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Certification Manual and Examination Regulations

Personal Certification in Food Systems Specialist (Explore Level)

Valid from 01.12.2024

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**EIT Food – Europe’s leading food innovation initiative, working to make the
food system more sustainable, healthy and trusted**

Knowledge & Innovation Center on Food,
part of the European Institute of Innovation and Technology (EIT)

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1. Preamble

This document outlines the certification procedure for individuals pursuing the courses of “Food System Specialist (Explore Level)”, while also serving as the examination regulations. The certification process adheres to the guidelines set forth by ISO/IEC 17024, an International Standard that establishes fundamental principles and requirements for certifying individuals against specific criteria.

The personal certifications in "Food Systems Specialist (Explore Level)" is structured by the following eight competences:

- Food System
- Data Management
- Technology Management
- Entrepreneurship
- Problem Solving
- Critical Thinking
- Leadership
- Communication

Certification is possible for each competence in each level separately resulting in the following certification:

- Foundations of Food Systems for a Sustainable Transformation (Explore Level)
- Foundations of Data Management for a Sustainable Food System (Explore Level)
- Foundations of Technology Management for a Sustainable Food System (Explore Level)
- Foundations of Entrepreneurship for a Sustainable Food System (Explore Level)
- Foundations of Problem Solving for a Sustainable Food System (Explore Level)
- Foundations of Critical Thinking for a Sustainable Food System (Explore Level)
- Foundations of Leadership for a Sustainable Food System (Explore Level)
- Foundations of Communication for a Sustainable Food System (Explore Level)

The order of certification can be freely selected. A higher-value certificate with the title of the respective certification profile is obtained through certification in all eight competences of the respective or a higher level.

The requirements of the specific certification profiles are listed in the annexes to this document and form part of the respective personal certification.

Unlike other types of conformity assessment bodies the certification body for individuals is distinct in its primary function, which involves conducting an examination using objective criteria to assess competence and scoring. The certificates issued are certifications of competence. To be eligible for certification,

individuals must demonstrate the competences outlined in this document. The scope of this document encompasses the course Explorer of the Food System.

1.1 General Terms

EIT Food Assessment

Independent Certification body that carries out the certification of persons on behalf of the EIT Food.

Examiner

Independent expert who evaluates the participant's performance on behalf of EIT Food Assessment. It is ensured that the examiners know the complete course content.

Examination Commissioner

Person responsible for the organisational preparation, administering and follow-up of the examination on behalf of EIT Food Assessment.

Activity Team

A Team, appointed by the EIT Food Learner Service leadership, consisting of independent experts from different interested groups. A separate working group is formed for each certification profile. This working group verifies and validates examination content, prepares examination tasks, is responsible for specialist enquiries and advises EIT Food Assessment on the quality and expertise of the examiners. For more information on the tasks and responsibilities of the Expert Committee, please refer to the Quality Management Manual.

Certificate

A fully-fledged certificate that requires more extensive preparation. Participants are supervised during the examination. Completion of all eight competency exams results in a higher-value certificate.

Proof of Successful Completion

A Proof of Successful Completion is a simplified acknowledgment of participation and successful completion, offering learners a quick and convenient way to showcase their commitment to learning and their grasp of the subject matter. Acquiring this type of certificate involves a lower level of effort. The examinations are conducted without proctoring.

For the sake of clarity, in the following text, only one type of certificate will be mentioned, but this also encompasses the Proof of Successful Completion, even though it is not a full-fledged certificate.

2. Guidelines for the Assessment Procedure

The guidelines for the assessment procedure are described below.

2.1 Aim of the Assessment Procedure

The Assessment Procedure involves the assessment of qualification criteria based on defined competency profiles. If a participant demonstrates the achievement of the learning outcomes by successfully completing the end-of-module assessment a certificate of competency will be issued to them as proof.

2.2 Application

Persons who successfully pass an examination of the EIT Food Assessment in the field of "Food Systems Specialist (Explore Level)" and fulfil the defined entry requirements according to this certification handbook can be certified.

Individuals who are interested in participating in the certification exam must register for the test through the EIT Food Assessment website <https://assessment.eitfood.eu/>. The registration should include the following information:

- Name, Email Address, Gender, Country of Citizenship, Date of birth
- Invoice address

If necessary, the examination dates are set by EIT Food Assessment and are communicated via the website.

The exams for the "Food Systems Specialist (Explore Level)" courses are supervised online tests, which are carried out on a fixed test date.

2.3 Conducting Examinations

The examination procedure is described below. The examination for Food Systems Innovation module consists of written examination.

2.3.1 Compilation and provision of the examination documents and commissioning of the examination officers

The examination questions are compiled by EIT Food Assessment and are taken from a question catalogue that has been developed and approved by the responsible Activity Team of the Learning and Assessment Advisory Board.

There must be at least one Examination Commissioner who is responsible for the administering and one Examiner who is responsible for the grading of the examination. The examiner must be appointed a reasonable time before the exam. It is ensured that the examiner has no conflict of interest and is not simultaneously involved in teaching and grading the exam.

An Examiner may not be required if the examination is conducted through an automatic assessment and/or the assessment has only closed question with unique correct answers with no room for discretion. (e.g. True/False questions).

2.3.2 Conducting written examinations

Written examinations are usually online examinations in multiple choice question format with single and multiple answer options. These take place in virtual environments set up for this purpose. The exam is designed to be taken synchronously at a specific time or time frame.

The duration of each individual competency examination is limited to 30 minutes. The duration of the certificate, which covers all eight competences, is limited to 80 minutes.

It is ensured that sufficient time is available for answering the questions of the examination. For this purpose, the responsible Activity Team of the Learning and Assessment Advisory Board already checks the approximate time required to answer the questions when designing the questions.

Note that all examinations are designed to be "closed book" exams – participants are not allowed to (and will not need) any books or any other materials during the examination. EIT Food Assessment reserves the right to verify compliance with the rules.

Reasonable adjustments will be put in place for participants who cannot take the examination in the intended form due to an impairment or disability.

2.4 Examination questions and tasks

The exam question catalogue differs depending on the certification profile. The same applies to the number of questions per topic area.

The question catalogue is created by an independent committee of experts, reflecting the training content and the derived intended learning outcomes.

The examination question catalogue contains purely theoretical examination questions and examination questions with a practical relevance.

2.5 Evaluation and assessment of examinations

Examination participants must achieve a minimum task fulfilment level of 67%.

No certificate will be issued for outcome below the threshold above.

In the event of failure, the examination can be sat further two times.

Sample solutions are provided to the examiners for each question and task, which serve as binding guidelines for assessing the question. In addition, the required score for each question and task is determined by the responsible expert committee.

2.6 Certification

Certificate: A certificate for the respective certification profile is issued to the examination participants. Completion of all eight competency exams results in a higher-value certificate. Participants are monitored during the examination.

For the sake of clarity, in the following text, only one type of certificate will be mentioned.

For this course, EIT Food Assessment will issue the participants a designated certificate for the respective certification profile upon successful completion of the examination.

2.7 Repeating an examination

If a participant achieves less than 67% of the possible points, the exam is considered failed, and no certificate can be issued. However, there is the possibility to retake the exam twice. The possibility to retake the examination expires one year after the initial examination.

3. Rights and Obligations

Rights and obligations of certificate holders are described below.

3.1 Disclosure

Upon written request (e.g., from potential employers of a certificate-holder), EIT Food Assessment may provide information, specifying the certificate number and whether the person legally holds the certificate. In order to identify the certificate-holder their name, date of birth, and place of birth are stored. By registering, participants signify their intent to accept these regulations in the event of receiving the certificate. EIT Food Assessment adheres to the provisions of the European General Data Protection Regulation.

3.2 Rights

Certificate holders are entitled to refer to their certifications as follows with the scope of their activities around Explorer of the Food System:

- to use the issued certification, both physical or digital but only in its entirety.

3.3 Obligations

The following duties shall be complied with by the certificate holder when performing the tasks in the area of the respective certification profile:

3.3.1 Conscientiousness

The certified person shall observe the rules recognised in the certified profile.

Certificate Holder are obliged not to use the certification in an improper manner and not to make any statements that must be considered misleading or unauthorised by EIT Food Assessment.

3.3.2 Permitted use of certificates

- Although the certificate is issued to the certified person, the certification document remains the property of the EIT Food Assessment.
- Only valid certificates may be used.
- The certificate must not be misused.
- The certificate must not be altered and may only be used in its entirety.
- In the event of suspension, expiry or withdrawal of a certificate, use of the certificate shall cease immediately; any references to the certificate and EIT Food Assessment shall be deleted without delay.
- Any references to EIT Food Assessment and other printed material shall, in the event of suspension, not be used for its duration, otherwise they shall be destroyed.
- The use of the certificate or references to certification are only permitted within the scope of the certification profile.
- The certificate may only be used in connection with the person certified therein.
- The use of the certificate and references to the certification must not create the impression that the certified person is a member of the staff of the EIT Food or EIT Food Assessment or that he or she is acting on its behalf.
- The certificate holder is responsible for the correct use of the certificate and obliged to provide evidence if there is reasonable doubt about the correct use of the certificate. Any costs of such an investigation shall be at the expense of the certificate holder.

3.3.3 Use of the EIT Food Logo

The certificate of EIT Food Assessment also contains the EIT Food logo. The logo may only be used as part of the certificate in such a way that the certification document as a whole can be copied or posted on the Internet. Any other use of the EIT Food logo or the EIT Food name as a trademark is expressly prohibited and may result in claims for damages by the EIT Food in the event of infringement.

3.3.4 Obligation to provide Information

Upon the request of EIT Food Assessment, the certificate holder is obliged to provide necessary information (verbally/written) regarding the compliance with their obligations within the specified deadlines and at no cost for EIT Food Assessment. The certificate holder is also required to submit requested documents at his/her own expense.

They may refuse to provide information on questions for which answering would expose themselves or any of their relatives to the risk of criminal prosecution or proceedings under the Law on Administrative Offenses.

3.4 Breach of duties as a certificated person

A breach of the obligations listed under points 3.3.1 to 3.3.4 will result in the suspension or withdrawal of certification, depending on the severity, which will be communicated to the certificated person in writing. For the duration of the suspension or after the certification has been withdrawn, the person holding the certificate is prohibited from referring to the certification and EIT Food Assessment.

Annex A1: Foundations of Food System for a Sustainable Transformation (Explore Level)

The following describes what the participant should be able to do after completing courses that cover the competency “Food System” of the Explore Level.

A1.1 Learning Objectives

Courses that cover the competence “Food System (Explore Level)” introduces learners to the fundamental principles of the interactions and components within the agri-food system. By working on social and legal factors, participants can recognise the importance and impact of food system innovations. Using practical examples and activities, participants can adapt the techniques and content they have learnt to specific needs, thereby contributing to the development of sustainable market opportunities.

A1.1.1 Assessable learning objectives

By the end of all the course, learners should be able to:

- describe the complex and interconnected components of the agri-food system.
- identify sustainability challenges within the agricultural and food industry.
- determine the societal impact of food system innovations within the food chain.
- classify sector-specific legal regulations for the successful implementation of sustainable innovations within the agri-food system.

A1.1.2 Additional objectives

The following transferable skills will be developed in this module:

- Analytical skills, as the participant learns to break down complex structures to understand their components and implications.
- System thinking, as the participant learns to examine dynamic relationships and interactions between components of a system.

A1.2 Admission requirements

A1.2.1 Preliminary education

No preliminary education is necessary.

A1.2.2 Personal Prerequisites

No personal prerequisites are necessary.

A1.3 Requested competences

The following listed competences (learning objectives) form the foundation for the examination for “Food System (Explore Level)” is solely and must be proven by a written examination.

Field of Knowledge	Learning Objective	Know	Apply
Food System: Structure, influence, and potential			
Food system structure	- To describe and outline the key areas of the food system. - To describe the interactions within the food system.	X	-/-
Sustainability challenges			
Greenhouse gas emission and climate change	To explain the critical relevance of global greenhouse gas.	X	-/-
System thinking	To summarise the importance of system thinking for analysing complex systems.	X	-/-
System transformation and resilience	- To explain the importance of food system transformation in achieving a sustainable food system. - To define the importance of food system resilience.	X	-/-

Sustainability strategies and policies within the agri-food sector	• To summarise common sustainability strategies and policy. • To explain the relevance of the food system for achieving the Sustainable Development Goals (SDGs). • To address the key challenges of sustainability strategies.	X	-/-
Food system innovations and their impact			
Importance of innovations	• To describe the aim and effects of novel innovations within the food system. • To be able to explain the role of innovation for transition the food system.	X	-/-
Social innovations within the food system	• To describe social innovations and how they influence the food system	X	-/-
Social impact of food system innovations	• To assess the social impact of new innovations, taking external factors into account.	X	-/-
Legal regulations for implementation of innovations			
EU Food Law	• To explain the general principles and requirements of the EU Food Law.	X	-/-
European Food Safety Authority	• To summarise the role of the European Food Safety Authority (EFSA) as the risk assessment of the EU.	X	-/-
Codex Alimentarius	• To explain the importance of the Codex Alimentarius within the food system. • To explain the importance of the Codex Alimentarius within the food system.	X	-/-
Agri-Food organisations	• To explain the role of the Food and Agriculture Organisation (FAO), the World Health Organisation (WHO) and World Trade Organisation (WTO) for the food system.	X	-/-

	To recognise how sustainability may influence current legal organisations and their standards.		
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Annex A2: Foundations of Data Management for a Sustainable Food System (Explore Level)

The following describes what the participant should be able to do after completing courses that cover the competency “Data Management” of the Explore Level.

A2.1 Learning Objectives

Courses that cover the competence “Data Management (Explore Level)” introduces learners to data types, data management systems and protocols with relevance for the agri-food sector. By examining examples of potential security vulnerabilities and their specific relevance for certain areas, participants can contribute to the implementation of specific security measures, including legal requirements. Considering these factors, participants can contribute to the implementation of system management systems aimed at cultivating a sustainable and goal-oriented agri-food system.

A2.1.1 Assessable learning objectives

By the end of the course, learners should be able to:

- explain sub-aspects of data and data management systems.
- implement effective data management protocols considering specific needs and challenges of the agri-food system.
- recognise the importance of data security measures for a sustainable integration.
- identify key unintended consequences and industry-specific concerns of the use of information technologies.
- recognise the importance of intellectual property rights (IPR) management in using and implementing data management systems.

- Consider legal regulations for the successful implementation of data management systems within a given work or study context.

A2.1.2 Additional objectives

The following transferable skills will be developed in this module:

- Ethical thinking, as the participant considers ethical, cultural, and social aspects with respect to information technology implementation.
- Data protection competence, as the participant recognises the relevance of the protection of sensitive and personal data.

A2.2 Admission requirements

A2.2.1 Preliminary education

No preliminary education is necessary.

A2.2.2 Personal Prerequisites

No personal prerequisites are necessary.

A2.3 Requested competences

The following listed competences (learning objectives) form the foundation for the examination for “Technology Management (Explore Level)” is solely and must be proven by a written examination.

Field of Knowledge	Learning Objective	Know	Apply
Data and Data management systems			
Informative data	• To determine informative data within the agri-food system.	X	-/-
Data life cycle	• To explain and visualise the data lifecycle from source to action.		

Data modelling	To explain and visualise the sub-aspects of data modelling.		
Data management systems	To describe state of art data management systems.	X	-/-
Data management plan	- To describe the need of data management protocols for projects or initiatives. - To list the steps and information included in data management plans. - To summarise the steps for implementing data management plans within a project.	X	-/-
Data security measures			
Data protection	To explain aspects of sensitive data.	X	-/-
Security threats	To identify possible security threats within a company's environment.	X	-/-
Security solutions and measures	- To recognise fundamental key solutions for data security - To explain technology data security measures within the food supply chain.	X	-/-
Consequences and concerns of information technologies			
Impact of information technologies	- To explain varying positive and negative outcomes of information technologies with respect to cultural, rural and social circumstances. - To explain concerns regarding the use of information technologies within the food value chain.	X	-/-
Intellectual Property Rights (IPR) Management			
Types of Intellectual Property Rights (IPR)	To list and describe different types of IPs and their scope of application.	X	-/-
Copyright and data	To explain the role of copyright within data management.		

Data license	• To describe the role of data license. • To explain the different types of data licensing.	X	-/-
Generis right protection	• To describe the sui generis right protection for databases.	X	-/-
Legal regulations for implementing data management systems			
Data protection laws	• To explain the role of the data protection law of the EU.	X	-/-
Data Governance Act	• To explain the aims of the Data Governance Act as a part of the European Data Strategy. • To explain advantages of the Data Governance Act for start-ups and small businesses.	X	-/-

Annex A3: Foundations of Technology Management for a Sustainable Food System (Explore Level)

The following describes what the participant should be able to do after completing courses that cover the competency “Technology Management” of the Explore Level.

A3.1 Learning Objectives

Courses that cover the competence “Technology Management (Explore Level)” introduces learners to emerging technologies, technology management frameworks and legal regulations. Through engagement with case studies, participants acquire insights into the significance and diverse applications of innovative technologies within the agri-food system. The participant possesses the ability to align the potential of emerging technologies with business strategies and objectives, adeptly assessing their ramifications through applied techniques.

A3.1.1 Assessable learning objectives

By the end of the course, learners should be able to:

- evaluate the role of technology management and frameworks within a company to contribute to food system innovation and sustainability.
- appraise the relevance of emerging technologies in a particular work or study context.
- identify key unintended consequences of the use of emerging technologies.
- recognise the importance of Intellectual Property Rights (IPR) management in the development and implementation of innovative technologies.
- consider legal regulations for the successful implementation of new technologies within a given work or study context.

A3.1.2 Additional objectives

The following transferable skills will be developed in this module:

- Sustainable thinking, as the participant considers the influence of emerging technologies on the environment, society, and economy.

- Technical proficiency, as the participant can contribute by implementing technical solutions in alignment with organisational objectives.
- Analytical skills, as the participant analysis the impact of emerging technologies.
- Ethical thinking, as the participant recognises the importance and effect of protecting ideas.

A3.2 Admission requirements

A3.2.1 Preliminary education

No preliminary education is necessary.

A3.2.2 Personal Prerequisites

No personal prerequisites are necessary.

A3.3 Requested competences

The following listed competences (learning objectives) form the foundation for the examination for “Technology Management (Explore Level)” is solely and must be proven by a written examination.

Field of Knowledge	Learning Objective	Know	Apply
Role of Technology Management for a sustainable food system			
Role and usage of technology management	• To discuss the role of technology management within a company's context. • To identify opportunities and risks within the technology management.	X	-/-
Technology management frameworks	• To explain the role of a technology management framework. • To describe the processes within the technology management framework.	X	-/-

Sustainability in technology management	To address the importance of including the idea of sustainability within the technology management.	X	-/-
Resilience development	To explain the role of resilience within the technology management.	X	-/-
Innovative technologies for the design of a sustainable food system			
Types and usage of technologies	- To explain innovative technologies. - To explain how innovative technologies can be used within a company of the agrifood chain. - To link emerging technologies that meet organisational strategic objectives and long-term visions.	X	-/-
Advantages and disadvantages	To determine advantages and disadvantages of implementing emerging technologies within a specific work field.	X	-/-
Challenges within emerging technologies			
Sustainable Development Goals (SDGs)	To link the impact of emerging technologies to the achievement of related SDGs.	X	-/-
Impact and challenges of new technologies	- To explain possible negative effects that occur after the introduction of new technologies. - To address main challenges of adopting new technologies in the food value chain.	X	-/-
Intellectual property rights (IPR) management			
Relevance and types of IPR	- To discuss the relevance of protecting an idea. - To list and describe different types of IPs and their scope of application.	X	-/-
Transfer Agreements	To describe different types of technology transfer agreements.	X	-/-

Licensing vs. assignments of IP	To explain the difference between licensing and assignments of IP.	X	-/-
Legal regulations for implementation of new technologies			
Country specific legislation	To assess the impact of country-specific legislation on the integration of new technologies.	X	-/-
EU environmental regulations	To explain how EU environmental regulations, such as REACH (chemicals) and RoHS (electronics) are necessary for sustainability and market access.	X	-/-

Annex A4: Foundations of Entrepreneurship for a Sustainable Food System (Explore Level)

The following describes what the participant should be able to do after completing courses that cover the competency “Entrepreneurship” of the Explore Level.

A4.1 Learning Objectives

Courses that cover the competence “Entrepreneurship (Explore Level)” introduces learners to the scope of entrepreneurial opportunities and the underlying processes. By mastering practical methodologies, the learner gains proficiency in employing a diverse array of tools for the analysis of the social and environmental implications inherent in business strategies and products. Through the integration and alignment of corporate objectives with political sustainability goals, the participant can actively contribute to the formulation of sustainable strategies.

A4.1.1 Assessable learning objectives

By the end of the course, learners should be able to:

- assess and clearly communicate the worth and potential of entrepreneurial opportunities.
- determine the social and environmental impact of products and strategies and are able to support their optimisation.
- implement effective and strategic actions to contribute to the creation of sustainability impacts.

A4.1.2 Additional objectives

The following transferable skills will be developed in this module:

- Sustainable thinking, as the participant considers the environmental and social value of strategies and products.
- Strategic thinking, as the participant aligns ideas and solutions with guidelines and strategies.
- Creative thinking, as the participant recognises techniques for the creation of ideas.
- Analytical skills, as the participant analysis the social and environmental value of new products and strategies.

A4.2 Admission requirements

A4.2.1 Preliminary education

No preliminary education is necessary.

A4.2.2 Personal Prerequisites

No personal prerequisites are necessary.

A4.3 Requested competences

The following listed competences (learning objectives) form the foundation for the examination for “Entrepreneurship (Explore Level)” is solely and must be proven by a written examination.

Field of Knowledge	Learning Objective	Know	Apply
Entrepreneurial opportunities within the agri-food system			
Entrepreneurial opportunities	• To describe the term "entrepreneurial opportunities". • To list and explain key drivers for entrepreneurial opportunities within the food value chain.	X	-/-
Creative destruction	• To explain the role of creative destruction for entrepreneurial innovation.	X	-/-

Entrepreneurial process	To discuss different stages of the entrepreneurial process.	X	-/-
Social and environmental impact			
Supporting organisations	To address relevant organisations and institutions that provide guidance and support to create entrepreneurship with social and environmental value.	X	-/-
Triple bottom line	To describe the three dimensions of the triple bottom line framework.	X	-/-
Social value measurement	- To summarise different methods to measure the social value of a company's strategy, initiative, or project. - To describe how to conduct a stakeholder analysis. - To list and describe different tools to measure the social value of a product or service.	X	-/-
Design for Environment	- To describe the design for environment (DfE). - To summarise methods to measure the environmental impact of a company's strategy or product.	X	-/-
Implementation strategies			
SMART goals	- To describe the five components of SMART (specific, measurable, achievable, relevant, and time-bound) sustainability goals. - To assist to establish (SMART) sustainability goals that align with company's vision.	X	-/-
Opportunity identification	To identify opportunities within a specific work context that can be addressed by a sustainable solution using idea generating techniques.	X	-/-

Annex A5: Foundations of Problem Solving for a Sustainable Food System (Explore Level)

The following describes what the participant should be able to do after completing courses that cover the competency “Problem Solving” of the Explore Level.

A5.1 Learning Objectives

Courses that cover the competence “Problem Solving (Explore Level)” introduces the learner to the analysis of the problem space and explores how its root causes can be specifically addressed through sustainable solutions. Practical examples are employed to utilise techniques and underscore the significance of co-creation processes. The learner can apply these methodologies to specific business cases, crafting innovative solutions that align with organisational sustainability objectives.

A5.1.1 Assessable learning objectives

By the end of the course, learners should be able to:

- analyse relevant aspects of a particular business problem to inform creative thought.
- use fundamental techniques and approaches to create innovative ideas and evaluate the validity with organisational goals and strategies.
- contribute to co-creation processes to collectively generate and implement sustainable solutions.

A5.1.2 Additional objectives

The following transferable skills will be developed in this module:

- Sustainable thinking, as the participant considers solutions that supports the environmental and social value.
- Analytical skills, as the participant analysis the problem space with respect to sustainability challenges.
- Creative thinking, as the participant recognise techniques for the creation of solutions.
- Strategic thinking, as the participant aligns solutions with guidelines and strategies.

A5.2 Admission requirements

A5.2.1 Preliminary education

No preliminary education is necessary.

A5.2.2 Personal Prerequisites

No personal prerequisites are necessary.

A5.3 Requested competences

The following listed competences (learning objectives) form the foundation for the examination for “Problem Solving (Explore Level)” is solely and must be proven by a written examination.

Field of Knowledge	Learning Objective	Know	Apply
Encourage Creative Thinking through problem analysis			
Problem defining factors	To identify different factors that can be used to contextualise and address a specific problem.	X	-/-
Root Cause Analysis (RCA)	To define the origin of a problem using root cause analysis (RCA).	X	-/-
Defining the problem space through data collection	To collect information using basic research techniques to gain a better understanding of a specific problem.	X	-/-
Development of innovative ideas			
Idea generation process	To describe the tasks of the idea generation process.	x	-/-
Idea generation techniques	- To identify different ways of generating innovative ideas to resolve problems and advance organisational goals. - To select appropriate methods to generate problem-solving ideas.	x	-/-
Sustainable solutions through co-creation process			
Co-creation process	- To describe the co-creation processes. - To list relevant stakeholders and describe their role within the co-creation process.	X	-/-
Analysis of sustainable challenges	To analyse sustainability challenges in the context of the agrifood system.	X	-/-
Design thinking	To use design thinking to generate sustainable solutions.	X	-/-

Annex A6: Foundations of Critical Thinking for a Sustainable Food System (Explore Level)

The following describes what the participant should be able to do after completing courses that cover the competency “Critical Thinking” of the Explore Level.

A6.1 Learning Objectives

Courses that cover the competence “Critical Thinking (Explore Level)” introduces the learner to the relevance of critical thinking for the process of generating ethical and sustainable ideas. By working on practical examples and techniques, learners gain insights into the facets of the thought and decision-making processes. Within the realm of corporate responsibility, they can actively contribute to developing well-founded and ethically acceptable ideas.

A6.1.1 Assessable learning objectives

By the end of the course, learners should be able to:

- collect, analyse and report information and data in a systematic manner to support the generation of new ideas and approaches.
- select and define techniques to promote self-reflection for the enhancement of critical thinking.
- to recognise the importance of setting ethical objectives within a specific work and business context.

A6.1.2 Additional objectives

The following transferable skills will be developed in this module:

- Ethical thinking, as the participant can analyse situations, consider ethical implications, and make informed decisions.
- Sustainable thinking, as the participant considers solutions that supports the environmental and social value.
- Analytical skills, as the participant know how to collect, analyse, and visualise data for the process of critical thinking.
- Sustainable thinking, as the participant considers social and ethical factors within corporate objectivities.
- Communication skills, as the participant presents data using the storytelling method.

A6.2 Admission requirements

A6.2.1 Preliminary education

No preliminary education is necessary.

A6.2.2 Personal Prerequisites

No personal prerequisites are necessary.

A6.3 Requested competences

The following listed competences (learning objectives) form the foundation for the examination for “Critical Thinking (Explore Level)” is solely and must be proven by a written examination.

Field of Knowledge	Learning Objective	Know	Apply
Data-driven critical thinking			
Importance of critical thinking	• To explain the importance of critical thinking within generating innovative ideas.	X	-/-

Data collection, analysis, and visualisation for the process of critical thinking	• To describe why data is important for the process of generating new ideas. • To list and describe methods for data collection. • To explain methods for data analysis. • To explain the importance of data visualisation.	X	-/-
Data storytelling	• To present data vividly to third parties using data storytelling to promote critical thinking.	X	-/-
Self-reflection for critical thinking			
Role of self-reflection	• To explain how self-reflection effects the process of critical thinking.	X	-/-
Objectivity within reflective practice	• To discuss the role of objectivity for self-reflection.	X	-/-
Implementing reflective practice	• To assist by implement reflective practise to increase creativity within a team.	X	-/-
Ethical objectives			
Role of ethics	• To describe ethics within a business context.	X	-/-
Ethical goals and public policies	• To describe ethical goals related to public policies.	X	-/-
Ethical objectives	• To describe aspects that need to be considered when creating ethical objects.	X	-/-
Corporate social responsibility (CSR)	• To describe the key aspects of Corporate Social Responsibility (CSR).	X	-/-
Codes of Conduct	• To describe the purpose of Codes of Conducts.	X	-/-

Annex A7: Foundations of Leadership for a Sustainable Food System (Explore Level)

The following describes what the participant should be able to do after completing courses that cover the competency “Leadership” of the Explore Level.

A7.1 Learning Objectives

Courses that cover the competence “Leadership (Explore Level)” introduces the learner to modern leadership styles, their characteristics, and the application and significance of cross-functional communication for achieving project goals. Through practical examples, Project Owner skills and relevant techniques for task structuring are acquired, enabling the responsible assumption of project goals.

A7.1.1 Assessable learning objectives

By the end of the course, learners should be able to:

- support the implementation of a food system innovation project in a particular work or study context.
- recognise the importance of cross-functional collaboration for a successful business development.
- demonstrate ownership of projects objectives and goals within the project team.

A7.1.2 Additional objectives

The following transferable skills will be developed in this module:

- Analytical skills, as the participant uses metrics to evaluate the effectiveness of cross-functional collaboration.
- Organisational skills, as the learner has learned methods for structured working methods.
- Sense of responsibility, as the learner acknowledges the significance of assuming tasks and responsibilities within projects.

A7.2 Admission requirements

A7.2.1 Preliminary education

No preliminary education is necessary.

A7.2.2 Personal Prerequisites

No personal prerequisites are necessary.

A7.3 Requested competences

The following listed competences (learning objectives) form the foundation for the examination for “Leadership (Explore Level)” is solely and must be proven by a written examination.

Field of Knowledge	Learning Objective	Know	Apply
Implementing innovative projects within the food sectors			
Definition leadership	To explain leadership and the key responsibilities.	X	-/-
Leadership styles	- To describe different leadership styles and their advantages and disadvantages. - To determine leadership styles based on people’s actions and behaviour.	X	-/-
A project plan’s structure	To outline relevant factors of a project plan.	X	-/-
Risk management	To explain risk management and how it contributes to the implementation of a project.	X	-/-
Business development through cross-functional collaboration			

Overview cross-functional collaboration	- To define cross-functional collaboration. - To address benefits from implementing cross-functional collaboration within a company.	X	-/-
Functional silos	To explain the concept of functional silos and their consequences.	X	-/-
Challenges in cross-functional collaboration and their solutions	To address challenges that can occur during cross-functional collaboration and can explain how to solve these challenges.	X	-/-
Effectiveness of cross-functional collaboration	To describe different methods to measure the effectiveness of cross-functional collaboration.	X	-/-
Project ownership			
Role and responsibilities: Project owner	- To describe the role of a project owner and their responsibilities. - To define skills essential to demonstrate ownership of goals.	X	-/-
Active contribution	To contribute with their skills and knowledge to a given project.	X	-/-

Annex A8: Foundations of Communication for a Sustainable Food System (Explore Level)

The following describes what the participant should be able to do after completing courses that cover the competency “Communication” of the Explore Level.

A8.1 Learning Objectives

Courses that cover the competence “Communication (Explore Level)” introduces the learner with relevant communication methods and tools designed to foster positive change within an efficient and sustainable work environment. Through a thorough examination of key stakeholders, the learner skilfully navigates their respective roles within an inclusive dialogue. This enables the learner to articulate the impact in driving the transformation of the food system.

A8.1.1 Assessable learning objectives

By the end of the course, learners should be able to:

- identify, categorise and engage relevant stakeholders in a given business area.
- recognise the importance of inclusive dialogue in driving positive changes and transformations within the food system.
- implement fundamental communication methods within the scope of business development activities.

A8.1.2 Additional objectives

The following transferable skills will be developed in this module:

- Communication skills, as the participant learns different communication methods and tools to shape an effective and inclusive work environment.
- Analytical skills, as the participant uses methods to analyse the relevance and influence of different stakeholders.

A8.2 Admission requirements

A8.2.1 Preliminary education

No preliminary education is necessary.

A8.2.2 Personal Prerequisites

No personal prerequisites are necessary.

A8.3 Requested competences

The following listed competences (learning objectives) form the foundation for the examination for “Communication (Explore Level)” is solely and must be proven by a written examination.

Field of Knowledge	Learning Objective	Know	Apply
Implementing innovative projects within the food sector			
Stakeholder categories	- To describe different categories of stakeholders with relevance to the agri-food sector. - To list examples of stakeholders for a given business area or project and can explain how they are involved.	X	-/-
Stakeholder identification techniques	To describe different techniques to identify relevant stakeholders.	X	-/-
Food system transformation through inclusive dialogue			
Definition of inclusive dialogue and the role within the food system.	To explain what inclusive dialogue means and how it helps to address interconnected issues within the food system.	X	-/-

	To list and explain aspects that are promoted through inclusive dialogue.		
Role of stakeholders	To explain how Stakeholders can contribute during an inclusive dialogue.	X	-/-
Impact of inclusive dialogue	To explain the positive impact of inclusive dialogue on the food system and sustainability issues.	X	-/-
Tasks within the inclusive dialogue	To write a schedule of prepared, performing, and follow-up tasks around the inclusive dialogue.	X	-/-
Communication methods for business development			
Interpersonal communication methods	To list different types of interpersonal communication methods and can give examples of where which methods are taking place in the work environment.	X	-/-
Communication strategies and their outcomes	- To describe communication strategies for an effective workplace. - To address positive outcomes by adapting the communication strategies within a company.	X	-/-

Annex A9: Food System Specialist (Explore Level)

The following describes what the participant should be able to do after completing courses that cover all eight competencies of the Explore Level.

A9.1 Learning Objectives

The "Food System Specialist (Explore Level)" certification is obtained by demonstrating the eight competences described in annex A1 to A8. The participant can have each of these eight competences certified independently. To achieve the "Food System Specialist (Explore Level)" certificate, an examination must be passed in all eight competences of Level 1 (Explore) or higher.

A9.1.1 Assessable learning objectives

The participant has achieved the learning objectives of all eight competences of the Explore Level and can be found in the respective annexes.

As an **overarching learning** objective, the participant is able to:

- identify and implement business opportunities in a specific organisational context with a profound sustainable impact on the agri-food system.

In relation to the **respective competences**, the learner is able to:

- identify the potential of market opportunities and their impact within the food system. (Food System)
- integrate adequate data management systems considering industry-specific challenges and consequences. (Data Management)
- evaluate the potential of emerging technologies in terms of sustainability and business performance. (Technology Management)
- identify entrepreneurial opportunities with sustainable impact and can actively assist in their strategic implementation. (Entrepreneurship)
- analyse particular business cases to create innovative solutions meeting organisational goals. (Problem Solving)
- contribute to the generation of well-founded and ethical ideas. (Critical Thinking)
- demonstrate ownership for the achievement of certain project goals by integrating an innovation project. (Leadership)
- recognise the importance of fundamental and inclusive communication methods to drive a positive change of the agri-food system. (Communication)

A9.1.2 Additional objectives

Additional objectives can be found in the respective annexes to the competences of the Explore Level.

A9.2 Admission requirements

A9.2.1 Preliminary education

No preliminary education is necessary.

A9.2.2 Personal Prerequisites

No personal prerequisites are necessary.

A3 Requested competences

The learning objectives listed in the previous chapters for the Explore Level competences form the basis for the "Food System Specialist (Explore Level)" examination and must be proven exclusively by means of a written examination.