

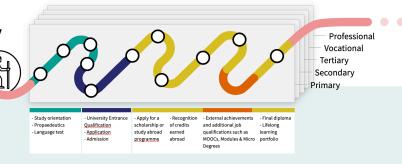
### A fast review of the road towards credentials and wallets

### **European Union**

- Electronic signatures
- Cross-border eID & Trust (eIDAS)
- EUDI European Digital Identity (eIDAS2, proposed)
  - EUDI Wallet a secure solution that basically allows any citizen to carry around proof of identity and other personal attributes and credentials
  - Legislation & Large scale pilots (LSPs)
  - ARF architectural reference framework

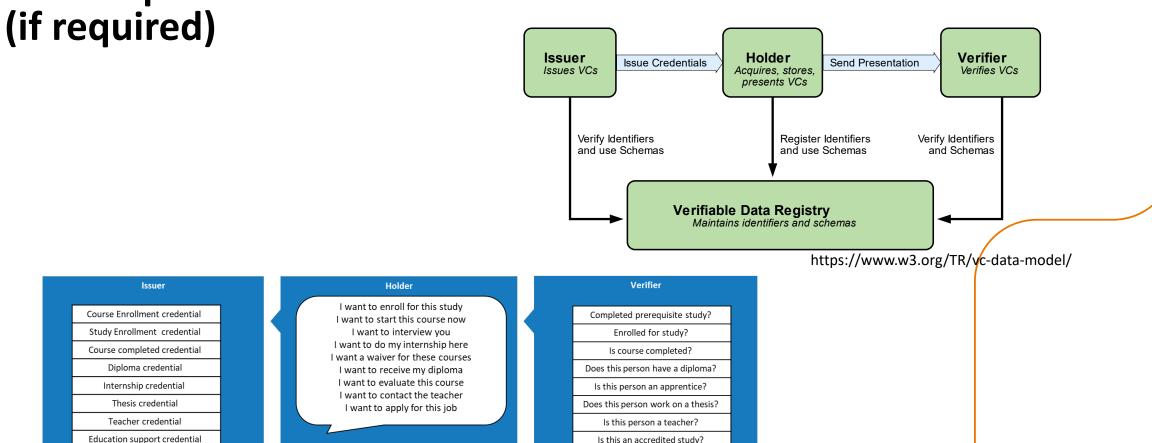
#### **Educational sector**

- Diplomas and certificates
  - Diploma supplement
- Open badges, microcredentials
  - Verifiable credentials
- Cross-border student mobility
- Life-long learning
- Employment





A short primer on educational use cases for credentials



Is this an accredited course?

Is the college fee paid?



Study accreditation credential

Course accreditation credential

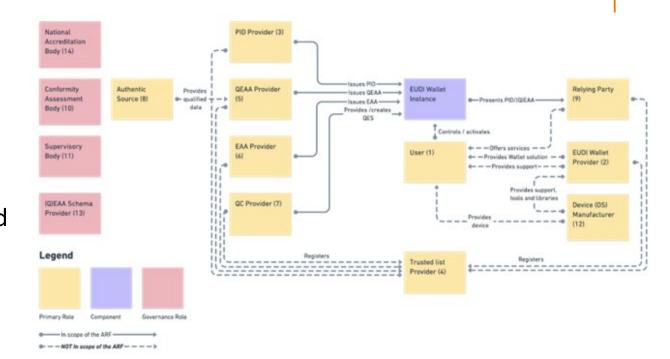
I want to verify that I can trust the parties that I do business with

Verifiable data registry



## The EUDI Architectural Reference Framework in brief

- First published version in Feb 2023
- Primary roles can be mapped to W3C VC datamodel, additional governance roles
- Three main types of attestations (attribute sets/credentials)
  - PIDs and QEAAs: establishing core identity and attributes, equivalent of legal identification documents
  - EAAs: a 'placeholder' for all other types of credentials and attestations
- Central question: How does the reference framework map to roles and credentials as we know them in education?





# **Comparison template**

	Core Identity Credentials	Education Specific Credentials	Other types of credentials
	(PIDs and QEAAs)	(Education EAAs)	(non-Education EAAs)
Issuer			
(ARF: EAA Provider, Authentic source)			
Verifier			
(ARF: Relying Party)			
Holder			
(ARF: User)			
Registry			
(ARF: Trusted list provider)			
Governance roles			



# **Projecting ARF primary roles to different credential types**

	Core Identity Credentials	Education Specific Credentials	Other types of credentials
	(PIDs and QEAAs)	(Education EAAs)	(non-Education EAAs)
lssuer (ARF: EAA Provider, Authentic source)	Member state approved identities Driving licence Identity Card	Diploma Microcredentials Proof of enrollment 'ECTS credits'	e.g. Licences for Educational content
Verifier (ARF: Relying Party)	All types of credentials	can be expected, depending interaction	g on the desired business
Holder (ARF: User)	Any citizen Any legal entity 'Anonymous'	Student Teacher Examinator	'Customer'
Registry (ARF: Trusted list provider)	List of Member state certified parties/roles Generic data schemes	Trust lists of institutions, studies, courses  Educational credential data schemes	Sector specific trust lists & data schemes

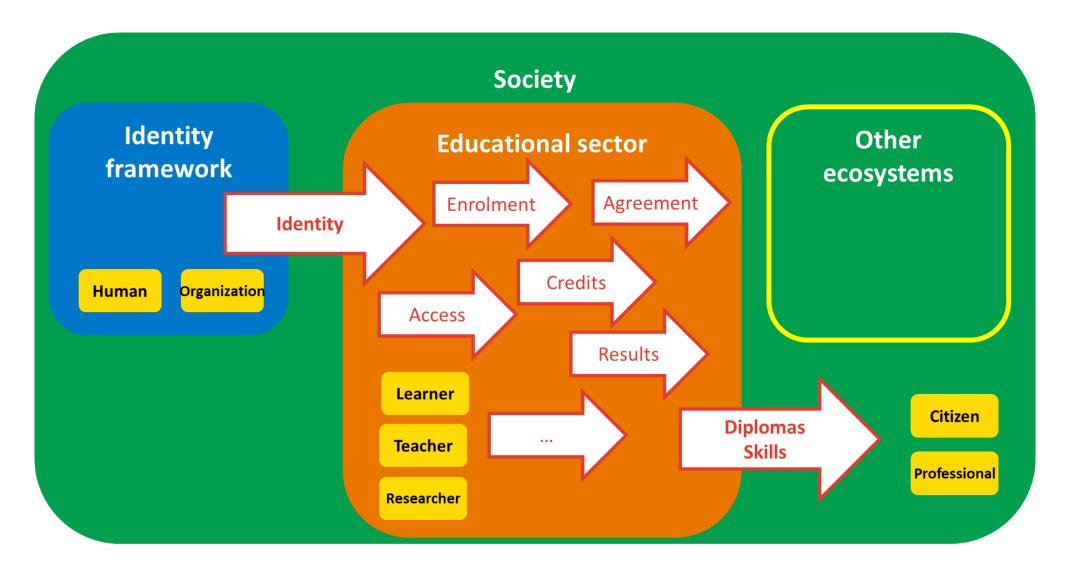


# Projecting ARF governance roles to different credential types

	Core Identity Credentials	Education Specific Credentials	Other types of Credentials
	(PIDs and QEAAs)	(Education EAAs)	(non-Education EAAs)
Legal Governance	Identity framework (EU/national)	Education specific (national) regulation	
Standards Governance	EU + member countries	Standards ('schemes') for education content and process + Conformant to ARF standards for interoperability with framework	Sector dependent
QA, supervision and accreditation	National accreditation body (European Regulation 765/2008)	Education specific agencies and bodies	



## Separate ecosystems, connected by credentials





# 'I don't trust the identity ecosystem to issue my diploma'

How to assure that diplomas and other credentials will be recognized as 'ours'?

- Standards, standards, standards
  - Divergence will not help our case, a coherent set is needed
- Adequate representation at EU level
  - Member state model vs. Cross-border cooperation between institutions
- Active sharing of knowledge, solutions and experiences
  - Outside the 'boxes' of projects, initiatives, programs
- Smart design of education credential ecosystem roles
  - Leverage existing infrastructures and governances



