

The European Entrepreneurship Competence Framework (EntreComp). A Conceptual Model Built and Tested by the European Commission's Joint Research Centre

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Keywords

entrepreneurial learning; entrepreneurship education; lifelong learning; employability; skills; future of work; value creation; learning by doing.

Abstract

Defining what it takes to act entrepreneurially is fundamental to identify what competences shall be nurtured to cultivate the entrepreneurial capacity of European citizens and organisations.

The Joint Research Centre and Directorate General for Employment, Social Affairs and Inclusion of the European Commission have developed a Reference Framework, turning a very broad definition of entrepreneurship into learning outcomes that facilitate the promotion of entrepreneurial learning across sectors.

Introduction

EntreComp is the European Reference Framework which defines entrepreneurship as a competence for life-long learning. Its ambition is to build a bridge between the worlds of education and work, to help the promotion of entrepreneurship competence in Europe, to ease peer learning and exchange among Member States and eventually to have a positive impact on European citizens' potential to participate in all areas of society by transforming ideas into action and creating value for others.

It is the result of the joint effort of the Joint Research Centre of the European Commission and DG Employment, Social Affairs and Inclusion to foster a common understanding of what it takes to be entrepreneurial by:

- Identifying the key components of entrepreneurship as a competence;
- Describing these components to establish a shared conceptual model that all players in the field of entrepreneurial learning can refer to;
- Developing a number of learning outcomes to suggest what European citizens should know, understand and be able to do, to demonstrate a certain level of proficiency in entrepreneurship competence.

The EntreComp framework is the result of a robust research methodology (Bacigalupo et al. 2016), where a large and heterogeneous group of experts has been interactively consulted to progressively reach consensus around a validated proposal.

Since its publication in 2016, the EntreComp has been adapted and used as a reference in the world of education and training, in youthwork and inclusion initiatives as well as in employment settings. McCallum and colleagues (2018) have recently compiled a list of more than 70 initiatives that have used the EntreComp to

achieve a variety of different goals ranging, from raising awareness on what the competences are that make us entrepreneurial, to designing educational activities to recognising entrepreneurial learning outcomes achieved through different value creating activities.

In the following the framework is introduced and its building blocks are explained. What follows is a partial reproduction of the JRC Science for Policy Report originally published as Bacigalupo, M., Kampylis, P., Punie, Y., Van den Brande, G. (2016). *EntreComp: The Entrepreneurship Competence Framework*. Luxembourg: Publication Office of the European Union.

Entrepreneurship as a Competence

In the context of the EntreComp study, entrepreneurship is understood as a transversal key competence applicable by individuals and groups, including existing organisations, across all spheres of life. It is defined as follows:

Entrepreneurship is when you act upon opportunities and ideas and transform them into value for others. The value that is created can be financial, cultural, or social (FFE-YE, 2012).

This definition focuses on value creation, no matter what type of value or context. It covers value creation in any domain and possible value chain. It refers to value creation in the private, public and third sectors and in any hybrid combination of the three. It thus embraces different types of entrepreneurship, including intrapreneurship, social entrepreneurship, green entrepreneurship and digital entrepreneurship.

Entrepreneurship as a competence applies to all spheres of life. It enables citizens to nurture their personal development, to actively contribute to social development, to enter the job market as employee or as self-employed, and to start-up or scale-up ventures which may have a cultural, social or commercial motive.

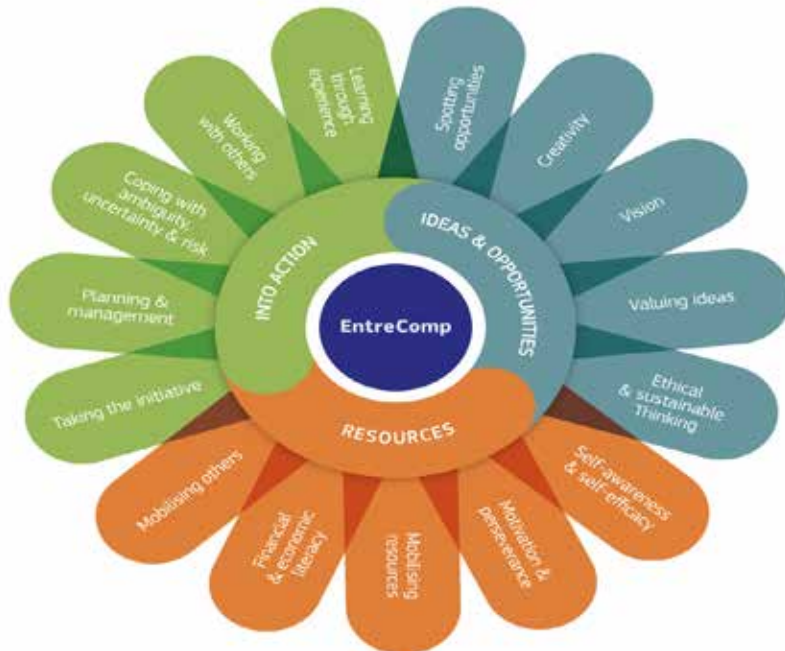
The EntreComp Framework

The EntreComp conceptual model is made up of two main dimensions: the 3 competence areas that directly mirror the definition of entrepreneurship as the ability to turn ideas into action that generate value for someone other than oneself; and the 15 competences that, together, make up the building blocks of the entrepreneurship

as a competence for all citizens. We have listed the competences in Table 1. Each one is accompanied by a hint or an exhortation to the learner to put the competence into practice and a descriptor, which breaks it down into its core aspects.

'Ideas and opportunities', 'Resources' and 'Into Action' are the 3 areas of the conceptual model and they have been labelled to stress entrepreneurship competence as the ability to transform ideas and opportunities into action by mobilising resources. These resources can be personal (namely, self-awareness and self-efficacy, motivation and perseverance), material (for instance, production means and financial resources) or non-material (for instance, specific knowledge, skills and attitudes). The 3 competence areas are tightly intertwined: entrepreneurship as a competence stands above all three of these together.

Figure 1: Areas and competences of the EntreComp conceptual model.



The 15 competences are also interrelated and interconnected and should be treated as parts of a whole. We are not suggesting that the learner should acquire the highest level of proficiency in all 15 competences or have the same proficiency across all the competences. The framework does, however, imply that entrepreneurship as a competence is made up of 15 building blocks.

Figure 1 depicts the EntreComp competences as a stemming of the three areas: Ideas & Opportunities, Resource, and Into Action. They are distinct yet interconnected, and overlaps underline that the coupling between competence areas and competences does not have taxonomic rigour. For example, creativity is presented as one of the competences in the 'Ideas and opportunities' area, even though the creative process entails both the use of resources and the capacity to act upon ideas to mould

their value. The reader is welcome to establish new links among areas and competences to expand the elements of the framework and adapt them to best fit his/her focus.

Table 1 provides an overview of the EntreComp conceptual model, showing how the entrepreneurship competence has been broken down into its constituent parts within the framework. Competences are numbered for ease of reference – the order in which they are presented does **not** imply a sequence in the acquisition process or a hierarchy: no element comes first, and none of them is more important than the others. There are no core competences nor enabling competences in the EntreComp conceptualization.

Depending on the context of take-up, it is reasonable to expect that more emphasis

Table 1: EntreComp conceptual model

Areas	Competences	Hints	Descriptors
1. Ideas and opportunities	1.1 Spotting opportunities	Use your ¹ imagination and abilities to identify opportunities for creating value	<ul style="list-style-type: none"> - Identify and seize opportunities to create value by exploring the social, cultural and economic landscape - Identify needs and challenges that need to be met - Establish new connections and bring together scattered elements of the landscape to create opportunities to create value
	1.2 Creativity	Develop creative and purposeful ideas	<ul style="list-style-type: none"> - Develop several ideas and opportunities to create value, including better solutions to existing and new challenges - Explore and experiment with innovative approaches - Combine knowledge and resources to achieve valuable effects
	1.3. Vision	Work towards your vision of the future	<ul style="list-style-type: none"> - Imagine the future - Develop a vision to turn ideas into action - Visualise future scenarios to help guide effort and action
	1.4 Valuing ideas	Make the most of ideas and opportunities	<ul style="list-style-type: none"> - Judge what value is in social, cultural and economic terms - Recognise the potential an idea has for creating value and identify suitable ways of making the most out of it
	1.5 Ethical and sustainable thinking	Assess the consequences and impact of ideas, opportunities and actions	<ul style="list-style-type: none"> - Assess the consequences of ideas that bring value and the effect of entrepreneurial action on the target community, the market, society and the environment - Reflect on how sustainable long-term social, cultural and economic goals are, and the course of action chosen - Act responsibly

(cont.)

(cont. Table 1)

2. Resources	2.1 Self-awareness and self-efficacy	Believe in yourself and keep developing	<ul style="list-style-type: none"> - Reflect on your needs, aspirations and wants in the short, medium and long term - Identify and assess your individual and group strengths and weaknesses - Believe in your ability to influence the course of events, despite uncertainty, setbacks and temporary failures
	2.2 Motivation and perseverance	Stay focused and don't give up	<ul style="list-style-type: none"> - Be determined to turn ideas into action and satisfy your need to achieve - Be prepared to be patient and keep trying to achieve your long-term individual or group aims - Be resilient under pressure, adversity, and temporary failure
	2.3 Mobilizing resources	Gather and manage the resources you need	<ul style="list-style-type: none"> - Get and manage the material, non-material and digital resources needed to turn ideas into action - Make the most of limited resources - Get and manage the competences needed at any stage, including technical, legal, tax and digital competences
	2.4 Financial and economic literacy	Develop financial and economic know how	<ul style="list-style-type: none"> - Estimate the cost of turning an idea into a value-creating activity - Plan, put in place and evaluate financial decisions over time - Manage financing to make sure my value-creating activity can last over the long term
	2.5. Mobilizing others	Inspire, enthuse and get others on board	<ul style="list-style-type: none"> - Inspire and enthuse relevant stakeholders - Get the support needed to achieve valuable outcomes - Demonstrate effective communication, persuasion, negotiation and leadership
3. Into action	3.1 Taking the initiative	Go for it	<ul style="list-style-type: none"> - Initiate processes that create value - Take up challenges - Act and work independently to achieve goals, stick to intentions and carry out planned tasks
	3.2 Planning and management	Prioritize, organize and follow-up	<ul style="list-style-type: none"> - Set long, medium and short-term goals - Define priorities and action plans - Adapt to unforeseen changes
	3.3 Coping with uncertainty, ambiguity and risk	Make decisions dealing with uncertainty, ambiguity and risk	<ul style="list-style-type: none"> - Make decisions when the result of that decision is uncertain, when the information available is partial or ambiguous, or when there is a risk of unintended outcomes - Within the value-creating process, include structured ways of testing ideas and prototypes from the early stages, to reduce risks of failing - Handle fast-moving situations promptly and flexibly
	3.4 Working with others	Team up, collaborate and network	<ul style="list-style-type: none"> - Work together and co-operate with others to develop ideas and turn them into action - Network - Solve conflicts and face up to competition positively when necessary
	3.5. Learning through experience	Learn by doing	<ul style="list-style-type: none"> - Use any initiative for value creation as a learning opportunity - Learn with others, including peers and mentors - Reflect and learn from both success and failure (your own and other people's)

may be put on some of the competences and less on others, or else that competences are streamlined to mirror an entrepreneurial process created to foster learning through entrepreneurship. In other words, the EntreComp Framework can be seen as a starting point for the interpretation of the entrepreneurship competence, which over time will be further elaborated and refined to address the particular needs of specific target groups.

This section presents the EntreComp Framework progression model and the key characteristics of the learning outcomes that have been based on it.

The stakeholders involved in the review of the EntreComp regard it as a very comprehensive and broad-based tool with 3 competence areas, 15 competences, 15 descriptors, 8 proficiency levels and 442 learning outcomes. They acknowledged that

the EntreComp Framework (i) reflects the complexity of the entrepreneurship competence domain, which touches upon several aspects of our everyday lives, and (ii) can be used as a multi-purpose reference guide. The advantage of having a broad yet comprehensive competence framework is that although it can accommodate bespoke customisations, it also allows initiatives that tackle entrepreneurship as a competence to be compared, facilitating a common understanding of what being entrepreneurial means.

The comprehensiveness of EntreComp is one of its main assets. However, the reader should bear in mind that not all citizens, learners, or users will be interested in developing all the competences here described to the highest level of proficiency. It is expected that institutions, intermediaries and initiative developers who are willing to adopt EntreComp as a reference framework adapt it to their own purposes and to the needs of the user group they intend to target. In other words, the EntreComp framework presented in this report should be considered as a starting point. It must be tailored to the context of use in order to be implemented.

2.1. Progression Model

Entrepreneurship as a competence is developed through action by individuals or collective entities to create value for others.

The progression in entrepreneurial learning is made up of two aspects:

1. Developing increasing autonomy and responsibility in acting upon ideas and opportunities to create value;
2. Developing the capacity to generate value from simple and predictable contexts up to complex, constantly changing environments.

The EntreComp Progression Model does not lay down a linear sequence of steps that every citizen must take to become proficiently entrepreneurial or to start-up a venture. Instead, it shows that the boundaries of individual and collective entrepreneurial competences can be pushed forward, to achieve greater and greater impact through value creating endeavours.

The EntreComp Progression Model provides a reference for the development of proficiency starting from value creation achieved through external support, up to transformative value creation. It consists of four main levels: Foundation, Intermediate, Advanced and Expert. Each level is in turn split into two sub-levels, as illustrated in Table 2. At Foundation level, entrepreneurial value is created with external support. At Intermediate level, entrepreneurial value is created with increasing autonomy. At Advanced level, responsibility to transform ideas into action is developed. At Expert level, the value created has considerable impact in its reference domain.

These proficiency levels provide a way for the reader to look at the learning outcomes. For instance, the first learning outcome of the 8th proficiency levels is: I can spot and quickly take advantage of an opportunity. Although 'spotting and taking advantage of opportunity' is a skill that learners start developing at lower levels, level 8 emphasises the need to do it 'quickly'. At this expert level, timeliness in making use of a window of opportunity has a strategic importance which can lead to high growth, breakthrough innovation or radical transformation.

The EntreComp aims to be comprehensive and to offer a tool that can be adapted to different needs. It is not prescriptive, and it does not suggest that all learners should acquire the highest level of proficiency in the competences, or that they should reach the same proficiency across all the com-

petences. For example, we could imagine designing an entrepreneurial learning experience targeted at the employees of the shoe-making district of our region. In our programme we could, for instance, aim at an advanced level of proficiency in competences like 'spotting opportunities', 'vision', 'mobilizing resources', 'mobilising others' and 'planning and organising'. At the same time, we could aim to achieve an intermediate level of proficiency in 'financial and economic literacy'. We could deem it important to provide our learners with the skills to understand the financial viability of their ideas, but not important to have them develop double-entry bookkeeping skills, which would require an advanced level of proficiency.

We remind the reader that entrepreneurial value creation and entrepreneurial learning can take place in any sphere of life. The EntreComp Progression Model does not refer to any specific setting, especially not to formal education settings. By focusing on the development of competences through the actual creation of entrepreneurial value, the progression model breaks down the boundaries between education, work and civic engagement. In this respect, the EntreComp Progression Model is transversal to formal, non-formal and informal learning contexts.

2.2. Learning outcomes

Learning outcomes are statements of what a learner knows, understands and is able to

Table 2: EntreComp Progression model.

Foundation		Intermediate	
Relying on support ² from others		Building independence	
Under direct supervision.	With reduced support from others, some autonomy and together with my peers.	On my own and together with my peers.	Taking and sharing some responsibilities.
Discover	Explore	Experiment	Dare
Level 1 focuses mainly on discovering your qualities, potential, interests and wishes. It also focuses on recognising different types of problems and needs that can be solved creatively, and on developing individual skills and attitudes.	Level 2 focuses on exploring different approaches to problems, concentrating on diversity and developing social skills and attitudes.	Level 3 focuses on critical thinking and on experimenting with creating value, for instance through practical entrepreneurial experiences.	Level 4 focuses on turning ideas into action in 'real life' and on taking responsibility for this.

do after completion of learning (Cedefop, 2009). These statements can be designed and used for educational planning and curriculum development or for different types of accountability such as legal or professional accountability (Prøitz, 2010).

Entrepreneurial learning can hardly be reduced to fixed pre-specified statements of learning outcomes since it deals with the creation of value that does not exist prior to the entrepreneurial learning process and cannot be foreseen in abstraction.

However, learning outcome statements are considered as crucial to make the framework actionable. EntreComp learning outcomes have been developed as references for different purposes. They could be used in the formal education and training sector for curricula design. In a non-formal learning context, they could be used to inspire

the creation of programmes which aim to foster intrapreneurship within existing organisations. They could also be used to guide the definition of tailored pedagogies, assessment methods, and learning environments that foster effective entrepreneurial learning.

Thus, EntreComp learning outcomes should not be taken as normative statements to be **directly** transposed into actual learning activities or be used to measure student performance. They are a basis for the development of specific learning outcomes that are fit for the specific context and a basis for the development of performance indicators.

Although the vast majority of learning outcomes have been formulated as 'I' statements, this does not mean that Entrepreneurship Competence only refers to the capacity of individuals. On the contrary, the

Advanced		Expert	
Taking responsibility		Driving transformation, innovation and growth	
With some guidance and together with others.	Taking responsibility for making decisions and working with others.	Taking responsibility for contributing to complex developments in a specific field.	Contributing substantially to the development of a specific field.
Improve	Reinforce	Expand	Transform
Level 5 focuses on improving your skills for turning ideas into action, taking increasing responsibility for creating value, and developing knowledge about entrepreneurship.	Level 6 focuses on working with others, using the knowledge you have to generate value, dealing with increasingly complex challenges.	Level 7 focuses on the competences needed to deal with complex challenges, handling a constantly changing environment where the degree of uncertainty is high.	Level 8 focuses on emerging challenges by developing new knowledge, through research and development and innovation capabilities to achieve excellence and transform the ways things are done.

subject of entrepreneurial learning and behaviour can be a group, like a project team, a non-profit organisation, a company, a public body or a civil society movement. Below the learning outcomes for one competence per each area are reported to provide the reader with a glimpse of the level of detail that EntreComp embraces. The full

list of 442 learning outcomes per each of the 15 competence can be found in the Appendix to the framework (Bacigalupo et al., 2016) as well as in the appendix to the user guide (McCallum et al., 2018). Although being comprehensive, EntreComp list of learning outcomes is not exhaustive as it aims to suggest transversal applicabil-

Area	Competence	Hint	Descriptor	Thread ³	Level of proficiency	Foundation	
					Progression	Relying on support from others	
					Under direct supervision.	With reduced support from others, some autonomy and together with my peers.	
					Discover	Explore	
Area	Competence	Hint	Descriptor	Thread ³	Level 1	Level 2	
Ideas and opportunities	Spotting opportunities	Use your imagination and abilities to identify opportunities for creating value.	Identify and seize opportunities to create value by exploring the social, cultural and economic landscape.	Identify, create and seize opportunities.	I can find opportunities to help others.	I can recognise opportunities to create value in my community and surroundings.	
			Identify needs and challenges that need to be met.	I can find different examples of challenges that need solutions.	I can recognise challenges in my community and surroundings that I can contribute to solving.	I can identify opportunities to solve problems in alternative ways.	
			Establish new connections and bring together scattered elements of the landscape to create opportunities to create value.	I can find examples of groups who have benefited from a solution to a given problem.	I can identify needs in my community and surroundings that have not been met.	I can explain that different groups may have different needs.	
			Focus on challenges.	I can tell the difference between different areas where value can be created (for example, at home, in the community, in the environment, or in the economy or society).	I can recognise the different roles the public, private and third sectors play in my region or country.	I can tell the difference between contexts for creating value (for example, communities and informal networks, existing organisations, the market).	
			Uncover needs.				
			Analyse the context.				

ity across educational contexts and application sectors.

List of abbreviations and definitions

The EntreComp framework aims to establish a common understanding of what entrepreneurship as a competence is. Its

goal is to become a reference for a broad spectrum of initiatives which aim to foster entrepreneurial learning in Europe and beyond. The definition of the basic terms that make up the backbone of this report is therefore a critical building block of the full framework.

Intermediate		Advanced		Expert	
Building independence		Taking responsibility		Driving transformation, innovation and growth	
On my own and together with my peers.	Taking and sharing some responsibilities.	With some guidance and together with others.	Taking responsibility for making decisions and working with others.	Taking responsibility for contributing to complex developments in a specific field.	Contributing substantially to the development of a specific field.
Experiment	Dare	Improve	Reinforce	Expand	Transform
Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
I can explain what makes an opportunity to create value.	I can proactively look for opportunities to create value, including out of necessity.	I can describe different analytical approaches to identify entrepreneurial opportunities.	I can use my knowledge and understanding of the context to make opportunities to create value.	I can judge opportunities for creating value and decide whether to follow these up at different levels of the system I am working in (for example, micro, meso or macro).	I can spot and quickly take advantage of an opportunity.
I can redefine the description of a challenge, so that alternative opportunities address it may become apparent.	I can take apart established practices and challenge mainstream thought to create opportunities and look at challenges in different ways.	I can judge the right time to take an opportunity to create value.	I can cluster different opportunities or identify synergies among different opportunities to make the most out of them	I can define opportunities where I can maintain a competitive advantage.	
I can establish which user group, and which needs, I want to tackle through creating value.	I can carry out a needs analysis involving relevant stakeholders.	I can identify challenges related to the contrasting needs and interests of different stakeholders.	I can produce a 'road-map' which matches the needs with the actions needed to deal with them and helps me create value.	I can design projects which aim to anticipate future needs.	
I can identify my personal, social and professional opportunities for creating value, both in existing organisations or by setting up new ventures.	I can identify the boundaries of the system that are relevant to my (or my team's) value-creating activity.	I can analyse an existing value-creation activity by looking at it as a whole and identifying opportunities to develop it further.	I can monitor relevant trends and see how they create threats and new opportunities to create value.	I can promote a culture within my organisation that is open to spotting the weak signals of change, leading to new opportunities for creating value.	

(cont.)

Resources	Self-awareness and self-efficacy	Believe in yourself and keep developing.	Reflect on your needs, aspirations and wants in the short, medium and long term.	Follow your aspirations.	I can identify my needs, wants, interests and goals.	I can describe my needs, wants, interests and goals.
			Identify and assess your individual and group strengths and weaknesses.	I can identify things I am good at and things I am not good at.		I can judge my strengths and weaknesses and those of others in relation to opportunities for creating value.
			Believe in your ability to influence the course of events, despite uncertainty, setbacks and temporary failures.	I believe in my ability to do what I am asked to successfully.	I believe in my ability to achieve what I intend to.	I can judge the control I have over my achievements (compared with any control from outside influences).
			Identify your strengths and weaknesses. Believe in your ability. Shape your future.	I can list different types of jobs and their key functions.	I can describe which qualities and abilities are needed for different jobs, and which of these qualities and abilities I have.	I can describe my skills and competences relating to career options, including self-employment.
Into action	Taking the initiative	Go for it.	Initiate processes that create value. Take up challenges.	Take responsibility.	I can carry out the tasks I am given responsibly.	I am comfortable in taking responsibility in shared activities.
			Act and work independently to achieve goals, stick to intentions and carry out planned tasks.	I show some independence in carrying out tasks I am given.	I can work independently in simple value-creating activities.	I can initiate simple value-creating activities.
			Work independently. Take action.	I can have a go at solving problems that affect my surroundings.	I show initiative in dealing with problems that affect my community.	I actively face challenges, solve problems and seize opportunities to create value.

I can commit to fulfilling my needs, wants, interests and goals.	I can reflect on my individual and group needs, wants, interests and aspirations in relation to opportunities and future prospects.	I can translate my needs, wants, interests and aspirations into goals that help me reach them.	I can help others to reflect on their needs, wants, interests and aspirations and how they can turn these into goals.		
I am driven by the desire to use my strengths and abilities to make the most of opportunities to create value.	I can team up with others to compensate for our weaknesses and add to our strengths.	I can help others identify their strengths and weaknesses.			
I believe I can influence people and situations for the better	I believe in my ability to carry out what I have imagined and planned, despite obstacles, limited resources and resistance from others.	I believe in my ability to understand and take the good out of experiences that others may label as failures.			
I can use my skills and competences to change my career path, as a result of new opportunities or from necessity.	I can discuss how a realistic understanding and evaluation of my personal attitudes, skills and knowledge can influence my decision-making, relationships with other people and quality of life.	I can choose professional development opportunities with my team and organisation based on a clear understanding of our strengths and weaknesses.	I can design professional development strategies for my team and organisation based on a clear understanding of our strengths and weaknesses, in relation to both current and future opportunities to create value.	I can design strategies to overcome my (or my team's or organisation's) weaknesses and to develop our strengths in anticipating future needs.	
I can take individual and group responsibility to carry out simple tasks in value-creating activities.	I can take individual and group responsibility in value-creating activities.	I can delegate responsibility appropriately.	I can encourage others to take responsibility in value-creating activities.	I take responsibility in complex value-creating activities.	I can take responsibility in seizing new opportunities and when facing unprecedented challenges in value-creating activities.
I am driven by the possibility of being able to initiate value-creating activities independently.	I can initiate value-creating activities alone and with others.	I can help others work independently.	I praise initiative taken by others and reward it appropriately within my team and organisation.		
	I take action on new ideas and opportunities, which will add value to a new or existing value-creating venture.	I value others taking the initiative in solving problems and creating value.	I can encourage others to take the initiative in solving problems and creating value within my team and organisation.		

Term	Definition & Source
Attitudes	'Attitudes' are motivators of performance. They include values, aspirations and priorities.
Competence	In the context of the EntreComp study, competence is understood as a set of knowledge, skills and attitudes.
Crowdsourcing	Crowdsourcing is the practice of outsourcing necessary services, ideas, or content to a large group of people, rather than assigning the tasks to traditional employees or suppliers. Crowdsourcing typically takes place via the internet.
Digital entrepreneurship	Digital entrepreneurship is entrepreneurship that involves the use of new digital technologies (particularly social media, big data, mobile and cloud solutions). The purpose of this use may be to improve business operations, invent new business models, improve business intelligence or to engage with customers and stakeholders. ⁴
End user	In the context of the EntreComp study, an end user is the person for whom something was ultimately created or intended.
Entrepreneurship	Entrepreneurship is when one acts upon opportunities and ideas and transforms them into value for others. The value that is created can be financial, cultural, or social (FFE-YE, 2012).
Green entrepreneurship	Green entrepreneurship is entrepreneurship that has a positive effect on environment and can be seen as a move to a more sustainable future (Schaper, 2012).
Intrapreneurship	Intrapreneurship is entrepreneurship inside an organisation (see Pinchot, 1985).
Knowledge	Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual (European Parliament and the Council, 2008).
Learning outcomes	Learning outcomes are statements of what a learner knows, understands and is able to do after completion of learning (Cedefop, 2009). Such statements can be designed and used for educational planning and curriculum development or for different types of accountability such as legal accountability or professional accountability (Prøitz, 2010).

Practical entrepreneurial experiences	Practical entrepreneurial experiences are educational experiences where the learner has the opportunity to come up with ideas, identify a good idea and turn that idea into action. They require the involvement of external partners in the design and/or delivery of this learning, to ensure relevance to the real world. Practical entrepreneurial experiences provide students with a supportive environment, where mistakes are embraced and failure is a learning tool, so that they gain the confidence and experience to turn their ideas into action in the real world. Practical entrepreneurial experiences should be a student led initiative either individually or as part of a small team, involve learning-by-doing and produce a tangible outcome (Thematic Working Group on Entrepreneurship Education, 2014).
Resources	In the context of this work, resources is a term that encompasses personal resources (namely, self-awareness and self-efficacy, motivation and perseverance), material resources (for instance, production means and financial resources) or non-material resources (for instance, specific knowledge, skills and attitudes).
Skills	Skills are the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments) (European Parliament and the Council, 2008).
Social entrepreneurship	Social entrepreneurship is entrepreneurship that aims to provide innovative solutions to unsolved social problems. Therefore it often goes hand in hand with social innovation processes, aimed at improving people's lives by promoting social change (see OECD, 2010).
Stakeholders	Stakeholders are individuals, groups and organisations with direct and indirect interest in value-creating activity and its impact.
System	A system as a dynamic complex whole made up of a set of interacting components that influence one another. A system is defined by the boundaries that distinguish it from the environment that surrounds it and interacts with it, and it is characterized by a structure, a purpose and a way of functioning.
Uncertainty	Uncertainty is a situation which involves imperfect and (or) incomplete information, and which affects the predictability of outcomes. Uncertainty entails a risk of undesired effect or loss, whose probability and magnitude cannot be calculated.
Value creation	Value creation is the outcome of human activity to transform purposeful ideas into action which generates value for someone other than oneself. This value can be social, cultural or economic.

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(Footnotes)

- 1 In the context of EntreComp framework, entrepreneurship competence is regarded both as an individual and collective capacity.
- 2 Support from others includes for example support by teachers, mentors, peers, advisors, or consultancy services.
- 3 Threads identify the theme running through out each row of the table.
- 4 See full definition at the Digital Entrepreneurship Monitor website: <https://ec.europa.eu/growth/tools-databases/dem/monitor/project-description>

