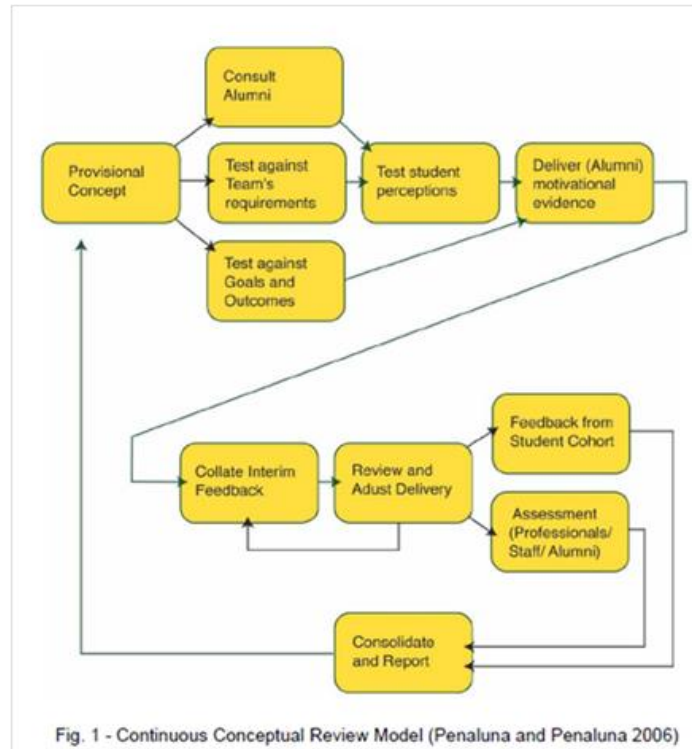
Continuous Conceptual Review' model – alumni involvement

The '**Continuous Conceptual Review**' model³⁹⁰ developed and used in UWTSD resulted from 'Art and Design' and assimilates the views of past students into course development, teaching learning and assessment. In 2006, it has been selected as an International best practice by the Internationalizing Entrepreneurship Educating and Training Conference Committee in Brazil³⁹¹. This process has been highly influential. In fact, many new and existing modules have relied on alumni input to keep the University's specialist staff up-to-date and aware of the most recent challenges to students beyond graduation.

³⁸⁹ Comparison between course credits accumulation approaches etc. can be found under the following links: http://www.ecctis.co.uk/europass/documents/ds_chart.pdf and <http://www.qaa.ac.uk/en/Publications/Documents/Framework-Higher-Education-Qualifications-08.pdf>

³⁹⁰ Penaluna, A. & Penaluna, K. (2008). Business Paradigms in Einstellung: Entrepreneurship Education, A Creative Industries Perspective. *Journal of Small Business and Entrepreneurship*; 21(2), 2008; Special Issue: A Panoramic Overview Of Entrepreneurship: Insights From Different Regions Of The World, pages 231-250

³⁹¹ Internationalizing Entrepreneurship Education and Training – Conference. July, 9th –12th 2006 in São Paulo, Brazil. Available at: http://www.intent-conference.de/structure_default/ePilot40.asp?G=621&A=1



Source: Penaluna and Penaluna (2008);

Figure 31: Continuous conceptual review model

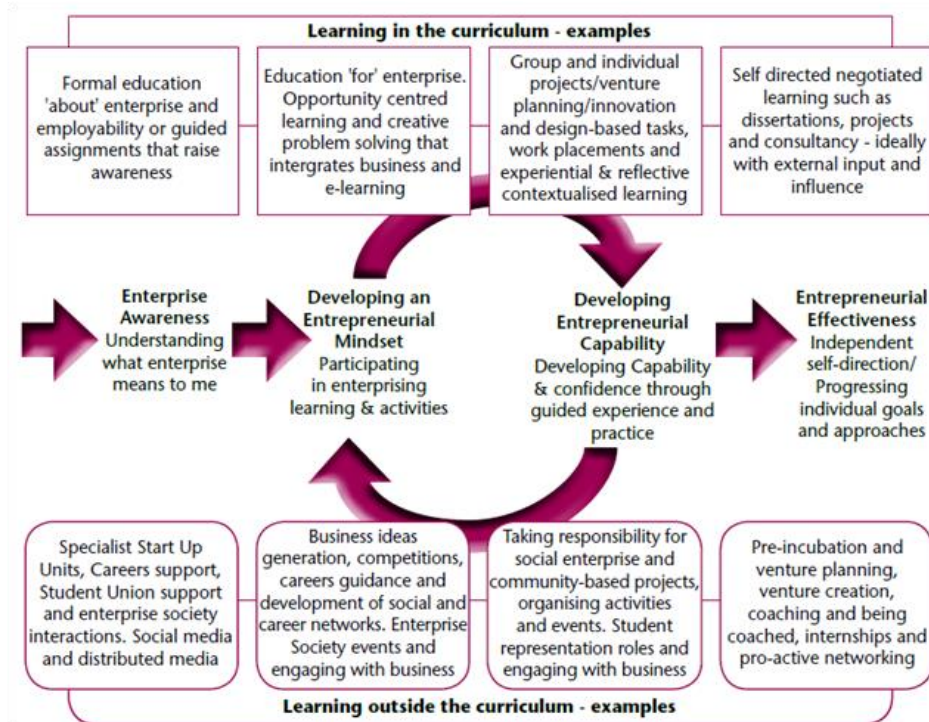
QAA guidance (2012) and UK's Higher Education Academy

The learning settings are chosen based on the experience of IICED and the QAA Guidance recommended approach (e.g. developing entrepreneurial effectiveness³⁹²). With regard to the QAA Guidance and to help to ensure intrinsic motivation throughout UWTSU's diverse range of courses, the learning settings are negotiated with the course teams. Multidisciplinary approach and diverse mix of pedagogies are used. Again, the QAA's thematic approach guidance³⁹³ can help to pivot discussions, as well as assist greatly with the more general aims of approaching the course design and considering enterprise awareness, entrepreneurial mindset, and entrepreneurial capability, culminating in what QAA calls Entrepreneurial Effectiveness.

The figure below illustrates the different approaches and stages to reach entrepreneurial effectiveness. This approach represents a level-based model which is applied in UWSTD courses (modules/years).

³⁹² QAA (2012), Chapter on Developing entrepreneurial effectiveness, pages 11-15, contain approaches to the curricular and extra-curricular activities for each stages in which the entrepreneurship effectiveness is developed, being the ultimate goal of the "enterprise and entrepreneurship education"

³⁹³ QAA (2012), chapter Thematic approaches, pages 18-21



Source: QAA Guidance (2012), Figure 1: Developing entrepreneurial effectiveness

Figure 32: From enterprise awareness to entrepreneurial effectiveness

Concerning the delivery method, QAA Guidance provides further direction in its 'Delivery: teaching, learning and assessment' chapter (pages 22–26). It outlines the importance to have teaching, learning and assessment constructively aligned.

The **UK's Higher Education Academy** is an excellent reference point and each '**Subject Benchmark Statement**'³⁹⁴ helps the subject's specific experts to develop their teaching and learning strategies. The **UK's network Enterprise Educators**, through their website and regular events is a useful information source providing examples and recommendations for academic literature in this field.

10.4 Teaching and Learning of entrepreneurship competence in diverse settings (implementation phase)

10.4.1 Teaching methods and channels - pedagogical approach

Regarding UWTSD as an institutional case study comprising more than one initiative/educational activity, this chapter firstly introduces the general approach to teaching methods and channels followed by concrete details on selected examples from "Art and Design" or "Life Design".

³⁹⁴ QAA (2012).

10.4.1.1 IICED (UWTSD) approach to the teaching entrepreneurship competences (New teaching/learning approaches)

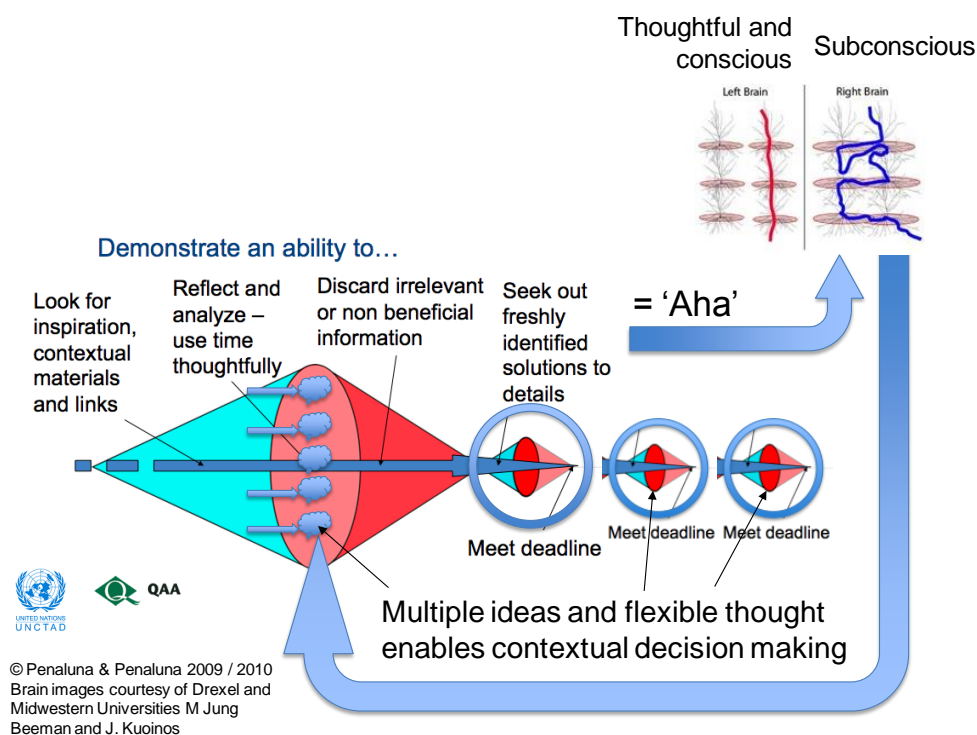
Table 65: Teaching methods IICED / UWTSD approach

Teaching methods			
IICED / UWTSD approach			
Collaborative learning			✓
Competitive learning			
Learning-by-doing / Project-based learning / Problem-based learning / Curiosity-based learning			X
Curiosity-based learning / inquiry based learning			✓
New approaches allowing learning from failure / learning in ambiguous environment			X
Self-reflection/Self-evaluation			✓
Technology-based learning / Blended learning			✓
<i>More specifically:</i>			
Lecturer (interactive, flipped)	X (ICT)	Simulations and business games	✓
Writing articles and essays		Student companies / mini-companies	
Brainstorming	✓	Guest speakers / external visitors / role models	✓
Group Discussions / Debate	✓	Company visits / community visits	✓
Role Play	✓	Work placements	✓
Case studies	✓	Mentoring schemes / tutoring	X
Peer group presentations / peer editing/ peer review	X	Workshops, seminars and training	✓
Project work and group work	X	Fairs/events/bring-and-buy	✓

Source: Prepared by CARSA; 'X' stands for the key teaching method and is usually limited to three options while '✓' marks additional/complementary teaching methods. 'ICT' indicates (ICT) where it constructs a major part.

Taking into account the characteristics of creative entrepreneurship as a competence, UWTSD employs a wide range of teaching methods. The core pedagogical approach is based on **learning by doing, curiosity-based learning**, and collaborative learning. IICED developed a number of terms that are coming into more common usage, and these help to articulate the associated pedagogical approaches. For example, '**Curiosity-based Learning**' is designed to encourage learners to be more pro-active when learning to learn for themselves (as an ultimate goal). In line, techniques involving creative thinking, which requires students to make connection and engage in **divergent thinking**, are emphasized. Together with insights from neuroscience, the UWTSD

employs a model shown on the Figure 33. According to Andy Penaluna, the teaching methods should introduce forms of uncertainty, requiring students to adjust and engage in creative thinking in order to overcome non-predictable challenges. The shifting of deadlines and setting multiple deadlines are some examples to be named.



Source: Penaluna (2014, July 9)

Figure 33: Evolved model for QAA / UN Incorporating divergent production

In line, new methods have been developed by UWTSD/IICED. For instance, '*Glorious failure*' technique allows to 'fail' if a student reflects upon why and articulate the reasoning. *Avoiding 'premature articulation'*, instead, allows the learning process to come closer to the real life situation by providing students with incomplete information, or introduce other forms of uncertainty, ambiguity and change. In other words, students get a good grade for their reflection and thinking resulting in learning from a failure.

Overall, the learning/teaching process happens **face-to-face with ICT as an additional but important element** in form of flipped lectures³⁹⁵ or self-directed online resources etc. In addition, new technologies are an important part of the teaching at UWTSD (e.g. google searches, allowing international aspect/exchange of information).

³⁹⁵ Flipped lectures are typically part of the "flipped classroom" concept challenging the traditional classroom concept of teaching. In this concept teachers use video lectures and podcasts in support of regular face-to-face seminars/courses to be viewed by students outside of the classroom. In primary and secondary schools homework problem solving homework is done in the classroom while audiovisual material is watched by the students replacing the homework from the traditional classroom concept.

Technology-enhanced learning plays an important role for UWTSD/IICED. According to the UWTSD Learning, Teaching and Enhancement Strategy 2011/2012-2013/2014³⁹⁶, *the University's VLEs, Blackboard and Moodle, enrich and enhance the students' learning experiences, providing a blended learning environment where the expanded use of wikis, blogs and online personal and group learning spaces facilitate collaborative working experiences and enhanced reflective practice by increasingly autonomous learners.*

Connectivity to business / the community and enrolled and graduated students is a key element of the IICED / UWTSD teaching approach. The reason for this is that **graduate students** have been proven to show higher impacts on students' learning. Connectivity to **business and the community**, on the other hand, provide students with the real experience enabling students to relate to their studies in the real world. Representatives of business and the wider community are widely engaged in UWTSD learning and teaching, starting with the outset (designing and validating courses/curricula/activities), implementation (teaching), assessment/evaluations (students competences) and close the loop with revision of the programme.

The academic role of the **'Enterprise Tutor'** is an integral part of the Art and Media studies, Professional Studies (module). Each Enterprise tutor provides of experience in either working free-lance as artists or designers or in running a small business in the cultural or creative industry sector. Moreover, Enterprise Tutors typically work closely with clusters of related programmes.

For example, **alumni** in the Visual Communications have undertaken interview sessions with students in the studios and also responded to '24 hour' questions posed by the students via lecturer-led social networking.

Dr WHO example

Another creative exercise is inspired by a UWTSD alumni starring in the Dr Who TV show. This exercise is undertaken in the Visual studies programme in the second year (Level 5). The exercise builds on the fact that ambiguity and risk are competences which are difficult to assess in predictable and forecastable schedules. Therefore, the educator introduces unforeseen shifts and changes as effective ways to assess flexibility and adaptability, including responses to situations of ambiguity and risk.

The exercise builds on previous exercises where students have developed an understanding of when they as individuals are at their most creative. The steps of the exercise are the following:

- Students are at first introduced to professional concepts used in professional film making through the production of story-boards that include camera direction and actor movement – based on a real life script.
- Thereafter, students are invited to develop these skills through a fictional TV scenario. They are given week one of the series script only. Throughout the next 3 weeks, new parts of the script are given out to students, while older scripts are continuously revised by students.
- In the final stage of the task students are then requested to identify the triggers that led to their ideas (Reflection and articulation like this helps them to learn to pitch ideas). In order to illustrate thus they create a diagramme picturing the evolvment of their ideas including their responses to the scripts' changes etc. (The chart will have a range of solutions due to the changes).
- Finally, they record a 5 minute video describing their project's development process regarding ideas generation and pivoting during changes.

³⁹⁶ UWTSD. Learning, Teaching and Enhancement Strategy 2011/12 - 2013/14. Available at: http://www.trinitysaintdavid.ac.uk/en/media/uniweb/content/documents/theuniversity/learning_teaching_enhancement_strategy.pdf

Not the storyboards but the reflective practice and articulation of their ability to pivot and respond to change are used for assessment. After recognizing these skills and the assessment, students learn about the neurology which is the basis of these learning aspects. To conclude the exercise students are asked to produce a video detailing the evolution of their thinking in alignment with their new knowledge. The videos are shown to next year students helping them to carry out the exercise. Undoubtedly, this includes an element of mature teaching skills.

Enterprise and entrepreneurship are dynamic and changing. However, due regard must be given to the need for carefully aligned approaches to teaching, learning and assessment³⁹⁷. To illustrate this point, an educator might introduce a real or simulated situation where change is taking place - perhaps a story in the media - and adapt the project brief or assignment accordingly. A new product or service entering the market might impact on the initial proposal given to students. Introduced factors may be imaginary but they should be made to feel realistic. Students will then become accustomed to accommodating these changes and ultimately perceive them to be the norm, thus becoming better prepared for the business environment. The approach needs to be clearly explained to students from the outset and carefully managed within the overall teaching, learning and assessment strategy.

Teaching/learning happens **on the institution's premises but also outside**. For instance Volunteering studies in the Faculty of Management's public services courses even involve students outside with the police service and fire brigade. Graphic Design students, on the other hand, all undertake placements and similar schemes.

In UWTSD, extra-curricular activities complement students experience and knowledge gained through curricular learning. For example, students may improve their skills through workshops, shut up and start-up events, etc. Since extra-curricular activities are self-selected, the number of students who become engaged is limited. From experience, students engaged in extra-curricular activities tend to be more focussed and UWTSD uses the activities with the intention to enlarge the pool of interested students.

From UWTSD's experience participation in curricular activities often leads to more interest in curricular activities. Even though they may act as important complements in developing entrepreneurship competence, curricular activities are judged to be more relevant to the chosen area with longer term effects.

A further important element is the effective inclusion of knowledge from **neuroscience** to the entrepreneurship/enterprise education.

10.4.1.2 Examples from Art and Design courses / modules

As a cornerstone of the programme's character, it comprises a strong applied **project and group work component** with close ties to creative industries and business. Almost 75% of the course is hands-on project work stressing the importance of **learning through experience** rather than only reading texts and discussing them in class.

The majority of competences are acquired through hands-on project work where students work with "real" business cases in groups with fellow students. This can happen within a course, across a school (e.g. the aforementioned Professional Studies) or inter Faculty. Entrepreneurship and enterprising skills may also be reinforced through essay writing, which is equally a part of the course.

Across the different Art and Design programmes, flipped classrooms as a type of blended learning are used supporting the overall problem-based learning / project-based learning. This aspect is

³⁹⁷ QAA (2012), p. 23.

evolving and receives personal support of the Vice Chancellor. For example, a ‘flip lecture’³⁹⁸ was provided by the United Nations to students doing the Advanced Creative Enquiry module. Moreover, apart from the business involvement in the video, it also incorporates a global perspective by engaging people from around the world – for example, Colin Jones (Tasmania) and Neo Mattal (South Africa).

In **BA Advertising and Brand Design**, Students will start to learn (Level 4 / year 1) *about* copy writing and persuasive communication techniques (both verbal and visual) in modules called ‘Typography and Copywriting’ and ‘Graphic Communication and the Advertising Environment’. These *skills and knowledge* are essential components of modules in year 2 (Level 5), for instance, they are required in ‘Branding, Corporate Graphics and Major Project’, ‘Lens-based and interactive design’ and of course, ‘Professional Studies’. By Level 6 / year 3, the students are expected to pull all of these *skills, knowledge and attitudes* together in projects that develop their discipline through engagement with external stakeholders and businesses (applies for all modules at this level). Moreover, students will need to prove advanced creative thinking capacities (Advanced Creative Enquiry) and also have to market their skills and abilities to businesses in self promotion and problem solving pitches (Marketing Promotion and Exhibition).

The following information was extracted from Courses in Art and Design Course approval documentation (for Validation purposes):

Professional Studies for Art, Design and Media (Year 2 Module)

Through this module, all Level 5 students attend **a series of cross-faculty Creative Enterprise lectures** co-ordinated and delivered by specialist staff and visiting practitioners. These address areas of common interest, but are made relevant to each programme, for example generic issues such as ideas generation, opportunity recognition, funding strategies, marketing, copyright and presentation are considered in conjunction with specialist professional practice case studies.

Moreover, the ‘Enterprise Tutor’ is an integral part of the Module, delivering practice-led areas of the programme and assisting students with the contextualization of the Professional Studies Module with their main specialist subject. They help students reinforce links between their personal aspirations and aspects of opportunity recognition.

Major project, Personal and External Liaison (Year 3 Module)

For the external liaison element of the module, each student negotiates an assignment or project with, for example, a community group, gallery, charity, hospital, industrial organisation, or similar institution. The project is devised, planned and executed in full collaboration with the external organisation. Students are expected to synthesise, plan and produce a body of practical work, with documentation, that demonstrates their maturity and competence in the context of dealing with external agencies.

Students establish their own individual practice; one that has emerged and developed from a sustained exploration of their own personal visual and conceptual vision. The importance of personal development is further emphasised and complemented by encouraging students to gain an awareness of potential external opportunities which are relevant to their individual practice.

Marketing Promotion and Exhibition (Year 3 Module)

This module has evolved to better reflect the changing economic climate and perceived values of the role of creativity in society. No longer is it acceptable to merely develop an individual’s work, we must now develop the individual to enable them to meet demands that they will face after graduation. It is considered essential to develop the capacity to promote his or her talents in

³⁹⁸ Penaluna, A. (2014, October 20). ACE Movie Penaluna 3. [Video file]. Available at: <https://www.youtube.com/watch?v=D1kqEJdZON4>

enterprising ways, within both individual and team scenarios, toward an appropriate market and in terms of placement, audience and consumer, while building on the skills, abilities and attitudes developed within the Level 5 Professional Studies for Art, Design and Media module. Additionally, with counselling and tutorial assistance, this module enables the student to prepare, arrange and exhibit or present project work in a professional manner, one that will enable students to interact effectively with others through collaboration, collective endeavour and negotiation.

This module aims prepare students for the type and nature of interaction that will enable them to succeed in their appropriate marketplace.

These approaches have also been recognised as best practice by the HEA-ADM and NESTA Kellet Review, “Emergent Practices in entrepreneurship education for creatives” and specifically acknowledged in the KEA (2009)³⁹⁹ study prepared for the European Commission “the impact of culture on creativity”. Additionally they reflect the recent NESTA discussions on better enabling creatives through active learning that engages social, economic and opportunity recognition strategies.

10.4.1.3 Life Design programme

There are four key phases in the **Life Design Process**, linked to the phases of the design process. Although they are presented as ‘steps’, in practice students are likely to iterate different stages in the process and indeed the whole process is designed to be something that individuals can return to at any time in their lives. As with the design process, the programme starts with **divergent thinking**, exploring a range of possible approaches to the problem, and then converges on possible solutions, potentially iterating multiple times through this process.

A range of delivery mechanisms and engagement methods are being developed in partnership with staff and the Students’ Union. A pilot across the following modes is proposed for year 1:

- **Self-directed online access** – a range of engaging resources and self-directed learning opportunities delivered through the student portal and via social media.
- **Phased**, extra-curricular open workshops delivered in a ‘studio’ environment.
- **Intensive**, extra-curricular open workshops (typically 2-3 days) – principally for graduating students.
- **Short workshop sessions** (typically 1 to 3 hours) which can be ‘booked’ by academic staff for their students on key aspects of the programme (e.g. career management strategies, creating an effective online profile) and embedded in relevant modules.
- **‘Train the Trainer’**, providing resources and support to academic staff who will embed elements of the process in their teaching practice.

10.4.2 Teaching guidelines and train-the-educator

10.4.2.1 UWTSD approach to the teachers’ training

Teachers are considered key success players when delivering the learning objectives and entrepreneurship competences to students. UWTSD maintains a series of courses for active teachers as well as emerging teachers addressing shortcomings in developing creative capacity and opportunity recognition skills of learners. Research has shown that the lack of teaching triggering / reinforcing these skills in management and leadership programmes can mean putting their students at a disadvantage.⁴⁰⁰ Therefore, the strategy is rather comprehensive. UWTSD implements initial

³⁹⁹ KEA (2009). The impact of culture on creativity. June 2009. Study prepared for the European Commission. Available at: <http://www.keanet.eu/docs/impactculturecreativityfull.pdf>

⁴⁰⁰ The Higher Education Academy (HEA) (2014).

teachers' training, as well as continuous teachers training. **Educate educators is an ongoing commitment** that followed the QAA Guidance release and similar discussion with European colleagues and policy makers.

UWTSD provides trainings at the beginning and end of each academic year, in relation to the particular (new) course/module, or during academic year, including adapted trainings to the needs of different groups. In addition, UWTSD created the UK's first Teacher development module (PGCE).

Very interesting to note is also that training courses are extended to the **wider research community** at the University, where IICED also draws up the Vitae Enterprise Lens of the Researcher Development Framework⁴⁰¹. This is done, as senior / leading researchers tend to have high influence on PhD students, in particular.

Moreover, the Pro-Vice Chancellor for Research Innovation and Enterprise offers staff training on UWTSD's different campuses every semester.

School governance is involved in teachers training mainly in terms of selecting teachers and approving teacher attendance. Not to forget that IICED is a centre with overall responsibility for enterprise/entrepreneurship education at UWTSD, including the teachers training activities, while the Supply Teachers CDP Centre deal with more users defined trainings.

In general, there is a high demand for teachers' training, not only within the University, but also from other Universities interested in IICED's assistance with their teachers' training programmes.

In addition, UWTSD's teacher training approach and practices were transferred to the new Welsh Baccalaureate⁴⁰² including the need to engage in an enterprise project (Skills Challenge Certificate). A UWTSD specialist in enterprise education was seconded to the Welsh Government for 4 days a week for a period of one year. At the government's premises their task was to develop the framework and associated teacher training requirements. Prior to this, IICED experts were invited to participate in the Welsh Government's Steering Group and Working Party.

10.4.2.2 Continuous Professional Development and Learning

Faculty wide trainings / staff training days normally take place at the beginning and end of each academic year. As mentioned earlier, teachers' training is also considered when developing a new module/course/activity.

UWTSD provides **continuous professional development workshops** for its in-house teaching staff. In those workshops it employs a series of innovative teaching methods, for example flip lectures, in order to stimulate discussion. The flip lecture simulates a Smith & Jones 'Head to Head' series of debates based on a popular TV comedy show. The two talking heads 'meander' through a series of topics relevant for teachers in enterprise and entrepreneurship.⁴⁰³

Moreover, teacher trainings include aspects from neuroscience, for example, neurological aspects such as mirror neurons help to explain the reasoning in a scientific way. Therefore, knowledge from other discipline helps teachers when dealing with such aspect as entrepreneurship is, with its specific components, such as creativity, innovativeness, flexibility or adaptability and how to learn them.

⁴⁰¹ Research Councils UK (2011). Enterprise lens on the Vitae Researcher Development Framework 2011. Available at: <https://www.vitae.ac.uk/vitae-publications/rdf-related/enterprise-lens-on-the-vitae-researcher-development-framework-rdf-apr-2012.pdf/view>

⁴⁰² WJEC - Welsh Baccalaureate From 2015. Wjeb cbac. Available at: <http://www.wjec.co.uk/qualifications/welsh-baccalaureate/welsh-bacc-from-2015>

⁴⁰³ Penaluna, A. (2012, October 24). Lucy and Andy - Head to head 2 [Video file]. Available at: <https://www.youtube.com/watch?v=Yc6p8crpB-8>

Some particular examples of teachers/researchers' training are: An underwater diving team in UWTSO archaeology department learns about project planning, timescales including safe diving times, the nature of incomplete artefacts and discoveries and the need for innovative thought. Conversely, educators from computing and IT's context may draw out the same elements through coding development time estimation, reviewing software and hardware developments (with the intention to predict future opportunities) and developing 'beta' prototypes for evaluation.

10.4.2.3 A teacher-training programme: PGCE / PCET

The UWTSO teacher training initiative is the first in the UK to offer a fully validated PGCE/PCET teacher training module⁴⁰⁴ in entrepreneurship education. The programme was developed based on both, theory and practice. It is based on the reasoning that effective enterprise education needs enterprising educators who are inspired through formal / initial teacher trainings. The module seeks to develop student teachers' **creativity, innovation, problem-solving and business acumen**, in addition to developing attributes such as **the capacity to cope with uncertainty, ambiguity and risk**.

Learning outcomes are clearly established, and are well transferable. The module's contents are a mix of knowledge on entrepreneurship and value and specific, entrepreneurship competences and pedagogical methods and resources to foster these competences. Furthermore, these have to be demonstrated, for example, part of the learning is evaluated through a video pitch.

1. Entrepreneurship dimension/specific knowledge:

- exploring and understanding entrepreneurship, enterprise and its development, in an educational context, including a review of personal contexts;
- the impact on society of entrepreneurs and intrapreneurs;
- the value of intellectual property rights issues such as copyright, trademarks and patents;
- exploring and understanding entrepreneurship, enterprise and its development,

2. Exploring entrepreneurs competences:

- examining learners' personal skills and how these may be developed;
- developing insight and self-efficacy for opportunity/idea generation;
- redefining problems and identifying opportunities;
- convergent and divergent thinking strategies and enhancement;
- creative thinking and the establishment of creative learning environments;

3. Pedagogical methods and resources in support of entrepreneurship

- exploring and applying entrepreneurial pedagogies including innovative teaching strategies, techniques and skills and their application in the delivery of entrepreneurial education;
- internal and external resources available to support entrepreneurship for staff and learners;
- engaging entrepreneurial educators.

These themes are delivered experientially, and importantly, theoretical aspects are drawn out following direct experiences (curiosity-based learning).⁴⁰⁵

⁴⁰⁴ University of Wales Trinity Saint David (n.d.-i).

⁴⁰⁵ Penaluna, A. et al. (2012). Enterprise Education needs enterprising educators: Inspiring new teachers through formal teacher training provision. Available at:
<http://sbaer.uca.edu/research/icsb/2012/Penaluna%20486.pdf>

The PGCE module is designed to have educators contextualize the learning in their own environments; hence, prison services and social inclusion specialists for example, have attended the course.

10.5 Assessment and Impacts

10.5.1 Strategy for assessment of entrepreneurship competence

To describe the strategy for assessment incorporated in this case study, the following firstly focusses on UWTSD's / IICED's general approach followed by examples from "Art and Design" courses and PGEC/PCET (initial teachers training).

10.5.1.1 UWTSD / IICED approach to the assessment of learning objectives

In general, a wide range of different assessment methods is applied at UWTSD. Considering examples already mentioned, while in the BA Branding and Design project work evaluation is complemented by essays on design history and contextualisation and dissertation, the teacher training programme applies video pitches and reflective essays as assessment methods. Overall, the self-evaluation and peer/group/stakeholder feedback represent an important part of the overall assessment strategy.

Table 66: Assessment methods UWTSD/IICED approach

Assessment method:	UWTSD / IICED approach
Reflective Essays	✓
Written Exam (written test, questionnaire based)	✓
Oral exam	
Self-evaluation / self-reflection	X
Peer-evaluation (in-class) / group evaluation	✓
External review / Feedback from external stakeholders (including users side)	✓
Project work (incl. simulation project work, or work on a real business idea) / assigned task achievement	X
Presentation / pitches	X
Event (e.g. faire exhibition)	✓
Application / Project or business plan	

Source: Prepared by CARSA; 'X' stands for the key assessment methods and is usually limited to three options while '✓' marks additional/complementary assessment methods. 'ICT' indicates (ICT) where it constructs a major part

The assessment methods must reflect the character of the respective learning objectives. Different competences are certainly assessed in different ways, as per QAA Guidance on distinctions to be made between Enterprise and Entrepreneurship⁴⁰⁶, and the guiding chapter on 'Delivery: teaching, learning and assessment'⁴⁰⁷. This is further developing into the 'lenses' of *Implementation* in terms of 'doing as asked to' formula and *Innovation/creativity* being linked to the elements of surprise and new.

As QAA Guidance suggests (page 22): "In all cases, assessment should be valid and reliable, supported by clear, published criteria for marking and grading, so that students understand clearly what is expected of them, especially when flexibility and adaptability are key outcomes. Assessment should be accompanied by clear and timely feedback."

⁴⁰⁶ QAA Guidance (2012).

⁴⁰⁷ QAA Guidance (2012), chapter 'Delivery: teaching, learning and assessment', p.s 22-26.

An interesting paradox appears in view of the traditional approach to measure students' performance against fixed, consistent and predicted learning outcomes, while entrepreneurship competences (e.g. creativity, flexibility and adaptability) are characterised by novel, surprising aspects and unpredictability, and needs reaction on changing circumstances and disruptive interventions⁴⁰⁸.

Reflecting the specific character of creative entrepreneurship, therefore, UWTSO uses a wide array of different assessments, both, summative and formative: e.g. project work, self-evaluation/self-reflection, peer reviews ranging from external stakeholders' feedback (mentoring / coaching / clients), alumni or current students' feedback, reflective essays (including reflecting on failures). To some extent and where appropriate, tests are used to assess knowledge.

However, the UWTSO focus has been shifted towards new techniques using design-based outcomes tools and 'Divergent Production' evaluation, e.g. relationship between contexts and triggers for the idea generation stage, or number, breadth and diversity of ideas offered. These techniques help to evaluate the learning journey rather than just a single output. It also accommodates shifts and changes to student's projects – for example a newsworthy event might make a situation or opportunity change.

In this respect, several assessment methods compose the "final mark" and several tasks with assessment character are accompanying students on their learning journey.

10.5.1.2 BA Advertising and Brand Design

Table 67: Assessment methods for BA Advertising and Design

Assessment method:	BA Advertising and Design
Reflective Essays	X
Written Exam (written test, questionnaire based)	
Oral exam	
Self-evaluation / self-reflection	✓
Peer-evaluation (in-class) / group evaluation	✓
External review / Feedback from external stakeholders (including users side)	
Project work (incl. simulation project work, or work on a real business idea) / assigned task achievement	X
Presentation / pitches	X
Event (e.g. fair exhibition)	✓

Source: Prepared by CARSA; 'X' stands for the key assessment methods and is usually limited to three options while '✓' marks additional/complementary assessment methods. 'ICT' indicates where it constructs a major part

As noted in the course description⁴⁰⁹, the assessment of the course work is divided into **formative and summative assessments**. At formative level, project work is assessed throughout the course in the form of frequent tutorials (both individual and group), seminars and critiques. A continuous verbal commentary to the students on their practical work and associated research is maintained throughout all projects marking a key component of the programme. Meanwhile, summative assessment in the form of visual portfolio, exhibition, research/ideas book/blog, or presentation is undertaken at the end of each module in order to provide students with a formal mark.

⁴⁰⁸ On this topic, see also Penaluna, K., Penaluna, A., Jones, C., & Matlay, H. (2014). When did you last predict a good idea? Exploring the case of assessing creativity through learning outcomes. *Industry and Higher Education*, 28(6), December 2014. Pp 399-410(12).

⁴⁰⁹ University of Wales Trinity Saint David (n.d.-d).

Next to the project work, historical and contextual studies is assessed on coursework in the form of essays (20% of overall grade) while the dissertation constitutes 25% of the final year marks.

Overall, throughout the programme, students are assessed by peers, alumni or external stakeholders (including 'enterprise tutors'). Hence, they are assessed on the basis of several presentations to businesses and the community where they have to prove their competences by organising an exhibition as a final course (including all organisational and financial aspects). Moreover, two referees from relevant professions have their say in the final decision (evaluation mark).

10.5.1.3 Postgraduate Certificate in Education (PGCE) in Post Compulsory education and Training (PCET) (teacher-training programme)

Table 68: Assessment methods for PGCE and PCET

Assessment method:	Teacher training programme
Reflective Essays	X
Written Exam (written test, questionnaire based)	
Oral exam	
Self-evaluation / self-reflection	✓
Peer-evaluation (in-class) / group evaluation	✓
External review / Feedback from external stakeholders (including users side)	
Project work (incl. simulation project work, or work on a real business idea) / assigned task achievement	X
Presentation / pitches	X (ICT)
Event (e.g. fair exhibition)	

Source: Prepared by CARSA; 'X' stands for the key assessment methods and is usually limited to three options while '✓' marks additional/complementary assessment methods. 'ICT' indicates (ICT) where it constructs a major part

The assessment of entrepreneurial competence is made in two stages: through a video pitch of the educator's intention explaining how they intend to apply the programme's content, and a final reflective essay. Course participants are free to argue against the uptake of certain ideas but in return are obliged to explain alternative ways of how students learn, e.g. from their own mistakes.

Assessment is continuous with assignments related to applicants' specialism and a weekly reflective discussion. Teaching practice is integral and must be passed.

10.5.2 Impact, evaluation and monitoring

UWTSD adopts EU, OECD and QAA indicators of success. Regarding the entrepreneurship, evaluation of UWTSD entrepreneurship/enterprise education is two-folded:

- In general, students' grades are monitored at Course (Programme), School, Faculty and University panels
- Survey of current and graduated students monitored by IICED

Based on Figure 29 Figure 29(on page 236) the following applies:

- The Majors A2 and B2 offer professional subject specific skills and experiences (2 x 30 credits).
- Professional Studies (Mixed cohort / business and enterprise) has 10 Credits.
- Exhibition and Marketing and Self Promotion (Also see comment on page 8) offer 20 credits.
- The Major Project has a nominal 50 per cent for external projects (though this can vary according to course wishes), hence half the 60 credits would be an appropriate indicator (30).

As a result, a total of 120 of 360 credits are **embedded into entrepreneurial educating representing a third of the student's grade** achievement.

An evaluation matrix is usually developed together with the module serving to generally evaluate **students' satisfaction** and their **enterprise employability**.

A key Indicator at University level concerns the **number of sustained businesses**.

The University as a whole has tremendously enlarged its size and impact within Wales, the UK and beyond. Through the recent mergers of the University of Wales Lampeter and Trinity University College Carmarthen and the incorporation of Swansea Metropolitan University the University grew from previously 7,000 to 27,000 students today.

UWTSD has one of the highest survival rates of student spin out companies in the UK (Three Years or more) according to HEBCIS records⁴¹⁰. Before the merger, Swansea Metropolitan University (with 6,000 students) had been at the top of the UK in terms of business survival.

Further, as expressed by IICED, teachers' training brings not only a shift in attitude but also positively influences business creation (among teachers).

Postgraduate Certificate in Education (PGCE) and Post Compulsory education and Training (PCET) (teacher-training programme)

Regarding the PGCE / PCET (teacher-training programme), the website description states that the programme has shown impacts in improving teachers' enterprising skills which in return has affected students' employability positively. From experience, educators show improved levels of innovation in the classroom, commonly providing of capable of providing problem solving examples. In addition, educators have demonstrated employing innovative ways in community engagement activities as a result of budgetary constraints.

Furthermore, teachers who have completed the course have proven to establish co- and extra-curricular activities within their personal teaching contexts. Examples include theatres within schools, special assistance programmes for elderly learners, rehabilitation training in the prison service.

10.5.3 Example of show cases

Among UWSTD alumni, there are several examples of successful entrepreneurs, CEO or simply persons with important impacts on society. The following examples are taken from alumni posters.

Chaos Trend (<http://www.chaostrend.com/mainsite/>), a games development company has been founded by a graduate (SMU 2008) Darren Adams. *"After doing years of manual labour as a mechanic and a builder I decided to do something that I enjoyed. So I went to University, got a programming degree and press ganged some of the top students to start a games development company."*

⁴¹⁰ Higher education-business and community interaction survey. Higher Education Funding Council for England (Hefce). Available at: <http://www.hefce.ac.uk/kess/hebcis>

Doolittle's Dispensary (<https://www.doolittlesdispensary.com/>), an Online Pet Supply Store has been founded by Mr. Christopher Wright and Mr. Ryan Lewis (graduated 2011 and 2005). *"As pet owners turn to internet shopping in ever increasing numbers, Doolittle's Dispensary was set up to provide preventive health care for pets and to promote responsible pet ownership. We're different to the other retailers out there as educating our customers and improving consumer compliance is at the heart of what we do. We love our pets and want to help our customers look after their own pets with products that we recommend and trust."*

Sculpture by the Sea (<http://www.sculpturebythesea.co.uk/>) is an environment arts company founded by Sara Holden, a graduate from SMU 2005. *"I set up Sculpture by the Sea UK because I was passionate about both Art and Nature. I wanted to run a company that would enhance the creativity and wellbeing of children and communities, as well as help protect nature. Using natural, found or recycled materials and a team of talented artists to run project workshops and events, Sculpture by the Sea UK has become a sustainable and inspiring company."*

Other show cases might be given in terms of successful collaboration with alumni and integration of real work/life/art into the teaching, such as work relating with **Dr. WHO** or **Da Vinci's demons TV shows**.

Andy Penaluna is a professor of Creative Entrepreneurship at the University of Wales Trinity Saint David (UWTSD). As a reputable educator in the field of entrepreneurship his UK-wide contribution to business and enterprise skill was rewarded with Enterprise Educators Award in October 2014. As director of the IICED Professor Penaluna is the main responsible for integrating enterprise and entrepreneurship within UWTSD's curriculum. Professor Penaluna also acts as one of the primary policy advisors in entrepreneurship education working closely with Welsh and UK Governments and advising the European Commission and the United Nations Conference for Trade and Development.

Further, IICED has a visiting Professor who wrote the first books on teaching entrepreneurship to undergraduates and post graduates - **Dr. Colin Jones** (University of Tasmania)⁴¹¹

10.6 Sustainability and transferability

10.6.1 Sustainable business and financial model

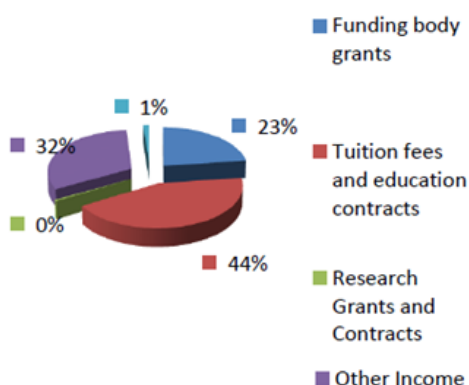
Regarding **financial and business model**, the UWTSD is very sustainable, financing activities from diverse sources (public, private, fees etc). As stated in the 2013 financial statement, UWTSD is in a very good state, delivering *"operational surpluses and an improved cash position to allow further capital investment over the strategic planning cycle."*

Income categories are: Funding Council Grants, Tuition fees and education contracts, Research grants and contracts and other operating income and Endowment and investment income.

According to the UWTSD financial statement 2013, the University's total income for the year 2013 amounted to £35,7million of which the Higher Education Funding Council for Wales granted £8,2million (i.e. 22,9%). Tuition Fees and Education Contracts income amounted to £15,5 million representing 43,4% of total income for the year. During 2012/13 the University announced a full time undergraduate tuition fee of £7,500.

⁴¹¹ Jones, C. (2013). Teaching Entrepreneurship To Postgraduates. Edward Elgar Publishing Ltd. ISBN: 978 1 78100 474 6.

UWTSD income by category in 2013 shows the following figure⁴¹²:



Source: UWTSD financial statement 2013

Figure 34: UWTSD income by category in 2013

Apart from this, close collaboration with alumni and external stakeholders reinforces sustainability. These stakeholders provide with the expertise and experience on voluntary basis. For example, past students come back and inform developments for free.

Overall creative entrepreneurship education is part of an ongoing initiative that through IICED, UWTSD is able to continuously evolve and develop.

10.6.2 Key sustainable aspects

The UWTSD entrepreneurship education initiative is considered highly sustainable. Sustainability results from integration of the entrepreneurship into the University Mission and Visions and the **existence of IICED**.

IICED continuously improve all aspects of entrepreneurship education in UWTSD, learning from good practices and creating good practices, learning from outside and within University, at individual, organisational and policy level, and transferring the lessons learnt into practice.

Close collaboration at policy level and with the larger community; in other words, **UWTSD's connectivity to the outside world in all terms**, is an important aspect that contributes to the institution's sustainability. Apart from the business and community stakeholder involvement, the alumni strategy and their involvement in the educational activities within the entire cycle (design, implementation, and evaluation) is a strong factor.

Accordingly, efforts are made to incorporate aspects linked to the "real experience" as early as possible. For example, Motor Sport Engineering students will be learning on a race circuit (University partners) from week one of their studies and public service students are encouraged to volunteer to support the local fire brigade and police services on late night / early morning patrols. In support of the "making it real" experience the University is very active in partnering and working with businesses and agencies. This is facilitated by the work of a Business development Officer who sits on their Faculty Board – where academic and practical issues are discussed and agreed. Moreover, staff networks (especially alumni and their extended networks) are supported through this system.

Further sustainable aspects are included in Chapter 10.7.

⁴¹² UNIVERSITY OF WALES: TRINITY SAINT DAVID. Consolidated Financial Statements. 31 July 2013. Available at: <http://www.uwtsd.ac.uk/media/uwtsd-website/content-assets/documents/finance/UWTSD-financial-statement2013.pdf>

10.6.3 Potential transferability

UWTSD's practices in entrepreneurship education are **highly transferable across different educational levels and geographically** but also, **from policy to practice and vice-versa**. The transferability is ensured, again, by the existence of IICED and its goals which include 'to learn, share, and create good practices in the field'.

IICED collaborates on different national, regional, European and international initiatives increasing the transferability of practices. The following are some recent examples of IICED's transferability potential:

- UWTSD/IICED is actively involved in the EU-OECD initiative called *Entrepreneurship 360, Promoting entrepreneurial learning in primary and secondary education and in vocational education and training*, whose main goal is to share good practices on entrepreneurship education.
- UWTSD/IICED has been chosen to support the UN's Empretec programme⁴¹³, which inspires entrepreneurs in developing countries and countries with economies in transition.
- IICED also led the development of the 8 country 'SEECCL' (South East Centre for Entrepreneurial Learning) initiative - IICED Level 3 Key Competency framework – teachers and coordinators (managers)⁴¹⁴.
- In the UK, UWTSD/IICED contributed to the Wilson Review of Business-University Collaboration⁴¹⁵ and the Quality Assurance Agency's (QAA) Guidelines for Enterprise and Entrepreneurship Education⁴¹⁶, which UWTSD chaired.
- Within Wales, UWTSD/IICED participate in the new Welsh Baccaureate⁴¹⁷ in particular assisting with the associated teacher training.
- IICED also works closely with the UK Government's All Party Parliamentary Group for Micro Businesses, and helped to co-author their (2014) report 'An Education System fit for an Entrepreneur'⁴¹⁸.
- The teachers trainings approach was adopted in their entirety by the Leonardo Da Vinci funded project 'Acknowledging and Developing Entrepreneurial Teacher Training' (ADEPTT)⁴¹⁹.

Further, several UWTSD's activities have been mentioned as good practice by different organisations, as mentioned earlier in the description of this case study.

In different respect, **high level of contextualization aspect** in the courses/activities ensures transferability of the competences to any sector/environment/life situation of students and teachers.

⁴¹³ EMPRETEC [general website]. Available at: http://www.unctadxi.org/templates/Startpage_7428.aspx

⁴¹⁴ South West Wales Centre for Teacher Education [general website]. Available at: <http://www.uwtسد.ac.uk/teach>

⁴¹⁵ Prof. Wilson, T. (2012). A review of Business-University Collaboration. UK Government 2012, February. P 50-50 Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32383/12-610-wilson-review-business-university-collaboration.pdf

⁴¹⁶ QAA (2012)

⁴¹⁷ WJEC - Welsh Baccaureate From 2015. Available at: <http://www.wjec.co.uk/qualifications/welsh-baccaureate/welsh-bacc-from-2015>

⁴¹⁸ An Education System Fit For An Entrepreneur. Available at: <http://nacue.com/the-news/an-education-system-fit-for-an-entrepreneur>

⁴¹⁹ ADEPTT project [general website]. Available at; <http://publiek.syntra.be/websites/europeseprojecten/adeptt/default.aspx> or European Commission (2013). Entrepreneurship Education: a guide for educators, prepared by ICF-GHK for the EC. P. 60

10.7 Key lessons and observations

Connectivity

Connectivity is a key for creative/entrepreneurship education. IICED is a leading centre regarding its connectivity to the policy level, business and community, teachers as well as alumni. Latest thinking from business and policy level, but also feedback from alumni, are taken into account when designing/updating the University courses. On the other hand, the IICED diffuse good practices from the UWTSD outside. The Continuous Conceptual Review' model⁴²⁰ and involvement of external stakeholders including alumni in the design, revision and evaluation of the curricular and extra-curricular activities is one of the good practice examples.

Educator training and teachers' attitude

Educator training, especially when it comes to understanding creativity evaluation through an understanding of divergent and convergent thinking strategies, is essential. It helps to understand why Innovation and Implementation types of projects need to be evaluated differently.

Knowledge from Neuroscience also helps teachers to further understand how the human brain works. As a result, teachers are able to understand better the learning process related to such entrepreneurship competences as creativity or innovativeness are.

Also for teachers, connectivity is important. Teachers should be involved with the bigger community, learn through networks of enthusiastic specialists (e.g. Enterprise Educators UK⁴²¹). University may largely benefit from giving to the teachers the opportunity to keep in touch with graduates and the recognition when doing so. This has been expressed by Prof. Penaluna as one of the strong empowering factors in teaching/learning.

Innovation compared to Implementation approach

As also presented at the HEA enhancement event⁴²², Professor Andy Penaluna (director of IICED UWTSD) suggested that traditional, less well-aligned teaching, learning and assessment methods may not work when developing future-proof skills sets.

New approaches to teaching, learning and assessment methods: technology-enabled learning, Curiosity based learning, "glorious" failure or avoiding Premature Articulation

New technologies are an integral part and facilitate international learning. Access and search the information available world-wide-web is a powerful way how to discover (curiosity based learning approach). For example, the teacher training sessions starts with Google searches and the students present their findings, therefore, they are not 'told' but they discover.

Topics of the recent discussions are effective teaching, learning and assessment methods that correspond to the character of the creative entrepreneurship. Traditional teaching methods and assessment do not allow it. Requirement on making students understand what is being tested restrain actually testing such competences as creativity, flexibility and adaptability or managing ambiguity. UWTSD is currently implemented to larger extents through methods based on "glorious" failure or avoiding "premature articulation" (for more information, please, see respective chapter on teaching methods).

⁴²⁰ Penaluna, K., Penaluna, A., Jones, C., & Matlay, H. (2014). When did you last predict a good idea? Exploring the case of assessing creativity through learning outcomes. *Industry and Higher Education*, 28(6), December 2014. Pages 399-410(12).

⁴²¹ Enterprise Educators [general website]. Available at: <http://www.enterprise.ac.uk>

⁴²² The Higher Education Academy [general website]. Available at: www.heacademy.ac.uk

Appropriate learning settings for entrepreneurship competence

UWTSD has considerable experience in experimenting with different learning settings and teaching methods. Important guidance in choosing the right combinations of learning setting, teaching methods and learning objectives is also provided by the QAA document. An important aspect of UWTSD's teaching methods is experiential learning which is bound to task orientated problem solving or problem identification through scenarios⁴²³. The essence of this form of learning is that being 'told' is replaced by being guided and becoming experienced with theory following the experience instead of leading it (at least beyond introductory levels). This approach is inherent in enterprise and entrepreneurial learning across UWTSD's disciplines.

In line with the QAA Guidance (p. 10) UWTSD emphasises the importance that practice be underpinned by theory making "learning both 'about' and 'for' within the curriculum" an ideal combination. This is important because asking if the learning is 'about entrepreneurialism', for example through essays or tests that are focussed on recollection of knowledge, is significantly different from learning designed to be helpful and enabling where the student is equipped 'for' future entrepreneurial endeavour. The learning context and the subject studied will impact on when and where these are developed.

Another observation is that while most business students are very familiar with accounting and legal aspects, they are poor at multiple ideas generation and dealing with 'wicked problems'⁴²⁴. This is important, because ideas generation leads entrepreneurial activity and motivational aspects linked to the ownership of an idea impact on a student's desire to be entrepreneurial. Traditionally these kinds of students sit exams to be assessed, and more 'constructive alignments (Biggs, 2003) are relatively infrequent. The common way of expressing this is to say that a student writing an essay about bike riding and bicycles may not be able to actually ride one – hence the assessment needs to go further.

Conversely, theatre and performance students have creativity embedded in realistic learning environments, but unless the studies include meaningful and contextual business aspects, they will not develop the appropriate business acumen. At UWTSD, the students therefore have to run their own theatre and to 'sell' their performances through a box office. Moreover, through learning about aspects such as body language and voice projection for performance, students are already undertaking tasks that enable them to pitch more effectively.

Here we see that the silos of educational experience can work against the learning and assessment strategies that being entrepreneurial requires. Hence, UWTSD places emphasis on cross-curricular activities. For example, the University's Learning, Teaching and Enhancement Committee has representatives from all Faculties. The Life Design initiative evolved from events called 'SMUDGE', where engineering, design and business students undertook joint projects.

One common trigger that has proved very helpful is the presentations that IICED delivers to develop awareness of opportunity recognition and Intellectual Property. The topic was considered to be extremely important by alumni, who felt that it was essential knowledge in 'the real world'. Hence, it has been integrated. Staff who do not understand IP are supported in addition to regular workshops on the topic. Once students realize the mechanisms as to how their ideas can be capitalised upon, there are more perceived opportunities to become entrepreneurial.

The assumption is often made that all students need to develop all of the skills, whereas partnership between students from different courses can provide the creative and business savvy mix. That is why, UWTSD runs a whole range of activities bringing students from different disciplines effectively together. UWTSD's Start Up Weekends are run in conjunction with local learning institutions and the local 'Tech Hub' of entrepreneurs. This mix of students from a whole

⁴²³ See Dr. Who example in section 10.4.1.1.

⁴²⁴ A term that is used to describe problems to which there are no singular / finite / exact answers.

range of disciplines and educational backgrounds has proven to be highly effective in creating new business concepts that are able to survive a year or more.

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Interview carried out with Prof. Andy Penaluna, professor of Creative Entrepreneurship at the University of Wales Trinity Saint David (UWTSd), Director of IICED (International Institute for Creative Entrepreneurial Development (IICED))

11 Case study 9: SIMULIMPRESA Programme

The **SIMULIMPRESA programme**⁴²⁵ is an initiative based on ‘*practice enterprise*’ methodology, also known as *practice firm* or *virtual enterprise*, in other words, a mini-company type programme implemented as a simulation. Since 1994, it has been implemented and centrally coordinated by the **Italian Central Office** which is located at the **Istituto Don Calabria - Città del Ragazzo**⁴²⁶, an organisation run by a religious community.

Città del Ragazzo helps creating more inclusive local territory, by operating in the field of education, (vocational) training, volunteering and social activities. The organisation bases its activities on some fundamental values: *the centrality of the person, whose dignity comes before any belonging*. The key missions are⁴²⁷:

- personalization of education and training paths, realized with full participation,
- promotion of learning by doing, experiential method that promotes the educational success for all - the enhancement of internal staff and skills, in order to create an educational community that expresses itself in all its richness,
- transparency and proper management

SIMULIMPRESA is the Italian implementation of the Practice Enterprise model developed by the **EUROPEN-PEN International**⁴²⁸, a global practice enterprises network, which is responsible for the international coordination, including the telecommunication infrastructure, for monitoring activities and scaling up activities at European and international level. The network consists of more than 7.500 practice enterprises located in 48 countries⁴²⁹.

⁴²⁵ SIMULIMPRESA [general website]. Available at: <http://www.simulimpresa.com/go>

⁴²⁶ Istituto Don Calabria - Città del Ragazzo [general website]. Available at: <http://www.cittadelragazzo.it>

⁴²⁷ Mission Visione e Valori (n.d.). Istituto Don Calabria Città Del Ragazzo. Available at: http://www.cittadelragazzo.it/?page_id=30

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⁴²⁹ Welcome to EUROPEN-PEN International (n.d.). Available at: <http://www.penworldwide.org>

11.1 Summary

The SIMULIMPRESA programme⁴³⁰ is a publicly funded Italian initiative applying the Practice Enterprise model internationally coordinated by the European Practice Enterprise Network (EUROPEN). Established in 1994, SIMULIMPRESA recently celebrated 20 years of existence. In Italy, it is centrally coordinated by Istituto Don Calabria - Città del Ragazzo⁴³¹ and implemented with the help of local coordination offices. The SIMULIMPRESA programme's main objective is to give to students and trainees the chance to acquire experience in a real working environment simulating a real enterprise, i.e. taking part in a 'practice firm'. SIMULIMPRESA's practice firm concept has 3 main pillars: **business world, education field and motivation development**. The practice firm concrete implementation time varies and depends on the context it is set into. As such, the 'practice firm' experience is achieved in between 50-400 hours in a year.

The 'practice firm' is a simulated company which is established by an implementing organisation⁴³² – school, regional authority, training institution – and run from a real office by a group of students / trainees assisted by certified PE teacher/trainer. A group of trainers guide the practice firm, one having the role of the PE Director. Different mentor companies participate in the SIMULIMPRESA programme, ranging from tourism, manufacturing industry, but also social cooperatives.

The practice enterprises trade virtual products and services with other simulated enterprises at local, national or international level. In this interaction, money, and financial or other institutions are fictitious – impersonated by the Central Office. The SIMULIMPRESA portal⁴³³ and credit card system⁴³⁴ serve to simulate these interactions. However, the business decisions, documentation and activities have real nature and are based in a real equipped office.

SIMULIMPRESA is applied across different education levels and targets wide array of learners. These are young people from secondary schools and university students but also adults who need to refresh their vocational skills, including employees, unemployed people, women returning to work and disabled adults. Trainers are crucial to the initiative, having the role of facilitators, while mentor companies provide all technical and business information necessary for effective simulation. Trainers also come from diverse institutions, such as vocational training centres, technical public high-schools, professional public high schools, real enterprises, universities, chambers of commerce, and trade unions. SIMULIMPRESA practice firm methodology does not involve alumni in the teaching.

SIMULIMPRESA addresses a variety of entrepreneurship competences covering all components: **knowledge, skills and attitudes**, where skills seem to dominate. The competences appear to be two-folded, both relevant for the world of work and entrepreneurship. Firstly, they are connected with the working place / enterprise function, and secondly, they are transversal. This is reflected into the trainees' assessment tool for trainers. The emphasized transversal skills are: acting alone, team-work and cooperation, sense of responsibility, proposal capability, and self-learning. Moreover, trainees learn competences related to national, but also international, trade (business).

The SIMULIMPRESA programme uses face-to-face learning settings – in a realistically equipped office – complemented by online simulated international and national interaction with other practice firms, banks, clients, suppliers etc. The practice firm experience takes form of either intra- or extra-curricular activity. The didactic methodology draws on **action-oriented** and **practical-**

⁴³⁰ SIMULIMPRESA [general website]. Available at: <http://www.simulimpresa.com/go>

⁴³¹ Istituto Don Calabria - Città del Ragazzo [general website]. Available at: <http://www.cittadelragazzo.it>

⁴³² Activation Simulation Enterprise (n.d.). Programma SIMULIMPRESA. Available at: <http://www.simulimpresa.com/go/index.php/risorse/attivazione>

⁴³³ SIMULIMPRESA portal is accessible from: <http://portale.simulimpresa.com/analysys/ingresso.php>

⁴³⁴ International Credit Card Simulimpresa is accessible from: <http://cci.simulimpresa.com/asp/login.asp>

based learning, in other terms learning by doing, collaborative learning complemented by competitions. In the programme, the training at practice firms is personalised. Self-directed learning is an important pedagogical component. Each trainee manages his/her role and participates in a process of technical knowledge transfer. Each trainee experiences the full Practice enterprise cycle on a rotation basis. Depending on its concrete implementation, the practice firm experience is usually complemented by lectures or similar usual school programme's activities.

Since 2001, more systematic assessment tools and certification systems have been put in place within the SIMULIMPRESA programme. The assessment methods consist of self-evaluation, project work, are complemented by validation components in the form of fairs and competitions. Additional assessment methods are applied to the programme, degree, qualifications as foreseen by schools and training institutes under their usual pedagogical approach. The Central Office provides several assessment tables addressed to all involved parties. These include self-assessment for trainees, tool for PE trainer assessing the trainee, self-assessment for trainers and PE Director. Moreover, the practice firms may comply with EUROPEN certification "Quality Practice Firm" and have the right to request a certificate for minimum students' competences issued by EUROPEN.

In the 20 years of existence, 224 'practice firms' have been created under SIMULIMPRESA and the programme got to reach 11.180 trainees yearly. Overall, the programme has high potential to impact areas such as personal development - enhance skills, especially collaboration -, initial education and further education - increase school attendance, updated VET skills -, employability and foundation of start-ups. Beyond this, the SIMULIMPRESA programme has an important role when integrating people with disabilities into the society.

Since 1994, the practice firm concept of the SIMULIMPRESA programme has proven itself highly sustainable and transferable. The critical mass of trainers, implementing organisations, as well as mentor companies, has been reached. The central coordination and the continuous effort of the Central Office to improve procedures are the key sustainable aspects, alongside with the intensive teacher training. Regarding transferability, SIMULIMPRESA is one of the EUROPEN-PEN members with the widest scope of the practice firm concept implementation.

Briefly, central coordination and constant effort in process quality improvement, continuous interaction not only motivating trainers but also enabling high learning factor among them, and mentor enterprises connecting the PE and the trainees to the real world, these are the success factors which ensured more than 20 years of SIMULIMPRESA programme.

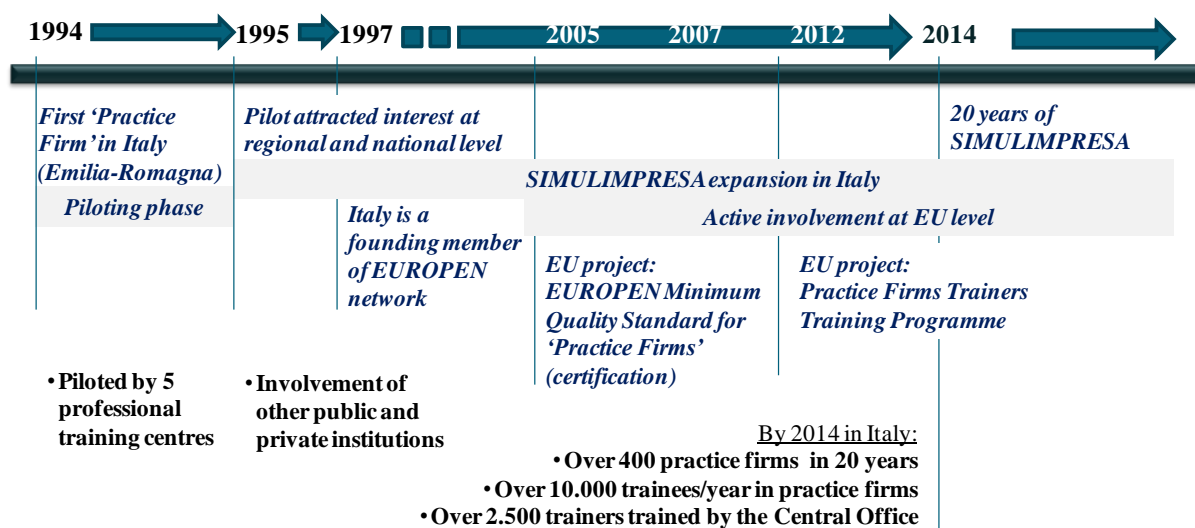
11.1.1 InfoBox

Table 69: SIMULIMPRESA – InfoBox

SIMULIMPRESA: InfoBox	
Implementation	SIMULIMPRESA has been implemented since 1994 based on 'practice firm' model firstly used in Germany in 1964. The duration of the practice firm experience depends on the context in which it is implemented (by school, University or VET), ranging between 50-400 hours per year.
Focus Area	Learning/teaching entrepreneurship competences
Targeted education level	From secondary education level to adult learning
Main target group of the initiative	Broad category of learners (trainees): people from 11 till 60 years old; such as young people with limited school attendance, high school or university students and graduates, unemployed, women returning to work and workers who need to up-date their vocational skills.
Secondary target group:	Educators and facilitators (trainers) from vocational training centres, technical public high-schools, professional public high schools, real enterprises, universities, chambers of commerce and trade unions. Mentor companies are subject to the simulation. Regional and provincial authorities support the programme.
Entrepreneurial competences	Knowledge / Skills / Attitudes; where 'Skills' seem to dominate (a) Business-function related competences and (b) transversal competences, such as: Autonomy and Independence, Sense of responsibility, Team work and Collaboration, Self-learning and Proposal capacity International trade related knowledge is acquired.
Teaching methods	Learning-by-doing and Collaborative learning, complemented by competition element and self-reflection.
Learning settings	The practice firm is implemented face to face in a 'simulated' office space; ICT complements and reinforces learning experience, enables interaction between 'practice firms' (e.g. trade) and other external organisations (simulated banks, social security institutions etc)
Assessment Methods:	Self-reflection and an assessment by trainer Additional methods may be used by individual implementing organisations (e.g. oral exam and thesis)
Impact area:	<ul style="list-style-type: none"> - Personal development (enhance skills, especially collaboration) - Initial education and further education (increase school attendance, adult education) - Employment/employability - Foundation of start-ups/considering entrepreneurship as a career option
Output dimensions	In 20 years (by the end of 2014):

SIMULIMPRESA: InfoBox	
	<ul style="list-style-type: none"> - Over 400 practice firms in 20 years - Over 10.000 trainees/year in practice firms - Over 2.500 trainers trained by the Italian Central Office
Overall impacts	<ul style="list-style-type: none"> - Decrease of the learning time by 40 % as surveyed by a labour ministry research - Higher employment rate among young Practice Enterprise trainees, especially in the tourism area <p>There are no data from schools and other organisations implementing PE concept on the number of start-ups and similar indicators.</p>
Resource dimensions	<ul style="list-style-type: none"> - Central coordination by central office: 3 fulltime employees - Implementation by individual training centres and schools / trainers and teachers (2.5000 trainers) - Estimated budget about 500-1.000 Euros per practice enterprise - updating sessions for trainers 2x per year
Business model	<p>Mainly public sources; financing from Italian regions, use of additional funds from the EU for harmonizing Practice Enterprise processes and activities among European countries.</p> <p>Volunteering companies (enterprises being simulated)</p>

11.1.2 Timeline and key milestones



Source: prepared by CARSA

Figure 35: The SIMULIMPRESA programme – timeline and key milestones

11.2 General characteristics and core activities

11.2.1 Objectives

The SIMULIMPRESA programme's main objective is to give the students and trainees the chance to acquire experience in a real working environment by simulating a real enterprise, i.e. to take part in a 'practice firm'. The methodology is action-oriented offering training value for the participants.

The specific objectives are to⁴³⁵:

- allow trainees (students or adults) to **experience a working environment** in order to facilitate their entry into the job market or to become an entrepreneur;
- to train the ability to take initiative, self-reliance and also to deliver knowledge on how to establish and run a company.
- to enable students to gain experience with **behavioural, transversal and relational skills**, respecting their individual peculiarity while also dealing with other practice firms;
- to encourage students to take on **responsibilities** in terms of overcoming day-to-day problems with customers, suppliers, users etc.
- to introduce students to a **personalised learning process** where each student rotates and experiences the tasks of various departments;
- to support students in finding **adequate and coherent solutions** for the needs of real businesses;

11.2.2 Core activities and entrepreneurship competence dimensions

Being a mini-company programme of a simulation type called 'practice firm' or 'practice enterprise', the SIMULIMPRESA programme focuses on teaching/learning entrepreneurship competences. The practice firm concrete implementation time varies and depends on the context it is set into. For instance, Universities may use a semester programming with around 40 hours for the simulation. The time in Practice firms in VET varies between 100-400 hours in a year. Secondary schools, on the other hand, apply PE in 50-120 hours in a year.

Additionally, the participation is assessed and certified and there has been further effort in defining common quality standards for certification of practice firm participation at European level. Coordinated centrally, training of trainers is an integral part of the programme.

SIMULIMPRESA's practice firm concept has 3 main pillars⁴³⁶: **business world, education field and motivation development**. These pillars are integrated in the programmes' approach to the activities, training or contents. The first pillar on the business world consist of general management, operational management, personal and financial management, globalisation, culture and technology. The second pillar, education field, builds on a demand oriented and practice based approach that is/include: competency based, qualification profiles, earlier acquired competences, individual programs, integration of subjects and ready to consume packages. The last pillar, addressing the development of motivation in young people, is put into practice through applying a "Learning by doing" concept and development transversal skills.

⁴³⁵ Information collected from several sources: "Brief Description" (n.d.), SIMULIMPRESA started its activities in 1994.... (n.d.). or "Let's Enterprise": Sense of initiative and entrepreneurship at EU level (n.d.).

⁴³⁶ "How to motivate young people - Italian PF's Central Office experience" (n.d.). [pdf presentation]. Not available online.

Table 70: SIMULIMPRESA – core activities (selected for the case study purposes)

Core activities/components:	Focus area:	Form:	Entrepreneurship competence:
'Practice firm' - mini-company simulation programme	Learning entrepreneurship competences	Face-to-face and online	Knowledge / Skills / Attitudes Skills dominating
Practice Enterprise Fairs and Competitions	Learning/teaching entrepreneurship competences Assessment/validation	Face-to-face	Knowledge / Skills / Attitudes
Practice Firms Trainers Training Programme, including trainers certification	Learning/teaching entrepreneurship competences Trainers' Assessment	Face-to-face (mandatory), communication by phone	Knowledge / Skills (addressed to trainers)
Trainees' Assessment and Certification	Assessment methods and tools	Face-to-face and online	Knowledge / Skills / Attitudes
Practice Firm EUROPEAN Certification	Assessment methods and tools	online	Skills / Attitude (addressed to trainers)

Source: prepared by CARSA for the purpose of OvEnt study.

'Practice firm' - mini-company simulation programme

'Practice firm' runs like a real business. It is based on the working and structure of "real firms" - a mentor company - in aspects such as surroundings, interpersonal relationships, documentation and working time. Different mentor companies participate in the SIMULIMPRESA programme, ranging from tourism, manufacturing industry, but also social cooperatives. The 'practice firm' is a simulated company which is set up by an implementing organisation⁴³⁷ - a school, regional authority, training institution - and run as a real office by a group of students / trainees with assistance of a facilitator - certified PE teacher/trainer. The size of the group depends on the target group - classroom or training course -, and ranges between 15-20 students. Once established, the PE does not close but continuously carry out its activities with different groups of trainees. SIMULIMPRESA programme put an emphasis on the market continuity. As such, the trainees do not learn the start-up procedures but they learn the operations.

There are currently three practice enterprise (PE) areas in Italy⁴³⁸:

- **Commercial practice enterprises** (administration-finance-management),
- **Tourism practice enterprises:** travel agencies, hotel, touristic promotion, catering/banqueting, event organisation
- **Industrial practice enterprises:** mechanics, graphics, electrical and electrotechnical sector, clothing and construction

Although there is no actual transfer of goods or money, other transactions take place: orders are made, invoices issued and financial records maintained - including creditors, debtors, stock holdings

⁴³⁷ Activation Simulation Enterprise (n.d.). Programma SIMULIMPRESA. Available at: <http://www.simulimpresa.com/go/index.php/risorse/attivazione>

⁴³⁸ Dipartimenti (n.d.). Programma SIMULIMPRESA. Available at: <http://www.simulimpresa.com/go/index.php/modello/dipartimenti>

and so on⁴³⁹. The practice enterprise trade virtual products and services with other simulated enterprises at local, national or international level. In this interaction, money, financial or other institutions are fictitious – represented by the Central Office. However, the business decisions, documentation and activities have real nature. The SIMULIMPRESA portal⁴⁴⁰ and credit card system⁴⁴¹ serve to simulate the interaction with external organisations.



Source: SIMULIMPRESA [general website]

Figure 36: 'Practice Firm' office (example)

Every Practice Firm reproduces the structures of a real commercial or manufacturing company. In a simple way, the PE is sub-divided into 3 departments⁴⁴²: administration, commercial and personnel. The programme is based on a breakdown of individual departments into functions/working places and roles with a clear description in terms of objectives, duties and activities.

Several trainers jointly supervise the PE. Moreover, PE Director, a selected trainer, has a specific leading and coordinating role, e.g.⁴⁴³:

- takes part with the other coordinators and the Central Office in periodic meetings
- defines – together with the teachers – the and organisational aspects of the Practice Firm concerning internal procedures, information flows etc
- take strategic decisions
- liaise with other Directors
- can lead a workgroup by dialoguing with the teachers and specialists who take part in the training course, taking on duties, stimulating teamwork, resolving personal or group problems which emerge during work
- checks and intervenes when necessary on the level of motivation in the "Company,"

The practice firm methodology exposes the students to a real productive atmosphere while learning and realizing the requested tasks. In the programme, the training at practice firms is personalised. It focuses on giving the students an experience in a real work environment, including becoming

⁴³⁹ About Practice Enterprises: EUROPEAN-PEN International (n.d.). Available at: <http://www.peninternational.info/index.php?id=31>

⁴⁴⁰ SIMULIMPRESA portal is accessible from: <http://portale.simulimpresa.com/analysys/ingresso.php>

⁴⁴¹ International Credit Card Simulimpresa is accessible from: <http://cci.simulimpresa.com/asp/login.asp>

⁴⁴² "Brief Description" (n.d.). Prepared by Centrale Nazionale di Simulazione Istituto Don Calabria. [presentation in pdf]. Not available online.

⁴⁴³ idem

accustomed to real work situations, working hours, discipline, tasks and development. Each individual participating in a practice enterprise rotates through the firm functions obtaining a complete set of enterprise related competences. Above all, it enables the student to acquire **behavioural, transversal and adaptation skills**.

As expressed in the “brief description” of SIMULIMPRESA⁴⁴⁴, “*To be successful as entrepreneurs, students need to acquire critical thinking skills; they need to become responsible for their own decisions and their actions; and they need to be able to communicate well and get along with people – staff, suppliers, customers, state and financial institutions. Moreover,... “There is not an area of life where these skills will not have a positive impact”*”

Table 71: SIMULIMPRESA - competences

Competences:		
Knowledge	Skills	Attitudes
Department / PE function specific technical knowledge (**): e.g.	Technical skills (**) Social and professional behaviour (**)	
marketing	Team work	Sense of responsibility (**)
administrative and fiscal duties	Collaboration	Proposal capacity
accounting	Capacity to express opinion	Flexibility in handling new and unforeseen situations
sales	Communication skills	Proactive / Personal attitude: involvement and engagement (*)
internal and international trade management	Problem solving (**)	Assertive
Financing and investments	Organizational ability and management skills	Autonomy and independence (**)
personnel management	Planning	Self-learning
relations with banks	Decision-taking	Persistence
National and international rules for doing business	Critical thinking	Punctuality (**)
	Social skills	Spirit of initiative and influenceability (**)
	Relationship skills (**) (friendly, open, sudden mood changes)	Adaptability in a group (**)
	Sharing resources	
	Numeracy	
	IT literacy	
	Trade and Marketing skills	

Source: Prepared by CARSA based on several available sources. (*) indicates those competences addressed by self-assessment tool for trainees; (**) indicates those competences addressed by the trainees' assessment tool for teachers

⁴⁴⁴ Idem.

Regarding transversal skills, the methodology is implemented to achieve the following:

- **Let them do it alone:** After being taught the key skills necessary to fulfil the activity, the user work on his/her own in understanding and solving the problems in order to reach the expected result.
- **Sense of responsibility:** Each participant must understand his/her own tasks and take the necessary responsibility to achieve them. A rotation system also helps promote a sense of responsibility. It enables the student to become aware of the responsibilities of the different functions, and of real day-to-day problems with customers, suppliers and postal delays etc.
- **Co-operation:** The users are required to cooperate in reaching targets and to provide information of duty and responsibility to the next person who will take their place following the rotation system.
- **Team working:** Users form groups to fulfil certain activities. In order to achieve a good result for the practice firm, it is important that the team working activities are efficient and respect enterprise decisions.
- **Proposal capability:** Each student has the opportunity to express a view on the running of the practice firm, and also in proposing improvements.
- **Self-learning:** Materials such as paper, multimedia and videotapes offering tasks descriptions should be provided at each practice firm. Moreover, user's autonomy is one of the main points of the practice firm methodology.

Interestingly on the knowledge side, trainee has to learn national as well as **international rules** and legal basis related to the 'practice firm'.

The Figure 37 shows the key competences developed through practice firm experience.



Source: Practice enterprise concept for young people– Simulimpresa (n.d.). Istituto Don Calabria – Ferrara – Italy. [presentation in pdf]. Page 21.

Figure 37: Skills, Ability and Competence Development in Practice Firm Activity

Trade with other national or international practice enterprises is an essential component of the initiative. Practice enterprises trade with each other according to strict commercial principles. The global network (EUROPEN-PEN) consists of 7.500 practice enterprises in over 40 countries worldwide⁴⁴⁵.

Practice Enterprise Fairs (national, regional or international) and study visits

Practice Enterprise Fairs complement the real experience of trainees. The fairs are organized either at regional / national level or at international level⁴⁴⁶. SIMULIMPRESA provides with clear guidelines about how to prepare, participate and generate results of the trade fair.

⁴⁴⁵ Welcome to EUROPEN-PEN International (n.d.).

⁴⁴⁶ Calendar of Events: EUROPEN-PEN International (n.d.). Available at: <http://www.peninternational.info/index.php?id=46>

As described in the Fair Guidebook⁴⁴⁷, the most important pedagogical aims of participation in Practice Enterprise fairs are:

- improvement of trainees' entrepreneurship skills;
- providing knowledge of participation in fairs;
- gaining experience in preparation of exhibition stands;
- development of trade and marketing competences;
- promoting mutual cooperation as well as development of virtual business and presentation of the virtual and real business cooperation experience and prospects to the public;
- encouragement to establish new relations;
- familiarization of business representatives from different regions of the country with future specialists in this field;
- strengthening cooperation between educational institutions and social partners – business enterprises, representatives of organizations

In the occasion of the trade fairs, study visits to several companies are offered to the students.

Competitions

Competitions are organized by the PE Central Office as a complementary motivating activity. In relation to the 7th International Practice enterprises trade fair in Italy, the competition consisted of five categories:

- **Best design stand** – assessed during the Fair,
- **Most professional and courteous practice firm** – assessed during the Fair.

Best marketing consisting of presentation of the best:

- **Best Advertising 'Spots';**
- Best territory presentation - **'Look: here I am!'**
- **'best catalogue / paper kit'**

Applications are reviewed by an external jury.

Quality Practice Firm – EUROOPEN Certification

Under the SIMULIMPRESA programme, the "Quality Practice Firm" EUROOPEN Certification may be obtained by the Practice Enterprises. Once having obtained the 'Quality Practice Firm', the PE has the right to request a certificate for minimum students' competences issued by EUROOPEN.

11.2.3 Educational scope, target and other involved groups

SIMULIMPRESA is implemented across several education levels **ranging from secondary to tertiary, including further education and other adult education**. Primary beneficiaries are students and adults (from 11 till 60 years old). The initiative also involves teachers and trainers as well as representatives from business sector.

Target groups and other groups involved (Learners, Educators, Other):

SIMULIMPRESA engage a number of different types of users, including:

- **Trainees**, i.e. young people aged 13-18 years (with limited school attendance); school students; high school and university students and graduates; people in professional re-

⁴⁴⁷ "Practice Enterprise Fairs: Preparation, participation and results generation" (2014). [Fair Guidebook in pdf]. Available at: <http://www.simulimpresa.com/go/Events/fiera/Fair%20Guidebook.pdf>

conversation process (workers who needs to update their vocational skills), women or unemployed people returning to work.

- **Teachers and trainers** guide learners during the simulation exercise. Considering the wide scope of the programme, trainers come from diverse institutions, such as: secondary schools, technical public high schools, professional public high schools, technical commercial institutes, universities, vocational training centres, chambers of commerce, trade unions. Training staff of around 3 people guides one single practice firm, PE Director role is assigned to one of them.
- **Representatives of real enterprises** (a mentor company) provide the trainees with technical and management information about their simulated enterprise.

Moreover, the SIMULIMPRESA programme receives support from regional / provincial authorities who promotes PE concept (didactic-pedagogical approach). Interestingly, the PE practice is not only welcome by students but also by their families and teachers⁴⁴⁸.

Role of the coordinators – Central Office

The Italian Practice Firm Central Office (shortly Central Office or PE Central Office) offers consultancy services and training of trainers, and coordinates the initiatives in Italy. The Central Office is in contact with the international network and participates in EU level projects and activities.

More specifically, the Central Italian Office provides external support to the practice firms which are related to the simulating of organisations related to the banking, taxation, social insurance, chamber of commerce, clients, suppliers, transportation etc. The PE Central Office review the PE's activities and gives feedback highlighting "formation" errors. Moreover, the Central Office verifies the PE's compatibility with the criteria to obtain EUROPEAN PE Certification.

11.2.4 Geographical scope

The SIMULIMPRESA programme is an **Italian national initiative coordinated centrally and implemented at national level** with strong links to the international network.

11.2.5 Links to other initiatives and networks

Italy is one of the founding members of the non-profit association EUROPEAN -PEN International⁴⁴⁹, which is a worldwide 'practice enterprises' network. The EUROPEAN-PEN International has more than 18 years of experience in managing and running practice firm projects. It has Central Offices in 48 countries worldwide including around 20 European countries: Germany, Austria, Denmark, Spain, France, Great Britain, Netherlands, Sweden, Hungary, Switzerland, Czech Republic, Finland, Lithuania, Poland, Belgium, Ireland, Slovenia, Norway, Greece, Portugal, Canada, United States of America, Australia, China etc. The international network enables the national practice firms to carry out international business operations (online). Currently, there are over 7.500 practice firms in over 40 countries⁴⁵⁰. Certain aspects of the 'practice firm' implementation vary across countries, e.g. education level, trainings for teachers, assessment methods etc.

EUROPEAN's tasks involve the co-ordination of the network (including support, events etc), the monitoring of activities, and maintenance of the IT infrastructure necessary for the communication between the different countries (and practice firms international operations (e.g. electronic platform

⁴⁴⁸ Bulletin No 29 (2005). EUROPEAN Information on the Worldwide Practice Firms Network. Issue: May 2005. Available at: <http://cms.europen.info/fileadmin/Bulletin/Bulletin29.pdf>

⁴⁴⁹ EUROPEAN-PEN International [general website]. Available at: <http://www.penworldwide.org>

⁴⁵⁰ Association Benefits: EUROPEAN-PEN International, available at: <http://www.europen.info/index.php?id=43&L=0%2Findex.php>

for electronic online shipment of export papers, international banking transactions, Credit Card System, International Marketing Services).

The EUROOPEN-PEN International has vast experience with the design and development of vocational training material, covering from school level to entrepreneurial levels, within the international practice firm network. The organization also has experience with designing and developing IT solutions applicable for the delivery of current business operations applied to education and training purposes targeting participants in the practice firm network.

Further, Italian Central Office located at the Istituto Don Calabria joins other national offices and collaborates at EU level. Examples of such collaborations are:

- Entrepreneurship practice firms schools – **“Innovative education and training solution to early school leavers”**⁴⁵¹, EU funded project initiated in September 2014. This project has the goal to create a common international model that would apply the ‘practice firm’ concept to fight against early school leaving.
- **Practice Firms Trainers Training Programme at EU level (PFTT project)**⁴⁵² focusing on analysis of good practices in teacher training in France and Italy (EUROOPEN network), development and piloting of a common Practice Firms Trainers Training Programme. The project started in 2012.
- **Analysis and development of the minimum quality standards for practice firms towards common European certificate**⁴⁵³ (2005-2007) has put the grounds of the European Minimum Quality Standards (EMQS) and the assessment criteria. The study analysed the skills and attitudes demanded by potential employers, reasons why these gained importance in selected new future employees, reasons why it is important to recognize these competences and benefits of PE for target groups. The study also argued clear advantages of internationally recognised Minimum Quality Standards for future employers, for trainers, cultural institutions and ministries and for practice firms trainees

Quality Card for Practice Firm (2000-2001), funded by Leonardo da Vinci programme, having the objective to adopt quality standards among practice firms. The outcomes had the form of: common methods for describing and defining training curricula, work places, functions and evaluation system, and common procedural standards.

11.3 Entrepreneurship competence concept translated into the learning objectives and practical courses (setting-up phase)

11.3.1 Defining learning objectives

Learning objectives are defined based on the defined working places following the enterprise function/departments of the practice firm in question.

⁴⁵¹ Progetti Europei (n.d.). Istituto Don Calabria Città del Ragazzo. Available at: http://www.cittadelragazzo.it/?page_id=80

⁴⁵² Practice Firms Trainers Training Programme (n.d.). Available at: <http://pftt.euopen.info/ProjectDescription.aspx>

⁴⁵³ Leonardo Project Flyers: EUROOPEN PEN International (n.d.). Available at: <http://www.euopen.info/index.php?id=81&L=2%2F%2Fconlib>

Example of PE in administration, finance and management area⁴⁵⁴



Administration department manages documents relative to accounts and administration of the Firm so as to have a budget and control the cash flow. In particular, the following are kept: VAT registers; VAT payments; accountancy registers; customer and supplier bill-book; bank and relative operations book.

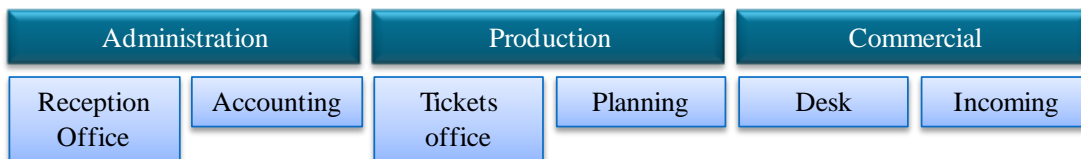
Commercial department enters into buying and selling agreements with other Practice Firms, nationally and internationally, also undertaking marketing and warehouse checking activities.

In particular: managing customers and suppliers; incoming and outgoing orders; buying; invoices, dealings with haulers; dealings with Customs; preparation of catalogue and price list; advertising; analysis of commerce budget; warehouse accounts.

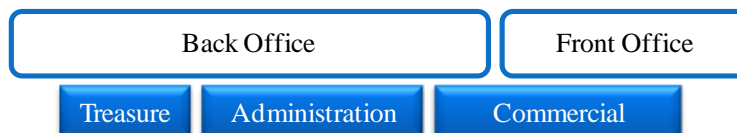
Personnel department looks after all documentation concerning personnel administration;

In particular: hiring; firing; work contracts; preparation of wage packets; dealings with Official National Boards; calculation and payment of taxes; staff discipline.

Example of travel agency:⁴⁵⁵



Example of hotel:⁴⁵⁶



Example of a PE in industrial area ⁴⁵⁷



⁴⁵⁴ Prepared by CARSA, based on “Brief Description” (n.d.). Prepared by Centrale Nazionale di Simulazione Istituto Don Calabria. [presentation in pdf]. Not available online.

⁴⁵⁵ Idem.

⁴⁵⁶ Idem.

⁴⁵⁷ Idem.

Moreover, the students should learn transversal skills applied to any life situation (Table 72).

Table 72: SIMULIMPRESA learning objectives – transversal skills

Topic:	Key learning objectives: <i>The students will be able to:</i>
Autonomy and independence	- Work independently in understanding and fulfilling job tasks
Responsibility	- Take responsibility in solving problems at work
Cooperation	- Cooperate and share information of duties
Team-work	- Work efficiently in teams
Proposal capacity	- Express personal views on the functioning of firms
Self-learning	- Engage independently with learning job routines

Source: prepared by CARSA based on publically available material

As the ‘practice enterprise’ methodology is implemented in diverse education settings (from secondary education, university, adult education or other), the learning outcomes of the individually provided courses/trainings are described by individual institutions based on their usual practice.

The learning objectives, the working places descriptions and other procedures are constantly being improved by the Central Office based on the feedback from PE Directors and other PE trainers and in line with the changing environment.

11.3.2 Setting-up practical courses/curricula/activities

The setting up of practical courses and activities under the SIMULIMPRESA programme has two dimensions. Firstly, the ‘practice firm’ methodology and available profiles (PE areas) are followed. In line, the Italian CO sets minimum infrastructure and other requirements. This includes office furniture, at least 6 laptops, dedicated phone line, fax and printer, internet connection and, for each working place, usual office material. Suggested teaching/working process has the following steps⁴⁵⁸:

- testing the participants’ competences at the entry point
- definition of the formation levels: basic – intermediate – advanced
- personalized training plan;
- guided self-directed training

Secondly, the set up of practical courses are in line with the usual practice of the implementing institution. Moreover, the complementary learning represents an important part of SIMULIMPRESA PE model. The complementary learning/teaching are all lectures that takes place in alternation to the SIMULIMPRESA practice firm experience.

For instance, University of Bologna organizes a one semester SIMULIMPRESA practice firm course. In 2012/2013 academic year⁴⁵⁹, the course programme included 1 working day a week, 25 hours of

⁴⁵⁸ Musolesi et al. (2006). Il programma Simulimpresa. Manuale per i formatori. Masters of learning – Ricerche, Franco Angeli. 2006. ISBN: 9788846480798

⁴⁵⁹ 56491 - Simulimpresa (First Semester) (2012/2013). Simulimpresa - school of economics, management, and statistics. [course website]. University of Bologna. Available at: <http://www.unibo.it/en/teaching/course-unit-catalogue/course-unit/2012/355901> and 44121 – Simulimpresa (2013/2014). Simulimpresa - school of economics, management, and statistics. [course website]. University of Bologna. Available at: -

lesson with a suspension of 15 days for exams⁴⁶⁰; which increased to 40 hours in 2014/2015 academic year⁴⁶¹. The course objectives are to preparing a company start-up, its operationalization (start-up management, the virtual trade of goods).

One of the CO's tasks is to continuously improve the quality of the Italian system. Regular meetings with trainers organized by CO and dedicated to the quality standards and procedures revision serves this purpose. Many ideas are presented by the Central Office and accepted within the Italian network. Common for all these improvements is a detailed passage concerning the tools and the life cycle, including⁴⁶²:

- feasibility study;
- working process analysis;
- tasks identification;
- the organisational behaviour and the necessary skills to manage the working process;
- to identify the training objectives;
- project planning and co-ordination;
- materials production and internal monitoring activities;
- promoting good practices.

The outcomes - updates and improvements - are equally transferred into the training activities, the certifications and credit, as well as into the evaluation of knowledge, skills and behaviours made on 3 levels: ex-ante, interim and ex-post.⁴⁶³

Unlike the learning objectives, activities and infrastructure requirements, the assessment strategy had not been always standard. From 2001, more systematic assessment tools and certification system has been put in place.

11.4 Teaching and Learning of entrepreneurship competence in diverse settings (implementation phase)

11.4.1 Teaching methods and channels - pedagogical approach

The SIMULIMPRESA programme uses face-to-face learning setting complemented by use of information technologies for international and national interaction with other practice firms, banks, clients, suppliers etc. The practice firm experience takes form of either intra- or extra-curricular activity. The methodology draws on **action-oriented learning** and is **practical-based** in order to enhance the trainee's professional and motivational skills.

<http://www.unibo.it/en/teaching/course-unit-catalogue/course-unit?idComponenteAF=387382&annoAccademico=2013>

⁴⁶⁰ Bianchi M., Tampieri L. (2012). Effects of networking activities by Internet on the creation of a business network. Experimental results of Simulimpresa laboratory. itAIS 2012 IX Conference. Università Cattolica del Sacro Cuore, Roma (Italy), Sept. 28th and 29th, 2012 Proceedings.

⁴⁶¹ 44121 – Simulimpresa (2014/2015). Simulimpresa - school of economics, management, and statistics. [course website]. University of Bologna. Available at: <http://www.ems.unibo.it/en/programmes/course-unit-catalogue/course-unit/2014/387382>

⁴⁶² "Brief Description" (n.d.)

⁴⁶³ Modello (n.d.). Programma SIMULIMPRESA. Available at: <http://www.simulimpresa.com/go/index.php/modello>

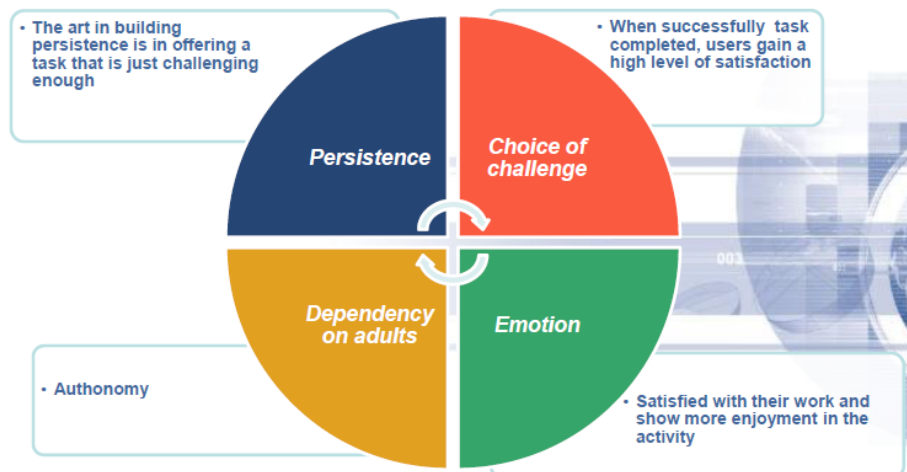
Table 73: SIMULIMPRESA - teaching approach and methods

Teaching methods			
<i>SIMULIMPRESA</i>			
Collaborative learning		X	
Competitive learning			
Learning-by-doing / Project-based learning / Problem-based learning / Challenge based learning		X	
New approaches allowing learning from failure / learning in an ambiguous environment			
Self-reflection/Self-evaluation		✓	
Technology-based learning / Blended learning			
<i>More specifically:</i>			
Lecturer		Simulations and business games	X
Writing articles and essays		Student companies / mini-companies / practice firm	X
Brainstorming		Guest speakers / external visitors / role models	
Group Discussions / Debate		Company visits / community visits / field visits	✓
Role Play	✓	Work placements	
Case studies		Mentoring schemes / tutoring	✓
Peer group presentations / peer editing/ peer review		Workshops, seminars and training	
Project work and group work		Fairs/events/bring-and-buy	X

Source: Prepared by CARSA; 'X' stands for the key teaching method and is usually limited to three options while '✓' marks additional/complementary teaching methods. 'ICT' indicates where it constructs a major part.

Learning-by-doing approach is in the heart of the initiative and is described by the following figure⁴⁶⁴.

⁴⁶⁴ "How to motivate young people - Italian PF's Central Office experience" (n.d.).



Source: Practice enterprise concept for young people– Simulimpresa (n.d.).

Figure 38: Learning by doing in Practice Firm methodology

The learning process is highly **individualised**. Trainees manage a role assigned by the work place while carrying out different tasks and acquiring process related competences. Trainees rotate in the practice enterprise, thus, they experience all workplaces to let their skills and abilities emerge.

Let them do alone and self-directed learning is an important pedagogical component. The time to move is individual and depends on each trainee and his/her ability to learn in the specific work place and reach a given objective. The flexible procedures allow sufficient time for the student to understand the duty and responsibility. Each trainee manages his/her role and participates in a process of technical knowledge transfer. Thus, trainers are crucial to the initiative, having the role of facilitators. Integration of subjects is also an important aspect during the teaching process.

SIMULIMPRESA is one of the EUROPEN-PEN members with the widest scope of the practice firm concept implementation. As said, the programme is addressed to different target groups, both youth and adults, in general or on the margins of labour markets.

Besides the clear connection to the business functions – departments and working places-, the teaching methods are fit to address key **transversal skills**: acting alone, team-work and cooperation, sense of responsibility, proposal capability and self-learning; relevant for the world of work and entrepreneurship.

The PE prepares students to make quick decisions, be flexible and adapt attitude in line with changing situations, as well as interact with other people. Trainees are always involved in the decision making process with the PE Director / Trainer and thus, they are challenged with ideas on new processes, products or services.

Based on the above described pedagogical principles, the trainers provide support for the learning environment in a number of ways⁴⁶⁵:

- enable participants to explore options and see the outcome of their actions;
- give participants sufficient time to work together to allow persistence while resisting to the natural urge to “help”;
- be consistent and predictable when responding to participants when asking for help but allowing them to be as independent as possible;

⁴⁶⁵ How to motivate young people - Italian PF's Central Office experience (n.d.).

- offer participants opportunities for cooperation and direct interaction;
- provide acceptable challenges and allow for initial trial and errors;
- allow participants to evaluate their own performance and give their opinions;
- give praise and rewards upon students' effort but not excessively.

Besides the teacher/trainer, the SIMULIMPRESA programme established mandatory involvement of **a 'mentor company'** – a real enterprise being simulated by a 'practice firm'. Thus, representatives of different organisation interact with trainees, provides them with technical information in their field and their business experience, coaching and mentoring on the process.

Said in the programme's "brief description" (n.d.)⁴⁶⁶, the cooperation with the external mentor companies brings several advantages:

- ensuring a permanent relation with the local business world and with the real challenges of companies;
- bringing the companies closer to education/training world and vice-versa;
- integrating of the students directly into the real companies;
- simulating organisations and running: enterprise and offices framework;
- technical assistance : products features, list of raw materials, prices.

SIMULIMPRESA practice firm methodology does not involve alumni in the teaching.

Practice Enterprise at lower secondary school level

Good example for practice enterprises at secondary I school level aims at developing linguistic, expressive, communicative and logical mathematical abilities as well as developing soft skills such as teamwork, organisation, decision-taking and flexibility in managing new and unforeseen situations. It is important that the students act as a group, not individually, so all decisions are taken collectively – **teamwork and join decision making**. In its activities, the 'practice firm' initiative also focuses on **identity**. This is for example done when student's choices are based on their life and experience and associated with history, local economy and territory. **The learning process is focused on doing**. The mentioned ideas are turned into practice when the students develop practice firm labs. It involves the preparation of documents and papers, the decisions on products, catalogue and marketing campaigns, and the association between the practice enterprise and the local community (shops, banks, offices and firms). Taking part of international fairs, students plan activities from stand to special offers, from meetings to firm presentation, to videos, flyers etc.

Practice Enterprise Course at University⁴⁶⁷

Every year, University of Bologna organize a 1 semester 'Simulimpresa course'. As expressed on the website, lecturing is the additional teaching method used by the University on the top of the 'PRACTICE ENTERPRISE' methodology.

Fair and Competitions

The fairs and competitions complement the way how individual 'practice firm' courses are implemented by different institutions (curricular, extra-curricular, specific training programmes for workers or unemployed...). Moreover, the connection to the global network of practice firms gives the trainees / trainers a unique opportunity to update their knowledge about latest international

⁴⁶⁶ [presentation in pdf]. Not available online.

⁴⁶⁷ 44121 – Simulimpresa (2014/2015), 44121 – Simulimpresa (2013/2014), or 56491 - Simulimpresa (First Semester) (2012/2013)

trade rules and legislation as well as to communicate in English, use online tools, and in general, to be more confident to do business across borders.

11.4.2 Teachers training: teaching guidelines and train-the-educator

“PF trainer’s mission is to unfold in young people desire and ability “to become entrepreneurs - people who will launch and successfully develop their own commercial or social ventures, or who will become innovators in the organisations they will work.” (Brief description, n.d.)

The SIMULIMPRESA programme and the ‘practice firm’ concept acknowledge the crucial, but changing, role of trainer/teacher. It is recognised that teaching within ‘practice enterprise’ concept is specific, determined by learning by doing approach, which is different from other subjects. Hence, the CO puts in place a system of teacher/trainer training, support programs for trainers and general advice. **The training of PE trainers is mandatory in Italy.** The training is based on a **face-to-face approach on-demand** and it follows a structured programme. It is provided both, **as initial training and as further training.** In line, an appropriate number of training sessions are organized. Initially, these aim at awarding the certificate to develop a practice firm and subsequently, at training in different practice enterprise activities and possible changes.

Prior to becoming a PE trainer, participation in **initial training certified by an attestation** is required. This training focuses on the PE methodology with an objective to develop skills required to operate and program the activities of the simulated enterprise. The initial training is organized approximately one month before the teaching begins and supplies all tools necessary for launch of a Practice Enterprise. It has form of a two days training - 8 hours per day - and is organized in groups of maximum 20 PF trainers.

The training is provided around the following aspects⁴⁶⁸:

- Introduction: about SIMULIMPRESA evolution and methodology, Italian and international network;
- About the model: Mother company and relationships with the territory, Director and PF trainers in the practice firm: roles and functions; Co-ordination between simulation and theoretical lessons; Users autonomy level; Management of errors; Communication tools ; Pedagogical contract and self-learning; Users rotation in different working places; and Assessment criteria and tools;
- Practice firm and Central Office: structure of practice firm; Central office structure and offered services; Documents flows between practice firm and Central Office; Standards of network running; How to set up a practice firm in a network context; Services planning; Stamps and headed paper; Simulimpresa and European – Pen International logos; Mail standards; E-mail and Internet (digital identity);
- Discussion;
- Setting up the practice firm: Departments individuation; Working place definition; Procedures and working tasks; Internal documents in the practice firm;
- Working groups: Working places and departments structure by target groups; Job descriptions development; Procedures development; Results comparison; Next activities planning; Conclusions;
- Working groups results feed-back;
- Conclusions.

⁴⁶⁸ Partners’ experience in trainers training analysis (2012). Practice Firm Trainers’ Training Programme (PFTT) No. LLP-LdV-TOI-2012-LT-0109. [EU project deliverable]. Available at: <http://www.adam-europe.eu/adam/project/view.htm?prj=10115&page=FILES#.VgKvpUblbw1>

The **updating sessions** for trainers on relevant topics related to changes in the organisation of the activities of the national PE network are organized twice a year.

As such, the CO prepares the PE trainer for his role and supports him/her during the PE organisation and moderation, and the trainees' motivation and empowerment.

Finally, the **communication between the COs and the trainers** and knowledge sharing associated with it usually happens on daily basis. For instance, the trainers may consult with the Central Office about new international trade regulation or similar.

To **validate the results of the simulations**, the meetings with the trainers are organized every month. Besides, **other meetings** serve to set up standards for procedures and to reach a high quality for the national and international network⁴⁶⁹.

European Practice Firm Trainers Training Programme⁴⁷⁰

It should be noted that only a few Central Offices in EUROPEAN-PEN network are assigned by their national ministries to educate and certify trainers and overall. Moreover, trainings are not provided by specific training institutions within a formal education system in any of the partner countries that would prepare PE trainers for working at a PE.

Interestingly, most Central Offices under EUROPEAN-PEN network provided PF Trainer Training, but no knowledge, experience and practice exchange among COs existed. Some countries established the PFTT as mandatory (e.g. Italy with SIMULIMPRESA), other countries have not. This fact led to the creation of the PFTT programme based on gathered and analysed experiences and practices adapted to the cultural and political environments of various European countries.

PFTT programme for initial and updating training has 8 areas⁴⁷¹: Definition of the PF, National and International network, Pedagogical staff, Pedagogical methods, Pedagogical tools, Central office, First steps to create a PE, and EUROPEAN – PEN International

Ideal PE trainer profile

Under SIMULIMPRESA programme, a **trainer's role in PEs changes from the more traditional instructor** to the more complex one of helping the learning processes for learners who may differ greatly in terms of learning needs. Trainers' responsibilities are **broadened**, including **mentoring and counselling**, and quality assurance.

The trainer is the PE expert in the reference field in which he/she works, treating the students as "staff". Several trainers are involved in delivering one PE. One of the PE trainers is assigned with the role of the PE Director. Jointly, the team of trainers collaborates actively in setting up the practice enterprise and defining personal training. Other tasks include assigning workloads, resolving problems, correcting errors or stimulating working autonomy. Further, PE trainer checks trainee's competences acquired and suggest the time to stay in the working place/department. The trainers plan the course flexibly especially with complementary courses, and ultimately, he/she motivates students. PE trainers have a decisive role in the process of learning in PE.

Following the 3 pillars of the practice firm concept (see Chapter 11.2.2), the PE teacher/trainer should acquire⁴⁷²:

⁴⁶⁹ "How to motivate young people - Italian PF's Central Office experience" (n.d.). [pdf presentation]. Not available online.

⁴⁷⁰ Practice Firms Trainers Training Programme (n.d.). Available at: <http://pftt.euopen.info/ProjectDescription.aspx>

⁴⁷¹ PFTT Programme: Initial and updating sessions (n.d.). [EU project deliverable]. Available at: <http://www.adam-europe.eu/prj/10115/prj/PFTT%20programme%20final%20version.pdf>

⁴⁷² "Brief Description" (n.d.).

- professional skills, such as knowledge and skills related to business administration, pricing, marketing principles etc
- educational and pedagogy skills including learning strategies, teaching experience, psychology of teaching, learning by doing methods, project work, techniques of motivation etc
- leadership and human resources competences such as group dynamics, guidance of employees, conflict solving strategies, ability to work in a team, ability to improvise and to take innovative teaching actions, ability to face mistakes and to adequately react to mistakes.



Source: Brief Description (n.d.)

Figure 39: Ideal PE trainer profile

A single trainer would hardly meet all the requirements. Teacher/trainer shall be aware of their abilities and willing to improve them. To overcome the competence gap of a single trainer, an advice from other fellow teachers and PE trainers as well as experts from business, is crucial. In most cases, the PE trainers require assistance in foreign languages, law, accounting etc. Additionally, CO provides with advice and further consultation.

Thus, the enchantment of motivation among teachers considers aspects such as⁴⁷³ insecurity, ability to teach in different fields, knowledge of business world, assessment confronting and change of roles.

Importantly, the work and the connection to the mentor enterprise allow the PE trainer keeping up to date with changes in the business/industry area, e.g. regulations or innovation.

Interestingly, school governance is often involved in the training of teachers.

⁴⁷³ "How to motivate young people - Italian PF's Central Office experience" (n.d.).

11.5 Assessment and Impacts

11.5.1 Strategy for assessment of entrepreneurship competence

Since 2001, more systematic assessment tools and certification system has been put in place within the SIMULIMPRESA programme. Italian Central Office provides clear standards to assess the trainees' and others practice enterprise participation.

Table 74: Assessment methods incorporated in the SIMULIMPRESA Practice Firm

Assessment method:	PE in Italy: SIMULIMPRESA programme
Essay	
Written Exam (written test, questionnaire based)	
Oral exam	
Self-evaluation / self-reflection	X (ICT)
Peer-evaluation (in-class) / group evaluation	
External review / Feedback from external stakeholders (including users side)	
Project work (incl. simulation project work, or work on a real business idea) / assigned task achievement	X
Presentation / pitch	
Event (e.g. faire exhibition)	✓
Application / Project or business plan	✓

Source: Prepared by CARSA; 'X' stands for the key assessment methods and is usually limited to three options while '✓' marks additional/complementary assessment methods. 'ICT' indicates where it constructs a major part

11.5.1.1 Assessment strategy related to the PE trainees' under SIMULIMPRESA programme

The key assessment methods used within SIMULIMPRESA Practice firm experience are self-assessment and assessment by the trainer. Additionally, fair and competition serves as a validation and other methods may be used by individual 'training' organisations according to their usual practice. Project work, as part of learning-by-doing, is a key experience assessed.

Additional assessment may be required by an institution implementing the PE within its usual course or programme. These are not organized within the SIMULIMPRESA programme. In the earlier mentioned 1 semester course organized by University of Bologna⁴⁷⁴, an oral exam with discussion of a thesis of max 25 pages is used as the assessment method at the end of the practice firm course.

The Central Office also identifies potential "formation (training) mistakes" of the practice firms taking part in the SIMULIMPRESA programme. Specifically, this is done through monitoring the quality of the documents prepared by the practice firms and interfering and reporting on the

⁴⁷⁴ 44121 – Simulimpresa (2014/2015), 44121 – Simulimpresa (2013/2014), or 56491 - Simulimpresa (First Semester) (2012/2013)

“mistakes” to the trainers. This allows the trainers to identify who made the mistake and fill in the individual training gaps. This is done through sending back the documents in a yellow envelope.⁴⁷⁵

Self –assessment tool for trainees⁴⁷⁶

A self-assessment method is used for trainees during the period in the practice firm. It targets all kind of trainees and seeks to evaluate the skills gained per working place. The trainee is supposed to complete it upon finishing his/her period at the working place.

A self-assessment table containing open and closed questions are provided by the CO. The first part asks information about: Person, Equipment used, Functions/tasks developed, Reached objectives, Difficulties and Suggestions

Second part assesses the following:

- Application of procedures: wrong – uncertain – sure - autonomous
- Personal attitude: careless – absent - participating
- Relationship in the group: negative – cooperative - indifferent
- Department organisation: scarce – sufficient – good - excellent

Assessment carried out by trainers⁴⁷⁷

Two dimensions are assessed by trainers.

Technical skills assessment has an objective to evaluate the acquired skills for each working place. It is carried out by the end the trainee is leaving a workplace. The learning activity is broken down into the PE functions or offices, Competences (places) and contents (contents of the competences) while the evaluation scale ranges between acquired – acquired partly – not acquired.

Table 75: Outlines for the assessment of technical skills carried out by the trainer

PE function or office	Competence	Contents	Acquired	Acquired partly	No acquired
Office 1	Place 1	(defined contents of the competence)			
Office 2	Place 2				
..	..				
Office n	Place n				

Social and professional behaviour are assessed by the trainer at least twice, mid-term and end of PE experience. Here, the learning activity is assessed within scale of four descriptors.

⁴⁷⁵ Translated from.

⁴⁷⁶ “Assessment tools” (n.d.). Prepared by Centrale Nazionale di Simulazione Istituto Don Calabria. [pdf]. Not available online.

⁴⁷⁷ Idem.

Table 76: Assessment table for Social behaviour

Punctuality	Very punctual	Justified and not many absences / rarely in delay	Justified and frequent absences / frequently in delay	Continuous absences / usually in delay
Relationship	Very friendly / good relationship with others	Enough relationship with others / He/she open to suggestions	Not very good relationship with others	Sudden changes of mood / not very friendly
Autonomy and sense of responsibility	Very responsible / able to work alone	Usually he/she works alone but there are not notified mistakes	He/she needs help / some lacks	He/she needs constant help / not very responsible
Spirit of initiative and influenceable status	He/she anticipates the work to do / He/she is able to make others accepting his/her ideas easily	Sometimes he/she takes the initiative	He/she have to be trained step by step / He/she doesn't have initiative	He/she doesn't have initiative / He/she follows the group
Adaptability	He/she integrates easily with group	He/she integrates after a period of adaptation	Some reservations towards group	Usually banished of one's free will

Source: Assessment tools (n.d.)

Table 77: Assessment table for professional behaviour

Facility of learning	He/she learns and solves alone some problems	He/she solves daily problems / sometimes he/she asks help	He/she asks often help, but founds the solutions quickly	The least problem seems without solution
Work quality	Exact work, nearly always perfect	Few mistakes	Few mistakes, but mediocre quality	Lots of mistakes and insufficient quality
Quickness of carrying out	Carrying out very quick	Carrying out in foreseen times	Activity slightly below the average	Very slow
Check of work	He/she checks his/her work spontaneously / he/she diagnoses his/her mistakes	He/she checks his/her work without individualizing all mistakes	He/she checks his/her work rarely, but he/she individualizes his/her mistakes	He/she doesn't check his/her work / he/she doesn't individualize his/her mistakes
Interest in professional role	Curious, fond, / he/she keeps informed and reads up himself/herself	Interested but passive / bashful curiosity	Not too interested, passive / he/she doesn't show curiosity	Not interested / disposed towards refusal

Source: Assessment tools (n.d.)

Participation in the fairs and competitions

The international and national fairs and competitions represent an additional validation component for practice firms. Competition applications⁴⁷⁸ are reviewed by external jury while during

⁴⁷⁸ "7th International Practice enterprises trade fair in Italy – COMPETITIONS" (n.d.). Prepared by Centrale Nazionale di Simulazione Istituto Don Calabria – Ferrara. [competition registration]. Available at: <http://www.simulimpresa.com/go/Events/fiera/Competitions.pdf>

international fairs, individual PEs obtain feedback from fellow PEs, trainers, CO, business people and others.

Table 78: Assessment criteria of SIMULIMPRESA PE competitions (2015)

Competition	Assessment criteria	What, when and by whom
1. Best design stand	<ul style="list-style-type: none"> - general appearance of the stand (originality, design, communication) - - use of the material, use of logos and quality of materials during exchanges 	assessed during the Fair, by the visitors and the external jury
2. Most professional and courteous practice firm	<ul style="list-style-type: none"> - behaviour towards customers (customer acceptance, ability to communicate in mother and foreign language) - hospitality, professional appearance and behaviour 	assessed during the Fair, by the visitors and the external jury
3. Best marketing, for the best		
'Spots'	<ul style="list-style-type: none"> - project originality - project adequacy with the PE's business - quality of artistic proposal 	Based on a presentation video of 30-60seconds containing a short description and in English; assessed by external jury.
'Look: here I am!'	<ul style="list-style-type: none"> - design - - originality - - information values - - ability to attract interest 	A powerpoint or a movie of 2-3 minutes containing a presentation of a city/country highlighting the historical, artistic, cultural, and environmental uses, customs, habits; in English or native language with EN subtitles; assessed by external jury.
'best catalogue / paper kit'		by the Italian Central Office and ther external jury

Source: prepared by CARSA based on "7th International Practice enterprises trade fair in Italy – Competitions" (n.d.).

11.5.1.2 Self-assessment for PE trainers⁴⁷⁹

The trainer's self-reflection on the activity done in the PE is a valid tool for planning eventual changes in the work strategy the following aspects are addressed:

- **Interacting with the trainees** through an entrepreneurial behaviour in order to improve the efficiency, the quality and the enterprise performance: Interacting – interacting by chance – rarely – never
- **Active cooperation with the director** for running the PE either regarding his/her competences definition, or those of individual trial courses; Verifying the acquired skills in order to suggest always-sometimes-rarely the time to spend in my department / Leaving all discretionary power to the Director for defining his/her competences or those of individual trial courses; Never checking the acquired skills.

⁴⁷⁹ Idem.

- **Teamwork:** always-sometimes-rarely-never working in team for planning the tasks, solving the criticality, correcting the errors by promoting the autonomy and responsibility of participants.
- **Flexible interacting within didactic formulating:** from 'Adapting the application flexibility of the didactic programming by taking into account the obtained results by comparison with the foreseen standards and staff feedback' to 'Acting for the rigid respect of didactic programming'
- **Initiative:**
 - A Creating opportunities, minimizing the problems, involving the participants by preparing them in advance and motivational support in case of crises. Helping them to motivate the choices and showing them the alternative cost-benefits.
 - B Acting in present situations, involving the participants and recognizing the opportunities and the problems. Justifying the participants' trial without taking into account the reasons that brought them to avoid the alternatives.
 - C Always constant in overcoming the obstacles, involving the participants for a common action, defining some strategies without justifying the choices.
 - D Not always able to make use the opportunities, by developing action strategies, by involving the participants only when necessary.
- **Participant development by respecting individuality**
 - A Promoting the participant's autonomy and responsibility.
Making an engagement for a cooperative climate and facilitating the proposal skills, by an attentive supervision.
 - B Making an engagement for the participant's comprehension of tasks importance. Promoting the team work and skills passage between participants.
 - C Offering explanations when requested, supervising the participant work by limiting his/her action field and, if necessary, promoting the objectives achievement instead of the single steps comprehension.
 - D Acting by using the "fault attribution" in relation to errors, acting instead of the participant when this doesn't find the solutions within short time. Interacting by "each on its own" and who has the skills must transfer them to the new participant.

Self-assessment tool for PE Directors⁴⁸⁰

The specific role of PE Director requires his/her additional self-reflection on the activity done in the practice firms. It serves to plan eventual changes in the work strategy. PE Director evaluates the following aspects by choosing one statement out of 4 graduating options.

- Verifying the correct application of the methodology: how often and in terms of objective versus subjective instruments for a qualitative/ quantitative evaluation
- Definition of organizational aspects through the staff: in terms of distributing the human and technical resources (how often), use of the enterprise planning instruments (correctly, with control, without and sometimes, never) and defining time and priority (how often)
- Warranty of didactic and training objectives achievement: in terms of providing feedback to the staff and accepting suggestions from the trainer (how often)

⁴⁸⁰ Idem.

- Working group leader: from ‘Managing internal group conflicts and encouraging the problem solving, by having a good dialogue with everybody’ to ‘Not facilitating the problem solving within the group and not sharing the important information’
- Motivation level control: from ‘involving participants and generating motivation’ to ‘not promoting and not interested in the group climate’
- Critical analysis: how often proposing and improving
- Acting with autonomy and responsibility, relationship skills, leadership: from ‘Helping the others to solve possible problems and involving the to a good cooperation in an extra work’ to ‘Often avoiding the work to do and leaving it to others, limiting the staff cooperation’
- Participating to initiatives promoted by the central office (how often)

11.5.1.3 Quality Practice Firm – EUROPEAN Certification

Within the SIMULIMPRESA programme, Practice Firms may obtain the “Quality Practice Firm” EUROPEAN Certification.

Table 79: EUROPEAN Certification “Quality Practice Firm”

Class Parameters	Class sections
Class 1: Physical parameters	Section A - Physical structure Section B- Organizational Structure Section C - Management structure
Class 2: Process parameters	Section D - Application of the model Section E- Elements of teaching / Didactical elements
Class 3: Service Level	Section F - Basic service data Section G- Enterprise Screening Section H - Document Quality

Source: prepared by CARSA, based on information available at SIMULIMPRESA website

In 2014, there are 8 practice enterprises certified⁴⁸¹, half of them from Trento region.

Once having become the ‘Quality Practice Firm’, the PE have right to request the certificate for minimum students’ competences issued by EUROPEAN and evaluating their knowledge, skills and behaviours.

11.5.1.4 European Minimum Quality Standards (EMQS)

Moreover, being part of the international network of practice firms, several partners initiated a project ‘Analysis and Development of the minimum Quality Standards for Practice Firms towards a Common European Certification’⁴⁸². This project with a goal to measure if the functioning of the practice firm is close to business reality, investigated by employers, employees, job seekers and practice firms

⁴⁸¹ Imprese Certificate (n.d.). Programme SIMULIMPRESA. Available at: <http://www.simulimpresa.com/go/index.php/certif/is-certif>

⁴⁸² Leonardo Project Flyers: EUROPEAN PEN International (n.d.). Available at: <http://www.europen.info/index.php?id=81&L=2%2F%2Fconlib>

The study results has been used across EUROOPEN member states in different ways while concrete outcomes – European Minimum Quality Standards (EMQS)⁴⁸³ - have form of two quality certificates: **one for practice firms** which mainly focuses on the practical organization, on learning contents and on guidance; the **second is for the participants**. The key qualifications are broadly in line with the European Union in December 2006⁴⁸⁴.

11.5.2 Impact, evaluation and monitoring

The PE Central Office coordinates the Italian network and do not monitor the key output indicators on a regular basis. The Table 80 shows a number of practice enterprises and number of involved trainees in 20 years of SIMULIMPRESA existence, i.e. PE existence in Italy.

Table 80: Number of Practice Firms and trainees per type of PE (in Italy, by 2014)

Practice Enterprise (PE) Typology	No of PE opened simultaneously	No of trainees / year
For Adults	75	5.000
In private companies	5	200
For people with disabilities	4	80
In secondary I level schools	5	150
In secondary II level schools	98	4.500
In colleges or professional schools	23	600
In Universities	6	200
Other (Chamber of Commerce etc)	8	450
Total	224	11.180

Source: prepared by CARSA, based on "Practice enterprise concept for young people- Simulimpresa" (n.d.).

Note: In total, 224 practice firms were active simultaneously, while 400 PE exists in the database. This is due to the fact that the PE may be paused and re-activated.

Evaluation strategy consists of: reviewing the filled-in assessment tables (see Chapter 5.1) and taking into account the feedback provided by the trainers during meetings.

Central office is in close contact with trainers. To verify the results of the activities, meetings with the trainers are organized each month in order to discuss the simulation process. Additional meetings are organized in order to set up standards for the procedures and to reach a high quality for the national and international network. The Italian network is active with many proposals to improve the quality of the system.

From the self-assessment tools for trainees, the information about their difficulties and their suggestions may provide with an additional insight.

Based on the information available, there seems to be missing any systematic evaluation of the SIMULIMPRESA programme, in terms of output, impacts, effectiveness, relevance etc. However,

⁴⁸³ EUROOPEN (n.d.). [flyer in pdf]. Available at http://www.peninternational.info/fileadmin/EUROOPEN_Flyer/0709-14_Flyer_Europen.pdf

⁴⁸⁴ European Parliament and Council (2006). Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning. Official Journal of the European Union, (2006/962/EC).

there is a constant assessment of the contents, documents and work quality done by the Central Office. The potential impact areas appear to be: personal development (enhance skills, especially collaboration), initial education and further education (increase school attendance, updated VET skills), employability and foundation of start-ups. Beyond this, the SIMULIMPRESA programme has an important role when integrating people with disabilities into the society.

There is limited information publically available on the impacts linked to the SIMULIMPRESA programme. In the occasion of several meetings and discussions, trainees identified higher motivation and engagement, learning while enjoying, for instance, thanks to use of different knowledge and different tools simultaneously, as positive aspects of their participation in the PE. Further, they believe that they acquire feeling of safety, reliability and self/confidence. The trainers believe that the trainees are better prepared to comply with work and life requirements in the future, and that they are ready to confront different problems without panicking, showing flexibility and adaptation skills. Moreover, the teachers points out that the differences in pupils' social, cultural and economic background, together with differences regarding their skills, have become advantages in the PE.

11.5.3 Example of show cases

The **Autonomous Province of Trento** promotes the didactic-pedagogical concept. The province have provided initial training for young people aged 14-18 years to support their personal and professional development and to reduce likelihood of students leaving school early. They have set up around 36 practice companies with more than 900 young people involved, contributing in total with around 6.500 working hours⁴⁸⁵.



Practice Firm Confetti Panfilo Serafini⁴⁸⁶ srl Sulmona is a certified enterprise awarded with a quality practice firm 0093-2013. This PF was established in 2002 at the public secondary school “Panfilo Serafini” under regional project funded from EU funds combatting against low school attendance⁴⁸⁷. The PF employs around 25 pupils around the age of 11.

⁴⁸⁵ “Practice enterprise concept for young people– Simulimpresa” (n.d.).

⁴⁸⁶ Confetti Panfilo Serafini srl [general website]: Available at: <http://www.practicefirms.net/IT01COZ>

⁴⁸⁷ Bulletin No 29 (2005).

11.6 Sustainability and transferability

11.6.1 Sustainable business and financial model

The SIMULIMPRESA programme is mainly financed by the Italian Central Office. European grants (e.g. Lifelong Learning Programme (LLP) - The Leonardo da Vinci sub-programme, and the most recent ERASMUS+⁴⁸⁸) serves to gather good practice across EUROPEN-PEN International Network and standardize certain processes related to the PE concept, e.g. training programme, assessment tools.

The specific implementation also relies on the involvement of enterprises and trainers.

11.6.2 Key sustainable aspects

The positive results of the practice firm experience initiated in 1994/95 have attracted a notable interest at regional and national level and different public and private key actors has been involved since.

The concept is highly transferable and the critical mass of trainers implementing organisations, as well as mentor companies, has been reached.

The central coordination and continuous effort of the Central Office to improve procedures are the key sustainable aspects. The systematization of assessment strategy, intensive effort in teacher training and leveraging with other EUROPEN-PEN partners seem to endorse SIMULIMPRESA's sustainability even further.

Sustainability is also ensured by the central coordination complemented by local reference points and the successful collaboration with mentor companies without which there would not be the PE simulation.

11.6.3 Potential transferability

Practice Firm concept, on which the SIMULIMPRESA programme is based, is highly transferable across borders, across educational levels and is applicable to any sector. Practice firm based programmes are flexible and adaptable to different types of education, and locally to different situations. The SIMULIMPRESA programme is one of those EUROPEN-PEN International members with the largest implementation scope, ranging from lower secondary to adult learning, and including unemployed or people on the edge of the labour market, as well as people with disabilities.

11.7 Key lessons and observations

Central coordination and constant effort in process quality improvement ensured the 20 years of the SIMULIMPRESA programme

The Central Office continuously seeks improvements in the PE processes, working places descriptions etc. Specific meetings are held with trainers aiming to identify weak points. This lead to several ideas proposed to the national network, accepted by the members and implemented. For instance, more systemic strategy to assess trainees, PE and trainers has been put in place in 2001. The SIMULIMPRESA programme takes part in many European projects with the role of organisation from whom a good practice is transferred within EUROPEN network members.

⁴⁸⁸ Lifelong Learning Programme – European Commission (n.d.). Available at: http://ec.europa.eu/education/tools/llp_en.htm

Continuous interaction not only motivates trainers but also enables high learning factor among them.

Communication and daily contact between the central office and trainers not only motivate and encourage trainers but also transferring knowledge between them. There exist a high learning factor, especially in terms of updating on new legal frameworks or international trade which is then transferred to trainees. Trainers' motivation should overcome their insecurity, their qualification in one field mainly, lack of business knowledge, and the change of their role from traditional teaching to facilitating. It is also important to raise the PE trainers' profile.

Mentor enterprise connects the PE and the trainees to the real world.

Mentor enterprise provides with a real example and as such, connects the simulated firm and the working team of trainees to the real world. In Italy, the mentor company which is simulated by the 'practice enterprise' is mandatory. This is not a requirement for all EUROOPEN network member countries. The mentor company seems to be a motivating aspect for trainees, especially for such organisations as Lamborghini.

The mentor enterprises also ensure that trainees have the opportunity to experience changing environment, keeping them updated on the developments in business but also technical and technological area all the time.

Other remarks:

The competences seem to be two-folded, firstly, they are tight with the working place / enterprise function; secondly, they are transversal. This fact is reflected into the assessment tool for trainers assessing the trainees.

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Welcome to EUROOPEN-PEN International (n.d.). Available at: <http://www.europen.info/>

Interviewed organisation/persons:

Ms. Cristina Crisan (national contact point for the SIMULIMPRESA programme, representative of the Central Office)

12 Case Study 10: TRANSITION project - Incubation services for social innovators

Transnational Network for Social Innovation Incubation – TRANSITION⁴⁸⁹ – is a 30-months project that supports the scaling-up of social innovations across Europe. The project is coordinated by EBN⁴⁹⁰, a network of around 160+ quality-certified business and innovation centres (EU BICs) and 100 other organisations that support the development and growth of innovative entrepreneurs, start-ups and SMEs. Other partners are all pioneers in social innovation and incubation and provide support to the social innovators in 6 scaling up centres representing 6 geographical locations in Europe. Further NESTA⁴⁹¹ and Social Innovation Exchange (SIX)⁴⁹² complement with expertise in social innovation evaluation and outreach to social innovation community. As such, the project partners combine knowledge from the traditional innovation support as well as social innovation sector.

EBN consists of many types of organisations, classified under the following categories: business support organisations, universities and business schools, corporates and investors, clusters and innovations parks or governmental organisations. The certified business innovation centres (EU BIC) includes business and innovation centres, incubators, accelerators and other support organisations and are an instrument for regional development initially conceived with support of the European Commission in the mid 80s. EBN provides a unique certification and benchmarking system, networking, and events and exchange forums. EBN represents an international hub with efficient EU-funded projects collaborations, and an EU gateway for governmental organisations.

⁴⁸⁹ TRANSITION project [project website]. Available at: <http://transitionproject.eu>

⁴⁹⁰ EBN – innovation network [general website]. Available at: <http://ebn.be>

⁴⁹¹ NESTA – innovation in the UK [general website]. Available at: www.nesta.org.uk

⁴⁹² Social Innovation Exchange [general website]. Available at: <http://www.socialinnovationexchange.org>

12.1 Summary

Transnational Network for Social Innovation Incubation – TRANSITION⁴⁹³ – is a 30-month project involving 9 partners from 7 countries, namely Belgium, Finland, France, Ireland, Italy, Spain and the UK, coordinated by the European Business and Innovation Centre Network (EBN)⁴⁹⁴. TRANSITION project has been born in response to the EU call for more social innovation⁴⁹⁵ and brings together established partners within the fields of social innovation and innovation-based incubation. It aims at scaling-up social innovations (SI) across Europe by developing a new support model – so called TRANSITION model or TRANSITION Framework⁴⁹⁶ which is based on Social Innovation Journey (SIJ)⁴⁹⁷ concept. The project counts on six Scaling Centres⁴⁹⁸ which provide the concrete scaling up support (incubation programme) to the social innovators. The TRANSITION project started in 2013 and a first round of social innovation support have been delivered in 2014.

The TRANSITION project addresses a variety of entrepreneurship competences covering all components – **knowledge, skills and attitudes** but being predominant to ‘knowledge’ and ‘skills’. The competences related to social aspects are in the core of the programme, alongside competences related to the business and innovation. Being incubation programme, it employs mainly learning by doing approach and self-reflection. The real learning experience is implemented through face-to-face interaction through ‘spark session’ events, thematic workshops and one-to-one coaching and mentoring. The ICT is used to overcome eventual geographical distance, e.g. as a follow up of the soft-landing period, when social innovators stay in contact with mentors online.

The primary target group are social innovators defined as persons with ideas and social impact. Scaling-up centres (SCs) are targeted by shared learning (among others) and the ‘TRANSITION common framework’.

Regarding the first round of TRANSITION scaling support (in 2014), **TRANSITION reached out to** more than 500 social innovators through more general sessions, more than 100 social innovations have been assessed and 90 entered the incubation programmes with variable drop-out rate across SCs but living up the expectation overall. **It is too early to talk about overall impacts** of the TRANSITION project, however, it is expected that adapted social innovation support and the effort given in development of social impact evaluation matrices will positively influence social innovators (more social innovators and quicker social innovation journey) and social innovation incubators (increased number of scaling up centres and quality of the support given to the social innovators).

The initiative shows a **good level of sustainability**. Although its financial model is primarily based on the EU grant (for 2,5 years), by the project’s activities, and by involving key players of traditional innovation-based incubation as well as social innovation, the TRANSITION model and its

⁴⁹³ TRANSITION project [project website]. Available at: <http://transitionproject.eu>

⁴⁹⁴ EBN – innovation network [general website]. Available at: <http://ebn.be>

⁴⁹⁵ The EU effort related to the social innovation and the Innovation Union Flagship Initiative, commitment 27-B; and more precisely, Call for proposals No FP7-CDRP-2013-INCUBATORS

⁴⁹⁶ ‘TRANSITION framework’ or ‘TRANSITION model’ or sometimes also referred to as ‘Social innovation journey model’ is a social innovation incubation/acceleration model based on which business support organisations such as incubators, accelerators and similar may provide services to social innovators in order to effectively scale up social innovations.

⁴⁹⁷ **Social Innovation Journey (SIJ)**, name issued under creative commons licence by scaling centre “Polimi Desis lab” is a concept focusing on the sequence of steps that a lead innovator may go through during the scaling process. Reference: Meroni et al. (2013). ‘Design for social innovation as a form of designing activism. An action format’. [conference paper]. Social Frontiers: The Next Edge of Social Innovation Research. Published online by NESTA in scribd.com. December 2013.

⁴⁹⁸ France – Paris Region Innovation Centre (PRICE); Ireland – WestBIC; Italy – Politecnico Milano; Spain – Denokinn; UK – The Young Foundation. Additional partner is to be confirmed.

implementation is being sustained beyond the projects' life.

Apart from the already mentioned EU grant, the **TRANSITION project's business model** uses co-financing from partners' own sources and the enthusiasm of social innovation stakeholders (e.g. mentors as volunteers). At the moment, social innovators are not asked to pay any fee for the TRANSITION incubation support services. From the projects' design perspective, the sustainability is ensured through two activities: Promoting Social Innovation Incubation activities and results and developing a European Social Innovation Incubation Network – ESIIN). The combination of the TRANSITION framework ensuring flexibility, and the 6 SCs implementations showing its concrete use, is the key for sustainable continuation from the model design perspective, but also proves good level of transferability.

TRANSITION is therefore **potentially transferable across different regions and across different social innovation sectors**. All these aspects are considered in the project's activities and the TRANSITION model. The model key characteristics contributing to its high level of transferability lays on its comprehensiveness and adaptability. The model takes into account both, different social innovation maturity and different social innovators' competences. Moreover, it enables adaptation to the local environment and it learns from combination of traditional and social innovation expertise. The transferability is also ensured within the TRANSITION project design (WP3-WP5) and supported by project partners'.

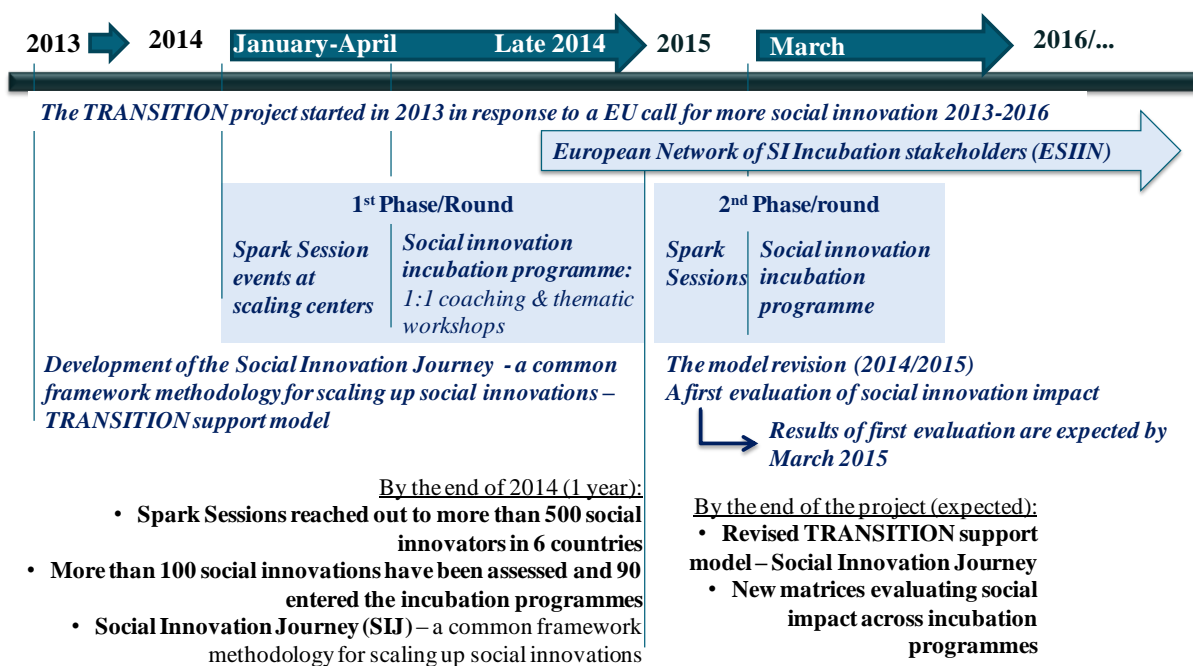
In brief, the first year of the TRANSITION project and the first round of provided support showed that **methods and tools effective to support social innovation are not new compared to the traditional ones**. The approach and wider perspective is new. Compared to the traditional for profit entrepreneurs, for social innovators, engagement of social innovation community has even higher importance (feedback from large number of people) and Social Impact creation is an important competence. Measuring the social impacts remains a key bottleneck. Regarding effective training settings, 1:1 coaching and mentoring while matching the right mentor with the social innovation is a key. Further, innovators in their beginnings seek to learn more knowledge and skills related to the business development activities, opposite to more mature innovations, where innovators seek more informal way of learning (e.g. networking).

12.1.1 InfoBox

Table 81: TRANSITION project- InfoBox

TRANSITION project: InfoBox	
Implementation:	TRANSITION project: 2013-2016 initiating social innovation incubation support in 6 scaling up centres and a network with a continuous character.
Focus Area	New teaching/business support methods and models; Learning entrepreneurship competences
Targeted education level	Other educational level
Main target group of the initiative	Learners: Social innovators (of any age)
Secondary target group:	Others: Incubators/Accelerators (as organisations supporting social innovations and their key personnel), mentors
Entrepreneurial competences	Knowledge / Skills, attitude in a limited way.
Teaching approach:	Learning-by-doing, (Self-)reflection
Learning settings	Mainly face-to-face; at the incubators' premises, or other premises; form of non-formal and informal learning. Specific activities vary in different countries but follow TRANSITION framework.
Assessment methods:	Application to the programme provides with initial assessment of the social idea; Self-assessment and work on a real project combined with peer and external experts' and users' review and presentation / pitches.
Impact area:	Scaling up (accelerating) start-ups (social innovations) Foundation of start-ups (social innovation) and overall, the initiative focuses on social impact.
Output dimensions	<ul style="list-style-type: none"> - Spark Sessions reached out to more than 500 social innovators - More than 100 social innovations have been assessed and 90 entered the incubation programmes - Learning outcomes in form of new / improved social innovation scaling up support model (TRANSITION model) - New matrices evaluating social impact across incubation programmes
Overall impacts	<ul style="list-style-type: none"> - More social innovators and quicker social innovation journey - Increased number of scaling up centres - Increased quality of the support given to the social innovators - Knowledge shared between traditional and social innovation support organisations
Resource dimensions	Total budget is 1,109,060 Euro (for the 3 year duration) Effort: The project is delivered by 9 partner organisations, while the concrete support by 6 scaling up centres (locally).
Business model	2.5 year project funded by the EC (FP7-CDRP-2013-INCUBATORS) and co-financed by consortium partners

12.1.2 Timeline and key milestones



Source: prepared by CARSA

Figure 40: The TRANSITION project – timeline and key milestones

12.2 General characteristics and core activities

12.2.1 Objectives

TRANSITION offers new paths to European Social Innovators willing to enter new stages of the Social Innovation Journey (SIJ)⁴⁹⁹. As expressed on the Transition project website, there are only a few examples where local models of social innovation have successfully scaled across Europe. TRANSITION project has been born in response to the EU call for more social innovation⁵⁰⁰. In line, the key objectives are to:

- Learn from experience of both, the social innovation community as well as traditional innovation incubators, and combine the best of social innovation and traditional innovation incubation services
- Define a common framework methodology related to the social innovation support – TRANSITION framework / TRANSITION model⁵⁰¹ – and adapt it according to the scaling centres' specificities and to the peculiarities of its catchment area
- Scale up 300 Social Innovations (SIs) across Europe through provision of dedicated intensive design, business, access to finance, legal and other support services, helping them to

⁴⁹⁹ **Social Innovation Journey (SIJ)**, name issued under creative commons licence by scaling centre "Polimi Desis lab". The SIJ is presented e.g. in Meroni et al. (2013).

⁵⁰⁰ The EU effort related to the social innovation and the Innovation Union Flagship Initiative, commitment 27-B; and more precisely, Call for proposals No FP7-CDRP-2013-INCUBATORS

⁵⁰¹ "TRANSITION framework" or "TRANSITION model" or sometimes also referred to as 'Social innovation journey model' is a social innovation incubation/acceleration model based on which business support organisations such as incubators, accelerators and similar may provide services to social innovators in order to effectively scale up social innovations.

explore new opportunities, meet new fellow travellers, listen to new mentors and open new horizons

12.2.2 Core Activities and entrepreneurship competence dimension

The TRANSITION project is built around 6 work packages/activities (WP)⁵⁰² aiming at scaling up Social Innovations across Europe (WP1, WP3), testing, validating and disseminating incubation methodologies and tools (WP2), promoting Social Innovation Incubation activities and results (WP4), developing a European Social Innovation Incubation Network – ESIIN (WP5), ensuring a smooth management and evolution of project activities (WP6). For the purpose of this case study, we focus on the following:

Table 82: TRANSITION case study core components

Core activities/components:	Focus area:	Form:	Entrepreneurship competence:
Scaling Up Innovations (WP1 and WP3)	Learning/teaching social innovation competences (through social innovation support)	Mainly face-to-face, online settings for international dimension	Knowledge/skills Partly attitude
WP2: Shared Learning	New teaching/business support methods and models (analysing/validating new scaling up model)	Face-to-face	Knowledge/skills Partly attitude

Source: prepared by CARSA for the purpose of OvEnt study

12.2.2.1 Scaling Up Social Innovations (WP1 and WP3)

Within TRANSITION project, the scaling up activities target potential and actual social innovators and are delivered by selected incubators, accelerators, and similar business support organisations called ‘Scaling Centres’ (SCs)⁵⁰³.

TRANSITION Scaling up support - Social Innovations Incubation (WP1)⁵⁰⁴

Overall, the TRANSITION support contains **scaling up on a mass-scale** through 12 events, so called “Spark Sessions”, followed by **intensive 10 months scaling programme for local Social Innovations (SIs)**. The latter provides accelerating/incubating support services in form of:

- collective workshops based on the established 4 curriculum areas⁵⁰⁵, and
- 1:1 coaching and mentoring.

The first round of the programme started in March 2014 the second has been launched in March 2015.

The WP1 activity is carried out by six scaling centres (SCs). Each SC may be focused on a different SI maturity stage - according to the Social Innovation Journey model⁵⁰⁶ - and therefore may provide

⁵⁰² WPs/Activities (n.d.). TRANSITION project. Available at: <http://transitionproject.eu/about-transition/wpsactivities>

⁵⁰³ Scaling Centres (n.d.). TRANSITION project. Available at: <http://transitionproject.eu/esiin/scaling-centres>

⁵⁰⁴ WP1: Scaling Up Innovations (n.d.). TRANSITION project. Available at: <http://transitionproject.eu/wp1-scaling-up-innovations>

⁵⁰⁵ Curriculum Summary (n.d.). TRANSITION London. [Transition brochure 2014-2015]. Available at: <http://www.launchpad.youngfoundation.org/sites/default/files/uploads/transition%20brochure.pdf>

a different set of specific support services. The incubation space and infrastructure may be provided depending on individual social innovator's needs. The SI scaling up support is, therefore, delivered either in the incubators' premises or elsewhere, but mainly face-to-face.

The TRANSITION curriculum embraces all components of entrepreneurship competence - knowledge, skills and attitudes; 'knowledge' followed by 'skills' seems to be in the main focus. The following table presents the social innovation and entrepreneurship competences embedded in the Transition thematic workshop curriculum and, generally speaking, in transition incubation programmes.

Table 83: Competences incorporated in TRANSITION Model (4 curriculum areas)

Competences:		
Transition scaling up support		
Knowledge	Skills	Attitudes
Social Business Model Canvas	Strategic skills	Vision
HR, contracting and governance	Individual and Team Assessment	Motivation
Social value proposition	Social Leadership	Social value thinking
Value proposition (community of benefit), Theory of Change / defining outcomes, Impact assessment processes (metrics and tools),	Communication and "social value" skills	Social values and social impact
Sector-specific outcome mapping	Project management and planning	Taking opportunities
Understanding your users/beneficiaries, Creating a prototype	Communication/pitches	
Trends/ macroeconomic environment, Financial model, financial scenarios, social investments	Team work	
	Innovativeness	
	Creativity	

Source: prepared by CARSA for the purpose of OvEnt study, based on available information from Curriculum Areas (TRANSITION London) and feedback from TRANSITION project leader

Regarding competences overall, the TRANSITION project focuses rather on **knowledge and skills**, while **attitude** is targeted in a very limited way, e.g. through questioning towards self-reflection, or coaching/mentoring. By its focus, TRANSITION combines business-related competences with those specific for social innovators. **Social value thinking** and **social impact creation** are the two competences typical for social innovators as compared to those in place for entrepreneurs in general. As learnt from the project's first year of existence, the difference seems to be the perspective added onto the traditional understanding of innovation.

Transnational StartUp Lab (WP3)⁵⁰⁷

Transnational StartUp Lab led by Denokinn, Young Foundation and New Factory, is an acceleration programme dedicated to six promising social innovations willing to go international.

⁵⁰⁶ Meroni, et al. (2013).

⁵⁰⁷ WP3: Transnational Start-ups Lab (n.d.). TRANSITION project. Available at: <http://transitionproject.eu/wp3-transnatio%E2%80%A6-start-ups-lab>

The main goal *is to help social innovators* to rapidly take social innovations all the way to international implementation within the time scale of the project. The Transitional StartUp Lab will be launched in 2015. As for the competences, the table above is applicable, adding specific international dimension, such as international marketing, market assessment, international scaling, or experiencing an un-known environment in a more friendly way through “soft-landing” across SCs (incubators). Overall, the 6 SIs will profit from informal:

- Business model adaptation (international) checked with local experts;
- New business model created by SIs with help of experts in order to scale in a new country;
- Access to new beneficiaries;
- Connecting with potential partners.

For this **Transnational StartUp Lab, online and face to face activities** are planned, online being mainly the enabling element overcoming distance, for continuation of activities after face-to-face soft-landing. Some activities will start in a country of origins, 3 day workshop in a new country with local experts and online support will follow the soft-landing (coming back to the country of origins). The social innovator may continue face-to-face; however on its own expenses.

12.2.2.2 Shared Learning (WP2)

This activity⁵⁰⁸ addresses the TRANSITION scaling up centres and potentially other social innovation incubators/accelerators with the main goal to share the experience and learn.

Around the scaling up process, partners have developed **a common learning methodology** that aims at generating new evidence about the role of incubation in scaling up social innovation in Europe. As such, the activity helps to improve the TRANSITION model and design suitable support activities. Alongside **analysis of effective support activities, the impacts are to be assessed** providing a matrix and methods for measuring the impact across incubation programmes.

12.2.3 Educational scope and target groups

The TRANSITION project is designed for social innovators, and can be categorized under the “other” educational level. The target group is very diverse. It further involves business support organisations with their staff and external social business representatives.

Target groups and other groups involved (Learners, Educators, Other):

- **Social Innovators** are the primary target group, defined broadly as ‘anybody with a social innovation idea’ or ‘whoever with potential social impact’. Graduates, post-graduates, university students, adults etc should obtain competences related to the social entrepreneurship and innovation through specifically tailored social innovation support (based on common TRANSITION model). In this respect, it not only focuses on start-ups but on any social innovation in any stage of its journey.
- **Accelerators, incubators and other business support organisations** are directly targeted by networking, outreach and dissemination activities. These organisations should take up the “TRANSITION model” in order to provide tailored support to more social innovations. Moreover, the TRANSITION model should also be improved from the practices of both, social innovation incubators and traditional innovation incubators. Six such organisations are part of the core consortium partners - Scaling Centres -delivering support to the social innovators during the project duration and testing the model.

⁵⁰⁸ WP2: Shared Learning (n.d). TRANSITION project. Available at: <http://transitionproject.eu/wp2-shared-learning>

Other players:

- Mentors from the business and social sector: for their own internal staff, incubators ensure that experienced mentors are available to each SIs for one-to-one support.
- Local community and social community (users): SIs are tested / validated within the community, feedback from the social innovation community is judged very important for social innovators.

Involvement of Alumni is encouraged, and the establishment of an alumni group is being discussed.

Each consortium partner has specific role in delivering the transition programme. See Chapter 12.2.5.

12.2.4 Geographical scope

The TRANSITION project is a **European initiative** including 9 partners from **7 countries**, namely Belgium, Finland, France, Ireland, Italy, Spain and the UK.

TRANSITION is coordinated by the European Business and Innovation Centre Network (EBN)⁵⁰⁹, Europe's network of innovation-based incubators. **Core Scaling Centres are situated in six countries:** Finland – New Factory⁵¹⁰; France – Paris Region Innovation Centre (PRICE); Ireland – WestBIC; Italy – Politecnico Milano; Spain – Denokinn; UK – The Young Foundation. Additionally, other partners from the UK – Nesta and The Social Innovation Exchange (SIX) -complete the consortium to ensure outreach and dissemination.

12.2.5 Links to other initiatives and networks

Experience of partners and their previous and current work provides important links. The consortium represents a mix of traditional incubators (FR, IR) and social innovation support organisations (UK), combining the best of both. **Young Foundation⁵¹¹ (TRANSITION SC London) is the most experienced in provision of social innovation support. The current TRANSITION model is largely based on YF Accelerator programme⁵¹². On the other hand, each SC gives additional experience and adapts the TRANSITION model within its own environment. E.g. Denokinn⁵¹³ (SC Basque country) - Rapid Business Prototyping (RBP), a new business support programme designed to rapidly accelerate the launch and growth of innovative enterprises. From the academic view point, the social innovation journey (SIJ)^{514*} by Polimi is used as a model for TRANSITION SI support in different maturity stages. The 'Social Innovation Journey' is an open, in-progress, framework for intervention set up by the Polimi DESIS Lab⁵¹⁵, the Politecnico di Milano based laboratory of the international network DESIS – Design for Social Innovation and Sustainability. Last, but not least, NESTA⁵¹⁶ brings the experience in evaluation and impacts of social innovation.**

⁵⁰⁹ EBN – innovation network [general website]. Available at: <http://ebn.be>

⁵¹⁰ To the date of this report, partner from Finland is being replaced by another one.

⁵¹¹ The Young Foundation [general website]. Available at: <http://youngfoundation.org>

⁵¹² The Accelerator from the Young Foundation Accelerator [general website].

<http://www.growingsocialventures.org>

⁵¹³ Denokinn [general website]. Available at: <http://denokinn.eu> and Social innovation park [general website].

Available at: <http://www.socialinnovationpark.com>

⁵¹⁴ Meroni et al. (2013).

⁵¹⁵ Polimi Desis lab [general website]. Available at: <http://www.desis-network.org/content/polimi-desis-lab>

⁵¹⁶ NESTA – innovation in the UK [general website]. Available at: www.nesta.org.uk

Apart from the individual partners' experience, TRANSITION draws on two large networks, namely, EBN - Europe's network of 'traditional' business innovation centres - and SIX Social Innovation Exchange⁵¹⁷, lead by NESTA.

12.3 Entrepreneurship competence concept translated into the learning objectives and practical courses (setting-up phase)

12.3.1 Defining learning objectives

Learning objectives, in form of statements, are not defined at the TRANSITION model level. The particular aspect of incubation programmes, in general, is that **learning objectives are defined rather by individual social innovator**. The definition happens more precisely when social innovators apply for TRANSITION support and explain what they want to learn/obtain. Learning objectives reflect the innovator's individual needs. Generally, it can be stated, that in earlier stages of social innovations, innovators seek to learn more knowledge and skills related to business development activities. More mature innovations pursue rather informal ways of learning (e.g. networking).

The Young Foundation / TRANSITION SC London experience⁵¹⁸ has been used a good example for the thematic workshop curriculum, consisting of four areas⁵¹⁹: (1) Skills and Will; (2) Social impact; (3) Product/service design; and (4) Financial sustainability.

The Young Foundation (SC London) has the most advanced experience in social innovation support, using Business Canvas Model for social innovation⁵²⁰. Further, Social Innovation Journey (SIJ)⁵²¹ *has given the theoretical underpinning for the overall framework for the support regarding different maturity stages*.

The assessment indicators and an assessment strategy have been considered when the TRANSITION project was designed. Largely, the assessment matrix and impact evaluations are part of the project activity lead by NESTA⁵²². On the other hand, the initial assessment of social innovators/social innovations, and their learning objectives, is carried out by each SC.

12.3.2 Setting-up practical courses, curricula or activities – incubation support

The design of the TRANSITION support to social innovators is based on **a common framework and individual implementation approach by scaling centres**.

The first version of the TRANSITION social innovation support model was established at the beginning of the project and was largely based on the Young Foundation experience. During the first year of the project, each SC implemented the scaling up support programme in its own environment, after which, the common framework and the activities are revised and improved.

The **individual implementation** of support services is a result of the SC's existing services and experience, and the homogeneity in the group of supported social innovations - in terms of maturity stage and the innovators' competences.

⁵¹⁷ Social Innovation Exchange [general website]. Available at: <http://www.socialinnovationexchange.org>

⁵¹⁸ The Accelerator - Curriculum Guide (n.d.). The Young Foundation. [Accelerator brochure]. Available at: <http://www.growingsocialventures.org/sites/default/files/uploads/Accelerator%20brochure%20CURRENT%20COMPRESSED.pdf>

⁵¹⁹ Curriculum Summary (n.d.).

⁵²⁰ The social business canvas model by Young Foundation has been inspired by 'Business Canvas Model' originally conceived by Osterwalder and Pigneur (2009).

⁵²¹ Meroni, A., Fassi D. & Simeone G. (2013).

⁵²² NESTA – innovation in the UK [general website]. Available at: www.nesta.org.uk

During the setting up phase, the Scaling Centres took different course of action. Some partners, having rather traditional incubation services in place, adapted these to the social aspects (e.g. SC Ireland West). Others considered the traditional incubation services in order to further improve their social innovation focus (SC London). Some scaling up centres had to develop the TRANSITION support services rather from scratch (e.g. SC Paris) or tightened up their collaboration with external incubator (e.g. SC Milan).

The homogeneity of the group, on the other hand, may be influenced by the SC intentionally by setting up certain requirements during the application process. In view of the diverse target group, each SC does not necessarily provide all support services to all SIs. Moreover, each centre may choose to focus their activity on any or all of the different social innovation journey phases, based on their understanding of “what works” in their country.

The continuous improvements are considered during the entire TRANSITION project duration (WP2: shared learning). After the first year of implementation, the two-way learning- from traditional innovation incubators to the socially focused ones and vice versa - allowed the partners to improve the model as well as the individual implementation.

Both, the quality of trainers and the assessment strategy have been considered in the TRANSITION design phase (WP2: shared learning). In general, each of the 6 SCs is experienced in providing incubation type services and therefore, minimum quality of trainers was ensured prior to the TRANSITION project activities. The TRANSITION specific training of SC’s key personnel is planned as part of the WP2.

NESTA leading WP2 will assess which methods and techniques are effective in helping social innovations to extend their impact, scale-up and be replicated in new territories.

12.4 Teaching and Learning of entrepreneurship competence in diverse settings (implementation phase)

12.4.1 Teaching methods and channels - pedagogical approach

Table 84: Teaching methods considered in the TRANSITION Framework

Teaching/training methods	
<i>TRANSITION support model for scaling up social innovations</i>	
Collaborative learning	
Competitive learning	
Learning-by-doing / Project-based learning / Problem-based learning / Challenge based learning	X
New approaches allowing learning from failure / learning in ambiguous environment	
Self-reflection/Self-evaluation	X
Technology-based learning / Blended learning	

<i>More specifically:</i>			
Lecturer (interactive)	✓	Simulations and business games	
Writing articles and essays		Student companies / mini-companies	
Brainstorming		Guest speakers / external visitors / role models	
Group Discussions / Debate	✓	Company visits / community visits	
Role Play		Work placements	
Case studies		Mentoring schemes / tutoring	X
Peer group presentations / peer editing/ peer review	X	Workshops, seminars and training	X
Project work and group work		Fairs/events/bring-and-buy	
		Networking	✓

Source: Prepared by CARSA; 'X' stands for the key teaching method and is usually limited to three options while '✓' marks additional/complementary teaching methods. 'ICT' indicates (ICT) where it constructs a major part.

The overall approach is based on **learning-by-doing** and **self-reflection**, typical for the incubation type initiatives. **Peer-reviews, workshops** and **mentoring and coaching**, are the key training methods of the TRANSITION project, together with self-study, **networking** and **feedback from the wider social community**.

The key element is **face-to-face**, being the most important when effectively transferring the social entrepreneurship and innovation competences, supported by online settings to overcome the geographical distance or for the networking effect. Informal learning through mentors and networking, has also an important role, in particular to already advance social innovations.

The TRANSITION support consists of 2 parts: "Spark Session" workshops and intensive scaling up support.

12.4.1.1 "Spark Session" workshops

Twelve workshops are delivered at the beginning of each round of scaling, having a dual purpose:

1. To act as the initial dissemination vehicle to announce and promote the project and attract social innovation ideas to the project.
2. To act as the first delivery of **scaling support, on a mass-scale**, with the desired outcome of identifying a smaller number of SIs that can be taken into the intensive support programme

It has the form of a 1 day or ½ day event. Certain basic knowledge about social innovation concept, the TRANSITION programme and existing regional support is transferred to the participants. For instance in case of the SC London, the event had form of an informal round table, innovator led discussions about experience, best practice examples and thoughts for the future around key topic areas: health, education, communities etc⁵²³. Participants are free to move between these topic areas (physically distinguished "round tables"). In SC Ireland West, the Spark Session had form of

⁵²³ TRANSITION London 'Spark Session' (n.a.). TRANSITION project. Available at: <http://transitionproject.eu/event/transition-london-spark-session>

panel discussion showcasing experiences around Health and Home Care, Food, Environment and Sustainable Energy.⁵²⁴

12.4.1.2 TRANSITION intensive scaling up support model

After receiving applications and selecting social innovators for incubation, intensive scaling support commences. TRANSITION **offers 10 month intensive programme for local SIs** to help scale-up and transfer the SIs between locations (to be scaled nationally, regionally or internationally). The approach is two folded: **collective thematic workshops** and **one-to-one coaching and mentoring. Other support, in form of networking and access to the existing infrastructure of individual SCs is also available.** As such, the transition programme seems to be strongly focused on individual, self-directed learning.

Through an undefined number of workshops, around 4 curriculum areas are organised, using interactive lecturing, questioning, enhancing self-reflexion etc. Thematic collective workshops varied from SC to SC, depending on the level of maturity of SI or entrepreneurial competences. E.g. Scaling up Centre Paris is focused on more mature social innovations, compared to SC London which supported a very heterogeneous group of social innovators (no particular requirements at the application phase).

Mentoring schemes are a rather informal way of learning which complements the curriculum and further guide the social innovators. It is organised one-to-one, each social innovation obtains one mentor. Mentors and coaches provide additional insight and guidance through each social innovation and therefore, enable meeting the individual learning objectives.

Apart from collaboration with mentors - social and business representatives, TRANSITION started implementing Alumni activities. the SIs graduated are invited to the next round spark sessions or thematic workshops in order to share the knowledge, but also share what they have done so far and how the programme helped them.

After the first round of incubation programmes in each SC, the TRANSITION common framework has been revised in order to provide with a list of supporting activities more effective in line with the different:

- Maturity (Social innovation journey stage)
- Skills of innovators
- Social innovation sector etc.

Regarding the type of support methods and the social innovation journey, TRANSITION project partners learnt that more mature social innovators seeks rather informal learning (networking, mentoring), opposite to less mature projects seeking knowledge in designing, prototyping and entrepreneurship. Two key additional elements have been added: **Workshop “Zero”** - to align the skills among different innovators in the supported group, **to overcome the weakness of social innovators having different competences thus to identify the type of support - full incubation or part - the social innovations need. A specific “networking programme”** to meet the needs of all stages of social innovation also the advanced ones, has been also added to the TRANSITION framework.

As expressed by the TRANSITION project coordinator, there is no new specific support tool or method applicable for social innovations compared to the innovations in general. The main

⁵²⁴ TRANSITION Ireland West - Spark 2: incubating social innovation (n.d.). EBN. Available at: <http://ebn.eu/index.php?lnk=M1lHN01YZWdtT1h5ZXNsRStLQVMOOEJCM1BwKOMrNHZWZwDEYmhNZWl1cz0>

difference concerns of widening the approach and perspective. In addition, the support varies depending on the social innovation maturity and the social innovators' competences.

Examples of support implemented in individual SCs

As said, the exact implementation of the scaling up support follows the common framework but depends on the individual scaling centre. Some centres work more with a homogeneous group of social innovations unlike others. Some centres provide firstly support to the group and secondly, one-to-one coaching, others focus on one-to-one support only.

The first year of scaling up support, Paris SC worked more with already advanced / existing SIs. 12 workshops were organized targeting a more homogeneous group, i.e. addressing more experienced and more skilled audience. In general, the UK YF works first with a larger group, then, with smaller groups (based on the SIJ stage/journey). In the Milan scaling centre, a programme structured around specific workshops and support is provided to a wide range of SI (different topics, different sectors).

Another example is the organisation of a '2 day social innovation JAM session' dealing with broad topics, trying to provide all SIs with key information regardless of the sector and maturity level. Further, 10-15 ideas are selected as being developed enough to pass through a more in-depth programme. The in-depth programme then gives more specific insight and trainings on finance, business modelling, and governance.

Apart from the usual mentoring scheme applicable to all SCs, particular example of one-to-one support was provided by the Basque SC which, unlike others, did not organize the thematic workshops.

Example from London SC Collective Thematic Workshops

Central to the support are 4 key sessions (face-to-face workshops) which focus on the development of teams, social impact, products and services, and financial sustainability.

In brief, the key knowledge and partly skills are delivered through **4 face-to-face sessions consisting of interactive lecture, and guidance through (self-)reflection process**. Moreover, social innovators are expected to implement the learnt knowledge and skills in practice when developing their social innovation ideas, with additional support by 1:1 coaches and mentors. The following is mainly based on the 4 module workbook prepared by the Young Foundation⁵²⁵.

Curriculum Area 1: SKILLS/WILL and SOCIAL VALUE PROPOSITION⁵²⁶

Skills/will session is delivered as a face-to-face **workshop** and focuses on **self-reflection through a set of questions** with the overall aim to get a clear idea and understand yourself, your value, world needs etc. Examples of questions: What do you want to do with your time, what difference do you want to make in the world? What are you good at? Are you happy with the way things are in society? What annoys you then? So what are you doing about it? What motivates you? Who currently helps you to do what you? To understand market and customers, each social innovator draft customer **storyboards**. Social value proposition is also prepared by each social innovator and **peer-reviewed**.

⁵²⁵ Blog – The Accelerator. [blog website]. Available at: <http://growing-social-ventures.org/en/blog/blog-archive>

⁵²⁶ The social Innovation workbook. Part 1 of 4 (n.d.). Transition London. Available at: <http://growing-social-ventures.org/sites/default/files/uploads/Transition%20workbook%20-%20Module%201.pdf>

Curriculum Area 2: SOCIAL VALUE / THEORY OF CHANGE⁵²⁷

During a workshop focused on theory of change, **social innovators are guided through reflection process** on their outcome (what difference you want to make in the world?), enabling factors (what factors exist that makes people come to your product/services and what makes them motivated and able to get in touch?), activities, target groups, changes in lives of the target group etc. After writing down the full lists, social innovators are always asked to provide with a grouped name, i.e. abstract the key elements from the large list of items, to put the changes in subsequent orders (this happens, then this happens...) while reflecting on the assumptions and the direction where the SI is going (does it lead toward the outcome?). Again, **peer review** provides with additional viewpoint to the individual social innovator's reflection on his/her idea/product/service.

Curriculum Area 3: SOCIAL (PRODUCT/SERVICE) DESIGN⁵²⁸

Another **workshop** is focused on social design, and more specifically what is design thinking, from the assumption phase to the prototyping phase. **Social innovators reflect on** and test their social innovations in terms of: trying to understand "others" (target group) and first test the idea (prototyping, obtaining feedback) using mainly interactive presentation and reflecting about the individual SI and homework.

The following methods and tools are presented as options which are to be used by social innovators outside of the curriculum/workshops when developing their ideas/innovations: Understanding the others (your viewpoint, think and feel, hear, say and do, see, pain and gain), Storyboards, User journey maps, Experience mapping; Prototyping the business model, Role playing (physically acting out what happens where users interact with product and services); Mock-ups and paper prototyping; Constructive interaction; Prototype planning tool; Concept mapping

Curriculum Area 4: FINANCIAL MODELLING – delivering a sustainable organisation⁵²⁹

A final session presents the social product/service delivery method and financial model while **guiding social innovators with 20 questions** through each item of their delivery mechanism (delivery activities, key staff, supporting staff, other, partners etc), time (how long, how often) costs (delivery team costs, supporting staff costs, other costs) and income (who pays and when). Answers on the set of 20 questions are the key building blocks of the financial model.

12.4.2 Teaching guidelines and train-the-educator

Rather than training the individual trainers directly, the TRANSITION project partners developed a **common support framework for incubators/accelerators**. This "Common Support Framework" document explores the set of support activities (the local ecosystem) which each scaling centre may provide to an individual, team or organisation developing social innovations. **This document ensures the common understanding by each SC and its key personnel.**

As part of WP2, the TRANSITION common framework is revised by SCs and, in general, SC key personnel learn through shared learning. For instance, the most experienced centre in social innovations was YF UK. SCs experienced in traditional innovation support service learnt about how

⁵²⁷ The social Innovation workbook. Part 2 of 4 (n.d.). Transition London. Available at: <http://growing-social-ventures.org/sites/default/files/uploads/Transition%20workbook%20-%20Module%202.pdf>

⁵²⁸ The social Innovation workbook. Part 3 of 4 (n.d.). Transition London. Available at: <http://growing-social-ventures.org/sites/default/files/uploads/Transition%20workbook%20-%20Module%203.pdf>

⁵²⁹ The social Innovation workbook. Part 4 of 4 (n.d.). Transition London. Available at: <http://growing-social-ventures.org/sites/default/files/uploads/Transition%20workbook%20-%20Module%204.pdf>

to turn it into social. In case of SC Paris, the centre built programme from scratch working with other partners, taking what was relevant to replicate. Another example was SC Milano, where POLIMI (University) had not had incubation services too structured prior to the TRANSITION project. After first year / first round of the TRANSITION support programme, the UK SC is learning about more traditional innovation support experience in particular to the internationalization of social innovations under “Transnational Lab” (WP3). Moreover, NESTA evaluates the most effective methods/support services and the TRANSITION support model will be turned/improved in order incorporate the experience from all centres.

Common workshop where all scaling centres participate is organized on a regular basis and numerous webinars are held.

At more institutional level, each scaling centre is responsible to hire and train the key personnel according to their usual procedures. They are also responsible for selection and quality of the mentors/coaches.

12.5 Assessment and Impacts

12.5.1 Strategy for assessment of entrepreneurship competence

Table 85: TRANSITION approach to the assessment

Assessment method:	Transition SCs
Essay (reflective)	
Written Exam (written test, questionnaire based)	
Oral exam	
Self-evaluation	X
Peer-evaluation / Group evaluation	✓
External review / Feedback from external stakeholders (including users side)	✓
Project work (incl. simulation project work, or work on a real business idea) / assigned task achievement	X
Presentation / pitch	✓
Event (e.g. faire exhibition)	
Application which includes reflection on one's competences	X

Source: Prepared by CARSA; 'X' stands for the Key assessment method which is usually limited to three options while '✓' marks additional/complementary assessment methods. 'ICT' indicates (ICT) where it constructs a major part

The TRANSITION project, and its scaling centres, does not assess social innovators' entrepreneurship competences but rather the social innovation maturity. There is an assessment of the social innovation and/or validation of the innovators' qualities through **peer-review and a final pitch** with a feedback from stakeholders, and through initial application and final self-reflection/assessment by individual social innovators.

The social innovation assessment and the assessment of individual learning objectives is also part of the **TRANSITION evaluation matrix**, where, among others, the initial social innovators' learning objectives are compared with the final self-assessment/self-reflexion.

12.5.2 Impact, evaluation and monitoring

Overall, the evaluation strategy concerns several aspects, one being also part of the monitoring and evaluation required for any project co-funded by the European funds.

Under WP2, Shared Learning, an analysis will be carried out **to understand more about what methods and techniques are effective in helping social innovations** to extend their impact, scale-up and be replicated in new territories. Consistent metrics and methods for measuring the impact across incubation programmes, both within and beyond the life of the network, will be developed and promoted initially with consortium partners, and ultimately the wider European IBI and SI communities. The evaluation of the TRANSITION model and assessment of social innovation impacts across the programmes will be carried out on a yearly basis.

Comparison between the initial and final assessment of the social innovations - at the time of application to and exit from the incubation programme - is one of the inputs to the evaluation matrix.

After a first round of support and a year of the TRANSITION project, first evaluation has been carried out and the results are expected by March 2015. Hand in hand, improvements are translated into the new TRANSITION model under the common methodology document.

As presented in the EBN news⁵³⁰, between January and April 2014 project activities have been driven via dedicated Spark Session events organized by TRANSITION scaling centres: the **six events reached out to more than 500 social innovators across Europe** working as perfect catalysts for social innovators in Europe. To date, **more than 100 social innovations have been assessed and 90 entered the incubation programmes carried out by TRANSITION Scaling Centres, made of thematic collective workshops and 1:1 coaching and mentoring sessions.**

The success of scaling up centres such as Milan and Paris which did not have in-depth previous experience with social or traditional innovation support proves that the TRANSITION model can be implemented successfully. In the Milan scaling centre, more than 25 incubations were accomplished with very few drop-outs. In the Paris scaling centre, 13 out of 15 applicants received funding and even won awards in France.

12.5.3 Example of show cases

Paris and Milan SCs are the success examples at the level of incubation support, both of which largely developed their incubation services according to the TRANSITION model.

Table 86: 19 lead innovators of Transition London SC

Amnesty International - International Secretariat
Care Charts UK
Chaos Theory
Community Therapies and Training Service
Enabling Genius
Handmade Alliance

⁵³⁰ Davalli, C. (2014). "TRANSITION project: 1 year of Social Innovation Incubation". EBN. Published on 29-08-2014. Available at: <http://ebn.be/index.php?lnk=K2tiZmlkaWp5MVZzVWF6SzfUWkpHMXgxN2s4RXI2ZW0zVHZpaVBzQj%20RDdzQ=>

Ignite!
Inter-Voice
Lift People
Made Equal
Millbank Creative Works
MindFood CIC
Money4Yout
No. 178 New Cross
SpareSpace
Techhangout Ltd
The BB Group
The Good Wardrobe
The Sunday Assembly

12.6 Sustainability and transferability

12.6.1 Sustainable business and financial model

The project is financed by a European grant but it has support of the key players in the social innovation area, private and governmental (NESTA, TEKES ...). The scaling centres may also leverage their own efforts / budget. Each scaling centre works with their own business model (funding from region, sponsors etc). In addition, a mentoring scheme has been put in place which is based on volunteering.

At the moment, social innovators are not asked to pay any fee for the TRANSITION incubation support services. In the future, this will remain in the hands of the scaling up centres. It should be noted, that any future scaling up centres / incubators integrating the TRANSITION model into their incubation services will also be responsible for the appropriate business model and how to finance these activities.

12.6.2 Key sustainable aspects

The key aspects of the TRANSITION project's sustainability lie in the existence and continuous improvements of **the TRANSITION model** which provides an **overall guidance / framework**. A further strength is the fact that it is also **adaptable** according to the existing innovation support of the current or future scaling up centres and **tailored** to the needs of the social innovation journey and the needs of social innovators. By sharing the TRANSITION model, therefore, any scaling up centre - incubator, accelerator, and business support organisation - can adopt the model and incorporate it within its usual services or develop new ones. The consortium partners intend to continue with the TRANSITION project beyond the EC funding seeking to control the quality of the provided support.

The sustainability beyond the EC funding is ensured through promoting Social Innovation Incubation activities and results (WP4) and developing a European Social Innovation Incubation Network – ESIIN (WP5). In general, the activities currently undertaken within the consortium partners will be shared to a wider audience. The **SIIN (Social Innovation Incubator Network)** is in an experimentation phase and it is not guaranteed which form or management structure it will take.

The involvement of key organisations in both, the traditional business and innovation sector as well as key players in the social innovation sector contributes to the sustainability of the project's activities beyond the European funding. The transition support is embedded in existing services provided by supporting organisations.

12.6.3 Potential transferability

Overall, the TRANSITION project has large transferability potential across different regions, countries or social innovation sectors. This aspect is part of the project's objectives and activities.

Regarding the individual SIs, the support aims at two aspects. On the one hand, SIs are assisted to grow and to evolve to another stage of their 'journey'; on the other hand, they are supported in grow inter-regionally and/or internationally, therefore transfer the SI geographically. In theory social innovation can be aligned with the particular region. However, there are only a few examples where local models of social innovation have successfully scaled across Europe. Apart from the WP1 core scaling up support where 6 scaling up centres from 6 different countries provide such support to scale up social innovations in the regional and inter-regionally, WP3: Transnational StartUp Lab deals with the internationalization.

The TRANSITION support model transferability is also ensured through the establishment of project's objective to **learn across different incubators and develop and share the social incubation support model (framework)**. The activities are: WP3 – Shared Learning, WP4 – Promoting Social Innovation Incubation activities and results and WP5 – developing a European Social Innovation Incubation Network (ESIIN).

Three key consortium partners have the key role of transferring and sharing the TRANSITION model across different audience, and beyond the consortium. SIE and NESTA have wide contacts to the social innovation sector, in addition to EBN's contacts, as a network of business and innovation support organisations.

12.7 Key lessons and observations

The TRANSITION project is built around the following factors having an important share in the initiative's success. The lessons have been learnt from the first year of the project providing a first round of the TRANSITION support to the first cohort of social innovations.

Support/training methods effective to the social innovation are not new

As expressed by TRANSITION consortium, methods and tools to support social innovations are not new to the ones already existing for the traditional innovations. However, the approach and perspective has to adapt.

Time and effort to improve and shared learning in both direction (social versus traditional)

There is a need for time and energy of involved support organisations to discuss the existing methods and adapt them to the social innovation. It is important that the learning process goes both ways. Traditional innovation support organisations learn from the ones experience in social innovation support about the social innovation aspect and perspective. The opposite way, social innovation support organisations should learn from the traditional ones about effective support to the internationalization since there is lack of examples where social innovations scaled up internationally.

Social innovation audience/community engagement

Social innovation is determined by social impact factors rather than profit as a key driver, therefore, the connection to and the feedback from wider social innovation community is very important to the social innovators.

Alumni engagement

Connection with alumni has been considered to add value to the next round of the TRANSITION support model. Alumni will be invited to the second spark sessions in order to give visibility and express to the new cohorts what they have gained through the incubation programme and what they have learnt during their social innovation journey.

Measuring social impact

Social impact and how to measure it is one of the overall issues for incubation programmes (but not only). Social innovation impacts and assessment methods are not yet well developed and hinder the effective development of incubation programmes. Compared to the traditional – for-profit-oriented indicators, when it comes to the social innovations, the social impact is more important than the profit. Another important part of the project is to establish evolution matrices and thereby overcome this bottleneck.

Combination of effective support to the social innovation in appropriate settings

Key lessons regarding effective support to the social innovation in appropriate settings have been learnt through the attempts to customize services to the specific needs of diverse social innovations.

- TRANSITION project proved that combination of the common framework and the flexibility is important, especially for social innovation which may be tight to the specific (catchment) area.
- Common framework rethinking and considering the spiral (Social Innovation Journey) ensure that the appropriate methods and contents are used for the appropriate stages of social innovations.
- Collective workshops targeting specific stages of the social innovation is effective but what is very important is the 1:1 coaching and mentoring. In this respect, scaling up centres should match the right mentor with the right SI – matching the specific learning objectives and the needs of the social innovator with the support.
- Generally, it can be stated, that in earlier stages of social innovations, innovators seek to learn more knowledge and skills related to the business development activities. Opposite to more mature innovations, where innovators seek more informal way of learning (e.g. networking).
- Social Impact creation is an important competence compared to the profit creation of usual entrepreneurs/innovators.

The model is well applicable to the traditional incubators, social innovation support organisations but also those organisations that do not excel in any of the two.

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Interview carried out with Ms. Chiara Davalli, project coordinator, EBN

Abbreviations

Acronyms

ADEPTT	Acknowledging and Developing Entrepreneurial Teacher Training
ASTE	Assessment Tools and Indicators for Entrepreneurship Education
BHAK	Federal Austrian Commercial Academy
BIC	Business and innovation centres
CIP	Competitiveness and Innovation Framework Programme of the European Commission
CO	Central Office
CoP	Community of Practice
COOL	Co-operative Open Learning
COSME	Competitiveness of Enterprises and Small and Medium-sized Enterprises (EU programme)
CSR Europe	The European Business Network for Corporate Social Responsibility
DANET	Development and Advisory Network for Enterprises Training
DG	Directorate-General of the European Commission
DG EAC	Directorate General for Education and Culture of the European Commission
DG GROW	Directorate General for Internal Market, Industry, Entrepreneurship and SMEs of the European Commission
DG NEAR	Directorate General for Neighbourhood Policy and Enlargement Negotiations of the European Commission
EASME	Executive Agency for Small and Medium-sized Enterprises of the European Commission
EBN	The European Business and Innovation Centre Network
EC	European Commission
ECP	Entrepreneurship Curriculum Programme
ECTS	European Credit Transfer Accumulation System
EE	Entrepreneurship education
EEEK	Enterprises Educators UK
EER	European Entrepreneurial Region award (organized by the Committee of the Regions)
EESI	Entrepreneurship Education für schulische Innovationen, i.e. Entrepreneurship Education for School-based Innovation (Austria)
EL	Entrepreneurial Learning

Definition

EL-KCA	Entrepreneurial Learning: a Key Competence Approach
EMQS	European Minimum Quality Standards
EQF	European Qualification Framework
ERDF	European Regional Development Fund
ESIIN	European Social Innovation Incubation Network
ESP	Entrepreneurial Skills Pass
ET2020	Education and Training 2020 (EU strategy)
ETF	European Training Foundation
EU	European Union
EUROPEN-PEN	European Practice Enterprise Network
EUpVET	European Providers of Vocational Education and Training
FEE-YE	Foundation for Entrepreneurship – Young Enterprise
HEA	Higher Education Academy (UK)
HEI	Higher education institutions
IBI	Innovation-based incubation
ICEE	Innovation Cluster for Entrepreneurship Education
ICF	Inner City Fund International
ICT	Information and Communication Technology
IFTE	Initiative for Teaching Entrepreneurship (Austria)
IICED	International Institute for Creative Entrepreneurial Development
IPA	Instrument for Pre-Accession Assistance of the European Union
IPTS	Institute for Prospective Technological Studies (Research institute of the European Commission's Joint Research Centre)
ISCED	International Standard Classification of Education
ITT	Institute of Technology Tralee (Ireland)
JA Worldwide	Junior Achievement Worldwide
JA	Junior Achievement – Young Enterprise Europe
JEP	Junior Entrepreneur Programme (Ireland)
JRC	Joint Research Centre of the European Commission
KPH	Kirchliche Pädagogische Hochschule, i.e. Church College of Education (Austria)
LLEL	Lifelong entrepreneurial learning
LLP	Lifelong Learning Programme
LO	Learning outcomes

LUT	Lappeenranta University of Technology (Finland)
MTEE	Measurement Tool for Entrepreneurship Education
NFTE	Network for Teaching Entrepreneurship
OECD	Organisation for Economic Co-operation and Development
OEMP	Owners and Entrepreneurs Management Program (Executive programme offered by IE Business School)
OMC	Open Method of Coordination
OvEnt	Entrepreneurship Competence: An Overview of Existing Concepts, Policies and Initiatives
PCET	Post Compulsory Education and Training (UK)
PGCE	Postgraduate Certificate in Education (UK)
PE	Practice enterprises
PFTT	Practice Firm Trainers' Training Programme
QAA	Quality Assurance Agency for Higher Education (UK)
QIBB	QualitätsInitiative Berufsbiluding, i.e. Austrian VET Quality Initiative
RCC	Regional Cooperation Council (SEE region)
SBA	Small Business Act
SCs	Scaling up centres
SEECCEL	South East European Centre for Entrepreneurial Learning
SEE	South East European countries (Albania, Bosnia and Herzegovina, Croatia, Kosovo, The Former Yugoslav Republic of Macedonia, Montenegro and Serbia)
SEET	South East European countries and Turkey
SI	Social Innovation
SIJ	Social Innovation Journey
SIX	Social Innovation Exchange
SMEs	Small and Medium-sized Enterprises
TES	The Entrepreneurial School
TNA	Training Needs Analysis (tool for up-skilling of entrepreneurs)
TRANSITION / TRANS	Transnational Network for Social Innovation Incubation
TTA	Teachers Training Authority
TTM	Teachers Trainings Modalities
UN	United Nations
UWTSD	University of Wales Trinity Saint David
VET	Vocational education and training
WBIF	Western Balkans Investment Framework

WG	Working Group
WKO	Austrian Federal Economic Chamber
WP	Work package
YEP	Young Entrepreneur Programme
YF	Young Foundation

Glossary

Avoid premature articulation	Avoiding premature articulation is a teaching method based on intentionally creating a situation in which student is given incomplete information upon which he/she has to act and draw conclusions; additional information is provided in phases, or only after the assessment (used in UWTSD Case study)
Blended learning	Blended learning is a formal education form in which a student learns partly through delivery of content and instruction via digital and online media with some element of student control over time, place, path, or pace.
Challenge-based learning (CBL)	Following a sequence of defined steps, challenge-based learning encourages learners to solve real-world problems. Instead of presenting students with a problem to solve, CBL offers general concepts from which the students derive the challenges they will address. Challenge-based learning is an initiative originally conceived by Apple within K-12 education.
Collaborative learning	Collaborative learning activities are based on the interaction of at least two students, typically a group of students, who work together, draw on each other's knowledge and skills and share experiences while working on a given assignment
Competitive Learning	Competitive Learning describes a learning form where competitive elements are used in order to achieve better learning outcomes, frequently resembling a real market economy situation. It is used often used by means of business plan and business idea competitions.
Convergent thinking	Convergent thinking is a process of answering a question or problem with one single solution or answer. It usually does not require significant levels of creativity or innovativeness. It is often put in opposition to divergent thinking
Co-operative Open Learning' (COOL)	While challenge based learning encourages learners to solve small and large real-world problems often involving stakeholders from the community, COOL focuses on the promotion of self-organised learning strategies and the development of personal qualifications for improving social skills. COOL is a proprietary learning method developed by EESI-Impulszentrum and IFTE (case study 3).
Curiosity-based learning	Curiosity-based activities aim at increasing student's curiosity and align teaching with the learner's interest. Curiosity-base learning goes hand in hand with inquiry-based learning.
Divergent thinking	Divergent thinking is associated with generating ideas, creativity and innovativeness. Instead of searching for one solution to a problem, student rather explores many possible options. It is often put in opposition to the convergent thinking
Formal learning	Learning that occurs in an organised and structured environment (e.g. in an education or training institution or on the job) and is explicitly designated as learning (in terms of objectives, time or resources), often

	linked to a country's educational system. Formal learning is intentional from the learner's point of view. It typically leads to validation and certification.
Formative Assessment	Formative assessment refers to methods used to conduct in-process evaluations. Formative assessments help teachers identify what students are struggling with during the learning process so that adjustments can be made.
Glorious Failure	Glorious Failure is a teaching / assessment approach in which student is allowed to 'fail' if he/she reflects upon why and articulate the reasoning
Informal Learning	Learning resulting from daily activities related to work, family or leisure. It is not organised or structured in terms of objectives, time or learning support. Informal learning is often unintentional from the learner's perspective. Since informal learning is difficult to capture when limited information is available through desk research, the informal learning is not always included in the current inventory. but it is present when networking, mentoring and forums exist as part of the initiative.
Inquiry-based learning	See Curiosity-based learning or Student-centred teaching
Experiential learning	The concept broadly refers to a learning activity that combines practical experience, experimentation and reflection on experience. Learning occurs through the learners own direct experience and reflection in the process.
Learning-by-doing (LBD)	Through learning-by-doing the students acquire knowledge and skills through their own actions and experiences. This approach thus encourages students to have an active role and to engage in learning activities. LBD approach has been further developed to the project-based learning and similar.
Non-formal learning	Learning which is like formal learning (and unlike informal learning) institutionalised and embedded in planned activities not always explicitly designated as learning (in terms of learning objectives, learning time or learning support), but which contain an important learning element. Non-formal learning is intentional from the learner's point of view.
Project-based learning	To enable the students to gain skills and knowledge, the project-based learning method integrates knowing and doing. Three variants are sometimes distinguished: challenge-based learning, place-based education and activity-based learning. Whereas the learner seeks to solve real-world problems in challenge-based learning, he/she typically focuses on solving community problems in place-based learning and on constructing own meaning through hands-on activities in activity-based learning. Project-based learning is rather multidisciplinary, may take longer to achieve, and often involves real world, fully authentic tasks.
Problem-based learning	Problem-based learning differs from the traditional classroom teaching, as the method takes point of departure in a problem which the student needs to address through problem solving skills. This form of learning is often carried out through group work, where students work together.
Student-centred	Student-centred teaching shifts the activity focus from the teacher to the student. It includes active learning, collaborative learning, inductive

teaching	learning, in the latter students are first presented with a challenge, question or problem, and learn along the way to the solution. Student-centred teaching may include inquiry-based learning, case-based instruction, problem-based learning, project-based learning, discovery learning etc.
Summative assessment	Summative assessments are used to evaluate student learning and achievement at the end of defined period—typically at the end of a project, unit, course, semester, program, or school year.
Technology Based Learning (TBL)	Technology Based Learning refers to learning via electronic technology, among others, internet, intranets, audio and video conferencing, bulletin boards. It is a broader term to refer to online learning, web based learning and computer based learning. Today e-Learning has to great extents replaced the term TBL.

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