

***Guidelines for
VET/ AE providers
on how to
introduce***

***micro-credentials
and digital
credential models
to their systems
for certification***

IQ-DigitS

| | |
|---|----|
| Abstract | 2 |
| 1 Introduction | 4 |
| 2 IQ-DigitS survey | 6 |
| 2.1 Introduction to the survey | 6 |
| 2.2 Analysis of results | 6 |
| 3 Step by step guidelines | 24 |
| 3.1 Implementing quality standards and the micro-credentials approach | 24 |
| 3.1.1 Implementation of quality standards | 24 |
| 3.1.2 Micro-Credential Approach | 25 |
| 3.1.3 Possible methodology for curriculum development | 26 |
| 3.2 Key elements of the EDCI platform | 28 |
| 3.3 Implementing digital certification systems compatible with Europass | 35 |
| 4 Practical example: Digi TRAILS training course | 39 |
| 4.1 General information for the course | 39 |
| 4.2 Credential builder | 45 |
| 4.3 Achievement builder | 51 |
| 4.4 Learning outcomes | 55 |
| 4.5 Activity builder | 60 |
| 4.6 Assessment | 67 |
| 4.7 Organisation builder | 68 |
| 4.8 Entitlement builder | 70 |
| 5 Recommendation for further improvements (tips and tricks from lessons learned) | 73 |
| 6 Annexes | 76 |

Abstract

With the European Commission's recent initiatives on micro-credentials for lifelong learning and employability, coupled with the introduction of the Europass digital credentials infrastructure (EDCI), the landscape of training creation, delivery, and certification is undergoing significant transformation. In response to these developments, the IQ-DigitS project aims to contribute to integrating micro-credentials and digital credential models into their systems for certification.

This guidelines present the outcomes and recommendations derived from the project's research and surveys conducted among practitioners and stakeholders in vocational education and training (VET) and adult education (AE). Through collaborative efforts on an international scale, valuable insights have been gathered regarding the challenges and opportunities presented by these EU initiatives.

The guidelines outline the methodology devised by the IQ-DigitS project for implementing quality standards and micro-credential approaches. It offers guidance on curriculum development based on micro-credentials, modular structure creation, identification of achievements, definition of learning outcomes, design of assessments, and specification of activities.

Moreover, these guidelines provide recommendations for training providers to effectively integrate micro-credential initiatives and digital certification systems compatible with Europass. Key recommendations include familiarising oneself with Europass and EDCI, developing modular curricula, implementing quality assurance measures, promoting transparency and trust, utilizing digital platforms for credential issuance, facilitating lifelong learning pathways, encouraging stackability and portability, and providing support and guidance for other training providers.

Insights from the EDCI tool highlight its value in standardizing digital credentials and easing qualification transferability and recognition. Our experience is showcased through a practical example of a training course,

DigiTRAILS, to offer insight to other training providers on leveraging the Europass platform for issuing credentials in digital format.

With these guidelines, we aim to support training providers to enhance their offerings, better integrate lifelong learning concepts into their work, and address the evolving needs of learners and the workforce in the digital age.

1 Introduction

With the aim of bringing down barriers to learning and improving access to quality education, the European Commission, on 10.12.2021, has drafted a Council recommendation on the [European approach to micro-credentials](#) for lifelong learning and employability. The Council is recommending member states to adopt a European approach to micro-credentials, in order to strengthen lifelong learning concepts and apply a common EU definition, EU standards, and key principles for the design and issuance of micro-credentials, with the aim of enabling building trust and flexibility.

Micro-credentials certify the learning outcomes of short-term learning experiences, for example, a short course or training. They offer a flexible, targeted way to help people develop the knowledge, skills, and competences they need for their personal and professional development.

Parallel to this initiative, the European Commission has promoted the New Europass platform as another initiative to support people in their lifelong learning pathways. Europass platform, apart from the traditional functionalities for creating personal profiles, CVs, and resumes and exploring learning and working possibilities, has launched a new tool: the [Europass digital credentials infrastructure](#), where credentials for certain learning experiences can be issued by educational providers in a unique digital format.

This recent European approach to micro-credentials and the possibilities for issuing credentials in digital format under the Europass platform, have opened new possibilities for educational providers and learners, but they have also raised new challenges in their implementation.

In this regard, from the perspective of the training providers, new dilemmas have arisen, such as:

- What would be the framework for “small volume of learning” when setting a micro-credential?

- Which is the framework for assessment against transparent and clearly defined criteria (who, when, and how)?
- Can all training providers from all fields of education use the EDCI platform and issue digital certificates?
- What kind of educational programs can be entered in the EDCI platform?
- Should educational programs be adapted to a certain structure in order to be able to use the EDCI platform?

The main objective of the IQ-DigitS project is to contribute to VET and AE quality assurance via a sustainable certification model based on micro-credentials and the introduction of digital tools for issuing digital certificates compatible with the Europass platform. The main findings reached during project implementation, which may be relevant to other training providers, are framed in these guidelines.

Within the IQ-DigitS project, our project team searched for answers to these and many other questions about these two EU initiatives. We have also conducted an international survey asking practitioners and stakeholders in VET and adult education (AE) providers for their opinions regarding these two important initiatives for both fields.

2 IQ-DigitS survey

2.1 Introduction to the survey

In order to analyse the current situation in the project's partner countries and also at the international level, a survey was developed to investigate the knowledge of the respondents on the topics of micro-credentials and the EDCI tool.

The survey was created in May 2023 in English, translated into the project languages (Macedonian, Italian, German, and Croatian), and distributed among partners' networks. The responses were collected by September 2023.

The main idea with this survey was to collect feedback from practitioners' partner countries, and across Europe about their familiarity with these European Commission's initiatives, potentials for their application in the scope of their work, and what type of support they need to adopt the recommended initiatives.

2.2 Analysis of results

This report has been prepared taking into account the responses of 15 different countries. The findings presented in this report reflect the outcomes of the survey, shedding light on the commonalities and variations in the experiences, opinions, and challenges faced by respondents from different regions. These insights offer valuable context and contribute to a more holistic understanding of the issue at hand.

By bringing together the voices of participants from diverse backgrounds, this project contributes to the advancement of knowledge and solutions.

| Data | |
|---------|-----------|
| Country | Responses |
| Italy | 41 |
| Croatia | 18 |
| Austria | 6 |

| | |
|------------------------|---|
| North Macedonia | 6 |
| Bulgaria | 5 |
| Bosnia and Herzegovina | 4 |
| Romania | 3 |
| Ireland | 3 |
| Germany | 2 |
| Spain | 2 |
| Portugal | 2 |
| Albania | 2 |
| Finland | 1 |
| France | 1 |
| Greece | 1 |

This graph shows the types of organisations that participated in the survey. According to the results of the survey, 60% of the respondents are in the category of School/Institute/Educational Center e-adult education.



If "Other" was selected, please specify

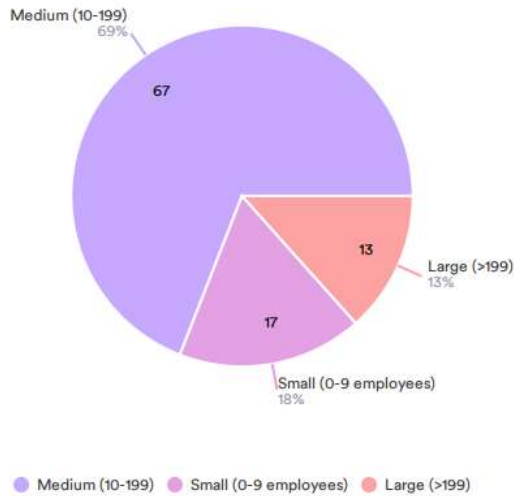
15 Responses- 82 Empty

| Data | Responses |
|--|-----------|
| Public library | 3 |
| NGO | 1 |
| VET provider per giovani e adulti | 1 |
| Centro di formazione privato (educazione per adulti) | 1 |
| University | 1 |
| Educational Association (NGO) | 1 |
| Здружение на граѓани | 1 |
| University - Higher Education | 1 |
| Agenzia Formativa (formazione iniziale, continua e superiore) | 1 |
| ente di formazione accreditato con il ministero della salute per l'educazione continua in medicina | 1 |
| Ufficio Scolastico Regionale per la Sardegna | 1 |
| ONGD | 1 |
| Non-formal education provider | 1 |
| | |

The participants who marked the "Other" button in the survey belong to: public library, NGO, VET provider for youth and adults, private training center (adult education), university, educational association (NGO), association of citizens, university, higher education, training agency (initial, continuing, and higher education), training institution accredited with the ministry of health for continuing medical education, Regional School Office for Sardinia, ONGD, non-formal education provider.

Size of organisation

97 Responses



The size of the organisations participating in the survey provides valuable insights into the international landscape of these entities. The majority, at 69%, represent medium-sized organisations, indicating a substantial presence of entities with employee counts ranging from 10 to 199. The collaboration and coexistence of small, medium, and large entities are essential for the dynamic and adaptable nature of the international business and organisational landscape.

To your knowledge, are micro-credentials already offered or being developed in adult education / VET in your country?

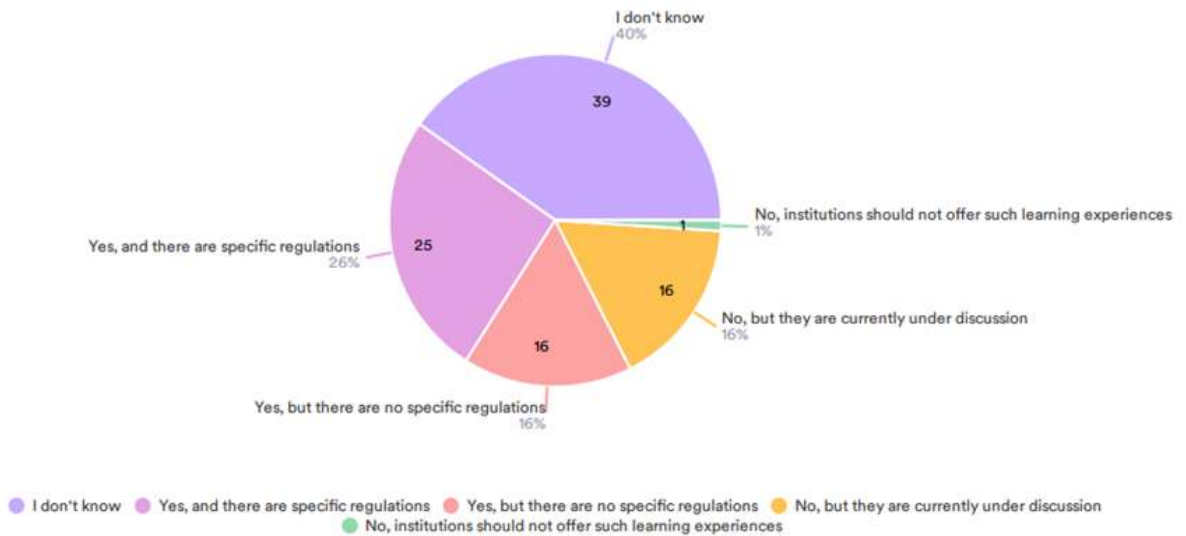


The survey results indicate a growing international interest and awareness regarding micro-credentials in adult education and vocational training. These findings showcase the international landscape of micro-credentials, reflecting a mix of adoption, uncertainty, and areas for potential growth.

They emphasise the need for cross-border cooperation and knowledge exchange to ensure that individuals worldwide can access and benefit from these agile and skill-focused educational opportunities.

Does your national legislation allow for the provision of micro-credentials?

97 Responses

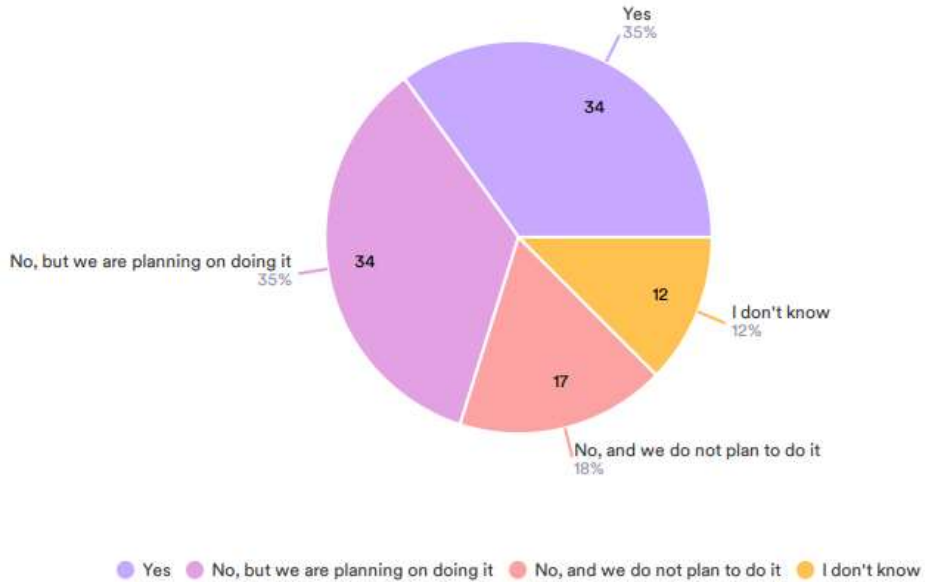


The survey reveals diverse global approaches to the legal provision of micro-credentials. Approximately 40% expressed uncertainty about the legal landscape, underscoring the complexity and the need for clarity. Meanwhile, 26% operate under specific regulations, demonstrating proactive recognition of micro-credentials.

A flexible approach, where 16% allow micro-credentials without specific regulations, fosters innovation. An additional 16% are actively debating their legal framework. The 1% against such offerings constitutes a minority. International cooperation can harmonise this evolving landscape, ultimately benefiting learners and the workforce worldwide.

Does your Institution currently offer training courses based on micro-credentials?

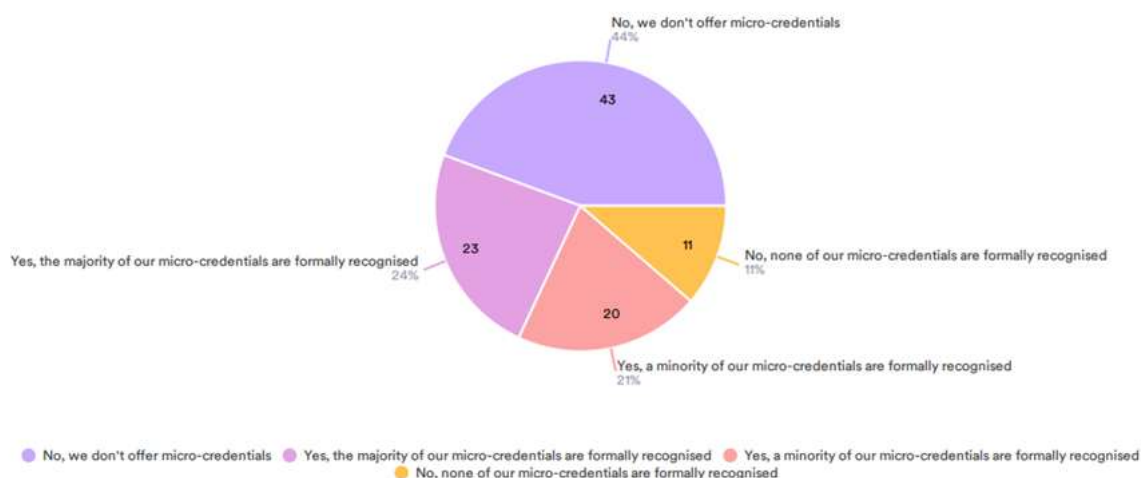
97 Responses



The survey reflects a dynamic global landscape. 35% of institutions offer micro-credential-based training, indicating a proactive approach. An equal percentage is actively planning to incorporate micro-credentials. This underscores the worldwide trend towards flexible, skill-focused education. 18% have no plans to offer micro-credentials, while 12% express uncertainty, emphasizing the need for better awareness and knowledge sharing.

Do you currently issue micro-credentials that are formally recognised as part of a training programme?

97 Responses

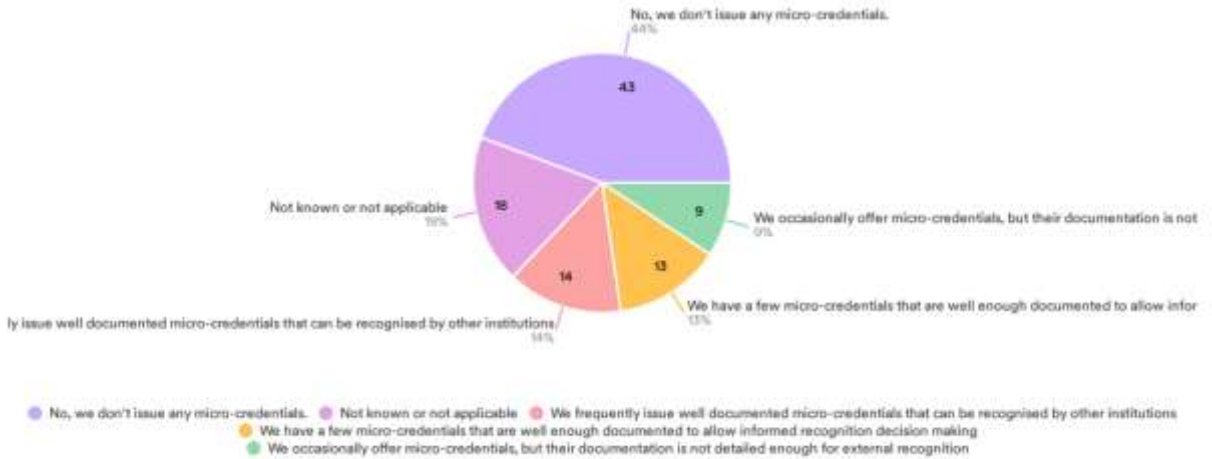


The graph reveals a dynamic international landscape in the recognition of micro-credentials within training programs. While 24% actively incorporate the majority of micro-credentials into formal education, 21% recognise a smaller portion, reflecting a hybrid approach. On the other hand, 44% do not issue micro-credentials, possibly signalling untapped potential, and 11% do not formally acknowledge any, indicating early adoption stages.

These results illustrate global openness to integrating micro-credentials into formal training programs, reflecting an evolving educational environment.

Does your institution currently issue micro-credentials for short learning programmes that could potentially be recognised by other institutions?

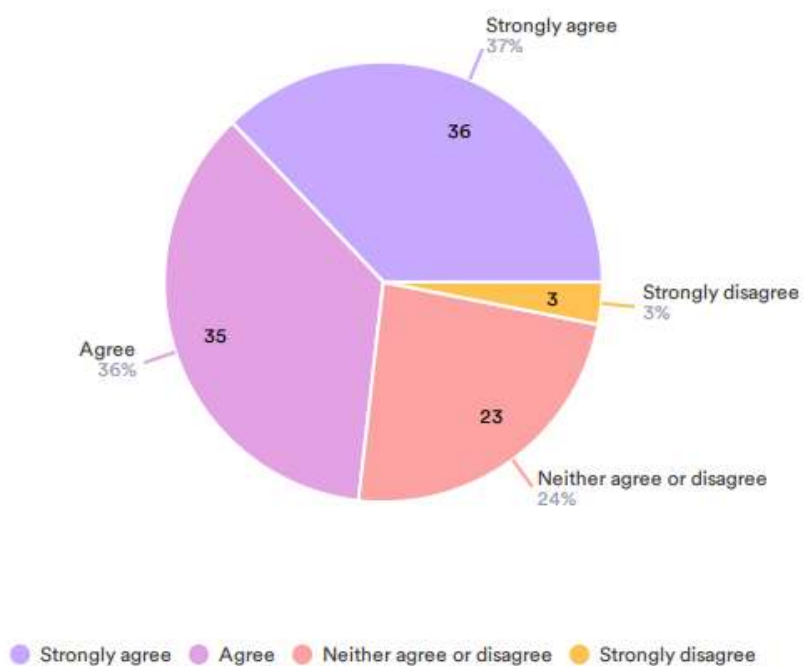
97 Responses



The survey reflects a diverse global landscape of micro-credential issuance and recognition. While 44% of institutions don't offer micro-credentials, 14% provide well-documented, widely recognised ones. The remaining responses vary, underscoring a need for greater clarity and standardization on this international stage.

Your Institution sees micro-credentials as an important strategy for the future

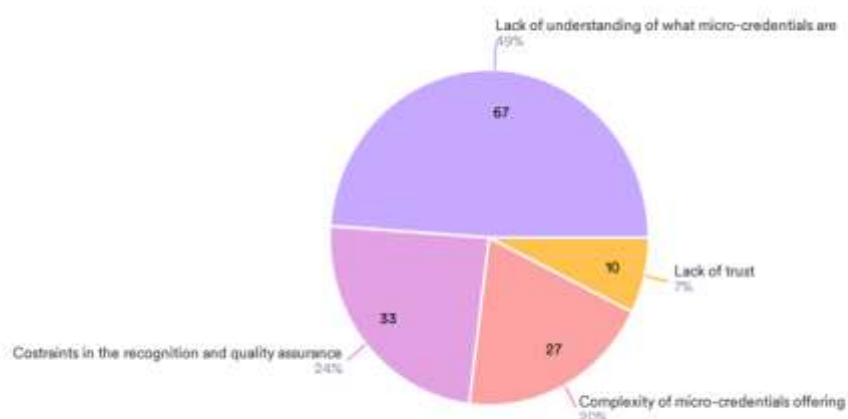
97 Responses



The survey results show a strong global consensus, with 73% of respondents either strongly agreeing or agreeing that micro-credentials are vital for the future of educational institutions. A minority, 3%, strongly disagree, while 24% neither agree nor disagree, suggesting room for increased awareness and understanding of the concept's potential in education.

The biggest barrier to the adoption of micro-credentials is:

137 Responses



● Lack of understanding of what micro-credentials are ● Constraints in the recognition and quality assurance ● Complexity of micro-credentials offering ● Lack of trust

The graph reveals common global barriers to the adoption of micro-credentials in education. The most significant is the “lack of understanding of what micro-credentials are,” cited by 49%, emphasizing the need for increased awareness. “Constraints in recognition and quality assurance” (24%) and “complexity of micro-credentials offering” (20%) also pose challenges, indicating the importance of standardization and simplification. A smaller percentage (7%) mentions the “lack of trust” as an issue, underscoring the need for building confidence in micro-credential value.

What kind of information would you need to better understand the concept of micro-credentials?

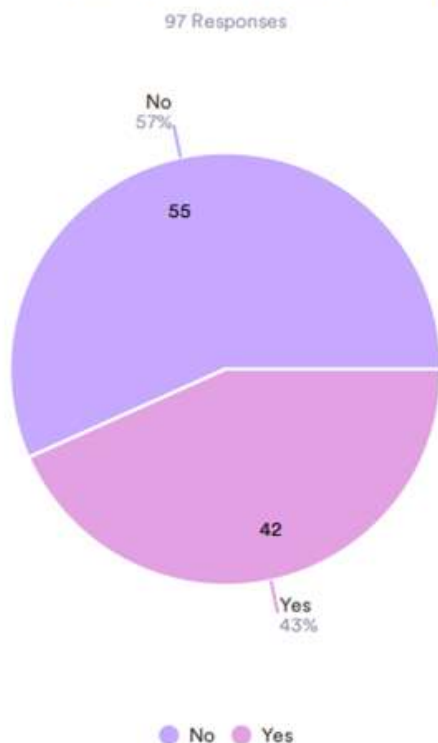
54 Responses - 43 Empty

| Data | Responses |
|--|-----------|
| Non so | 2 |
| praksa u drugim zemljama | 1 |
| Dodatne edukacije | 1 |
| Većina informacija je dostupna. | 1 |
| --- | 1 |
| Sve | 1 |
| - | 1 |
| Objasnjenje kako se stjecanjem mikrokvalifikacija moze doći do cjelovite kvalifikacije | 1 |
| In our organization the costs of the Open badge licence + other licences needed are an issue at the moment | 1 |
| - | 1 |
| ricaduta effettiva nel mondo del lavoro | 1 |
| Capire meglio il dibattito attualmente in atto nell'UE e vedere come la nostra agenzia può applicarle. | 1 |
| andcross-border recognition portability | 1 |
| Systematic approach | 1 |

The responses to the questions were varied and showed diverse needs in the respondents:

- Education and Training (3)
- A common approach at the European level (3)
- Usefulness of micro-qualifications (1)
- Cost and guidelines on how to buy the e-Seal and other Open Badges licenses (1)
- Uncertain about the matter (1)

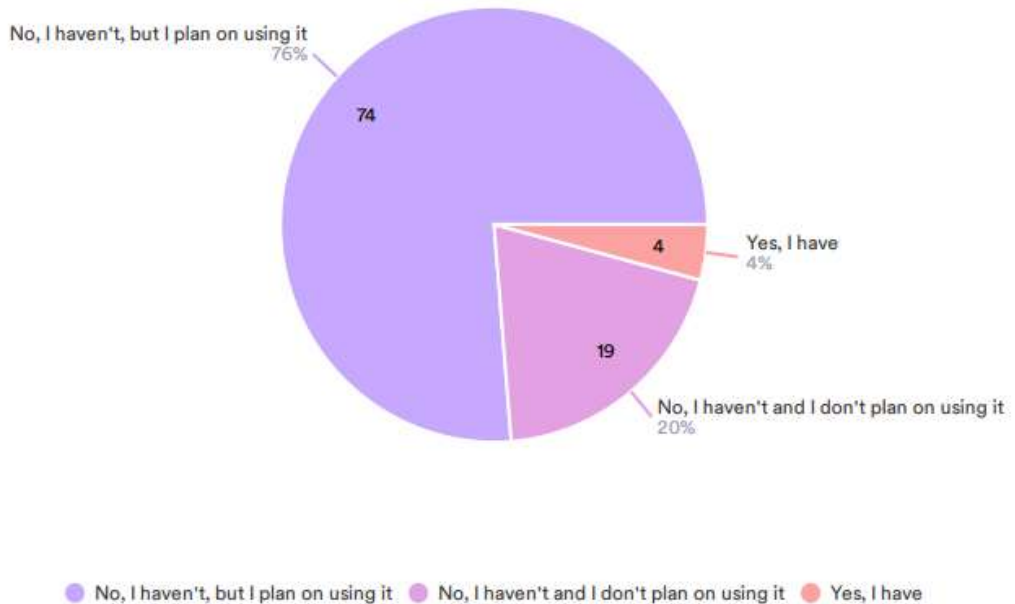
Were you aware of the existence of the European Digital Credentials Infrastructure (EDCI)?



The survey reveals a mixed awareness of the European Digital Credentials Infrastructure (EDCI), with 43% of respondents knowing about it and 57% unaware. Increased international outreach is needed for wider adoption.

Have you already used or plan to use the EDCI?

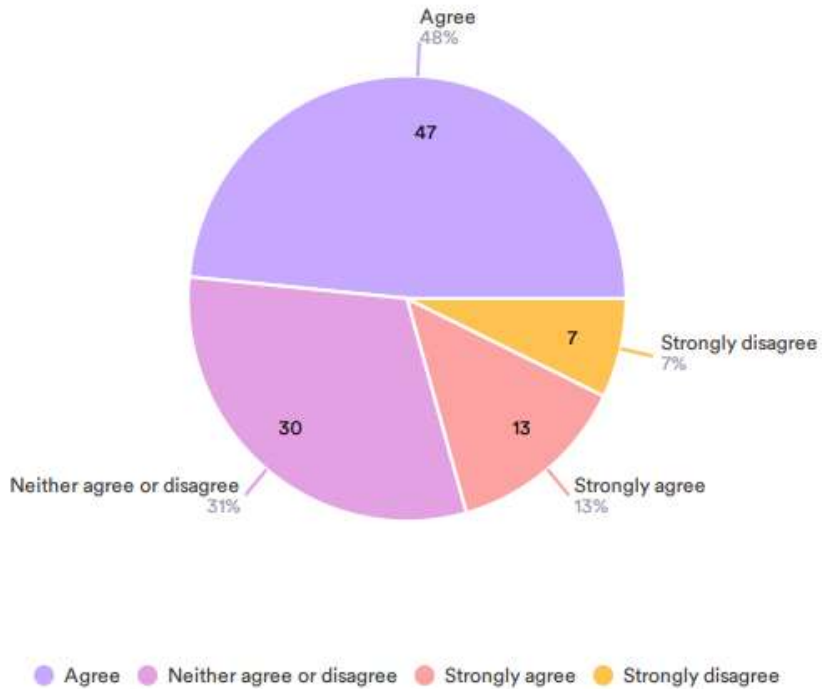
97 Responses



Results indicate a strong inclination (76%) among respondents to use the European Digital Credentials Infrastructure (EDCI) in the future. However, 20% express no plans to use it, potentially due to a need for increased awareness. A small percentage (4%) has already utilised EDCI, signifying early adoption and successful implementation. These findings highlight the growing global interest in EDCI for digital credential verification, underscoring its potential value and benefits.

Do you think that the EDCI platform could be adapted to micro-credentials-based courses?

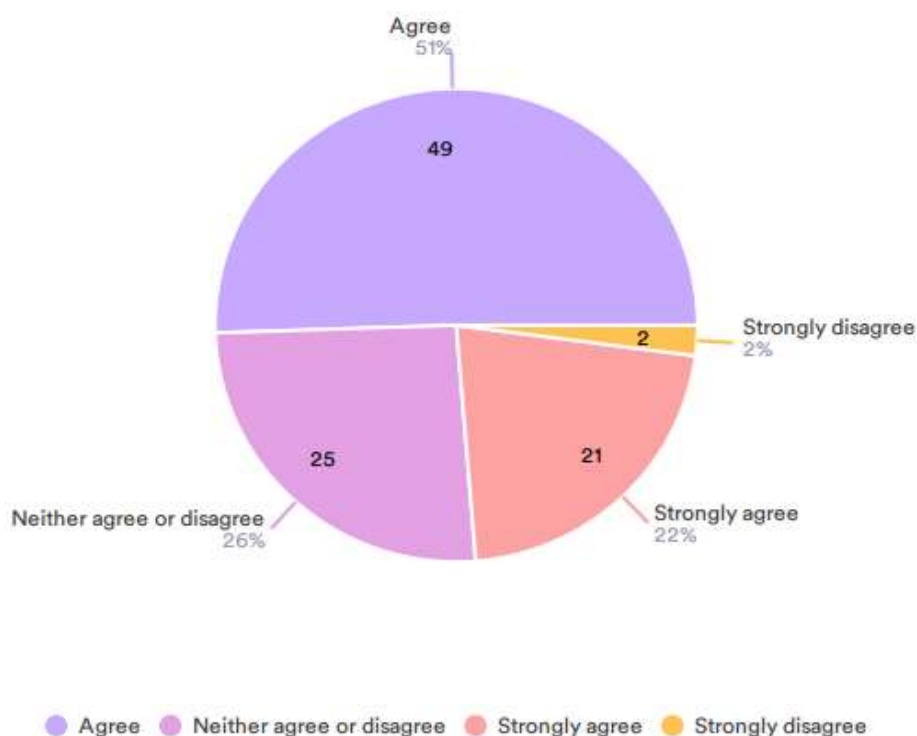
97 Responses



The survey responses indicate a generally positive outlook on the adaptability of the European Digital Credentials Infrastructure (EDCI) to micro-credentials. 47% agree or strongly agree with adaptability, while 31% neither agree nor disagree. A smaller 7% strongly disagree, reflecting diverse perspectives but overall interest in using EDCI to enhance micro-credential recognition.

Do you think that the EDCI could be used by VET/AE providers?

97 Responses

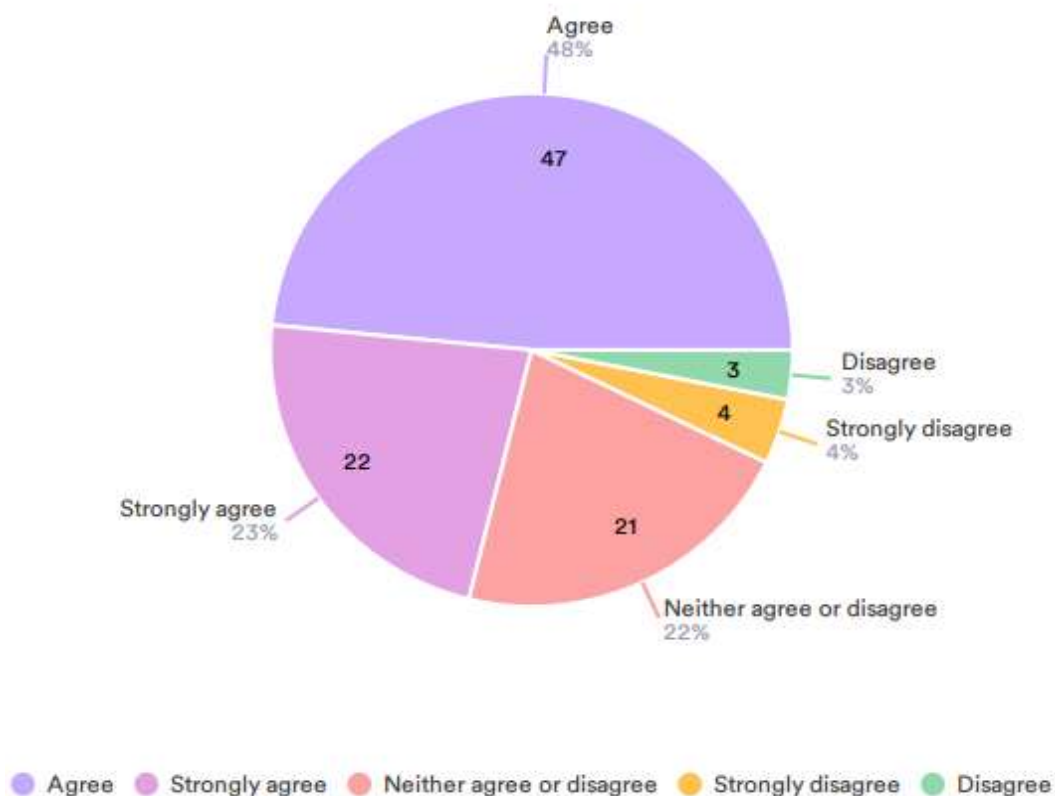


The survey indicates strong support for the use of the European Digital Credentials Infrastructure (EDCI) by vocational education and training (VET) and adult education (AE) providers, with 73% either agreeing or strongly agreeing. A minority (26%) neither agrees nor disagrees, while a small percentage (2%) strongly disagrees, reflecting varied perspectives but overall endorsement of EDCI's potential in these sectors.

These findings emphasise the widespread international belief in the potential of EDCI as a valuable tool for VET and AE providers, underscoring the importance of fostering its adoption to improve credential recognition and transferability in these sectors.

Digital credentials will soon replace paper certificates

97 Responses



These findings underscore the international consensus that digital credentials will progressively supplant paper certificates, highlighting the need for continued adoption and adaptation to this digital era in education and credentialing.

What kind of information would you need to better understand the EDCI platform?

39 Responses- 58 Empty

| Data | Responses |
|---------------------------------|-----------|
| formazione | 5 |
| Sve | 2 |
| Formazione specifica | 2 |
| Non mi interessa | 2 |
| Corso di formazione | 2 |
| koliko je EDCI pomogao u praksi | 1 |
| Dodatne edukacije | 1 |
| / | 1 |
| . | 1 |

The responses of the participants were as follows:

- Education and Training (9)
- Usefulness (1)
- Not interested in the matter (1)

3 Step by step guidelines

3.1 *Implementing quality standards and the micro-credentials approach*

Key findings on the “Development of a common methodology for the adaptation of existing curricula towards modular learning, based on learning outcomes and micro-credentials”.

Within project_result_2 of IQ-DigitS, partners as training providers existing and operating in four different countries, within different educational systems, regulations, and environments, have tried to reach common principles on common methodologies based on modular learning and compatible with the recommendations from EC for the micro-credentials approach. This project result provides an extensive analysis of the European approach to transforming non-formal education and VET systems through micro-credentials.

Here are our key findings regarding the implementation of quality standards and the micro-credential approach.

3.1.1 *Implementation of quality standards*

Varied quality assurance approaches: There are three approaches to quality assurance in non-formal education: regulatory, advisory, and organic. Each has its advantages and challenges, with some countries combining these methods to suit their specific needs.

Frameworks and tools: European countries have developed various frameworks like EQAVET to adopt common quality standards, particularly in higher education and VET. These frameworks don't prescribe specific quality assurance systems but offer a set of principles and indicators to help assess and improve quality.

ISO standards: For non-formal education providers, ISO standards like ISO 29990 and ISO 21001 are potential quality benchmarks. These standards provide a comprehensive approach to maintaining quality in educational services.

Need for adaptability: The importance of adapting existing quality assurance frameworks like EQAVET for non-formal education is emphasised. This adaptation should cater to the unique needs of developing or adapting curricula in this less regulated sector.

3.1.2 Micro-Credential Approach

Rapid development and challenges: Micro-credentials are rapidly developing across Europe, offering a flexible and targeted way for people to gain skills and competences. However, challenges like the lack of a clear definition, trust, and transparency hinder their wider acceptance and implementation.

European Digital Credentials Infrastructure (EDCI): The EDCI is highlighted as a significant initiative to support the efficiency, security, and interoperability of digitally signed credentials. It is seen as a promising tool to increase the visibility and transparency of micro-credentials.

Common frameworks and standards: The European approach to micro-credentials is based on principles like quality, transparency, relevance, and portability. Adhering to these principles is crucial for their wider acceptance and effectiveness.

Linking with existing tools: The potential for linking micro-credentials with tools like ECVET and EQAVET is discussed. This linking is vital for ensuring that micro-credentials are recognised and can be accumulated and transferred within and across VET systems.

Portability and storage: The importance of portability, storage, and sharing of micro-credentials is underscored. Platforms like Europass and the developing EDCI system are mentioned as solutions for facilitating these needs.

In summary, while the micro-credential approach and the implementation of quality standards in non-formal education and VET are seen as promising ways to enhance lifelong learning and employability, they come with challenges. These include the need for clear definitions, trust-building measures, the adaptability of quality frameworks, and the development of robust platforms for the issuance and recognition of micro-credentials. It is suggested that addressing these challenges is crucial for realizing the full potential of micro-credentials in Europe.

3.1.3 Possible methodology for curriculum development

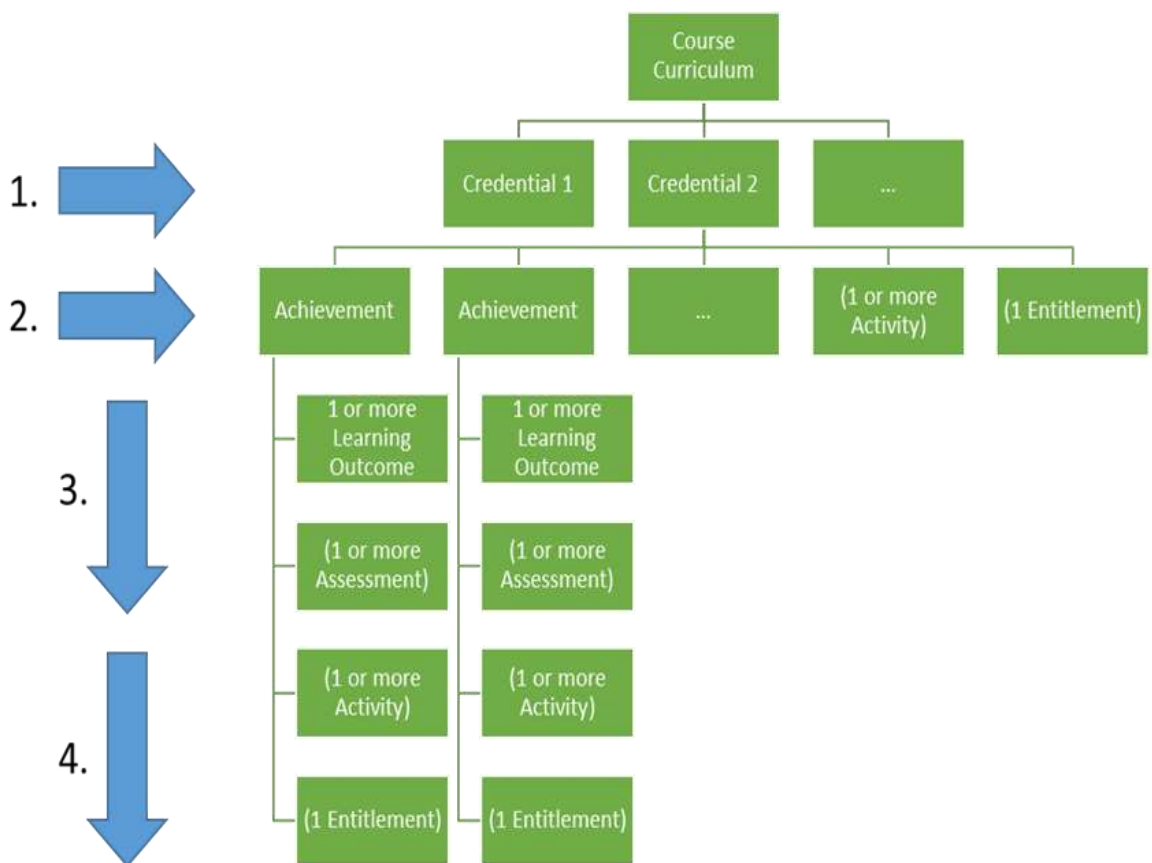
Within the IQ-DigitS project, project partners developed and proposed a methodology for curriculum development based on micro-credentials, structured around the European Digital Credentials Infrastructure (EDCI). IQ-DigitS's methodology is detailed in several steps, aimed at creating modular and flexible curricula that can adapt to various learning outcomes and needs. Here's a summary of the described methodology:

- **Preparation step (Step 0):**
 - **Develop an outline of a course curriculum:** Before diving into the specifics, there's a need to conceptualise the overall structure and content of the curriculum. This includes defining the title, thematic area, target group, duration, total ECVET/ECTS points, and mode of learning.
- **Step 1: Develop possible "Modules" that can serve as credentials**
 - **Identify modular components:** Break down the curriculum into smaller, manageable modules or units that can each represent a specific skill, topic, or learning outcome. These modules are intended to be the micro-credentials themselves.
- **Step 2: Develop one or more achievements for each module (credential)**
 - **Define Achievements:** For each module, outline the achievements or competencies that learners are expected to gain upon completion. These should be specific, measurable, and aligned with the overall learning objectives of the module.
- **Step 3: Develop one or more learning outcomes and assessments accordingly for each achievement**
 - **Specify learning outcomes:** Clearly state what the learner will know, understand, or be able to do after completing the module. These outcomes should be closely linked to the assessments designed to evaluate them.
 - **Design assessments:** Develop methods and tools for assessing whether learners have achieved the desired

outcomes. These can include tests, projects, portfolios, or other evaluation forms.

- **Step 4: If applicable, develop activities and entitlements**
 - **Outline activities:** Describe the learning activities involved in each module. This could include lectures, workshops, online coursework, or practical exercises, detailing the mode of learning and the expected workload.
 - **Specify entitlements:** If applicable, include any entitlements that the achievement grants the learner, such as the right to practice a profession or advance to a higher level of study.

Course structure (graphical presentation):



Additional Considerations:

- **Quality assurance:** At every stage, consider how quality will be assured and maintained. This includes planning, implementation, evaluation, and review phases, aligning with frameworks like EQAVET.
- **Flexibility and stackability:** Ensure that the micro-credentials are designed to be stackable, meaning they can be combined to form larger credentials or qualifications. This enhances their flexibility and value to learners.
- **Alignment with frameworks:** Align the curriculum and its components with relevant national and European frameworks, such as the European Qualifications Framework (EQF) and the European Credit System for Vocational Education and Training (ECVET)/European Credit Transfer and Accumulation System (ECTS), to ensure wider recognition and consistency.

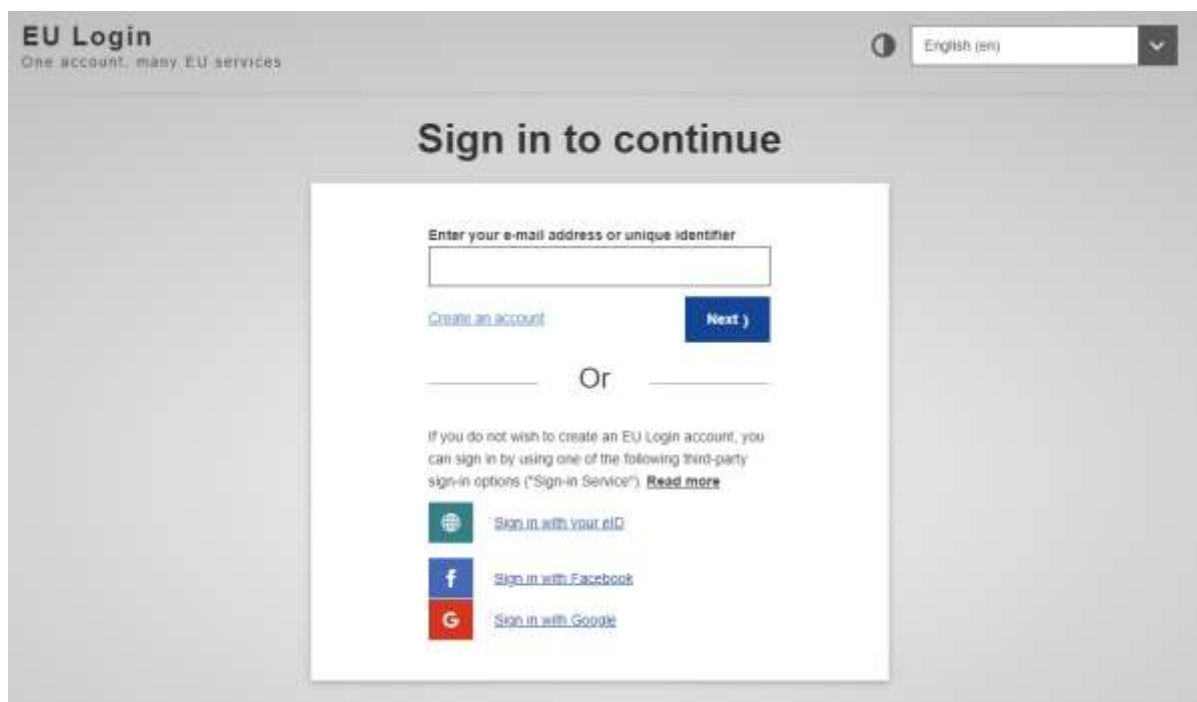
This methodology aims to create a structured yet flexible approach to curriculum development, making use of micro-credentials to facilitate lifelong learning and adaptability to various learner needs. By focusing on modular learning outcomes and robust assessment methods, the approach seeks to provide clear, quality-assured pathways for learners to acquire and demonstrate new skills and knowledge.

3.2 Key elements of the EDCI platform

European Digital Credentials for Learning are electronically sealed digital records given to a person to certify the learning they have undertaken. They can be awarded for formal education, training, online courses, volunteering experiences, and more. A platform used for their issuing is called the **EDCI Issuer**.

The platform can be reached through the official Europass webpage, under the „Europass Tools“ drop down menu, by clicking on the „European Digital Credentials“ tab. In order to use it, the user needs to be registered with **EU Login**. EU Login is the European Commission's user authentication service. It allows authorised users to access a wide range

of Commission web services using a single email address and password. EU Login can be created in a quick and easy way by following the [instructions](#) on the official EU Login webpage.



After successfully accessing it, the platform can be used by both citizens (learners) and issuers (education providers).

Citizens can use the platform in order to view, verify, and download their credentials. They can check the validity and authenticity of the credential and print it or download it as a PDF.

Issuers use the platform in order to issue degrees, diplomas, certificates of participation, or other credentials to their learners. Any school, college, university, or training provider in Europe may use this tool to issue credentials for free and secure them with their e-seal. Credentials can be e-mailed to learners or directly deposited into their Europass profiles. The process includes three basic actions: preparation, building, and uploading the credential.

1. Preparation: in order to issue credentials, issuers need to obtain a qualified electronic seal. The EDCI Issuer provides a test tool in order to ensure the e-seal is set up properly.

2. Building: The Online Credential builder allows issuers to enter the data via the browser. Alternatively, they can export a package from their student information system as JSON-LD.

3. Uploading: In the event that the issuer already has credential data prepared, they can upload the file and move on to reviewing and digitally sealing the credentials.

Credentials for Issuers

Issue degrees, diplomas, certificates of participation or other credentials to your learners. Any school, college, university or training provider in Europe may use this tool to issue credentials for free and secure them with their e-seal. Credentials can be e-mailed to learners or directly deposited to their Europass profiles.

Prepare

1

To issue credentials, you need to obtain a qualified electronic seal. Our test tool will ensure everything is set up properly. Then, follow our tutorial to understand how to prepare your data.



Test your e-Seal

Build

2

The Online Credential Builder allows you to enter your data entirely via the browser. Alternatively, you can export a package from your student information system as JSON-LD.



Online Credential Builder

Upload

3

If you have your credential data prepared, upload the file and move on to the next step of reviewing and digitally sealing your credentials. For further information about the issuing file format, please refer to the following link.



Upload unsigned credential(s)

Maximum file size: 15 MB

Accepted file format: .JSON

The Online Credential builder, as mentioned previously, is a tool that allows issuers to enter data needed for the production of a digital credential. In order to use it, education providers need to follow four steps: **Prepare**, **Customise** **Seal** **Send**.

The process of preparing a digital credential starts with the building of the credential templates. Templates represent multilingual, reusable elements of the credential, and these elements include:

- **Achievements:** A learning achievement describes the acquisition of one or several learning outcomes.
- **Learning outcomes:** A learning outcome is a statement regarding what a learner knows, understands, and is able to do upon completion of a learning process, which is defined in terms of knowledge, skills, responsibility, and autonomy. Learning outcomes can also relate to knowledge and skills described in standardised classifications, such as ESCO.
- **Activities:** A learning activity is a process that leads to the acquisition of knowledge, skills, responsibility, and autonomy. It can be described in terms of a distinct start and end date, a specific location, and a specific workload.
- **Assessments:** An assessment is the result of a process establishing the extent to which a learner has attained particular knowledge, skills, and competence. Assessments can be linked to a specific grading scheme that rates the learner's performance at the assessment.
- **Organisations:** An organisation is a legal person or registered entity that can issue the credential, conduct learning activities or assessments, or acknowledge credential holders' entitlements.
- **Entitlements:** An entitlement describes a right, e.g., to practice a profession, take advantage of a learning opportunity, or join an organisation. Entitlements may be limited to a specific jurisdiction.
- **HTML information:** this element allows the issuer to create a custom credential diploma template in HTML + CSS (no JS) inside the EDC's JSON structure. The template can use wildcards to choose EDC content and to show EDC non-related translatable labels.
- **Accreditations:** The accreditation templates support the detailed documentation of quality assurance and licensing. Accreditation

records created here can be linked to organisations (created under the Organisations tab) or qualifications (created under the Achievements tab).

Credential templates

Use the tabs below to build multilingual reusable templates for credentials, activities, assessments, etc. When your template is ready, click on the **Issue** icon to enter student data, and grades if applicable. If you need clarification on what any field requires, scroll over the black ⓘ icon next to the label. This tool is still in preview – some of the dropdown lists may not yet be selectable.

The screenshot shows the 'Credential templates' interface. At the top, there are tabs for 'Credentials' and 'Elements'. The 'Elements' dropdown menu is open, listing various categories: Achievements, Learning Outcomes, Activities, Assessments, Organisations, Entitlements, HTML information, and Accreditations. Below the dropdown, there is a search bar and a table. The table has columns for 'LANGUAGE', 'ISSUE', and 'EDIT'. The first row in the table is 'Plan Development' with 'EN' in the 'LANGUAGE' column. A 'New Credential Template' button is located in the top right corner. At the bottom right, it says 'Showing 1 of 1 items'.

After filling in the required data in the above- listed elements, the issuer can use them to assemble the credential. After the credential is assembled, the first step, **„Prepare“**, is finished, and the issuer can press **„Issue“**. This takes them to the next step in the process, **„Customise“**.

In this step, the issuer needs to select the data that will be included in the credential. There are five different data groups: **Personal Data, Credential Data, Achievement Data, Activity Data and Assessment Data**. Each group includes an extensive list of data to choose from and allows each credential to be customised according to the needs of the issuer and the learner.

Select recipient Data

Select the properties which are different for every recipient. If you have already entered the data on the previous screen, and the same applies to all recipients, do not select the fields here.

You can enter the recipient data in the browser, or download an Excel template to fill in the customisable data.

Enter recipient Data in Browser >

Download Excel Template >

Once you have completed the Excel template, upload it here:

Back

This step also includes filling in the **Recipient Data**. The recipient data can be filled in through the browser or by downloading and filling out an Excel template and then uploading it back to the platform. By doing this, another step is done, and the issuer can go on to the next one, „**Seal**“.

This step includes the review of the digital credential. The issuer is advised to check the accuracy of the created credentials by previewing them. Once sealed, the credentials cannot be modified, hence the importance of this step.

In order to be able to do the sealing of the credential, it is fundamental for issuers to buy a certified e-seal through the [EU/EEA Trusted List browser](#), where organisations can select the “qualified certificate for electronic seal” and “certificate for electronic seal” in the filters of the browser and then choose the national preferred provider.

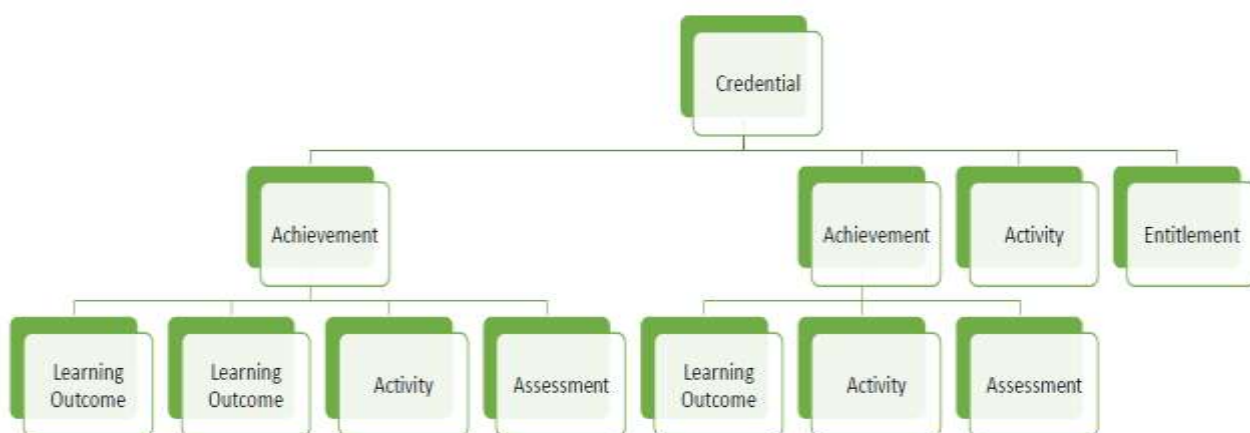
Our project team, in the framework of IQ-DigitS, has developed eight short [video tutorials](#) in which all details on how training providers can use the EDCI system are detailed.

3.3 Implementing digital certification systems compatible with Europass

EDCs are standardised tamperproof electronic documents describing that their owner has certain skills or has achieved certain learning outcomes through formal, non-formal, or informal learning contexts.



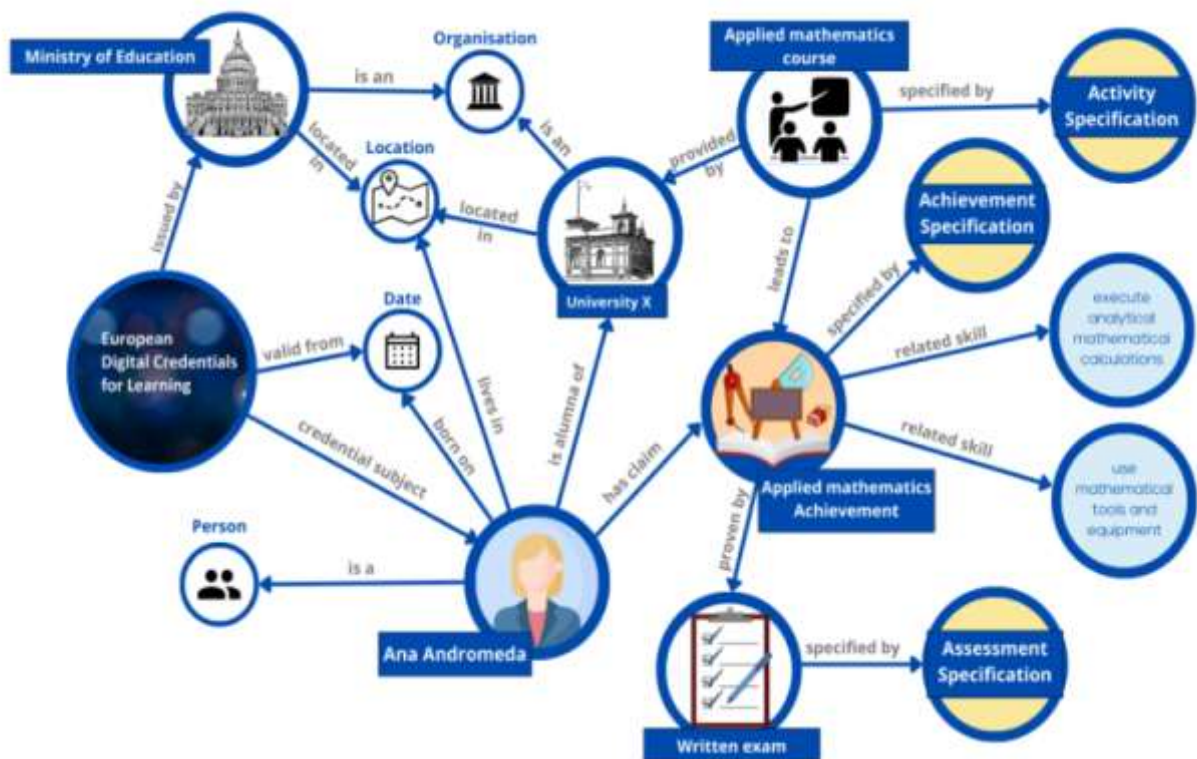
The digital certificates that can be issued within the European EDCI system for digital certification are structured as presented in the image below:



The systems allow for providing a lot of details, descriptions, and data for each credential. EDCI has a complex structure but offers high flexibility, with many non-obligatory fields that can allow the entrance of programs from HEI to non-formal courses. Such flexibility can be taken as a huge advantage of the EDCI, but at the same time, it can confuse the training providers about the quantity of data that should be entered and their compliance with the required structure. The main recommendation is that the EDC builders should be understood in a creative way. If some of its fields do not apply to some of the credentials, the issuers can decide not to add them, particularly if they are not obligatory. However, credential issuers should always keep in mind that the presentation of more details about their courses will contribute to the transparency and value of their certificates.

One of the main benefits of the system is that it can be used completely free by any training provider, and in comparison, with other digital badges, it has the huge advantage that each provider guarantees its validity with an electronic seal.

Reference: <https://europa.eu/europass/es/node/2128>



The European Digital Credential Infrastructure (EDCI) proved to be of great value and had high potential to be useful for training providers, including those from the VET and AE sectors. The tool can support organisations to standardise digital credentials across Europe, easing the transferability of qualifications and the recognition of learning.

Still, many organisations, particularly those in the sector of our interest, are still afraid of this new change, even though many have indicated a growing interest in micro-credentials and the future use of the European Digital Credentials Infrastructure in their daily work. Yet, they need guidance and specific training on the system to avoid misinformation and technical bugs.

In this context, it is crucial for all digital education professionals and interested training providers to be aware that they can take advantage of the online clinics and mentorship programs offered by the European Commission, where they can receive free expert support on several topics, including micro-credentials and the EDCI. The online clinics and

mentorship sessions are available only to registered members of the Digital Education Hub. More information can be found [here](#). Furthermore, for any information or requests, organisations can contact EMPL-ELMSUPPORT@ec.europa.eu, and for further technical information, visit [GitHub](#).

In June 2023, two project managers working on the IQ-DigitS project had the opportunity to join one of these clinics, and the assigned expert was Ildiko Mazar.

This clinic was very beneficial to the project purpose, as it allowed project partners to validate the methodology and their approach to the EDCI and its builders.

It was remarked that the whole purpose of the tool is to support the documentation of any form of learning, including non-formal and informal learning, thus proving the flexibility of the digital infrastructure, which is fully adaptable to the VET/AE's needs.

One of the main doubts encountered throughout the project was to fully understand the definition of "*small learning volume of learning*," as it is a very subjective concept: it could be either a 4-hourcourse or a 225-hour course. During the online clinic organised in June, the expert remarked that it is up to the certifying body to choose what it is worth to be certified. The EDCI platform allows you to be flexible, and it gives organisations the possibility to certify as much as they want and as much as it is meaningful.

When it comes to the creation of micro-credentials on the EDCI, the awarding body is asked to decide whether to create a single digital credential for the whole course (composed of several units) they are delivering, multiple micro-credentials for each unit, or even credentials for each and every unit of the different modules. Again, it was suggested that it is the very organisation that should reflect on the possible value the credential might have and the value for the credential's recipient. Will the individual units or modules have significant enough value to be used independently, or would it be too cumbersome for a person to present several different and separated credentials when you could stack all of them together through the system? Indeed, through the builders, the

system allows the issuer to create activities and then link them with sub-activities.

The issuers should always bear in mind that the builders in the platform can be understood and interpreted in a creative way, and much of the requested information is not mandatory. Organisations should bear in mind that it is up to them to choose whether to “enrich” the information, if it is meaningful and valuable. So, the information should not be forced into the system, and the same applies to specific builders, such as entitlements or assessments, which are non-compulsory elements.

By applying a different approach to documenting what a learner knows/learns, it is possible to exploit the system at its best. In the end, it is up to the organisation releasing the micro-credentials to choose how to structure the data about competences, knowledge, skills, etc. in the builders on EDCI, and it is the organisation that, by putting its e-seal on the document, takes full responsibility for claiming the information on the credential and could be held accountable if they declare false information. This is the crucial difference and major advantage of European Digital Credentials for Learning compared to LinkedIn endorsements or open badges, where there is no strict legal responsibility involved.

4 Practical example: Digi TRAILS training course

4.1 General information for the course

Since the system of micro-credentials still faces many challenges, like a lack of trust and transparency and a lack of skills and competences related to the creation and issuing of digital credentials, one of the project's aims is to share our experiences and provide guidance to other VET/AE providers in using this tool.

In this regard, the IQ-DigitS project partners decided to provide practical guidance and knowledge to VET/AE providers wishing to use this tool by sharing a practical example of how to adapt a training course into the

micro-credential context, with a special focus on the EDCI builders and needed information.

For this purpose, we have selected a training program called DigiTRAILS, funded by the Umbrian region (see Annex 2). The regional training program was adapted to the micro-credential framework to fit the structure of the EDCI platform. Each credential, in order to be issued via the EDCI platform, has to be structured according to the previously elaborated elements of the system.

The course “**DigiTRAILS : DIGITAL TOURISM FOR ACCESSIBILITY AND SUSTAINABILITY**” is aimed at adult professionals in the tourism sector that aim to upskill themselves and for those who want to approach an all-round digital training.

The overall objective is to encourage change in the tourism sector in favour of accessible and sustainable tourism, strengthening the digital skills of tour operators.

The curriculum is divided into 4 macro learning units:

| N. | Title | Hours |
|----|---|-------|
| 1 | <i>The role of digital innovation in communicating and promoting the territory to foster sustainable and accessible tourism</i> | 50 |
| 2 | <i>The management of incoming flows and the booking system to ensure continuity and diversification of supply in the territory</i> | 50 |
| 3 | <i>The use of immersive environments in AR and VR to diversify, enrich, and make the regional tourism offer accessible</i> | 50 |
| 4 | <i>The development of 'experiential tourism' and accessible initiatives through the use of creative management of geographical Open Data and geo-localized data</i> | 50 |

Each learning unit in this framework can be considered a micro-credential. For the purpose of presenting one practical example, we will focus on developing a single micro-credential using the first unit of the curriculum, “***The role of digital innovation in communicating and promoting the territory to foster sustainable and accessible tourism.***”.

The calculated workload for this first unit and micro-credential is 50 hours. Upon completion of the training identified by this first unit, the participants will be able to independently apply digital methods and tools to facilitate the communication and sharing of information, initiatives and content and to design innovative paths and products to promote accessibility and sustainability of tourism in the regional territory.

The chosen evaluation mode for this training course is through closed-ended questionnaires, and after the successful completion of the course, participants will receive a certificate of attendance.

Our first unit ***“The role of digital innovation in communicating and promoting the territory to foster sustainable and accessible tourism”*** is divided into two main learning activities:

| No. | Title of the Learning activities | General learning outcomes | Duration (hours) |
|-----------------------|---|---|------------------|
| 1 | <i>Digital communication for tourism and the promotion of the territory in an effective, accessible, and sustainable way</i> | <i>Understand and apply the possibilities offered by digital tools to communicate in an effective, accessible, and sustainable way through initiatives related to the promotion of the territory in the different areas of tourism intervention</i> | 30 |
| 2 | <i>Design thinking of digital marketing services for tourism and personalization of incoming and the design of innovative trails and products</i> | <i>Apply design thinking digital marketing services for the personalization of incoming and the design of pathways and innovative products</i> | 20 |
| Total duration | | | 50 |

Learning activity 1

| | |
|---|---|
| Learning activity 1 | <i>Digital communication for tourism and the promotion of the territory in an effective, accessible, and sustainable way</i> |
| General learning outcome | <i>Understand and apply the possibilities offered by digital tools to communicate in an effective, accessible, and sustainable way through initiatives related to the promotion of the territory in the different areas of tourism intervention</i> |
| Expected detailed learning outcomes (to be added in the description) | <i>Be able to understand the landscape of opportunities offered by the digital tools to meet the different needs related to the promotion of the territory and tourism initiatives, determine modes of use and appropriateness with respect to their needs, and have a systemic vision of your own target market</i> |
| Knowledge | <ul style="list-style-type: none"> - Basic principles of communication and web-Marketing applied to tourism - Innovative communication strategies and communication plan <ul style="list-style-type: none"> - Social-media management - Content-marketing - Tools for territory communication: digital story-telling, still-life photography, and photo editing |
| Skills/Competencies | <ul style="list-style-type: none"> - Identify and enhance specific market segments - Enhancing the territory and cultural, natural, and scenic heritage <ul style="list-style-type: none"> - Targeting and building customer/user loyalty - Independently use and plan innovative methodologies for communication <ul style="list-style-type: none"> - Use the investigative tools of marketing - Reduce business risk on a rational and technical basis - Translate business objectives into a marketing strategy |

Learning activity 2

| | |
|---|--|
| Learning activity 2 | <i>Design thinking of digital marketing services for tourism and personalization of incoming and the design of innovative trails and products</i> |
| General learning outcome | <i>Apply design thinking to digital marketing services for the personalization of incoming and the design of pathways and innovative products</i> |
| Expected detailed learning outcomes (to be added in the description) | <i>Be able to design services responsive to the needs of the target market, relying on digital tools of cooperation and development of creativity; be able to independently apply and choose design thinking methodologies, supported by such tools, in the sphere of tourism supply and promotion of products, services, and territory.</i> |

| | |
|----------------------------|---|
| Knowledge | <ul style="list-style-type: none"> - Design thinking applied to tourism web-marketing - Brand-identity creation and management - Use of online collaborative platforms - Use of specific and appropriate canvas |
| Skills/Competencies | <ul style="list-style-type: none"> - Conceive and manage independent project planning based on the methodology of design thinking - Apply the tools and knowledge learned in terms of accessibility and sustainability of products and services - Network products and services to promote the potential of the area |

Detailed description of Learning activity 1

Title: Digital communication for tourism and the promotion of the territory in an effective, accessible, and sustainable way

Training objective

The objective of learning activity No. 1 is related to the acquisition by participants of a shortlist of skills related to the communication and promotion of tourism products and the territory through innovative digital methodologies and tools. In particular, the course will focus on best practices to be applied to make communication not only effective but also accessible, inclusive, and sustainable.

In this sense, the participant, at the end of the training course, will be able to put into practice the acquired knowledge and thus:

- identify target market segments
- structure an effective communication plan, for the engagement and retention of customers
- communicate the tourism product and territory through digital methodologies and tools (digital storytelling; still-life photography; photo editing)
- put into practice web-marketing tools.

Structure

| Content and progression of activities | Duration (hours) |
|--|------------------|
| <i>Analyse market segments and put in place loyalty strategies</i> | 5 |
| <i>Use digital tools and social media for territory marketing</i> | 5 |
| <i>Apply content marketing to the tourism sector</i> | 5 |
| <i>Structure the communication plan</i> | 5 |
| <i>Digital Storytelling as a methodology for telling the story of the territory and the tourist experience</i> | 5 |
| <i>Digital still-life photography and photo-editing for tourism product promotion</i> | 5 |
| Total duration | 30 |

Detailed description of Learning activity 2

Title: Design thinking of digital marketing services for tourism and personalization of incoming and innovative trails and products

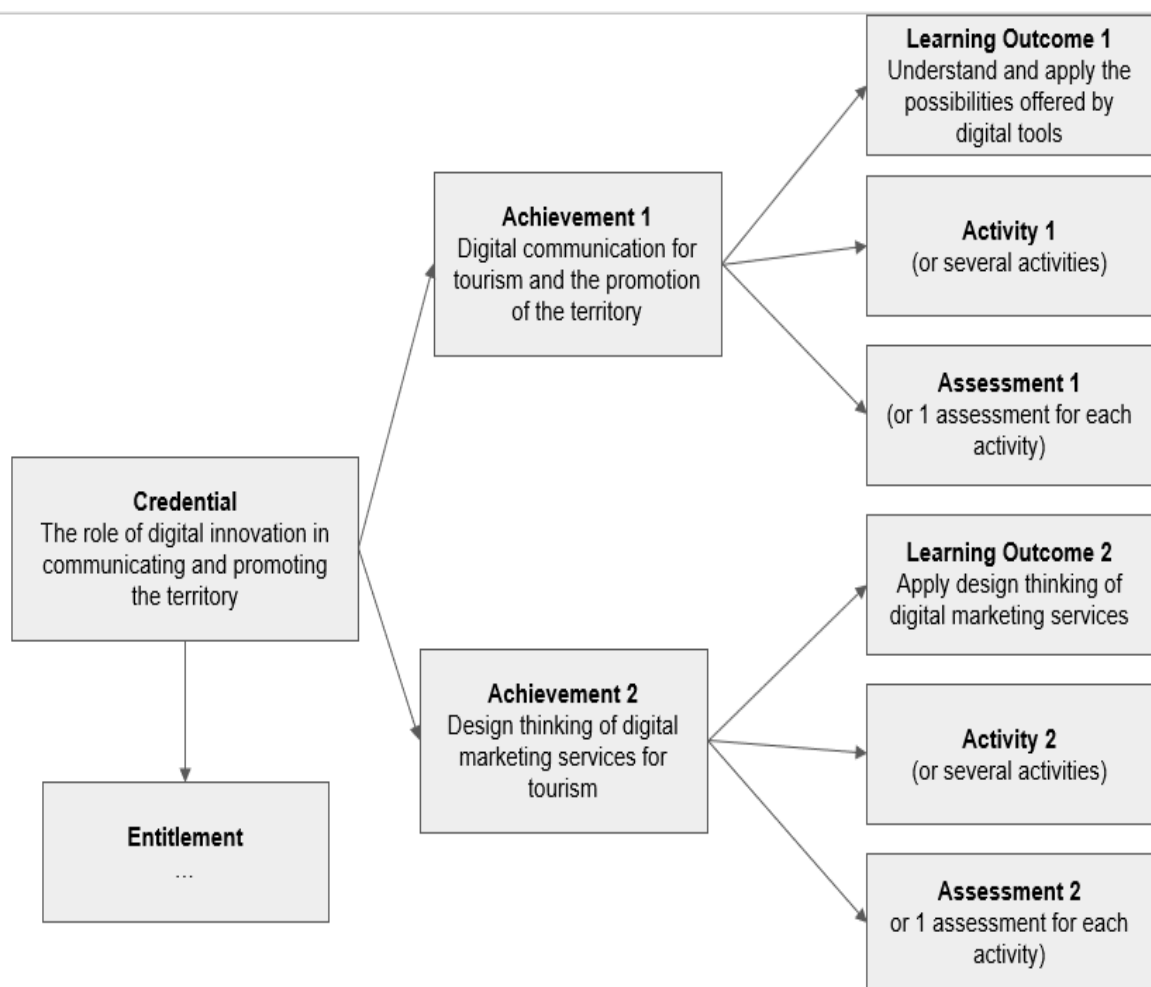
Training objective

The objective of learning activity No. 2 is related to the participants' acquisition of knowledge and skills related to the creativity and design of tourism routes and products, with particular focus on the planning of accessible, inclusive, and sustainable actions. Thanks to the Design Thinking approach, digital tools and skills offer the possibility of creating innovative products by networking resources and ideas.

Structure

| Content and progression of activities | Duration (hours) |
|---|------------------|
| <i>Design thinking applied to tourism marketing and promotion</i> | 5 |
| <i>Digital tools for design thinking and co-design (collaborative platforms, canvas, and vision canvas)</i> | 5 |
| <i>Brand identity creation</i> | 5 |
| <i>Designing experiential, accessible, and sustainable tourism products</i> | 5 |
| Total duration | 20 |

The general structure of the course can be graphically presented as shown on the slide below:



4.2 Credential builder

On the Europass Digital Credentials Infrastructure, the tab called „**Credentials**“ is where the issuer assembles and issues the credentials. Before proceeding with creating the first template, the issuer needs to make sure that they have provided details of the issuing organisation under the Organisations tab. Also, if the issuer wishes to include the learner's achievements, activities, or other aspects, they first need to enter them there under the corresponding tab in the „**Elements**“ section

since references to these entries will be needed once they start building the credential.

europass European Union

europass Learn in Europe Work in Europe About Europass Contact us Andrea Maksimović Logout

European Digital Credentials for Learning > Credential Builder

1 Prepare 2 Customise 3 Seal 4 Send

Credential templates

Use the tabs below to build multilingual reusable templates for credentials, activities, assessments, etc. When your template is ready, click on the **Issue** icon to enter student data, and grades if applicable. If you need clarification on what any field requires, scroll over the black ⓘ icon next to the label. This tool is still in preview – some of the dropdown lists may not yet be selectable.

Credentials Elements

Credentials

This tab is where you assemble and issue your credentials. Before you proceed to creating your first template, please make sure to provide details of the issuing organisation under the Organisations tab. If you wish to describe a learner's achievements, activities, or other relevant aspects, please enter these under the respective tabs. You will need to provide references to these entries when you build your credential.

[New Credential Template](#)

Filter by Search

| DATE | TITLE | LANGUAGE | ISSUE | EDIT |
|------------|--|----------|-------|------|
| 08/01/2024 | The Role of Digital Innovation in Communicating and Promoting the Area to Foster Sustainable and Accessible Tourism - DigITRAILS | EN | ▶ | ⋮ |
| 13/12/2023 | Business Plan Development | EN | ▶ | ⋮ |

Showing 1 - 2 of 2 items

Upon clicking on the „**New Credential Template**“ a new page will open with a credential form to be filled with information. The form includes five sections: **Credential Information, Further Details, Accreditation, Claims, and More Information.**

In the first section, **Credential Information**, the issuer is obligated to write the **Credential Title**, and they can also, if they wish, add a **Description** of the credential. The Description represents a summary of a claim, or a group of claims, made about a person. It is recommended

that it starts with a verb. For example: „has achieved“, „is entitled to“, or „has attended“.

The next section consists of **Further Details**. It includes the **Valid from** field, in which the issuer needs to write the date from which the credential is considered valid. There is also a non-obligatory field called **Expiration date**, which can be filled in if there is a date when the credential will no longer be considered valid. An example of this would be the license, which expired and needs to be renewed after a certain time period. The Further Details section also includes another obligatory field called **Credential Type**. It is a drop-down menu with three options: Accredited, Generic, Diploma supplement.

Following this, another section of the Credential builder is called **Accreditation**. In this non-obligatory field, the issuer can enter the accreditation identifier. If the credential is verified as an accredited qualification, an additional check must be performed in order to determine whether the awarding body is authorised to issue the qualification? (check against the EDCI Accreditation database). The check can pass or fail, depending on whether the awarding body and qualification are found in the accreditation database.

The following section is obligatory, and it is called Claims. It consists of fields called **Achievements, Activities, Entitlements, and Assessments**. In order to link an existing element into this section, it needs to be created previously. There is also a possibility to create new elements and link them to the template. For all the aforementioned fields, the issuer can use as many values as they need.

The last section is **More Information**, and in it, the issuer can add HTML information if they wish to personalise the credential. Here, they can choose and apply an existing template. To be able to do this, the HTML templates need to be previously created under the „Custom HTML Template“ tab. There is also the possibility to press the „create new“ button and create it right away. Another field in this section is the Identifiers. They are unique codes that are used for the purpose of identification and tracking.

As it emerged from the online survey we distributed (see Chapter 2: IQ-DigitS survey), the majority of respondents claimed they lacked practical guidance when it comes to the micro-credential framework and its adaptability to the very sector.

To this aim, the IQ-DigitS partners decided to provide concrete and practical examples of how to fill in the builders in the EDCI, taking the first unit, *“The Role of Digital Innovation in Communicating and Promoting the Area to Foster Sustainable and Accessible Tourism”*, of the training programme “DigiTRAILS” as an example.

Credential Information

Credential Title: *The Role of Digital Innovation in Communicating and Promoting the Area to Foster Sustainable and Accessible Tourism*

Description: has been successfully completed

Credential Information

Credential Title*

The Role of Digital Innovation in Communicating and Pr...

Description ⓘ

has succesfully completed

Further details

Valid from: 26/11/2023 00:00

Expiration date: n/a

Credential Type: Generic

Further details

Valid from ⁱ*

26/11/2023 00:00



Expiration date ⁱ

dd/mm/yyyy hh:mm



Credential Type*

Generic



Accreditation:

n/a

Accreditation

Start typing the id of linked accreditation

Click [here](#) to find out more about how to obtain and use your accreditation identifier. Please note that currently this is an experimental feature.

Claims:

Achievements: *Has successfully completed The Role of Digital Innovation in Communicating and Promoting the Area to Foster Sustainable and Accessible Tourism training program*

Activities: *Design thinking of digital marketing services for tourism and personalization of incoming and innovative trails and products; Digital communication for tourism and the promotion of the territory in an effective, accessible, and sustainable way*

Entitlements: *Qualified to independently apply digital methods and tools to facilitate the communication and sharing of information, initiatives, and content, and to design innovative paths and products to promote accessibility and sustainability of tourism in the regional territory*

Assessments: *Closed-ended questionnaires*

Claims *

Achievements 1

Start typing the title of linked achievement

Create new

Successful completion of the program The role of digital innovation in communicating and promoting the area to foster sustainable and accessible tourism

Activities 1

Start typing the title of linked activity

Create new

Design thinking of digital marketing services for tourism and personalization of incoming and the design of innovative trails and products - DigiTRAILS

Digital communication for tourism and the promotion of the territory in an effective, accessible and sustainable way - DigiTRAILS

Entitlements 1

Start typing the title of linked entitlement

Create new

Qualified to independently apply digital methods and tools to facilitate the communication and sharing of information, initiatives, content and to design innovative paths and products to promote accessibility and sustainability of tourism in the regional territory.

Assessments 1

Start typing the title of linked assessment

Create new

Closed-ended questionnaires

[More information:](#)

HTML information: n/a

Identifiers: n/a

Tag: n/a

4.3 Achievement builder

A **learning achievement** refers to successfully gaining one or more specific learning outcomes. The issuer can outline these using the EDCI builders, along with associated achievements, activities, or entitlements, by selecting the corresponding tabs. Within the achievement form, you'll receive prompts to create connections to these components.

After creating other elements such as Learning Outcomes, Activities, Assessments, and Entitlements (if applicable), the issuer should choose the Achievement builder on the Credential builder website. After doing this, the next step is to click on the button "Create New Achievement".

The builder consists of several parts, such as Achievement information, Further Details, Links to other elements, Qualification and Other information.

On the **Achievement information** part, the issuer should write a meaningful Achievement title and choose the right awarding organisation. Awarding date can be selected if known. Furthermore, a short description of that achievement should be provided. Afterwards, the issuer can choose all **Learning outcomes** that are part of this Achievement, and, additionally, can create new ones by clicking on the button "Create new". The list of corresponding learning outcomes will be shown below.

Achievement information

Achievement title*

Awarded by 1*

 Create new

bit schulungcenter GmbH

Awarding date 1

Description

The course "DigiTRAILS - DIGITAL TOURISM FOR ACCESSIBILITY AND SUSTAINABILITY" is aimed at adult professionals in the tourism sector that aim to upskill themselves, and for those who want to approach an all-round digital training.
The overall objective is to encourage change in the tourism sector in favour of an accessible and sustainable tourism.

Learning Outcomes 1

 Create new

DigiTRAILS LO2.1_Design Thinking: Apply design thinking of digital marketing services for the perso...

DigiTRAILS LO1.2_Needs: Understand and apply the possibilities offered by digital tools to meet the different needs related to the promotion of the territory and tourism initiatives

DigiTRAILS LO1.3_Modes: Understand the landscape of opportunities offered by the digital tools to determine modes of use and appropriateness with respect to their needs

In the **Further Details** section, the issuer can type in or choose several optional information, e.g., *Thematic Area*, the *Teaching Languages*, the *Mode of Learning*, the *Volume of Learning*, the *duration* of the learning opportunity, and the Credit system, if applicable. Issuers can also choose *Target groups* from a list and the *Learning Setting* (formal or non-formal).

Further details

Thematic Area i

1015 - Travel, tourism and leisure ×

Language(s)

English ×

Mode of Learning i

Presential ×

Type

+ Add

Volume of learning i

Maximum duration in months i

Credit system i

+ Add

Target group i

Persons with 0-3 years work experience ×

Persons with 3-10 years work experience ×

Persons with 10+ years work experience ×

Learning Setting i

In the section **Links to other elements**, the issues can optionally choose the *Assessments*, the *Related Activities*, the *Rights earned* and *Sub-Achievements*. In the case of the DigiTRAILS -achievements, we have entered one Activity.

Links to other elements

Assessed via ?

Create new

Related activities ?

Create new

Digital communication for tourism and the promotion of the territory in an effective, accessible and sustainable way ✕

Rights earned ?

Create new

Sub-Achievements ?

Create new

In the **Qualification** section, there is an option to select the European and / or National Qualification Framework levels, if applicable. Since the DigiTRAILS curriculum is a transnational and regional qualification, we have chosen an EQF level.

Qualification

EQF level ?

NQF ?

Partial qualification ?

In the last section, **More information**, the title from the first section has already been included automatically. All other fields are optional. There, issuers can specify the level and the education subject, add some

information about the national system, and give some general information. Also, a homepage and other documents can be added.

4.4 Learning outcomes

A **learning outcome** is a declaration of what a learner is knowledgeable about, comprehends, and can perform after finishing a learning activity. These outcomes are specified in the areas of knowledge and abilities, as well as responsibility and independence. Additionally, learning outcomes may correspond to knowledge and abilities outlined in standardised frameworks.







On the Learning Outcome builder, issuers can see the list of all learning outcomes that have been created. If they need another one, they can click on the button *“Create New Learning Outcome”*.

Learning Outcomes

A Learning Outcome is a statement regarding what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and responsibility and autonomy. Learning outcomes can also relate to knowledge and skills described in standardised classifications, such as ESCO

Create New Learning Outcome

Filter by 

| DATE ↕ | TITLE ↕ | LANGUAGE | EDIT |
|------------|--|----------|---|
| 29/12/2023 | DigiTRAILS LO2_1_Design Thinking: Apply design thinking of digital marketing services for the personalization of incoming and the design of pathways and innovative products | EN |  |
| 29/12/2023 | DigiTRAILS LO1_3_Modes: Understand the landscape of opportunities offered by the digital tools to determine modes of use and appropriateness with respect to their needs | EN |  |
| 29/12/2023 | DigiTRAILS LO1_2_Needs: Understand and apply the possibilities offered by digital tools to meet the different needs related to the promotion of the territory and tourism initiatives | EN |  |
| 29/12/2023 | DigiTRAILS LO1_1_Communication: Understand and apply the possibilities offered by digital tools to communicate in an effective, accessible and sustainable way initiatives related to the promotion of the territory | EN |  |
| 29/12/2023 | DigiTRAILS LO2_2_Services: Design services responsive to the needs of the target market, relying on digital tools of cooperation and development of creativity - DUPLICATED - DUPLICATED | EN |  |
| 29/12/2023 | DigiTRAILS LO2_3_Methodologies: Independently apply and choose design thinking methodologies, supported by such tools, in the sphere of tourism supply and promotion of products, services, territory | EN |  |

The builder is very short; issuers only need to write a meaningful Learning outcome title and give further details, such as the type (knowledge or skill) and the Reusability level (cross-sector, occupational, sector-specific or transversal skills and competences). Below, they can choose Related ESCO skills corresponding to this learning outcome and related. All fields except for the title are optional. Finally, it is important to click on the Save button to add this Learning outcome to the list and to use it with other builders.

Please find below all learning outcomes relevant to the DigiTRAILS curriculum.

Learning outcome information

Learning outcome title*

LO1.1_Communication: Understand and apply the possibilities offered by digital tools to communicate in an effective, acc...

Further details

Type

skill

Reusability Level **i**

transversal skills and competences

Related ESCO Skills

Start typing...

communicate with target community **x**

Related skills **i**

Framework URI

URI

Name

+ Add

Learning outcome information

Learning outcome title*

LO1.2_Needs: Understand and apply the possibilities offered by digital tools to meet the different needs related to the pr...

Further details

Type

skill

Reusability Level **i**

transversal skills and competences

Related ESCO Skills

Start typing...

identify clients' needs **x**

identify customer's needs **x**

Related skills **i**

Framework URI

URI

Name

+ Add

Learning outcome information

Learning outcome title*

LO1.3_Modes: Understand the landscape of opportunities offered by the digital tools to determine modes of use and app...

Further details

Type

skill

Reusability Level ?

transversal skills and competences

Related ESCO Skills

Start typing...

Related skills ?

Framework URI

URI

Name

+ Add

Learning outcome information

Learning outcome title*

LO1.4_Vision: Understand the landscape of opportunities offered by the digital tools to have a systemic vision of your ow...

Further details

Type

skill

Reusability Level ?

transversal skills and competences

Related ESCO Skills

Start typing...

market analysis

customer segmentation

Related skills ?

Framework URI

URI

Name

+ Add

Learning outcome information

Learning outcome title*

LO2.1_Design Thinking: Apply design thinking of digital marketing services for the personalization of incoming and the d...

Further details

Type

skill

Reusability Level ⁱ

transversal skills and competences

Related ESCO Skills

Start typing...

think creatively

develop strategy to solve problems

Related skills ⁱ

Framework URI

URI

Name

+ Add

Learning outcome information

Learning outcome title*

LO2.1_Services: Design services responsive to the needs of the target market, relying on digital tools of cooperation and...

Further details

Type

skill

Reusability Level ⁱ

transversal skills and competences

Related ESCO Skills

provide community development services

Related skills ⁱ

Framework URI

URI

Name

+ Add

Learning outcome information

Learning outcome title*

LO2.1_Services: Design services responsive to the needs of the target market, relying on digital tools of cooperation and...

Further details

Type

skill

Reusability Level **i**

transversal skills and competences

Related ESCO Skills

Start typing...

think creatively

Related skills **i**

Framework URI

URI

Name

+ Add

Learning outcome information

Learning outcome title*

LO2.3_Methodologies: Independently apply and choose design thinking methodologies, supported by such tools, in the s...

Further details

Type

skill

Reusability Level **i**

transversal skills and competences

Related ESCO Skills

Start typing...

think creatively

develop strategy to solve problems

Related skills **i**

Framework URI

URI

Name

+ Add

4.5 Activity builder

A **learning activity** is a process which that to the acquisition of knowledge, skills or responsibility and autonomy. It can be described in terms of a distinct start and end date, a specific location, and workload. The Activity builder consists of four sections: *Activities*, *Further Details*, *Links to other elements*, and *More Information*.

Activities

A Learning Activity is a process which leads to the acquisition of knowledge, skills or responsibility and autonomy. It can be described in terms of a distinct start and end date, a specific location and workload.

Create New Activity

Filter by

Search



| DATE # | TITLE # | LANGUAGE | EDIT |
|------------|---|----------|------|
| 13/12/2023 | Digital communication for tourism and the promotion of the territory in an effective, accessible and sustainable way - DigITRAILS | EN | ⋮ |
| 13/12/2023 | Design thinking of digital marketing services for tourism and personalization of incoming and the design of innovative trails and products - DigITRAILS | EN | ⋮ |
| 23/11/2023 | Brand identity creation | EN | ⋮ |
| 23/11/2023 | Designing experiential, accessible and sustainable tourism products | EN | ⋮ |
| 23/11/2023 | Design Thinking applied to tourism marketing and promotion | EN | ⋮ |
| 23/11/2023 | Digital tools for design thinking and co-design (collaborative platforms; canvas and vision canvas) | EN | ⋮ |
| 23/11/2023 | Apply content marketing to the tourism sector | EN | ⋮ |

⏪ 1 2 ⏩

Items per page 7 ▼

Showing 1 - 7 of 13 items

In the **Activities section**, the issuer is obligated to enter the Activity title and can also enter the organisation that implements the activity in the field: Directed by. Another obligatory field is the Awarded by field, in which the issuer enters the body that awards the assessment claim to the individual. Finally, they can enter data into the Description field, providing further information about the activity. In order to fill in the Directed by and Awarded by fields, the Organisation data has to have been previously entered into the Organisations tab.

In the **Further Details** section, the issuer provides details related to the implementation of the activity. This includes the start date and the end

date of the activity, the **volume of learning** (estimated number of hours that the learners spend engaged in the activity, which can include the number of hours they spend in the classroom, group work, practicals, or studying on their own), **workload in hours** (actual number of hours that the learners spend engaged in the activity, which can include the number of hours they spend in the classroom, group work, practicals, or studying on their own), **level of completion in %** (the level until which the activity has been completed), **learning activity type** with a selection of choices, **mode of learning** (how the activity is delivered, e.g., online, in-person, blended learning), and the **language of the instruction**. The same section also includes the **activity that took place in** the sub-section in which the location of the activity should be entered.

The next section is **Links to Other Elements**, and in this section, the issuer can add **sub-activities** as smaller units of the main activity. The sub-activities have the same form as ordinary activities.

The final section is **More Information**. In this section, issuers are allowed to add additional details about the activity. The section includes the following fields: Title, More information, Additional Fields, Contact hours, Homepage and Other documents.

Finally, the issuer can add **tags** related to the activity.

Below, you may find how this EDCI element was created for our practical example. The selected unit / credential includes two main learning activities. Each one should be entered as an individual activity in the EDCI.

Learning activity 1

Activity title: *Digital communication for tourism and the promotion of the territory in an effective, accessible, and sustainable way*

Directed by: *Uciliste Studium – ustanova za obrazovanje odraslih*

Awarded by: *Uciliste Studium – ustanova za obrazovanje odraslih*

Description: *The purpose of the activity is to enable the understanding of the landscape of opportunities offered by digital tools to meet the different needs related to the promotion of the territory and tourism initiatives, determine modes of use and appropriateness with respect to their needs, and have a systemic vision of your own target market*

Activities

Activity title*

Directed by ⓘ

Uciliste Studium - ustanova za obrazovanje odraslih ⓘ

Awarded by ⓘ*

Uciliste Studium - ustanova za obrazovanje odraslih ⓘ

Description

The purpose of the activity is to enable the understanding of the landscape of opportunities offered by digital tools to meet the different needs related to the promotion of the territory and tourism initiatives, determine modes of use and appropriateness with respect to their needs; have a systemic vision of your own target market.

Further details

Start date: 13/11/2023 08:00

End date: 20/11/2023 15:00

Volume of learning: 30

Workload in hours: 30

Level of completion in %: 100%

Learning activity type: educational programme

Mode of learning: Presential

Language(s) of instruction: English

Further details

Start date ?

13/11/2023 08:00



End date ?

20/11/2023 15:00



Volume of learning ?

30

Workload in hours ?

30

Level of completion in % ?

100

Learning activity type

educational programme



Mode of learning ?

Presential



Language(s) of instruction ?

Start typing...



English



Activity took place at

Description: AEI Studium

Address: Ivana Gorana Kovačića 3, Vukovar

Location: Vukovar-Syrmia County

Country: Croatia

Activity took place at ?

[+ Add another address](#)

Description

AEI Studium

Address

Ivana Gorana Kovačića 3, Vukovar

Location

Vukovar-Syrmia county



Country

Croatia



Links to other elements

Sub-activities:

Structure the communication plan

Digital still-life photography and photo editing for tourism product promotion

Analyse market segments and put in place loyalty strategies

Use digital tools and social media for Territory Marketing

Digital Storytelling as a methodology for telling the story of the territory and the tourist experience

Apply content marketing to the tourism sector

Links to other elements

Sub-activities !

Create new

- Structure the communication plan ×
- Digital still-life photography and photo-editing for tourism product promotion ×
- Analyse market segments and put in place loyalty strategies ×
- Use digital tools and social media for Territory Marketing ×
- Digital Storytelling as a methodology for telling the story of the territory and the tourist experience ×
- Apply content marketing to the tourism sector ×

More Information

Title: n/a

More Information: n/a

Additional fields: n/a

Contact hours: n/a

Homepage: n/a

Other documents: n/a

Tag: DigiTRAILS

More Information

Title*

-

More Information

Additional fields ⓘ

| | | |
|--------|----------|---------|
| Topic: | Content: | ⊞ |
| Topic: | Content: | ⊞ Add ⊞ |

Contact hours ⓘ

Provide a whole number

Homepage ⓘ

Please provide a publicly accessible URL

Other documents ⓘ

| | | |
|-------|--|-------|
| Title | Please provide a publicly accessible URL | ⊞ Add |
|-------|--|-------|

Tag ⓘ DigiTRAILS

Cancel Save

Learning activity 2

Activities

Activity title: *Design thinking of digital marketing services for tourism and personalization of incoming and innovative trails and products*

Directed by: *Uciliste Studium – ustanova za obrazovanje odraslih*

Awarded by: *Uciliste Studium – ustanova za obrazovanje odraslih*

Description: *The purpose of this activity is to be able to design services responsive to the needs of the target market, relying on digital tools of cooperation and developing creativity; be able to independently apply and choose design thinking methodologies, supported by such tools, in the sphere of tourism supply and promotion of products, services, and territory.*

Further details

Start date: 21/11/2023, 08:00

End date: 24/11/2023 15:00

Volume of learning: 20

Workload in hours: 20

Level of completion in %: 100%

Learning activity type: classroom coursework

Mode of learning: Presential

Language(s) of instruction: English

Activity took place at

Description: AEI Studium

Address: Ivana Gorana Kovačića 3, Vukovar

Location: Vukovar-Syrmia County

Country: Croatia

Links to other elements

Sub-activities:

Digital tools for design thinking and co-design (collaborative platforms, canvas, and vision canvas)

Design Thinking applied to tourism marketing and promotion

Design experiential, accessible, and sustainable tourism products

Brand identity creation

More Information

Title: n/a

More Information: n/a

Additional fields: n/a

Contact hours: n/a

Homepage: n/a

Other documents: n/a

Tag: DigiTRAILS

4.6 Assessment

The **assessment** is one of the key elements of the online Credential builder under the EDCI platform and proves the acquisition of the learning outcomes from which the achievement is built.

Each achievement under the credential earned has to be assessed by some means, and within the assessment element, all details regarding this process should be provided.

Similar to other elements of the EDCI system, the assessment element is structured in four sections:

- *Assessment information,*
- *Further Details,*
- *Links to other elements,*
- *Grading Scheme,*
- *More information.*

The first section, Assessment information, contains information about: *Assessment title, conducting organisation, awarding organisation and description.* Only assessment titles and awarding organisations are mandatory fields.

The section further details fields for: date of assessment, verification of learner's identity, mode of assessment, such as use of exams, projects, essays, and language on which the assessment is performed and evaluated. None of these fields are mandatory.

The assessment can be stackable and built of smaller parts called sub-assessments if needed. It is not compulsory to provide sub-assessments.

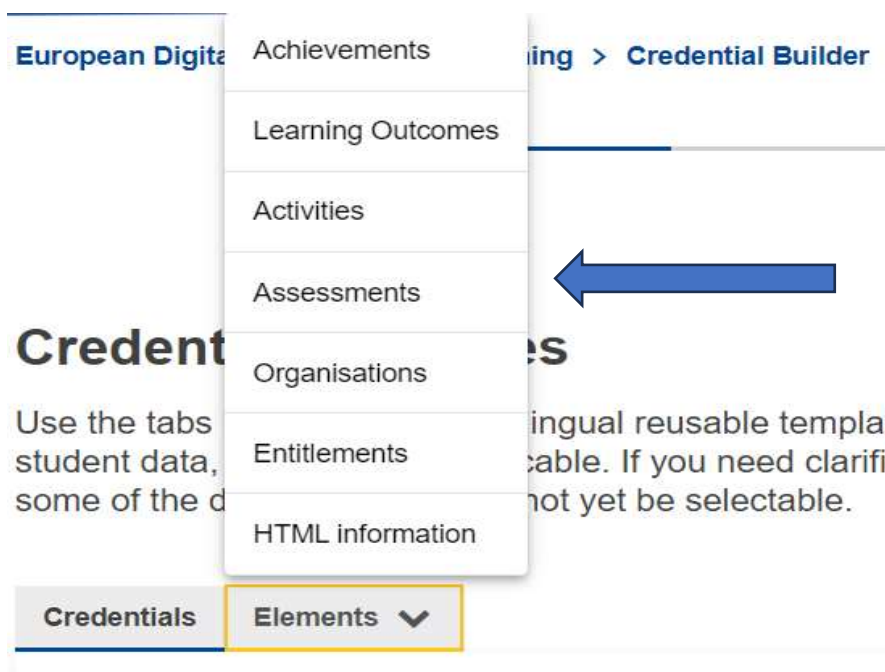
The grading scheme contains information about: title of the grading scheme, its identifier, description, and other documents, if applicable. All fields from in section are not mandatory.

The last section is aimed at providing more information about the assessment, such as homepage, location, and other assessment details, if needed.

The chosen evaluation mode for our practical example is closed-ended questionnaires.


4.7 Organisation builder

For each credential issued in the EDCI system, an organisation holds full responsibility for the credibility of the data entered behind its credential. The main data for the organisations involved in the creation and/or issuing of the credentials should be entered at the organisation builder. This section is one of the key elements of the EDCI Credential builder.



Organisational data can be entered in any of the Europass languages:

Create organisation

Please provide details about the learning activities using the data fields below. Hover over the  icon to see what the expected data/information is.

The screenshot shows the 'Create organisation' form. At the top left, there is a language selector set to 'EN'. On the right side, there is a vertical list of languages: English, български, česká, dansk, Deutsch, eesti keel, ελληνικά, English, español, français, Gaeilge, hrvatski, italiano, latviešu valoda, and lietuvių kalba. The form itself is titled 'Organization information' and contains several input fields: 'Legal name', 'Common name', and 'Homepage'. Below these is a 'Logo' section with an 'Upload Image' button. At the bottom, there are notes about the maximum file size (1 MB) and accepted file formats (JPEG, JPG, PNG). A 'Further Details' link is visible at the very bottom.

Organisation builder is structured in three main sections: *Organisation information, Further Details, and More information.*

The first section contains: *Legal name of the organisation, Common name, Homepage and its Logo,* and only the Legal name field is mandatory.

Organization information

| | |
|---------------------------|--------------------------|
| Legal name ⁱ * | Common name ⁱ |
| <input type="text"/> | <input type="text"/> |

Homepage ⁱ

Please provide a publicly accessible URL

Logo ⁱ

[Upload Image](#)

Maximum file size: 1 MB

Accepted file formats: .JPEG, .JPG, .PNG

The second section, *Further details*, provides further information for the organisation:

- Mandatory legal identifier, implies the official identification number of the organisation awarded by the relevant national authority. As indicated, this field is mandatory,
- eIDAS ID – unique electronic identification number for EU organisations,
- VAT Number - unique identification VAT number,
- Tax/ fiscal ID - unique identification number assigned to organisation for tax and financial purposes, and
- Other identifiers- for other identification numbers assigned to the organisation.

In the third section, more information about the organisations can be entered, such as Legal address (mandatory), and Contact information, Membership in professional groups and/or networks, and More (additional) information if needed.

In our specific case with the practical example of the DigiTRAILS course, all participating organisations in the IQ-DigitS project have parallelly worked on the development of this credential, and all organisations have independently, while creating the credential, entered their own data under the Organisation builder. In this direction, all mandatory fields, such as the legal name of the organisation and legal identifier, were entered.

4.8 Entitlement builder

An **entitlement** describes a right, for example, to *practice a profession, take advantage of a learning opportunity, or join an organisation*. Entitlements may be limited to a specific jurisdiction, and for this, always remember that this builder is a **non-compulsory element**, and you do not have to force it if you are not eligible.

Once the Entitlement builder has been created, the first piece of information the issuer is asked to provide is the “title” and the “Awarding body”, together with the “issuing and expiring date” of the entitlement, as shown below:

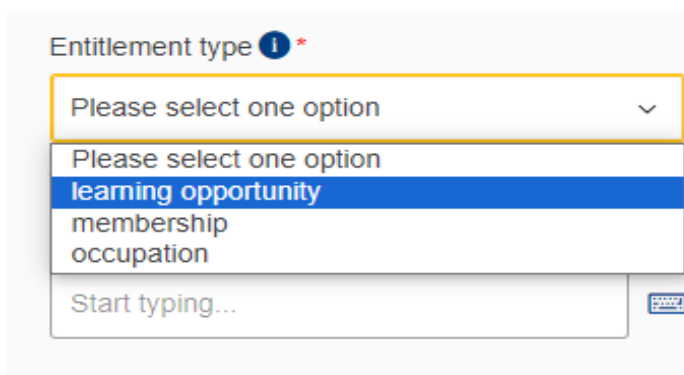
Create Entitlement

Please provide details about the learning entitlement using the data fields below. Hover over the ⓘ icon to see what the expected data/information is.

The screenshot shows a web form for creating an entitlement. At the top left is a language selector 'EN' and at the top right is 'English'. The main section is titled 'Entitlement information'. It contains a text field for 'Customised title' with the value 'Professional spelling'. Below it is a dropdown menu for 'Awarded by' with 'ECQA' selected and a 'Create new' button. A dropdown menu is open below 'Awarded by', showing 'ECQA Srl' as an option. Below this is a 'Further Details' section with several fields: 'Issue Date' (calendar icon), 'Expiry Date' (calendar icon), 'Entitlement type' (dropdown menu), 'Status' (dropdown menu), 'Related ESCO occupation' (calendar icon), and 'Entitlement to work as' (calendar icon). There is also an 'Add' button next to the 'Entitlement to work as' field.

Even though it is not mandatory, you can also add details in the “Description”, detailing what the credential entitles you to do.

When it comes to the *type of credential* being issued, the entitlement type is divided into three options:



The image shows a web form field labeled "Entitlement type" with an information icon and a red asterisk. The dropdown menu is open, showing three options: "learning opportunity" (highlighted in blue), "membership", and "occupation". Below the dropdown is a search input field with the placeholder text "Start typing..." and a keyboard icon.

To be more concrete and practical, you can see this distinction below:

- **Learning opportunity type:** for example, the bachelor’s degree entitles and allows you to enrol in the master’s degree, or the completion of one module gives you the right to enter the following module. The learning opportunity type could also be linked with the recognition of learning credits;
- **Membership:** You are entitled to enter a specific law bar to practice in a specific court;
- **Occupation entitlement type:** The micro-credential entitles and allows you to practice a specific occupation. Moving to the VET/AE sectors, the micro-credential could also give the worker the chance to reskill or upskill their knowledge in a specific field.

In our specific example, the training course “**DigiTRAILS - DIGITAL TOURISM FOR ACCESSIBILITY AND SUSTAINABILITY**” is aimed at adult professionals in the tourism sector that aim to upskill themselves and for those who want to approach an all-round digital training.

The overall objective is to encourage change in the tourism sector in favour of accessible and sustainable tourism, strengthening the digital skills of tour operators.

In relation to the Entitlement builder above, then, the most applicable type to be selected is the third, the occupation type.

The screenshot shows a form element labeled 'Status' with an information icon and a red asterisk. A dropdown menu is open, displaying the text 'Please select one option' at the top, followed by two options: 'actual' and 'prospective'. Below the dropdown is a text input field containing the placeholder text 'Start typing...' and an 'Add' button with a plus sign icon.

When it comes to status, an entitlement may be *prospective*, i.e., allowing the credential holder to apply for higher-level educational programmes (e.g., *Masters after the completion of a bachelor degree or Module 2 after the completion of Module 1*), or *actual*, i.e., the credential holder having earned the right to practice an occupation (nurse or engineer).

Finally, for VET/AE providers offering non-formal courses, another practical example of an entitlement could be as follows:

| EXAMPLE | | |
|-------------------------|--|-------------------------|
| <i>Title</i> | Requalification of experts working in the tourism sector | Access to Module/Unit 2 |
| <i>Entitlement type</i> | Occupation | Learning opportunity |
| <i>Status</i> | Actual | Prospective |

5 Recommendation for further improvements (tips and tricks from lessons learned)

Recommendations for training providers based on the IQ-Digits model

Training providers looking to better integrate initiatives for micro-credentials and digital certification via Europass into their work can consider the following recommendations:

How to develop training programs

1. Develop education programs **in accordance with labour market demands**: non-formal programs need to be developed on the basis of the 21st century competencies and needs of the labour market, but also the needs of the individual in contemporary society (it is recommended to use analyses with experts and field workers, but also analysis tools such as the SWAT model, GROW model, and others).
2. Develop clear quality standards: The mentioned flexibility of the non-formal programs, on the other hand, may cause distrust of the qualifications acquired this way and even a lack of quality in such programs.
3. Proscribe a **standardised format with obligatory sections**: It is recommended for the programs to include objectives, learning materials, activities, evaluation, and follow-up. The content of the program should be based on learning objectives and focused on the skills.
4. **Develop competencies according to the needs of the learners**: Also, the mentioned follow-up means that programs need to be evaluated and improved depending on the issues detected.
5. Implement a methodology based on **modular learning micro competency system** based on sets of learning outcomes in order to be in accordance with EU policies and strategies: Programs also need to be developed on the basis of contemporary pedagogy and andragogy in order to suit the needs of the learners involved in the program and facilitate a high-quality learning process.

6. **Clearly state on each Certification the competencies acquired** by the learners. The qualifications attained through non-formal education programs should also contain obligatory elements.
7. Adjust the methodology to use on the international level: **The programs should correspond to the Europass documents.**

How to implement a micro-credential approach

1. **Develop modular curricula based on micro-credentials:** Design courses and programs in modular formats, where each module corresponds to a micro-credential. This approach allows learners to accumulate and stack credentials over time, providing flexibility in their learning paths.
2. **Implement quality assurance measures:** Integrate quality assurance processes in line with established frameworks like EQAVET. Regularly review and update the curriculum and assessment methods to maintain high standards of education and training.
3. **Promote transparency and trust:** Clearly define each micro-credential, including learning outcomes, assessment criteria, and relevance to specific job roles or further education pathways. Transparent information helps build trust and recognition among employers, learners, and other educational institutions.
4. **Utilise digital platforms for credential issuance and verification:** Leverage platforms like Europass to issue digital credentials. Ensure that these credentials are easily accessible, verifiable, and secure, enhancing their validity and acceptance.
5. **Facilitate lifelong learning pathways:** Design micro-credentials to support lifelong learning, allowing individuals to upskill or reskill as needed throughout their careers. Offer guidance on how these micro-credentials can lead to further education or career advancement.
6. **Encourage stackability and portability:** Design micro-credentials that can be stacked towards higher qualifications or transferred across different learning contexts. This approach increases the value and utility of micro-credentials for learners.

7. **Engage with stakeholders:** Collaborate with employers, industry experts, and other educational institutions to ensure that the micro-credentials are relevant and meet current and future skill needs. This engagement can also facilitate better recognition and acceptance of credentials in the job market.
8. **Provide support and guidance for learners:** Offer guidance to learners on how to use Europass and other digital platforms to manage their credentials. Assist them in understanding how to leverage these micro-credentials for career development or further education.

How to use the European Digital Credential Infrastructure (EDCI) under the Europass platform

1. **Familiarise yourself with Europass and the Digital Credentials Infrastructure:** Understand how Europass and the European Digital Credentials Infrastructure (EDCI) work. Training providers should explore how these platforms can be used to issue, store, and share digital certificates and micro-credentials.
2. **Embrace flexibility:** Understand that while the EDCI has a complex structure, it offers high flexibility in many non-obligatory fields. This flexibility allows for the inclusion of programs ranging from Higher Education Institutions (HEIs) to non-formal courses with only few hours of training. View this flexibility as an advantage, but be mindful of potential confusion regarding the quantity of data required and its compliance with the platform's structure.
3. **Be creative with EDC builders:** Interpret the EDC builders in a creative manner. If certain fields within the builders do not apply to a particular credential, issuers have the discretion not to include them, especially if they are non-obligatory.
4. **Prioritise transparency and value:** While not all fields may be obligatory, consider providing as much relevant detail as possible about your courses. Transparency in credential descriptions contributes to the credibility and value of the certificates issued.

5. **Utilise the platform's free accessibility:** Take advantage of the fact that the EDCI platform can be used entirely free of charge by any training provider.
6. **Value the reliability and credibility of the system:** The EDCI, apart from other digital badge systems, ensures that each provider can guarantee the validity of their credentials with an electronic seal. EDCI is designed to provide security, data privacy, and trust.

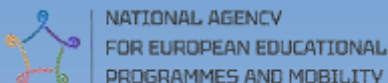
These recommendations contribute to the effective integration of micro-credential initiatives, especially within the framework of the European Digital Credential Infrastructure (EDCI) under Europass. They support training providers in enhancing their education and certification processes, improving the quality and relevance of their programs, and better meeting the needs of their learners and workforce.

6 Annexes

- [Survey questionnaire](#)
- [DigiTRAILS training program](#)



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member of bit group



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IQ-DigitS – Project Result 4

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