



# La strada per le digital credential nel panorama delle microcredential e dei digital badge

Lo scenario europeo

3 July 2024

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# Changing labour markets



**Atypical forms of work**



**More frequent professional transitions**



**Shifting employment between sectors**



**Shifting skills needs**



**Demographic changes**

# Skills shortages as a *challenge* and skilled workforce as an *enabler*



**38**  
**occupations**  
were classified  
as shortages in  
2022



**74% of**  
**SMEs** reported  
that they  
face skills  
shortages in 2023



**adult learning**  
**remains low** -  
with a participation  
rate of around  
**37%**



**over 90% of jobs** require  
digital skills, however **54%**  
**of the adult** population  
in Europe has  
**basic digital skills**

# European Pillar of Social Rights - Targets

(2021 → 2030)

At least: **78%** of the population aged 20 to 64 should be in employment by 2030  
Current level: 73.1% (2019)

**60%** of all adults should participate in training every year by 2030  
Current level: 37.4% (2016)

Reduce by **15 million**  
the number of people at risk of poverty or social exclusion by 2030  
Current level: 91 million persons (2019)



# Policy context

European Qualifications Framework

European Skills Agenda

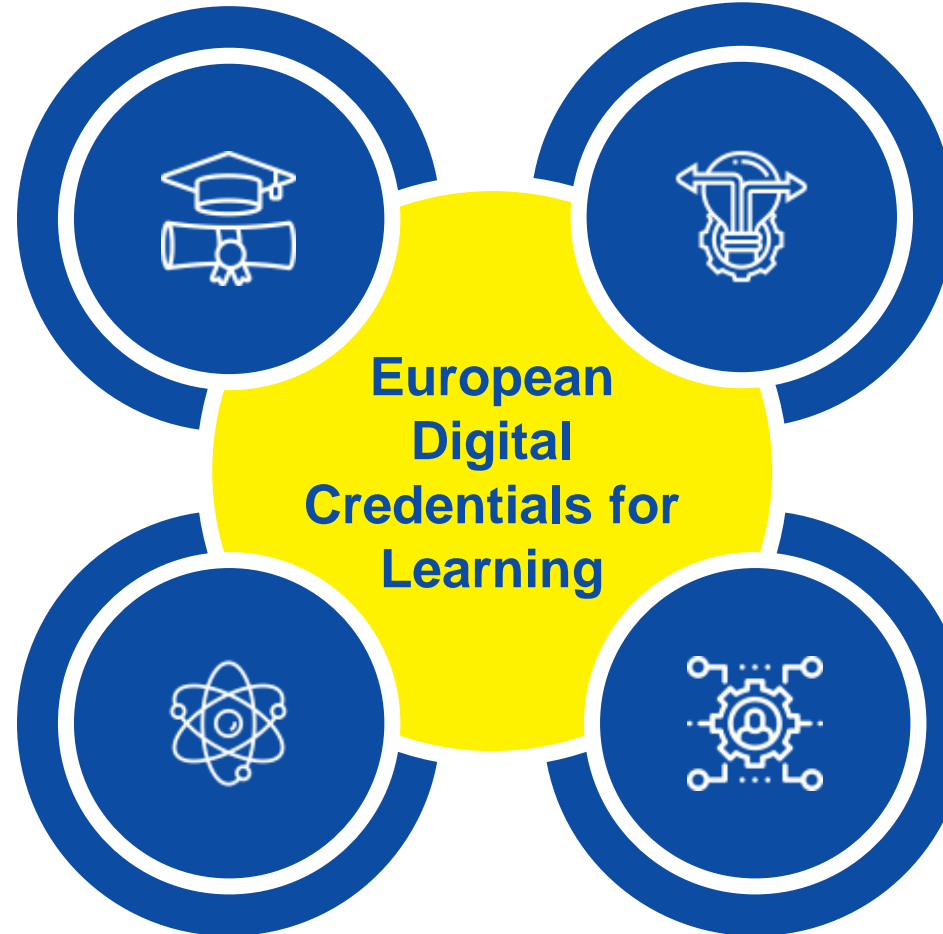
European Data Strategy

Micro-Credentials Recommendation

Individual Learning Account

Recommendation

European Pillar of Social Rights



Europass Decision

European Skills, Competences, and Occupations (ESCO)

Digital Education Action Plan

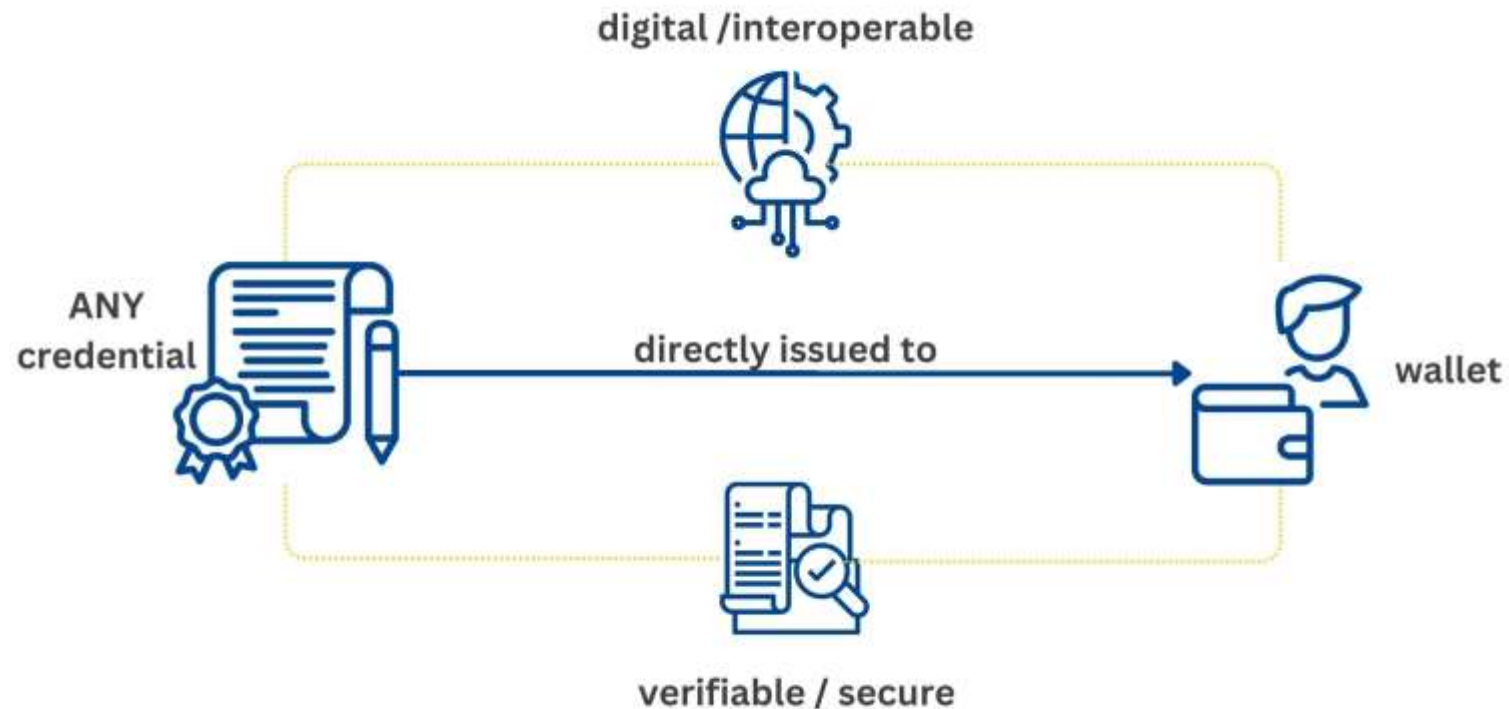
Achieving the European Education Area (2025)

Skills and Talent Mobility Package

# What is a Digital Credential?

## What is it?

*A digital presentation of our traditional learning credentials, securely received directly in one's digital wallet*





# Context of European Digital Credentials



Digitalising world



Security & Trust



Recognition



Showcasing  
Knowledge & Skills

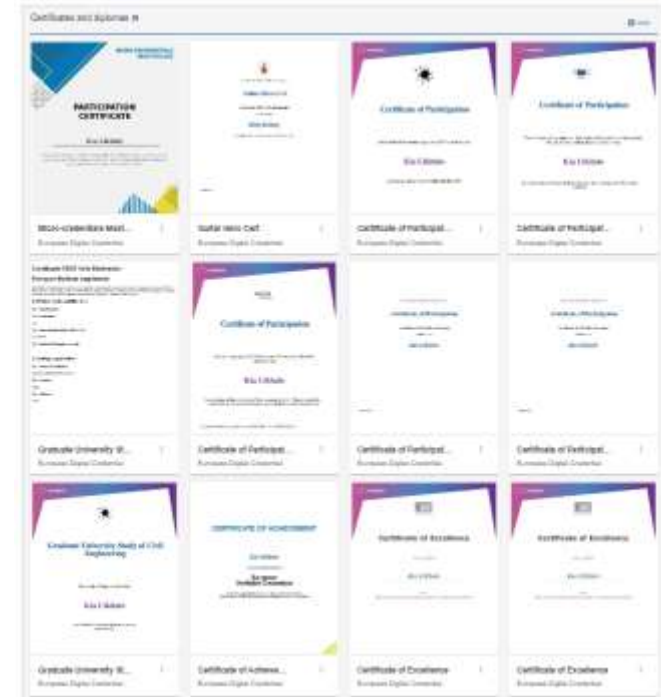


Ownership of data

# Digital Transition for Credentials



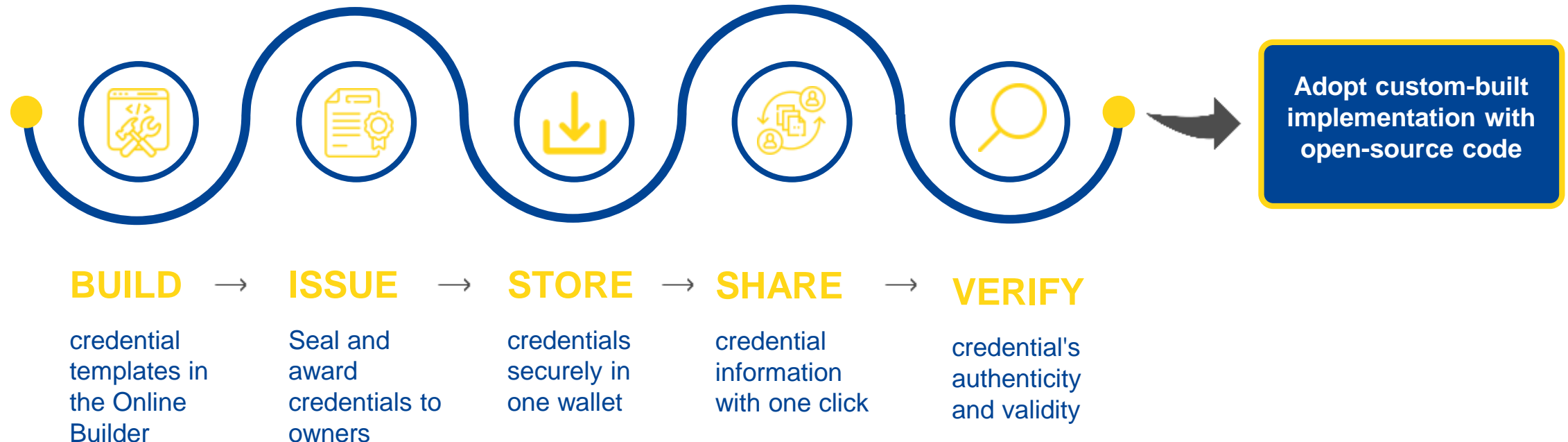
- A move beyond paper
- Adapting to market needs
- Sharing credentials online
- All your credentials in one place
- Cost & Time efficiency





# What is offered by the EDC infrastructure?

Start with web-based free tools



[For a more detailed introduction to EDC – see our last Webinar](#)

# Transparency and Portability

The screenshot displays a digital credential for 'Applied mathematics' from the Faculty of Civil Engineering. The interface is organized into several sections:

- Header:** 'Applied mathematics' in a dark blue bar.
- Course Details:** 'CivEng Faculty of Civil Engineering', 'Brussels, Slash Lane 94, 1000 Brussels, Belgium', 'Legal BE-9758613 Higher education institution Res9800', and a 'Show less' link.
- Awarding Date:** '20/09/2019' with a placeholder description: 'This is the description of the applied mathematics achievement. This is the description of the applied mathematics achievement. This is the description of the applied mathematics achievement.'
- Learning Outcomes:** Two columns of outcomes:
  - Learning Outcome 1 related to applied mathematics:** 'To formulate equations of mathematical physics for engineering problems, and to solve them analytically or with numerical methods.' Type: knowledge. Reusability Level: cross-sector skills and competences. Related ESCO Skills: 'execute analytical mathematical calculations, use mathematical tools and equipment'.
  - Learning Outcome 2 related to applied mathematics:** 'Make up detailed development plans of the performance of the reservoir. Apply mathematical models for maximum economic recovery.' Type: skill. Reusability Level: sector specific skills and competences. Related ESCO Skills: 'compile reservoir performance plans'.
- Achievement information:** A grid of metrics:
  - Volume of Learning: 60 hours
  - EQF Level: Level 5
  - NQF Level: MECU Level 5
  - ECTS Credit Points: 5
  - Learning Settings: formal learning
  - Mode of Learning: Presential
  - Thematic Area: Mathematics, Mathematics and statistics, Natural sciences, mathematics and statistics
  - Language: Spanish, English
- Learning activities:** A button for 'Applied mathematics course'.
- Entitles Owner to:** A button for 'Recognition for credit'.
- Other information:** 'Related documents' (https://ech73.otherdoc.unix.edu), 'Can be co-delivered by' (Members of the Research Alliance), and 'Recognition conditions' (Achievements acquired at any of the member universities will qualify for automatic recognition at home institution).

A blue arrow points from the 'Achievement information' section of the main interface to a larger, detailed view of the same section on the right side of the image.

487 properties describe

- Credential owner
- Organisations
- Achievements
- Activities
- Assessments
- Entitlements

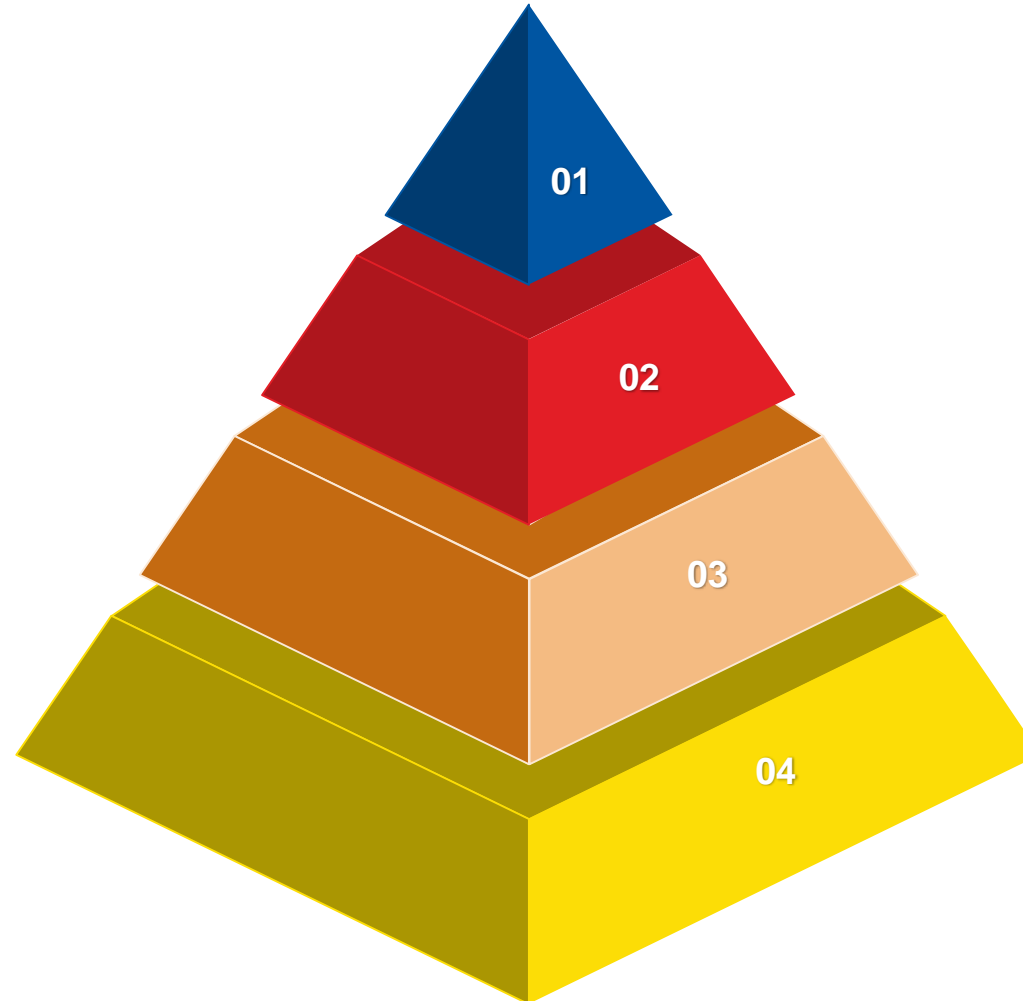
# European Learning Model

## 01 European Information Model

Definitions and Standards in EQF Recommendation, Diploma Supplement, Europass Decision, etc. supplemented by glossaries for additional terms

## 03 Application Profiles

Specific sets of rules for publishing learning opportunities, qualifications, accreditations and credentials in Europass



## 02 European Learning Model

A Linked Open Data publication of concepts to be used in educational and employment use cases throughout Europe

## 04 Extensions

National, Regional or Sectoral extensions of the data model & application profiles to deal with specific use cases

# Digital Credentials and ESCO

## European Skills, Competences, Qualifications and Occupations (ESCO)

- describing, identifying and classifying professional occupations and skills relevant for the EU labour market and education and training area
- systematically showing the relations between those occupations and skills
- ELM allows allows the cross-references

The screenshot shows a digital credential interface. At the top, it displays the title "Graduate University Study of Civil Engineering" and the validity period "Valid from: 20/05/2019 00:00 GMT+0200". Below this, there are navigation options: "Credential Preview", "Export", "Upload another credential", and a language dropdown set to "English".

The main content area is divided into two columns. The left column lists the components of the credential, including the institution "Ana Andromeda", the degree "University Grad", and the specific program "Master of Science in Civil Engineering". Below this, a list of courses is shown, such as "Applied mathematics course", "Applied mathematics Study visit", "Concrete structures I course", "Dynamics of structures and earthquake engineering course", "Geotechnical engineering course", and "Stability of structures course". At the bottom of this list are "Postgraduate doctoral study", "Civil engineer", and "Recognition for credit".

The right column, titled "Proven by", contains a table with the following data:

Title	Grade
Overall Assessment	excellent (5)

Below the table, the interface provides additional details: "Influenced by: Applied mathematics course, Applied mathematics Study visit, Concrete structures I course, Dynamics of structures and earthquake engineering course, Geotechnical engineering course, Stability of structures course"; "Entities Owner to: Postgraduate doctoral study, Civil engineer, Recognition for credit"; "Sub-Achievements: Applied mathematics, Concrete structures I, Dynamics of structures and earthquake engineering, Geotechnical engineering, Stability of structures"; "Specification: Ach-Spec-ID-Scheme identifier: AchSpecID-72"; "Learning Outcomes: LO1 related to applied mathematics"; "LOID-Scheme identifier: LOID-73a"; "Type: knowledge"; "Reusability Level: cross-sector skills and competences"; "Related ESCO Skills: use mathematical tools and equipment, execute analytical mathematical calculations, geodesy"; and "Related Skills: applied mathematics, perform engineering calculations, construct earthquake resistant structures".

# Current Status of uptake of EDC

- 14 institutions **actively** issuing EDCs
- 50+ organisations testing or exploring the use of EDCs across **25 countries**
- Ranging from VET providers, Universities, Training providers, and national implementations
- Close to **30.000** EDCs are stored in Europass wallets
- 5+ million wallets available
- Varied types of credentials: qualifications/diplomas, micro-credentials, transcript of records, certificates of participation, etc.

## Europass infosite

Presents information as described on the Europass decision and the first access point to register and use the digital tools.

## e-Portfolio

Set of online tools & information to manage every step of your learning and career.

## Jobs, Learning Opportunities, and Qualifications Search

Central database to search for courses, qualifications, accreditation throughout Europe and link with EURES

## Digital skills self-assessment test

Tool to assess and improve digital skills. Based on the Digital Competence Framework.



## Digital Credentials

Set of standards, services & software allowing institutions to issue digital, tamper-evident qualifications and other learning credentials.



# Thank you!

Contact the EDC Team at [EMPL-ELM-SUPPORT@ec.europa.eu](mailto:EMPL-ELM-SUPPORT@ec.europa.eu)