



EntreComp

ECI - EntreComp Implementation

Develop implementation tools and training content for European education systems for the introduction of the "EntreComp" competence Framework to promote entrepreneurship

Methodology and Guidelines for Development of Training Tools to operationalize the EntreComp

(Intellectual Output 2 – Task 2)

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About this document

The project “ECI – EntreComp Implementation” is an Erasmus+ project and aims to operationalize the “EntreComp” Framework by developing implementation tools and training content for the European Vocational Education and Training (VET) systems to adopt “EntreComp” in operational environments and promote entrepreneurship. In 2016, the EU Commission developed the “EntreComp” Competence Framework for entrepreneurial skills to propose a common definition of entrepreneurship as competence, to build consensus among stakeholders and to build a bridge between education and work.

ECI has selected 6 competences along the three areas of the EntreComp Framework as following to work on:

- 1.2 Creativity: Develop creative and purposeful ideas
- 1.5 Ethical and sustainable thinking: Assess the consequences & impact of ideas, opportunities and actions
- 2.1 Self-awareness and self-efficacy: Believe in yourself and keep developing
- 2.5 Mobilizing others: Inspire, enthuse and get others on board
- 3.1 Taking the initiative: Go for it
- 3.3 Coping with uncertainty, ambiguity & risk: Make decisions dealing with uncertainty, ambiguity and risk

This document represents a common methodology and guidelines to be used for the Development of Intellectual Output O3 - *Develop training tools and contents to operationalize the EntreComp*. Partners will finalise a set of common guidelines that will be evenly used during the implementation of the project for sake of accuracy, consistency and reliability of findings.

Guidelines will include general scale and scope, overall methodological approach, timing and sequencing of specific activities as well as the definition of common tools for the training material in regards to the forenamed defined competencies.

The combination of IO2 Task 1 and Task 2 will allow the partnership to perform assessment at European level on the dynamics of entrepreneurial competencies at real European dimension.



All consortium partners are involved in the implementation of the IO2:

Centrum für Innovation und Technologie GmbH (Germany, Leading organisation)

EEO Group SA (Greece)

IDP SAS Di Giancarlo Costantino (Italy)

Institut de Haute Formation aux Politiques Communautaires asbl (Belgium)

Stowarzyszenie Wspierania Inicjatyw Gospodarczych DELTA PARTNER (Poland)

Asociația pentru Educație și Dezvoltare Durabilă (Romania)

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1. EntreComp Implementation Methodology – Desk research

This desk research is part of Intellectual Output 2 (IO2), Task 1 Assessment and cross-reference of the Entrepreneurship Competence Framework with ESCO (the classification of European Skills, Competences, Qualifications and Occupation) and the EQF (European Qualifications Framework).

The desk research findings support the development of IO2 "Development of a model to implement the Entrepreneurship Competence Framework in VET environments, both formal and non-formal" which in turn is preparatory work and basis to develop and implement Intellectual Output IO3 "Develop training tools and contents to operationalize the ECI".

The main purpose of the desk research was to give an overview on how and to what extent the "EntreComp" Competence Framework and its competences are already implemented in the educational systems and the work environment in Germany.

1.1 Cross-reference ECSO, EQF/NQF

1.1.1 Definition ESCO

ESCO (the classification of European Skills, Competences, Qualifications and Occupation)

"[...] ESCO is the multilingual classification of European Skills, Competences, Qualifications and Occupations. ESCO is part of the Europe 2020 strategy.

The ESCO classification identifies and categorises skills, competences, qualifications and occupations relevant for the EU labour market and education and training. It systematically shows the relationships between the different concepts. [...]"¹

1.1.2 Cross-reference with ESCO

The six competences the ECI consortium is dealing with align perfectly with the ESCO skill set as shown in the "ESCO-EntreComp: Cross-Assessment Matrix" which demonstrates that, although formally independent from each other, ESCO and EntreComp have some significant common characteristics. It is imaginable to set actions and strategies for further exploitation combining the most significant assets of both resources and focusing on the most interesting intersection areas.

Under the section "Skills and Competences", ESCO is divided in the specific clusters²:

- 1) Attitudes and Values
- 2) Knowledge
- 3) Linguistic competences and knowledge
- 4) Skills

¹European Commission: ECSO; Online source: <https://ec.europa.eu/esco/portal?resetLanguage=true&newLanguage=en>; access on: 12.12.2019

²European Commission – ESCO, Online: <https://ec.europa.eu/esco/portal/skill>, date: 29.07.2020



→ Due to the large scale of the ESCO you will find a very detailed cross-references of the EntreComp with ESCO including a **“ESCO-EntreComp: Cross-Assessment Matrix”** in the extra document **“Cross-assessment EQF_EntreComp_ESCO”** (developed by partner IDP).

By searching for specific competences in ESCO, we could find among others the competences **“Entrepreneurship”, “leadership principles”, “show entrepreneurial spirit”, “demonstrate entrepreneurial spirit”, “apply entrepreneurial intuition”, “manage small to medium-sized enterprises”** etc.

More specific it describes competences which are important in the entrepreneurial education and which also match with the soft-skill competences the ECI consortium has chosen to work on in the ECI project:

1.2 Creativity: Develop creative and purposeful ideas: “communication, collaboration and creativity”, “develop creative ideas”

1.5 Ethical and sustainable thinking: Assess the consequences & impact of ideas, opportunities and actions: “promote inclusion in enterprises”, “promote sustainable management”, “Corporate social responsibility”

2.1 Self-awareness and self-efficacy: Believe in yourself and keep developing: “promote one's business”, “assume responsibility for the management of a business”

2.5 Mobilizing others: Inspire, enthuse and get others on board: “motivate others”, “Human Resources management”, “train skills needed in the business”, “show empathy”, “promote communication within the business”

3.1 Taking the initiative: Go for it: “identify opportunities”, “make operational decisions independently”, “make strategic business decisions”

3.3 Coping with uncertainty, ambiguity & risk: Make decisions dealing with uncertainty, ambiguity and risk: “Risk management”, “Analyze business goals”, “run a business with great care”

Some further competencies needed to successfully lead a business are for example: “identify potential markets for businesses”, “deal with the day-to-day running of the business”, “assess the needs of businesses”, “manage financial aspects of a business”, “analyse internal factors of businesses”, “analyse external factors of businesses”, etc.

In the direct comparison of the EntreComp Framework and ESCO, it can be stated that the Framework with its Progression model is more detailed in the specific competences. The ESCO, in turn, offers a wide range of variations on the competences dealt within the EntreComp Framework.

As a conclusion we can record that the ESCO and EntreComp Framework are two complementary and important documents for entrepreneurship education. In this context we can record from a formal perspective, that ESCO is in-depth integrated/coordinated with all the other essential European classification/Frameworks (like the International Standard Classification of Occupations (ISCO), Statistical



classification of economic activities in the European Community (NACE), European Qualifications Framework (EQF), International Standard Classification of Education (ISCED), European e-Competence Framework (e-CF), European Digital Competence Framework for Citizens (DigComp)).

To date, such linkage is still missing with the EntreComp Framework. In other words: while ESCO mutually shares its contents with the actions mentioned above, EntreComp remains as something only in its orbit without being actually a formal and recognizable part of it.

This is true also in the other way: screening through the entire “EntreComp: The Entrepreneurship Competence Framework” publication, there are no references to ESCO. Our recommendation in this context is to establish such a link between ESCO and the EntreComp Framework in order to reach more synergy effects for people using it.

1.1.3 Definition EQF/NQF

EQF (European Qualifications Framework)

“[...] The European Qualifications Framework (EQF) is a common European reference Framework whose purpose is to make qualifications more readable and understandable across different countries and systems.

The core of the EQF is its eight reference levels defined in terms of learning outcomes, i.e. knowledge, skills and autonomy-responsibility. Learning outcomes express what individuals know, understand and are able to do at the end of a learning process. Countries develop national qualifications Frameworks (NQFs) to implement the EQF. [...]”³

1.1.4 Cross-reference with EQF/NQF

The EQF is divided into 8 levels. These eight levels range from basic general knowledge and skills (level 1) to mastery of a highly specialised field of knowledge (level 8). Each level describes knowledge, skills and competences. Knowledge is understood to be theoretical and/or factual knowledge. Skills can be cognitive (problem-solving ability, creative thinking, etc.) or practical (e.g. handling instruments and materials). In the EQF context, competence has the two aspects "responsibility" and "self-reliance".

The EQF is compatible with the EntreComp Framework in that both documents classify competences into eight different progress levels, which can also be very well overlaid in terms of progress or difficulty level. In Table 1 [page 12] there is an initial “interactions matrix” which most solidly shares the largest intersection of the skills and competences chosen within the ECI project with the eight hierarchical layers of competences of the EQF.

³ European Centre for the Development of Vocational Training: EQF; Online source: <https://www.cedefop.europa.eu/en/events-and-projects/projects/european-qualifications-framework-eqf> ; access on: 12.12.2019



The EQF does not make any statements about the specific content of learning outcomes. There are also no discernible references to any entrepreneurial competence and entrepreneurship in general. What a country or society considers at the present or future as key competences (e.g. competence of foreign languages, communicative competence, entrepreneurial competence, cultural competence) might change between countries and societies, but also changes over time. The EQF does not refer to any specific key competences, but can cover all different types of key competences at different levels. The competences (the two aspects "responsibility" and "self-reliance") described in the EQF are the most important in terms of the comparison with the chosen ECI soft-skills.

Since the EQF has the function of a meta-framework for the NQFs, the most NQFs are also divided into six to eight different levels. The NQFs are instruments for classifying qualifications in the respective national education system. Therefore especially the NQFs are important to bring the EntreComp Framework into line with the national education systems.

Both, the EQF as an European and the NQFs as national frameworks, are important for breaking competences described in European context down to specific national requirements, but otherwise to transfer national level into the European context. Therefore, the EQF and NQFs are important reference frameworks for working with the EntreComp Framework and especially when competences are transferred from the European to the National level and vice versa.

Therefore, a potential interconnection and "contact points" between the EQF/NQF and the EntreComp Framework are highly advisable.



1.1.5 Table 1: Transversal and potential linkages between the EntreComp and EQF

EQF Skills: skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).	EntreComp Competences						EQF Competences: competence is described in terms of responsibility and autonomy.
	1.2 Creativity	1.5 Ethical and sustainable thinking	2.1 Self-awareness and self-efficacy	2.5 Mobilizing others	3.5 Taking the initiative	3.3 Coping with uncertainty, ambiguity and risk	
Basic skills required to carry out simple tasks							Work or study under direct supervision in a structured context
Basic cognitive and practical skills required to use relevant information in order to carry out routine tasks							Work or study under supervision with some autonomy
A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information							- Take responsibility for completion of tasks in work or study - Adapt own behaviour to circumstances in solving problems
A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study							- Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change - Supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems							- Exercise management and supervision in contexts of work or study activities where there is unpredictable change - Review and develop performance of self and others
Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study							- Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts - Take responsibility for managing professional development of individuals and groups
Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields							- Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches - Take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or practice							Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research



1.2 Findings of the national reports/desk research

One objective of the desk research was to gain an overview on how and to what extent the “EntreComp” competence Framework is already implemented in the national educational systems and the work environment. During the research the **ECI consortium involved round about 2,000 stakeholder from all relevant sectors** (i.e. schools, universities, VET provider, further education provider, public sector, municipalities, chambers, business associations, business promoter, regional development agencies, entrepreneurs etc.) in order to be able to have a representative state of play.

EntreComp Framework is not actively implemented

The preliminary overview on the EU entrepreneurial context pictures a fragmented reality both from the industrial and educational perspective. While national contexts at low entrepreneurial coefficient are struggling to narrow their gaps with leading countries, the implementation of the EntreComp Framework is still highly relying on the private initiative of few independent actors (NGOs, Universities, formal and non-formal VET institutions, Secondary Schools, etc.).

As conclusion of the desk research interview of stakeholders, we can record that **round about 75 % of the interviewed persons never heard about the EntreComp Framework**, even universities engaged in the sector of entrepreneurship. The 15 % who know the EntreComp mainly just heard about it, but not actively use it.

Furthermore, the people who knows it and eventually also make use of it are mostly people who involve it in their daily work and which are mostly involed in EU project work. This result was confirmed by the analysis of literature and online sources. The EntreComp Framework is absent from academic and traditional literature. The initiatives confined in national contexts are very rare. For the most, the actors who decided to exploit EntreComp opportunities did so through EU co-founded projects – mainly under the Erasmus+ Programme (as captured in the appendix of the desk research “IO2_Annex_I_sources”). This shows us that the transition from the theoretical EntreComp Framework to practice has not yet been crossed and that intensive dissemination and support for integration into education and the world of work is needed, which the ECI project is trying to establish. It is obvious that the national education and training systems are far from adopting the EntreComp, even less using it as a reference.

Entrepreneurship education has the potential to grow

If we look at entrepreneurship education as a whole, it is clear that some initiatives and educational pathways (like workshops, seminars etc.) already exist. Especially for young learners after secondary education. There are some higher education opportunities and private courses for entrepreneurship education and training. These offers are partly even free of charge from business development agencies, management consultants or Universities, but mostly without any reference to the EntreComp Framework. However, the partners reported a significant potential for further development of the entrepreneurship ecosystem and especially the entrepreneurship education (prior the soft-skills) in all participating countries.

It is striking that early entrepreneurship education (i.e. during secondary education and in VET education) is particularly neglected.

Furthermore, Entrepreneurship education and advanced training on entrepreneurial skills are highly fragmentated among private training providers, consultants, researchers, formal and non-formal VET



support systems, with no structured national competences Framework exploiting a common and shared perception on entrepreneurship and entrepreneurial skills.

In some countries we have also a serious weakness of the founding culture in the tendency towards employment rather than self-employment (entrepreneurship) due to a lack of opportunities to finance a business. In most countries we have a further barrier in the low risk-taking propensity and just a small number of opportunity-driven entrepreneurs and opportunity-lead approaches. Although these weaknesses are not only related to the education system per se, it could be argued that teaching entrepreneurial and management skills to students can help them identifying their potential and improve the success rate of new businesses.

Soft-skills have to be recognised as important training contents

The competences chosen by the ECI project – mainly the soft-skills needed for effective business operations and management skills (i.e. Creativity; Ethical and sustainable thinking; Self-awareness and self-efficacy; Mobilizing others; Taking the initiative; Coping with uncertainty, ambiguity and risk) – are underrepresented in existing entrepreneurial education offers. Legal, administration, accounting and tax issues dominate in entrepreneurship education. As it concerns the official curricula, the concept of entrepreneurship is mainly included in financial courses and is limited to students of economics and business. The most of the courses are very generic and are in need of further specialization, especially in the context of soft-skills. For example, there are courses such as “Introduction to Entrepreneurship”, in which the entrepreneurial aspects could not be covered in detail. Also, the entrepreneurial courses in the tertiary/higher level of education are not compulsory and the training method usually is based on traditional ways of teaching, not giving room to the students for further development of skills. Therefore, it's not surprising that there is not a direct and explicit link between educational provision and the EntreComp Framework.

In general, soft-skills are seen as people-oriented skills and self-management skills. There is a recognition of the importance of soft-skills in improving the productivity of the workforce, and the enhancement of entrepreneurship, but there is still quite a degree of ambiguity in defining their boundaries. In this context it is important to define soft-skills and their differentiation to provide transparency in the implementation process. The EntreComp Framework with its progression model provides important contributions in the exemplary description of the competences.

Conclusion

Through the desk research and analysis of existing offers the consortium gained great insights on what it takes to make of ECI project an impactful long-running initiative.

The challenges lie in the improvement of school and out-of-school start-up education, in the commitment of politicians by creating the necessary framework conditions (i.e. reduction of bureaucracy, transparency, simplify the regulatory, support through public funds, support trust in public institutions etc.).

Most important is to support the integration of entrepreneurial education and particularly soft-skills in school and VET education, as well as in non-formal education pathways.

The design of collaborative and inclusive paths of development is a process which is based on a well-founded needs analysis, which enables an adaptation of the training to be developed. Moreover, it is important to not just use the EntreComp Framework to disseminate knowledge on entrepreneurship,



but to valorise the 15 competences of the Framework as broader self-empowerment solutions – to satisfy the demand of new aspiring entrepreneurs.

The consortium is going to exploit the opportunity to fine-tune the model on the basis of their own scope while still remaining consistent to its original contents and overall architecture. This proves the great flexibility of the EntreComp Framework and its enduring nature which allows for further and even greater exploration of any potential opportunity.

From the desk research efforts carried out at implementation of the ECI Project, a key finding emerges concerning the lack of entrepreneurial education offers and a structured approach towards the implementation of the EU EntreComp Framework.



2. EntreComp Implementation Methodology - Recommendations

2.1 Actions to be performed

Next to the general implementation of entrepreneurial education offers for the healthy and solid development of entrepreneurship, it is recommended to implement **common long-term leadership paths and assistance for people** which consider to run a business in order to raise their soft-skills and motivations to realize it (training, personal development training).

Furthermore, there should also exist entrepreneurship education for all learners beginning from secondary to post-secondary education, especially in area of the chosen ECI competences and soft-skills. Actions that should be implemented to improve entrepreneurship education and support entrepreneurship by local governments, public institutions and non-governmental organizations:

- ✓ Popularization of entrepreneurial soft-skills for pupils and students (e.g. entrepreneurship tutoring) by using the EntreComp Framework training material,
- ✓ Popularizing common methodology for trainings (e.g. EntreComp Framework training material), workshops on soft-skills needed to conduct business (in formal and non-formal education),
- ✓ Taking action in the area of entrepreneurial training program development and implementation by using and integrating the EntreComp Framework training material,
- ✓ Creating Networking for entrepreneurs and entrepreneurs-to-be (creating coworking spaces, leadership programs),
- ✓ Supporting cooperative paths and knowledge exchange initiatives between Universities, VET, secondary schools, Policy and entrepreneurial ecosystem,
- ✓ Supporting institutions in the field of undertaking activities popularizing soft-skills,
- ✓ Coordinate and integrate both, local and national scale key stakeholders.

Non-academic stakeholders, national public authorities, regional and local governments, research entities, etc. should all contribute to the definition of this long-term vision concerning the role of formal and non-formal entrepreneurship education offers.

In addition to these more specific measures, it has become clear to us that while the EntreComp Framework is a useful and important instrument for entrepreneurship education, it is not widely and actively used in our formal and non-formal education systems. Therefore, it is crucial to promote the distribution and dissemination of the EntreComp Framework.

The opportunities for vital entrepreneurship education might derive from the numerous potential "linkages" between the EntreComp Framework, EQF and ESCO, as shown in the "ESCO-EntreComp: Cross-Assessment Matrix" (separate document) and Table 1: Transversal and potential linkages between the EntreComp and EQF. This would lead to a transferability of entrepreneurial skills and soft-skills across the European education systems. In this context we strongly recommend to establish such



a linkage between the EntreComp as well as the ECSO and EQF/NQF in order to reach the maximum synergy effects for people using it.

2.2 Methodological approach, general scale and scope of the training

The results of desk research and cross-referencing have provided the ECI consortium with a clear indication of the need for providing a transferable pathway to integrate entrepreneurship education in our national formal and non-formal education systems.

The ECI consortium meets this challenge by developing generally applicable training materials specifically for the development and education of soft-skills.

The target group of ECI training material will be especially young learners in secondary schools and teachers (all different educational levels). Furthermore, the materials will be also usable by students, VET-students or people who already work and think about becoming self-employed or who are already self-employed and want to improve their entrepreneurial soft-skills. We also would like to address learners in the non-formal education. Moreover, the training material can be used by everybody who is willing to improve his/her soft-skills in the ECI competences (i.e. Creativity; Ethical and sustainable thinking; Self-awareness and self-efficacy; Mobilizing others; Taking the initiative; Coping with uncertainty, ambiguity and risk).

To make it accessible to these target groups and the general public, it is very important to integrate the developed training material in existing curricula as well as education offers.

Therefore, the consortium has the crucial task to disseminate the EntreComp Framework, the developed training materials and to raise the awareness at political level. Especially at this level, the awareness of the high importance of entrepreneurship education needs to grow.

The preferred way of teaching would be the study of successful entrepreneurial cases, work-based learning, visualized material such as PowerPoints, handbooks with tips and advices for a future entrepreneur and staff like these that could lead to an actual up-skilling of the learners.

Also, the training mode should be blended learning since although the contemporary educational systems support the online training and the technology evolves, the face-to-face training is important for the learners to better and further understand the different learning material. Besides, the conduction of workshops is considered mandatory for the entrepreneurial training.

The structure of the training material should cover the competence addressed as effectively as possible, but should not be too scientific or complicated. The material should be as simple and transferable as possible and applicable to all formal and non-formal educational pathways. Also in the context of translating all the training material in the different languages (i.e. German, Greek, Italian, Polish, Romanian) and uploading it on the OER Platform, it should be structured and easy to understand for learners.

The partners are going to develop six 6 training modules structured along didactic units, with user-friendly provision (i.e. short handouts, short animations up to 3 minutes, training fiches, checklists, snapshots, etc.) to enable the learner to reach a dedicated learning outcome. Therefore, the partners also going to integrate testing and evaluation mechanisms and tools (i.e. checklist for self-check).



Each Module should indicate:

- ✓ Title,
- ✓ Keyword (at least 6 keywords per Module in order to develop a Glossary),
- ✓ Language,
- ✓ Learning Outcome,
- ✓ Contents in brief
- ✓ Glossary entries
- ✓ Bibliography/Reference material
- ✓ Related Material and reference link (i.e. YouTube Videos)

By developing the training material, the partners are free to choose the number of didactic units necessary to develop the content appropriate to address the skills/knowledge/competences pertaining to the specific element of the EntreComp Framework. Each Didactic Unit should be user-friendly and online friendly: each Module should not be longer than 30 to 45 minutes of duration, irrespective of the number of didactic units. Each didactic unit should be presented in a separate handout and PowerPoint presentation. Therefore, the partners are provided with templates.



3. Annexes

Annex 1: EntreComp_Implementation Examples