



Digitally-Signed Credentials in the new Europass

Angeliki Dedopoulou

EU Affairs Policy Adviser for the Digital Labour Market
Skills & Qualifications Unit E2 of DG EMPL

Framework for digitally-signed credentials

policy-perspective

Action 3 of the Digital Education Action Plan establishes that the way forward to make **better use of digital technology** for teaching and learning encompasses an action to:



“Provide a framework for issuing digitally-certified qualifications and validating digitally-acquired skills that are trusted, multilingual and can be stored in professional profiles (CVs) such as Europass. The framework will be fully aligned with the European, Qualifications Framework for Lifelong Learning (EQF) and the European Classification of Skills, Competences, Qualifications and Occupations (ESCO)”

[Digital Education Action Plan \(January 2018\)](#)

Framework for digitally-signed credentials

definition of a digitally-signed credential

- A credential, in its most essential form, is a **documented statement** containing claims made about a person.
- A Europass **learning credential** describes that the owner has certain skills or has achieved certain learning outcomes through formal, non-formal or informal learning context.
- A **digitally-signature (e-Seal)** guarantees the origin and integrity of the a document.



Framework for digitally-signed credentials

components of a credential

Europass digitally-signed credentials will be tamperproof and made up of six elements:



A Europass credential

A Europass credential contains information about



Metadata
(data about the
credential)



Issuer



Subject
(claims about
person)



eSeal

describes claims relates to



Activities



Assessment



Achievement



Attestation



**Learning
Outcomes**



Entitlements

150 hours of
coursework

100 hours of
apprenticeship

Final Examination
Grade B

DE Qualification as
a Painter

Recognition of
qualification in FI

LO of skill of
painting

Entitlement to
work as a painter

Framework for digitally-signed credentials

Stacking and Combining Credentials

Issuer: University of Nantes
Claim: **Achievement** of Bachelors
Degree in Nursing

Issuer: University of Nantes
Claim: Achievement of 90 ECTS in
Nursing

Issuer: University of Malta
Claim: Achievement of 30 ECTS in
Nursing (Erasmus)

Issuer: Tampere Teaching Hospital
Claim: Activity of 600 hours of
Nursing Practice

Framework for digitally-signed credentials

Functions



Identify

Learners who will
be awarded the
credential



Issue

credentials and
send them to their
owners



Store

credentials
securely in a
single online or
offline wallet



Verify

if the credential is
authentic, valid and
issued by an
accredited
organisation



Share

the information in the
credential with any
other person or
organisation with just
a click

Scenarios for the implementation of the EDCI

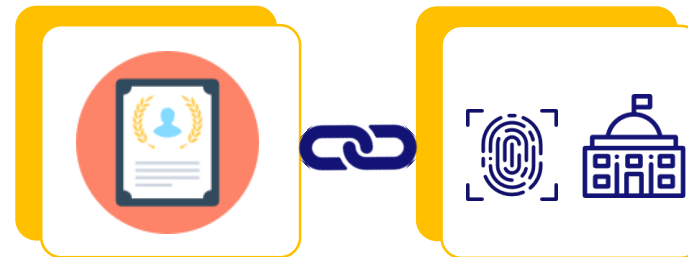
Identify

Today: Paper-based



The credential states the identity of the awarding body and credential owner

New Europass

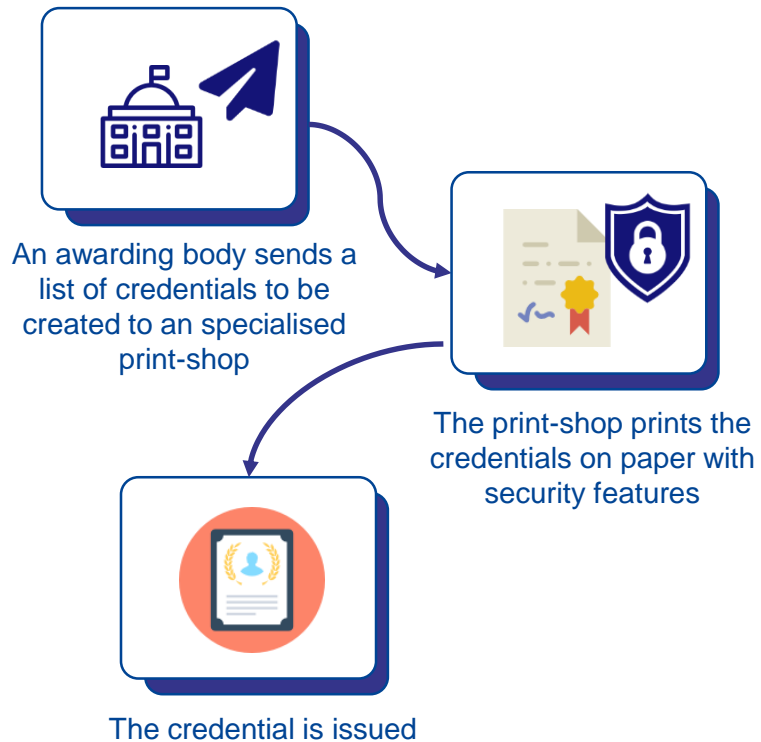


The digitally-signed credential is linked to the identity of the awarding body, such that only the awarding body may issue such a credential

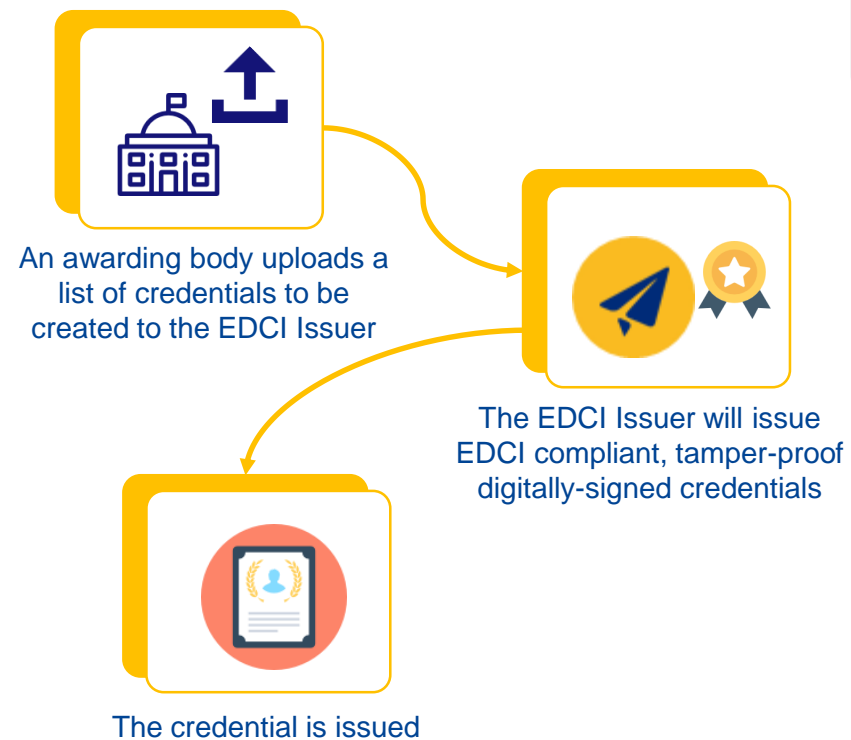
Scenarios for the implementation of the EDCI

Issue

Today: Paper-based



New Europass



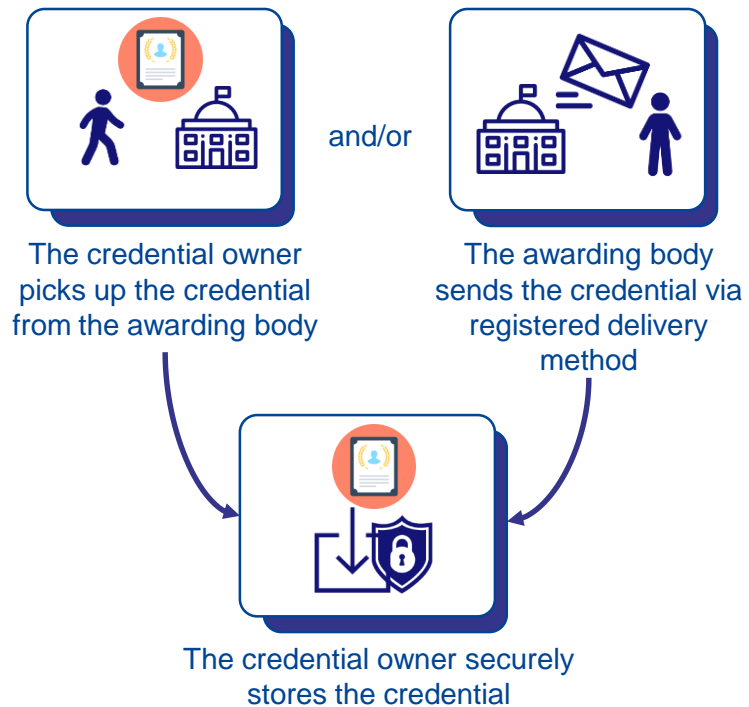
No obligation to use
EDCI-Issuer

*Any software can be used
to issue standard-
compliant credentials*

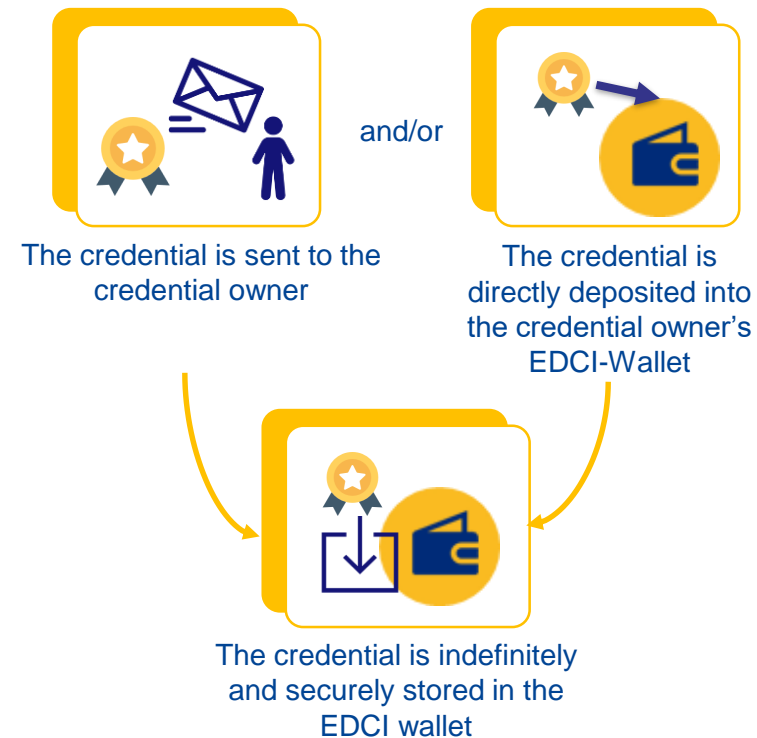
Scenarios for the implementation of the EDCI

Store

Today: Paper-based



New Europass



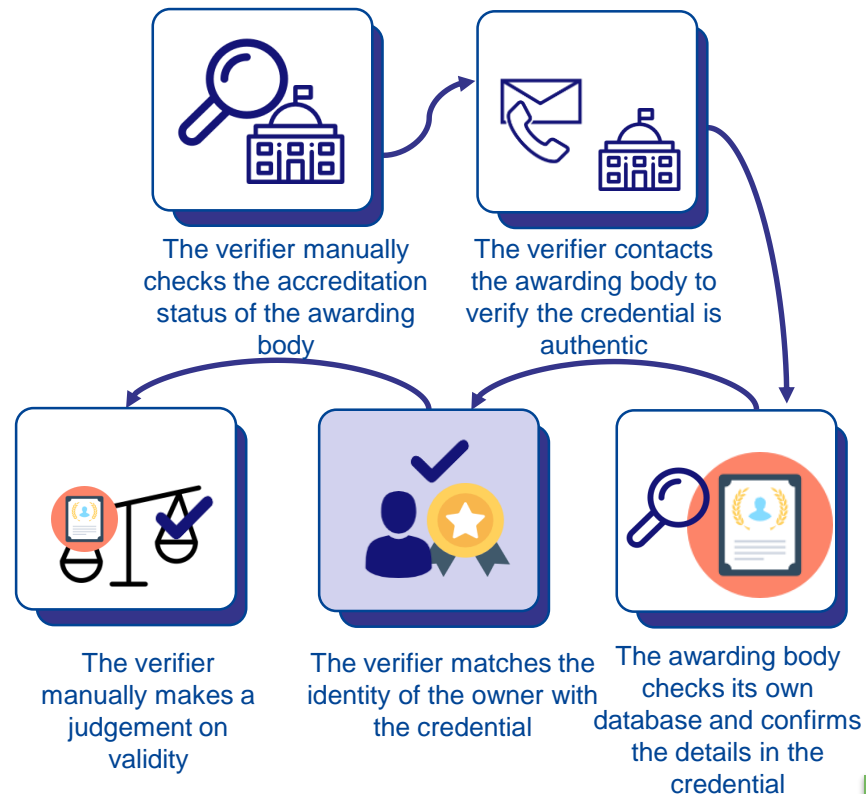
No obligation to use EDCI-Wallet.

Credential-owner can run a wallet on their own device, or obtain one from any provider.

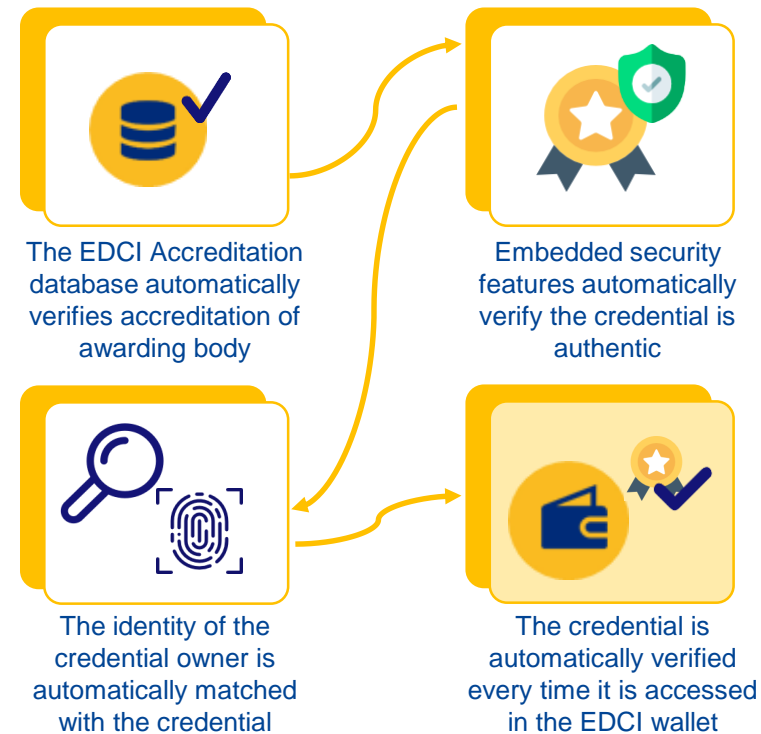
Scenarios for the implementation of the EDCI

Verify

Today: Paper-based (manual verification)



New Europass (automatic verification by wallet)



Scenarios for the implementation of the EDCI

Share 

Today: Paper-based



The credential owner requests a new certified copy of the credential from the awarding body



The credential owner sends or presents the copy of the credential to the requester

New Europass



The credential owner shares a link to the credential in their EDCI-wallet

No obligation to use EDCI-Wallet.

Link can be shared to any cloud-based wallet.

Framework for digitally-signed credentials

a European Digital Credentials Infrastructure (EDCI)



eIDAS



Standards



Services



Software



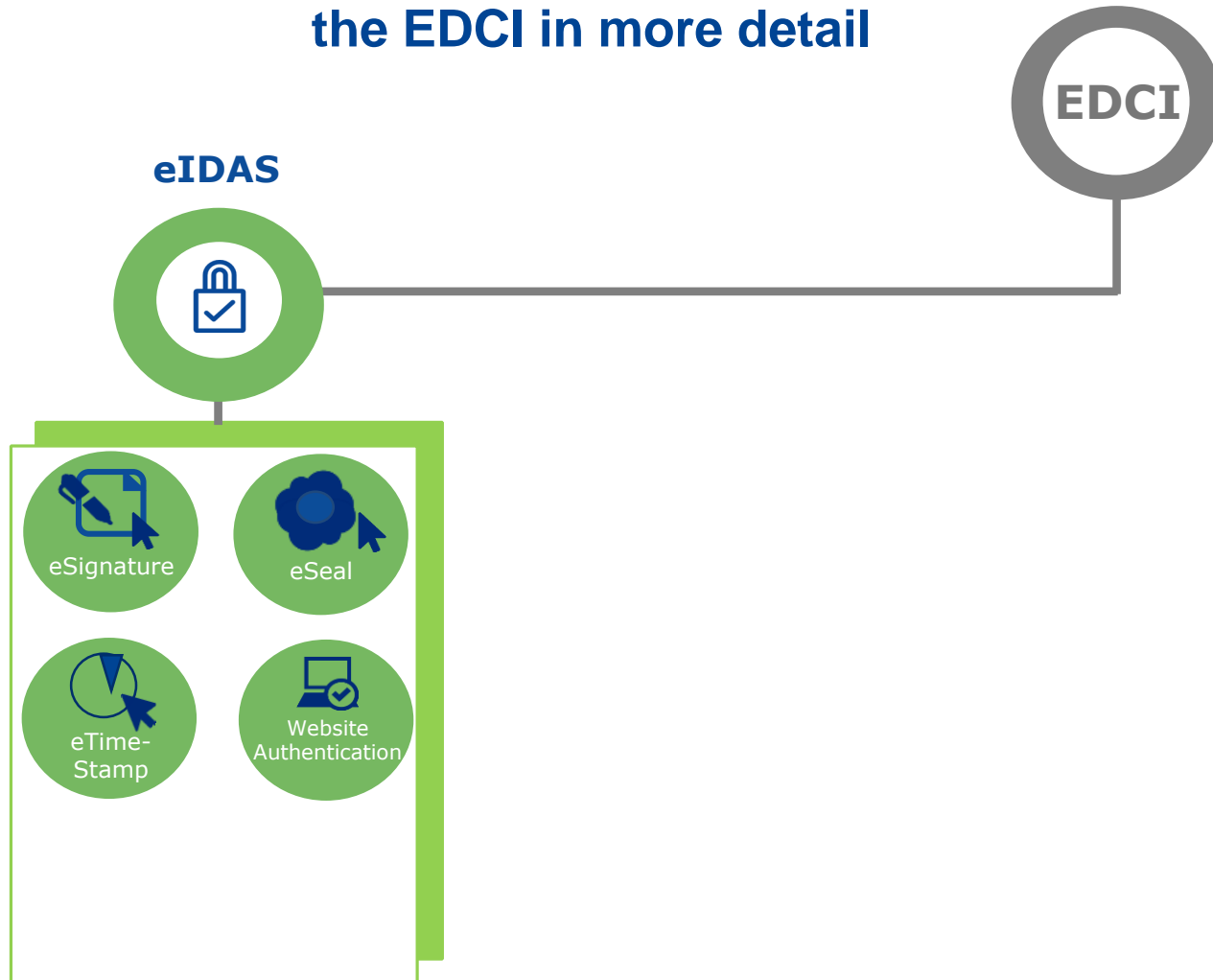
Framework for digitally-signed credentials

the EDCI in more detail

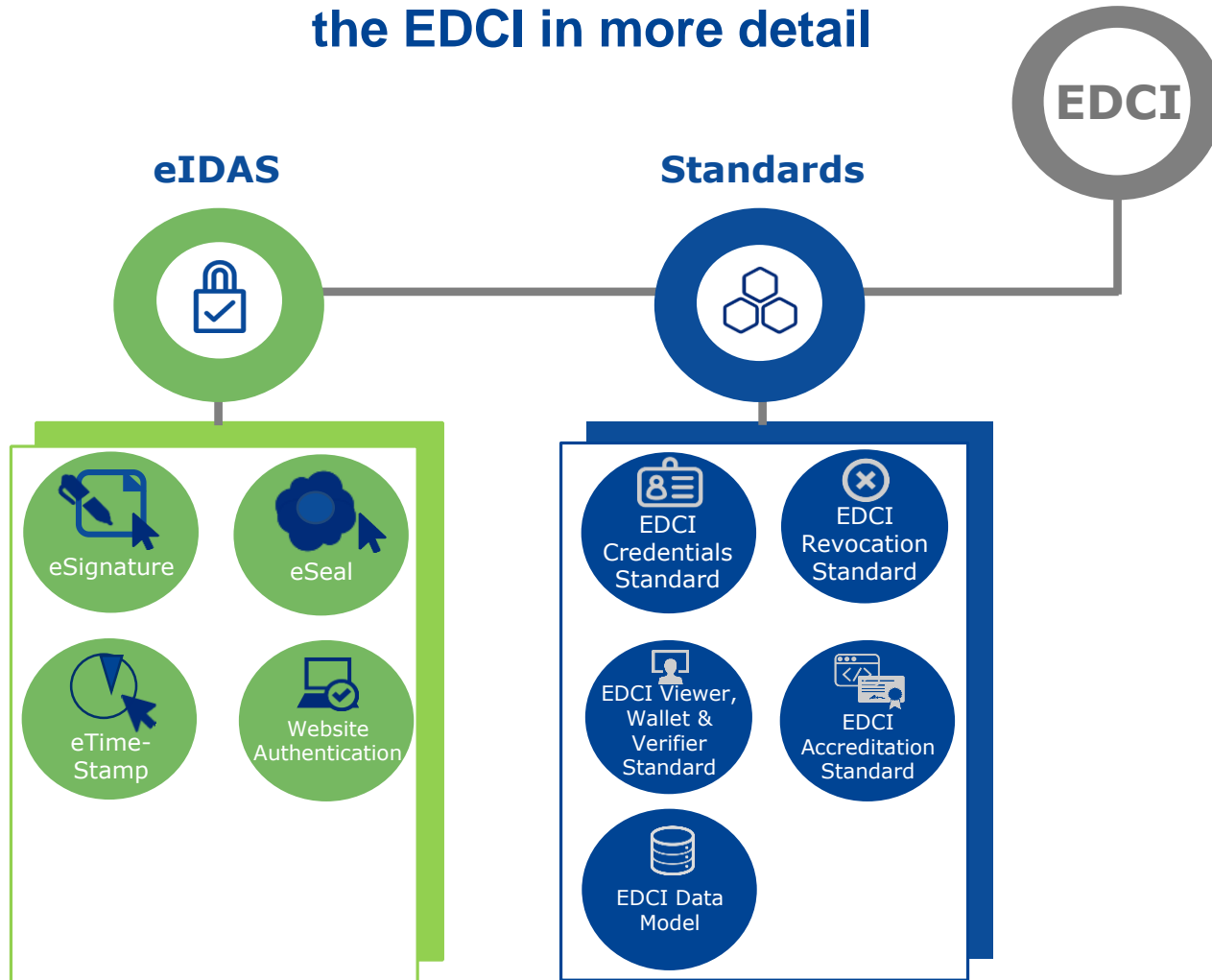


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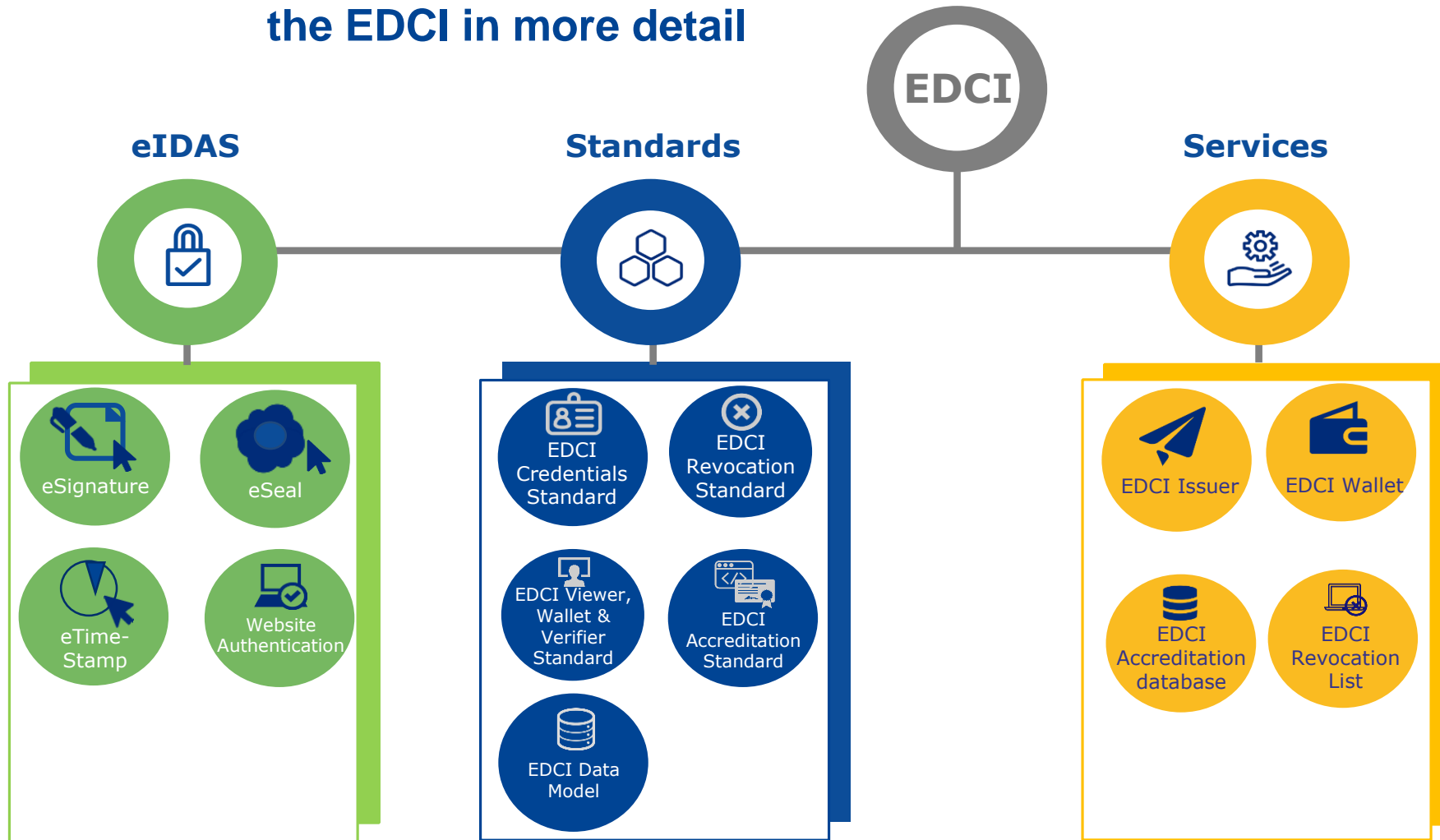


Framework for digitally-signed credentials the EDCI in more detail



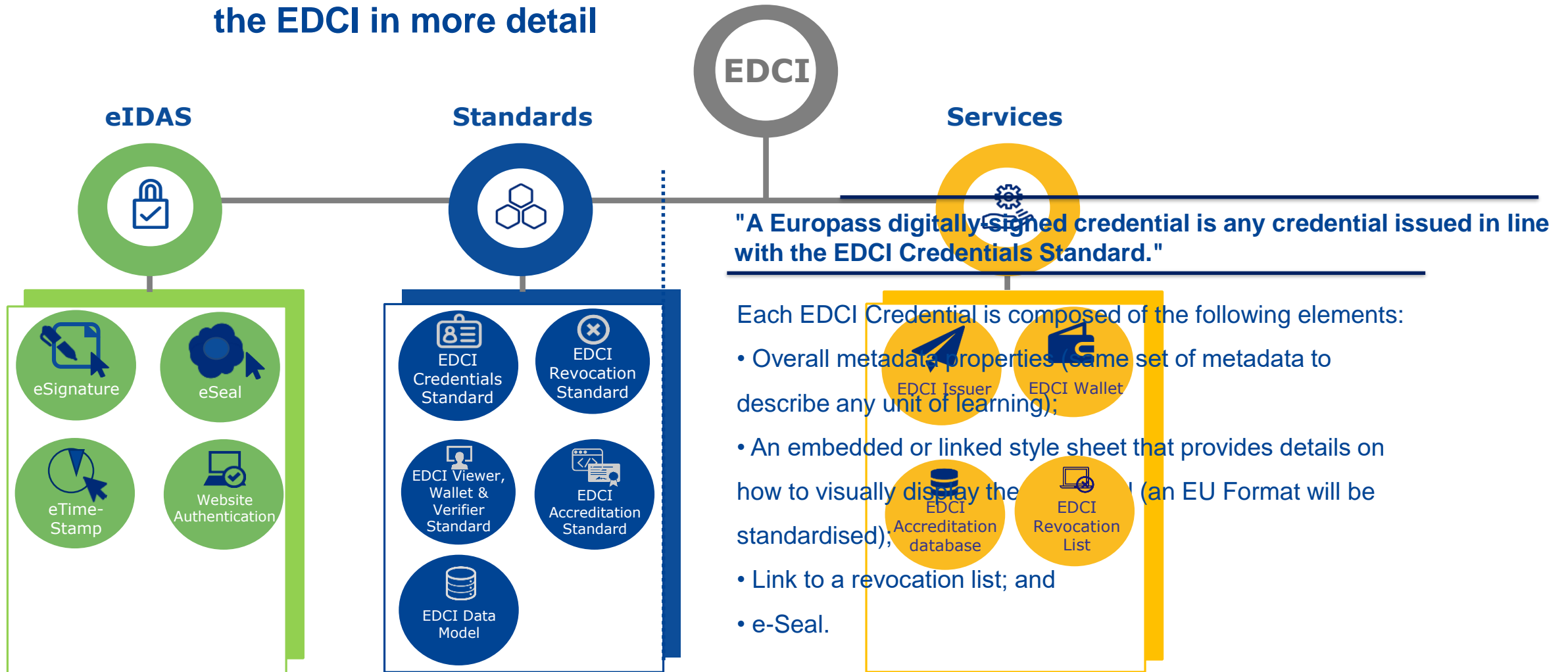
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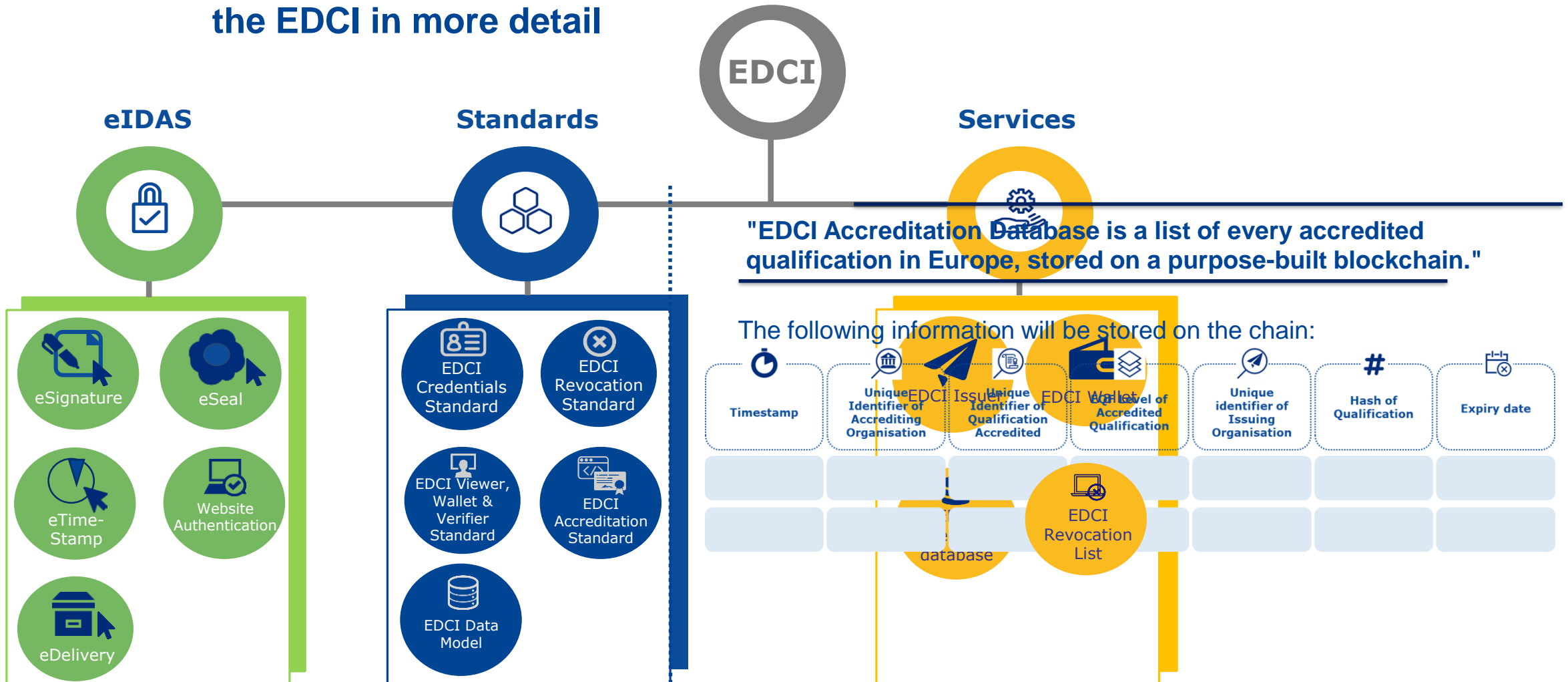
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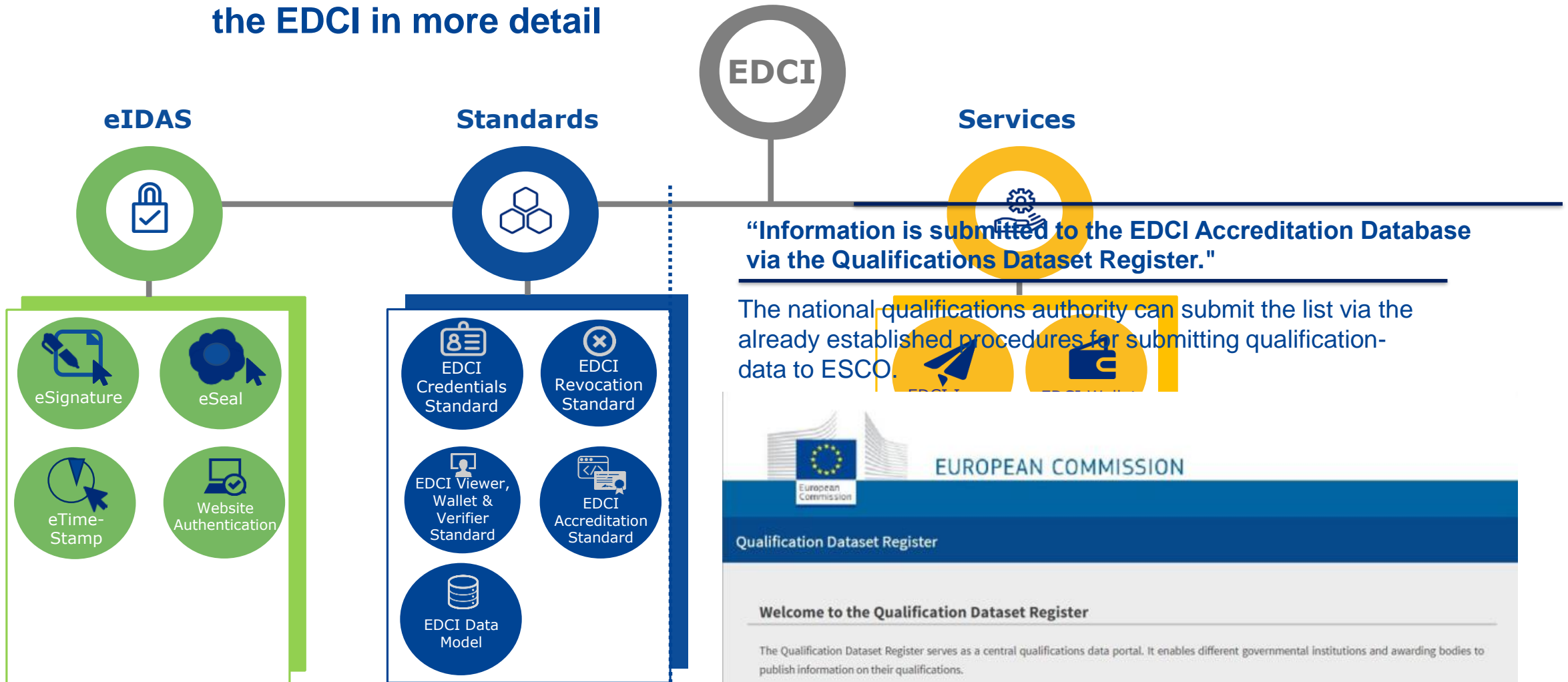
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the EDCI in more detail



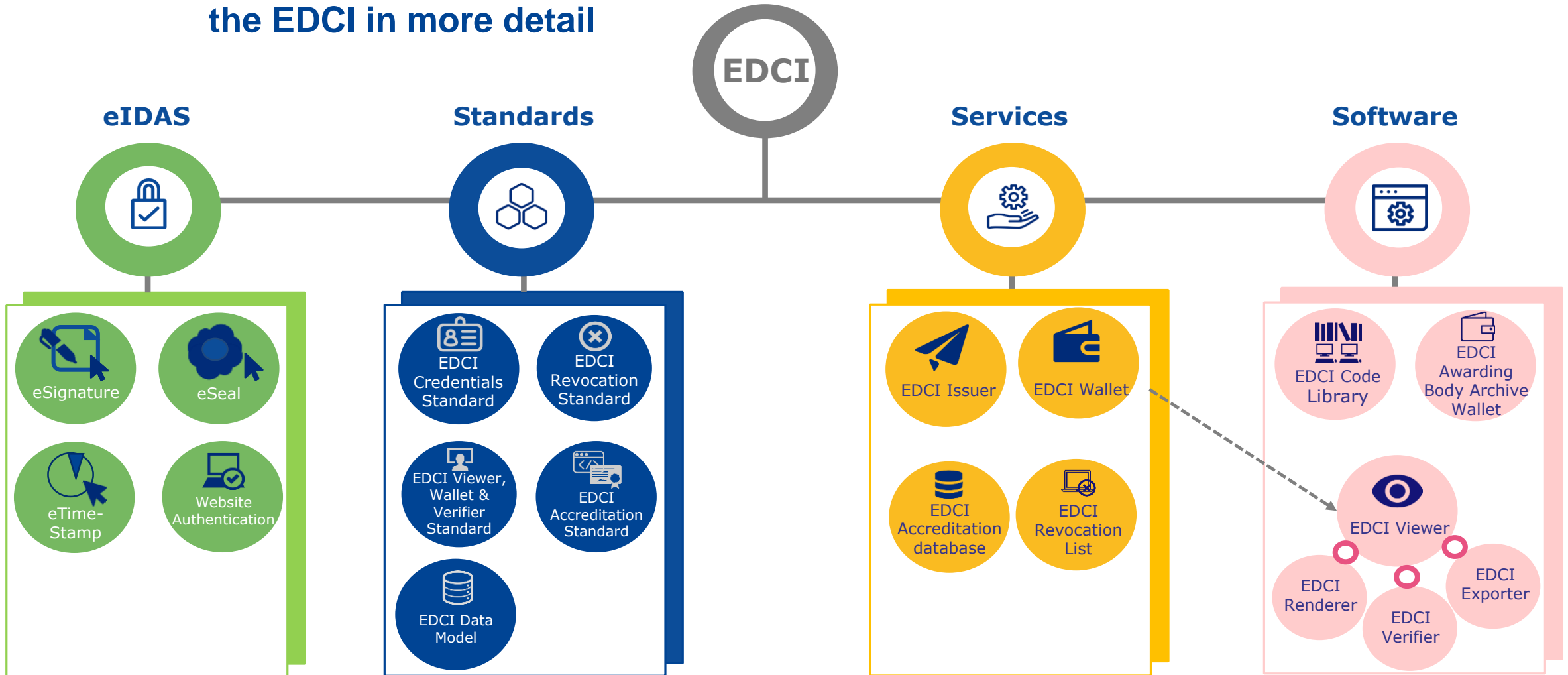
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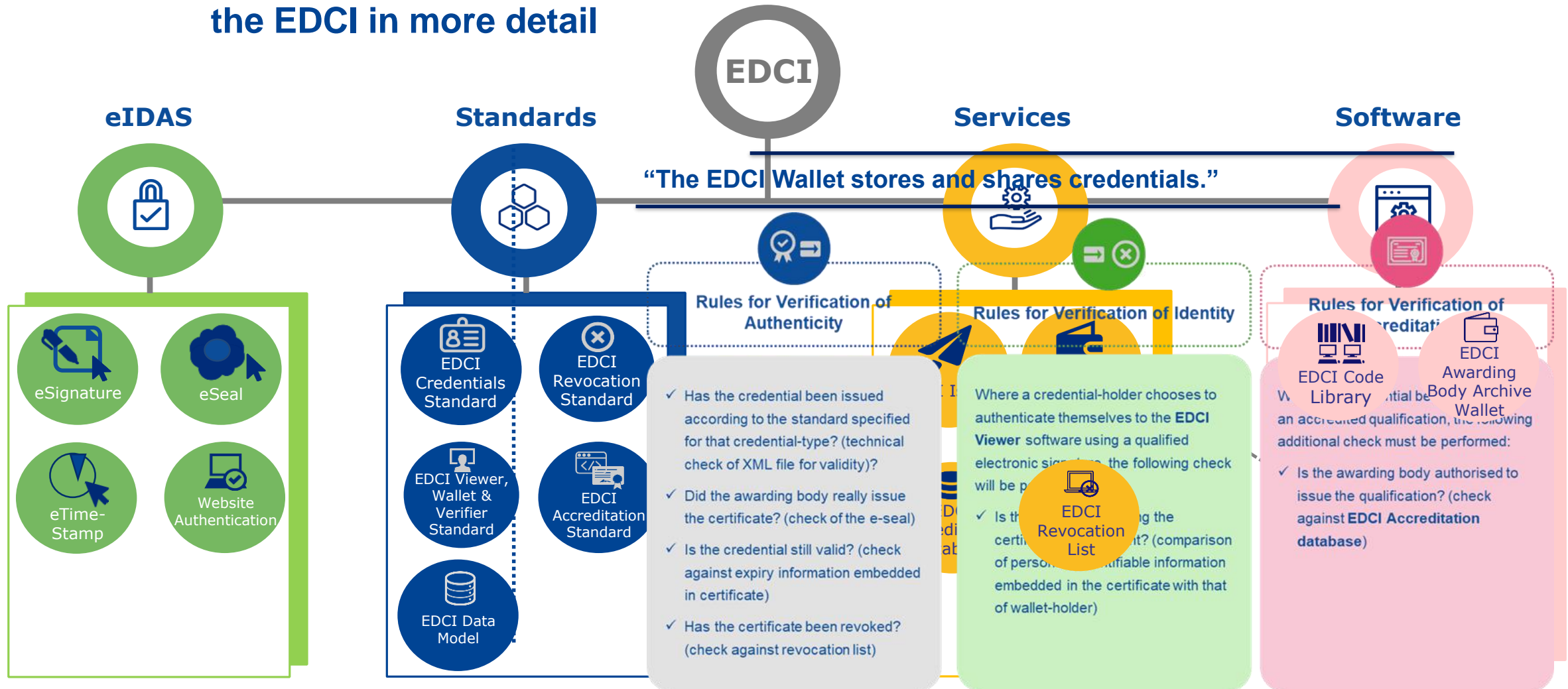
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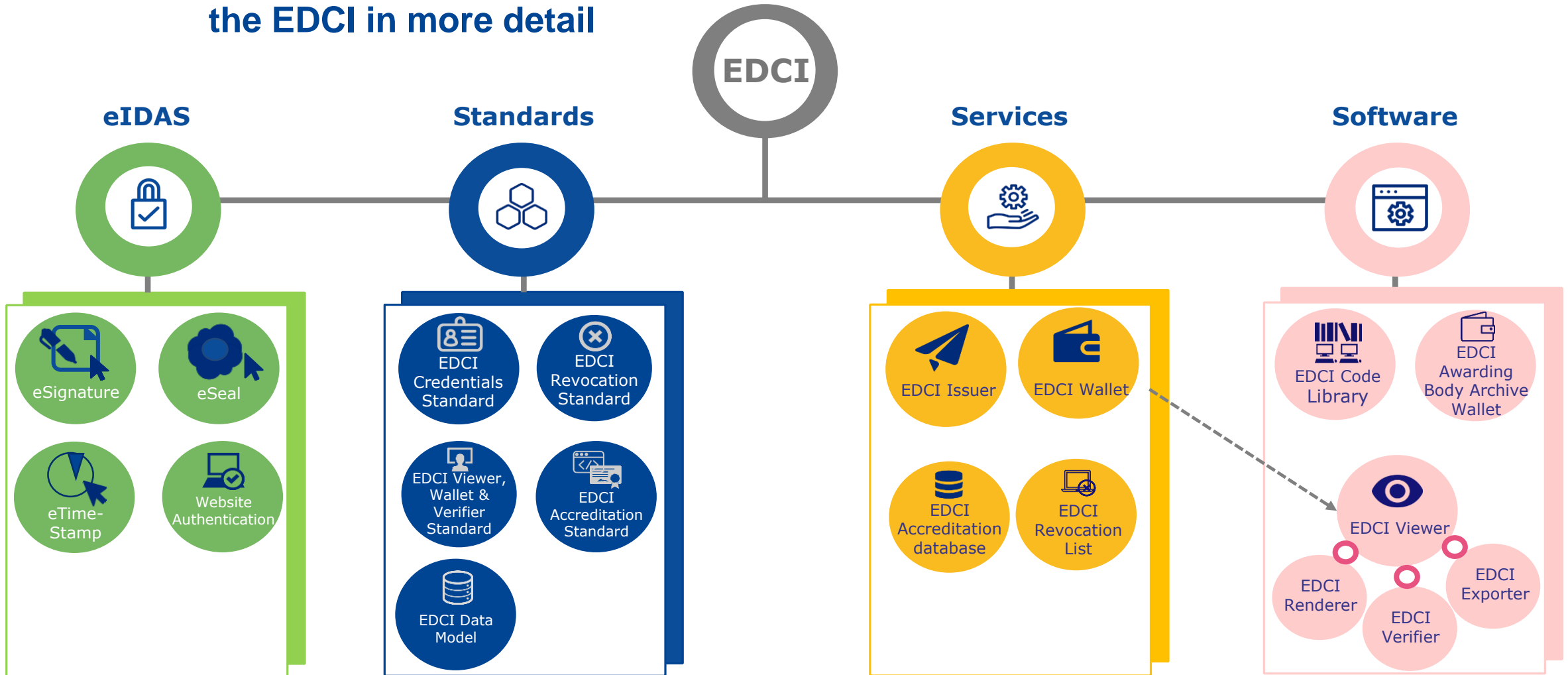
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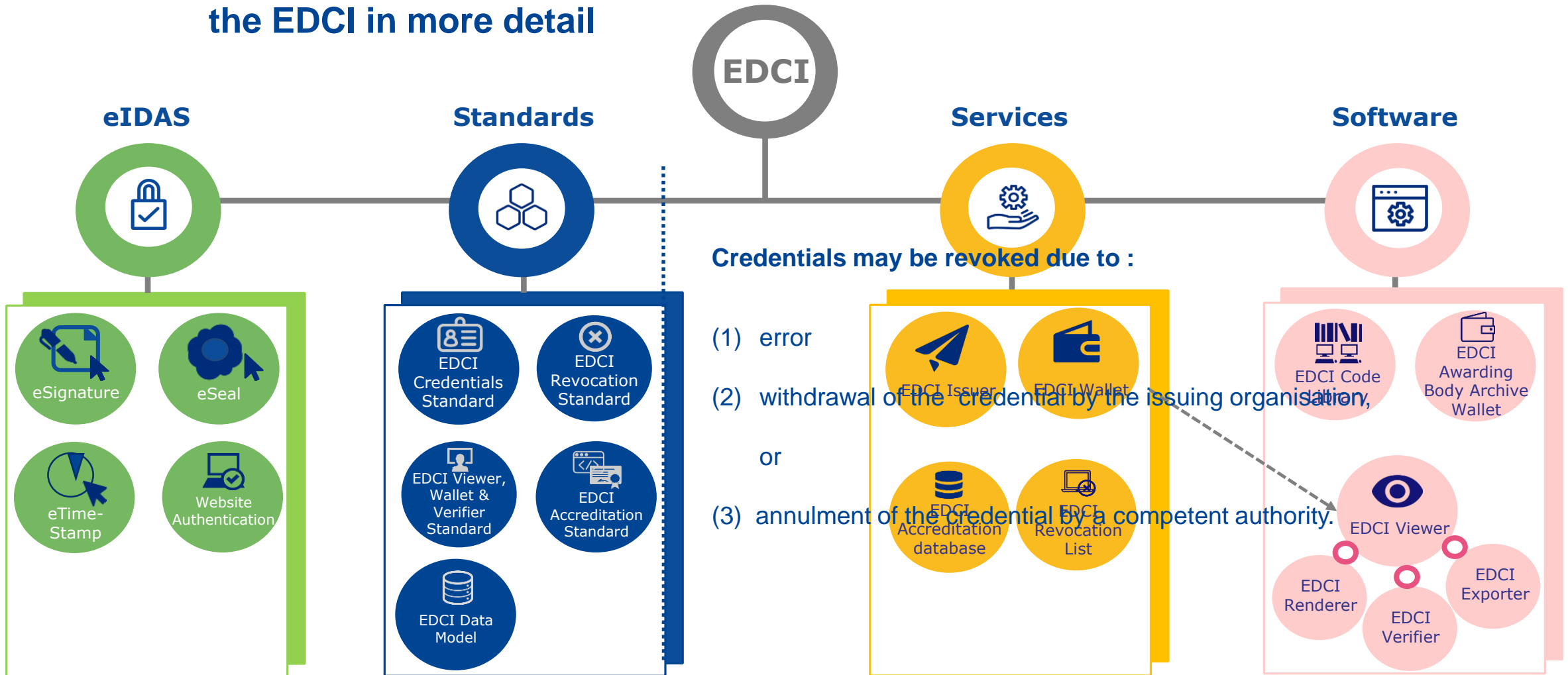
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the EDCI in more detail



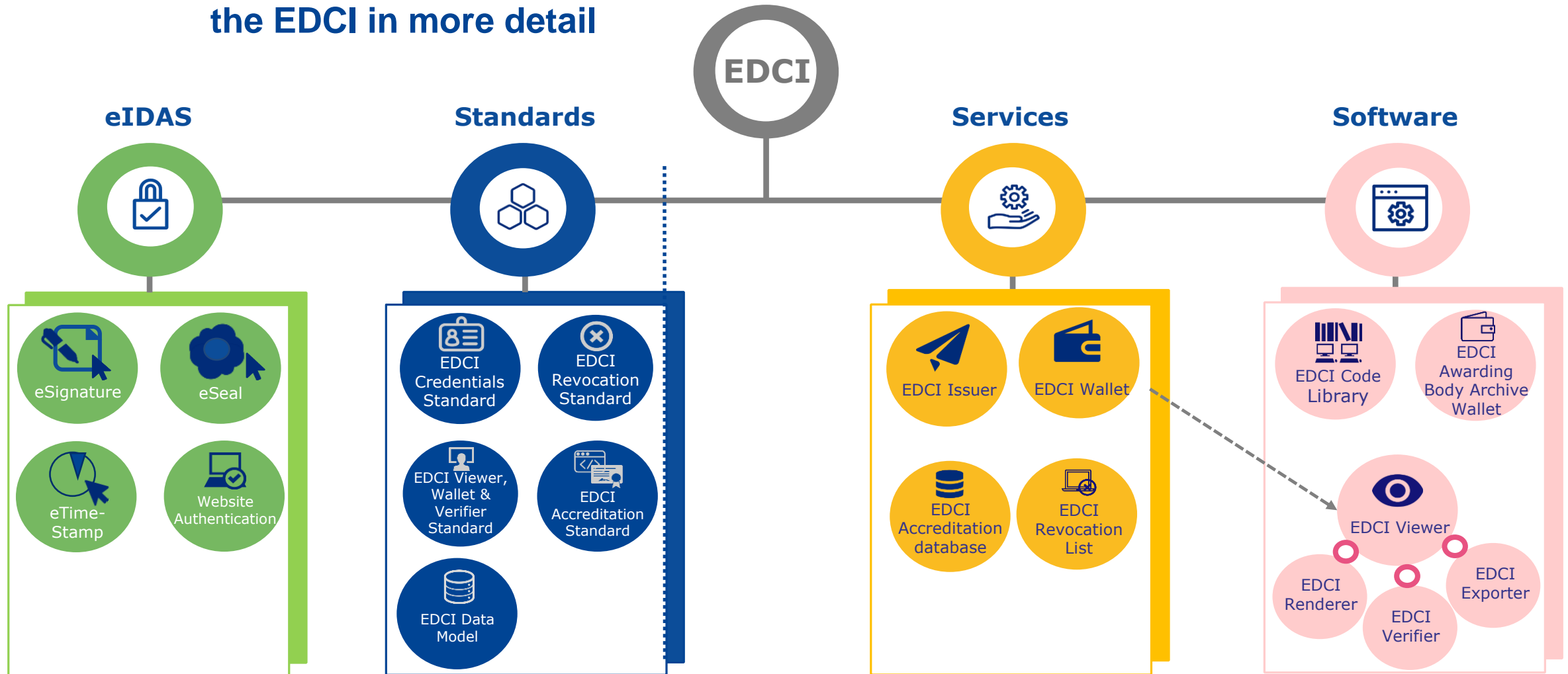
Framework for digitally-signed credentials

the EDCI in more detail



Framework for digitally-signed credentials

the EDCI in more detail



WHAT THE EDCI IS

- a standardised format for digitally certifying and attesting learning, irrespective of its source, in a secure way;
- a mechanism for the credential owner to store and share records of their own learning;
- a set of tools to enable the implementation of the standard; and
- a facilitator of credential interoperability.

WHAT THE EDCI IS NOT

- a new way of describing learning – it is entirely based on existing recognition instruments;
- a mechanism for sharing information between educational institutions (e.g. for mobility);
- a platform for experimenting with new technology; or
- a set of rules for institutions or member states.

Framework for digitally-signed credentials

why adopt the EDCI?



Awarding
Bodies



Reduce the cost for issuing secure credentials



Eliminate administration of verifying credentials



Decrease costs in verifying records as part of admissions processes

Framework for digitally-signed credentials

why adopt the EDCI?



Member
States



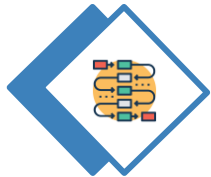
Accreditation
Bodies



Contribute to significant efficiency gains from standardised structures for all credentials



Reduce workload for ENIC/NARIC points



Establish a single source of information for accredited qualifications in Europe, which may reduce the scope of diploma mills to defraud person

Framework for digitally-signed credentials

why adopt the EDCI?



Automating the verification of the authenticity of credentials

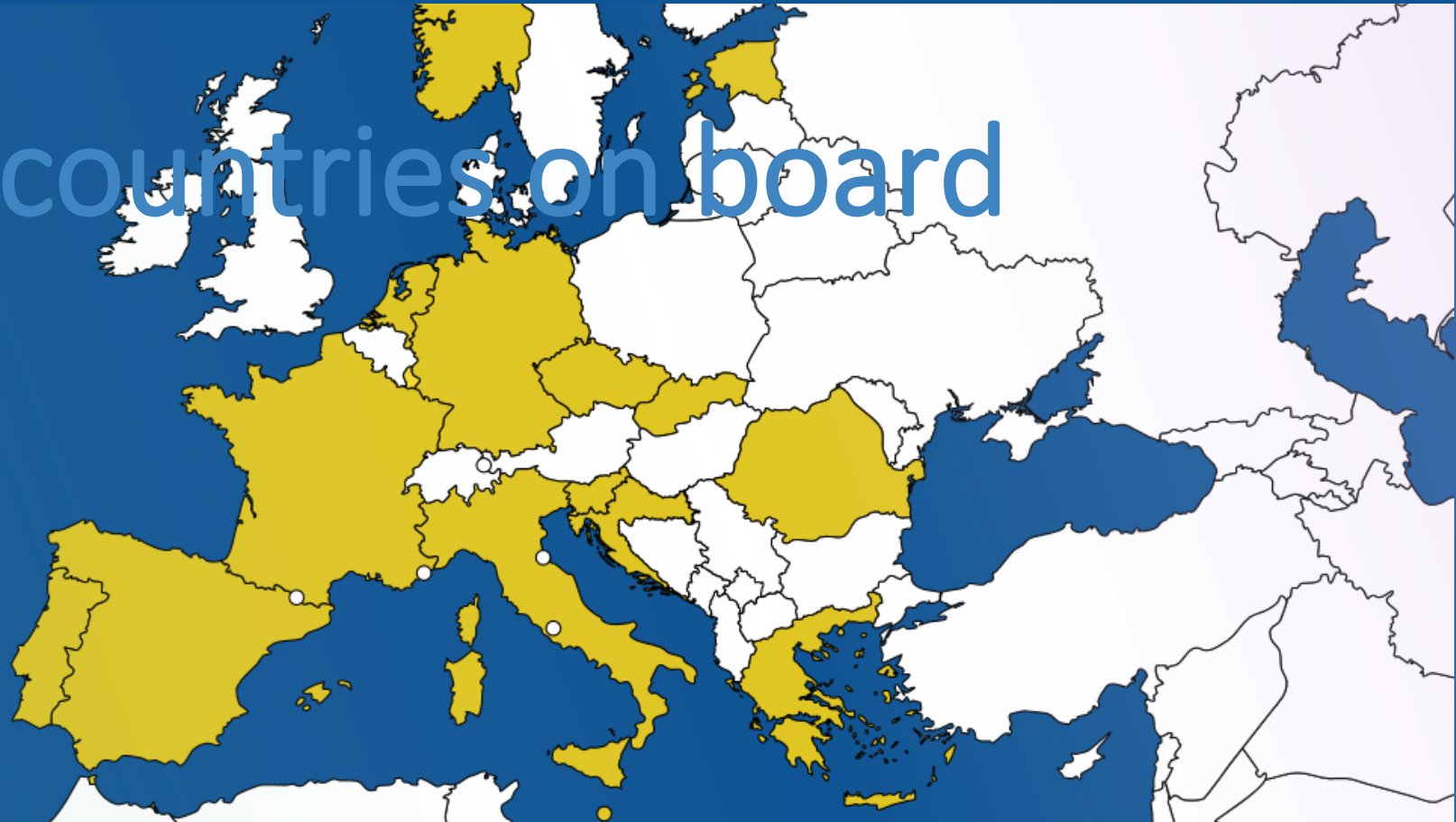


Automating the evaluation of the skills and experience represented by credentials

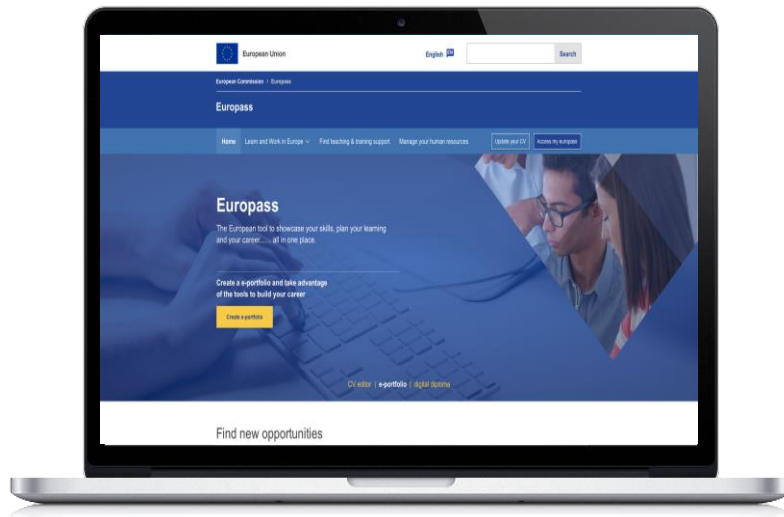
MOCK UPS

https://ec.europa.eu/futurium/en/system/files/ged/dsc_screens.pdf

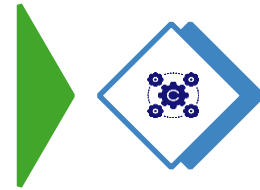
16 countries on board



Framework for digitally-signed credentials pilots



EUROPASS



HOSTED MODEL
(USE EDCI ONLINE SERVICES)



STANDARDS MODEL
(IMPLEMENT EDCI STANDARDS IN OWN
INFRASTRUCTURE)



Thank you!

Additional feedback is welcome at:

<https://ec.europa.eu/futurium/en/europass/dscpilots>

EMPL-EUROPASS@ec.europa.eu

angeliki.dedopoulou@ext.ec.europa.eu

@Adedopoulou

@EU_Social

#EDCI

#NewEuropass