



Unicom Study Visit Bielefeld

28. - 31.10.2024

Day 4:

FHM and the European Approach of Micro Credentials

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Micro-Credentials





- What are Micro Credentials?
- 2. FHM Projects with Micro Credentials
 - Cred in Green
 - Green Comp Micro-Credentials = Stream
 - Mc Green: Micro-Credentials and DIN
- Conclusion: Micro Credentials can enhance Third Mission of Universities by facilitating a comparative approach towards european vocational education and lifelong learning



Micro-Credentials













Micro-Credentials: What is a Micro-Credential?

- A micro-credential is the record of the learning outcomes that a learner has acquired following a small volume of learning. These learning outcomes have been assessed against transparent and clearly defined standards.
- Courses leading to micro-credentials are designed to provide the learner with specific knowledge, skills and competences that respond to societal, personal, cultural or labour market needs.
- Micro-credentials are owned by the learner, can be shared and are portable. They may be standalone or combined into larger credentials. They are underpinned by quality assurance following agreed standards in the relevant sector or area of activity.







Micro-Credentials: What is a Micro-Credential?



Quality

Micro-credentials are subject to **internal and external quality assurance** by the system producing them (e.g. the education, training or labour market context in which the micro-credential is developed and delivered). Quality assurance processes must be **fit-for-purpose**, **be clearly documented**, **accessible**, **and meet the needs** of learners and stakeholders.

External quality assurance is based primarily on the **assessment of providers** (rather than individual courses) and the effectiveness of their internal quality assurance procedures.



unicom Universities-Communities: strengthening cooperation

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Micro-Credentials: What is a Micro-Credential?



Transparency

Micro-credentials are measurable, comparable and understandable with **clear information on learning outcomes, workload, content, level,** and the **learning offer**, as relevant.

Workload

 Higher education institutions should use the European Credit Transfer and Accumulation System (ECTS) and comply with the principles in Annex V to the EQF Recommendation, wherever possible, to demonstrate the notional workload needed to achieve the learning outcomes of the micro-credential.

Qualifications framework/ systems

Micro-credentials may
be included in national
qualifications frameworks/
systems, where relevant and
in line with national priorities
and decisions. National
qualifications frameworks/
systems are referenced to
the European qualifications
framework and, for higher

education qualifications, selfcertified to the qualifications framework of the European Higher Education Area, which can further support the transparency, and trust in, micro-credentials.



What EU standard elements should it include?

The basis for trust in micro-credentials is transparency. Micro-credentials should be clearly identified as such with elements that make it possible for learners, education and training institutions, quality assurance agencies, and

Mandatory elements

- Identification of the learner
- Title of the micro-credential
- Country/Region of the issuer
- Awarding body
- Date of issuing
- Learning outcomes
- Notional workload needed to achieve the learning outcomes (in ECTS credits, wherever possible)
- Level (and cycle, if applicable) of the learning experience leading to the micro-credential (EQF, QF-EHEA), if applicable
- Type of assessment
- Form of participation in the learning activity
- Type of quality assurance used to underpin the micro-credential

employers to understand the value and content of micro-credentials and to compare them.

The European approach to micro-credentials suggests a list of critical information elements that any micro-credential should provide:

Optional elements, where relevant -

(non-exhaustive list)

- Prerequisites needed to enrol in the learning activity
- Supervision and identity verification during assessment (unsupervised with no identity verification, supervised with no identity verification, supervised online or onsite with identity verification)
- Grade achieved
- Integration/stackability options (standalone, independent micro-credential / integrated, stackable towards another credential)
- Further information







& employment apprenticeship through micro-credentials

Transnational Partnership Meeting 25th – 26th September 2024

26.9.24: 10:30 – 11:15: WP3 - Micro-Credentials Accreditation - Key elements and considerations for development based on Workshop Findings - FU-UPPSALA and FHM

FHM Experiences with the Development of a Micro-Credential Approach

ERASMUS + Project: CREDinGREEN

CREDINGREEN -

Responding to tourism market changes caused by Covid-19 and the EU Green Deal through micro-credential-certified upskilling of SME tourism managers





FHM: Micro Credentials









FHM: Micro Credentials



- CREDinGREEN as Example of FHM's Experience with Micro-Credentials
- What is CREDinGREEN?
- Green Competencies
- VET Education with CREDinGREEN
- Micro Credential Framework
- Challenges





FHM: Micro Credentials What is CREDinGREEN?



- The various EU initiatives on sustainability open up significant opportunities for tourism development. Initiatives like the Green Deal and Farm to Fork provide a foundation for promising development by tourism service providers. But how can these opportunities be translated into a genuine sustainability strategy that is both successfully positioned in the market and firmly anchored within the company?
- The tourism sector is facing unprecedented challenges as it slowly begins to recover from the effects of the COVID-19 pandemic. Additionally, companies must address the impacts of climate change and stay informed about future developments and opportunities arising from the EU Green Deal policy and its long-term implications for the sector.
- CREDinGREEN is a European partnership uniting tourism industry experts and educators. This collaboration aims to create an innovative and flexible training program to help company managers and staff tackle long-term challenges posed by climate action and the aftermath of the pandemic. The program is designed to equip industry professionals with the skills and knowledge needed to adapt to significant changes, ensuring a sustainable and resilient future for the tourism sector.

Erasmus+ Programme of the European Union



FHM: Micro Credentials What is CREDinGREEN?



AlMs of the Project are:

- to anticipate and respond to new training needs in the tourism industry, as it recovers from C-19 restrictions.
- to update existing training content to meet new market requirements, offering innovations in smaller, certified training units, and pioneering the integration of microcredentials into European VET.
- to implement an online training approach that allows more accessibility and convenience.
- to focus on ecological aspects of training for tourism managers, leveraging the postpandemic recovery to enhance sustainable tourism practices and give Green Tourism a significant boost.
- to ensure cooperation between education providers, economic actors, and policymakers, developing quality standards for accrediting learning outcomes via micro-credentials to ensure official acceptance across sectors.





FHM: Micro Credentials What is CREDinGREEN?

























V

Result 2: CREDinGREEN VET course Training program on Green Tourism

The VET (Vocational Education and Training) program is designed to upskill SME (Small and Medium-sized Enterprises) managers in the tourism sector. This initiative aims to address the evolving needs of the market following the COVID-19 pandemic and under the influence of the EU Green Deal policy.

The online training provides the opportunity to equip tourism managers across Europe with the skills and knowledge required to navigate the post-pandemic landscape and embrace sustainable practices aligned with the EU Green Deal. The program focuses on fostering resilience, innovation, and sustainability in tourism management.

The CREDinGREEN VET training program is an essential step for tourism managers looking to adapt to the rapidly changing market dynamics and sustainability requirements. By participating in this program, managers can be better prepared to lead their businesses towards a sustainable and successful future in the tourism industry.

https://www.credingreen.com/



FHM - Micro-Credentials - CREDinGREEN











		20 Training Units in 5 Clusters	
Cluster 1	EU Green Deal	1.1 Training Unit 1: Introduction to the EU Green Deal 1.2 Training Unit 2: EU's Climate ambition for 2030	2
		and 2050	3
		 1.3 Training Unit 3: EU Green Deal legal framework, supports and funding opportunities 1.4 Training Unit 4: The role of chambers of 	3
		commerce and business associations in the EU Green Deal	3
		1.5 Training Unit 5: Summary of CREDinGREEN EU survey results	3
Cluster 2	Marketing Green	2.1 Training Unit 6: How to market sustainability and EU Green Deal to destination management2.2 Training Unit 7: How to market sustainability and	3
		EU Green Deal to local businesses 2.3 Training Unit 8: Green tourism among the	5,5
		generations – meeting diverse consumer demands	4,5





Chroter	Food & Bio	2.1 Training Unit 0: Processing and rectaring	.,-
3	FOOD & BIO	3.1 Training Unit 9: Preserving and restoring ecosystem and biodiversity	3
		3.2 Training Unit 10: "Farm to Fork": a fair, healthy, and environmentally friendly food system 3.3 Training Unit 11: Sourcing local – a guide for the	4
01		tourism industry	4
Cluster 4	Energy & Efficiency	 4.1 Training Unit 12: Supplying clean, affordable, and secure energy 4.2 Training Unit 13: Energy and resource-efficient building and renovation to save money and 	3
		protect the environment 4.3 Training Unit 14: Energy use reduction & Reduction of greenhouse emissions: from small	3
		changes to big impact 4.4 Training Unit 15: Water waste reduction	3
		4.5 Training Unit 16: Electromobility for the tourism	_
		industry	3





Cluster 5	Circular Economy	5.1 Training Unit 17: Mobilising industry for a clean and circular economy	1
	Fat and Modern And	5.2 Training Unit 18: Reuse of materials and goods for circular economy	7
		5.3 Training Unit 19: Reduction of packaging5.4 Training Unit 20: Avoidance of non-biodegradable	3
		detergents	3
Sum			60







Intellectual Output 2
"CREDinGREEN VET training Course"

MODULE PLAN INFORMATION

Learning Cluster: Food & Bio

Module Topic: "Farm to Fork": a fair, healthy and environmentally friendly

food system

Total Workload: 4 hours ECTS Allocation: 1/20



Training Unit 10: "Farm to Fork": a fair, healthy and environmentally friendly food system

MODULE TASK

Participants will learn about how their business can achieve and benefit from a fair, healthy, and environmentally friendly food system.

MODULE LEARNING OUTCOMES

By completing this module, learners will achieve learning outcomes and learn skills such as:





LECTURER NOTES

- Provide webinar and tutorials' documents.
- Provide appropriate case studies
- Provide templates for assessment activity (business strategy template for learner and checklist for trainer)

TEACHING METHODS

- ⊠ Blended Learning
- ⊠On-Line Learning
- **⊠**Assignment
- ☐ Learning by doing
- □ Project-based learning
- ☐Peer learning
- ☐ Hands-on learning
- □ Collaborative learning
- □E-Journal

Apply the rath to rock concept to own pusiness and sector.

DEVICES REQUIRED FOR E-LEARNING

Internet Connection, PC/laptop

WORKLOAD: 4 HOURS

1. Online Pre-recorded Tutorials/Webinars

- The "Farm to Fork" strategy in brief (video)
- The "Farm to Fork" strategy in details and its connection with tourism (PPT)
- Supply chain analysis basics (PPT)

2. Self-learning exercises

- Case study (to read/video) of "Farm to Fork" in tourism
- Case study (to read/video) in restaurant
- Case study (to read/video) in hotel
- Case study (to read/video) of local farmer and local supplier cooperation
- Assignment 1: Analysis of current supply chain adopted by my own SME
- Assignment 2: Research on existing food quality certifications (organic, fair trade, etc.)





[3.2 Training Unit 10: "Farm to Fork": a fair, healthy and environmentally friendly food system]

3. Face-to-Face

- Brainstorming on the findings of Assignment 1 and 2
- Group work: how can I apply the Farm to Fork concept in my own business?

REFLECTION

Group discussion and debriefing on the main findings.

TESTING / ASSESSMENT

- End of module: Develop a strategy for own business to apply the Farm to Fork concept (on a given template).
- Assessment will be done by the trainer through a provided checklist that will list all the relevant issues to be considered when developing a business strategy. If the learner has included and described in detail all these aspects in his/her strategy in a convincing manner he/she has successfully passed this unit.



FHM: Micro Credentials Micro Credential Strategy







Micro-credential Strategy



FHM: Micro Credentials Micro Credential Strategy of CREDinGREEN



- The concept of micro-credentials is viewed positively by all partners and all are willing to integrate it into their existing training certifications.
- However, due to the inconsistent factual and developmental situation at European and national level (none of the partner countries has a nationally applied and accepted MC model), it is not possible for us to develop a practicable concept for all partners. The necessary standardized European or national guidelines and frameworks do not exist.
- Due to the low level of anchoring of MC in the national education systems, these qualifications are not yet very well known, prestigious or accepted by the learner groups (at least this has been our experience during our project work, especially in the pilot training courses). At the same time, however, learners have shown themselves to be open to and interested in this new accreditation



FHM: Micro Credentials Micro Credential Strategy of CREDinGREEN



Requirements:

- §1 The CREDinGREEN training course comprises 60 hours (2 ECTS points), which can be accredited with 2 micro-credentials (MC).
- §2 The awarding institution must be certified and recognised as a training institution for vocational education and training and/or higher education in accordance with national legislation and frameworks.
- §3 Educational institutions have the obligation to take into account national standards and frameworks (if any) when awarding the MC.
- §4 In the status quo (February 2024), only the educational institutions represented in the partnership are entitled to award the CREDinGREEN micro-credential.
- §5 As it is the clear intention of all project partners to increase the number of educational institutions, any other educational institution is free and welcome to include this course in its curriculum; all course materials are available free of charge.



FHM: Micro Credentials Micro Credential Strategy of CREDinGREEN



§6 However, all teachers of the CREDinGREE course must have previously attended and successfully completed a train-the-trainer programme of at least 10 hours. This training can only be provided by authorised CREDinGREEN training institutions.

§7 Only institutions already authorised as CREDinGREEN training institution can certify other training institutions. In addition to the training of the teaching staff, the criteria include the content and strategic orientation of the educational institution as well as its professional and pedagogical excellence.

§8 A MC can only be awarded if the learner has completed 100% of the course content; however, it is possible to have up to 30% of the course content credited through previously acquired learning experience (formal and informal).

§9 A MC can only be awarded if at least 60% of all learning objectives have been successfully completed; in accordance with the flexible structure of the course, the assessment of performance is subject to internal standards and specifications.

§10 The accreditation certificate can be adapted to national or institutional templates and frameworks, but it must contain at least the information and data specified in the proposal below. The data and information labelled "optional" are also desirable but not mandatory.



FHM: Micro Credentials Challenges



- How can the system be internationally recognized?
- How can the necessary standards be achieved?

Green Comp microcredentials

Govaris, C., Kaldi, S., Kolokitha, M., Chatzi, M., Mpoutla, K., Tasios, A.

WP3 led by UTh

Govaris, C., Kaldi, S., Kolokitha, M., Chatzi, M., Mpoutla, K.,

Tasios, A.



Development of Micro credential Training Courses for the training

- of the students to become primary school teachers (pre-service teachers from now on) and
- the VET teachers (in-service teachers from now on)
- 1. The purpose is to provide them with competences, according to the GreenComp Framework
- 2. Micro credentials material will include assessment for the provision of digital badges.
- The WP will result in two distinctive courses.
- 4. The training courses will be developed as blended courses, according to the foundations for successful distance learning, and in a form that if needed all face to face activities will be able to transform into digital synchronous training.

- GreenComp conceptual reference model
- GreenComp consists of 12 competences organised into the four areas below:
- 1. Embodying sustainability values, including the competences
 - Valuing sustainability: To reflect on personal values; identify and explain how values vary among people and over time, while critically evaluating how they align with sustainability values.
 - **Supporting fairness:** To support equity and justice for current and future generations and learn from previous generations for sustainability.
 - **Promoting nature:** To acknowledge that humans are part of nature; and to respect the needs and rights of other species and of nature itself in order to restore and regenerate healthy and resilient ecosystems.
- 2. Embracing complexity in sustainability, including the competences
 - **Systems thinking:** To approach a sustainability problem from all sides; to consider time, space and context in order to understand how elements interact within and between systems.
 - Critical thinking: To assess information and arguments, identify
 assumptions, challenge the status quo, and reflect on how personal,
 social and cultural backgrounds influence thinking and conclusions.
 - **Problem framing:** To formulate current or potential challenges as a sustainability problem in terms of difficulty, people involved, time and geographical scope, in order to identify suitable approaches to anticipating and preventing problems, and to mitigating and adapting to already existing problems.

- 3. Envisioning sustainable futures, including the competences
 - Futures literacy: To envision alternative sustainable futures by imagining and developing alternative scenarios and identifying the steps needed to achieve a preferred sustainable future
 - Adaptability: To manage transitions and challenges in complex sustainability situations and make decisions related to the future in the face of uncertainty, ambiguity and risk
 - Exploratory thinking: To adopt a relational way of thinking by exploring and linking different disciplines, using creativity and experimentation with novel ideas or methods

Acting for sustainability, including the competences

- Political agency: To navigate the political system, identify political responsibility and accountability for unsustainable behaviour, and demand effective policies for sustainability
- Collective action: To act for change in collaboration with others
- Individual initiative: To identify own potential for sustainability and to actively contribute to improving prospects for the community and the planet
- https://joint-research-centre.ec.europa.eu/greencomp-european-sustainability-competence-framework/greencomp-conceptual-reference-model_en

AREA	COMPETENCE	DESCRIPTOR		
1. Embodying sustainability values	1.1 Valuing sustainability	Practice being understanding and empathetic. Talk about why people believe different things and see if those beliefs help take care of the Earth and make it a better place.		
	1.2 Supporting fairness	Help make things fair and right for people now and in the future. Also, learn from people who lived before us to do things that help take care of the planet.		
	1.3 Promoting nature	Remember that people are an important part of nature. Promote being kind to animals and plants and take care of the environment to help it stay healthy and strong.		
2. Embracing complexity in Sustainability	2.1 Holistic thinking	Approach a sustainability problem from all sides; consider time, space and context in order to understand how elements interact with one another, and the consequences that may occur.		
	2.2 Critical thinking	Check information and think critically, by looking closely at the information and ideas presented, asking questions to understand better and thinking about their own experiences and how they affect what they think and decide.		
	2.3 Problem framing	Understand and solve problems related to sustainability, by figuring out what the problem is, thinking about who's affected and where it's happening and coming up with ways to stop problems before they start or finding ways to make existing problems better.		

3. Envisioning sustainable futures	3.1 Literacy in sustainable development	Imagine and create different ways to make the world better, like solving problems to help people and the planet. Use ideas and digital skills to plan steps to make these good changes happen, just like the 17 big goals for a better world.	
	3.2 Adaptability	Learn how to handle tricky situations and tough choices about the future, even when things are uncertain or difficult.	
	3.3 Exploratory thinking	Try connecting different subjects and using your creativity to come up with new ideas or ways of doing things.	
	4.1 Political agency	Learn how the government works, figure out who's in charge, and find out how the people may ask them to make good rules to help the planet.	
4. Acting for sustainability	4.2 Collective Action and collaboration	Work together with friends and others to change thinks for the best	
sustamability	4.3 Individual initiative	Think about what you can do to help your community and the Earth be a better place, and then go and do it	
	4.4 Intercultural competence	Embrace the idea of different cultures and learn how to get along and develop new ideas with people who have diverse backgrounds	

Presentation of the MC GREEN Project

Dive into the five work-packages











- 1. Full Title: MC GREEN Conveying Green VET micro-credentials into EQF with ISO17024 quality assurance model.
- **2. Runtime**: 32 months from September 2024 April 2027 6 partners, 5 countries, 4 languages (English, German, Slovenian, Spanish)
- 3. 3 F2F meetings + 1 LTTA: Ireland, Bilbao, Austria (2x)
- 4. National pilot phases & promotion events





1. The main objective is in the title!

- Conveying Green VET micro-credentials into EQF with ISO17024 quality assurance model.
- 2. Development and test of two micro-credential offers: one on EQF level 2 and one on EQF level 5.





EQF LEVEL 8	ACADEMIC LEVEL	DOCTORATE
EQF LEVEL 7	ACADEMIC LEVEL	MASTER
EQF LEVEL 6		BACHELOR
EQF LEVEL 5	POST UPPER SECONDARY LEVEL	HIGHER NATIONAL DIPLOMA
EQF LEVEL 4	UPPER SECONDARY LEVEL	HIGHER NATIONAL CERTIFICALE, UPPER SECONDARY DIPLOMA
EQF LEVEL 3	SECONDARY LEVEL	SECONDARY DIPLOMA OR VOCATIONAL DIPLOMA
EQF LEVEL 2	PRIMARY LEVEL	SECONDARY SCHOOL WITH NO DIPLOMA
EQF LEVEL 1	PRIMARY LEVEL	PRIMARY SCHOOL

Level	Knowledge	Skills	Competences
EQF 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
EQF 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





- **1. VET providers** with interest in offering micro-credentials under quality assurance of ISO17024
- 2. VET learners aiming at obtaining a micro-credential in the field of green economy (either EQF 2 or EQF 5)
- 3. VET policy makers with interest to develop the offer of microcredentials in VET in Europe employing ISO17024 as quality assurance approach for awarding a micro-credential
- **4. Higher education institutions** with interest in offering micro-credentials also for the VET sector as further training
- **5. Further stakeholders** (trainers, labour market experts, consultants, local authorities, policy makers)





- 1. Job profile and competence research report for each partner country in the field of green economy with a focus on energy and waste management including identified required knowledge, skills and competences on EQF 2 / EQF 5
- 2. ISO17024 coherent qualification board for the identified certification scheme consisting of experts and representatives of VET institutions from each partner country (incl. virtual meetings)
- **3.** Description of the complete micro-credentials on EQF 2 and EQF 5 (30 pages each, all partner languages)
- **4. Description of the examination procedures** for the MCs on EQF 2 and EQF 5 (25 pages each, all partner languages), including examiner requirements and examination materials/tools





- 1. Micro credential certification programme EQF Level 2 energy and waste management with min. 10 pilot participants in each partner country
- 2. Micro credential certification programme EQF Level 5 circular economy models with min. 8 pilot participants in each partner country
- 3. Pilot feedback & evaluation reports for each partner organization

 → translation in all partner languages

Micro-Credentials





Conclusion:

Micro Credentials can enhance Third Mission of Universities by facilitating a comparative approach towards european vocational education and lifelong learning







Thank you very much!

