IO2

CURRICULUM

DTRAIN

ΙΔΡΥΜΑ ΚΡΑΤΙΚΩΝ ΥΠΟΤΡΟΦΙΩΝ IKY

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T.2.7 DTRaIN Curriculum

DTRaIN - Design Thinking for Entrepreneurship in Agri-food Sector

WP NUMBER:	**2**

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Revision History

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ECTE	12/03/2021	v.1	DTRaIN Curriculum

Contents

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Introduction

As defined by CEDEFOP, a curriculum is a "*normative document setting the framework for planning learning experiences*". Depending on the country, the type of education and training, and the institution, curricula may define, among other learning outcomes, objectives, contents, place and duration of learning, teaching and assessment methods to a greater or to a lesser extent. New approaches to learning and research findings on how the brain works, the need to establish a closer link between VET provision have a decisive influence on the introduction of outcome-oriented curricula in VET.

These tools require a similar shift to learning outcomes in national VET systems: there is some evidence that learning outcomes are increasingly used to design qualifications, standards and to orient quality assurance and certification approaches across Europe (Cedefop, 2009b; Cedefop, 2009c).

Developing a Learning-Outcome oriented Curriculum using ECVET

The potential benefits of the learning outcomes approach to vocational education and training (VET) based on learning outcomes have been widely acknowledged by all European countries (Cedefop, 2009b). The common European tools developed in the framework of the Copenhagen process, including the European qualifications framework (EQF) and the European credit system for VET (ECVET), use learning outcomes as a key mechanism to reach the objective of 'transparency, comparability, transferability and recognition of competences and/or qualifications, between different countries and at different levels' (Copenhagen declaration, 29-30 November 2002).

The European Credit System for Vocational Education and Training (ECVET) is a European instrument to support lifelong learning aiming at building an European framework for recognising vocational qualifications.

ECVET takes its cue from the Erasmus programme. With Erasmus, vocational education learners should be able to spend training periods abroad and receive a recognition of such training in their home countries. Thus, the main goal of ECVET is to foster the mobility of vocational education learners across Europe. The scope of ECVET is, nevertheless, broader, as it encompasses other substantial issues:

a) The mobility of workers across and towards Europe, and the need for a recognition of their qualifications
b) The mobility of workers in the European and national labour market, in the context of the so-called labour market flexibility, with frequent transfers to different activities

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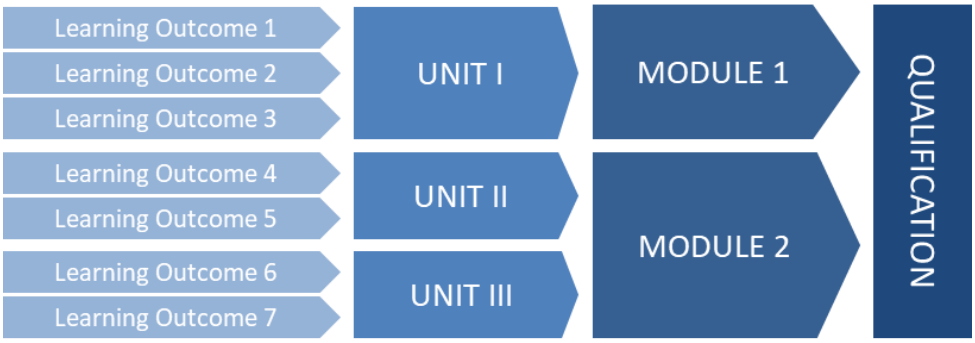
c) The workers‟ need for lifelong learning.

In order to do that, learning Outcomes are being introduced as unit of measure of EU educational systems. The introduction of Learning Outcomes shifts the focus from an input model to an output model of qualification. The Learning Outcome model is the only entrance door to the ECVET framework.

> **Learning Outcomes** are statements of what a learner knows, understands and is able to do after completion of learning.
>
> In other words, Learning Outcomes determine the advancements of learning gained by a learner after a period of study or training in terms of knowledge, skills and competences.

Once the learning outcomes which describe a particular qualification are defined, sets of coherent learning outcomes with a specific connection are then combined together to form a UNIT and sets of coherent units can be pooled together to describe a MODULE.

Describing a qualification in terms of learning outcomes ensure a better basis for its shared understanding and recognition across countries.



Steps to develop a qualification using ECVET

Modules and Units Titles

The first step for developing a QUALIFICATION is identifying the CORE COMPETENCES or tasks that the “professional learner” should be able to fulfil and without which the character of the training would be lost.

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The core competences – which represent the MODULES of the training – are then described in terms of sub-competences (UNITS). The first step in creating a Unit is to provide a title for it. Some of the criteria for identifying the Units can be:

- ✓ Importance (how vital to the sector or sub-sector),
- ✓ Employability (better chances of finding work in the sector)
- ✓ High demand (unavailable profiles that the market needs)
- ✓ Lack of training (profiles that might have shown a need for better training)

The above criteria are simple suggestions as to how to choose the occupational profiles that are needed. These occupational profiles will then become ECVET Unit Titles, which will clearly state the position or occupation a professional holds when classified under them. The Title should offer a general idea of what the professional needs to know and do in a work environment, and it can be as specific as is deemed necessary.

Qualification Title

Qualifications are made up of one or more units. A unit may belong to only one specific qualification but it can also be a component of different qualifications (such as competences in using computers). It is therefore useful to name the qualification which relates to each unit. In cases where units are at the same time components of a qualification and of a training programme, additional information pertaining to the teaching content must be included in the units' description.

EQF Level

Following the title should be the EQF Level of the Qualification that is associated with the Unit.

The European Qualifications Framework (EQF) is a translation tool that helps communication and comparison between qualifications systems in Europe. Its eight common European reference levels are described in terms of learning outcomes: knowledge, skills and competences. This allows any national qualifications systems, national qualifications frameworks (NQFs) and qualifications in Europe to relate to the EQF levels. Learners, graduates, providers and employers can use these levels to understand and compare qualifications awarded in different countries and by different education and training systems. Each of the 8 levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications.[1].

In the context of EQF

- ✓ **Knowledge** is described as theoretical and/or factual

[1] www.ec.europa.eu/ploteus/en

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- ✓ **Skills** are described as cognitive (involving the use of logical, intuitive and creative thinking), and practical (involving manual dexterity and the use of methods, materials, tools and instruments).
- ✓ **Competence** is described in terms of responsibility and autonomy.

These are the 8 levels according to the European Qualifications Framework:

EQF Level	Knowledge	Skills	Competence
Level 1	Basic general knowledge	Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context
Level 2	Basic factual knowledge of a field of work or study	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	Work or study under supervision with some autonomy
Level 3	Knowledge of facts, principles, processes and general concepts, in a field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work or study; adapt own behaviour to circumstances in solving problems
Level 4	Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
Level 5	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others
Level 6	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing

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EQF Level	Knowledge	Skills	Competence
			professional development of individuals and groups
Level 7	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research Critical awareness of knowledge issues in a field and at the interface between different fields	Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
Level 8	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields	The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

https://europa.eu/europass/en/description-eight-eqf-levels

Methodology for ECVET points allocation

The documents of the European Union concerning the details of the ECVET framework suggests that each qualification and each learning unit should be provided with a "score", using ECVET points.

The ECVET points are a numerical representation of the overall weight of learning outcomes and of the relative weight of units in relation to the qualification. For the calculation of the relative weight of a unit of learning outcomes, different criteria can apply. For the case of the DTRaIN curriculum, two main criteria were used: a. the **TIME** required to acquire the competences included in the course, b. the **RELEVANCE** of the competences included in the Unit. The relevance of each learning outcome is expressed in a scale from Essential (more relevant for the curriculum, more effort for the learner is needed, more complexity) having a relative weight 2,0, important having a relative weight 1,0 and Basic (less relevant) having a relative weight 0,5. The relevance is then converted into percentage, the full qualification being 100% and the total number of ECVET points associated with the curriculum is then allocated to each learning outcome according to this scale established starting from the assumption that **60 ECVET points** are allocated to the learning outcomes expected to be achieved in a year of formal training).

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A Learning Unit.

In order to determine the weight of a learning unit, its relevance for the qualification is taken into account. T**he relevance is then expressed in terms of percentage (Basic, Important, Essential**), the full qualification being 100% and the percentage is rewritten according to the overall number of ECVET points for the qualification. For instance, a unit which is evaluated as important (20%) in a qualification of one-year training (60 ECVET points) will be provided with 12 ECVET points.

Set of course objectives (Learning Outcomes).

The next step is the choice and designation of Learning Outcomes to each Unit. Learning Outcomes are the end goal for any professional and they make up the required qualifications. They should note what the professional is expected to have learned by completing that Unit.

The Learning Outcome should be specific, measurable, achievable, realistic and time-bound objectives and consult key competencies.

Knowledge, Skills, Competences

When the Learning Outcomes are complete for the Unit, in line with the EQF level (level descriptor), they should be followed by the knowledge, skills and competence pertaining to it, in order to be complete. At this stage, the ECVET Units and Learning Outcomes should be analysed into all their essential theoretical and practical aspects. These will create descriptions of the required knowledge, skills and competences.

Competence is a more complicated issue, since it needs to consider the subjective factor of personality, which means that a person uses the knowledge and skills he or she has.

Competences and skills are not the same. **According to the definition of competence** in the e-CF user guide (European e-competence Framework 3.0), a “competence is a demonstrated ability to apply knowledge, skills and attitudes for achieving observable results”. Hence, a competence is not a skill; on the contrary, a competence *embeds* skills.

Whilst competences are holistic concepts**, skills are precise and definite abilities**, either hard technical, e.g. make cost/ benefit analysis, develop user interfaces; or soft, e.g. deploy empathy to customer needs, negotiate contract terms and conditions.

Assessment procedures

In order to describe sufficiently a particular Unit of a qualification it is necessary to mention the assessment procedures and criteria (types and duration of the exams, threshold values, etc.), which are going to determine whether the candidate succeeded or failed in acquiring the anticipated Learning Outcomes, in terms of knowledge, skills and competences.

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An examination mechanism has to be created and described. Through the examination mechanism the identified professional's competencies will be assessed and will be in line with the training material.

Validity in time

Depending on the educational content of the unit and the nature of the expected Learning Outcomes of a qualification, it is possible that a certification provided, after a candidate's successful performance, is valid in a specific period of time and has to be updated at regular intervals. In this case, this information must be included in the Unit's presentation.

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The DTRaIN Curriculum

Aim and objectives

The objective of the DTRaIN curriculum is to improve the educational offerings, instructional activities and practices in order to increase learners engagement and improve their achievements in Design thinking methodology.

The DTRaIN curriculum is outcome-based and aims the learners to achieve specific learning outcomes by the end of the training program.

Methodology

The development of the DTRAiN curriculum was based on a specific procedure that included the following articulated steps:

- **Draft of professional scheme** (draft) of the "Design Thinking strategist in agro-alimentary sector", initially developed by the expert in Design Thinking team, where Skills, needed are listed. The scheme was developed by the consortium experts' team.
- **Report on** Design Thinking **Literature review**, for confirming the competencies knowledge and Skills, referred in the professional scheme. The work was implemented by all the partners of the project, whereas the report was developed by the partners ECTE and LDI.
- **Survey on existing skills** of the target group against those", identifying which of skills referred in the "Design Thinking professional scheme", the target group (learners) need to acquire or improve. The survey was implemented by all partners in the four participating countries. The analysis and the report on the surveys was presented by the University of Valladolid for identifying the real situation of existing skills in Design Thinking in partner countries and finalizing the *learning content* of the curriculum as well as *assigning relative weights* on the learning outcomes, for ECVET points.

Modules and Learning Units

Each module is including different Learning units. Each unit is described in terms of one or more Learning Outcomes. Each Learning Outcome is identified by a code "Mx.Uy.z", where "Mx" indicates the Module, "Uy" indicates the Unit and "z" identify the specific Learning Outcome within that particular module and unit. So, for example, M2.U3.2 refers to the second Module, third Unit, and second Learning Outcome.

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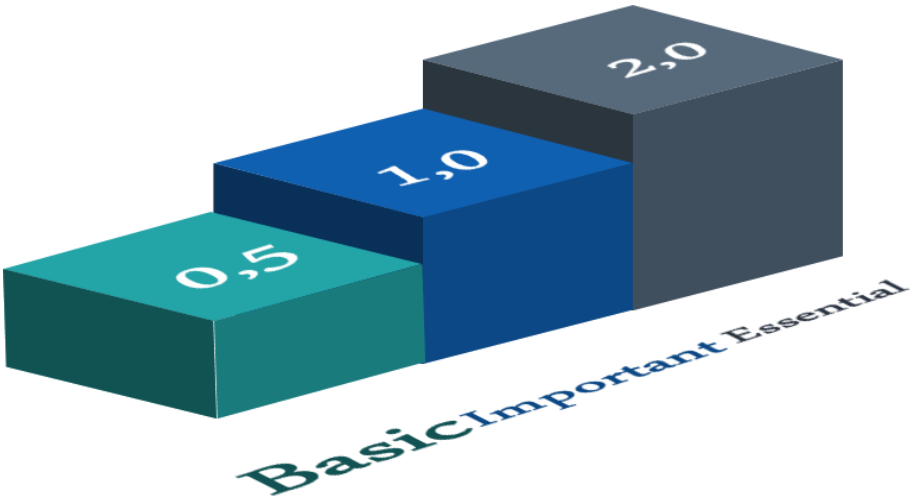

Fig 1: Learning outcomes relevance weight indicators

The DTRaIN training Course created within the DTRaIN project consists of five Modules which represent the four core competences of the Design Thinking, plus one introductory one about the pre-steps in Design Thinking, which are compatible with the EQF Level 4 and 5. Each module is consisting of Learning Units, 24 in total, on which 7,5 ECVET points have been allocated.

DTRain COURSE	ECVET points 7,5
MODULE 1: PRE - STEPS IN DESIGN THINKING	ECVET POINTS 1,83
MODULE 2: OBSERVATION	ECVET POINTS 2,28
MODULE 3: IDEATION	ECVET POINTS 1,63
MODULE 4: PROTOTYPING	ECVET POINTS 0,70
MODULE 5: TESTING	ECVET POINTS 1,07

Requirements to be met for the commencement of the study

Learners should have:

- Basic Digital Skills in terms of digital communication tools and platforms,
- Knowledge of MS office (word, Excel PowerPoint presentations).
- Basic Communication skill

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Learning and teaching methods

The DRaIN course will be delivered in a fully ubiquitous environment. This approach emphasizes a variety of different types of methods that shift the role of the instructors from the givers of information to facilitating learning. This method gives the learner the opportunity to learn independently and to collaborate with the other learners while improving his skills. Case studies are used as "Design Thinking Challenges", posed by the learners who using Design Thinking methodology, with critical and creative reflection will reach a solution.

This online DTRAIN course consists of two main Modules (phases): the first module with all theoretical contents for students and the second one consisting of team work based on Design Thinking.

The flipped classroom as referred in the Educational methodology (EMM IO1), intentionally shifts instruction to a learner-cantered model, in which explores topics in greater depth and creates personal meaningful learning opportunities. In the DTRaIN course each learner:

- Watches video lessons prior to class. The video lessons are short (a maximum of eight to twelve minutes long)
- works on a Learning Unit in his own time and does not move on until he has fully understood or 'mastered' the content.
- Fills a self-assessment test after each the completion of each Learning Unit, that helps him to assess his understanding.
- Goes through a "serious Game" for stimulating his cognitive skills, promoting interaction and and provide opportunities for feedback.

Learning environment

The DRaIN course will be developed to be delivered online, in a fully ubiquitous environment www.dtrain.eu/e-learning. However, the material can be used by trainers in a traditional face-to-face learning environment, or in a hydridic educational approach.

Learners in rural areas, who are not used in digital technology, can use any mobile application like mobile phones for having the course. Additionally, they can attend a semi- prudential classroom having a facilitator or a trainer to make the use of the DTRaIN training platform easier.

Duration

The duration of the course is **60 hours, estimated to last** 5 weeks in average (suggested to have three session per week, lasting four hours each). However, a learner can devote as much time as he feel to be effective to fully understands the content and archives the expected learning outcomes.

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List of study materials

The training materials are located in the DTRaIN platform and include documents introducing and describing each training module, 24 Power Point Presentations (one per each Learning Unit, video presentation and a serious game, and four Design Thinking reports as real case situations developed by trainees (one per country). Study material also include links to supporting material to be used as an additional reading material.

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Content of the DTRAIN course

COURSE TITLE	DTRAIN - DESIGN THINKING IN AGRIFOOD SECTOR
TARGET GROUP	PROFESSIONALS IN AGRIFOOD SECTOR
LEARNING HOURS	60
EQF LEVEL	4 AND 5
ECVET POINTS	7,5

MODULE 1

PRE - STEPS IN DESIGN THINKING

LEARNING HOURS		**THEORETICAL**	**6**	**ECVET points**	**1,83**
		PRACTICAL	**0**		
UNIT 1.1: The Design Thinking Process					**0,25**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
1.1.1	The trainee understands the four phases of the design thinking process.	Theoretical learning online	Essential	2,0	0,11
1.1.2	The trainee understands the problems that design thinking aims to solve	Theoretical learning online	Important	1,0	0,06
1.1.3	The trainee is able to communicate the design thinking process to his/her colleagues	Theoretical learning online	Basic	0,5	0,03
1.1.4	The trainee can use MS Word and PowerPoint to to draft the steps of a design process.	Theoretical learning online	Basic	0,5	0,03
1.1.5	The trainee knows how to upload a new drafted design thinking process to the cloud and share that with colleagues.	Theoretical learning online	Basic	0,5	0,03
UNIT 1.2: Developing the designer's mindset					0,42
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**

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1.2.1	The trainee knows the difference between rational and creative thinking.	Theoretical learning online	Essential	2,0	0,11
1.2.2	The trainee is able to categorise the problems that faces in his/her business (simple vs complex).	Theoretical learning online	Basic	0,5	0,03
1.2.3	The trainee knows when to use rational or creative thinking based on the problem he/she faces.	Theoretical learning online	Essential	2,0	0,11
1.2.4	The trainee is able to invite colleagues to have a conversation about creative problem solving. This can be done in person or remotely. In a remote scenario trainee can use project management softwares as Trello, Asana or Basecamp.	Theoretical learning online	Essential	2,0	0,11
1.2.5	The trainee is able to facilitate meetings with colleagues about solving a business problem. This can be done in person or remotely. In a remote scenario trainee can use meeting software as ZOOM.	Theoretical learning online	Important	1,0	0,06
UNIT 1.3: Identify an opportunity for a design thinking project					**0,28**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
1.3.1	The trainee knows how to use design techniques to identify new opportunities for value creation.	Theoretical learning online	Essential	2,0	0,11
1.3.2	The trainee knows how to use collaboration software as MURAL.co to invite colleagues to identify and collaborate on new opportunities.	Theoretical learning online	Important	1,0	0,06
1.3.3	The trainee can prioritise new opportunities for value creation based on their potential impact on the business.	Theoretical learning online	Important	1,0	0,06
1.3.4	The trainee is able to prioritise new opportunities for value creation based on the current operations and feasibility.	Theoretical learning online	Important	1,0	0,06
UNIT 1.4: Drafting a design brief					**0,31**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**

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1.4.1	The trainee knows the necessary steps needed in drafting a design brief document.	Theoretical learning online	Important	1,0	0,06
1.4.2	The trainee knows how to invite and facilitate a team meetings aimed at creating a new design brief.	Theoretical learning online	Essential	2,0	0,11
1.4.3	The trainee is able to use software as MS PowerPoint to open and follow guiding templates for the formation of a new design brief.	Theoretical learning online	Basic	0,5	0,03
1.4.4	The trainee can use a design language when redacting a design thinking template. Also, the trainee will help team members to familiarise with the design language.	Theoretical learning online	Essential	2,0	0,11
UNIT 1.5: Planning a design thinking process (people, setting, research)					**0,56**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
1.5.1	The trainee can use project management tools to organise the work of the project team.	Theoretical learning online	Essential	2,0	0,11
1.5.2	The trainee knows how to assign tasks to specific team members comprehensive of deadlines.	Theoretical learning online	Important	1,0	0,06
1.5.3	The trainee is able to book a meeting room if a physical session needs to take place.	Theoretical learning online	Important	1,0	0,06
1.5.4	The trainee is able to prepare a presentation for each team meeting by introducing the agenda for the day.	Theoretical learning online	Essential	2,0	0,11
1.5.5	The trainee can facilitate meeting sessions by listening to the team members, testing their contribution and identify emerging patterns.	Theoretical learning online	Essential	2,0	0,11
1.5.6	The trainee is able to prepare a meeting report highlighting the major decision taken in each meeting about planning a design thinking process.	Theoretical learning online	Essential	2,0	0,11
				32,5	

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MODULE 2

OBSERVATION

LEARNING HOURS	THEORETICAL	12	ECVET points	2,28
	PRACTICAL	0		

UNIT 2.1: Conducting enthnographic researhes					0,53
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
2.1.1	The trainee knows which users/ customer has to interview	Essential	Theoretical learning online	2,0	0,11
2.1.2	The trainee knows which question to ask to the user.	Important	Theoretical learning online	1,0	0,06
2.1.3	The trainee is able to perform the interview by following ethnography best practices.	Essential	Theoretical learning online	2,0	0,11
2.1.4	The trainee is able to record (audio or video) while performing interviews.	Basic	Theoretical learning online	0,5	0,03
2.1.5	The trainee is able to observe the body language of the interviewee	Essential	Theoretical learning online	2,0	0,11
2.1.6	The trainee is able to take notes while performing interviews.	Essential	Theoretical learning online	2,0	0,11

UNIT 2.2: Drafting a customer poster					0,37
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
2.2.1	The trainee can use MS PowerPoint to create and edit a user/customer poster template.	Basic	Theoretical learning online	0,5	0,03
2.2.2	The trainee knows how to sort the data collected in point 2.1 and place those in different user/customer posters.	Essential	Theoretical learning online	2,0	0,11

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2.2.3	The trainee is able to run a team session enabling team members to work collaboratively on the creation of customer posters.	Essential	Theoretical learning online	2,0	0,11
2.2.4	The trainee is able to use software as Mural.co or Miro.com to organise a remote team poster session.	Important	Theoretical learning online	1,0	0,06
2.2.5	The trainee is able to source all the material needed (poster, pencils, images, etc.) and a room for the session.	Important	Theoretical learning online	1,0	0,06
UNIT 2.3: Identify personas					**0,39**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
2.3.1	The trainee knows how to covert posters created in point 2.2 into user/ customer personas.	Essential	Theoretical learning online	2,0	0,11
2.3.2	The trainee knows how to organise and run team meeting session in creating user personas.	Important	Theoretical learning online	1,0	0,06
2.3.3	The trainee can facilitate meetings with colleagues. This can be done in person or remotely. In a remote scenario trainee uses meeting software as ZOOM and creative collaboration software platforms as MURAL or MIRO.	Essential	Theoretical learning online	2,0	0,11
2.3.4	After the session, the trainee is able to create a document summarising the outcome for the meeting and share that with team members.	Essential	Theoretical learning online	2,0	0,11
UNIT 2.4: Design a user journey mapping					**0,31**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
2.4.1	The trainee knows how to introduce the concept of journey mapping to his/her colleagues,	Important	Theoretical learning online	0,5	0,03
2.4.2	The trainee knows how to prepare a collaborative journey mapping sessions with team members. This can been done in a physical session or remotely.	Essential	Theoretical learning online	2,0	0,11

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2.4.3	The trainee is able to set up a room for the session and source of all the material needed for it. Paper, pencils, post-its, etc.	Essential	Theoretical learning online	2,0	0,11
2.4.4	The trainee is able to also organise a remote collaborative session with colleagues if needed.	Important	Theoretical learning online	0,5	0,03
2.4.5	the trainee knows how to storage the visual (and non visual) output of the sessions and share it with participants.	Important	Theoretical learning online	0,5	0,03
UNIT 2.5: Running an art gallery exibition (Identify insight)					**0,28**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
2.5.1	The trainee knows how to book a room for running an exhibition of the research work performed in point 2.4-2.4	Basic	Theoretical learning online	0,5	0,03
2.5.2	The trainee knows the stackholders to invite to the design exhibition, and delegates work to the team to make this possible.	Important	Theoretical learning online	0,5	0,03
2.5.3	The trainee is able to facilitate the design exhibition and delegates the task to team members.	Essential	Theoretical learning online	2,0	0,11
2.5.4	The trainee is able to collect the output of the session and schedule a debrief session with the team members.	Essential	Theoretical learning online	2,0	0,11
UNIT 2.6: Drafting a design criteria					**0,39**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
2.6.1	The trainee knows the different components of a design criteria.	Essential	Theoretical learning online	2,0	0,11
2.6.2	The trainee knows how to use MS PowerPoint and Ms Word to create a design criteria template to be shared with team members.	Basic	Theoretical learning online	0,5	0,03
2.6.3	The trainee is able to run a collaborative session with team members about creating a design brief. This can be done in person or remotely.	Important	Theoretical learning online	0,5	0,03

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2.6.4	The trainee is able to create a design criteria comprehensive of the input coming from the team.	Essential	Theoretical learning online	2,0	0,11
2.6.5	The Trainee is able to run a session with the team completing the Design criteria template.	Essential	Theoretical learning online	2,0	0,11
				40,5	

MODULE 3

IDEATE

LEARNING HOURS	THEORETICAL	12	ECVET points	1,63
	PRACTICAL	0		

UNIT 3.1: Incremental Vs. Disruptive Innovation					0,17
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
3.1.1	The trainee knows the difference between thinking incrementally and creativelly and practice this in his/her own work.	Basic	Theoretical learning online	0,5	0,03
3.1.2	The trainee know how to organise a meeting with his/her team and introduce them to this two ways of thinking.	Important	Theoretical learning online	1,0	0,06
3.1.3	The trainee is able to run a session requiring team members to experiment the two ways of thinking.	Important	Theoretical learning online	1,0	0,06
3.1.4	The trainee is able to explain cases of disruptive and incremental innovation.	Basic	Theoretical learning online	0,5	0,03

UNIT 3.2: The role of creativity for business innovation					0,25
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
3.2.1	The trainee knows how and is familiar in applying creativity to the innovation process of the organisation.	Essential	Theoretical learning online	2,0	0,11
3.2.2	The trainee knows when creativity must be applied and is able to work on creative	Important	Theoretical learning online	1,0	0,06

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	'templates' by using MS PowerPiont and Words.				
3.2.3	The trainee is able to create a share creative working space with team members by using softwares like MURAL or MIRO.	Important	Theoretical learning online	1,0	0,06
3.2.4	The trainee is able to keep the creative process under control by matching creative thinking with project management programs as Trello, Asana, Poduct Camp, etc.	Basic	Theoretical learning online	0,5	0,03
UNIT 3.3: Divergent Vs. convergent thinking					**0,17**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
3.3.1	The trainee knows how to engage and monitor the work of the team members keeping the design thinking process running smoothly.	Important	Theoretical learning online	1,0	0,06
3.3.2	The trainee knows how to balance the work of their team, making sure that enough time is allocated to rational thinking as well as creative thinking.	Basic	Theoretical learning online	0,5	0,03
3.3.3	The trainee knows how to steer the conversation from rational to creative thinking and vice versa. This requires the development of advanced group management techniques.	Important	Theoretical learning online	1,0	0,06
3.3.4	The trainee is able to create a clear agenda for each meeting by using project management software as trello or bootcamp.	Basic	Theoretical learning online	0,5	0,03
UNIT 3.4: Design-driven brainstorming techniques					**0,39**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
3.4.1	The trainee knows different (data-driven) brainstorming methods e.g. trigger questions, analogies, contra-logic, change perspective.	Essential	Theoretical learning online	2,0	0,11

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3.4.2	The trainee can organise brainstorming sessions with his/her team members. This can be organised in person by using a physical room and paper or remotely by using meeting softwares and idea collaboration software as Mural or Miro.	Essential	Theoretical learning online	2,0	0,11
3.4.3	The trainee is able to engage everyone in the team to collaborate (brainstorm) productivity during the session. As a facilitator, the trainees knows how to use features like e.g. voting and the timer.	Important	Theoretical learning online	1,0	0,06
3.4.4	The trainee is able to (facilitate a brainstorming session) asking the right questions, inspiring creativity in the team. While doing this the trainee is able to also to capture in written form the outcome of the session.	Essential	Theoretical learning online	2,0	0,11
UNIT 3.5: Concept development					**0,39**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
3.5.1	The trainee knows how to prepare a session with the team aiming at choosing the best ideas emerged from brainstorming, assembling them into solutions, asses them using the design criteria.	Essential	Theoretical learning online	2,0	0,11
3.5.2	The trainee knows how to prepare and facilitate a meeting aimed at building multiple concepts based on the ideas emerged in the brainstorming session. The trainee is familiar with combinatorial play technique.	Essential	Theoretical learning online	2,0	0,11
3.5.3	**The trainee is able to foster a group conversation enabling the team to measure the validity of a new concept against the insight developed in the design criteria (2.6).**	**Important**	**Theoretical learning online**	**1,0**	**0,06**
3.5.4	**The trainee is able to get the team to convene and select the best concepts to move to the next steps of the design thinking process.**	**Essential**	**Theoretical learning online**	**2,0**	**0,11**
UNIT 3.6: Developing a napkin pitch for new ideas					**0,25**

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	Learning outcomes	Didactical method	RELEVANCE	RELEVANT WEIGHT	ECVET points
3.6.1	The trainee is familiar with the napkin pitch technique (and its different parts: Idea, need, execution and business rationale) and prepares a meeting by introducing it to the team.	Important	Theoretical learning online	1,0	0,06
3.6.2	The trainee is able to use visualisation techniques (in a physical or remote environment) to get the team to graphically transalte the different concepts into napkin pitches.	Essential	Theoretical learning online	2,0	0,11
3.6.3	The trainee is able to align the team around the different napkin pitches and if needed to allocate them to different team members.	Important	Theoretical learning online	1,0	0,06
3.6.4	The trainee is able to reassure everyone in the team about the overall development of the design thinking process and the transition into the prototyping and testing phase.	Basic	Theoretical learning online	0,5	0,03
				29,0	

MODULE 4

PROTOTYPE

LEARNING HOURS	THEORETICAL	12	ECVET points	0,70
	PRACTICAL	0		

UNIT 4.1: Introducing prototyping (role in the design process) **0,08**

	Learning outcomes	Didactical method	RELEVANCE	RELEVANT WEIGHT	ECVET points
4.1.1	The trainee appreciates the value of prototyping in de-risking the innovation process of the organisation.	Basic	Theoretical learning online	0,5	0,03
4.1.2	The trainee knows how to organise a session aiming at communicating the value of prototyping to the team members. This can be done by using examples by other organisations.	Important	Theoretical learning online	1,0	0,06

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UNIT 4.2: Visualisation - basic (paper prototype)					0,28
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
4.2.1	The trainee is familiar with the different visualisation techniques e.g. basic sketching, illustration, flowcharts, etc.	Essential	Theoretical learning online	2,0	0,11
4.2.2	The trainee knows how to organise a session aiming at communicating the value of visualisation to the team members. This can be performed in a physical or remote environment.	Important	Theoretical learning online	1,0	0,06
4.2.3	The trainee is able to get other participants in the team to familiarise with the basic visualisation tools.	Important	Theoretical learning online	1,0	0,06
4.2.4	The trainee as a facilitator makes sure that everyone in the team is confident in using the tolls of visualisation.	Important	Theoretical learning online	1,0	0,06
UNIT 4.3: Storytelling - Storyboarding					**0,34**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
4.3.1	The trainee knows the components of storytelling and storyboarding, and able to embed visualisation techniques into it.	Essential	Theoretical learning online	2,0	0,11
4.3.2	The trainee knows how to prepare a meeting introducing storytelling and storyboarding to the team.	Important	Theoretical learning online	1,0	0,06
4.3.3	The trainee is able to show team members the contribution that storytelling and boarding bring to the innovation project.	Important	Theoretical learning online	1,0	0,06
4.3.4	The trainee is able to run a session enabling members to create a storyboard based on a probable scenario.	Essential	Theoretical learning online	2,0	0,11
				12,5	

MODULE 5

TESTING

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LEARNING HOURS		THEORETICAL	6	ECVET points	1,07
		PRACTICAL	0		
UNIT 5.1: Running a customer co-creation session					**0,28**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
5.1.1	The trainee is familiar with the tools and techniques to run a co-creation session: storyboards, cartoon, 3d, Moch-up, video prototype.	Essential	Theoretical learning online	2,0	0,11
5.1.2	The trainee knows how to organise a team meeting introducing the basic concepts and steps needed in running a co-creation session with users.	Important	Theoretical learning online	1,0	0,06
5.1.3	The trainee is able (together with the team) to select a number of users/customers which are more appropriate for running the co-creation session.	Important	Theoretical learning online	1,0	0,06
5.1.4	The trainee is able to allocate team members to each co-creation session.	Basic	Theoretical learning online	1,0	0,06
UNIT 5.2: Pre - launching the product/service					**0,22**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
5.2.1	The trainee knows how to prepare and manage a pre-launch experiment aimed at testing the remaining assumptions about the attractiveness of the new product or service.	Important	Theoretical learning online	1,0	0,06
5.2.2	The trainee knows how to identify the right set of users and customers, the location and the time to run the product/service pre-launch.	Important	Theoretical learning online	1,0	0,06
5.2.3	The trainee knows how to set up a meeting introducing the tools and practice of running a product or service pre-launch.	Important	Theoretical learning online	1,0	0,06
5.2.4	The trainee is able to allocate team members to the different pre-launches with clients.	Important	Theoretical learning online	1,0	0,06
UNIT 5.3: Customer acquisition strategy					**0,22**

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	Learning outcomes	Didactical method	RELEVANCE	RELEVANT WEIGHT	ECVET points
5.3.1	The trainee knows how to identify the right channels to use for boosting customer acquisition.	Important	Theoretical learning online	1,0	0,06
5.3.2	The trainee knows how to develop a promotion campaign for early adopters.	Important	Theoretical learning online	1,0	0,06
5.3.3	The trainee is able to organise and run a team meeting deciding the customer acquisition strategy.	Important	Theoretical learning online	1,0	0,06
5.3.4	The trainee is able to monitor the group work in acquiring new clients.	Important	Theoretical learning online	1,0	0,06
UNIT 5.4: Product / Service roll-out					**0,34**
	Learning outcomes	**Didactical method**	**RELEVANCE**	**RELEVANT WEIGHT**	**ECVET points**
5.4.1	The trainee knows how to fully launch a new product / service.	Essential	Theoretical learning online	2,0	0,11
5.4.2	The trainee knows how to engage team members and assign task needed in setting up and organising the launch of a new product and service.	Important	Theoretical learning online	1,0	0,06
5.4.3	The trainee is able to monitor asses the effectiveness of a new product/service roll-out.	Essential	Theoretical learning online	2,0	0,11
5.4.4	The trainee is able to organise and facilitate meetings to monitor the team effort placed in the product / service roll-out campaign.	Important	Theoretical learning online	1,0	0,06
				19,0	

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T.2.8 DTRaIN Traning Guide

DTRaIN - Design Thinking for Entrepreneurship in Agri-food Sector

WP NUMBER:	**2**

WP COORDINATOR(S)	MAICH	ECTE

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Contents

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Learning and teaching methods

The DRaIN course will be delivered in a fully ubiquitous environment. This approach emphasizes a variety of different types of methods that shift the role of the instructors from the givers of information to facilitating learning. This method gives the learner the opportunity to learn independently and to collaborate with the other learners while improving his skills. Case studies are used as "Design Thinking Challenges", posed by the learners who using Design Thinking methodology, with critical and creative reflection will reach a solution.

This online DTRAIN course consists of two main Modules (phases): the first module with all theoretical contents for students and the second one consisting of team work based on Design Thinking.

The flipped classroom as referred in the Educational methodology (EMM IO1), intentionally shifts instruction to a learner-cantered model, in which explores topics in greater depth and creates personal meaningful learning opportunities. In the DTRaIN course each learner:

- Watches video lessons prior to class. The video lessons are short (a maximum of eight to twelve minutes long)
- works on a Learning Unit in his own time and does not move on until he has fully understood or 'mastered' the content.
- Fills a self-assessment test after each the completion of each Learning Unit, that helps him to assess his understanding.
- Goes through a "serious Game" for stimulating his cognitive skills, promoting interaction and provide opportunities for feedback.

Learning environment

The DRaIN course will be developed to be delivered online, in a fully ubiquitous environment www.dtrain.eu/e-learning. However, the material can be used by trainers in a traditional face-to-face learning environment, or in a hydridic educational approach.

Learners in rural areas, who are not used in digital technology, can use any mobile application like mobile phones for having the course. Additionally, they can attend a semi- prudential classroom having a facilitator or a trainer to make the use of the DTRaIN training platform easier.

Duration

The duration of the course is **60 hours, estimated to last** 5 weeks in average (suggested to have three sessions per week, lasting four hours each). However, a learner can devote as much time

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as he feel to be effective to fully understand the content and archives the expected learning outcomes.

List of study materials

The training materials are located in the DTRaIN platform and include documents introducing and describing each training module, 24 Power Point Presentations (one per each Learning Unit, video presentation and a serious game, and four Design Thinking reports as real case situations developed by trainees (one per country). Study material also includes links to supporting material to be used as an additional reading material.

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