

WEBINAR:

The Basics of the European Learning Model

28 November 2024

AGENDA

01. Anna's journey with ELM

Contextualising the use of the European Learning Model in practice.

By **Kia Likitalo**

03. The Basics of ELM

Introduction to the European Learning Model and its application profiles.

By **Queralt Gutierrez**

02. Policy Context of the ELM

An overview of the broader context of the ELM.

By **Koen Nomden and Céline Jambon**

04. Q&A

All questions to be submitted via Slido.

#ELM

AN ILLUSTRATION OF A LEARNING JOURNEY THROUGH ELM



*Note that this example is fictional and does not cover all uses or potential workflows in each Member State

IDENTIFYING NEEDED SKILLS AND QUALIFICATIONS



Meet Anna. She wants to become a civil engineer. She is looking through job sites, and identifying which **qualification and skills** she would need to apply for a job. Having found the right qualification, she has a look at its description in the **national qualifications database**.



*Note that this example is fictional and does not cover the current reality or all uses and potential workflows in each Member State

FINDING THE RIGHT LEARNING OPPORTUNITY



Anna then starts to look for **learning opportunities** that will offer her this **qualification**. This is easily done in the **course database** which has linked the corresponding qualification to it – by filtering out the right qualification she finds the right learning opportunities for a civil engineer qualification in Finland, showcasing the expected learning outcomes and skills in a standard format.

She applies, and gets accepted.

*Note that this example is fictional and does not cover the current reality or all uses and potential workflows in each Member State

GOING ON MOBILITY: TRANSFER OF RECORDS



As part of her studies, during the summer break, Anna gets the opportunity to do **volunteering** as an extracurricular activity in Italy. While there, she undertakes this non-formal learning for which the learning outcomes and all relevant details are provided in a **Europass Mobility** document, so they are directly understood without additional steps.

*Note that this example is fictional and does not cover the current reality or all uses and potential workflows in each Member State

SYSTEM INTEGRATION : STUDENT INFORMATION SYSTEMS



Upon arrival back to Finland, Anna sees that her learning outcomes and the information from the volunteering she completed in Italy are already included in her home institution's student information system. **As the data was provided in the same format, it could be directly integrated with her existing information.**

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GETTING A DEGREE



Anna graduates from her institution. **Her European Digital Credential for Learning is directly generated from the data available in the Student Information System, including all the learning outcomes and related skills she acquired during her studies.**

Her European Digital Credential for Learning now becomes part of her online learning and skills portfolio.

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PRACTICAL EXPERIENCE: LETTER OF RECOMMENDATION



Comparing the data in her degree to job offers for civil engineers, Anna notices that she is still missing practical **skills** listed for the job opportunities she wants to apply for.

She gets an internship at a construction firm which provides her with a **Letter of Recommendation as a digital credential, certifying the learning outcomes and the related skills of her internship.**

She now has an additional credential in her online portfolio showcasing a wider array of skills.

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RECOGNITION ACROSS BORDERS



Anna wants to work in Sweden, and **wishes to get her degree recognised**. By providing the NARIC centre with her digital credential in a standard format (ELM), which is also used in Sweden, the recognition process goes smoothly.

She gets a **comparability statement** issued as a digital credential which she includes in her online portfolio to apply for jobs.

*Note that this example is fictional and does not cover the current reality or all uses and potential workflows in each Member State

ACCREDITATION AND QUALIFICATIONS



Anna applies for a job with the Swedish government. They are not familiar with Finnish institutions, and wonder whether they are accredited to issue Anna's qualification to be a civil engineer.

They easily verify this by checking Anna's digital credential, which shows the **related Accreditation record** for the Finnish institution.

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APPLYING FOR A JOB: VERIFYING SKILLS



Once they see that Anna's qualification is from an accredited institution, the Swedish government, as the employer, goes through her online portfolio. There they can easily **verify** that she has the **required skillset**, as showcased by her credential, and the letter of recommendation.

Having matched her skills to the job application, Anna is the perfect candidate and gets offered the job in Sweden.

*Note that this example is fictional and does not cover the current reality or all uses and potential workflows in each Member State

LIFE-LONG LEARNING AND MICRO-CREDENTIALS



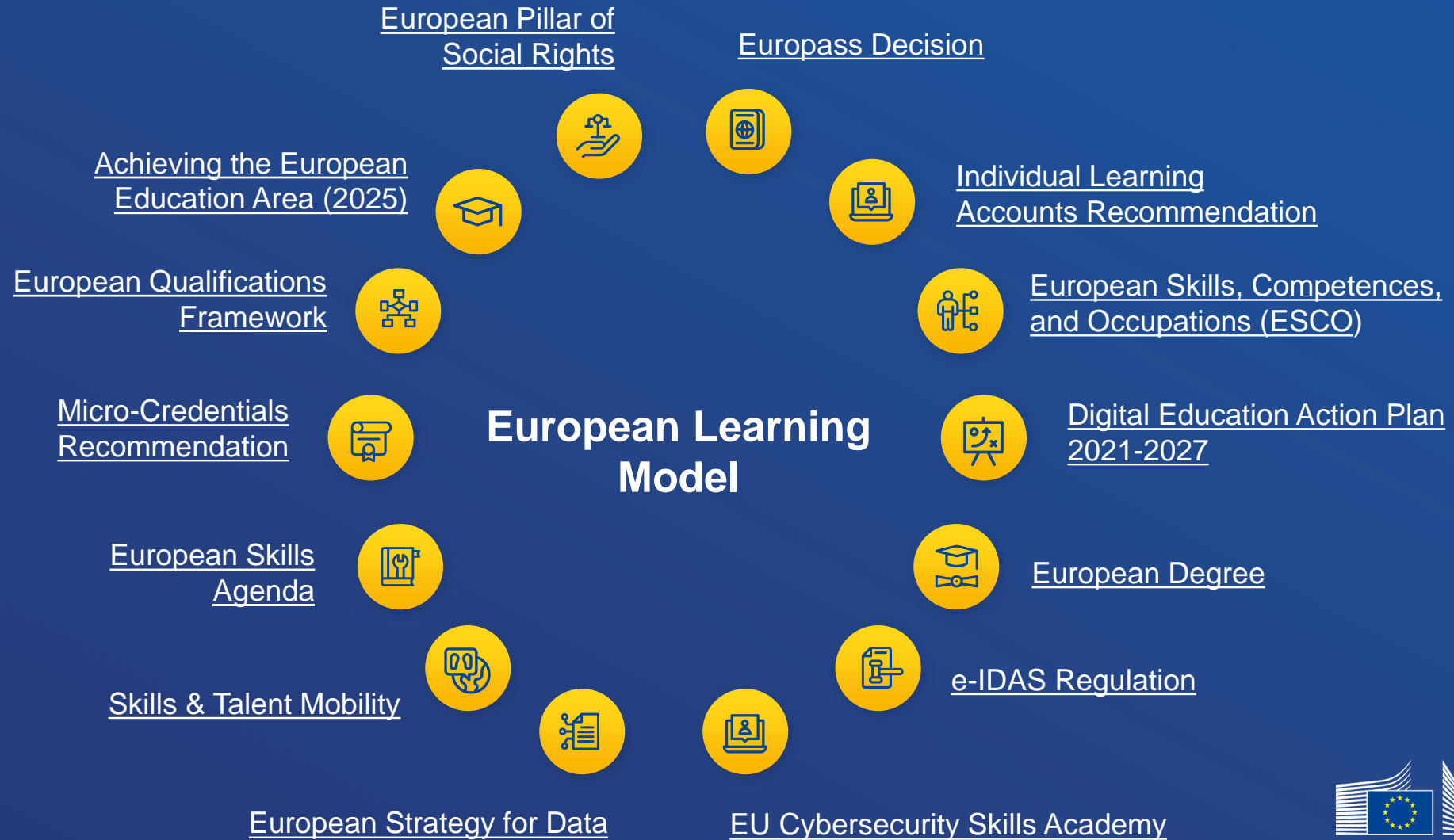
Anna starts working in her new role. However, they realise that she is not familiar with Swedish national IT systems. The employer offers for her to take a short course to acquire the required skills.

Upon completion, she receives a **micro-credential** in a digital format. This micro-credential gets integrated in her online portfolio, growing the skillset that she will be able to present to her next prospective employer.

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POLICY CONTEXT OF THE EUROPEAN LEARNING MODEL

EU CONTEXT



THE DEVELOPMENT OF THE EUROPEAN LEARNING MODEL

- One of the key sources of ELM is the 2017 Council Recommendation on the **European Qualifications Framework**:
 - Annex VI: “Elements of data fields for the electronic publication of information on qualifications with an EQF level”
 - Recital 24: “...The use of common data structures and formats would facilitate the understanding and use of published information on qualifications”
- ELM also encompasses the data fields identified under Annex I of the 2022 Council Recommendation on a **European approach to Micro-Credentials** for lifelong learning and employability

ANNEX VI
Elements for data fields for the electronic publication of information on qualifications with an EQF level

DATA			Required/Optional
Title of the qualification			Required
Field ⁽¹⁾			Required
Country/Region (code)			Required
EQF Level			Required
Description of the qualification ⁽²⁾	Either	Knowledge	Required
		Skills	Required
		Responsibility and autonomy	Required
	Or	Open text field describing what the learner is expected to know, understand and able to do	Required

THE HISTORY AND EVOLUTION OF THE ELM

Legacy Data
Models

Qualifications
Metadata
Schema –
ELM v.1

Europass
Data Models
– ELM v.2

European
Learning
Model – ELM
v.3

THE SUCCESS FACTORS OF ELM



UNIVERSAL

- Extensive and comprehensive
- Flexible
- Extendible



VERIFIABILITY

- Format and validity check
- Authenticity check
- Accreditation check (if applicable)



STANDARDISATION

- Describing learning opportunities, credentials and accreditation
- To describe learning of any kind or origin
- Referencing prominent vocabularies



PORTABILITY

- Multilingual (available in 29 languages)
- Relevant in education and employment

THE BASICS OF ELM



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WHY DOES EUROPE NEED A LEARNING MODEL?



OBJECTIVES

- Semantic Standards for Learning
- Standardised expression of verifiable knowledge & skills
- Contributes to the EU Skills Data Space
- Multilingual (available in 29 languages)
- Removes barriers to recognition, supporting free movement
- Provides accreditation & transparency tools
- Reduces market fragmentation



BENEFITS

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

EUROPEAN LEARNING MODEL

1



European Information Model

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

2



European Learning Model

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

3



Application Profiles

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

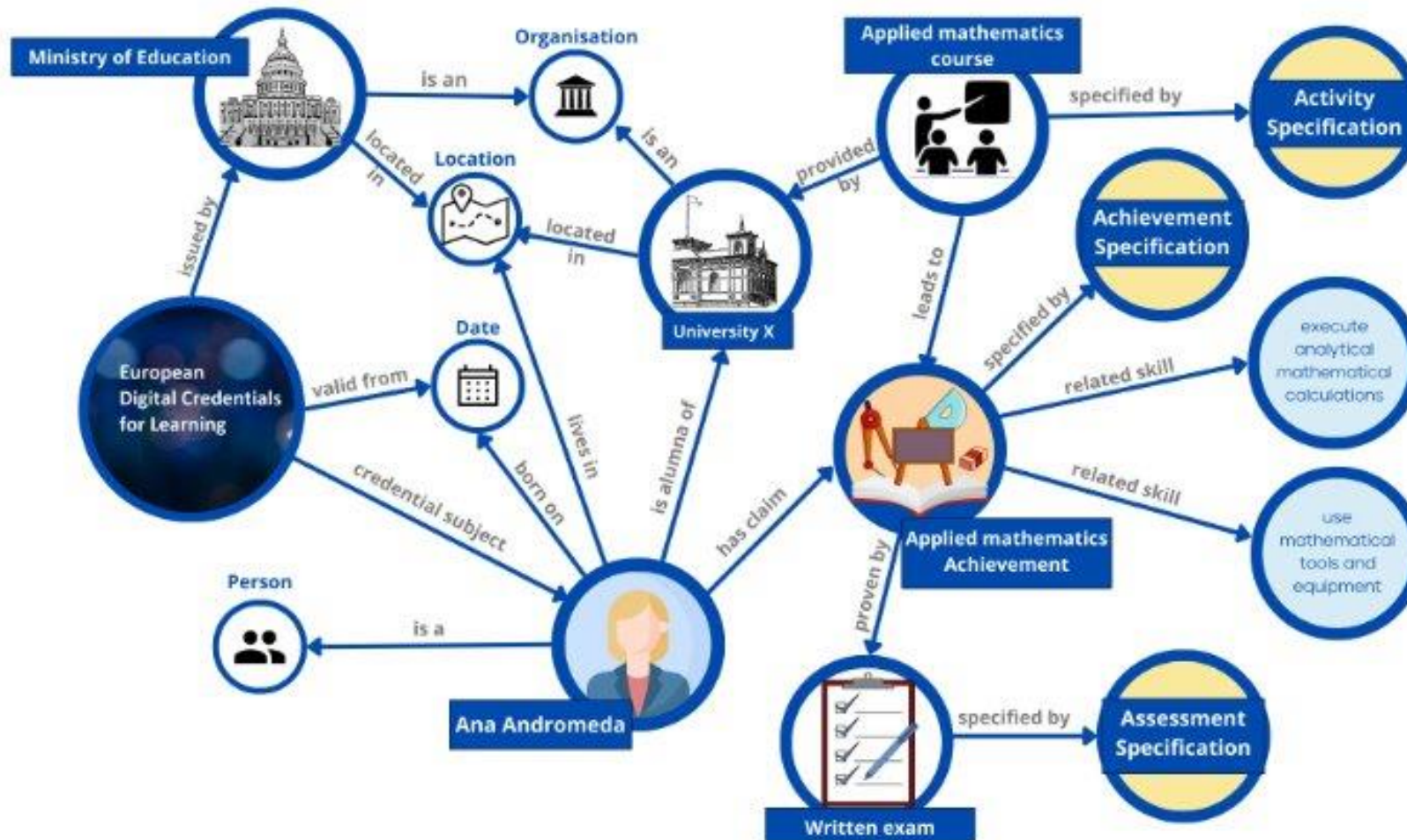
4



Extensions

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

WHAT IS A DATA MODEL?

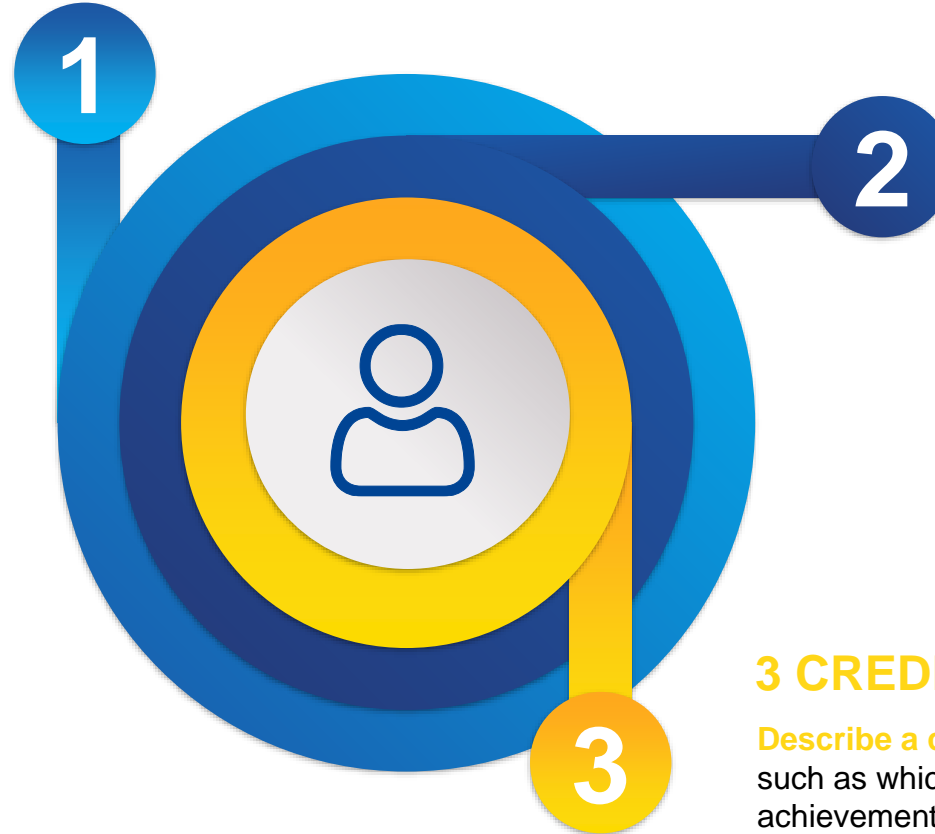


A BASIC ONTOLOGY OF CONCEPTS

1 SPECIFICATIONS

Specify what can be learned, what can be done and how it can be assessed.

Examples include:
occupational profiles,
competence frameworks,
curricula, skill classifications



2 OPPORTUNITIES

Describe an offer by an organization to direct an activity which leads to a learning outcome (proven by an assessment)

Examples include:
courses, apprenticeships, voluntary experiences, etc.

3 CREDENTIALS

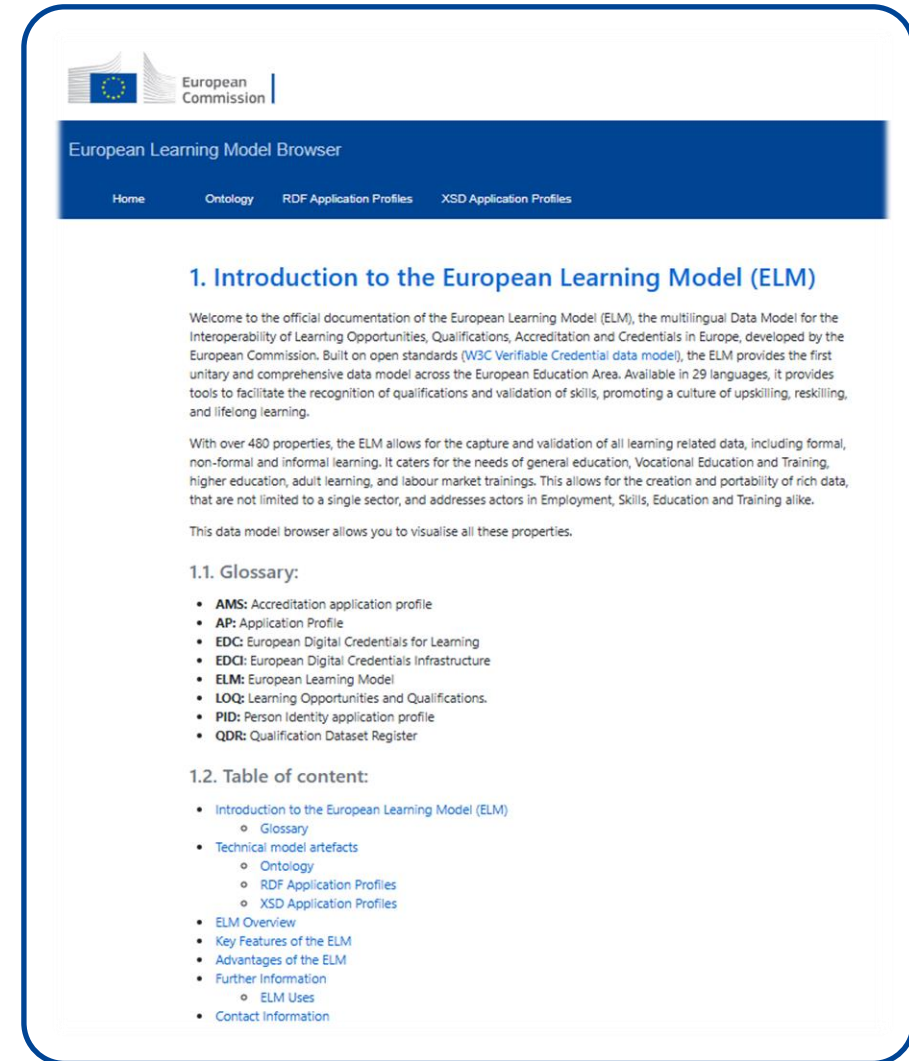
Describe a claim about an individual such as which activities they have done, and their achievements proven by assessments.

Examples include: attendance certificate, degree, diploma supplement, letter of recommendation

ELM BROWSER

The **ELM Browser** is the official **documentation** of the European Learning Model (ELM), the multilingual Data Model for the Interoperability of Learning Opportunities, Qualifications, Accreditation and Credentials in Europe, developed by the European Commission.

European Learning Model (ELM) Data Model Browser:
<https://europa.eu/europass/elm-browser/index.html>



The screenshot shows the homepage of the European Learning Model Browser. At the top left is the European Commission logo. Below it is a dark blue navigation bar with the title "European Learning Model Browser" and four menu items: "Home", "Ontology", "RDF Application Profiles", and "XSD Application Profiles". The main content area has a heading "1. Introduction to the European Learning Model (ELM)". Below this is a welcome message and a paragraph describing the ELM. A second paragraph explains the scope of the ELM. A third paragraph states that the browser visualizes all properties. Below this are two sections: "1.1. Glossary:" with a bulleted list of acronyms and their meanings, and "1.2. Table of content:" with a bulleted list of navigation links.

European Commission

European Learning Model Browser

Home Ontology RDF Application Profiles XSD Application Profiles

1. Introduction to the European Learning Model (ELM)

Welcome to the official documentation of the European Learning Model (ELM), the multilingual Data Model for the Interoperability of Learning Opportunities, Qualifications, Accreditation and Credentials in Europe, developed by the European Commission. Built on open standards ([W3C Verifiable Credential data model](#)), the ELM provides the first unitary and comprehensive data model across the European Education Area. Available in 29 languages, it provides tools to facilitate the recognition of qualifications and validation of skills, promoting a culture of upskilling, reskilling, and lifelong learning.

With over 480 properties, the ELM allows for the capture and validation of all learning related data, including formal, non-formal and informal learning. It caters for the needs of general education, Vocational Education and Training, higher education, adult learning, and labour market trainings. This allows for the creation and portability of rich data, that are not limited to a single sector, and addresses actors in Employment, Skills, Education and Training alike.

This data model browser allows you to visualise all these properties.

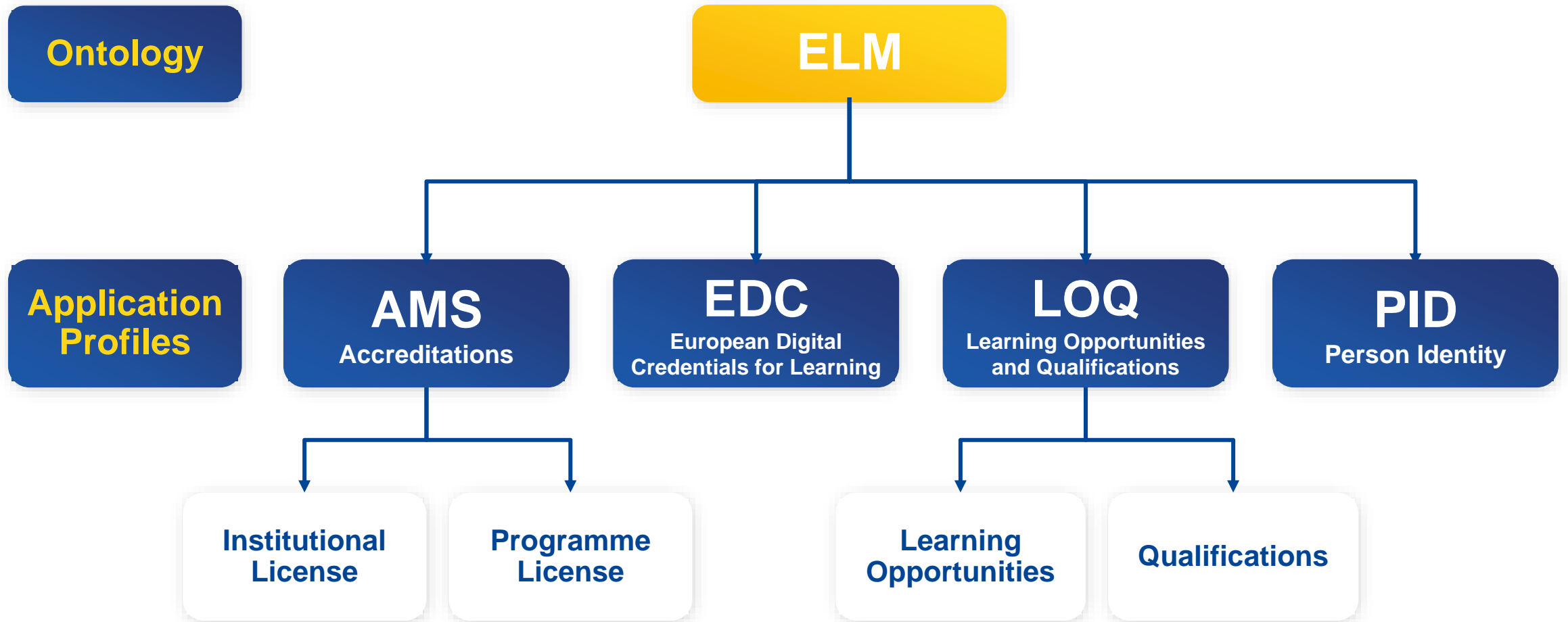
1.1. Glossary:

- **AMS:** Accreditation application profile
- **AP:** Application Profile
- **EDC:** European Digital Credentials for Learning
- **EDCI:** European Digital Credentials Infrastructure
- **ELM:** European Learning Model
- **LOQ:** Learning Opportunities and Qualifications.
- **PID:** Person Identity application profile
- **QDR:** Qualification Dataset Register

1.2. Table of content:

- Introduction to the European Learning Model (ELM)
 - Glossary
- Technical model artefacts
 - Ontology
 - RDF Application Profiles
 - XSD Application Profiles
- ELM Overview
- Key Features of the ELM
- Advantages of the ELM
- Further Information
 - ELM Uses
- Contact Information

ELM AND ITS APPLICATION PROFILES



WHO IS THE ELM DESIGNED AND DEVELOPED FOR?



Course provider or Educational/Training institution

Using the ELM to describe your courses will help you reach a wider audience and make your courses easier to find.



National Authority

Transferring your national accreditation or qualifications data in ELM format makes your data accessible and transparent



Lifelong Learners

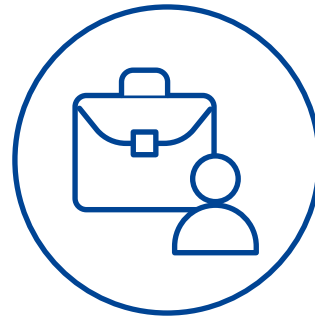
Expressing your skills using ELM can help you build a competitive skill profile, and help you find courses that can advance your career development

WHO IS THE ELM DESIGNED AND DEVELOPED FOR?



Credential Issuers

You can use the ELM to build data-rich multilingual digital credentials that are verifiable and tamper-evident, and help your overall digitalisation process



Employers

If you are looking for verifiable skill sets in application tool, ELM supports the documentation of learning outcomes linked to frameworks such as ESCO and DigComp



Learning Management System or Student Information System provider

Using the ELM you can express the course and achievement data stored in your system in a technical format fully understood and endorsed across and beyond the EU

TRANSPARENCY AND PORTABILITY

The screenshot shows a digital credential interface. At the top, there are navigation options: 'Credential summary', 'Export', 'Upload another credential', 'Share', and a language dropdown set to 'English'. A left sidebar lists various credentials, with 'Applied mathematics' selected. The main content area is titled 'Applied mathematics' and includes sections for 'Learning Provider' (Campus Square 429, D08 Dublin, Ireland; info@learningprovider.edu), 'Legal ID' (0000), 'Research Alliance ID' (Res1818), and 'Learning outcome summary'. Below this is a 'Learning Outcomes' section with two columns: 'Learning Outcome 1 related to applied mathematics' (cross-sector skills and competences) and 'Learning Outcome 2 related to applied mathematics' (sector specific skills and competences). At the bottom is an 'Achievement information' section with a grid of details: Volume of Learning (60 hours), EQF Level (Level 5), NQF Level (MECU Level 5), Learning Settings (formal learning), Mode of Learning (Presential), Thematic Area (Mathematics and statistics), Language (Spanish/English), Maximum Duration (6 months), and Type (Course).

487 properties describe

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

This screenshot shows a simplified view of the credential interface. It features several expandable sections: 'Learning activities' with a button for 'Applied mathematics course', 'Entitles Owner to' with a button for 'Recognition for credit', 'Assessed by' with a button for 'Oral presentation', and 'Other information' which includes 'Alternative Name' (Applied mathematics), 'Other documents' (Further details), and 'Homepage' (http://www.unix.edu/AchievementSpec73).

KEY TAKEAWAYS REGARDING THE ELM



Interoperability



Multilingual



**All levels, areas
and dimensions
of learning**



Comprehensive



**Easy to get
started**

GET STARTED WITH THE ELM

**Start mapping
your learning
opportunities or
qualifications to
the ELM**

**Start issuing
simple EDCs**

**Join the
Futurium to
learn from
others**

**Get in touch
with us to see
how ELM can
help in your
specific
situation!**

Q&A

Please ask questions via Slido.com



#ELM

<https://app.sli.do/event/8bBcPVizUvJKFwK3taJEzi>





Still have more questions?

Get in touch at:
EMPL-ELM-SUPPORT@ec.europa.eu

and join our [Futurium Group!](#)

Thank you for your participation!

Contact the ELM support team at EMPL-ELM-SUPPORT@ec.europa.eu



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