

# The Guidelines for HE Institutions to Implement Transparent Assessment of Learning Outcomes for Online and Blended Learning Leading to Digital Micro-credentials

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## Contents

<b>THE AIM OF THE DOCUMENT</b>	<b>2</b>
<b>DEFINITIONS</b>	<b>2</b>
<b>Institutional guidelines</b>	<b>4</b>
1. STRATEGIC DECISIONS IN IDENTIFYING AND SELECTING DIGITAL INFRASTRUCTURE(S) FOR MICRO-CREDENTIALIZATION	5
2. SETTING TRANSPARENT INTERNAL PROCEDURES	6
4. THE MODEL OF DIGITAL CREDENTIAL METADATA TEMPLATE	8
5. PREPARATION OF A VIRTUAL LEARNING ENVIRONMENT	9
6. NEW REQUIREMENTS FOR LEARNING OPPORTUNITY DESCRIPTIONS	10
<b>REFERENCES</b>	<b>12</b>

## **The aim of the document**

Higher education (HE) institutions need to prepare, following the model of Digitally Competent Organisations, to integrate micro-credentialing innovation as part of a transparent assessment strategy for online learning into institutional regulations. The document aims to provide guidance for higher education institutions in planning and implementing transparent assessment of learning outcomes and issuing digital micro-credentials.

## **Target group users**

The recommendations may be used by the management, the IT department, academic and nonacademic staff of higher education institutions, who plan and implement assessment of learning outcomes and issuance of digital micro-credentials. This result is targeted at administration, study departments and teachers in HE institutions, but not limited to it, as it will be a new example for HE institutions from outside the scope of the consortium, as well as for education policy and decision-makers. The success of introducing Micro-Credentials depends on University openness which, we believe, is a pre-condition for introducing Micro-Credentials. We understand university openness as:

- the change in teacher's attitude towards openness;
- sharing and use of online learning content created by others;
- the new modes of teaching and learning.

## **Definitions**

This document refers to micro-credentials as indicated in EU Council Recommendations on a European approach to micro-credentials for lifelong learning and employability (2022) as “the record of the learning outcomes that a learner has acquired following a small volume of learning. These learning outcomes will have been assessed against transparent and clearly defined criteria. Learning experiences leading to micro-credentials are designed to provide the learner with specific knowledge, skills and competencies that respond to societal, personal, cultural or labour market needs. Micro-credentials are owned by the learner, can be shared, and are portable. They may be stand-alone or combined into larger credentials. They are underpinned by quality assurance following agreed standards in the relevant sector or area of activity.” It is also important to note that there are **mandatory** and

**optional** elements of micro-credentials that may be referred to while planning their design and issuing procedures. (see Annex 1 and Annex 2 of EU Council Recommendations, 2022)

## **Abbreviations and terms used in the document**

**CPD** - Continuing Professional Development

**Guidelines** - institutional guidelines to prepare for open online learning assessment and recognition with micro-credentials

**Micro-credential** is the record of the learning outcomes that a learner has acquired following a small volume of learning (which itself also can be referred to be a Micro-credential)

**Digital micro-credential** is the digital Micro-credential certificate to which this document always refers

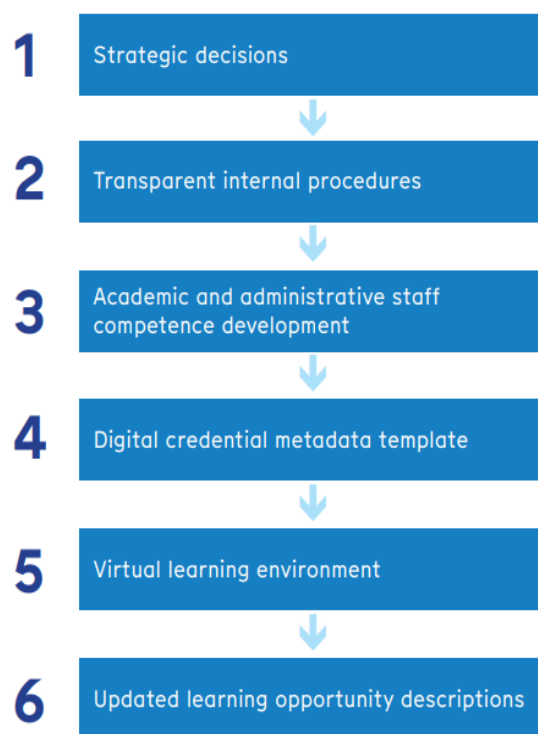
**HE institutions** - higher education institutions.

## Institutional guidelines

Institutional preparedness to offer digital micro-credentials for online and blended learning will be introduced step-by-step, explaining how micro-credentialing affects the following areas of institutional activities (Figure 1):

**Figure 1**

*Institutional preparedness areas, discussed in the Guidelines*



## **2. 1. Strategic Decisions in Identifying and Selecting Digital Infrastructure(s) for Micro-Credentialization**

HE institutions should choose which digital infrastructure(s) is/are the most appropriate and match HE institution and stakeholder needs for issuing micro-credentials:

1.1 EU Council refers to Europass Digital Credential Infrastructure (EDCI). The EDCI provides a secure, trustworthy and fraud-resistant system that ensures data privacy and data protection. It is constantly developed and uses common European education terminology of qualifications and types of certifications, competencies and skills. It may be used for issuing and validating digital certificates with metadata.

1.2 HE institutions may consider additional digital infrastructures (e.g. European University Alliances' digital infrastructures or alternatives) to facilitate micro-credential issuing and recognition procedures.

1.3 HE institutions need to decide which stakeholders are involved in the process of designing and issuing micro-credentials.

1.4. While choosing the digital infrastructure for micro-credentialing, HE institutions should consider the following aspects:

- the ownership of the digital infrastructure and the stakeholders already involved;
- sustainability of the digital infrastructure;
- infrastructure alignment with the institution's learning management system and other IT systems, its user-friendliness, links to professional social media and value to the labour market;
- Implementation of Open Education processes and resources and access
- joining conditions (contractual, technical, other);
- the costs related to technical, legal, human resources and other preparations;
- the ownership of micro-credentials and metadata;
- privacy and other related issues.

### **3. 2. Setting transparent internal procedures**

HE Institutions need to prepare and describe the entire process of issuing digital micro-credentials:

2.1 Each institution is unique, and thus the internal procedures may differ. However, while planning to issue the micro-credentials each institution should prepare its own internal procedure describing the whole process and all participants involved in this process, including the responsibilities of different departments. The process description should include (but not be limited to):

- consideration of the main digital micro-credential data-generating infrastructure on the level of the HE institution,
- the responsibilities of the departments involved in the maintenance of the digital infrastructure, generating digital metadata for the micro-credentials at the HE institution,
- the participants involved in each phase of digital and micro-credential preparation and issuing,
- the link and registration of formal and non-formal study programs to the EU digital infrastructure registration and public registry of learning opportunities at HE institutional public websites,
- the registry of micro-credentials prepared for issuing and the ones that are already issued,
- the procedure of registration of formal and non-formal programs in the EU digital infrastructure and their link with the university's formal and non-formal programs,
- certificate or e-seal maintenance and use, ensuring data origin and integrity,,
- the requirements for the formal and non-formal program committees - how information on micro-credentialing needs to be included in the program description, etc.

2.2 The procedures should also describe the responsibilities of the university staff and management in relation to the process of micro-credential issuing, including (but not limited to):

- university management and staff responsibilities regarding the use of e-Seal or certificates,

- program coordinators (faculties or departments managing programs that lead to micro-credentials) responsibilities regarding the registration of the programs and courses at the European (or other) digital infrastructure,
- IT department responsibilities regarding data managing, privacy and other issues, interoperability of the HE institution information systems and data export and interoperability with the EU digital infrastructure,
- online learning platform support unit responsibilities related to digital micro-credential metadata generation from the online platform and credential export and interoperability with the EU infrastructure,
- Cost calculation for producing and issuing Micro-credentials, as well as for eventual pricing regarding learners (e.g. in Life Long Learning programmes)
- academic and non-academic staff Continuing Professional Development (CPD) unit, study departments (or any other unit responsible for learning outcome recognition and /or quality assurance), and other (such as international relations, career centre, etc.) responsibilities related to staff training and digital competence development,
- student union and career departments' responsibilities related to student training and their lifelong learning careers.

### **3. Staff development for institutional readiness**

Depending on internal procedures, institutions need to have academic and non-academic staff competence descriptions for the development and issuing of micro-credentials:

3.1. Non-academic staff competencies and functions need to be defined and clearly communicated to the staff working with digital micro-credential development and issuing.

3.2. Academic staff competencies and functions have to be defined and clearly communicated to them so that they know their responsibilities and decision-making opportunities that they have and can develop micro-credentials in their courses and programs.

3.3. Due to constant developments and updates in EU and HE institutional digital infrastructures, academic and non-academic staff should receive updates and training offers on digital micro-credential development and issues, including user guides and individual consultations.

3.4. Students and other stakeholders should be regularly invited to discuss the potential of the digital credentials and micro-credentials and to provide feedback and proposals for the improvement of the micro-credentialing process and digital tools used in the process.

3.5. HE institution departments involved in the process of micro-credential development and issuing should have regular training and updates on EU digital infrastructure and national and EU regulations related to digital and micro-credentials.

*Note that clearly defined quality assurance procedures and standards could increase trust among all stakeholders. The role of stakeholders, when open online learning recognition is in focus, is of high importance, as strong networks with a variety of stakeholders contribute to easier solutions when it comes to questions of openness, transparency, trust, and digital credentialing.*

#### **4. 4. The Model of Digital Credential Metadata Template**

HE Institutions need to consider which data, mandatory and optional elements of the digital micro-credential are included in and exported with the micro-credentials they issue.

4.1 Institutions need to decide on which data is included in the micro-credential exported to the EU digital infrastructure from online learning environments and other information systems at the institutional level. It is significantly important that the metadata provided with the digital micro-credential is in line with the mandatory elements, indicated by the EU Council recommendations (2022). Revision of the optional elements is also recommended during the decision process, as micro-credentials should be sufficiently informative to be recognized by learners as well as by institutions and employers.

4.2 The decisions need to include information on the process description, namely, how and by whose decision the necessary micro-credential elements reach the selected infrastructure:

- the elements of the micro-credential that need validation and confirmation by the teacher (available at and exportable from an online learning environment),
- the elements of the micro-credential that need validation and confirmation by the program committee (available at and exportable from open learning opportunity description and online learning environment),
- the elements of the micro-credential that need validation and confirmation by the study or academic department (information systems and other registry),

- the elements of the micro-credential that need confirmation by the management of HE institution (available at and exportable from information systems or other registries).

4.3 The design of micro-credentials may correspond to the institutional design, but should match the formatting requirements of the chosen EU or other digital infrastructure.

4.4. The issued digital micro-credential format and design may be reviewed and modified collaboratively by the EU digital infrastructure and the HE institution responsible.

## **5. 5. Preparation of a Virtual Learning Environment**

HE Institutions need to adapt their virtual learning environments, so the metadata that is attached to the micro-credential represents the mandatory elements at least.

5.1 Micro-credentials may be issued exporting digital metadata files from the online learning environment if the online learning environment itself and the courses are prepared for this process (by the administrator and the teacher of the course). The data generated in the environment is objective and reflects the learning process, assessment process and learning achievements of the student. This data is validated by the teacher of the course. If such data is generated in the online learning environment and is exported to the micro-credential, it saves time and ensures objectivity and transparency.

5.2 The following mandatory and optional elements of the digital micro-credential are generated as data and can be exported from the online learning environment:

- Course title;
- Issuing institution and the faculty or department;
- Teacher's name;
- Scope of learning in ECTS;
- The volume of learning in academic hours;
- Estimated duration;
- Language of the course;
- Competencies and learning outcomes;
- Mode of learning/study;
- Form of learning/study;
- Grade(s)
- Credentials that are issued
- Place of issue

*Please note that some digital infrastructures for micro-credentialing might have mandatory and optional data fields, therefore the HE institution may revise which fields are optional and decide what is included in the micro-credential.*

5.3 Learner authentication and administration. To provide the learner with a digital learning opportunity, he/she needs to be enrolled in the platform. Usually, the universities have different procedures for this enrolment and learner authentication, the stress here is that the learner's name and other identical information which is to be visible on the digital micro-credential has to be indicated in the learner profile in a virtual learning environment.

5.4 Proper use of virtual learning environment tools in the assessment process, also linking learning activities with the learning outcomes. When the selected learning activities are designed in the virtual learning environment, the learning outcomes have to be added and linked with them. Later, when the teacher assesses the learner, learning outcomes need to be marked if reached.

5.5. For the metadata to be issued or transferred to the selected digital credential infrastructure, certain virtual learning environment plugins or certain data formats (that correspond to the selected digital credential infrastructure) need to be used.

## **6. New Requirements for Learning Opportunity Descriptions**

HE Institutions have to prepare an open online course (or another learning opportunity) description for each course (or another learning opportunity), which maintains the digital micro-credential metadata fields or are related to these:

6.1 The information about the learning opportunity may be a part of the micro-credential metadata or accompany the micro-credential as the description of the course. This information should be made available for all learners before the learning starts. The description of the learning opportunity gives learners a clear indication of what is expected of them in terms of performance, conditions, and further recognition. The following information fields are recommended for the open learning opportunity description (formal or non-formal course or program):

- Title of the course/program;
- Abstract or short description of the course/program;
- Field of studies;
- Issuing institution and the faculty or department;

- Names of the authors/teachers;
- Short bio of the teacher/author;
- Scope of learning in ECTS;
- The volume of learning in academic hours;
- Estimated duration;
- Start date/free of choice start date
- End date (in applicable)
- Target group
- Entry requirements
- Language of the course/program;
- Level of the course/program (according to NQF or EQF requirements)
- Mode of learning/study;
- Form of learning/study;
- Workload
- Keywords/tags
- Price (if applicable)
- Competencies and learning outcomes;
- Pedagogical approach and structure/ interactivity
- Main topics (content)
- Delivery type of the course/program (mentored or self-learning)
- Distribution of learning hours
- Assessment strategy and methods
- Assessed by teacher or automatic assessment
- Requirements for learner authentication and ID verification
- Credentials that will be issued
- Requirements for the credentials
- Stackability - any links with other courses/programs
- Industry (or institutional) support statements

6.2 The open learning opportunity description should match and be registered at the chosen EU digital infrastructure (e.g. Europass). All information should be in line and synchronously updated. However, the concise and in-depth descriptions may be specific to the semester or learning cycle at the HE institution. Thus, not all description elements are mandatory in EU digital infrastructure and the HE institution open learning opportunity description fields do not comply one by one.

## References

EU Council (2022) EU Council Recommendations of 16 June 2022 on a European approach to micro-credentials for lifelong learning and employability (2022/C 243/02). Official Journal of the European Union, 10-25.

“Digital Micro-Credentials in Higher Education” project results (2023).  
<https://studyonline.lt/en/digital-micro-credentials-in-higher-education/>