



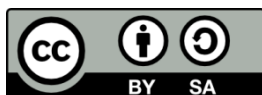
## DISC WP2

### Competence Frameworks and Assessment Methods



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## 1 Competence Framework - Summary

The DISC competence framework was created to list and describe the competences needed to tackle challenges and tasks in relation to the introduction of Sustainable Development (SD) in Higher Education, professional and civic contexts.

They are two main target groups within DISC:

1. on the one hand individuals and groups in their adult learning contexts which can be private and/or professional, and
2. on the other hand the facilitators who facilitate the acquisition of those competences for target group 1.

The DISC competence frameworks for learners and facilitators are based on

- the SDG concept of the UN (2015),
- the competence concept of Erpenbeck, Sauter 2014 (competence clusters)
- the LEVEL5 taxonomy (reveal group 2016-2024) in combination with
- the GreenComp Competence Framework (2022)
- the EntreComp Competence Framework (2018) and
- facilitators\* Competence Framework (reveal group, 2018 and 2021)

DISC differentiates domain specific competences (here those competences relating to Sustainable Development (SD) and social, personal and organisational competences (generic and methodological competences).

The first competence framework relates to both learners (as professionals (in their professional (business) contexts and as individuals (citizens) and their facilitators.

The DISC Competence Framework relates to the competence clusters identified by the GreenComp system. The system differentiates between “embodying values”, promoting “complex (system) thinking”, “future orientation” and “taking (individual and collective) actions” for sustainability.

Hence, it combines cognitive and emotive (affective) traits. In this case, these are:

- specific content-related and future-oriented knowledge, and
- methodological skills, actions, and
- attitudes and values

related to sustainability and sustainable development.

The DISC approach applies the quality proven LEVEL5 taxonomic system to operationalise this triad of knowledge, skills and affective competence elements related to SD in the GreenComp system.

A specific cluster of competences relate to the action and learning field described as “spotting ideas and opportunities” which is derived from the EntreComp system developed by the JRC in 2018.

The DISC approach is largely based this learning field since it can be directly adapted in the context of the 2 learners’ groups. To “become sustainable” in the own repertoire, in HE or in business needs a creative and innovative approach, thus the spotting ideas and opportunities action field is crucial<sup>1</sup>.



<sup>1</sup> This strategy was also applied by the developers of the GreenComp system who also used the three-fold action field of the EntreComp system.



For both target groups (learners and teachers) the first part of the competence framework is equally relevant. It is consisting of field competences on SD in combination with personal, social and organisational competences.

It consists of 15 competences and additional 15 sub-competences, which are described in detail with an introduction on the meaning and scope of each competence followed by a taxonomic reference system (LEVEL5)

The second part of the DISC competence framework relates to the “facilitation competences” of trainers and facilitators (learning designers and supporters) who bring about these competences in informal (e.g. civic projects) and non-formal/formal (business) contexts. This second part consists of 10 competences.

## 1.1. The Inventory

*A competence is the ability to apply a synthesis of*

- Knowledge,
- Skills and
- Attitudes

*in a particular situation and in a particular quality<sup>2</sup>.*

<b>Field (Domain specific) Competences</b> <ul style="list-style-type: none"> <li>• Competence to Introduce Sustainable Development in own Contexts</li> <li>• Competence to Spot Ideas and Opportunities for SD</li> </ul>	<b>Social competences</b> <ul style="list-style-type: none"> <li>• Teamwork</li> <li>• Leadership</li> <li>• (Intercultural) Communication</li> <li>• Client Orientation</li> </ul>
<b>Organisational Competences</b> <ul style="list-style-type: none"> <li>• Project Development</li> <li>• Planning and Resource Management</li> <li>• Networking</li> <li>• Evaluating</li> </ul>	<b>Personal Competences</b> <ul style="list-style-type: none"> <li>• Vision and Creativity</li> <li>• Problem Solving</li> <li>• Critical Thinking</li> <li>• Sense of Initiative</li> <li>• Learning to Learn</li> </ul>

Fig. 1. DISC Competence Framework

The DISC competence set is a four-field cluster<sup>3</sup> with 15 competences which can be simplified and listed as follows

### **Field Competences**

The field competences relate to 2 domains: on the one hand to knowledge and skills related to Sustainable Development and on the other hand to the ability to spot ideas and opportunities and to convert them in actions.

### **Generic Competences**

The generic competences can be clustered according to social, personal and organisational competences.

<sup>2</sup> The definition has been coined by a consortium led by Research voor Beleid (2006) in the EU publication „Key competences for Adult Education“.

<sup>3</sup> based on different competence theories and models (e.g. Research voor Beleid (2006), Erpenbeck, Sauter 2014, REVEAL group 2016/2019) in combination with the EntreComp model.

## 1.1. Field (Domain) Competences related to Sustainable Development

The DISC project developed a unique approach to enable individuals to become active for Sustainable Development.

Interested individuals as adult learners as well as their trainers and facilitators shall be equipped with knowledge and basic skills on the SDGs and to convert these competences in local projects which have a connection to the SDGs.

“Sustainability” and Sustainable Development is a very attractive field as it is considered to be one of the top priorities of corporate and societal development. There is an urgent need to act – not only for citizens but also for employees in their specific contexts.

There is a high identification with SD and SDGs from the side of learners in civic and also professional contexts who may want to deliver their share for a better environment or for a more sustainable future, may it be by community projects, philanthropic activities, improving internal services in enterprises or support for external stakeholders and initiatives caring for the planet. Employees may also play a more prominent role in sustainable business development – here DISC represents a more participatory approach for modern businesses.

The

Apart from the content related aspects to “Develop Sustainability”, which are mainly represented in the first competence, there is also a methodological aspect which is covered by the DISC programme.

This aspect is connected to an entrepreneurial mindset which we consider as crucial for the initiation of private, civic or professional SD projects.

Competence-wise we refer to the EntreComp framework and its “*Competences to Spot Ideas and Opportunities*”

According to EntreComp the “*Competence to Spot Ideas and Opportunities*” consists of the 5 sub-competences:

- Spotting Opportunities
- Creating Ideas
- Visioning
- Valuing Ideas and
- Ethical behaviour

These sub-competences fit very well to the Design Thinking Process which was the major training and learning approach applied to the learners and trainers in the DISC project.

## 1.2. Social, Personal and Organisational Competences

Additionally, the following “generic” or transversal competences were identified which are needed to introduce SD in the own environment, be it private (civic) activities or professional (on the job).

### **Generic Competences**

#### *Social*

- Teamwork (Intercultural)
- Communication
- Leadership: Conflict resolution, Client orientation, Mobilising others

#### *Personal*

- Vision & Creativity



- Problem Solving
- Critical (Ethical and sustainable) thinking
- Self-awareness and self-efficacy
- Looking for Opportunities, Taking initiative (*Sense of initiative*)
- Learning through experience (*Learning2Learn*)

*Organisational:*

- Project Development
- Resource Planning; Mobilising resources
- Financial and economic literacy
- Evaluation (Valuing ideas)
- Networking
- Flexibility (Coping with ambiguity, uncertainty and risk)

In the paper on hand, the competences are thoroughly described by:

- Descriptions consisting of a competence summary and aspects what a learner should know, be able to do and respective attitudes related to these competences.
- A reference system which clusters knowledge, skills and attitudes along 5 competence levels.

On the following pages each of the DISC key competences is described in terms of abstract and general learning outcomes that relate to an ideal, which a professional working in this field should aspire.

### **1.3. Facilitation Competences**

The second part of the DISC competence framework relates to the “facilitation competences” of trainers and facilitators (learning designers and supporters) who bring about these competences in informal (e.g. civic projects) and non-formal/formal (business) contexts.

## 2 Field (Domain specific) Competences

The term “field competence” may be a bit misleading in different business and also informal contexts in connection with sustainability. We explain it to the ability of a person to bring about aspects of sustainability – in based on the concept of the SDGs in connection with the ability to “Spot ideas and Opportunities”.

### 2.1. Competence to Introduce Sustainable Development in own Contexts

This competence describes knowledge, skills and attitudes related to the introduction of sustainable development in private, civic and professional contexts. The idea of the DISC programme is to provide a transferrable programme which is applicable rather independently from the domain where it is introduced.

- Content-wise, it grounds on the basic concept of sustainability as a (rather balanced) combination of ecological, social and economic development.
- This concept is mainstreamed via the 17 SDGs as they are accepted worldwide and ensure a high credibility. Apart from this aspect the SDGs deliver a kind of scaffold to describe relevant aspects of the vast meaning of sustainability and to give it structure and opportunities to substantiate relevant aspects for learners and learners’ groups.
- The DISC learning programme (and as such the first part of the domain specific competences) are operationalised in the SDG explorer programme which
  1. starts with the own standpoint in regard to sustainability (leading to an individual “Sustainability-Profile”)
  2. leads over to the theory on the SDGs and
  3. converts them into action plans for sustainable development
  4. realised in concrete learning and development projects;
  5. and in future followed-up, steered and monitored via a continuing improvement process (CIP or PDCA, deeming circle)

The fifth and in most cases also the 4<sup>th</sup> point has not yet been realised within the DISC project since the piloting phase only started 6 months before the end of the project lifetime. However, some of the learning and development projects could be fully introduced in the project lifetime.

A competent person is pro-active and motivated to take the initiative and has a positive attitude towards innovation, collaboration and is conscious and committed to ethical and sustainable development.





**Knowledge:** The learner knows

- The concept of Sustainability,
- The Sustainable Development Goals in general,
- The own preferences in regard to the SDGs,
- His/her own private and/or professional context and the related SDG intervention area.

**Skills:** The learner is able to

- Refer the concept of Sustainability to oneself,
- Transfer sustainable development to the own context,
- Identify needs and challenges that need to be met related to sustainable development,
- Connect to a team of likeminded persons,
- Introduce actions for sustainable development,
- Continue and maintain the actions for sustainable development.

**Attitudes:** The learner...

- is curious to understand different aspects of sustainability,
- is open to transfer the SD concept to the own contexts,
- is open and motivated to take action for sustainable development,
- is committed to convince others,
- is ready to reflect the own behaviour, constantly check it against sustainability aspects and
- is ready to adapt the behaviour accordingly.

## REFERENCE SYSTEM – Competence to Introduce Sustainable Development in own Contexts

	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
L	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Knowing how to transfer the SDG strategy to other contexts. Knowing how to support sustainable development in other domains.	Developing, constructing, transferring	Being able to transfer implementation strategies for SDG invention on other levels. Actively planning and creating new SD-activities in other domains and contexts.	Incorporation	Having internalised SDG invention as a fundamental personal mindset. Being an inspiration for others in their idea- tion and prototyping activities for SD
4	Knowing when (implicit understanding)	Knowing when to apply right instruments from the portfolio of different SD approaches and tools to develop a concept and proto- type for SDGs.	Discovering acting inde- pendently	Creating and executing a prototyping strategy to invent SD in the own context and professional domain.	Self- regulation, Commit- ment	Being determined and pro-active to create ideas and prototypes in the own environment to implement SDGs.
3	Knowing how	Knowing each of the SDGs in detail. Theo- retically knowing how to act along a concept for Sustainable development.	Deciding/ selecting	Being able to create ideas to invent SDGs in the own context guided by the explorer programme.	Motivation/ apprecia- tion	Valuing sustainability and SDGs in general. Being motivated to introduce an SDG con- cept in private or professional contexts.
2	Knowing why (distant understanding)	Having basic knowledge on sustainable development and SDGs.	Using, imitating	Being able to refer different sustainability aspects to oneself. Being able to identify different sustainability aspects.	Perspective taking	Being curious and interested in sustainable development in the own contexts
1	Knowing what	Knowing that sustainable development is an important concept of nowadays civic and professional life.	Perceiving	Perceiving and recognising the concept of sustain- able development without taking further steps.	Self-orientation	Perceiving the concept of sustainable devel- opment without relating it to oneself.

## 2.2. Competence to Spot Ideas and Opportunities for SD

This competence describes the personal ability to perceive and recognise sustainable “objects and procedures” and their framework, to increasingly apply facilitation techniques and patterns and to relate it to oneself and to other contexts.

It is at the same time a personal competence with a high societal impact since the self-reflection, in combination with the exploration of an (unfamiliar) sustainability context leads to becoming more tolerant and critical thinking, hampers xenophobia and eventually helps our societies to become more cohesive and inclusive.

This Competence requires knowledge on different ideation and prototyping instruments and strategies, e.g. Spotting opportunities, Creating ideas, Working towards a Vision, Valuing ideas, Checking for Sustainability, etc. and how to apply them in different situations related to the invention of sustainable development in private, civic and professional environment.

A competent person should be able to Identify and seize opportunities to create value by exploring the social, cultural and economic landscape, Identify needs and challenges that need to be met and establish new connections and bring together scattered elements of the landscape to create opportunities to create value. He/she should be able to create and value Ideas and act responsibly – in case of DISC based on the portfolio of the SDGs.

A competent person is pro-active and motivated to take the initiative and has a positive attitude towards innovation, collaboration and is conscious and committed to ethical and sustainable development.

### **Knowledge:** The learner knows

- The concept of creativity and innovation in general and specifically related to the introduction of SD
- His/her own private, civic and/or business field and working context and the SDG intervention area
- Different ideation and prototyping instruments and strategies, e.g. Spotting opportunities, Creating ideas, Working towards a Vision, Valuing ideas, Checking for Sustainability, etc. and how to apply them in different situations as part of a design thinking approach

### **Skills:** The learner is able to

#### Spot Opportunities

- Identify and seize opportunities to create value by exploring the social, cultural and economic landscape and the own working environment
- Identify needs and challenges that need to be met related to sustainable internal and/or external business development
- Establish new connections and bring together scattered elements to create opportunities to create value for SD.

## Create and value Ideas for Sustainable Development

### Creating

- 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.

### Valuing

- Judge what value is in sustainability (social, cultural, environmental and economic) terms, Recognise the potential an idea has for creating value and identify suitable ways of making the most out of it,
- Assess the consequences of ideas that bring value and the effect of intrapreneurial action on the target community, the market, society and the environment.

### Considering Sustainability and Ethics

- Reflect on how sustainable long-term social, cultural and economic goals are, and the course of action chosen,
- Act responsibly,
- Imagine the future,
- Develop a vision to turn ideas into action,
- Visualise future scenarios to help guide effort and action.

## **Attitudes:** The learner...

- is pro-active and motivated to take the initiative in order to reach a goal,
- is willing to undertake risks to achieve his/her vision,
- values autonomy and accepts the risk to fail,
- has a positive attitude towards innovation and development,
- appreciates collaboration and respects others,
- has an ethical consciousness.

## REFERENCE SYSTEM – Competence to create ideas and opportunities (on sustainable development)

	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
L	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Knowing how to transfer the SDG strategy to the corporate level. Knowing how to support other people and projects to implement SD.	Developing, constructing, transferring	Being able to transfer ideation and prototyping strategies for SD invention. Actively planning and creating new SD-actions based on Design Thinking	Incorporation	Having internalised SDG invention as personal intrapreneurial mindset. Being an inspiration for others in their ideation and prototyping activities for SD
4	Knowing when (implicit understanding)	Knowing when to apply right instruments from the portfolio of different ideation and prototyping approaches and tools to develop a concept and prototype for SDGs.	Discovering acting independently	Creating and executing a prototyping strategy to invent SD in the own context and professional domain.	Self-regulation, Commitment	Being determined and pro-active to create ideas and prototypes in the own environment to implement SDGs. Finding it important to be creative and innovative in this respect.
3	Knowing how	Knowing different ideation and prototyping approaches, techniques related to: <ul style="list-style-type: none"> <li>• Checking for Sustainability.</li> <li>• Spotting opportunities</li> <li>• Creating ideas</li> <li>• Working towards a Vision</li> <li>• Valuing ideas</li> </ul> Theoretically knowing how to act along an ideation and prototyping concept.	Deciding/ selecting	Being able to create ideas to invent SDGs in the own context guided by the explorer programme. Being able to apply ideation and selection tools from a given (known) portfolio for the exploration of SDGs	Motivation/ appreciation	Valuing sustainability and creativity and innovation for SD in general. Being motivated to develop own ideation and prototyping competences and visions.
2	Knowing why (distant understanding)	Having basic knowledge on sustainable development and SDGs. Knowing that idea creation, a multi-perspective view on the SDGs and the check of ideas is essential for an SDG explorer.	Using, imitating	Being able to teamwork for developing a vision for the exploration of fitting SDGs in the own working environment	Perspective taking	Being curious and interested in ideating and prototyping and spotting of opportunities for sustainable development.
1	Knowing what	Knowing that creativity and innovation is an important concept of nowadays civic and professional life.	Perceiving	Perceiving and recognising the concept of creativity and innovation without taking further steps.	Self-orientation	Perceiving the concept of creativity and innovation without relating it to oneself.

## 2.2.1. Sub-competence 1: Spotting opportunities on SD

L	LEVEL5 Titles	LEVEL5 Hints	EntreComp Hints	EntreComp Titles	Identify, create and seize opportunities	Focus on challenges	Uncover needs	Analyse the context
5	Developing, constructing, transferring	Strategy Versatility Incorporation	Contributing substantially Taking responsibility for contributing to complex developments in a specific field	<i>Driving transformation, innovation and growth:</i>  Transform Expand	<ul style="list-style-type: none"> <li>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).</li> <li>I can spot and quickly take advantage of an opportunity.</li> </ul>	<ul style="list-style-type: none"> <li>I can cluster different opportunities or identify synergies among different opportunities to make the most out of them.</li> <li>I can define opportunities where I can maintain a competitive advantage.</li> </ul>	<ul style="list-style-type: none"> <li>I can produce a 'roadmap' which matches the needs with the actions needed to deal with them and helps me create value.</li> <li>I can design projects which aim to anticipate future needs.</li> </ul>	<ul style="list-style-type: none"> <li>I can monitor relevant trends and see how they create threats and new opportunities to create value.</li> <li>I can promote a culture within my organisation open to spotting the weak signals of change, leading to new opportunities for creating value.</li> </ul>
4	Discovering new contexts Developing Acting independently	Pro-Activity Applied knowledge Disturbed/ new contexts	Taking responsibility for making decisions and working with others. With some guidance and together with others.	<i>Taking responsibility</i>  Reinforce Improve	<ul style="list-style-type: none"> <li>I can describe different analytical approaches to identify entrepreneurial opportunities.</li> <li>I can use my knowledge and understanding of the context to make opportunities to create value..</li> </ul>	<ul style="list-style-type: none"> <li>I can take apart established practices and challenge mainstream thought to create opportunities and look at challenges in different ways.</li> <li>I can judge the right time to take an opportunity to create value.</li> </ul>	<ul style="list-style-type: none"> <li>I can carry out a needs analysis involving relevant stakeholders.</li> <li>I can identify challenges related to the contrasting needs and interests of different stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>I can identify the boundaries of the system that are relevant to my (or my team's) value-creating activity.</li> <li>I can analyse an existing value-creation activity by looking at it as a whole and identifying opportunities to develop it further.</li> </ul>
3	Deciding/ selecting	Theory knowledge Known/ prepared contexts	On my own and together with my peers. Taking and sharing some responsibilities.	<i>Building independence</i>  Experiment Dare	<ul style="list-style-type: none"> <li>I can explain what makes an opportunity to create value.</li> <li>I can proactively look for opportunities to create value, including out of necessity</li> </ul>	<ul style="list-style-type: none"> <li>I can identify opportunities to solve problems in alternative ways.</li> <li>I can redefine the description of a challenge, so that alternative opportunities address it may become apparent.</li> </ul>	<ul style="list-style-type: none"> <li>I can explain that different groups may have different needs.</li> <li>I can establish which user group, and which needs, I want to tackle through creating value.</li> </ul>	<ul style="list-style-type: none"> <li>I can tell the difference between contexts for creating value (e.g., communities and informal networks, existing organisations, the market).</li> <li>I can identify my personal, social and professional opportunities for creating value, both in existing organisations or new ventures.</li> </ul>
2	Using, imitating	Applying under supervision Exercising Trying out	Under direct supervision. With support from others, some autonomy, with my peers.	<i>Relying on support from others</i>  Discover Explore	<ul style="list-style-type: none"> <li>I can find opportunities to help others.</li> <li>I can recognise opportunities to create value in my community and surroundings.</li> </ul>	<ul style="list-style-type: none"> <li>I can find different examples of challenges that need solutions.</li> <li>I can recognise challenges in my community and surroundings that I can contribute to solving.</li> </ul>	<ul style="list-style-type: none"> <li>I can find examples of groups who have benefited from a solution to a given problem.</li> <li>I can identify needs in my community and surroundings that have not been met.</li> </ul>	<ul style="list-style-type: none"> <li>I can tell the difference between different areas where value can be created (e.g. at home, in the community, in the environment, or in the economy or society).</li> <li>I can recognise the different roles the public, private and third sectors play in my region or country</li> </ul>
1	Perceiving	Start	Start	Start	Start	Start	Start	Start

## 2.2.2. Sub-competence 2: Creating ideas on SD

L	LEVEL5 Titles	LEVEL5 Hints	EntreComp Hints	EntreComp Titles	Be curious and open.	Develop ideas.	Define problems	Design value	Be innovative
5	Developing, constructing, transferring	Strategy Versatility Incorporation	Contributing substantially Taking responsibility for contributing to complex developments in a specific field	<i>Driving transformation, innovation and growth:</i>  Transform Expand		<ul style="list-style-type: none"> <li>I can design new processes to involve stakeholders in generating, developing and testing ideas that create value.</li> <li>I can tailor a variety of ways of involving stakeholders to suit the needs of my value-creating activity.</li> </ul>	<ul style="list-style-type: none"> <li>I can use a mix of creative techniques to keep generating value over time.</li> <li>I can initiate, develop, manage and complete a creative project.</li> </ul>	<ul style="list-style-type: none"> <li>I can design and put in place innovative processes to create value.</li> <li>I can apply different design approaches to create value through new products, processes or services.</li> </ul>	<ul style="list-style-type: none"> <li>I can manage innovation processes that respond to emerging needs and make the most of opportunities as they become available.</li> <li>I can identify the steps needed to research the potential for an innovative idea in light of its development into an existing enterprise, a new venture or an opportunity for social change.</li> </ul>
4	Discovering new contexts Developing Acting independently	Pro-Activity Applied knowledge Disturbed/new contexts	Taking responsibility for making decisions and working with others.  With some guidance and together with others.	<i>Taking responsibility</i>  Reinforce Improve	<ul style="list-style-type: none"> <li>I can combine my understanding of different contexts to transfer knowledge, ideas and solutions across different areas.</li> <li>I can actively search for new solutions that improve the value-creating process.</li> </ul>	<ul style="list-style-type: none"> <li>I can set up processes to involve stakeholders in finding, developing and testing ideas.</li> <li>I can describe different techniques to test innovative ideas with end users.</li> </ul>	<ul style="list-style-type: none"> <li>I can help others create value by encouraging experimentation and using creative techniques to approach problems and generate solutions.</li> <li>I can describe and explain different approaches to shaping open-ended problems and different problem-solving strategies.</li> </ul>	<ul style="list-style-type: none"> <li>I can develop and deliver value in stages, launching with the core features of my (or my team's) idea and progressively adding more.</li> <li>I can create (alone or with others) products or services that solve my problems and my needs.</li> </ul>	<ul style="list-style-type: none"> <li>I can describe different levels of innovation (for example, incremental, breakthrough or transformational) and their role in value-creating activities.</li> <li>I can describe how innovations diffuse in society, culture and the market.</li> </ul>
3	Deciding/ selecting	Theory knowledge Known/ prepared contexts	On my own and together with my peers.  Taking and sharing some responsibilities.	<i>Building independence</i>  Experiment Dare	<ul style="list-style-type: none"> <li>I can actively search for new solutions that meet my needs.</li> <li>I can experiment with my skills and competences in situations that are new to me.</li> </ul>	<ul style="list-style-type: none"> <li>I can test the value of my solutions with end users.</li> <li>I can experiment with different techniques to generate alternative solutions to problems, using available resources in an effective way.</li> </ul>	<ul style="list-style-type: none"> <li>I can reshape open-ended problems to fit my skills.</li> <li>I can take part in group dynamics aimed at defining open-ended problems.</li> </ul>	<ul style="list-style-type: none"> <li>I can assemble, test and progressively refine prototypes that simulate the value I want to create.</li> <li>I can identify the basic functions that a prototype should have to illustrate the value of my idea.</li> </ul>	<ul style="list-style-type: none"> <li>I can judge if an idea, product or process is innovative or just new to me.</li> <li>I can tell the difference between types of innovations (for example, process versus product innovation and social innovation, incremental versus disruptive innovation).</li> </ul>
2	Using, imitating	Applying under supervision Exercising Trying out	Under direct supervision. With support from others, some autonomy, with my peers.	<i>Relying on support from others</i>  Discover Explore	<ul style="list-style-type: none"> <li>I can explore new ways to make use of existing resources.</li> <li>I can show that I am curious about new things.</li> </ul>	<ul style="list-style-type: none"> <li>Alone and as part of a team, I can develop ideas that create value for others.</li> <li>I can develop ideas that solve problems that are relevant to me and my surroundings.</li> </ul>	<ul style="list-style-type: none"> <li>I can explore open-ended problems in many ways so as to generate multiple solutions.</li> <li>I can approach open-ended problems (problems with many solutions) with curiosity.</li> </ul>	<ul style="list-style-type: none"> <li>I can improve existing products, services and processes so that they better meet my needs or those of my peers and the community.</li> <li>I can assemble objects that create value for me and others.</li> </ul>	<ul style="list-style-type: none"> <li>I can describe how some innovations have transformed society.</li> <li>I can find examples of innovative products, services and solutions.</li> </ul>
1	Perceiving	Start	Start	Start	Start	Start	Start	Start	Start



## 2.2.3. Subcompetence 3: Visioning on SD

L	LEVEL5 Titles	LEVEL5 Hints	EntreComp Hints	EntreComp Titles	Imagine	Think strategically.	Guide action	
5	Developing, constructing, transferring	Strategy Versatility Incorporation	Contributing substantially Taking responsibility for contributing to complex developments in a specific field	<i>Driving transformation, innovation and growth:</i>  Transform Expand	<ul style="list-style-type: none"> <li>I can show different audiences the benefits of my vision during turbulent times</li> <li>I can develop (alone or with others) and compare different future scenarios.</li> </ul>	<ul style="list-style-type: none"> <li>I can encourage enthusiasm and a sense of belonging around a convincing vision.</li> <li>I can plan backwards from my vision to design the necessary strategy to achieve it.</li> </ul>	<ul style="list-style-type: none"> <li>I can create (alone or with others) a 'roadmap' based on my vision for creating value.</li> <li>I can identify challenges related to my (or my team's) vision, while respecting the different levels of the system and the variety of stakeholders affected.</li> </ul>	•
4	Discovering new contexts Developing Acting independently	Pro-Activity Applied knowledge Disturbed/ new contexts	Taking responsibility for making decisions and working with others. With some guidance and together with others.	<i>Taking responsibility</i>  Reinforce Improve	<ul style="list-style-type: none"> <li>I can discuss my (or my team's) strategic vision for creating value.</li> <li>I can use my understanding of the context to identify different strategic visions for creating value.</li> </ul>	<ul style="list-style-type: none"> <li>I can prepare a vision statement for my (or my team's) value-creating activity that guides internal decision-making throughout the whole process of creating value.</li> <li>I can explain the role of a vision statement for strategic planning.</li> </ul>	<ul style="list-style-type: none"> <li>I can promote initiatives for change and transformation that contribute to my vision.</li> <li>I can identify the changes needed to achieve my vision.</li> </ul>	•
3	Deciding/ selecting	Theory knowledge Known/ prepared contexts	On my own and together with my peers. Taking and sharing some responsibilities.	<i>Building independence</i>  Experiment Dare	<ul style="list-style-type: none"> <li>I can build future scenarios around my value-creating activity.</li> <li>I can develop (alone or with others) an inspiring vision for the future that involves others.</li> </ul>	<ul style="list-style-type: none"> <li>I am aware of what is needed to build a vision.</li> <li>I can explain what a vision is and what purpose it serves</li> </ul>	<ul style="list-style-type: none"> <li>I can decide what type of vision for creating value I would like to contribute to.</li> <li>My vision for creating value drives me to make the effort to turn ideas into action.</li> </ul>	•
2	Using, imitating	Applying under supervision Exercising Trying out	Under direct supervision. With support from others, some autonomy, with my peers.	<i>Relying on support from others</i>  Discover Explore	<ul style="list-style-type: none"> <li>I can develop simple future scenarios where value is created for my community and surroundings.</li> <li>I can imagine a desirable future.</li> </ul>	•	•	•
1	Perceiving	Start	Start	Start	Start	Start	Start	



## 2.2.4. Subcompetence 4: Valuing Ideas on SD

L	LEVEL5 Titles	LEVEL5 Hints	EntreComp Hints	EntreComp Titles	Recognise the value of ideas.	Share and protect ideas.
5	Developing, constructing, transferring	Strategy Versatility Incorporation	Contributing substantially  Taking responsibility for contributing to complex developments in a specific field	<i>Driving transformation, innovation and growth:</i>  Transform Expand	<ul style="list-style-type: none"> <li>I can state the value of a new idea from different stakeholders' perspectives.</li> <li>I can develop strategies to effectively make the most of opportunities to create value in my organisation or venture.</li> </ul>	<ul style="list-style-type: none"> <li>I can develop a strategy on intellectual property rights that is tailored to the age of my portfolio.</li> <li>I can develop a tailored strategy on intellectual property rights that deals with geographic requirements.</li> </ul>
4	Discovering new contexts Developing Acting independently	Pro-Activity Applied knowledge Disturbed/ new contexts	Taking responsibility for making decisions and working with others.  With some guidance and together with others.	<i>Taking responsibility</i>  Reinforce Improve	<ul style="list-style-type: none"> <li>I can break down a value chain into its different parts and identify how value is added in each part.</li> <li>I recognise the many forms of value that could be created through entrepreneurship, such as social, cultural or economic value.</li> </ul>	<ul style="list-style-type: none"> <li>When creating ideas with others, I can outline a dissemination and exploitation agreement that benefits all partners involved.</li> <li>I can tell the difference between trademarks, registered design rights, patents, geographical indications, trade secrets, confidentiality agreements and copyright licences, including open, public-domain licences such as creative commons</li> </ul>
3	Deciding/ selecting	Theory knowledge Known/ prepared contexts	On my own and together with my peers.  Taking and sharing some responsibilities.	<i>Building independence</i>  Experiment Dare	<ul style="list-style-type: none"> <li>I can decide which type of value I want to act on and then choose the most appropriate pathway to do so.</li> <li>I can tell the difference between social, cultural and economic value.</li> </ul>	<ul style="list-style-type: none"> <li>I can choose the most appropriate licence for the purpose of sharing and protecting the value created by my ideas.</li> <li>I can tell the difference between types of licences that can be used to share ideas and protect rights.</li> </ul>
2	Using, imitating	Applying under supervision Exercising Trying out	Under direct supervision.  With support from others, some autonomy, with my peers.	<i>Relying on support from others</i>  Discover Explore	<ul style="list-style-type: none"> <li>I can show how different groups, such as firms and institutions, create value in my community and surroundings.</li> <li>I can find examples of ideas that have value for myself and others.</li> </ul>	<ul style="list-style-type: none"> <li>I can explain that ideas can be shared and circulated for the benefit of every-one or can be protected by certain rights, for example, copyrights or patents.</li> <li>I can clarify that other people's ideas can be used and acted on, while respecting their rights.</li> </ul>
1	Perceiving	Start	Start	Start	Start	Start

## 2.2.5. Sub-competence 5: Ethical and sustainable thinking

L	LEVEL5 Titles	LEVEL5 Hints	EntreComp Hints	EntreComp Titles	Behave ethically	Think sustainably	Assess impact	Be accountable.
5	Developing, constructing, transferring	Strategy Versatility Incorporation	Contributing substantially Taking responsibility for contributing to complex developments in a specific field	<i>Driving transformation, innovation and growth:</i>  Transform Expand	<ul style="list-style-type: none"> <li>I take action against unethical behaviour.</li> <li>I make it my priority to make sure that ethical behaviour is respected and promoted in my area of influence.</li> </ul>	<ul style="list-style-type: none"> <li>I can contribute to self-regulation discussions within my sector of operations.</li> <li>I can choose adequate methods for analysing environmental impact based on their advantages and disadvantages.</li> </ul>	<ul style="list-style-type: none"> <li>I can carry out impact assessment, impact monitoring, and impact evaluation on my value-creating activity.</li> <li>I can choose 'measure indicators' to monitor and assess the impact of my value-creating activity.</li> </ul>	<ul style="list-style-type: none"> <li>I can design ways to be accountable to all of our stakeholders.</li> <li>I can use the accountability methods that hold me responsible to our internal and external stakeholders.</li> </ul>
4	Discovering new contexts Developing Acting independently	Pro-Activity Applied knowledge Disturbed/ new contexts	Taking responsibility for making decisions and working with others. With some guidance and together with others.	<i>Taking responsibility</i>  Reinforce Improve	<ul style="list-style-type: none"> <li>I can take responsibility for promoting ethical behaviour in my area of influence, (for example, by promoting gender balance highlighting inequalities and any lack of integrity)</li> <li>I can argue that ideas for creating value should be supported by ethics and values relating to gender, equality, fairness, social justice and environmental sustainability.</li> </ul>	<ul style="list-style-type: none"> <li>I can discuss the relationship between society and technical developments, relating to their implications for the environment.</li> <li>I can discuss the impact an organisation has on the environment (and vice versa).</li> </ul>	<ul style="list-style-type: none"> <li>I can define the purpose of the impact assessment, impact monitoring, and evaluation of impact.</li> <li>I can analyse the implications of my value-creating activity within the boundaries of the system I am working in.</li> </ul>	<ul style="list-style-type: none"> <li>I can discuss a range of accountability methods for both functional and strategic accountability.</li> <li>I can tell the difference between input, output, outcomes and impact.</li> </ul>
3	Deciding/ selecting	Theory knowledge Known/ prepared contexts	On my own and together with my peers. Taking and sharing some responsibilities.	<i>Building independence</i>  Experiment Dare	<ul style="list-style-type: none"> <li>I am driven by honesty and integrity when taking decisions.</li> <li>I can apply ethical thinking to consumption and production processes.</li> </ul>	<ul style="list-style-type: none"> <li>I can produce a clear problem statement when faced with practices that are not sustainable.</li> <li>I can identify practices that are not sustainable and their implications for the environment.</li> </ul>	<ul style="list-style-type: none"> <li>I can identify stakeholders who are affected by the change brought about by my (or my team's) value-creating activity, including stakeholders who cannot speak up (for example, future generations, climate or nature).</li> <li>I can identify the impact that taking up opportunities will have on me and my team, on the target group and on the surrounding community.</li> </ul>	<ul style="list-style-type: none"> <li>I can tell the difference between accounting for use of resources and accounting for the impact of my value-creating activity on stakeholders and the environment.</li> </ul>
2	Using, imitating	Applying under supervision Exercising Trying out	Under direct supervision. With support from others, some autonomy, with my peers.	<i>Relying on support from others</i>  Discover Explore	<ul style="list-style-type: none"> <li>I can describe in my own words the importance of integrity and ethical values.</li> <li>I can recognise behaviours that show integrity, honesty, responsibility, courage and commitment.</li> </ul>	<ul style="list-style-type: none"> <li>I can recognise examples of environmentally friendly behaviour by companies that creates value for society as a whole.</li> <li>I can list examples of environmentally friendly behaviour that benefits a community.</li> </ul>	<ul style="list-style-type: none"> <li>I can tell the difference between the impact of a value-creating activity on the target community and the broader impact on society.</li> <li>I can find and list examples of changes caused by human action in social, cultural, environmental or economic contexts.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
1	Perceiving	Start	Start	Start	Start	Start	Start	

### 3 Generic Competences

#### 3.1. Problem solving

Problem solving is the identification of a problem and its facets, anticipating possible solutions and assessing their potential impact and consequences, and putting solutions into action. It involves applying logic, knowledge and reasons towards understanding the actual problem, and being able to plan and use different techniques/methods, experiences. Problem solving is comprised of actions, attitudes and knowledge, which are goal-directed in complex situations. Even if the final aim is clearly defined (but sometimes it is not), the problem solver might not be aware of all steps towards its achievement. The problems might vary in complexity and might require different resources or tools. Therefore, the process requires the knowledge of several problem solving techniques (or the skills to invent new ones) and the ability to apply them accordingly in the appropriate situation. The process of problem solving is comprised of complex actions like planning and reasoning and in order to be completed successfully the problem solver needs to be motivated, curious and eager.

**Knowledge:** The learner...

- knows different problem solving techniques
- knows ways to modify and combine different problem solving techniques according to the specific problem
- knows how to transfer problem-solving knowledge to other situations and challenges
- knows which resources can be used to come to a solution

**Skills:** The learner...

- is able to recognise when a problem has no immediate solution
- is able to define the concrete problem and its background
- is able to apply problem solving techniques
- is able to analyse the problem situation
- is able to plan and reason towards problem solution
- is able to combine and modify different problem solving techniques
- is able to discover new, complex solutions by him/herself
- is able to engage others to support the solution of a problem



**Attitudes:** The learner...

- feels that problem solving competences are valuable
- is eager to find good solutions
- is curious
- is intrinsically motivated (to solve problems)
- is autonomous
- feels the need to help other people (in applying problem solving techniques)

## REFERENCE SYSTEM – Problem solving

	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Having a large portfolio of problem solving strategies to solve problems constructively and sustainably in different areas of life	Developing, constructing, transferring	Developing and inventing new creative strategies to solve problems.	Incorporation	Having internalised to strive for good, sustainable solutions in a compromise oriented way, and inspiring others to become better problem solvers.
4	Knowing when (implicit understanding)	Knowing variations and modifications to solving problems in different contexts and how to actively use available resources. Knowing different ways to tackle problems.	Discovering acting independently	Actively expanding own strategies and experiences, through trial and consultation. Applying complex solutions to solve a problem.	Commitment	Being determined to find objectively good solutions for problems and to expand own competence in this regard. Openness towards innovative approaches.
3	Knowing how	Knowing how to solve a problem based on prior experiences. Recalling previous problems and comparing similar problems and strategies for solutions.	Deciding/ selecting	Applying known problem solving strategies. Choosing between different (given) possibilities to solve the problem based on prior experience.	Motivation/ appreciation	Being motivated to further develop own competence to solve problems. Valuing good solutions for problems.
2	Knowing why (distant understanding)	Knowing why the problem exists and where it's originating from	Using, imitating	Approaching a problem as being instructed to or by imitating strategies of others.	Perspective taking	Taking interest in finding solutions for problems.
1	Knowing what	Knowing there is a problem that needs to be solved to reach a goal.	Perceiving	Perceiving the problem without taking action.	Self-orientation	Only being interested in solving problems that relate to oneself.

### 3.2. Leadership

The learner is competent in taking initiative, guiding and influencing others to help them achieve certain goals. He/she can demonstrate decision making skills and is capable to transfer these decisions into a team and to delegate tasks to efficiently reach the given goal. This involves e.g. being a good communicator, creating trust and relationships in the project team, identifying specific skills of team members and delegating tasks accordingly, facilitating team work, fostering collaboration, being open to new and different ideas. The learner is assertive and able to address and solve conflicts that hinder the work process. The learner has an attitude of respect and appreciation for diversity, is able to communicate in an assertive way based on self-confidence and to take responsibility for own actions or failures.

**Knowledge:** The learner...

- knows different types of leadership interventions adequate for specific situations
- knows, why leadership is important to reach collaborative goals in a group or a team
- knows how to help other people in implementing leadership interventions
- knows how to motivate others to reach a goal
- knows how to organise work processes in different ways

**Skills:** The learner...

- is able to develop his own leadership style and techniques as a leader and
- can apply it in different situations
- is capable to create and execute leadership strategies
- is able to take over responsibility
- is able to motivate others to reach a goal
- is able to take decisions
- is able to coordinate work processes and to communicate in an assertive way
- is able to delegate responsibility

**Attitudes:** The learner...

- has a positive attitude towards leadership and is aware of its importance in specific situations
- finds it important that the other members of the group value leadership
- is motivated to develop own leadership competences
- values and respects others and appreciates teamwork
- feels responsible for the team, organisation and for accomplishing a goal
- is assertive about how to organize work
- is open to dialogue and to find common solutions for problems

## REFERENCE SYSTEM – Leadership

L	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Knowing which types of leadership interventions are adequate in specific situations. Knowing how to transfer leadership approaches to other areas of life.	Developing, constructing, transferring	Developing an individual leadership style and techniques as a leader and applying it adequately in different situations.	Incorporation	Having internalised to lead when needed, respecting others needs in team work and to encourage open dialogue. Inspiring others to become better leaders.
4	Knowing when (implicit understanding)	Knowing how and when certain actions/behaviours as leader will affect the group and its results. Knowing when and how to apply appropriate leadership measures to solve problems or take opportunities.	Discovering acting independently	Acting as a leader and trying out a range of different leadership styles. Applying them according to the situation and the objectives of the activity. Being able to coordinate work processes successfully.	Commitment	Feeling the need to be a good leader. Being determined to improve own leadership competences.
3	Knowing how	Knowing different leadership styles and techniques and how they are related to specific performances of a group and outcomes of a project. Knowing how to organise a process in a group to reach a goal	Deciding/ selecting	Taking the lead and applying specific leadership techniques which seem to be appropriate according to the perception of the situation based on own experiences.	Motivation/ appreciation	Valuing leadership and being motivated to develop own leadership competence.
2	Knowing why (distant understanding)	Knowing why leadership is important to reach a goal in a group/team. Knowing that different leadership styles exist and that different leadership approaches can affect the work of/in the group.	Using, imitating	Occasionally applying leadership concepts & actions (like taking responsibility, taking decision, delegating work...) as copied from a role model or as being instructed to.	Perspective taking	Being interested in leadership and its potentials. Anticipating which role leadership has in own life.
1	Knowing what	Knowing what leadership is, what competences and tasks leadership includes.	Perceiving	Recognising situations where leadership is either executed or needed.	Self-orientation	Only being interested in leadership when one is affected by it.

### 3.3. Project Management

The learner is competent in executing projects in an efficient and successful way by structuring necessary project activities and applying a constant plan-do-check approach until the end of the project. The learner knows about project management theory and how to execute project activities and monitor their level of success and quality. He/she is able to act accordingly and adapt and develop strategies work in project teams or even lead them. He/she is aware of the advantages and disadvantages of turning a task or a venture into a project and to apply project management approaches respectively.

**Knowledge:** The learner...

- knows about the core project processes and project phases
- knows about crosscutting tasks like dissemination, evaluation, monitoring and exploitation
- has knowledge of at least one project management approach and of variations in regard to other approaches
- has knowledge on how to plan project activities according to the objectives and to monitor the accomplishment and quality of sub-tasks
- knows when to assign more resources to open tasks
- knows how to structure a project
- knows how to transform a theoretical project plan into reality
- has the knowledge to develop projects along a strategic approach in the own professional environment

**Skills:** The learner...

- is able to apply strategies and techniques to fulfil the tasks assigned to him/her by the project management
- is able to select certain project tasks according to the own abilities
- is able to plan and attribute project tasks to other (capable) team members
- is able to apply a plan-do-check procedure to monitor the project
- is versatile to connect other approaches like team building or diversity management to the own project team

**Attitudes:** The learner...

- is open towards applying project management approaches and techniques
- has a positive attitude towards project management
- is aware of the strengths and the weaknesses of project management
- integrates the concept into his/her professional values



## REFERENCE SYSTEM – Project Management

L	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Knowing how to assess which PM tools are adequate in any situation. Knowing how to plan new ventures with a strategic project management approach.	Developing, constructing, transferring	Strategically adapting and applying PM tools for new contexts. Discussing and sharing information about PM with other colleagues and experts.	Incorporation	Having internalised what to anticipate in steering projects. Inspiring others to improve their PM competences.
4	Knowing when (implicit understanding)	Knowing how different PM tools can be used in different phases of the life cycle of a project. Knowing how to apply them in project situations.	Discovering acting independently	Adapting certain project management tools to the specific context. Seeking for more specific information and applying other PM tools.	Commitment	Being determined to improve own PM competences and to prioritise it to other activities for this purpose.
3	Knowing how	Knowing different PM tools and instruments.	Deciding/ selecting	Actively applying specific tools for PM in project planning and implementation	Motivation/ appreciation	Valuing project management abilities and being motivated to develop and apply them.
2	Knowing why (distant understanding)	Knowing that PM techniques are needed in order to successfully complete project work.	Using, imitating	Occasionally applying a few PM tools – offered by others – in parts the own project work.	Perspective taking	Being curious about different PM approaches and tools and their potential for the own work.
1	Knowing what	Knowing that PM exists as a methodology.	Perceiving	Recognising situations in which certain PM techniques and tools are used.	Self-orientation	Feeling the impulse to learn more on PM methodologies in a specific work situation.

### 3.4. Planning and Resource Management

The learner is competent in planning activities and resources related to his/her own projects or the projects that he/she is associated to. Learners knows about project planning theory, how to set up the project structure, activity planning, timing and connect this to available and required resources. He/she is able to act accordingly and adapt and develop strategies to set up plans in different projects contexts. He/she is aware of the advantages and disadvantages and has a positive but also critical attitude towards applying planning methodology in different professional and private life contexts.

**Knowledge:** The learner...

- knows about the core project processes and project phases
- has knowledge of at least one project management approach and of variations in regard to other approaches
- knows how to brainstorm on a project idea and to combine project idea and project context (e.g. funding programme)
- knows how to structure a project according to the main work packages and ideas and to plan project activities according to the objectives
- knows which resources are necessary to accomplish the project
- knows how to assign the resources to the activities
- has the knowledge to develop projects along a strategic approach in the own professional environment

**Skills:** The learner...

- is able to describe the plans in a realistic and understandable way
- is able to calculate and assign project activities and resources accordingly
- is able to execute planning tasks when being instructed by a planning team leader
- is able to adapt the design (if needed) to new context
- uses planning and resource management approaches comprehensively in the professional practice
- is able to connect PRM to other approaches (e.g. project management, teamwork etc.) in a versatile way

**Attitudes:** The learner...

- is open towards applying planning and resource management techniques
- has a positive attitude towards it
- is aware of the strengths and the weaknesses of resource management techniques
- integrates the concept into his/her professional values

## REFERENCE SYSTEM – Planning and Resource Management

L	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Profound knowledge on how to transfer planning and resource management methodologies into other contexts.	Developing, constructing, transferring	Adapting and further developing planning and resource management methodologies in the own (professional) context.	Incorporation	Having internalised to plan and manage resources in an effective and sustainable way. Inspiring others to apply resource management techniques.
4	Knowing when (implicit understanding)	Practical knowledge on different planning and resource management methodologies and in which situations which tool is appropriate.	Discovering acting independently	Seeking for more specific information on planning and resource management methodologies and enlarging the own portfolio of tools.	Commitment	Feeling the need for implementing planning and resource management methodologies in the own context. Being determined to improve own competences regarding planning and resource management methodologies.
3	Knowing how	Theoretical know-how on different planning and resource management methodologies. Knowing how to apply them in project situations.	Deciding/ selecting	Actively applying specific tools in planning and implementation and resource controlling and optimisation.	Motivation/ appreciation	Appreciating the value of planning and resource management methodologies and being motivated to apply them.
2	Knowing why (distant understanding)	Understanding the reasons why appropriate planning is crucial for success.	Using, imitating	Occasionally planning actions and consciously allocating resources when being instructed to or following the example of others.	Perspective taking	Being curious about different approaches to manage resources and their potential for own work.
1	Knowing what	Knowing that Planning and Resource Management is needed in projects.	Perceiving	Recognising situations where planning is needed without acting.	Self-orientation	Relating planning and resource management only to own resources.

### 3.5. Intercultural Communication

Intercultural communication is the competence to respectfully, effectively and constructively communicate with people from different cultural backgrounds. The learner has knowledge about cultural diversity and how this is reflected in communication. He/she is competent in interacting with others and to establish a relation of trust and respect. He/she is able and to adapt to different communication needs that result from different cultural backgrounds. He/she has a positive attitude towards diversity and interacting with people from other cultures and is determined to avoid misunderstandings and resulting frustration. The learner is aware of his own cultural identity and knows how it affects his/her communication.

**Knowledge:** The learner...

- has knowledge of ways to establish a relationship of trust and respect with others from different cultural backgrounds
- has knowledge of relevant intercultural communication techniques
- knows the benefits of diversity
- knows variations of certain cultures and how cultural imprints may influence communication styles, including the own cultural background
- has knowledge how to address culture related conflicts/misunderstandings

**Skills:** The learner...

- is able to communicate in a clear fashion with others from different cultural background
- to integrate with colleagues and learners of different cultures
- is able to reflect own cultural imprints in his/her communication
- is able to exchange knowledge and experiences with persons with different cultural backgrounds
- is able to give and receive feedback to and from learners, staff organisations of different cultural background
- is able to tolerate and overcome difficulty, stress and frustration, because of intercultural misunderstandings
- is able to make him/herself understood
- is able to recognise culture based problems and misunderstandings and to adapt the own communication style accordingly

**Attitudes:** The learner...

- values integrity and diversity and respects others and their different cultural backgrounds
- has a positive attitude towards interacting with people from different cultures
- wants to avoid culture based miscommunication and wants to support others

## REFERENCE SYSTEM – Intercultural Communication

KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5 Knowing where else (strategic transfer)	Knowing own cultural frames of reference and various patterns of cultural differences. Knowing strategies to communicate successfully with people from a variety of other cultures.	Developing, constructing, transferring	Being able to put oneself in the shoes of others and being able to apply a variety of intercultural approaches. Developing own approaches to communicate with people from other cultures and supporting others to improve.	Incorporation	Having internalised how to overcome culture based obstacles in communication. Being aware that one's own culture shapes own reactions and being able to transcend that. Inspiring others to improve their intercultural communication.
4 Knowing when (implicit understanding)	Knowing about other cultures and understanding how cultural aspects can influence communication. Knowing pitfalls of culture based misunderstandings and how to avoid them. Applying specific exemplary theory in practice (during the exchange)	Discovering acting independently	Actively collecting information about communication features of other cultures and enriching one's own communication competence by transferring diverse elements to one's own context. -> essay in the disturbed system	Commitment	Respecting and valuing expressions of cultural differences and being determined (committed) to overcome communication based obstacles between people from different cultural backgrounds.
3 Knowing how	Knowing how to anticipate certain cultural backgrounds and differences and how to adapt own communication accordingly. - list of theory	Deciding/ selecting	Being able to apply basic strategies in intercultural communication, e.g. active listening, mirroring, perceiving non-verbal signs. - List of practical learning actions, e.g. in prep scenarios	Motivation/ appreciation	Being aware that we have cultural values or assumptions that are different from others. Respecting and valuing different communication styles and being motivated to improve own competence.
2 Knowing why (distant understanding)	Knowing that one's own culture is central to what we see, how we make sense of what we see, and how we express ourselves and that others are influenced in the same way by their own culture.	Using, imitating	Communicating in a conscious way being aware of cultural backgrounds of other people. Reacting to diversity following the example of others.	Perspective taking	Being curious towards cultural diversity and different communication styles. Accepting different ways of communication and considering learning more about it.
1 Knowing what	Knowing that different cultures have different ways of communicating.	Perceiving	Recognising different styles of communication based on cultural backgrounds.	Self-orientation	Considering the benefits of culture sensible communication but feeling no need to become active in this respect.

### 3.6. Communication

The learner is competent in communicating with others in a target oriented way, is able to establish a relation of trust and shows integrity through his/her way to communicate. In the communication with others the learner is aware of different communication styles and techniques and that different situations and interlocutors require different styles and techniques of communication. Communication is used by the learner as a means for interaction and through appropriate communication the learner can identify problems, can discuss them and find and implement solutions.

**Knowledge:** The learner...

- has knowledge of the specific rules to communicate with his/her colleagues or other learners and beneficiaries
- has knowledge of relevant communication techniques
- has knowledge of the own role and context he/she acts in and knows which communication style is appropriate

**Skills:** The learner...

- is able to communicate in a clear fashion with colleagues, beneficiaries and stakeholders
- is able to communicate in a target oriented way
- is able to identify problems and find solutions together by using direct communication
- is able to give and receive feedback to and from beneficiaries, colleagues and stakeholders
- is able to use feedback in the improvement of his/her practice
- is able to distinguish between different communication styles
- is able to select appropriate communication styles according to goal and context

**Attitudes:** The learner...

- respects others and their different communication styles
- has a positive attitude towards communicating
- values open and reflective communication

## REFERENCE SYSTEM – Communication

L	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Having a strategic knowledge of communication. Understanding unfamiliar communication styles and knowing how to guide other people to react and communicate appropriately in unknown situations.	Developing, constructing, transferring	Being able to communicate successfully in an unfamiliar situation. Being able to blend different communication styles and to adapt and transfer them into new contexts. Supporting others to develop their communication competence.	Incorporation	Having internalised virtues of good communication and motivating/inspiring others to reflect about communication and to comprehend other persons' communication in order to create a respectful relationship
4	Knowing when (implicit understanding)	Knowing different communication styles and techniques and how to apply them knowledge in known practice situations.	Discovering acting independently	Being able to apply and understand different communication styles and codes suitable for context and situation. Actively expanding own communication competence by observing, researching and reflecting.	Commitment	Being determined to improve and to self-regulate for the sake of the communication and for the respect of others. Staying emotionally balanced in communication and in giving/receiving feedback.
3	Knowing how	Knowing that different people have different communication styles, dependent on their culture, personal background, etc. Understanding other ways of communication and expression, e.g. non-verbal communication.	Deciding/ selecting	Being able to communicate in a clear fashion with different groups according to their capabilities of understanding. Choosing the right code to react according to the situation. Being able to give and receive feedback to and from others.	Motivation/ appreciation	Being motivated to improve own communication competence. Appreciating the virtues of good communication and being open towards other communication styles.
2	Knowing why (distant understanding)	Understanding that the efficiency of communication depends on c-skills Knowing why conscious communication is relevant.	Using, imitating	Applying communication codes of peers (e.g. in language and behaviour, using rites), imitating communication styles of others.	Perspective taking	Being curious to improve own communication competence. Being open towards other/new communication styles.
1	Knowing what	Knowing basic ways of communication in order to understand others and to make oneself understood.	Perceiving	Sending and receiving information without special awareness.	Self-orientation	Talking and listening without feeling the need to reflect on communication.

### 3.7. Client orientation

The learner is competent in interacting with clients, taking into account their specific needs. He/she knows how to identify different client profiles, backgrounds, desires and necessities. The learner is able to react accordingly, adapt and develop strategies to support clients. He/she is aware of the benefits of focusing on the clients' needs and requests and is determined to reach the clients' satisfaction.

**Knowledge:** The learner...

- has knowledge of different clients' behaviours and needs
- has knowledge of strategies and techniques to deal with clients
- has knowledge of communication techniques

**Skills:** The learner...

- is able to apply strategies and techniques to reach clients' satisfaction
- is able to adapt his/her own behaviour to better support clients
- is able to balance the interests of the client against those of the enterprise
- is able to adequately communicate with clients

**Attitudes:** The learner...

- prioritizes clients' satisfaction to other tasks and obligations as well as own affects
- appreciates good quality in interaction
- is emphatic and has a positive attitude towards clients and his/her enterprise



## REFERENCE SYSTEM – Client orientation

	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
L	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Intuitively knowing (or being able to acquire knowledge on) how to deal with any client in any context. Knowing how to transfer knowledge about clients into other fields of life.	Developing, constructing, transferring	Actively planning and developing own/new client oriented strategies that are part of a larger approach, e.g. a (company's) vision or marketing strategy.	Incorporation	Having internalised to act for the benefit of the client, intuitively responding to different clients needs in adequate ways and inspiring others to value client orientation.
4	Knowing when (implicit understanding)	Knowing which actions are needed to help clients with specific demands for a large variety of situations and different types of clients.	Discovering acting independently	Actively researching and expanding own competence to adequately respond to clients in regard to the client's need and the specific situation.	Commitment	Being determined to improve own competence to serve clients and to adequately respond to their needs.
3	Knowing how	Knowing about the specific needs of clients and how the own behaviour and approach can be adapted to the needs of those clients in general.	Deciding/ selecting	Being able to select and apply the appropriate behaviour towards a customer in regard to his/her needs from a set of basic strategies.	Motivation/ appreciation	Valuing client orientation. Being motivated to develop own competence to respond to clients according to their needs.
2	Knowing why (distant understanding)	Knowing that there are different ways to deal with clients and that clients have different backgrounds and needs.	Using, imitating	Adapting the own behaviour towards the client when instructed to or by imitating others.	Perspective taking	Being curious and interested in the theme of supporting clients according to their specific needs.
1	Knowing what	Knowing that clients behave differently and that client orientation is a suitable concept to deal with this.	Perceiving	Seeing and recognising different client behaviours without acting.	Self-orientation	Not relating the theme of client orientation to oneself and the own working life.

### 3.8. Working in a team

The learner is competent in interacting with others involved in the activities of the organisation and to collaborate to reach a common goal. The learner respects specific backgrounds, competences and skills of team/group members and has the ability to act as a team member. This involves communication skills like assertiveness, clarity and active listening, awareness of diversity in teams and potentials of teamwork. He/she has an attitude of appreciation for teamwork as efficient way of collaborating and source of creativity and is determined to contribute to the success of the entire team. He/she is aware of the roles and capabilities in the team and acts accordingly. He/she put any kind of action that turns ideas into facts, taking risks, organising activities.

**Knowledge:** The learner...

- has knowledge of ways to establish a team and make use of the different abilities of team members in order to reach a common goal
- has knowledge how to enhance team processes in different teams
- has knowledge about the rules of communication
- has knowledge about what to avoid to not disturb the atmosphere and workflow in a team

**Skills:** The learner...

- is able to differentiate whether teamwork is the best way to accomplish a task
- is able to work in teams and act in teams according to his/her role
- is able to understand that specific tasks and roles of team members are based on their strengths and weaknesses
- has the ability to judge and identify one's strengths and weaknesses, and to assess and take risks as and when warranted, is essential
- is able to reflect the own role in a team

**Attitudes:** The learner

- has a positive attitude towards working together in a team
- inspires others to contribute to the team
- appreciates collaboration and diversity
- respects and supports team members

## REFERENCE SYSTEM – Teamworking

	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
L	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Knowing how to enhance team processes in different teams. Knowing how to help other people act successfully in teams and to assign specific responsibilities to people keeping in mind their relevant skills.	Developing, constructing, transferring	Leading a team in a way that members are able to contribute to the best of their abilities, supporting them to do so. Being able to strategically develop a team.	Incorporation	Having internalised the “culture” of constructive team work and to accomplish goals through mutual support. Inspiring others to improve their teamwork skills.
4	Knowing when (implicit understanding)	Having substantial knowledge on how and when to join/form a team. Understanding strength and weaknesses of team members. Knowing the importance of communication and how to coordinate workflows.	Discovering acting independently	Being able to assign and coordinate specific tasks and roles to team members on the basis of their strengths and weaknesses. Monitoring team processes. Trying out new roles for one-self.	Commitment	Feeling the importance to refrain from own preferences (e.g. in regard to procedures, own solution strategies, methods etc.) for the sake of the team and the teamwork. Being determined to be a good team worker.
3	Knowing how	Knowing the basic dynamics and demands of teamwork. Knowing how to engage in a coordinated work flow where the skills, qualities and limits of each member are taken into account in order to work efficiently.	Deciding/ selecting	Actively reaching out to join a team or help create a team. Contributing to the team process according to own strengths and needs for reaching the shared goal.	Motivation/ appreciation	Having a positive attitude towards working together in a team and to appreciate team diversity. Finding it important to have a ‘team spirit’. Being motivated to develop own competence to successfully work in a team.
2	Knowing why (distant understanding)	Knowing that teamwork is a more effective way to achieve results. Knowing it demands from individuals to coordinate their work considering individual competences and abilities.	Using, imitating	Contributing to team work when being invited or instructed to. Fulfilling assigned tasks in a team by following the example of others.	Perspective taking	Being interested in the potentials of team work and to learn more about it.
1	Knowing what	Knowing that teamwork is collaborating with others to reach a shared goal.	Perceiving	Recognising situations in which teamwork is feasible to reach goals.	Self-orientation	Seeing teamwork as something positive, but without considering developing own team work competence.

### 3.9. Flexibility/Adaptability

Flexibility is a competence that describes the ability to adapt to changing situations and demands in order to cope with variable circumstances. This involves knowledge of the fluidity of facts and the moving nature of life itself, about different contexts and environments as well as of own capabilities and a repertoire of behavioural strategies. Being open minded and trustful in own strengths, are attitudes that support the adaptability to changing situations and reduce stress that results from change.

Flexibility is also necessary to cope with ambiguity, uncertainty and risk, which is stated as an important element of entrepreneurial mindset in the EntreComp conceptual model.

**Knowledge:** The learner...

- knows about requirements of different contexts and environments
- knows the benefits of being flexible
- knows the burdens of flexibility
- knows that things are dynamic and change is inherent in all areas of life
- knows adequate forms of behaviour for certain contexts
- knows how to adapt own strategies according to available or missing resources

**Skills:** The learner...

- is able to transfer knowledge, skills and abilities to other contexts and environments
- is able to reflect observations and experiences and to draw conclusions in terms of how to adapt
- is able to adapt to changing (work) environments or changing constraints on (work) resources
- is able to operate in multicultural environments and to adapt new locations
- is able to anticipate new perspectives
- is able to select from a repertoire of different behaviours
- is able to accept and adapt to restrictions
- is able to allow others to be their way



**Attitudes:** The learner...

- is open to new perspectives, things, behaviours, situations,...
- is curious about learning, discovering new things
- is willing to change approaches or to try different approaches
- is willing to learn to adapt
- is motivated to benefit from flexibility, e.g. to fit in/be more comfortable/successful
- is resilient to the stress that might result from the pressure to adapt or changing situations and environments

## REFERENCE SYSTEM – Flexibility/Adaptability

	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
L	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Knowing multiple adaptation strategies and knowing how to adapt to changing requirements in various contexts. Analyzing the impact of changing ones behaviour.	Developing, constructing, transferring	Developing and applying tailored adaption strategies for any situation that lead to the best possible result. Being able to perform adequately in unknown situations	Incorporation	Having incorporated to adapt to changing conditions and to let go of initial plans and procedures. Inspiring others to become more flexible.
4	Knowing when (implicit understanding)	Knowing when and how to adapt the own behaviour, attitudes and thinking to changing conditions in order to cope with a situation.	Discovering acting independently	Developing own behavioural strategies and methods to adapt to changes and working on becoming more flexible. Analysing situations and acting accordingly.	Commitment	Being determined to adapt to changing conditions for the sake of a good result.
3	Knowing how	Knowing how to be flexible. Knowing how to adapt the own behaviour, perception and thinking to changing circumstances.	Deciding/ selecting	Deciding how to adapt to changes based on familiar behaviours. Adapting own behaviour to changing conditions in known situations.	Motivation/ appreciation	Valuing flexibility and adaptability. Being motivated to improve own capability to adapt to changing conditions and to show flexibility.
2	Knowing why (distant understanding)	Knowing why one should be flexible and that there are benefits and disadvantages of being flexible.	Using, imitating	Adapting to changing conditions when being asked to or as instructed or by imitating the behaviour of others.	Perspective taking	Being interested in how others behave in different situations. Being interested to learn how to become more flexible.
1	Knowing what	Knowing what it means to be flexible and that flexibility is expected in many working areas.	Perceiving	Perceiving situations that require being flexible (without acting).	Self-orientation	Not being interested in adapting to changing conditions. Only considering adapting for personal benefit.

### 3.10. Critical Thinking

Critical thinking describes the competence to question an issue or a situation, an idea, assumption without accepting anything given at a face value. Critical thinking will identify and analyse the given issue/situation in a systematic way without automatically jumping to conclusions. The learner is curious to assess the given issue/situation and analyse the underlying arguments/ideas and is able to argue the considerations in an understandable way, to identify inconsistencies and errors when reasoning and reaching to a conclusion in a systematic way by applying experience and evaluating available information. It is the ability to go beyond the memorization, information recall and facts description, to analyse, evaluate, interpret, or synthesize information or experience in order to form or criticize an idea or argument and don't simply accept all the given information without questioning

**Knowledge:** The learner...

- has knowledge about the value of critical thinking
- has knowledge about different critical thinking methods
- has knowledge about the appropriate use of critical thinking
- has knowledge how to evaluate and respond to counterarguments

**Skills:** The learner...

- is able to analyse, evaluate, interpret, or synthesize information or experience
- is able to examine ideas, concepts or situations from multiple perspectives, including different cultural perspectives
- is able to develop well-reasoned, persuasive questions and arguments
- is able to respond to counterarguments
- is able to identifying themes or patterns and making abstract connections across subjects
- is able to accept criticism and submit his/her findings to repeat tests

**Attitudes:** The learner...

- has curiosity to test information and to seek evidence, being open to new ideas
- has scepticism about non proven information, not believing every information he/she is confronted with
- has the humility to admit that his/her ideas may be wrong when facing new information, experience or evidence that states otherwise
- is willing to submit his/her ideas and experiments to peer review

## REFERENCE SYSTEM – Critical thinking

	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
L	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Knowing how to apply critical thinking strategies in both in known and unknown situations. Knowing how to strategically use critical arguments in various contexts.	Developing, constructing, transferring	Being able to recompose arguments or information after a critical assessment process, including new aspects that provide constructive insight to an unknown problem or a situation.  Thinking in coherent way to recognise critical aspects and to act accordingly.	Incorporation	Having internalised to assess issues in a critical way in order to identify and to process conclusions according to context and objectives before taking decisions.
4	Knowing when (implicit understanding)	Analysing more thoroughly, broadly and frequently, including validating source information in order to come to a holistic solution. Knowing when critical thinking is adequate.	Discovering acting independently	Researching for additional information and arguments on a given issue to include it into the analysis. Being able to explain the line of thought/results of the critical evaluation of an information or solution to others in an understandable way.	Commitment	Being determined to reach adequate and constructive conclusions through analysis and critical thinking. Being confident to engage with complex and/or unfamiliar problems and concepts.
3	Knowing how	Knowing how to look through different lenses and how to analyse diverse information in order to come to a constructive conclusion.	Deciding/ selecting	Applying different known strategies to look at an issue from different angles and questioning the given information.	Motivation/ appreciation	Being motivated to test and question own and others' judgements, opinions and ideas. Valuing critical thinking and being motivated to expand own competence to do so.
2	Knowing why (distant understanding)	Knowing why it is important to anticipate different views on an issue.	Using, imitating	Taking different views on an issue only when instructed to or following the example of others.	Perspective taking	Having the openness to look at an issue from different perspectives. Being interested in seeing issues through different lenses.
1	Knowing what	Knowing that there may be different ideas or expressions on the same issue.	Perceiving	Perceiving that there are different possible ways of looking at issues.	Self-orientation	Being aware that there are different ideas but not necessarily willing to explore them.



### 3.11. Networking

The learner is competent in interacting with others involved in professional practice, is able to establish relationships and to build up a network of relevant contacts in his professional setting. In collaborating with colleagues and stakeholders, the learner has the ability to exchange knowledge and experience as well as to establish new contacts in a target oriented way. The learner is aware of his/her role in different context and knows feasible approaches to establish new contacts, taking into consideration the working contexts and roles of other stakeholders. He/she has internalised his/her own goals and recognises opportunities to promote these towards others.

**Knowledge:** The learner...

- has knowledge of ways to integrate networking into training activities
- has knowledge of relevant professional networks
- has knowledge of different networking instruments and techniques

**Skills:** The learner...

- is able to collaborate closely with colleagues
- is able to exchange knowledge and experiences
- is able to use relevant networking tools
- is able to actively use and create new networking techniques to improve professional knowledge

**Attitudes:** The learner...

- has a positive attitude towards collaborating with colleagues and stakeholders
- is interested in the exchange of knowledge and experiences
- is open towards different forms and opportunities of networking

## REFERENCE SYSTEM – Networking

	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
L	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Knowing how to integrate networking into various activities and in the collaboration with colleagues and stakeholders. Knowing how to help other people act successfully in different networking structures.	Developing, constructing, transferring	Actively planning and creating networking opportunities to improve knowledge and to establish new ways of collaboration others. Being able to transfer networking approaches to other areas of life.	Incorporation	Having internalised to network at any occasion. Enjoying networking and inspiring others to improve their networking competence.
4	Knowing when (implicit understanding)	Knowing how and when to apply different networking techniques for concrete tasks or goals. Knowing how to act in different networking structures.	Discovering acting independently	Deliberately seeking networking opportunities and researching for new networking techniques. Choosing adequate networking techniques according to goals and interlocutors and to act appropriately.	Commitment	Feeling the need to be pro-active and creative in networking. Being determined to improve networking competence.
3	Knowing how	Knowing different networking techniques and practices for sharing, learning, promoting ideas and building contacts.	Deciding/ selecting	Taking part in networking activities and applying basic networking techniques in a correct way to contribute to reaching a goal.	Motivation/ appreciation	Valuing networking in general. Being motivated to improve own networking competence.
2	Knowing why (distant understanding)	Knowing that through networking one can learn, build useful contacts and spread info to different target groups.	Using, imitating	Talking to others, trying to learn from them and building contacts following the example of others or when being instructed to.	Perspective taking	Being interested in the benefits of networking and considering learning more about it.
1	Knowing what	Knowing the concept of networking.	Perceiving	Seeing and recognising values and opportunities of networking for collaboration.	Self-orientation	Relating to networking in own life and for own benefits.

### 3.12. Creativity

The learner is able to approach new situations and challenges with open mind and flexibility. He/she is competent in actively joining creative processes (such as brainstorming) and applying different creative thinking techniques (e.g. lateral thinking, visual explorations, metaphors, analogies, drawing, etc.) to generate new solutions and approaches. He has a strong ability in identifying unique connections between different ideas.

**Knowledge:** The learner...

- has knowledge of different creative thinking techniques
- has knowledge of how to guide others through creative processes

**Skills:** The learner...

- is able to see things from more than one perspective and is able to question the existing patterns
- is able to play an active role in collective creative processes
- is able to generate innovative solutions to unknown problems

**Attitudes:** The learner...

- has a positive attitude towards thinking out of the box
- inspire and motivate others to express and develop their own creativity in many different situations

## REFERENCE SYSTEM – Creativity

	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
L	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Knowing intuitively where and how creative thinking techniques can help solve a situation or problem. Knowing how to guide other people through the creative process.	Developing, constructing, transferring	Being able to extend creative strategies, developing own techniques to analyse things in different ways and coming up with new approaches to problems.	Incorporation	Having internalised to develop own creative approaches and solutions. Inspiring others to express and develop their creativity.
4	Knowing when (implicit understanding)	Knowing how to apply different creative thinking techniques in concrete situations. Knowing strategies to overcome attitudes and situations that can hamper creativity.	Discovering acting independently	Being able to play an active role in a creative process, such as brainstorming session, taking inspiration from others and finding new solutions and ideas by identifying unique connections between different ideas.	Commitment	Being determined to approach life in a creative way. Fostering flexibility and divergent thinking as supportive skills.
3	Knowing how	Knowing different creative thinking techniques (e.g. lateral thinking, visual explorations, metaphors, analogies, drawing, etc.), knowing in which situations creative thinking is crucial.	Deciding/ selecting	Choosing autonomously different creative techniques according to the situation and showing the capacity to look at problems from different perspectives and figuring out alternative scenarios	Motivation/ appreciation	Feeling the need of perceiving things in different ways and being determined to exercise creativity in different contexts.
2	Knowing why (distant understanding)	Knowing about the role and benefits of creativity in daily activities. Knowing why creative thinking is important in the process of solving problems and generating new ideas.	Using, imitating	Applying some creative thinking techniques when being instructed to, being able to play an active role in brainstorming sessions.	Perspective taking	Being interested in expressing own creativity in problem solving situations without knowing how to do it.
1	Knowing what	Knowing what creativity means and that creativity is not only an inborn ability expressed by a few talented people but a skill that can be learnt and wielded by everyone.	Perceiving	Recognising the usefulness of applying creative thinking in many daily activities	Self-orientation	Feeling that creativity can be useful when wanting to find innovative solutions or cope with unknown problems.

### 3.13. Evaluating/Reflecting

The learner is competent in reflecting and (self-)evaluating strategies as an interactive learning process on the job. He/she is able to identify the appropriate evaluation methodologies to apply, according to the objectives and type of activities of the organization, and he/she can plan the different phases of the process (information gathering, processing, analysis, reporting) within an appropriate timing for the work plan of the organisation.

**Knowledge:** The learner...

- has knowledge of a variety of evaluation tools and methods
- knows how and when to efficiently and effectively apply evaluation as a tool for stimulating reflection and learning processes
- knows how to use the results of the reflection and evaluation processes in a large perspective (e.g. for identifying further learning needs)

**Skills:** The learner...

- is able to apply a variety of evaluation tools and methods
- is able to develop own evaluation strategies
- is able to process in a methodologically correct way the results of the evaluation for different purposes
- is able to promote a participatory culture of evaluation in the organisation processes

**Attitudes:** The learner...

- recognizes the importance of evaluation and reflection for individual and organizational learning and inspires team members to improve their own evaluation competence

## REFERENCE SYSTEM – Evaluating/Reflecting

L	KNOWLEDGE		SKILLS//CAPABILITIES		ATTITUDES/VALUES	
	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Knowing how to strategically integrate evaluation outcomes into the organisational and/or individual practice in order to achieve the collaborative goals.	Developing, constructing, transferring	Developing own evaluation and adaptation strategies and an on-going participatory culture of evaluation within the organisation, promoting (self-) evaluation to achieve envisaged goals.	Incorporation	Inspiring others to value evaluation, reflection and individual and organisational learning. Inspiring others to develop their evaluation competences.
4	Knowing when (implicit understanding)	Knowing when (time schedule) to organize different phases of the evaluation (information gathering, processing, analysis, reporting) appropriate to the work plan of the organisation in coordination with organisation leaders.	Discovering acting independently	Searching for evaluation techniques and independently applying the (self-)evaluation with appropriate techniques and methods, within the given purpose of the evaluation.	Commitment	Being determined to improve reflection and evaluation competences with respect to individual and organisational learning.
3	Knowing how	Knowing how to organise (self-) evaluation as a reflective and interactive learning process. Knowing pertinent methods and techniques that can be introduced as an evaluation.	Deciding/ selecting	Making conscious choices on objectives, issues to evaluate; the methods and instruments of evaluation that seem more pertinent for the given case.	Motivation/ appreciation	Finding it important that team members/ colleagues value evaluation and reflection. Being motivated to improve own evaluations and reflection competence.
2	Knowing why (distant understanding)	Knowing why reflection and (self-)evaluation are important to facilitate individual and collective learning/ performance via evidence-based decision-making.	Using, imitating	Occasionally evaluating processes and products using existing models and techniques.	Perspective taking	Generally feeling that reflection and evaluation make sense in order to best achieve collaborative goals.
1	Knowing what	Knowing that evaluation is an important process to improve quality.	Perceiving	Recognising evaluation and reflection processes.	Self-orientation	Passive approach to evaluation and reflection, unless it refers to issues of personal relevance.

## 4 Methodological (Teaching) Competences

### 4.1. Facilitation of Design based Collaborative Learning

“Facilitating SD” is related to the ability to explain and to bring about the aspects of sustainability, to appreciate the growing understanding for it (among the learners), to learn to bring it about for the own (and for others’ benefit and pleasure).

Insofar “Facilitating Sustainable Development” is a highly reflective, also meta-cognitive competence.

#### Competence Description

The trainer is able to facilitate a design based collaborative learning environment using various methods and tools, concepts and approaches. He/she is able to adapt and develop concepts and designs for collaborative learning for different target groups and is flexible in re-planning and adapting to the needs of the situation. The trainer is able to motivate others and inspire participants to develop their own competences in this context.

#### Knowledge: The trainer...

- knows what collaborative learning is and how to facilitate the basic concepts
- that collaborative learning combines multiple perspectives in a sequence of work
- Knows how to plan and implement collaborative learning concepts (multiple perspectives and concrete individual experiences) and the role of a facilitator in this process
- knows when and how to intervene within the collaborative learning process in a supportive/facilitative manner
- how to integrate design based collaborative learning concepts into unfamiliar and new situations - based on the needs of the clients/users/participants and their level of understanding

#### Skills: The trainer...

- is able to perceive and recognize that design based collaborative learning needs facilitation
- is able to apply existing and known concepts of collaborative learning for own education/training offers
- is able to facilitate design based collaborative learning on the basis of a repertoire/collection of methods, concepts and tools
- is able to address or initiate design based collaborative learning by adapting concepts and methods
- is able to adapt design-based collaborative learning to meet the needs of customers/users/participants
- is able to develop new approaches to design based collaborative learning
- is able to transfer and adapt collaborative learning to new and different contexts and situations

#### Attitudes: The trainer...

- feels that facilitating design based collaborative learning can be beneficial to customers/users/participants/learners
- is interested in facilitating design based collaborative learning
- is interested in planning and implementing collaborative learning with its possibilities and potential
- appreciates and is motivated to facilitate design based collaborative learning
- is motivated to extend design based collaborative learning to new environments and situations
- Is determined to explore and improve own competence in facilitating design based collaborative learning
- considers it important to be proactive and creative in the process of promoting design based collaborative learning (4)
- Is convinced of concepts and approaches of design based collaborative learning
- Inspire others (trainers/teachers and students/users/participants) to improve their competence for collaborative learning

## Reference System: Facilitating Design based Collaborative Learning

	KNOWLEDGE		SKILLS		ATTITUDES	
L	Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
5	Knowing where else (strategic transfer)	Knowing how to transfer design based collaborative learning into new and different contexts and situations	Developing, constructing, transferring	Adapting and developing design based collaborative learning into new contexts	Incorporation	Being convinced of design collaborative learning – within its ways of planning and delivering. Inspiring others to apply concepts of collaborative learning
4	Knowing when (implicit understanding)	Knowing when and how to interact in design based collaborative learning process and to extent certain methods	Discovering, acting independently	Facilitating a complete DT Project with appropriate Tools in an innovative Teamwork situation	Commitment	Being determined to explore and improve the own competence of facilitating design based collaborative learning
3	Knowing how	Knowing how to plan and deliver design based collaborative learning concepts and which role a facilitator has in it	Deciding/ selecting	applying a set of DT-instruments in a defined teamwork case	Motivation/ appreciation	Being motivated to plan and deliver design based collaborative learning and appreciating the value of it
2	Knowing why (distant understanding)	Understanding why planning and delivering of design based collaborative learning has its benefits	Using, Imitating	Exercising singular DT tools as given by others	Perspective taking	Being curious about planning and delivering designed collaborative learning with its opportunities
1	Knowing what	Knowing what design based collaborative learning is and basic concepts of facilitating it	Perceiving	Recognising that planning and delivering of design based collaborative learning is needed (passive)	Self-orientation	feeling that facilitating design based collaborative learning can be beneficial



## Sub Competences of facilitation

This part the competence framework describes those competences in detail that are needed to create/foster those competences in specific educational contexts and to validate them.

This part is linked to an approach which we call “Competence Oriented Learning and Validation” and which is based on the LEVEL5 taxonomy. It goes without saying that these (2) competences relate to the “facilitators” of the DISC approach, who are:

- Teachers, trainers, learning designers and other educators and
- Mentors, HR professionals, trainers and other personal in businesses.

A	<b>1. Field Competence</b>	
F1	Domain specific competences	Corporate Social Responsibility and Sustainable Development Competence
A	<b>2. Generic Competences</b>	
G1	Personal/delivery	Being an expert in the content matter
G2	Self/personal	Lifelong learning
G2	Social/delivery	Motivating/empowering learners
G4	Social	Communication
G5	Social	Team work
G6	Social	Networking
G7	Social	Managing diversity
G8	Social	Intercultural communication
B	<b>2. Methodological Competences</b>	
	Facilitation	Overall Facilitation Competence
	<b>Methodological Sub-Competences</b>	
	<b>Planning competences (incl. competence oriented learning)</b>	
P1	Planning, preparation	Assessing learners’ needs and motivations
P2	Planning, preparation	Designing and constructing trainings and programmes
P3	Planning, preparation	Planning and designing the learning process
P4	Planning, delivery	Deploying different learning methods, styles and techniques
P5	Planning, delivery	Creating competence-oriented learning offers:
P6	Planning, delivery	Creating an open learning environment
B	<b>Competences when delivering training/learning</b>	
D1	Delivery	Facilitating ICT based learning
D2	Delivery	Facilitating (open) learning processes
B	<b>Validation of competence developments</b>	
V1	Validation	Assessing competences and competence developments
V2	Validation	Evidencing competence developments

## 4.2. Planning competences

### 4.2.1. P1: Checking and Assessing learners' needs and motivations

The facilitator<sup>4</sup> is competent in checking the prior experience of learners, identification of the perceived learning needs, demands, motivations and wishes of learners. This includes insights into the intrinsic motivation (e.g., self-generated willingness to discover and to learn more), and the extrinsic motivation (e.g., responsiveness to external pressures from others) of the learners, the societal learning needs, including the key competences in lifelong learning. In assessing learning needs, the professional is able to listen carefully, deploy interview techniques, read body language, and deal with possible language difficulties and other disadvantages. The person is able to respond to learning needs by deploying a wide range of teaching strategies and is able to see the background, expertise and knowledge of the learners as a learning resource to be used in the learning process.

### 4.2.2. P2: Designing and constructing learning programmes

Description: The person has the competence to design and construct learning programmes for learners that are embedded in a wider heritage context and which allow the development of the learners into, or as, fully autonomous life-long learners. The programmes are based on relevant learning theory and the needs and demands of the learners, views on group dynamics and also (in case of blended learning) the use of learning technology and assessment. Furthermore, the professional is able to develop appropriate instructional and assessment instruments that are constructively aligned to aims and objectives and that are attuned to learning theories. The programmes should be deliverable by other learning professionals.

### 4.2.3. P3: Planning and designing the learning process

Description: The person is competent in designing the learning process for learners of different target groups. On one hand this competence entails the knowledge of the learning needs and deficits of the learners, the level of the learners and the heterogeneity of the group for whom the learning process is developed (if the learning takes place in a group setting). On the other hand the professional must have knowledge on the different learning phases, processes, styles, methods and programme designs that can be deployed to facilitate the learning process. The design of the learning process can be for individual () learners as well as for a group of () learners. The learning professional is able to use his/her own expertise and knowledge of relevant learning resources and the potential of the learners themselves to design the learning process. Furthermore, the learning professional is able to formulate and communicate the objectives of the learning process to give a larger picture of the learning process as a whole.

### 4.2.4. P4: Deploying different learning methods, styles and techniques

Description: The person is competent in, and shows confidence in, using different learning methods, styles (approaches) and techniques including new media and ICT. Didactics refers to specific methods to enable learners to learn and gain knowledge and skills and to develop values. Approaches alludes to the different styles of transferring knowledge, which includes traditional teaching, facilitating, coaching and supporting learners in their own learning process. Furthermore the professional should be aware of relevant recent developments concerning new methods, styles and techniques, and of the new possibilities that come with this. Also, the professional is able to critically assess the value of new technologies for the learners.

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<sup>4</sup> In the following we try to avoid the term “professional” since there may be a high number of semi-professionals and amateurs working in this sector. We will use the terms “facilitator” or simply “person”. However, they have in many cases a large portfolio of these professional competences.

#### **4.2.5. P5: Creating competence-oriented learning**

Description: The person knows how to systematically plan, organise and elaborate a learning experience and the necessary conditions to launch, support, maintain and promote this experience. In order to do that they use guidelines on how to set and formulate competence oriented goals. They are familiar with ideas on self regulated and contextual learning. They know what kinds of (learning) activities support distinct competence developments. And know how to evoke these activities by means of actions, tasks, assignments and settings. They are able to create the open learning environments needed to ensure motivating, rich and reflective learning conditions (including required sources and resources, ICT infrastructure/equipment/software), or see to it that this is taken care of properly. They are well aware of, and capable in planning the learning conditions in such a way that the learners can work on the development of their competences in mutually beneficial ways.

#### **4.2.6. P6: Creating an open learning environment**

The person is competent in creating open learning environments. The person is able to design, develop, implement, and facilitate learning in open environments and can give support to learning professionals working with, or in, open learning environment and learners who use them to further develop themselves. Furthermore, the person is able to assess the effectiveness of the open learning environment.

### **4.3. Competences when delivering learning/training**

#### **4.3.1. D1: Facilitating ICT based learning environments for badging**

Being competent in facilitating and supporting ICT based learning environments in order to issue badges. This is a rather specific competence related to the badging of learning outcomes, however it can be and should be transferred to media competences and the use of ICT in general .

The person is able to design, develop, implement, and facilitate ICT-based learning environments and can give support to learning persons working with, or in, ICT-based learning environment and learners who use ICT to further develop themselves. Furthermore, the person is able to assess the effectiveness of the ICT-based learning environment.

#### **4.3.2. D2: Facilitating (open) learning processes**

The facilitator has the competence to guide learners in their learning processes and in further development toward, or as, fully autonomous lifelong learners. The person supports the learner in reaching the objectives of the learning process and in following the defined learning strategy. The person is able to use different learning methods (didactics), styles (approaches) and techniques, including the use of new media and ICT. She or he is able to relate learning to everyday life and to attune the learning process to the living world of the learners. The person is able to provide relevant and contextualised tasks and activities and assess the outcomes of these. The person is flexible and has the ability to change the learning strategy when necessary. The person ought to be able to align the learning process properly according to the delivery mode and context – here especially at the site of the cultural heritage.

### **4.4. Validation competences**

#### **4.4.1. V1: Assessing competences and competence developments**

Description: The facilitator is competent to assess competence developments, and is aware of the importance of this task for learners, educators and staff who are in contact with the learners in different learning contexts. He/she is aware that the context may vary depending on learners' groups,

the setting and the level of formalisation. It is also determined by the purpose of validation (internally to prove the efficiency of the learning or external to illustrate the potential of the learner).

Assessment can serve to check/measure the performances of learners or even be used as motivation to continue learning (summative assessment vs. formative assessment). Hence the assessment settings and methods have to be chosen in accordance to the context, the purpose and also regarding the available resources. Assessment can (ideally) be built in the learning process to achieve a holistic learning design.

#### **4.4.2. V2: Evidencing competence developments**

Description: The facilitator is able to rate and evidence learners' competences and competence developments, providing evidence and to document (describe) learning outcomes. It requires knowledge on theories about competence development, the concept of learning outcomes, and skills how to describe them in a correct and meaningful way and a respective attitude to do so. It also requires knowledge and skills on quality assurance and criteria (validity, objectivity, reliability, level consistency). It relates to educators and staff who are in contact with the learners in different learning context.

The context may vary with the learners' groups, the setting and the level of formalisation, however, in the heritage context it is probably rather informal.

## 5 Reference Systems for Facilitating Competences

### Creating competence-oriented learning offers

L	COGNITIVE/ KNOWLEDGE		ACTIVITY		AFFECTIVE	
	Level Titles	Individual description/ explanatory statement	Level Titles	Individual description/ explanatory statement	Level Titles	Individual description/ explanatory statement
5	Know where else (knowledge for Transfer)	Knows how to develop high quality flexible, adaptive learning environments for competence oriented learning	Developing/ Constructing Transfer	Can develop and plan optimal competence oriented learning processes	Incorporation Internalisation	feels highly motivated to continuously optimize competence oriented (adult) learning processes and conditions
4	Know when (Implicit understanding)	Knows how to develop plans for learning that allow for self regulated, contextual learning in a mutually beneficial co-operative environment	Discovering/ acting independently	Can develop sequences of learning and training units with competence oriented learning activities	Commitment Volition	feels motivated to create optimal conditions for optimal competence oriented learning
3	Know how	Knows key features of a competence oriented learning environment	Deciding/ selecting	Can develop competence oriented learning tasks and assignments of particular kinds upon request	Appreciation Motivation	values the importance of distinguishing between various aspects and features of competence oriented learning in order to enhance efficiency, effectiveness and impact of learning processes.
2	Know why (Distant understanding)	Knows that competence oriented learning brings specific additional requirements to the task of developing effective learning experiences	Using, Imitating	Can choose learning activities to be included in a competence oriented learning process	Curiosity Perspective taking	is aware that the competence oriented features of learning processes may be something to consider in order to allow for better planning of learning
1	Know-what/know that	Is aware of the fact that competence oriented learning and teaching is a way of approaching education that may affect his future educating/developing tasks	Perceiving	Can identify key features of competence orientedness in given programmes	Self oriented, neutral	senses that some elements in learning processes and learning environments contribute more to the actual acquisition/development of competence than others.

## Creating an open learning environment

	COGNITIVE/KNOWLEDGE		ACTIVITY		AFFECTIVE	
L	Level Titles	Individual description/ explanatory statement	Level Titles	Individual description/ explanatory statement	Level Titles	Individual description/ explanatory statement
5	Know where else (knowledge for Transfer)	To have the theoretical background to build appropriate open learning training conditions and help other people to do so as well.	Developing/ Constructing Transfer	To build knowledge and expertise, to construct related theory and practice. To help other trainers apply the right conditions.	Incorporation Internalisation	To have an incorporated reflex to arrange your training in an open learning environment. To find it important that a competence oriented training offer is based on open learning formats. To feel the need helping other trainers applying it.
4	Know when (Implicit understanding)	To know when and how to create the appropriate open learning conditions to achieve the competences envisaged.	Discovering/ acting independently	To search for related theory. To create appropriate open learning environments with learning conditions related to the competence development as envisaged.	Commitment Volition	To feel the need to explore the theory and practice of open learning environments. To find it important to be creative in this respect.
3	Know how	To know how to create open learning training conditions offering e.g. multiple perspectives and concrete individual experiences involving authentic problems ...	Deciding/ selecting	To systematically use existing open learning training formats for your courses or training offer. To select and try out appropriate formats.	Appreciation Motivation	To value open learning environments as the ideal format for learners to develop competences.
2	Know why (Distant understanding)	To know that offering an open learning training involving e.g. multiple perspectives and concrete individual experiences, involving authentic problems ... leads to competence development.	Using, Imitating	To occasionally adopt and adapt existing open learning formats for your own training offer.	Curiosity Perspective taking	To be interested in using open learning training formats for your own courses
1	Know-what/know that	To know what an open learning environment is. To know that open learning environments are a condition to help individuals develop all dimensions of a competence.	Perceiving	To recognise open learning environments and perceive their usefulness for competence development.	Self oriented, neutral	To feel that open learning environments challenge your own competence development.

## Facilitating (open) learning processes

	COGNITIVE/KNOWLEDGE		ACTIVITY		AFFECTIVE	
	2	3	2	3	2	3
L	Level Titles	Individual description/ explanatory statement	Level Titles	Individual description/ explanatory statement	Level Titles	Individual description/ explanatory statement
5	Knowing where else (knowledge for transfer)	Having a broad theoretical background how to facilitate open learning processes under different conditions and with different target groups.	Developing/constructing, transferring	Developing new approaches and expertise to facilitate open learning in different contexts and aimed at different target groups and competence developments. Supporting others.	Incorporation Internalisation	Having incorporated to facilitate learning in open learning environments. Motivating and supporting others to improve their competence to facilitate open learning.
4	Knowing when (implicit understanding)	Knowing when and how to implement the appropriate open learning conditions to achieve the competences envisaged.	Discovering acting independently	Researching for related theory, expanding own competence to facilitate appropriate open learning with learning conditions related to the competence development as envisaged.	Commitment Volition	Being determined to explore and improve theory and practice of facilitating open learning. Finding it important to be creative in this respect.
3	Knowing how	Knowing how to facilitate open learning involving multiple perspectives and addressing concrete individual experiences and authentic problems.	Deciding/selecting	Facilitating open learning by selecting from a repertoire of known approaches. Selecting and trying out appropriate formats.	Appreciation Motivation	Valuing open learning as format for learners to develop competences and being motivated to improve own competence to facilitate them.
2	Knowing why (distant understanding)	Knowing that open learning environments address multiple perspectives and concrete individual experiences, involving authentic problems.	Using/Imitating	Applying or adapting existing open learning formats for own training offers. Facilitating open learning as instructed or imitated by others.	Curiosity Perspective taking	Being interested in facilitating open learning environments in own work and to improve own competence to do so.
1	Knowing what/knowing that	Knowing what open learning is and which role a facilitator has in it.	Perceiving	Recognising open learning and perceiving the advantages for competence developments.	Self oriented, neutral	Feeling that own competence to facilitate open learning environments is sufficient.

## Assessing competences and competence developments

	COGNITIVE/KNOWLEDGE		ACTIVITY		AFFECTIVE	
L	Level Titles	Individual description/ explanatory statement	Level Titles	Individual description/ explanatory statement	Level Titles	Individual description/ explanatory statement
5	Know where else (knowledge for transfer)	Strategic knowledge on how to transfer assessment to other domains of life and work.	Developing/ Constructing Transfer	To develop your own assessment techniques/approaches/strategies	Incorporation Internalisation	To have an incorporated reflex to apply assessment techniques in different professional domains. To find it important that the sector adopts assessment of learning outcomes as a tool for professional development. To feel the need to help other people assess.
4	Know when (Implicit understanding)	To know in which situation to apply the right assessment technique/approach. To know how to create the appropriate instrument.	Discovering/ acting independently	To search for the appropriate assessment techniques and opportunities for your own purpose. To choose the right assessment techniques for the right purpose and to act appropriately.	Commitment Volition	To feel the need to be pro-active in assessment. To value your curiosity for assessment and its opportunities. To find it important to be creative in this respect.
3	Know how	To know how to create and use assessment instruments like tests, interviews, observations ...	Deciding/ selecting	To apply known assessment instruments in a correct way.	Appreciation Motivation	To value assessment techniques of learning outcomes in general. To find it important that assessment is valued by the (people in the) sector you are working in.
2	Know why (Distant understanding)	To know that assessment can serve different purposes: for learning, for selecting or for profiling.	Using, Imitating	To occasionally use existing assessment instruments	Curiosity Perspective taking	To be interested in assessment in the frame of your own work
1	Know-what	To know what assessment is. To know that assessment is the measuring of individual progress.	Perceiving	To recognise assessment activities and processes.	Self oriented, neutral	To feel that assessment may affect you.



## Evidencing competence developments

	COGNITIVE/KNOWLEDGE		ACTIVITY		AFFECTIVE	
L	Level Titles	Individual description/ explanatory statement	Level Titles	Individual description/ explanatory statement	Level Titles	Individual description/ explanatory statement
5	Know where else (knowledge for Transfer)	Strategic knowledge on how to transfer the concept of <i>evidencing competences with learning outcomes</i> to other domains of work.	Developing/ Constructing Transfer	To develop your own strategies regarding the concept of <i>evidencing competences with learning outcomes</i> . <i>To create new leaning systems with an integrated concept of evidencing competences with learning outcomes.</i>	Incorporation Internalisation	To feel that the concept is an integral part of your work life. To find it important that the sector adopts the concept of <i>evidencing competences with learning outcomes</i> as a tool for professional development.
4	Know when (Implicit understanding)	To know in which situation the concept of <i>evidencing competences with learning outcomes</i> can be applied To know how to create learning outcome descriptions in new situations.	Discovering/ acting independently	To create learning outcome descriptions in new situations. To search for the appropriate techniques and opportunities to apply the concept of <i>evidencing competences with learning outcomes</i> for your own purpose. To choose the right system for the right purpose and to act appropriately. (Ind: To apply the quality criteria in a new context,)	Commitment Volition	To feel the need to be pro-active in the concept of <i>evidencing competences with learning outcomes</i> . To value your curiosity for the concept of <i>evidencing competences with learning outcomes</i> and their opportunities. To find it important to be creative in this respect.
3	Know how	To know how to use the concept of <i>evidencing competences with learning outcomes</i> . (Ind: To know the quality criteria)	Deciding/ selecting	To apply the rating with <i>learning outcomes</i> in a correct way. (Ind: To apply the quality criteria)	Appreciation Motivation	To appreciate the concept of <i>evidencing competences with learning outcomes</i> in general. To find it important that the concept is valued by the (people in the) field you are working in.
2	Know why (Distant understanding)	To know the purpose of the concept of <i>evidencing competences with learning outcomes</i>	Application, Imitation	To describe learners competences by means of <i>learning outcomes</i> when being instructed or on examples	Curiosity Perspective taking	To be interested in the concept of <i>evidencing competences with learning outcomes</i> in the frame of your own work
1	Know-what	To know what the concept of <i>evidencing competences with learning outcomes</i> is	Perceiving	Only gathering information on the concept of <i>evidencing competences with learning outcomes</i> ,	Self oriented, neutral	Feeling that <i>evidencing competences with learning outcomes</i> is relevant and may affect you

	COGNITIVE/KNOWLEDGE		ACTIVITY		AFFECTIVE	
L	Level Titles	Individual description/ explanatory statement	Level Titles	Individual description/ explanatory statement	Level Titles	Individual description/ explanatory statement
5	Know where else (knowledge for transfer)	Strategic knowledge on how to transfer the EU validation approach and instruments to other domains of life and work and to blend them with other approaches. To know how to develop them further.	Developing/ Constructing Transfer	To develop own techniques /approaches / strategies regarding the EU validation approach and instruments	Incorporation Internalisation	To find it important that the sector adopts the EU validation approach and instruments as a tool for professional development. To feel the need to help other people use it To feel the need to apply the EU validation approach and instruments in other domains.
4	Know when (Implicit understanding)	To know from practice in which situations and settings the EU validation approach and its instruments are appropriate Vice versa To know when to link assessments and evidences of competences to the EU validation approach and instruments	Discovering/ acting independently	To search for the appropriate techniques and opportunities to link the EU validation approach and instruments for the own purpose. To choose the right framework for the right purpose and to act appropriately.	Commitment Volition	To feel the need to be pro-active in the EU validation approach and instruments. To find it important to be creative and pro-active in this respect.
3	Know how	To know how to the EU validation approach and instruments function theoretically	Deciding/ selecting	To apply known validation elements and instruments in a correct way.	Appreciation Motivation	To value the EU validation approach and instruments in general. To find it important that NQF, EQF & other frameworks are valued by the (people in the) sector you are working in.
2	Know why (Distant understanding)	To know the purpose of the EU validation approach and instruments	Using, Imitating	To occasionally use existing validation instruments	Curiosity Perspective taking	To be interested in the EU validation approach and instruments in the frame of your own work
1	Know-what	To know what EU validation approach and instruments are	Perceiving	Still gathering information on the EU validation approach and instruments	Self oriented, neutral	Feeling that the EU validation approach and instruments are relevant and may affect you

## 6 Catalogue of Assessment Tools

### 6.1. Introduction

This catalogue gives an overview of possible methods applicable to assess the development of core competences for students and other learners.

The catalogue doesn't claim to be a complete list, but is designed to be a growing compilation of approaches to support professionals in applying the DISC competence framework and to validate competence developments. The catalogue presents a sample of methods that can be used in individual or group work, the examples shown should reflect a good balance of productive and responsive assessment methods. The annex provides materials that can be applied in certain assessment situations.

The assessment of competences on different competence levels acquires a good overview of suitable assessment methods. Not every method of data collection fits to each learning situation. We would like to provide a catalogue of methods which can be used for individual projects and settings.

Every method is presented with a short description, recommendations and instructions, and advantages as well as disadvantages of the method.

### 6.2. Methods and Data Collection

In many cases it is feasible to apply a set of methods to receive more and complementing data as basis for a rating on a competence level. In the design of the assessment setting you should consider the following aspects:

- Which target group do you work with and how many learners and assessors are involved?
- Which competences are to be assessed?
- How much time and interaction with the learners is available?
- For which purpose do you assess and evidence the competence developments? This determines the depth of the assessment, e.g. is it to show learners that they made any progress or is it to document achievements that shall benefit the learner in job-applications?

On the following pages you find the descriptions of different methods and approaches for data collection in different contexts.

Method of Data Collection	Short Description of the Method	Recommendation, Instructions	Advantages and Disadvantages
Reflective Learning Diary	<p>A reflective diary is an instrument for learner's self-evaluation. It enables learners to document and reflect upon their learning experiences with regard to a certain topic.</p> <p>As a learning activity reflective diaries facilitate learner's self-reflection.</p> <p>As an assessment method reflective diaries provide insight in learner's understanding, content knowledge, knowledge application but also critical self-reflection and awareness.</p> <p>For this method it is also possible to use a blog or other digital tools, offline or online.</p>	<p>Give regularly time (about 15 min. each day) for the learners to write down their learning experiences in a booklet.</p> <p>Explain that a reflective diary should focus on some basic elements:</p> <ul style="list-style-type: none"> <li>• A description of what happened</li> <li>• Personal feelings about what happened</li> <li>• A personal interpretation / evaluation of what happened</li> <li>• A conclusion from the experience</li> <li>• Take care that learners do not only report what happened!</li> </ul> <p>Let them focus on an issue related to the topic. .</p>	<p><b>Advantages:</b></p> <p>Gives a deep insight in the learning process</p> <p>Facilitates reflective learning.</p> <p>Digital documentation can be shared with others more quickly and more easily.</p> <p><b>Disadvantages/Difficulties:</b></p> <p>Takes time and discipline to keep the diary regularly</p> <p>Requires ability for self-reflection</p> <p>Sharing personal feelings with others might be a sensitive issue.</p> <p>Digital documentation may require certain IT skills.</p>
Concept Map	<p>A concept map is a diagram intended to illustrate the understanding of the relationships between concepts involved with a particular area of study. A list of words describing important aspects of a topic is assembled. The words are sorted into a hierarchy from most general to specific. They are arranged so that similar terms are near each other. Links are then drawn between the concept words, and statements written to describe or explain the links. The concept map can be created in the form of a mind map.</p>	<p>Use a concept map at the beginning and at the end of a learning activity to identify the progress the learners made.</p> <p>Identify basic concepts and ask the learners to come up with related concepts and skills.</p>	<p><b>Advantages:</b></p> <p>It helps individuals to establish logical connection among ideas seemingly related.</p> <p><b>Disadvantages/Difficulties:</b></p> <p>For individuals who are not used to thinking along a clear structure, it might be difficult to reflect themselves.</p>

Method of data collection	Short description of the method	Recommendation, instructions	Advantages and disadvantages
Group Discussion	<p>In group discussions for the purpose of assessing competence developments a learning group is interviewed by a moderator.</p> <p>A specific format of such a discussion are focus groups, which are in particular useful for exploring norms, beliefs, attitudes, practices and languages.</p>	<p>The optimal size group consists of six to twelve individuals.</p> <p>Choose a topic for the discussion and prepare a list of open ended questions that are arranged in a natural and logical sequence.</p> <p>The discussion should be audio recorded for transcription, or even filmed. An alternative is to take careful notes during the discussion.</p> <p>Write a summary for each group discussion.</p> <p>Focus groups require trained moderators.</p>	<p><b>Advantages:</b></p> <p>Is very close to daily communication forms. Can be used to “explore the field”, to get an insight on a particular subject. The information gained can be used to generate ideas and to prepare more structured methods (e.g. questionnaire)</p> <p><b>Disadvantages/Difficulties:</b></p> <p>Group discussions give information about a group not about individuals; and they do also not provide any information about the frequency or the distribution of beliefs in the target population.</p> <p>Much effort and time is needed.</p>
Personal (informal) Interview	<p>A purposeful exchange between two individuals to uncover perspectives, experiences, feelings and insights on a phenomenon.</p> <p>A powerful method of collecting in-depth and detailed qualitative data.</p> <p>Data can be analyzed through content analysis with narrations and quotations.</p>	<p>Prepare an interview form with questions in line with the evaluation focus.</p> <p>Use open ended, clear questions with follow up prompts.</p> <p>Do not test knowledge but explore it through experience and description questions.</p> <p>Do not mislead respondents with biased, assumption loaded questions.</p> <p>Record conversation with permission (if audio recording is not possible, take shorthand notes)</p>	<p><b>Advantages:</b></p> <p>Uses the basic methods of communication and eliminates limitations &amp; artificiality of writing/ filling in a questionnaire.</p> <p>Helps gather in-depth and detailed data.</p> <p>Flexible, open to follow up.</p> <p><b>Disadvantages/Difficulties:</b></p> <p>Much effort and time is needed.</p> <p>Small samples, generalization from sample to population cannot be done.</p>

Method of data collection	Short description of the method	Recommendation, instructions	Advantages and disadvantages
Questionnaire/ Test/Exam	<p>Questionnaires or tests can be used as a measurement tool for knowledge, skills and attitudes as well as experience gained through a training/programme.</p> <p>It could be used to assess initial knowledge, attitude and behaviour, improvement in these respects in the training process and outcomes reached at the end of training.</p> <p>Questions to test or measure learning can be in verbal or written formats: verbal questioning, e.g. a question and answer session at the start and end of a session; written format e.g. tests or exams.</p> <p>Questionnaires can be formal as in an examination, or informal as in a quiz.</p>	<p>Questionnaires or tests can be used in the 3 stages of assessment:</p> <p>Stage 1. Initial assessment to identify prior learning, experience or achievement. This allows the assessor to develop a baseline for learning and achievement.</p> <p>Stage 2. Formative assessment—to identify where the learner is, what progress is being made and how to “Fill Gaps” in knowledge, skills and understanding. Learners consider where they want to be and plan how to get there.</p> <p>Stage 3. Summative assessment—This is carried out to make judgements about the learner performance at the end of a training/ programme or activity.</p> <p>Examples of questions:</p> <ul style="list-style-type: none"> <li>• “Closed” questions which restrict the learner to answering YES or NO, TRUE or FALSE</li> <li>• “Open” questions which allow the learner to express an opinion or knowledge in sentences</li> <li>• Multiple choice questions which provide a range of answers for the learner to select the right one</li> <li>•</li> </ul>	<p><b>Advantages:</b></p> <p>Provides written evidence of learning.</p> <p>Provides assessor with a quick way to test that learning has taken place.</p> <p>Can be used for both formative and summative assessment.</p> <p>Helps to identify the strengths and weaknesses of learners and provides feedback to both learners and trainers.</p> <p>Fits well into formal learning situations.</p> <p><b>Disadvantages/Difficulties:</b></p> <p>Questions can be misunderstood, results are determined by the interpretation of the reader.</p> <p>Formal style does not meet needs of learners with other learning styles.</p> <p>Can formalise the curriculum and suppress creativity.</p> <p>Does not fit easily with informal learning situations.</p> <p>Could cover only a limited extend of the set CPD goals and processes.</p>

Method of data collection	Short description of the method	Recommendation, instructions	Advantages and disadvantages
Self assessment/ Checklist	<p>Self Assessment involves learners in the process of assessment and allows them to reflect upon their learning and to review and record their achievements. Self Assessment can be both formative and summative:</p> <p>In formative assessments the learner reflects on where they are and where they need to go next.</p> <p>In summative assessment the learner reflects on the knowledge that has been gained and the skills they have acquired, at the end of an activity. Self assessment enables learners to manage their own learning and plan their progression while they gather evidence for portfolios and qualifications.</p>	<p>It is important that learners have the opportunity to reflect on their own contribution to activities as well as the skills and knowledge they have gained. Self assessment can be used as a stimulus to provoke discussion and to encourage learners to develop their own techniques for reviewing their learning. The self assessment process is a cycle of planning, reviewing and evaluating.</p> <p>It is useful for learners to undertake some form of initial self assessment at the beginning of a learning activity, to identify existing knowledge or skills. The learner can then use this information as a base-line to monitor their progress and to recognise achievement.</p> <p>It is useful for the learner to develop a <i>logbook</i> as part of the planning process, which will help to identify what aim to achieve and how objectives will be achieved. Later, a comparison can be made to review progress. This is part of formative self assessment.</p> <p>An <i>evidence chart</i> helps the learner to keep a record of the activities done and the skills used. This is used when reflecting on what has been learned. This is part of formative self assessment</p> <p>An <i>assessment matrix</i> enables the learner to review their learning against pre-determined criteria by giving scores for each criterion. This gives a visual record of progress and enables to identify strengths and weaknesses. This can be used for formative and summative assessment.</p> <p><i>Evaluation sheets</i> act as a reflective diary and conclude the self assessment process. The learner brings togeth-</p>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>Gives ownership of learning.</li> <li>Builds confidence.</li> <li>Motivates learners to progress.</li> <li>Develops planning and reflective skills.</li> <li>Provides evidence of knowledge and competence.</li> <li>Improves decision making and communication skills.</li> <li>LEVEL5 offers an interface to e-learning platforms that enable learners to autonomously carry out their self-assessment and receive a respective certificate.</li> </ul> <p><b>Disadvantages/Difficulties</b></p> <ul style="list-style-type: none"> <li>Requires a disciplined and honest self-reflection</li> </ul>

		<p>er the log, the evidence of achievements and assessment matrix to reflect on what was achieved and the progress made. This is summative self assessment.</p> <p>Especially for target groups with little experience in self-reflection, it is recommended that a mentor is at hand to support the reflection.</p> <p>When applying LEVEL5 the learner should be familiar with the structure and underlying idea of the reference system.</p>	
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Observation	<p>The purpose of direct and indirect observation is to collect evidence of achievement by watching learners' performances while they take part in an activity, but without interfering in their work. The activity can be a real situation or a simulated situation e.g. role-plays. Observation allows you to see the knowledge being put into practice and is better used when assessing and evidencing competence based learning. Direct observation is undertaken in person, either by an assessor, peer or workplace supervisor. Indirect observation takes place when using appropriate technology such as video recording.</p> <p>Analysis of documents is also a kind of observation. Here documents rather than behaviour are scrutinised.</p>	<p>Direct Observation by an assessor: Assessor fills in a prepared observation report form during the learner is undertaking the activity – he makes a judgement against pre-determined criteria.. The assessor records what the learner does, how the learner behaves and interacts with others. Peer Assessment: This can be in the form of a discussion, a question and answer session or by recording information on a pro-forma. The peer can be another learner who has taken part in the activity alongside the learner who is being assessed. The peer assessor will either record or provide verbal feedback what the learner has done during the activity.</p> <p>Witness Testimony: This is a statement from a “third party” who has witnessed the learner take part in the activity in verbal or written form. The witness could be a work supervisor or colleague.</p> <p>Indirect Observation: This can be a video or film of the learner taking part in an activity. The assessor can recognise competence or achievement by observing the activity on the video. This can be supplemented by asking the learner questions about what is taking place on the film. 360° Feedback: this is a deliberate confrontation of observations and views on the learner's performance from different perspectives – e.g. of trainer, supervisor and colleagues.</p>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>Provides the learner with the opportunity to demonstrate competence and skills</li> <li>Allows learner to put knowledge into practice</li> <li>Provides creative and innovative method of assessment</li> <li>Contributes to the development of an activity based curriculum</li> <li>Provides a range of evidence for Portfolios</li> </ul> <p><b>Disadvantages/Difficulties:</b></p> <ul style="list-style-type: none"> <li>Can be time consuming for assessor</li> <li>Can be difficult to observe and assess individuals within a group</li> </ul>

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(E-)Portfolio	<p>Portfolios are personal collections of information describing and documenting a person's achievements and learning.</p> <p>An electronic portfolio, is a collection of electronic evidence (artifacts, including inputted text, electronic files such as Word and PDF files, images, multimedia, blog entries and Web links etc.) assembled and managed by a user, usually online.</p> <p>(E-) Portfolios are both demonstrations of the user's abilities and platforms for self-expression, and, if they are online, they can be maintained dynamically over time.</p>	<p>Ask your learners/ learners to create their own portfolio/e-portfolio, e.g. on the REBUS Platform.</p> <p>Encourage them to include all kinds of activities.</p> <p>Review during your project how competence levels are changing.</p>	<p><b>Advantages:</b></p> <p>Enables the individual to be evaluated on various levels.</p> <p>Highlights all of an individual's skill sets.</p> <p>Extra curricular activities can also be highlighted.</p> <p>Allows the reader to understand the different dimensions of the individual.</p> <p>Empowers individuals to connect their formal education, work experience and extra curricular activities.</p> <p><b>Disadvantages/Difficulties:</b> Learners might need individual help.</p> <p>E-portfolios require some technical skills as well as available soft- and hardware.</p>

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Games	A tool to assess knowledge, skills or attitudes in a non formal way. Learners of a group get questions or task in a playful surrounding.	<p>Not all people like games or are open to participate. Consider this when you select games.</p> <p>Make a good balance between knowledge questions and creative tasks.</p> <p>The atmosphere must be friendly enough to protect “losers”.</p> <p>The group must not be too big.</p> <p>Invent tasks, which are also nice or useful to the other participants that are not directly involved in the task.</p> <p>Play the game yourself first before using it in the group to see the traps and to make a time-table.</p> <p>Every game needs a games-master.</p> <p>The games-master makes notes about the answers and assesses the orders.</p>	<p><b>Advantage:</b></p> <p>Creates a nice atmosphere.</p> <p>The learner can demonstrate skills or knowledge in a creative way.</p> <p>Improves communication skills.</p> <p><b>Disadvantages/Difficulties:</b></p> <p>Not every group appreciate “just games”.</p> <p>Because of the gamble part it is a roughly assessment.</p> <p>It takes time, to prepare it and to play it.</p>
Case study	A strategy to describe events and processes within a framework through various data collection methods such as observation, interview, document analysis in order to understand and evaluate the case.	<p>Use the case study strategy to evaluate the implementation and the effects of an event or process on individuals/groups, e.g. the REBUS learning project.</p> <p>Case studies focusing on implementation help the evaluator to make decision whether the implementation responds to the initial intent.</p> <p>Case studies focusing on program outcomes assess the impact of the program and help identify reasons for success and failure.</p> <p>Plans should be made to obtain longitudinal data in depth and in detail.</p>	<p><b>Advantages:</b></p> <p>It helps to assess a complex activity or process through longitudinal, in depth and detailed description and contextual analysis.</p> <p>Both qualitative and quantitative data could be collected and analysed for triangulation.</p> <p><b>Disadvantages/Difficulties:</b></p> <p>Time consuming. Only small samples can be included in the study.</p>

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Essay	<p>An essay is, generally, a piece of writing that gives the author's own argument — but the definition is vague, overlapping with those of a paper, an article, a pamphlet, and a short story. Essays have traditionally been sub-classified as formal and informal.</p> <p>An Essay is an assessment question that requires an answer in a sentence, paragraph, or short composition. Essay assessments are usually classified as subjective assessments as there are normally a variety of responses.</p>	<p>An essay (depending on the types of essays) is usually expected to consist of an</p> <ol style="list-style-type: none"> <li>1. Introduction/Aims/Objectives</li> <li>2. Major points and ideas explained and summarized</li> <li>3. Results/Related points/Issues/or others depending on the topic</li> <li>4. Conclusion – future work</li> </ol> <p>In regard to the taxonomy essays can be used as project reports thus tackling higher competence levels or key competences of higher complexity like related to Entrepreneurship projects.</p> <p>An essay (depending on the types of essays) is usually expected to consist of an</p> <ol style="list-style-type: none"> <li>1. Introduction/Aims/Objectives</li> <li>2. Major points and ideas explained and summarized</li> <li>3. Results/Related points/Issues/or others depending on the topic</li> <li>4. Conclusion – future work</li> </ol> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>- Let students know the assessment criteria and marking scheme, including grammar, spellings and other issues.</li> <li>- Try to reduce ambiguity in the essay questions, clearly define the expected response such as compare, evaluate, summarize, critique etc.</li> <li>- Do not use essays to measure knowledge or</li> </ul>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>• Essays have the ability to assess all levels of learning objectives.</li> <li>• It encourages original and creative thinking.</li> </ul> <p><b>Disadvantages/Difficulties:</b></p> <ul style="list-style-type: none"> <li>• Due to the subjective nature of essay assessments, grading is very unreliable even for the same assessor at different periods.</li> <li>• Grading may be influenced by other factors such as handwriting and length of response.</li> <li>• As essays are very time-consuming to answer and to correct, they are not recommended if only low-level of learning outcomes are assessed which can be assessed by multiple choices or short answer questions.</li> <li>• Although guessing is not possible in essay assessments, but “bluffing” is.</li> <li>• It is also not advisable to give the topic of the essay to</li> </ul>

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		understanding that can be assessed using less time consuming assessment methods.	the students at an early date. This may give rise to superficial learning where students concentrate all their efforts in completing the essay only.