Status as of September 9th, 2016

# PREFACE

New sets of competencies are needed in the European job market to make the transition towards a low-carbon society a success. Informally and non-formally gained competencies, for example through work experience, need to be formally acknowledged in order to become meaningful indicators on the job market. Certified Professional addresses both issues by certifying cross-functional competencies and by introducing a standard for future-oriented skills.

Competencies can be certified in three future-oriented key functions: Accelerating Transition, Promoting Innovation, and Entrepreneurship. These three functions are closely related, yet they operate on different levels.

Accelerating Transition focusses on a systems level (e.g. cities, regions, countries, industrial sectors, networks of companies, etc.). A transition in the field of climate change targets a systemic change towards a low carbon society.

Entrepreneurship operates on a more detailed level with usually clearly defined boundaries (e.g. an organisational unit). Entrepreneurship in a climate change context not only refers to novel business solutions, but also incorporates models of social- and environmental entrepreneurship. Development and implementation of innovative and sustainable business models is the goal.

Promoting Innovation operates on an intermediate level between Entrepreneurship and Accelerating Transition. Promoting Innovation can both address the micro level (e.g. the development of new products, processes, or services) and have implications on a systems level (e.g. systems innovation). Its goal is the development of novel solutions with a value proposition for society in its widest sense; encompassing natural resources, biodiversity, climate protection and climate change adaptation.

This document will give you an overview on the function “Promoting Innovation” and introduce to you the backbone of the certificate: the competency framework. The general structure of the framework will be presented in order for you to thoroughly understand what the assessment will be based on. At the end of this document you will find glossary on important terms to guarantee a mutual understanding.

**Function "Promoting Innovation": Addressing challenges, defining opportunities, and creating and demonstrating novel solutions with a value proposition for the society.**

## PROMOTING INNOVATION

Innovation is the transformation of ideas into results and hence involves both imagination and creativity. Whilst imagination is the cultivation of ideas that are not present in our senses, creativity refers to the ability to generate ideas that have value – aesthetic, cultural, economic, legal, political, societal, environmental, educational, and technological[1]. Hence, in terms of environmental and social sustainability, innovation is a process through which a new product, service, process, position, policy, or paradigm is obtained from the generation of new ideas, which provide solutions to environmental and social problems and needs. Innovation may be considered as something that involves either an incremental change (e.g. improvement of existing products) or a radical one (generation of something new)[2]. In essence an innovation process involves searching, selecting, implementing, and capturing value. For defining the function of promoting innovation, we transfer these four stages into five working areas. Hereby, it is important to consider that the different working areas are not to be understood as independent silos neither as linearly sequential, but are interconnected and interdependent:

1) Addressing Challenges: searching and scanning the environment (internal and external) for, and processing relevant signals about, threats and opportunities for addressing unmet needs, solving problems, improving processes in order to generate greater value
2) Creativity: creative thinking and evaluating potential solutions
3) Envisioning & Planning: elaborating, selecting, and deciding strategically which ideas to follow and anticipating outcomes
4) Leading Innovation: engaging others and providing guidance to innovate
5) Flexibility & Learning: flexible adaptation in implementing innovation[3]

Innovation is often presented as a major contribution to the degradation of the environment, through its association with increased economic growth and consumption[4]. However, innovation must also be a large part of any potential solution to a range of environmental issues, including:

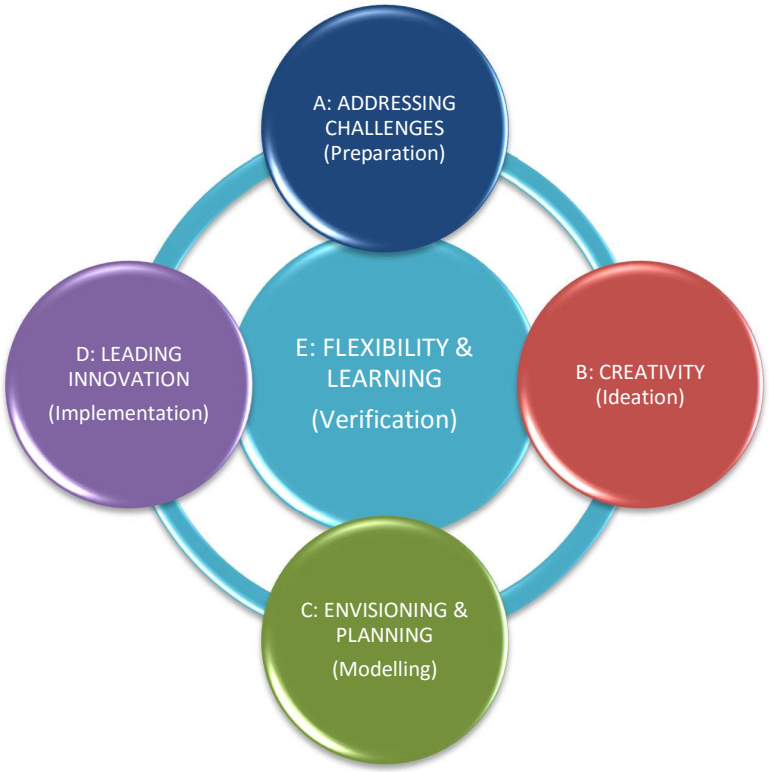
- Cleaner products - with a lower environmental impact over their life cycle
- More efficient processes - to minimise or treat waste, to reuse, or to recycle
- Alternative technologies - to reduce emissions, provide renewable energy
- New services - to replace or reduce consumption of products
- Innovative Systems - to integrate technological and behavioural subsystems for reducing energy use and improving sustainability.

Innovation requires multidisciplinary perspectives. Innovation experts are not only experts in a given area, but also in processes of designing and implementing changes. Their success comes from their

[1] Matthews C. H. and Brueggemann R. (2015): Innovation and Entrepreneurship: A Competency Framework. Routlege, New York.
[2] Marin-Garcia, Juan A; Aznar-Mas, Lourdes; de Guevara, Fernando González Ladrón. Working Papers on Operations Management 2.2 (2011): 25-31
[3] Cf. Joseph et al. three stage model: Tidd, Joseph, Keith Pavitt, and John Bessant. Managing innovation. Vol. 3. Chichester: Wiley, 2001.
[4] cf. Porter, M.E. and C. van der Linde (1995) 'Green and competitive: ending the stalemate', *Harvard Business Review,* 73(5), 120-134

ability for seeing new connections and opportunities and from envisioning new realities[5]. Moreover, innovations are often co-developed and co-created in diverse teams and hence call for soft-skills such as networking and team management. Evidently, processes of innovation are not sequential; they involve many iterations and cycles between the phases of preparation, ideation, modelling, and implementation. This implies that innovation does not necessarily follow a linear approach, but it often goes back and forward, undergoing trial an error. The outcomes of innovation might occur in different ways and may become disruptive to existing systems.[6]

Besides the above mentioned, we recognise that innovation may be considered positive per se. However, the core feature of innovation might not lie in developing something new every day but in insight and perception ("next level thinking"). Next level thinking poses the question for quality and sense of existing knowledge and hence can be characterised as de- and re-framing assumptions, social phenomena, routines, and other given situations. Are our assumptions about economy, people, and industry and other societal phenomena correct, valid or useful?. Being innovative in the field of climate change is a process based on assumptions, values, behavioural patterns, and routines of persons, groups and social systems. The challenge is not just to do "things better" but to do "better things". Thus, innovation can also lead to insight and recognition, not just to products. It is not only a performance-orientated process but also a reflexive one[7].




[5] Bezarra, Charles. "Building Innovation Competencies." Proceedings of the Canadian Engineering Education Association (2011).
[6] Cf. John Bessant, Joe Tidd: "Innovation and Entrepreneurship", 2nd Edition; Wiley; (2011)
[7] Cf. Gatter, H. and V. Muntschick: 'Perception Driven Innovation' [https://www.zukunftsinstitut.de/artikel/tup-digital/06-innovation-gap/01-longreads/perception-driven-innovation/], access date: 13.04.2016.

## STRUCTURE OF COMPETENCY FRAMEWORK

Each of the 16 *competencies* (A1, A2, A3, B1, B2, B3, B4, C1, C2, C3, C4, D1, D2, D3, E1, and E2) has 4 *performance indicators*. Each *working area* and its respective *competencies* are displayed in different colours.

The *working area* is described in a first box, illustrating typical tasks in innovation processes:

| **WORKING AREA** |
| --- |
| Description of typical tasks |

The working area description is followed by the competency descriptions. Each *competency* that belongs to the *working area* is described in a separate box. These boxes comprise a general *performance description* of the competency describing the required behaviours (understanding, actions, and previous personal experiences) of the candidate for applying the competency in a proficient way. Moreover, the *competency* is further defined through four *performance indicators*. *Performance indicators* are describing what the candidate is expected to demonstrate in order to pass the assessment. They can be understood as informally (e.g. via personal or work experience) acquired *learning outcomes*.

For assessors s*pecifications to guide assessment* will be provided in the online assessment tool. They help to check if the candidate has mastered/demonstrated the performance indicator at least on a basic level without guidance or supervision.

For candidates g*uiding questions* will be provided in the online form to provide a clear picture about the competency and the requirements for dossier submission and interview.

| **COMPETENCY** |
| --- |
| **Performance description**<br>Describing the required behaviours (understanding, actions, and previous personal experiences) of the candidate. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Performance indicator** |
| **2. Performance indicator** |
| **3. Performance indicator** |
| **4. Performance indicator** |

| WORKING AREA A: ADDRESSING CHALLENGES |
|---|
| Innovations in the field of sustainability can be characterised as being successful if they address a societal or environmental need/problem (and in the long run economic conditions). Therefore, the innovator identifies this need/problem and articulates it as a challenge or opportunity. An innovator recognises that existing solutions do not always lead to the best possible results. Thus, he/she de- and reframes given solutions, and is constantly searching for improvement also using associative thinking. Applying systems thinking, recognising patterns, and thinking in options help to identify societal or environmental problems. In-depth analysis leads to a thorough understanding of the roots of these problems and allows drawing hypotheses. |

| COMPETENCY A1: PERCEIVING SYSTEMS AND PATTERNS |
|---|
| **Performance description**<br>Candidate detects limitations of established solutions in terms of paradigms, policies, position, processes and/or products/services. He/she thinks broadly, taking into account a wide range of issues related to the field of analysis and action. Moreover, he/she demonstrates systems thinking in identifying how one issue may be part of a larger system or process and identifies patterns by connecting, re-combining, re-framing, and making sense of information. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to identify limitations of existing products, services, or processes, for example in terms of paradigms, policies, and positions.** |
| **2. Candidate is able to explain how one issue is part of a larger system or process, for example, in terms of material cycles, production chains, or environmental systems (identifying patterns).** |
| **3. Candidate is able to compare alternative concepts of economy, society, people or nature. For example post-capitalism, neo-ecology, sharing economy, or common goods.** |
| **4. Candidate is able to draw new connections between seemingly unrelated subjects in a meaningful way. E.g. by recombining and reframing information.** |

| COMPETENCY A2: IDENTIFYING NEEDS AND THINKING IN OPPORTUNITIES |
|---|
| **Performance description**<br>Candidate identifies environmental and societal trends and gaps and subsequently analyses them searching for their context, conditions and causes. In this way, she/he identifies important societal, environmental, economic, or political needs and carves out relevant technological systems or regimes. Candidate analyses the problem from different angles and levels and with this insight, explains why the problem is worth solving. This can also involve the re-formulation of existing problems. He/she describes potential challenges this problem implies and identifies potential opportunities for meeting these needs or challenges. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to identify environmental problem or societal need where no (good) solution exists yet OR reformulates existing problems or societal needs.** |
| **2. Candidate is able to distinguish between different levels of problems and explains how they are related. E.g. by addressing political as well as technological circumstances and explaining their interdependencies.** |
| **3. Candidate is able to translate problems or societal needs into opportunities. E.g. by highlighting potential solutions and by explaining what value they would offer.** |
| **4. Candidate is able to identify opportunities deriving from a detected environmental problem, societal need, or his/her own aspiration. For example in terms of market opportunities or opportunities to solve an environmental or societal problem.** |

| COMPETENCY A3: ANALYTICAL THINKING |
| --- |
| **Performance description**<br>Candidate keeps up to date with discourses and knowledge development on the issues/areas he/she is aiming to innovate. He/she scrutinises and verifies existing knowledge, practices, and assumptions in these discourses and information and actively searches for alternative ways of understanding phenomena. This implies differentiating key information from the trivial. Moreover, he/she makes use of different techniques of gathering relevant information for in-depth analysis and draws hypotheses from this information. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to build in depth knowledge his/her field of expertise (e.g. product, service, process, position, policy or paradigms) and shows an interest in new developments in the field.** |
| **2. Candidate is able to analyse & critically reflect on existing knowledge and assumptions. This implies to question and reframe information.** |
| **3. Candidate is able to draw innovative hypotheses from the different sources of information (numerical, written, verbal, etc.). This implies differentiation of key elements from the irrelevant or trivial.** |
| **4. Candidate is able to interpret information in different ways and to explain the main differences between these alternatives. For example different theoretical viewpoints or different types of knowledge.** |

| WORKING AREA B: CREATIVITY |
|---|
| Creativity is key to innovation processes per definition and idea generation can be seen as one of the core parts of the innovation process. It is important to mention that creativity can be an individual or a group task in the sense of co-generation. Thereby, the context (environment) plays an important role as it can hamper or support creativity. In fact, innovation is regularly an insightful and often a co-creative process. This underlines the importance of incubation as well as sharing and discussing ideas. Evaluating and synthesising potential alternatives help to identify which idea to follow on further. |

| COMPETENCY B1: MANAGING CONTEXT FOR CREATIVITY |
|---|
| **Performance description**<br>Candidate identifies some environmental factors that may condition, foster and/or influence his/her creativity. He/she modifies single elements of the environment to facilitate creative processes and forms a team with complementary competences. This might for example result in a more freedom oriented, entrepreneurial, people oriented, and adaptable working environment and in an innovative culture (values, norms, beliefs). |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to describe some environmental factors that may influence creativity and innovation. For example entrepreneurial working environment or freedom to follow own interests.** |
| **2. Candidate is able to identify different roles in a social group in order to align them to support the intended innovation.** |
| **3. Candidate is able to create a trustful atmosphere (culture and climate) that encourages open discussions and exchange of (unconventional) ideas.** |
| **4. Candidate is able to modify environmental factors to promote collaboration. (This can imply openness, flexibility (including space), support and space for ideas, possibilities for risk taking, and freedom.)** |

| COMPETENCY B2: GENERATING NEW IDEAS AND SOLUTIONS |
|---|
| **Performance description**<br>Candidate is prone to question the ways things have traditionally been done or explained, especially when they impede performance improvements (critical thinking). He/she is eager to produce new ideas or to combine ideas in unique ways. In doing so, he/she develops unusual (divergent) thinking processes, demonstrates independent thinking, and shows the ability to find creative relations between information and events. This leads to a variety of alternative solutions addressing a problem/need. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to demonstrate independent thinking. E.g. thinking outside of the box or visualising problems from different angles.** |
| **2. Candidate is able to understand, categorise, and store new knowledge and recombine associations, producing a range of solutions to problems. E.g. connecting seemingly unrelated questions, problems, or ideas by demonstrating "kaleidoscopic", "divergent", or "associational" thinking.** |
| **3. Candidate is able to make use of his/her imagination to reveal things that are absent within the current situation. This can be done e.g. by using "what-if-questions".** |
| **4. Candidate is able to describe a variety of alternative solutions to issues and problems.** |

| COMPETENCY B3: GUIDING CO-CREATION PROCESSES |
|---|
| **Performance description**<br>Candidate is using a collaborative approach of knowledge- and idea generation, actively involving others. He/she identifies people with different expertise and consults them in order to extract information from different shares of action. Candidate willingly shares knowledge and thoughts with others, encourages constructive discussions, and combines own ideas with those of others in a collaborative way. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to actively involve others in the process of knowledge and idea generation.** |
| **2. Candidate is able to share his/her knowledge and thoughts for encouraging constructive discussions.** |
| **3. Candidate is able to extract information from different spheres of action and (re)combine it so that it adds value to the issue at stake.** |
| **4. Candidate is able to combine own ideas with those of others. This implies for example listening to suggestions by others while exerting certain critical judgement as to what is valuable in social, cultural and economic terms.** |

| COMPETENCY B4: EVALUATING POTENTIAL SOLUTIONS |
|---|
| **Performance description**<br>Candidate compares different actions and ideas and looks for synthesis for innovative solutions and initiatives while evaluating their potential advantages and disadvantages. He/she makes experiments, initially tests the usefulness of potential ideas/solutions, and takes rational decisions based on the evaluation. If needed, candidate also uses his/her intuition when making decisions. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to actively seek opportunities for experimenting and testing assumptions.** |
| **2. Candidate is able to evaluate the advantages and disadvantages of ideas and proposed solutions.** |
| **3. Candidate is able to use his/her intuition in cases of doubt for preventing being trapped or endangering the situation.** |
| **4. Candidate is able to take decisions based on synthesising and evaluating information. E.g. makes logical, rational, and well-reasoned judgements; takes available information into account when making judgements and decisions; considers a variety of alternatives when making judgements and decisions.** |

| WORKING AREA C: ENVISIONING AND PLANNING |
|---|
| In order to lift up an idea to the status of an innovation, it requires strategic visioning and planning. Therefore, a reasonably elaborated idea about the future and an anticipation of the future impact of innovations are essential. This includes an evaluation of viability- and feasibility issues as well as the anticipation of unintended negative side-effects of the innovation. These unintended side effects can be called "the dark side of innovation". Moreover, a strategic action plan with prioritised action steps helps in implementing the innovation. |

| COMPETENCY C1: ENVISIONING AND ATNICIPATING |
|---|
| **Performance description**<br>Candidate envisions short- and long-term impacts of the intended innovation on different parts of the system/context while taking into account different future scenarios. Candidate identifies strengths and opportunities of the intended innovation. This information helps candidate to develop a strategic view to transform ideas into action. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to anticipate direct or short term impacts of the intended innovation.** |
| **2. Candidate is able to envision long-term consequences of implementing the intended innovation.** |
| **3. Candidate is able to compare different potential solutions/ideas in terms of their future development. E.g. by comparing future different scenarios.** |
| **4. Candidate is able to develop a strategic vision to implement the intended innovation.** |

| COMPETENCY C2: APPRAISING THE "DARK SIDE OF INNOVATION" |
|---|
| **Performance description**<br>Candidate identifies weaknesses and potential threats that could be caused by the intended innovation and considers its potential risks. Moreover, he/she identifies tension and/or anxiety among team members related to the intended innovation. Especially in the field of environmental and social innovation, this is an essential part in order to prevent unintended negative consequences. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to identify weaknesses and potential threats that could be caused by the intended innovation** |
| **2. Candidate is able to assess the impact of the intended innovation on the target community, the market society and the environment.** |
| **3. Candidate is able to evaluate potential risks if the intended innovation would be implemented. E.g. by generating a contingency plan.** |
| **4. Candidate is able to identify tension and anxiety among relevant actors and audiences related to intended innovation.** |

| COMPETENCY C3: VERIFYING VIABILITY AND FEASIBILITY |
|---|
| **Performance description**<br>Candidate identifies innovation opportunities and points out main criteria of success for innovation. Therefore, he/she monitors the context and/or the actors in the field and connects them to potential strengths of the intended innovation. Candidate explains the feasibility and utility of the intended innovation by referring to changes in the context (e.g. responding to an influencing market demand, |

| |
|---|
| answering a relevant societal need). Moreover, he/she critically analyses the risks and threats that could seriously hamper viability and feasibility. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to monitor contexts and actors to draw conclusions for innovation opportunities.** |
| **2. Candidate is able to draw conclusions from anticipating strengths, weaknesses, opportunities, and threats on the viability and feasibility of intended innovation.** |
| **3. Candidate is able to explain feasibility and value of new ideas or solutions by connecting it to current and anticipated developments in political, social, and/or economic fields and contexts.** |
| **4. Candidate is able to point out the main criteria of success for innovation (viability). E.g. fitting in market (context) gaps, meeting societal needs, underpinning political developments.** |

| **COMPETENCY C4: FORMULATING STRATEGIES AND PLANNING** |
|---|
| **Performance description**<br>Candidate transforms insights into strategies for implementing intended innovation. He/she works carefully in the development of an action plan or in the definition of the conditions, inputs, and processes that will be necessary during preparation, implementation, monitoring and evaluation stages. In his/her plan, candidate includes a prioritisation of objectives and action steps. He/she makes use of adaptive planning techniques and is able to take decisions in the light of uncertainty, ambiguity, and incomplete information, if required. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to define strategies and concepts for idea implementation considering possible future trends, opportunities, and contingencies.** |
| **2. Candidate is able to identify priorities for achieving objectives taking into account risk assessment.** |
| **3. Candidate is able to make use of adaptive planning techniques to coordinate action. (Adaptive planning is an approach where action leads to results, we learn from them, and then we modify assumptions and approaches accordingly.)** |
| **4. Candidate is able to take strategic decisions even in light of incomplete information. This might be required, for example, if opportunities for promoting the intended innovation pop up before there is a solid plan.** |

| WORKING AREA D: LEADING INNOVATION |
|---|
| As soon as an innovation reaches a certain level of attention from others, leadership qualities become an essential part of an innovator. This means that resources (human, time, money, material, etc.) need to be secured and used in a strategic way. At the same time, a trustful, people-oriented, inclusive working environment needs to be provided. Potential allies need to be mobilised to engage and take action and potential opponent forces need to be countered with perseverance or convinced of the advantages of the intended innovation. |

| COMPETENCY D1: CATALYTIC LEADERSHIP |
|---|
| **Performance description**<br>Catalytic Leadership is about inspiring and enabling. Candidate builds on this in order to earn the right to lead and encourages without judging. Candidate establishes a creative and sufficiently diverse team and provides a psychologically safe working climate that encourages trust and cooperation. This includes the identification and recruitment of talent and the empowerment of staff/team members. Moreover, candidate coordinates action of single team members and provides direction, ideally in a participatory and inclusive manner. Leadership in this context also implies sound management of time, human resources, and material resources as well as self-awareness and self-management. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to establish a creative team and manages the relations among members effectively (considering appropriate diverse composition of competence and personality as well as individual freedom).** |
| **2. Candidate is able to inspire the team members to think beyond a classical working description or standard tasks.** |
| **3. Candidate is able to create a psychologically safe working environment by making people to feel confident in expressing ideas without fearing loosing face and by managing conflicts within the team constructively (enabling).** |
| **4. Candidate is able to provide direction and coordinates action without hampering individual freedom. For example by making use of participatory and inclusive management.** |

| COMPETENCY D2: SENSE MAKING AND MOBILISING OTHERS |
|---|
| **Performance description**<br>Candidate uses a convincing narrative to explain the intended innovation. The narrative can change according to the audience or the dialogue partner. Candidate inspires enthusiasm and a positive attitude and motivates others to get engaged, to achieve goals, or to promote the intended innovation. This implies to identify the key benefits of the innovation according to the audience or dialogue partner as well as to reach a shared view of the value of the innovation. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to develop a convincing narrative to explain the intended innovation. 'Convincing' means that it is accessible, easy to relate to, and inspiring.** |
| **2. Candidate is able to inspire enthusiasm and positive attitude to others. He/she induces others to speak positively about the concept/innovation and get engaged directly or indirectly (e.g. via spreading the word).** |
| **3. Candidate is able to articulate the key benefits of innovation in a nutshell to an outsider.** |
| **4. Candidate is able to promote a shared view about the value of the innovation among different actors.** |

| COMPETENCY D3: SHOWING PERSEVERANCE |
|---|

| |
|---|
| **Performance description**<br>Candidate does not give up easily and is continuously reinforcing progress towards the achievement of the intended innovation. Thereby he/she remains objective and focussed, even under pressure and when confronted with criticism. This includes constructive handling of conflicts, criticism, and dissent in a reflexive manner. Candidate makes use of network contacts to obtain information and uses negotiation techniques and reflexivity find compromises to deal with criticism and setbacks. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to cope constructively with pressures and setbacks (e.g. takes calculated risks on the basis of adequate information and analysis, faces conflicts with flexibility, and/or negotiates effectively to reach agreements).** |
| **2. Candidate is able to make use of network contacts to obtain information useful to deal with ambiguous or difficult situations.** |
| **3. Candidate is able to handle criticism and resistance constructively (e.g. approach criticisms as suggestions for development rather than personal attacks and show reflexivity).** |
| **4. Candidate is able to demonstrate his/her strive for implementing the intended innovation (e.g. pursues goals with tenacity, works through challenges to achieve success, does not give up easily, and finds alternative ways to progress when blocked).** |

| WORKING AREA E: FLEXIBILITY AND LEARNING |
|---|
| Throughout all working areas of innovation, flexibility and the ability of continuous learning are central. Often, there are no standard procedures available in innovation processes. Sometimes situations need to be accepted as they are or as they emerge and the only way in dealing with changes is flexibility. However, in order to reduce the level of uncertainty, the innovator must learn from his/her experiences, success, and failure as well as from those of others (vicarious learning). |

| COMPETENCY E1: LEARNING |
|---|
| **Performance description**<br>Candidate constantly looks for opportunities of learning and of improvement. He/she actively seeks feedback from others and uses techniques such as 'active listening' to obtain relevant information for learning. He/she makes use of learning by doing and takes lessons from success and failure (one's own and others'). Candidate also learns from other experiences (vicarious learning) and uses the lessons learned and feedback obtained in all these different ways to improve actions, concepts, and ideas. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to transform various situations into learning opportunities (e.g. feedback talks, own and others' experiences, reading, observing, arts, etc.).** |
| **2. Candidate is able to use different mechanisms of learning (e.g. active listening, experimenting, questioning).** |
| **3. Candidate is able to make use of learning by doing, benefiting from feedback and vicarious learning (e.g. focuses on mistakes as an opportunity for learning and improvement, reflects and learns from both success and failure).** |
| **4. Candidate is able to transfer learning outcomes to improve actions, concepts, and ideas.** |

| COMPETENCY E2: FLEXIBLE ADAPTATION |
|---|
| **Performance description**<br>Candidate adapts his/her working style and revises his/her "mind-set" to suit changing circumstances with a clear view on intended innovation. This includes returning to previous activities and stages in the process, if needed and avoiding a "what is done is done" mentality. He/she identifies ways to handle dynamic situations in an agile and flexible manner adjusting to situational changes. Candidate demonstrates ambition, practices reflexivity, and adapts objectives, strategies, and concepts if required. |
| **Performance indicators**<br>*Describing what the candidate is expected to demonstrate in order to pass the assessment.* |
| **1. Candidate is able to adjust positively to change, and modifies actions in the face of new demands (iterative adaptation).** |
| **2. Candidate is able to return to previous activities and stages in the process if needed. This includes to revise his/her "mind-set" and to adapt the strategy or communication.** |
| **3. Candidate is able to pursue reflexivity and self-development (e.g. seeks feedback on own performance and then aims to improve on it, takes advantage of training and development opportunities, demonstrates a desire to get ahead)..** |
| **4. Candidate is able to encourage flexible adaptation among team members or other stakeholders. E.g. by encouraging open discussions, de-briefing sessions, etc.** |

# GLOSSARY

This glossary explains terms used in the competency framework in order to help applicants making their submissions. It is NOT a dictionary and the explanations given are NOT definitions of terms.

*GLOSSARY TO BE FINALISED!!!

| | |
|---|---|
| **Attitude** | A competency consists of knowledge, skills, and *attitude* elements. *Attitude* means to apply personal, social, and/or methodological abilities with an intrinsic motivation. Hence, *attitude* describes the mind-set and determines how we address problems and/or projects. |
| **Collaboration** | *Collaboration* refers to the act of (voluntarily) working together on a project or for achieving a common goal. Many Transition projects can only be achieved through *collaboration* as the goals can be greater than the ability or scope of individual actors or stakeholders.<br>*Collaboration* is not just a new term for networking, but it is a far deeper engagement process. To be successful the main stakeholders in a *collaborative* project must understand and respect issues such as voluntarism, shared goals, consensus, and participative and distributed leadership practices. |
| **Competence / Competency** | *Competence* means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development. The European Qualification framework refers to knowledge, skills, and competence (KSC).<br>A *competency* is a persistent pattern of behaviour resulting from a cluster of knowledge, skills, and attitudes (abilities + motivation). Hence, the concept of competency adds on an (intrinsic) motivational factor to the concept of competence (EQF). In light of economic, social, and environmental trade-off decisions, we deem this to be an essential element in the context of a transition towards a low-carbon society. |
| **Consensus** | The root of the word is *consent* and means agreement of opinion. *Consensus* can refer to both a majority of opinion and general agreement or harmony.<br>Care needs to be taken when using the term in groups so that everyone is clear on the meaning and what the implications are for discussions. It is often said that the problem with *consensus* is that we start with a rainbow of diverse opinions and we keep stirring the debate to get agreement until we end up with grey which no one wants! See *compromise* above. |
| **Environment(al)** | *Environment* regularly refers to nature, plants, and animals as used in *environmental* science and ecology. But it can also stand for the total of surroundings, as in people, things, conditions or influences. So one can refer to the *social environment* or the *technological environment*. A clear definition is needed if one is not / or not only referring to the *natural environment*.<br>The use of the adjective *environmental* generally stands for the natural *environment*, such as the *environmental* movement or *environmental* politics. |
| **Interdependency** | *Interdependency* refers to a mutual dependency between actors, projects, organizations etc. Often two or more of these are legally independent though they may depend on one another in many different ways. For example, a business may rely on a supplier for raw material and the supplier may be dependent on the business as a major customer. |
| **Interdisciplinary** | *Interdisciplinary* approaches involve two or more disciplines and try to combine respective methodologies and practical habits. Originally, this referred to academic disciplines but has more recently expanded into a wider context and is used to describe the combination of different approaches (for instance technology and language) to offer a new approach. |
| **Knowledge** | A competency consists of *knowledge*, skills, and attitude elements. *Knowledge* means the outcome of the assimilation of information through |

| | |
|---|---|
| | learning. *Knowledge* is the body of facts, principles, theories and practices that is related to a field of work or study. *Knowledge* can be theoretical and/or factual. |
| **Multidisciplinary** | *Multidisciplinary* approaches involve a combination of different disciplines similar to *interdisciplinary* approaches. In *multidisciplinary* settings, however, each discipline works with their own methodologies and practical habits. The results are combined at a later stage. This is separate to *Interdisciplinary* approaches, as explained above, as there is no effort to develop a new approach using the combined competencies. |
| **Paradigm (shift)** | A *paradigm* is a model or pattern of thinking which is held by a group to be generally understood. It strongly influences how the work is approached. Often a *paradigm* is not clearly stated and in fact there can be quite different levels and types of understanding between individuals within a group. This can lead to confusion. A *paradigm shift* describes a collective change in how a group perceives and thinks about a certain issue. |
| **Sense-making** | *Sense-making* means explaining or describing and usually refers to new narratives or stories. Many of us carry within us a mental model of how the world works and this can be a barrier to accepting radical change. Such models can be held at both an individual and a collective level. *Sense-making* refers to how we might re-imagine our models and thus re-tell our underlying narrative. |
| **Skills** | A competency consists of knowledge, *skills*, and attitude elements. *Skill* means the ability to apply knowledge and use know-how to complete tasks and solve problems. *Skills* are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments). |
| **Sociotechnical (systems)** | Society operates using different degrees of technology. The level of technology is one factor influencing interactions within society. The term *sociotechnical system* refers to the interplay between society and technology and how this manifests in practice. |
| **Stakeholders** | *Stakeholders* are individuals and organisations with direct and indirect interest in a project, business, or enterprise. For instance, in a business stakeholders include shareholders and employees, but also customers, suppliers, creditors, local communities, government authorities, media representatives, and/or environmental and consumer organizations. Many projects, which are concerned with moving towards a low carbon society, want to involve a wide number of *stakeholders* to reach shared goals and to do this through persuasion rather than legislation. |
| **Strategy/strategic planning** | A *strategy* is a long term, high level plan for a project/organisation to achieve one or more goals under conditions of uncertainty. *Strategic planning* is an organisation's process of defining its strategy, or direction, and making decisions on allocating its resources to pursue this strategy. |
| **Systematic** | *Systematic* refers to a methodological approach to a task or solving a problem. For example, solving a problem by going through a predefined sequence of steps. Such an approach does not necessarily involve recognising a systems thinking *(systemic)* approach. |
| **Systemic** | *Systemic* refers to the system as a whole. It also means recognising the properties of a system such as complexity, specific boundary issues, and thresholds or tipping points in relation to failure. Taking a *systemic* approach means acting in a manner that recognises the characteristics of a given system. In common use, the terms *systematic* and *systemic* are often interchangeably, but the distinction is very important for this competency framework. |
| **Transdisciplinary** | *Transdisciplinary* approaches include both theory-based (scientific) and practice-based approaches. They attempt to bridge the worlds of academia and practice in order to provide science-based solutions for real world problems. |

*GLOSSARY TO BE FINALISED!!!