



# European Digital Credentials for Learning

ESCO v.1.2 launch event - Linking Skills and Qualifications

*Céline Jambon, Policy Officer, DG EMPL*

# Europass Components

## Europass infosite

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

## Jobs, Learning Opportunities, and Qualifications Search

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

## e-Portfolio

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

## Digital skills self-assessment test

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

## Digital Credentials

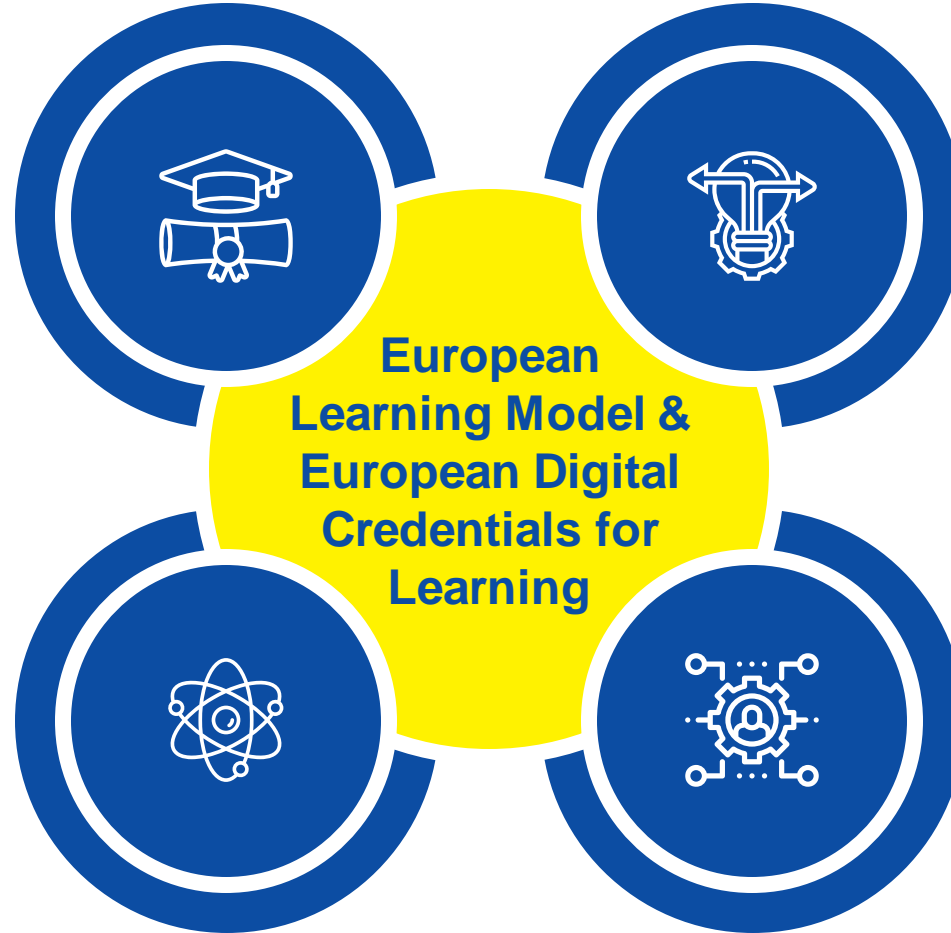
Set of standards, services & software allowing institutions to issue digital, tamper-evident qualifications and other learning credentials.



# Central to the EU's Policy Agenda

European Pillar of Social Rights

Micro-credentials and Individual Learning Accounts Recommendation



Europass Decision

EQF Recommendation

European Skills Agenda – DEAP – Education Area

European Data Strategy

Skills and Talent Mobility Package

# Why does Europe need a European Learning Model?

## OBJECTIVES

- Semantic Standards for Learning
- Standardised expression of verifiable knowledge & skills
- Multilingual (available in 29 languages)
- Remove barriers to recognition, supporting free movement
- Support accreditation, transparency & recognition
- Reduce market fragmentation

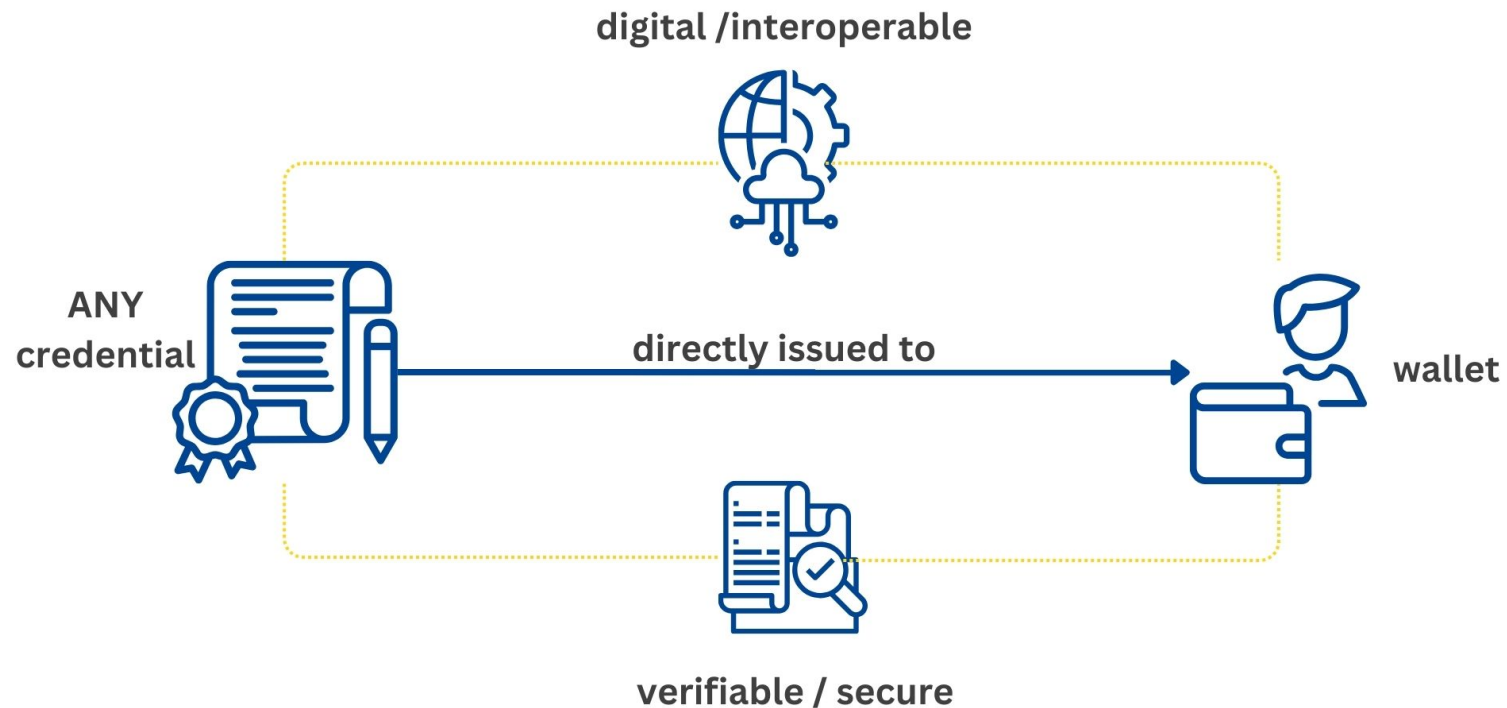
## BENEFITS

- Captures formal, non-formal & informal learning
- Addresses all levels of education and training
- Applicable to the whole course lifecycle
- Interoperable credentials
- Aligned with other European tools (SDG)
- Free & open source

# What is a Digital Credential?

## What is it?

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



# Why Do We Need Digital Credentials?



Digitalising world



Security & Trust



Recognition



Showcasing  
Knowledge & Skills

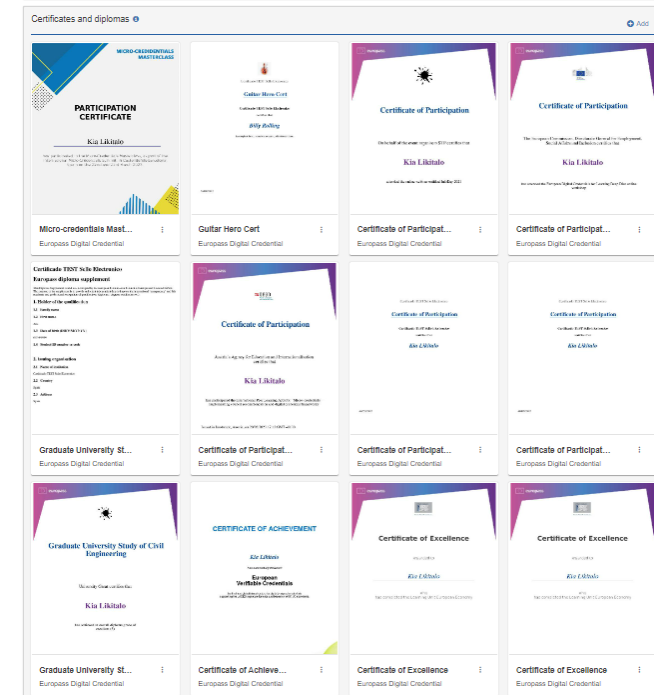


Ownership of data

# Digital Transition for Credentials



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



# Highlight Knowledge & Skills



- Data-rich credentials
- Showcase learning outcomes and skills
- Include activities, grades, achievements, entitlements...
- Navigate for further information

### Graduate University Study of Civil Engineering

Valid from: 19/09/2019 | Expiry date: 19/09/2039 | Type: Converted | Credential id: urn:credential:2c364bc-ca89-4e1b-b551-551229bdd145

Home | Export | Upload another credential | Share | English

- Kia Likitalo
- Certificado TEST Sello Electronico
- Master of Science in Civil Engineering**
- 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
- Postgraduate doctoral study
- Civil engineer
- Recognition for credit

Graduate University Study of Civil Engineering

Kia Likitalo

#### Authentication and Verification Check

- FORMAT**  
This credential is technically valid.
- SEAL**  
The credential is Sealed by Nombre Servicio Sellado TEST. This credential has not been tampered with since issue.
- REVOCATION**  
Function under development. Contact the awarding body for information about this credential's revocation status.
- ACCREDITATION**  
The credential does not contain reference to an accreditation record related to the awarding body.
- VALIDITY**  
The credential is still valid.
- VERIFIED**

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- Recognition for credit

### Master of Science in Civil Engineering

#### Faculty of Civil Engineering, Architecture and Geodesy

info@unig.hr

Legal ID: HR-12345098765 | Other Identifier: Higher education institution | Other Identifier: Res4321

Awarding Date: 19/09/2019

Description

#### Learning Outcomes

<b>LO1 related to applied mathematics</b> Type: knowledge Reusability Level: cross-sector skills and competences Related ESCO Skills: use mathematical tools and equipment, execute analytical mathematical calculations, geodesy Related Skills: applied mathematics, perform engineering calculations, construct earthquake resistant structures <a href="#">Show less</a>	<b>LO2 related to applied mathematics</b> Type: skill Reusability Level: sector specific skills and competences Related ESCO Skills: use mathematical tools and equipment, execute analytical mathematical calculations, geodesy Related Skills: applied mathematics, perform engineering calculations, construct earthquake resistant structures <a href="#">Show less</a>
<b>LO related to concrete structures I</b> <a href="#">Show more</a>	<b>LO related to dynamics of structures and earthquake engineering</b> <a href="#">Show more</a>
<b>LO related to geotechnical engineering</b> <a href="#">Show more</a>	<b>LO related to stability of structures</b> <a href="#">Show more</a>



# Supporting Validation and Recognition

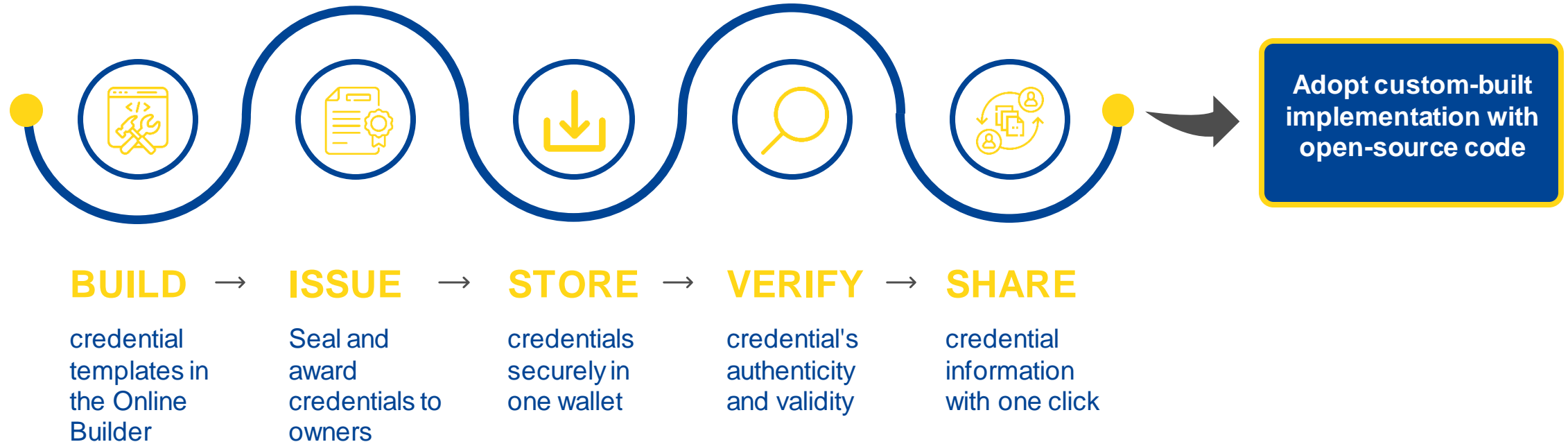


- **Focus on any learning achievements** (formal, non-formal, informal)
- **Verify the origin:** eSeals provide trust in origin
- **Structured data:** A single way of providing data. Improve the understanding of information and interoperability through the use of a single datamodel for learning related information (European Learning Model)
- **Multilingual by default:** Provide and navigate content in 29 different languages
- **Interoperability:** Aligned with existing frameworks (EQF/NQF, ISCED-F, ESCO micro-credentials recommendation, etc)
- **Accreditation:** Instantly verify whether an institution is accredited to award a certain qualification



# What is offered by the infrastructure?

Start with web-based free tools



# Transparency and Portability

Ana Andromeda

Master of Science in Civil Engineering

Postgraduate doctoral study

Overall Assessment

Applied mathematics

Concrete structures I

Recognition for credit

Postgraduate doctoral study

Civil engineer

## Applied mathematics

**CivEng**  
Faculty of Civil Engineering

Brussels, Slash Lane 94, 1000 Brussels, Belgium

Legal BE-9758613 Higher education institution Res9800

Awarding Date  
20/09/2019

This is the description of the applied mathematics achievement. This is the description of the applied mathematics achievement.

## Learning 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

Volume of Learning  
60 hours

EQF Level  
Level 5

NQF Level  
MECU Level 5

## Achievement information

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

Applied mathematics course

## Entitles Owner to

Recognition for credit

## Other information

Related documents  
<https://ach73.otherdoc.unix.edu>

Can be co-delivered by  
Members of the Research Alliance

Recognition conditions  
Achievements acquired at any of the member universities will qualify for automatic recognition at home institution

## 487 properties describe

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

# Expressing Annex I of the Micro-Credentials Council Recommendation with EDC

Mandatory elements:	Identification of the learner
	Title of the micro-credential
	Country/Region of the issuer
	Awarding body
	Date of issuing
	Learning outcomes
	Notional workload needed to achieve the learning outcomes (in ECTS credits, wherever possible)
	Level (and cycle, if applicable) of the learning experience leading to the micro-credential (EQF, QF-EHEA), if applicable
	Type of assessment
	Form of participation in the learning activity
Type of quality assurance used to underpin the micro-credential	
Optional elements, where relevant (non-exhaustive list)	Prerequisites needed to enrol in the learning activity
	Supervision and identity verification during assessment (unsupervised with no identity verification, supervised with no identity verification, supervised online, or onsite with identity verification)
	Grade achieved
	Integration/stackability options (standalone, independent micro-credential/integrated, stackable towards another credential)
	Further information

The screenshot displays the 'Digital Micro-Credential Creation' interface. At the top, it shows 'Micro-Credential' details: Issuing date: 09/09/2023, Valid from: 31/05/2023, Type: Generic, and Credential ID: um-credential:1ca301155-5a14-4a95-aa42-39fb1a37370. Below this, there are navigation options like 'Credential summary', 'Export', and 'Upload another credential'. The main content area is titled 'Digital Micro-Credential Creation' and shows details for 'University X' (Rue Royale 120, 1000 Bruxelles, Belgium) with contact information and legal identifiers. A section for 'Learning Outcomes' is expanded, showing 'Digital content creation' with a Reusability Level of 'transversal skills and competences', Related ESCO Skills, and Related Skills. The 'Achievement information' section includes Volume of Learning (60 hours), EQF Level (Level 6), NQF Level (CFC Level 6), Credit points (Complete Credit Transfer System 2), Mode of Learning (Blended), Thematic Area (Personal skills and development), maximum duration (1 month), and Type (Short learning programme). Learning activities include 'EDC building training course' and 'Level of completion'.

# 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

**Graduate University Study of Civil Engineering**  
Valid from: 20/09/2019 00:00 GMT +0200 | Type: Mandated Issue

Credential Preview | Export | Upload another credential | Share | English

Ana Andromeda  
University Great  
**Master of Science in Civil Engineering**  
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  
Postgraduate doctoral study  
Civil engineer  
Recognition for credit

**Proven by**

Title	Grade
Overall Assessment	excellent (5)

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

Entitles 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

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:** use mathematical tools and equipment, execute analytical mathematical calculations, geodesy

**Related Skills:** applied mathematics, perform engineering calculations, construct earthquake resistant structures

# Thank you!

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