Elaboration of Learning Objectives

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ATERMON B.V.

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2		

APPLICABLE DOCUMENTS

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2		



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Introduction

1.1 Scope of the project

Research has depicted the linkage between environment-oriented activities and gender disparities. In fact, gender equality matters to environmental sustainability with women performing two thirds of global working hours and being more dependent on natural resources in comparison with men (Irish Aid, 2013). However, the agenda promoting the importance of gender equality for the ecosystem still remains unfinished despite all the initiatives taken towards the establishment of eco-friendly activities (UN women, 2014). Therefore, while there is still a high level of gender inequality, women act as half of the world's resource managers, making their role crucial towards safeguarding the environment (Global Environment Facility, 2018). With clothing upcycling being the new trend for green fashion, there has been no concrete initiative promoting women's active participation in upcycling practices, despite EU's endeavor towards environmental sustainability. Therefore, the need for VET trainers and textile professionals (manufacturers, designers, colorists, etc.) to engage in an open dialogue in order to support gender-based training towards buckling down environmental challenges through clothing upcycling activities constitutes a brand new initiative in alignment with EU goals for resource efficiency (Europe 2020 Strategy).

1.2 Purpose of the document

This document aims to provide a framework for the knowledge & competences required base on the conclusion drawn in the previous phase of the project during the needs verification process. The project learning objectives are going to be listed, formulating a framework that establishes quality standards to the training provision. The training will be facilitated by EQF tools and ECVET principles as an accreditation system for skills and achievement recognition. The framework will thus comprise a full document of:

- -Learning Objectives
- -Credit Allocation Chart
- Allocation of the ECVET points
- -Memorandum of Understanding Learning Agreement

1.3 Project target groups

The target groups addressed and affected by this research are:

- Directly:
 - Textile & clothing professionals (manufacturers, designers, colorists, stylists, converters, etc.)
 interested in or already taking initiatives towards environmental sustainability



- VET & Textile experts willing to actively participate in an open dialogue about green methods that establish the importance of gender equality for the ecosystem
- HEI with Textile/Clothing departments

Indirectly:

- VET training organizations
- Public bodies
- NGOs or other organizations/authorities taking initiatives towards renewable resources and energy efficiency
- AR developers or developers/organizations willing to embrace innovative digital solutions for sustainable training purposes and enhanced learning experiences
- Policy makers

2. Knowledge & Competence Profile

The AR4RECLOTHING experts' profile originates from the results of thorough research conducted in all partner countries in relation to the current state of play and level of awareness and skills of textile professionals. The goal is to formulate the 'desired' profile of the participants upon completion of the training. Therefore, the profile that textile professionals and other participants should have is formed as follows:

Competence Profile

EQF Level	4		
Total duration	100 (hours)		
Training Modules	5		
Total ECVET points	20		
Profile	 Upon completion of the training, AR4RECLOTHING expert will be able to: Recognize the role of women in environmental sustainability Understand the difference between traditional training methods and gender-based ones Identify good practices towards sustainability Master green practices related to textile upcycling Apply new skills required to implement gender-based sustainable practices Create awareness campaigns related to eco-sustainable and gender-based textile upcycling 		
Training structure	Module 1: The role of gender equality in environmental sustainability & Gender-based training methods Module 2: Sustainable practices in Clothing Manufacturing Module 3: Clothing Upcycling as a green practice Module 4: Soft Skills for clothing manufacturers Module 5: Gender-equal digital competences for clothing upcycling		

3. AR4ReClothing Training Guide

3.2.1 The Guide

A modular guide will be developed based on the ECVET point system described in the following section. Therefore, each training module is designed by associating specific learning outcomes with knowledge, skills and competencies that will help learners achieve and create their own AR4RECLOTHING Expert Profile. The proposed guide will be accompanied by digital tools (Learning Management System, Augmented Reality mobile application) as an innovative training resource for textile professionals and other interested parties in need of acquire new knowledge and skills in the project area. The materials developed will be freely available to the public through the project website, platform and network pages. Based on the findings from the national research conducted as the first step of the project, the partnership has concluded that the following training modules will better formulate the AR4RECLOTHING Training Guide to achieve the project objectives in the most impactful way:

Module 1: The role of gender equality in environmental sustainability & Gender-based training methods				
Duration (hours)	20			
ECVET Points	5			
Learning Outcomes	-Understand role of gender justice in environmental sustainability -Analyze the difference between gender-based training and traditional methods -Identify different practices & initiatives that promote eco-consciousness through gender equality -Increase own awareness to maximize understanding and motivation -Implement knowledge and skills in the long run within real environments and create impact among others			
Partner responsible	NEOTALENTWAY			

Module 2: Sustainal	Module 2: Sustainable practices in Clothing Manufacturing				
Duration (hours)	20				
ECVET Points	5				
Learning Outcomes	-Understand the basics of clothing manufacturing -Analyze the different means towards a more sustainable environment -Identify the most efficient practices in clothing manufacturing that establish sustainability -Develop and promote new practices in the field -Increase own awareness to maximize understanding and motivation -Implement knowledge and skills in the long run within real environments and create impact among others				
Partner responsible	TUIASI				

Module 3: Clothing	Upcycling	as a	green	practice
Duration (hours)	20			

ECVET Points 5



Learning Outcomes	-Understand the basics of clothing upcycling -Analyze the different ways of upcycling being a green practice -Identify the most efficient and sustainable ways to increase sustainability -Develop and promote new practices in the field -Increase own awareness to maximize understanding and motivation -Implement knowledge and skills in the long run within real environments and create impact among others
Partner responsible	RTU

Module 4: Soft Skills	s for clothing manufacturers
Duration (hours)	20
ECVET Points	5
Learning Outcomes	-Understand the basic skills required to become sustainable as a clothing manufacturer -Acquire negotiation, communication, teamwork, management, etc. skills -Identify the challenges to retain soft skills in the long run -Conduct research and combine different resources of knowledge to cover training needs -Implement knowledge and skills in the long run within real environments and create impact among others
Partner responsible	KEK KEM

Module 5: Gender-equal digital competences for clothing upcycling				
Duration (hours)	20			
ECVET Points	5			
Learning Outcomes	-Identify the digital gap existing in different genders -Analyze the digital competences required to apply sustainable practices -Identify the most needed digital competences for clothing upcycling -Increase digital skills taking into account gender gap -Increase own awareness to maximize understanding and motivation -Implement knowledge and skills in the long run within real environments and create impact among others			
Partner responsible	DIGICULT			

3.2.2 The assessment procedure

Per each unit of learning outcomes, a quiz will allow to test the knowledge acquired and a certificate will be released through the platform (R2) according to the ECVET profile, describing learning outcomes, knowledge, skills and competences acquired and associated ECVET credit points.

4. ECVET Point System

4.1 Main principles

The European Credit system for Vocational Education and Training (ECVET) allows learners to have a greater control over their learning experiences and motivates them to move between different countries and/or learning environments.

The system aims to facilitate the validation, recognition and accumulation of work-related knowledge and skills acquired during a learning experience. It establishes that this experience contributes to vocational qualifications.

ECVET aims to provide a common technical framework that establishes compatibility between the different vocational education and training (VET) systems in European Countries. This framework includes assessment, transfer, accumulation and recognition processes.

When it comes to flexibility in ECVET, an individual's learning outcomes are assessed and validated in order to transfer credits from one qualification system or learning pathway to another. Therefore, learners can accumulate the learning outcomes for a given qualification over time, in different countries or learning environments.

The system also allows the possibility to develop common references for VET qualifications and is fully compatible with the European Credit Transfer and Accumulation System (ECTS).

4.2 ECVET and validation of Non-Formal and Informal Learning

Countries around Europe are focusing on the need fully exploiting and recognizing individuals' knowledge, skills and competences including those that are not only acquired at schools, universities or other formal learning institutions. Recognizing all forms of learning is therefore a priority of EU action in education and training (E&T).

Learning that occurs in formal E&T systems is traditionally the most recognized by the labor market and EU societies in general. Recently, however, there has been a growing focus on the importance of learning in non-formal and informal settings. New approaches are required to identify, assess and validate these 'invisible' learning experiences within the context of commonly recognized qualifications.

4.3 Description of Training Modules using ECVET

Modules shall be defined in commonly understandable terms referring to the knowledge, skills and competences included in relation to the Learning Outcomes to be achieved upon completion of the training.



Module specifications should include:

- Generic title
- Title of the qualification related to the module
- Reference to EQF level
- Learning outcomes
- Assessment process and criteria for achieving the learning outcomes
- ECVET points allocated
- Seat time

4.4 Elements of learning outcomes

Based on Bloom's Taxonomy for the definition of the learning process, three different domains of learning are linked to EQF's learning outcomes:

- The cognitive domain (KNOWLEDGE)
- The psychomotor domain (SKILLS)
- The affective domain (COMPETENCIES)

KNOWLEDGE	SKILLS	COMPETENCIES
Select, recognize, mention, identify, name, place, define, describe, etc.	Explain, design, express, interpret, distinguish, classify, give, priority, analyze, judge, relate, etc.	Use, solve, produce, create, organize, etc.

In order to define and write the learning outcomes in the most understandable and appropriate way, the following principles must be taken into account:

- Use of clearly understandable verbs: Verbs should describe measurable or observable actions, e.g. explain, represent, apply, analyze, develop, etc. Learning outcomes must be specified and contextualized. It is thus essential to provide an indication as to what the knowledge and skills of the learners refer to, and as to what kind of performance is concerned.
- 2. Avoid vague, open formulations. Learning outcomes should be described briefly and precisely, complicated sentences should be avoided. Clear (simple and unambiguous) terminology should be used as far as possible.
- 3. Learning outcomes should comprehensibly describe the minimum demands for achieving/validating a unit of learning outcomes, i.e. all learning outcomes which are necessary for fulfilling the tasks in the sense of a complete vocational activity should be listed.
- 4. Qualifications/competence level is described comprehensibly. Formulations, particularly verbs and adjectives should reflect the level of qualification/competence (EQF or sectoral framework) of a unit of learning outcomes.

Assessment criteria need to be designed for each training module related to a qualification. "Assessment criteria are generally designed to be more specific than the intended Learning Outcomes of a qualification and (even) a module" (Cedefop 2017, p.57)¹.

5. Memorandum of Understanding

5.1 General objective

The Memorandum of Understanding (MoU) aims to establish the conditions for an individual acquiring the competences related to the AR4RECLOTHING Expert and the relevant Training Guide. It is an agreement referring to the knowledge, skills and competences provided by the Guide and supported by the digital tools to be developed during the AR4RECLOTHING project (R2, R3). It is a voluntary partnership agreement setting the general framework of cooperation and networking within the partnership with reference to the recognition of the Learning Outcomes defined in the project and for the qualification development in this context.

5.2 Information about the partnership

Partner 1		
Name of the organization:	KEK KEM	
Type of organization:	Vocational Training Centre	
Address:	Kapnokoptiriou 15	
City:	Athens	
Country:	Greece	
Contact person:	Athanasios Beis-Koronaios	
Job title:	Legal Representative	
Contact e-mail:	tbeis@kem.edu.gr	
Organization's website:	https://kem.edu.gr/	
Short description of partner:	KEK KEM or "Macedonia Education Center" is vocational training center established in March 2012. KEK KEM is a Certified Provider of Education Services by the National Organization for the Certification of Qualifications and Vocational Guidance (EOPPEP). The Central structure consists of 6 fully equipped rooms in an old neoclassical building of 121 student's capacity. KEK KEM has two managing partners and a pool of skilled executives in the fields of IT, business, engineering, marketing, and education, two of whom are permanent staff. Cooperation with external partners from accredited Universities and Research centers have led also to the successful completion of a big number of educational and other projects. KEK KEM has ensured steady collaborations as well with some of the most well-known	

¹ Source: Cedefop (2017). Defining, writing and applying learning outcomes: a European handbook Luxembourg: Publications Office. http://dx.doi.org/10.2801/566770



certification organizations such as TUV Hellas, Unicert and CISCO.
The services offered are divided in 5 categories: 1.Educational
Training to the personnel of public and private organizations.
2. Consulting, guidance and seek of employment according to the
acquired training skills. 3. Certification focused mostly on IT skills. 4.E-
learning complete solutions of teaching, evaluation, reporting without
any additional equipment requirements. 5.Rental of rooms for external
seminars and trainings to third parties.

Partner 2		
Name of the organization:	UNIVERSITATEA TEHNICA GHEORGHE ASACHI DIN IASI	
Type of organization:	Higher Education Institution	
Address:	Str. Prof. Dr. Doc. Dimitrie Mangeron, Nr. 29	
City:	lasi	
Country:	Romania	
Contact person:	Manuela Avadanei	
Job title:	Associate Professor, Researcher	
Contact e-mail:	decanat@dima.tuiasi.ro	
Organization's website:	https://dima.tuiasi.ro/	
Short description of partner:	Universitatea Tehnica "Gheorghe Asachi" din lasi — TUIASI ("Gheorghe Asachi" Technical University of lasi) is a prestigious Romanian university, classified as a university for advanced research and education, according to the Ministry of Education& Research Order (MECTS nr. 5262/2011) and is also a relevant component of the research and development system of national interest according to ANCS Decision No. 9708/29.07.2009. TUIASI develops programs for undergraduate, master, doctoral, postdoctoral studies and scientific research in 14 research areas, out of which 10 areas were classified in category A, according to Law 1/2011 and HG 789/2011. The doctoral activity is organized within 10 doctoral schools, including 13 doctoral fields developed according to national and international research priority areas, with a total of 478 doctoral students coordinated by 78 doctoral Ph.D. supervisors. TUIASI participated in the last 3 years as coordinator or partner in many structural funded programs and projects funded by the European Commission within the framework of Erasmus+ and H2020 Programs. TUIASI has an important research dimension, with 23 accredited research/excellence centers and laboratories focused on creating and transferring knowledge, especially in multidisciplinary high-tech engineering areas.	

Partner 3	
Name of the organization:	UNICERT S.A.
Type of organization:	Certification & Accreditation body
Address:	98-100, Akadimias str.
City:	Athens
Country:	Greece
Contact person:	Georgia Griva



Job title:	Project Manager	
Contact e-mail:	euprojects@unicert.gr	
Organization's website:	https://unicert.gr/	
Short description of partner:	Universal Certification Solutions S.A. – UNICERT S.A. is a modern Certification Body that provides certification services both for individuals and legal entities. In the field of certification of professional qualifications UNICERT is accredited by E.O.P.P.E.P. (National Organisation for the Certification of Qualifications & Vocational Guidance) Board of Directors with judgement number 148/21.1.2015 to certify individuals in IT Knowledge of Computer Use, whose certificates constitute, by extension, an essential qualification for appointment in the Greek public sector and A.S.E.P. (Supreme Council for Civil Personnel Selection) contests. UNICERT S.A. is certified by ISO 9001:2015 standard and accredited to ISO/IEC 17024:2012 in Certification of Persons (in 136 schemes) by E.SY.D. (Hellenic Accreditation System), which bears testament to the fact that the certification process is conducted with impartiality based on substantiated competency, while, at the same time, it renders certificates recognised and valid as being equivalent to those awarded by the National Accreditation Bodies of the Countries-States of E.A. (European Cooperation for Accreditation).	

Partner 4		
Name of the organization:	nization: ATERMON B.V.	
Type of organization:	Small – Medium Entreprise	
Address:	Posthoornstraat 17	
City:	Rotterdam	
Country: Netherlands		
Contact person:	Danny Koojman	
Job title:	Administrator	
Contact e-mail:	info@atermon.nl	
Organization's website:	www.atermon.nl	
Short description of partner:	In ATERMON, we strive to be at the forefront of Applied Research in emerging technologies and tools, while we constantly experiment with innovative e-solutions for disseminating knowledge. The team consists of highly qualified professionals in instructional design, technical consulting, web design & development, content authoring and digital marketing. Our mission is to conceptualize and design ICT-enabled solutions for E&T based on gamification models. Our values serve the concepts of Open & Inclusive Education and Personalised Learning in a business context which will not impose limitations in terms of quality and efficiency.	

Partner 5	
Name of the organization:	DIGICULT TEAM
Type of organization:	Small – Medium Enterprise
Address:	Żurawia 32/34
City:	Warsaw



Country:	Poland	
Contact person:	Christos Anthis	
Job title:	Instructional Designer	
Contact e-mail:	info@digicult.team	
Organization's website:	www.digicult.team	
Short description of partner:	DigiCULT is a new organization, which operates in the areas of cultural heritage and tourism and takes initiatives to safeguard cultural heritage and activates people in order to preserve heritage and to transmit culture to next generations. DigiCULT implements projects and initiatives with governments, companies, organisations and communities based on the use of ICT solutions and digital tools aiming to empower the relationship between physical/virtual cultural heritage and education, having as a goal to create high-quality experiences.	

Partner 6		
Name of the organization:	Riga's Technical University	
Type of organization:	Higher Education Institution	
Address:	6A Kipsalas Street	
City:	Riga	
Country:	Latvia	
Contact person:	Dana Belakova	
Job title:	Associate Professor, Researcher	
Contact e-mail:	dti@rtu.lv	
Organization's website:	https://www.rtu.lv/en	
Short description of partner:	The Institutes of Design Technologies (IDT) main strategic goal is to prepare internationally recognised, economically necessary, qualified, and competitive new specialists through collaboration between the public, private, and academic sectors, to promote research in existing and new scientific fields, particularly practical textile and clothing solutions to important problems in the processing and design industries in collaboration with entrepreneurs. IDT's main focus is on textile materials, processes, and technologies, which are related to the design and development of high-value, sustainable, innovative, and environmentally friendly products and technologies, as well as the development and optimization of manufacturing technologies; modification of natural and chemical fiber/material/products and optimisation of their properties for improved user comfort and safety.	

Partner 6	
Name of the organization:	NEOTALENTWAY
Type of organization:	Vocational Training Centre
Address:	C. Recogidas, 50
City:	Granada
Country:	Spain
Contact person:	Joaquín López Molina
Job title:	Project Manager
Contact e-mail:	contacto@neotalentway.com



Organization's website:	www.neotalentway.com
Short description of partner:	Neotalentway is an educational and training consultancy that focuses on skills development, talent management, digitalisation and entrepreneurship. It is a company focused on increasing quality in all processes for maximum personal and professional development. We are actively working with entrepreneurs and researching and development new digital training spaces based on virtual reality and augmented reality.

5.3 The training program / qualification

To recognize the acquisition of a certain number of credits, learning outcomes have to be assessed in a reliable and valid way by each organization. The organization will need to trust that learners' credits actually reflect the learning outcomes expected and that these are at the appropriate level. By setting up this MoU, the signatory competent institutions acknowledge their partners' approaches to designing units, assessment, validation, and recognition as well as quality assurance.

Through this process, they make informed judgments about the conditions under which they can recognise credits achieved within the partners' systems. This MoU is concluded by competent institutions, each of which is empowered, in their own setting, to award qualifications or units or to give credits for achieved learning outcomes for transfer and validation. The signatory organisations are agreeing on the ECVET Model elaborated for the AR4RECLOTHING Expert Profile training (attached to this MoU) and recognizing the knowledge, skills and competence that a person will acquire after graduating the online assessment of the specific training course which will be available on the online platform. The signatory organizations are mutually recognizing the following aspects of the e-learning platform:

- the content of the training guide
- the procedure of assessment of learning outcomes
- the ECVET procedure for recognizing the learning outcomes
- the credits allocated for the training modules accomplished by the trainees.

5.4 Quality Assurance

- 1. The e-learning platform, AR mobile app and website provide a safe learning environment for the trainee in which he/she can study and learn;
- 2. The digital tools and training take into account the level of competence and development of the trainee (the years of training/work experience);
- 3. The digital tools and training allow enough time, room, means and resources for the training and supporting of the trainee;

- 4. The digital tools and training provide a detailed plan including an introduction programme, and the final assessment of the trainee;
- 5. A representative of the signatory organization, if case, monitors and evaluates the achievement of the learning outcomes;
- 6. The trainee shall attend the needed training sessions in relation to the Units selected for the present MoU and fulfills other tasks that are part of the agreed training plan.

By using this agreement, we accept each other's status as competent organizations, as well as each other's quality assurance, assessment, validation, recognition criteria and procedures as appropriate for the purpose of transferring credits at the end of the training experience provided by the e-learning platform and digital tools.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Understanding the day and year written above.

6. Annexes

6.1 Definition of Learning Outcomes template

Module 1: The role of gender equality in environmental sustainability & Genderbased training methods	The AR4RECLOTHING Expert is able to	
KNOWLEDGE	SKILLS	COMPETENCES
a.	a.	a.
b.	b.	b.
C.	C.	C.

Module 2: Sustainable practices in Clothing Manufacturing	The AR4RECLOTHING Expert is able to	
KNOWLEDGE	SKILLS	COMPETENCES
a.	a.	a.
b.	b.	b.
C.	C.	C.

Module 3: Clothing Upcycling as a green practice	The AR4RECLOTHING Expert is able to	
KNOWLEDGE	SKILLS	COMPETENCES
a.	a.	a.
b.	b.	b.



C.	C.	C.

Module 4: Soft Skills for clothing manufacturers	The AR4RECLOTHING Expert is able to	
KNOWLEDGE	SKILLS	COMPETENCES
a.	a.	a.
b.	b.	b.
C.	C.	C.

Module 5: Gender-equal digital competences for clothing upcycling	The AR4RECLOTHING Expert is able to	
KNOWLEDGE	SKILLS	COMPETENCES
a.	a.	a.
b.	b.	b.
C.	C.	C.

6.2 Levels in the European Qualification Framework

Source: Recommendation of the European Parliament and of the Council on the Establishment of a European Qualifications Framework for Lifelong Learning, 2008

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 behavior 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, specialized, factual and theoretical knowledge	A comprehensive range of cognitive and practical skills required to develop	Exercise management and supervision in contexts of work or study activities where there



	within a field of work or study and an awareness of the boundaries of that knowledge	creative solutions to abstract problems	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 specialized 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 professional development of individuals and groups
Level 7	Highly specialized 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	Specialized 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 specialized 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