Session 8a: Digitalisation

Topic 1: Why digitalisation

ACQF-II workshop
Wednesday, 6 December 2023

Rationale and Benefits

Digital Transition in Education

Advantages

Evolution Beyond Paper

Centralized Credential Management

Market's Rising Demand

Enhanced Learning & Communication

Cost-Effectiveness & Security

Action Plan

Unified Vision

Strategic Priorities

Key Actions

Benefits & Goals

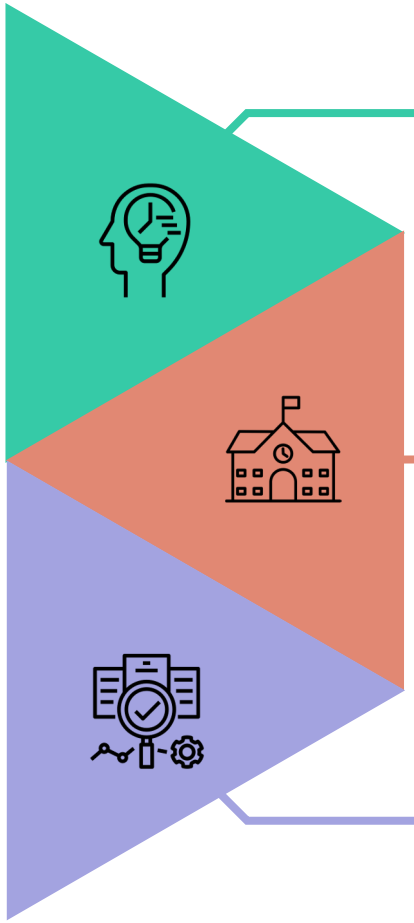
Digital Transition in Education

Adapting to a Digital World: The shift towards a digital economy requires an educational system that keeps pace with technological advancements.

Enhanced Accessibility: Digital platforms break down geographical barriers, making education more accessible and inclusive.

Personalised Learning: Digital tools offer tailored educational experiences, addressing diverse learning styles, pathways and needs.

Why Digital Transition in Education?



Citizens

- can build an online portfolio to track their learning
- can easily utilise their credentials to get a job, apply for further education and training across Europe or obtain recognition of their credentials
- can present and have their credentials verified at any point in their career

Education and Training Providers

- can build EU standard compliant credentials
- can reduce their costs of issuing credentials after an initial investment into transforming from paper to digital
- can better understand credentials from other Member States as EDC utilises standards, and content can be navigated in 29 languages

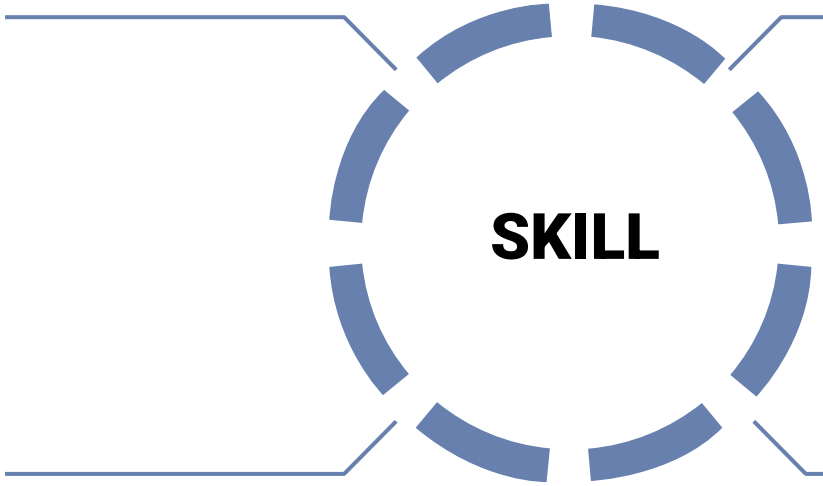
Employers

- can dramatically reduce the time and cost of processing job applications
- can better understand the credentials of candidates outside of their country
- can immediately see on the instant, automatic authentication and verification check list if a credential has expired or was tampered with

The role of skills

Standardised skill definitions

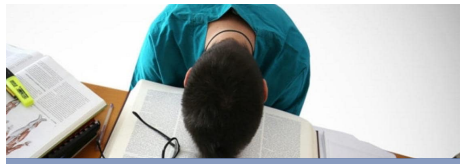
Knowledge banks for skill acquisition



Credentials as evidence of skills

Tests of Competence

Personalised learning at scale means a move from



I want to STUDY

I want to LEARN

The role of skills

Bridging Gaps: The digitalisation of skills enables different stakeholders - educators, employers, and policymakers - to communicate effectively about skills and competencies, ensuring that education aligns with market needs and facilitates mobility across countries and sectors.

Common Skill Frameworks: Frameworks like ESCO (European Skills/Competences, Qualifications, and Occupations) play a crucial role. They create a common language for skills and competencies that align education, the labour market, various national contexts, and industry needs.

Essential Skills for the Modern Workforce: Digital literacy and skills are critical for navigating the modern workforce and are akin to a common currency in the digital era.

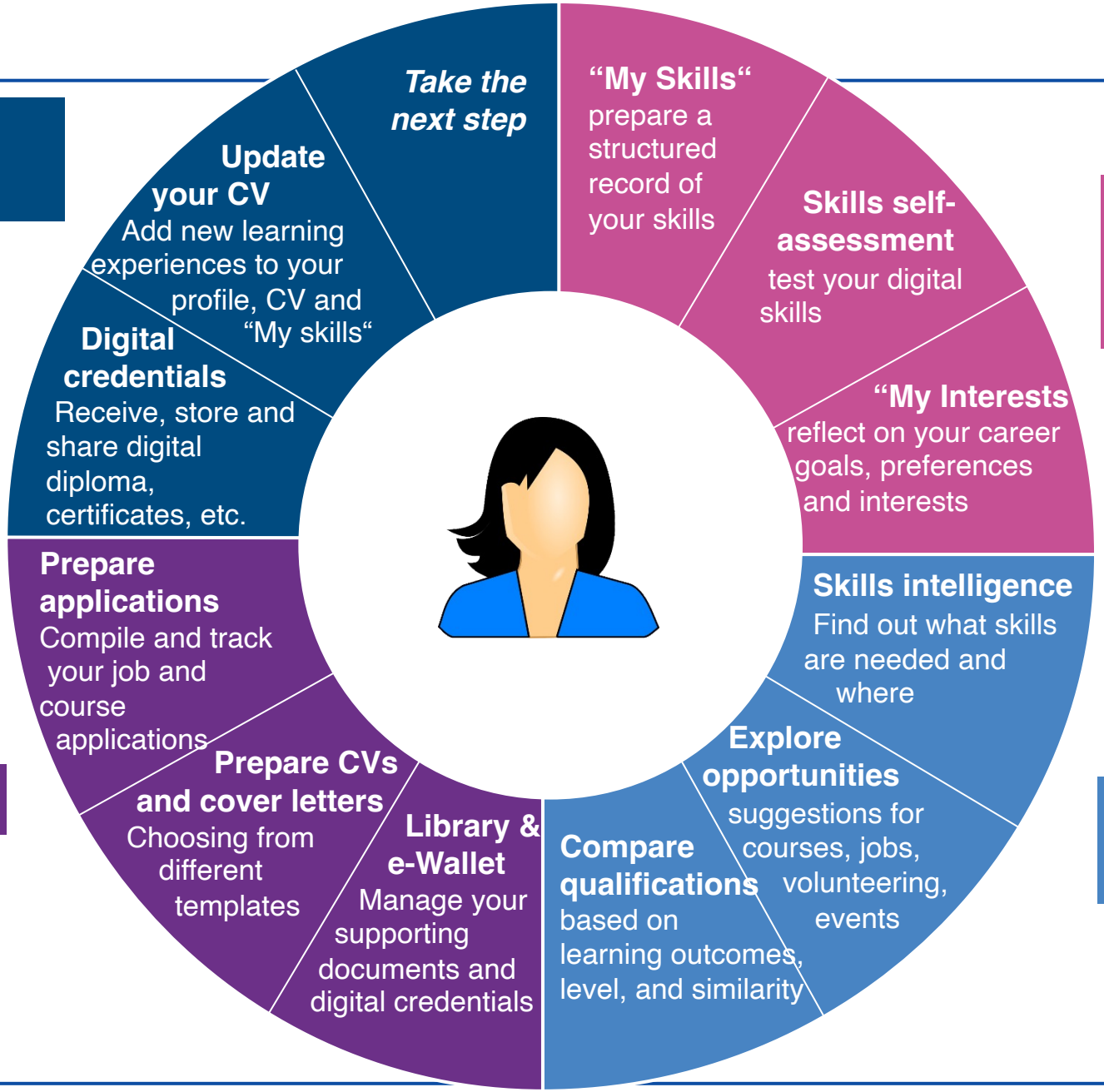
Digital Shift: Final State

Record your learning

Know your skills, strengths and ambitions

Take action

Explore your options



Empowered Learners

Universal Access to Education: Learners from all backgrounds and locations have equal access to digital information about education opportunities, eliminating traditional barriers to learning.

Easily Validatable Digital Certifications: Digital credentials and certifications can be quickly and securely verified, increasing their credibility and value in the job market.

Facilitating Cross-Border Movement: The universal recognition of digital certifications simplifies cross-border educational and professional pursuits, enhancing global mobility for learners.

Lifelong Learning Opportunities: Continuous learning and reskilling are findable through various digital courses and resources, supporting learners in their personal and professional development at every stage of life.

Enhanced Public Administration

Data-Informed Policies: Public administrators use insights from digital platforms to create policies that directly address the needs of learners and the labour market sector.

Streamlined Administrative Workflows: Automated systems and digital record-keeping simplify administrative tasks, allowing for more efficient management of educational resources.

Interdepartmental Collaboration: Digital tools enable easier coordination within governments and international departments, ensuring educational initiatives align with broader socio-economic objectives.

Interoperability

Interoperability: The Keystone

Interoperability is the capacity of organisations to interact, share information, and **collaborate towards mutual goals** through streamlined **business processes** and **data exchange** between their ICT systems.

It embodies the vision of seamless integration, **opposing digital fragmentation**.

Interoperability: Layers

Interoperability: Example

A student from Country A has completed a specific qualification and holds a related credential. They move to Country B for employment and want their credential recognised.

Fragmented system

- The student has to request credential documentation from their institution in Country A manually.
- Once received, they must translate and validate it for Country B standards, taking time and incurring costs.
- Employers in Country B find it hard to understand or trust the qualification from Country A, leading to missed opportunities.

Interoperable system

- The student logs into an education platform and retrieves their digitally stored credential.
- The system, being interoperable, automatically translates the credential to match Country B's standards and provides a verification link.
- Employers in Country B can instantly verify and understand the student’s credentials, streamlining the hiring process.

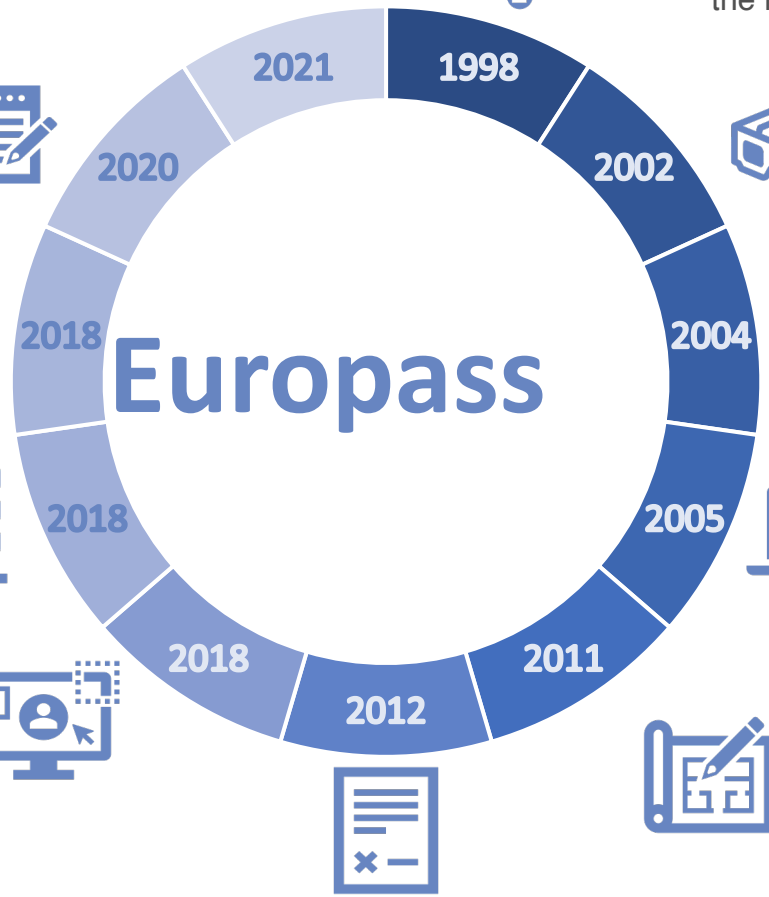
Session 8a: Digitalisation

Topic 3: Case of Europass and QDR

ACQF-II workshop
Wednesday, December 6

Implementation approach

Skills Agenda



Organisation of the European forum on transparency of vocational qualifications to **bring together social partners** with representatives of national training authorities around the issue of **transparency**

Creation of a **technical working group** whose mandate was to **increase transparency** in vocational education and training

Adoption by the European Parliament and the Council of the **single framework** for the transparency of qualifications and competences (Europass)

Launch of **Europass website** including access to five document templates: the curriculum vitae, the language passport, the diploma and certificate supplements, and the Europass mobility

The Europass website undergoes a redesign with a new, modern **graphic identity**

A new **CV template** and **online editor** is launched

Action 3 of the **Digital Education Action Plan** proposed the provision of a framework that allows issuing digitally-certified qualifications

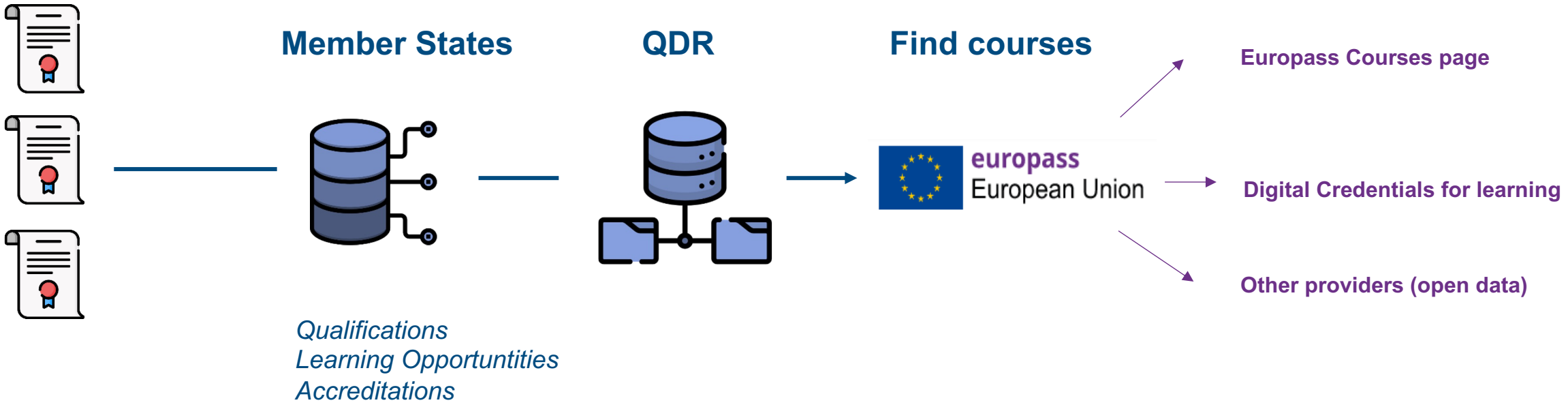
Adoption of the revised Europass framework. Decision 2018/646 of the European Parliament and of the Council for the **provision of better services for skills and qualifications in a digital era**

The **Europass Advisory Group** is created to ensure successful implementation of the Decision

Launch of the new **Europass online platform**

Official launch of the **European Digital Credentials for Learning**

Data Flow


Member States
QDR
Find courses
europass
European Union
Europass Courses page
Digital Credentials for learning
Other providers (open data)
Qualifications
Learning Opportuntities
Accreditations

The history and evolution of the data models

Legacy Data Model

- EQF model
- Ploteus Model
- LOQ Portal
- Republication of the data into a single EU Portal

Qualifications Metadata Schema – ELM v.1

- Introducing open interoperability standards

Europass Data Models – ELM v.2

- Extending to all Learning use cases

European Learning Model – ELM v.3

- ELM, Application Profiles
- Integrating the individual models

Elements of the System

The QDR (Data Management Tool)

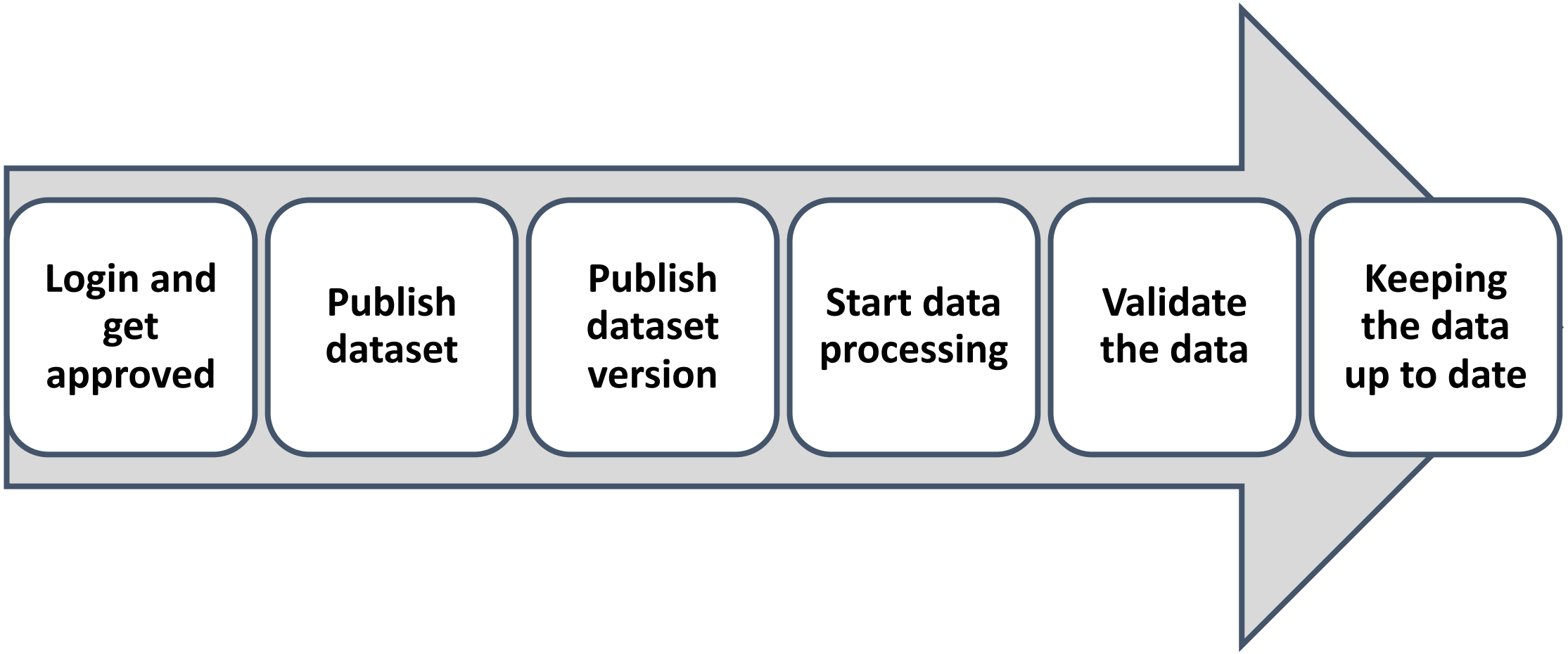
- National authorities can prepare and publish information on;
  - **qualifications**
  - **learning opportunities (possible to link with Qs)**
  - **accreditation**

- Testing (acceptance environment), preparing and publish (production environment) the data as *linked open data* to be republished in Europass

Who can provide data via the QDR?

- National authorities that are responsible for the data provision.
- They are known as the ‘’data source’’. How this is organised can differ per country.
- The central authority can decide to delegate the provision of data to another organisation

Publishing process in the QDR



The Development of the European Learning Model

One of the critical sources of ELM is the **EQF Recommendation**:

- Annex VI: “Elements of data fields for the electronic publication of information on qualifications with an EQF level”

European Learning Model realizes this recommendation into a specific data model that can be implemented by individual interoperability applications

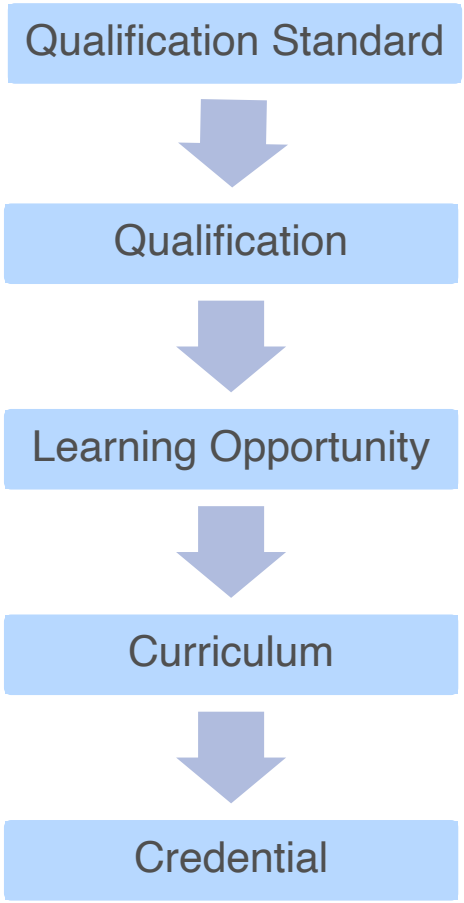
ANNEX VI

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 (*3)	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

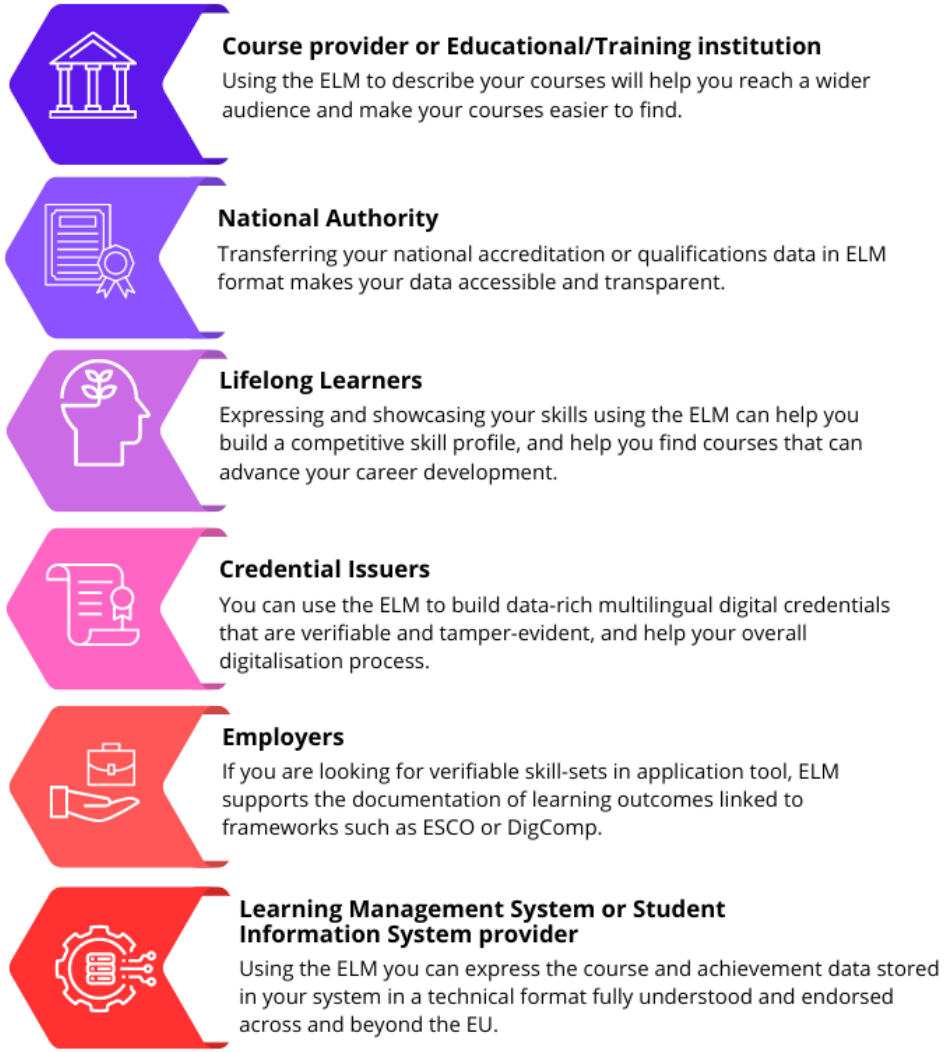
The European Learning Model

- A single data model which can be used at all stages of a learning lifecycle
- Can be applied to any educational/learning process, whether formal, non-formal or informal
- Includes information on accreditation (where relevant)
- ELM is used on the Europass platform & in other EC services
- ELM has the potential for a much wider use (support of open data standards)



What does this mean in practice?

- A diverse audience
- No single beneficiary of the ELM
- Any actor in the field of education and employment can benefit from the ELM



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

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 or 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.

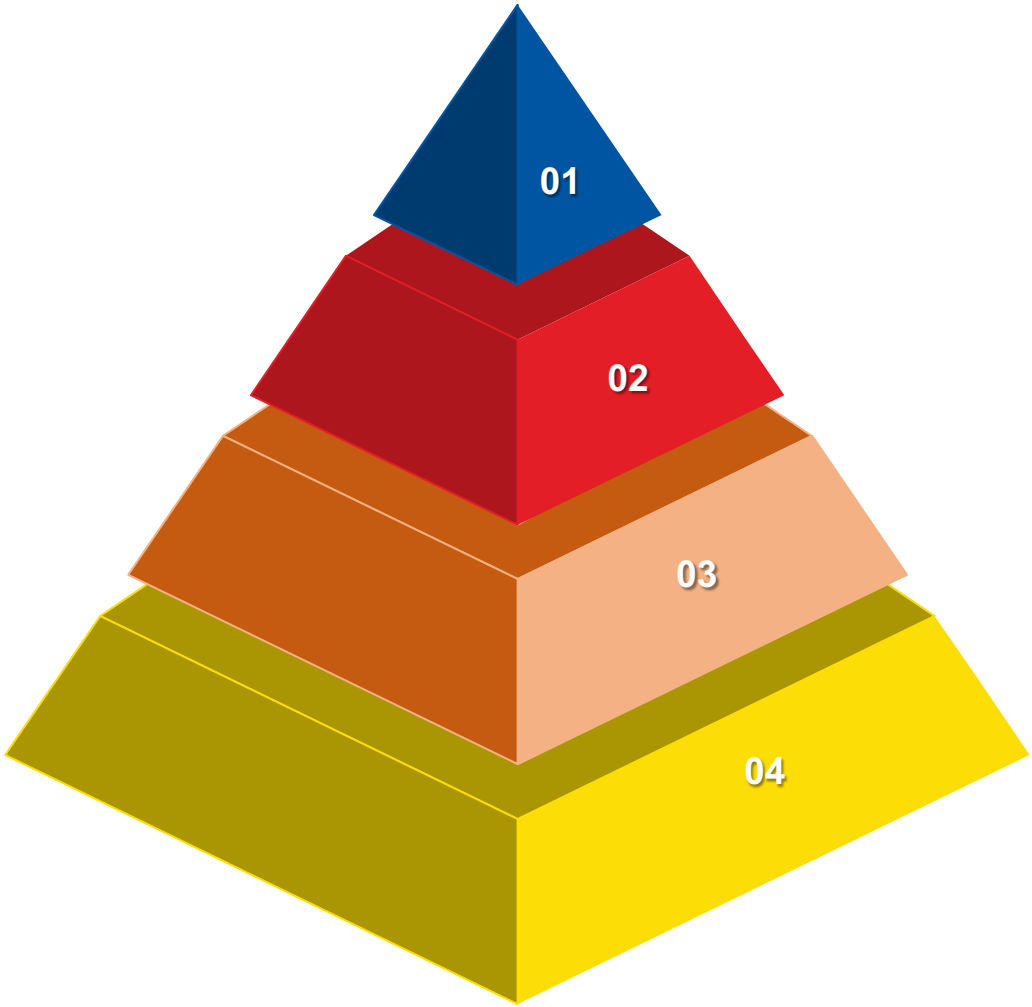
European Learning Model

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



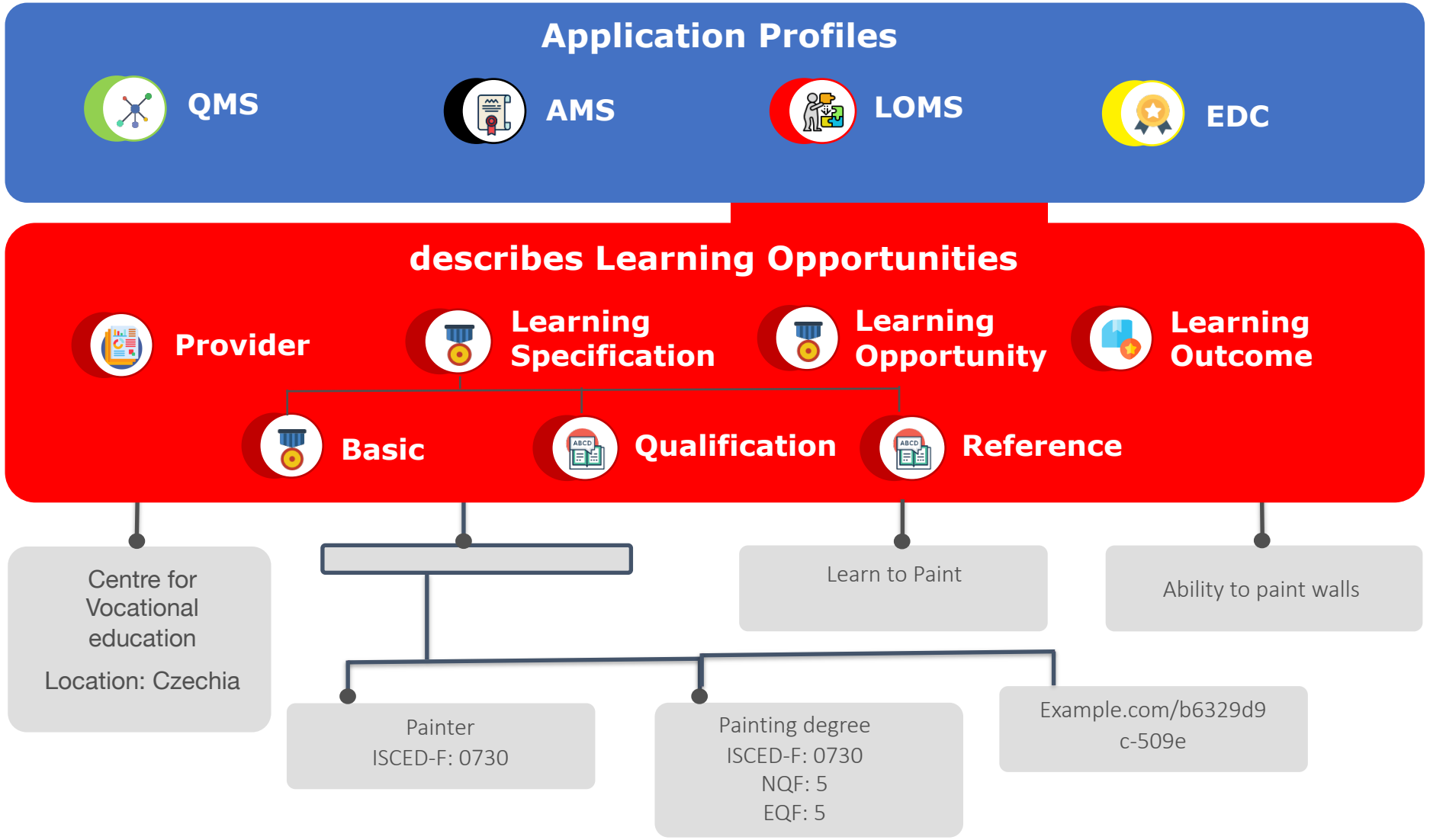
02 European Learning Model

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

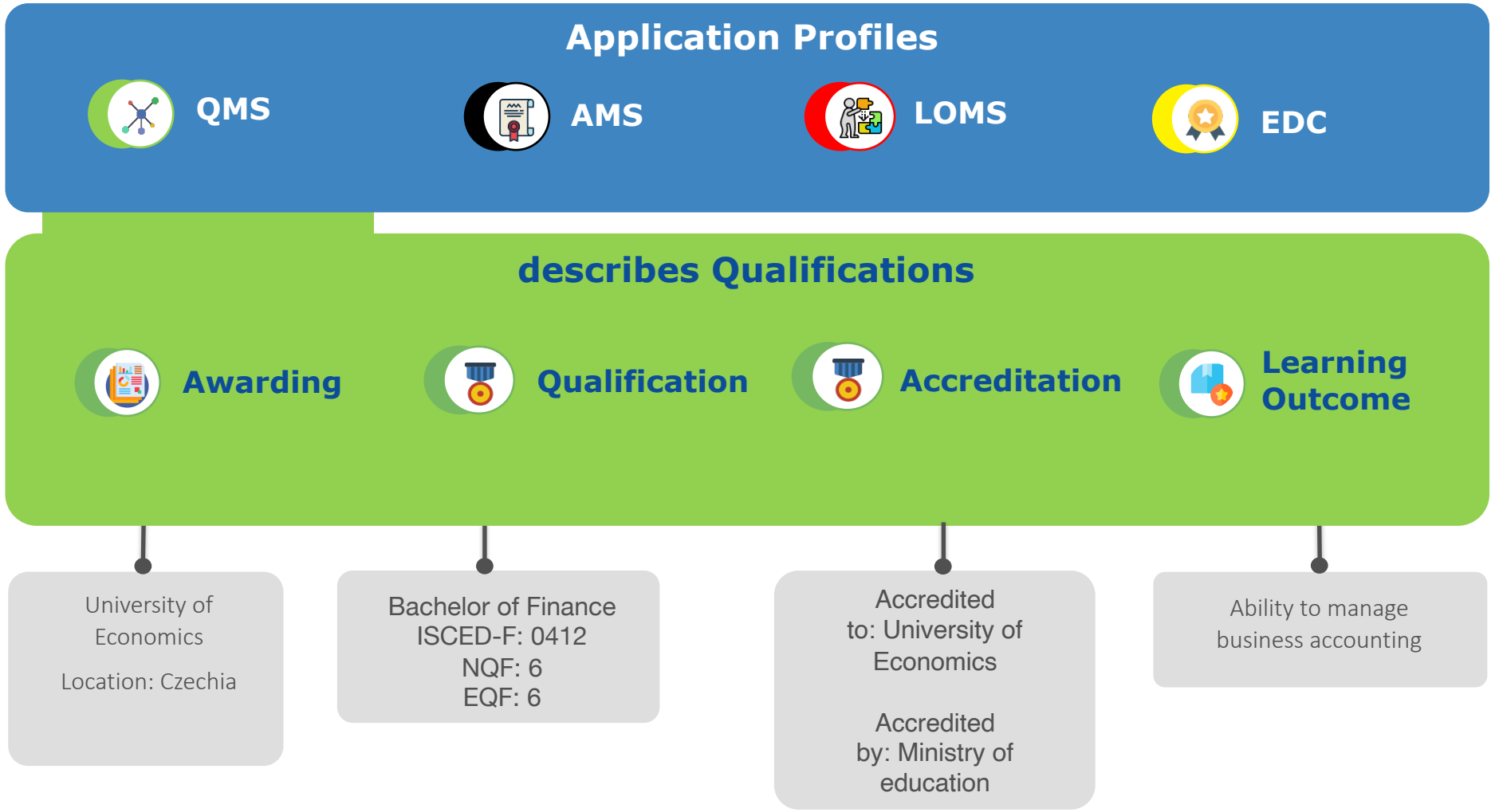
04 Extensions

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

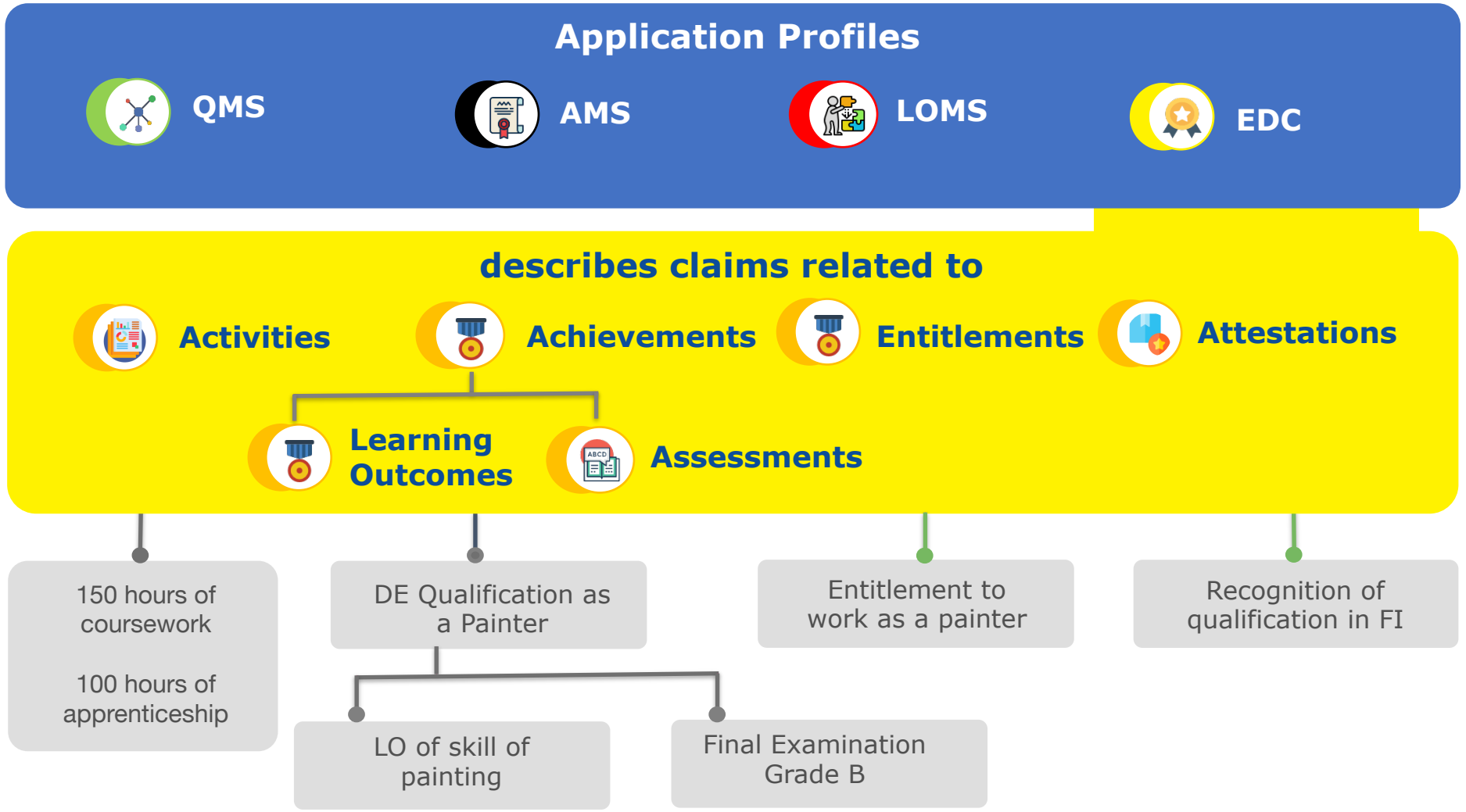
Learning Opportunities



Qualification



Credentials



Current State of Play

State of Play

Overall Totals:

- Learning Opportunities: 200,000
- Qualifications: 50,000

EQF Level	Learning Opportunity	Qualification
1	0	0
2	500	100
3	1 500	500
4	1 500	1 500
5	4 500	4 500
6	10,000+	10 000+
7	10,000+	10 000+
8	2 000	3 000

State of Play: Geographical overview

State of Play: Development note

- Majority of the national Qualifications DB was created with the assistance of EU programme grants.
- Specific grants were allocated for QDB development in EQF countries between 2016-2018.
- Countries often start with partial datasets due to their digital progress stage. As their QDB infrastructure and data methods advance, the quality and scope of publication will improve.

Demonstration

Demonstration of specific sections

- Europass courses search
- Qualification Dataset Register

Lessons Learned and Context in ACQF

Foundations and Understanding

- **1. Clear Common Understanding:**

Establish a foundational understanding of core terms and the data model to prevent misinterpretations and misaligned goals.

- **2. Prioritise Local Use Cases:**

Define and focus on use cases that offer the most value to local users, ensuring maximum benefit and system relevance.

- **3. Data Quality Realism:**

Understand that achieving optimal data quality is a long-term process. Manage expectations and be realistic about short-term achievements.

Governance and Collaboration

- **1. Organisational Interoperability:**

Interoperability begins at the organisational level. Achieve alignment and consensus first for smoother technical solutions.

- **2. Governance and Accountability:**

Implement clear governance structures and robust accountability systems to ensure speedy and consistent development.

Interoperability and System Integrity

- **1. Embrace Interoperability:**

Promote standardised information exchange and interoperability for a cohesive, efficient, and collaborative system.

- **2. Recognise Open Exchange Benefits:**

Understand the importance of open data in ensuring system integrity and consistency.