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Linking Ecosystems: Interoperable Quality Data on Micro-Credentials

1EdTech Learning Impact Europe 2025

23 September 2025

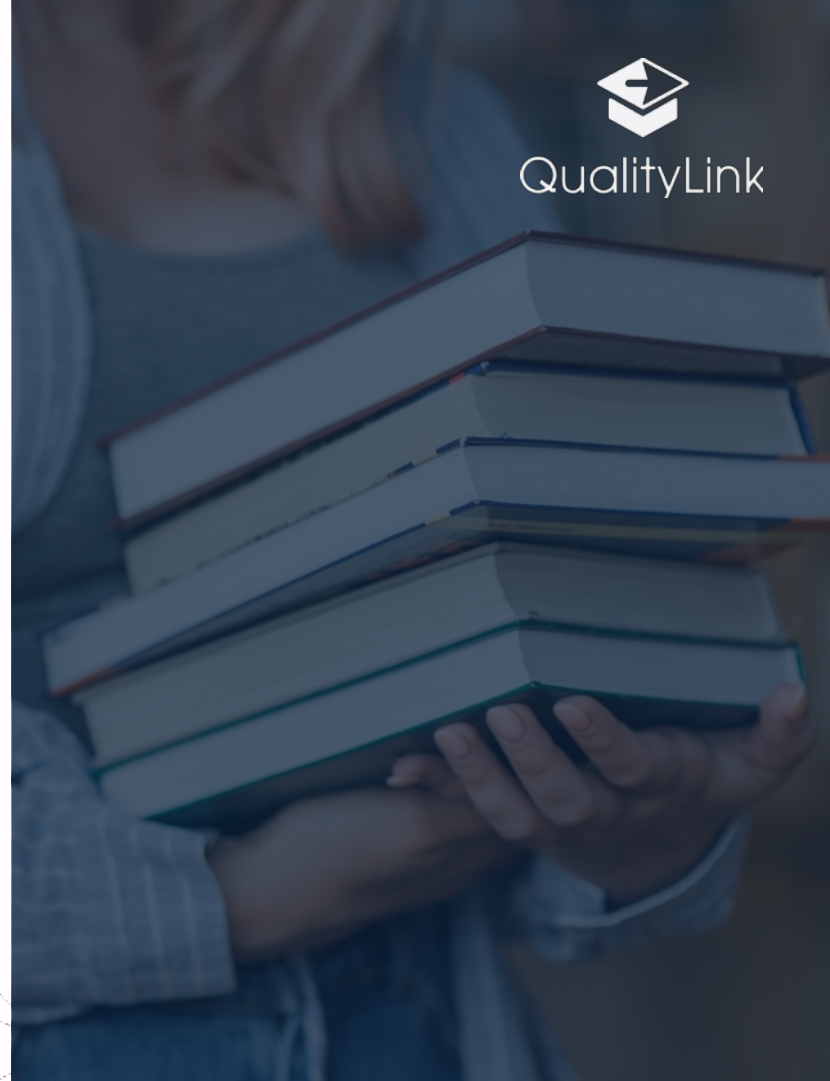
Colin Tück (KIC)

Aleksandra Zhivkovikj (EQAR)

Hanna Reczulska (NAWA)



QualityLink



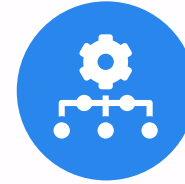
Challenges of today's landscape



Diversity of micro-credentials and other short courses



Basic info and quality indicators rarely published using open standards



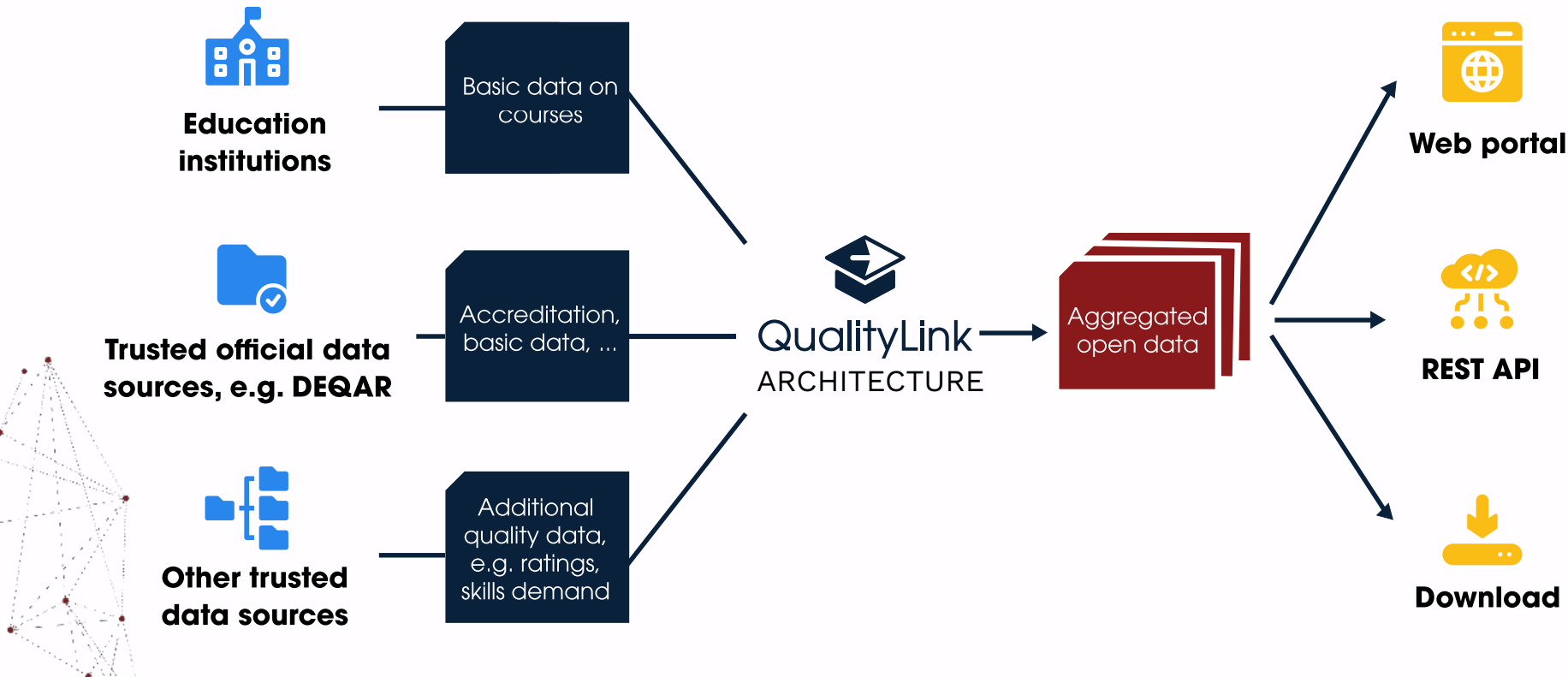
Standardise and reliable data crucial for recognition and understanding

QualityLink is an Erasmus+ project running Dec 2023 – May 2026 | Partners:



Vision for an open quality data exchange architecture

(in particular, but not only for micro-credentials)





Honey Bee Health (Apiculture)

by [University of Galway](#)

♡ Add to favourites

Enroll now

Basic data External quality assurance Quality indicators

DELIVERY MODE
Blended

COUNTRY
Ireland

LANGUAGE
English

PRICE
500 EUR

WORKLOAD
5 ECTS

LEVEL
EQF 6

DESCRIPTION

This module will introduce you to the factors impacting honeybee health. This includes bee-related factors that regulate honeybee health such as social immunity, influence of microbiome and plant-bee interactions. It will then introduce you to the factors that negatively affect bee health including diseases, pathogens and poisons, habitat decline, and other human influences.

PROVIDER [University of Galway](#) [Visit](#)

LEARNING OUTCOMES

- Discuss the mechanisms of immunity in *Apis mellifera*
- Identify current parasites of honeybees in Ireland and more widely, considering potential threats to honeybee health from imported bees and other products
- Describe the life cycle of the mAin honeybee pathogens
- explain the importance of plants to honeybee health
- Link the diversity of microbes associated with honeybees with their influence on honeybee health
- Discuss human-mediated factors involved in decline of honeybee health.

SKILLS [ESCO](#)

- Handle honeycombs [ESCO](#)
- Differentiate honeydepending on the origin [ESCO](#)

TYPE OF ASSESSMENT Continuous assessment

SUPERVISION AND IDENTITY VERIFICATION Supervised online

FORM OF PARTICIPATION Blended (online & on site)

PREREQUISITES Minimum age: 21 years

TYPE OF CREDENTIAL AWARDED EDC; paper-based

IDENTIFIER IE0003-Z01202



Honey Bee Health (Apiculture)

by [University of Galway](#)

♡ Add to favourites

Enroll now

Basic data External quality assurance Quality indicators

Content relevance, labour market demand and accuracy

ACCURATE AND UP-TO-DATE INFORMATION

Learning outcomes in ESCO ontology

No (ESCO skills generated)

DEMAND FOR SKILLS

Skills provided mentioned in up to X% of job ads

45%

- handle honeycombs: 23%
- differentiate honey depending on the origin: 31%

DEMAND FOR SKILLS

Skills provided relevant to X% of occupations covered in job ads

78%

STACKABILITY

Number of known further learning pathways, e.g. possibility to stack MC to a degree or larger credential

12 pathways offered by 9 different providers [Learn more](#)

QUALITY LABELS

EUR-ACE, AACSB

Teaching methods and pedagogy

PLATFORM GA

Micro-credential with quality-assured presence on platform

Coursera, EdX

STUDENT / STAFF RATIO

Students per academic (FTE)

56

ACTIVE METHODOLOGIES EMPLOYED IN THE COURSE

None

AVAILABILITY OF TUTORING OR MENTORING

Yes [Learn more](#)

VIRTUAL LEARNING ENVIRONMENT (VLE) AND LEARNING MANAGEMENT SYSTEM (LMS)

Moodle

Accessibility and inclusivity

MAKE-UP OF THE STUDENT BODY

Mature students

12%

MAKE-UP OF THE STUDENT BODY

Students from disadvantaged backgrounds

17%

RECOGNITION OF PRIOR LEARNING

Yes [Learn more](#)

GRANTS / LOANS

BAFEG [Learn more](#)

Learner-centred approach, satisfaction and success

STUDENT RATINGS

Percentage of learners recommending this micro-credential

87%

STUDENT SATISFACTION

Rating established by internal GA

4.1 / 5

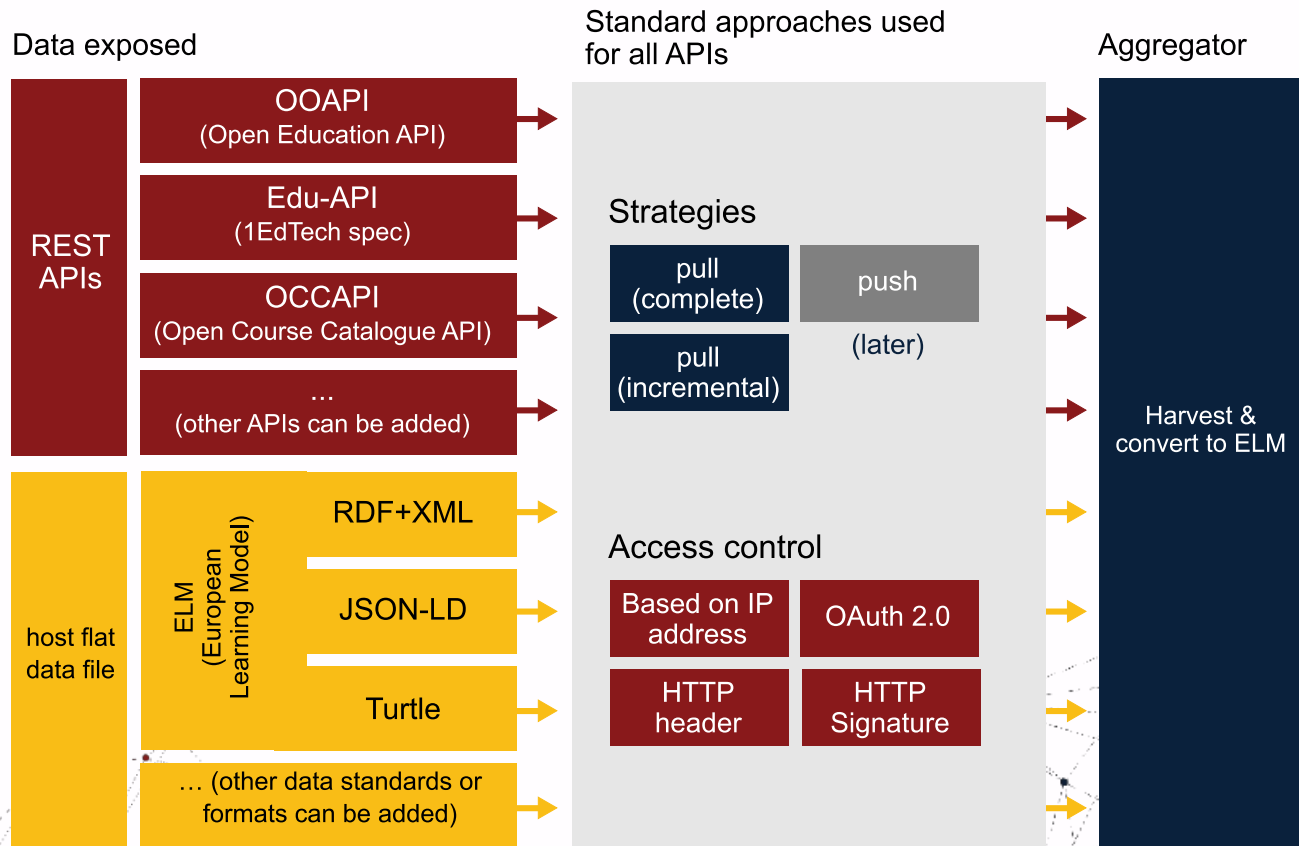
STUDENT RATING (OVERALL)

3.8 / 5

Data Exchange Architecture

Principles:

- Build on existing standards
- Low bar to adoption
- Flexibility where helpful
- Open to extensions
- New components open source



Implementation options

Expose information

Export ELM data

Implement OOAPI

Implement Edu-API

Implement OCCAPI



Aggregate data

QualityLink aggregator
(project instance)

QualityLink aggregator
(own instance)

Custom aggregator



Public catalogue

QualityLink pilot platform
(hosted, filtered view)

QualityLink pilot platform
(own instance)

Own custom front-end



All combinations are possible

EQAR's Mission and Role

- EHEA's official register of quality assurance agencies that comply with the **Standards and Guidelines for Quality Assurance in the EHEA (ESG)**: currently 58 QA agencies
- Non-profit and independent
- Acts in public interest

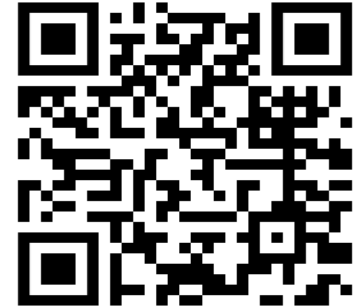


DEQAR:

“quality at your fingertips”

<https://www.deqar.eu/>

eqar

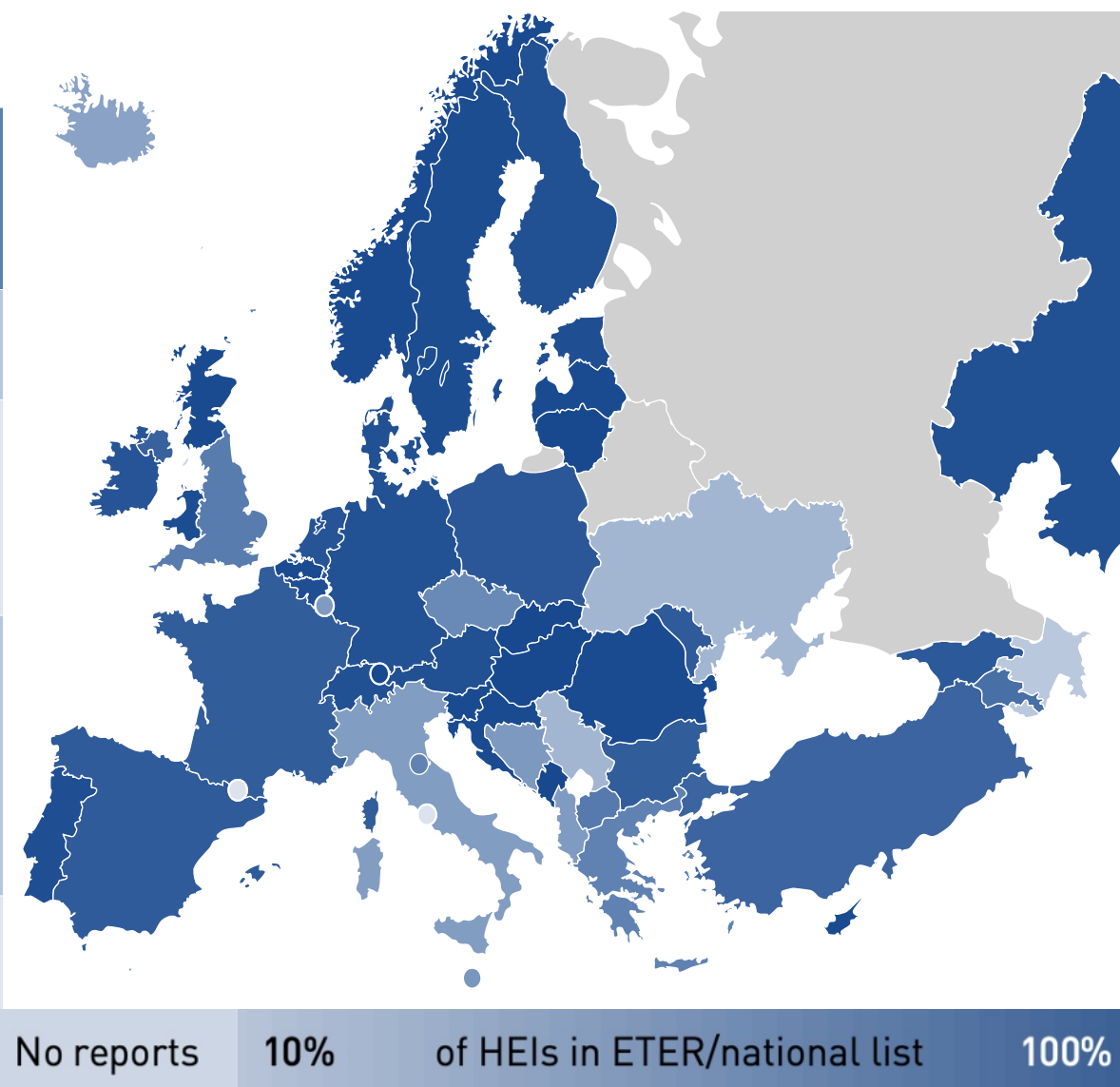


- Created in 2018
- Enhance trust and transparency in the EHEA and responds to needs of different stakeholders
- Easy access to external quality assurance (QA) reports (i.e. **accreditations, evaluations and certifications**) and decisions by EQAR-registered agencies (**ONLY higher education**)
- Accreditations and evaluations of HE providers uploaded by EQAR registered QA agencies

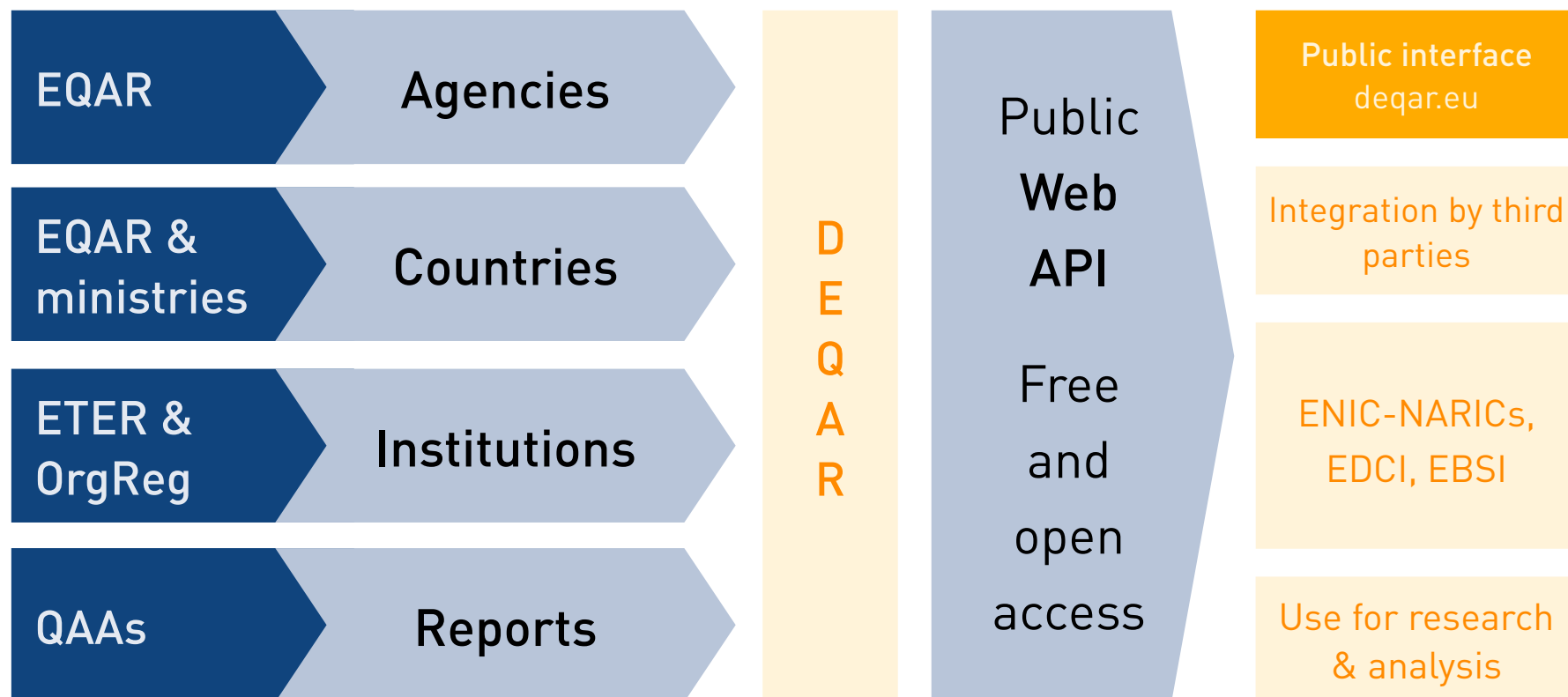
DEQAR Key Figures



	June 2025
Reports	118 767
HE Institutions (at least 1 report)	4541
Higher Education Systems ($\geq 50\%$ of HEIs)	32
Agencies	58



DEQAR Architecture



Example of interoperability: DEQAR



Data intake – European Tertiary Education Register (ETER/OrgReg)

- Main list of institutions comes from ETER
- Extract of particular set of information
- Automatically updated every 24h

The screenshot displays the DEQAR interface for selecting variables. On the left, under 'Groups of Variables', three categories are listed: 'Identifying Variables' (1 of 7 variables selected), 'Core Set of Data' (1 of 42 variables selected), and 'Core Set of Data (+ flags and remarks)' (1 of 80 variables selected). The main area shows four columns of variable groups: 'Basic institutional descriptors', 'Geographic information', 'Expenditures', and 'Revenue'. Each group has a 'Select All' checkbox. In the 'Basic institutional descriptors' group, 'Institution Name' is selected with a yellow checkmark. At the top right, there are buttons for 'Select All Variables', 'Select all Filtered Variables', and 'Filter variables'. A 'Selection' button with a trash icon is also present, with a status indicator 'Variables selected: 1'.

Example of interoperability: DEQAR

Data intake – EC's European skills, competences and occupations (ESCO) framework API



Learning outcomes

- tend drawing kiln - <http://data.europa.eu/esco/sk>
- cold drawing processes - <http://data.europa.eu/e>
- technical drawings - <http://data.europa.eu/esco/>
- tend bar drawing machine - <http://data.europa.e>
- create AutoCAD drawings - <http://data.europa.eu>
- metal drawing processes - <http://data.europa.eu>
- use artistic materials for drawing - <http://data.eu>
- drawing kiln operator - <http://data.europa.eu/esco>

Field of study (ISCED-F)

- accounting and taxation - <http://data.europa.eu/esco/>
- agriculture - <http://data.europa.eu/esco/isced-f/081>
- agriculture not elsewhere classified - <http://data.euro>
- agriculture not further defined - <http://data.europa.eu>
- agriculture, forestry, fisheries and veterinary - <http://c>
- agriculture, forestry, fisheries and veterinary not else
- agriculture, forestry, fisheries and veterinary not else
- agriculture, forestry, fisheries and veterinary not else
- agriculture, forestry, fisheries and veterinary not furth

Example of interoperability: DEQAR



Data export – ENIC NARICs workflows

CERTIFICATION COMPARABILITY

Reference N. [REDACTED] Date 24-02-2021

Name of the holder [REDACTED] Date of birth [REDACTED]

Name of the qualification Bachelor in Banking and Finance Awarding year 2020

Issue country Albania Awarding institution [REDACTED] Validate with [deqar](#)

Status of institution [REDACTED] Teaching institution Teaching institution

Type of qualification [REDACTED] Classification/Level 1st cycle QF-EHEA / EQF level 6

Duration 3 years Workload 180 ECTS

Deqar ID [REDACTED] Whed ID [REDACTED]

Access requirements Access requirements Access to further studies Access to further studies

[Evaluation details](#)

[REDACTED]

[Preview Certificate PDF](#)

[CANCEL](#) [CONFIRM](#) [Save draft](#)

CIMEA DiploMe

- Extraction of data on accredited HEIs
- Include logo on statements of comparability if the HEI is in DEQAR

CERTIFICATION COMPARABILITY

Deqar institutions

Reference [REDACTED]

Bachelor in B [REDACTED]

Issue country Albania Awarding institution [REDACTED] Validate with [deqar](#)

☒ "EPOKA" University
European University of Tirana
Nehemiah Gateway University
University of Tirana

[CANCEL](#) [Confirm institute](#)

NAWA SYRENA system



Use of data on accreditations of HEIs

The screenshot displays the NAWA SYRENA system interface. On the left is a dark sidebar with a menu. The main content area shows details for a specific accreditation case, with several fields highlighted by orange boxes.

NAWA NARODOWA AGENCJA WYMIANY AKADEMICKIEJ

Wnioski

- Wszystkie (248)
- Niepotwierdzone (0)
- Nowe (80)
- W trakcie (76)
- Do uzupełnienia (33)
- Do weryfikacji (0)
- Do podpisu (0)
- Zakończone (0)
- Odrzucone (0)
- Archiwum (59)
- Statystyki

Szczegóły sprawy: BUW.4201.116.2023.TEST

Ogólne Wniosek Ocena formalna Ocena merytoryczna **DEQAR** Kwalifikator Szablon odpowiedzi Logi

ID wniosku: 46221f2d-65f3-40a0-9b75-26ee3bdbbdcc Język wniosku: en Data złożenia: 2023-08-10 08:47 Data potwierdzenia: 2023-08-10 08:48

Kraj* Instytucja*

Albania "EPOKA" University (AL0019)

Raport

evalag - Evaluation Agency Baden-Württemberg - Programme accreditation - Banking and Finance (2020-03-01 - 2026-02-28)

Id - 48218
Agency_Name - Evaluation Agency Baden-Württemberg
Agency_Acronym - evalag
Agency_Id - 25
Agency_Url - http://backend.deqar.eu/webapi/v1/browse/agencies/25/
Contributing_Agencies - []
Agency_Esg_Activity - International programme accreditation
Agency_Esg_Activity_Type - programme
Name - Programme accreditation
Institutions - [{"id": 5881, "deqar_id": "DEQARINST5881", "name_primary": "'EPOKA' University", "website_link": "http://www.epoka.edu.al/"}]

Dekretuj ← Poprzedni Następny → Zapisz

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Export of DEQAR data - European Digital Credentials for Learning

eqar



European Digital Credentials for Learning > Credential Builder

Edit Credential Template

Please provide details about the learning credential. Hover over the ⓘ icon to see what the expected

EN

Credential Information

Credential Title*

Master of Engineering

Description ⓘ

Second cycle programme in engineering

Further details

Valid from ⓘ *

01/01/2022 01:00

Credential Type*

Accredited

Accreditation

<https://data.deqar.eu/report/99665>

Click [here](#) to find out more about how to obtain and use your accreditation identifier. Please note that currently this is an experimental feature.

ARACIS: Programme evaluation

Programme	Engineering and quality management (EUR-ACE label)
Qualification/award	
Level	first cycle (NQF 6)
Programme type	Full recognised degree programme

DEQAR Report ID	99665
Agency	Romanian Agency for Quality Assurance in Higher Education (ARACIS)
Type	Programme accreditation and awarding of EUR-ACE Label (first cycle)
Status	part of obligatory EQA system
Formal decision	positive
Date	25/07/2019
Valid until	25/07/2024

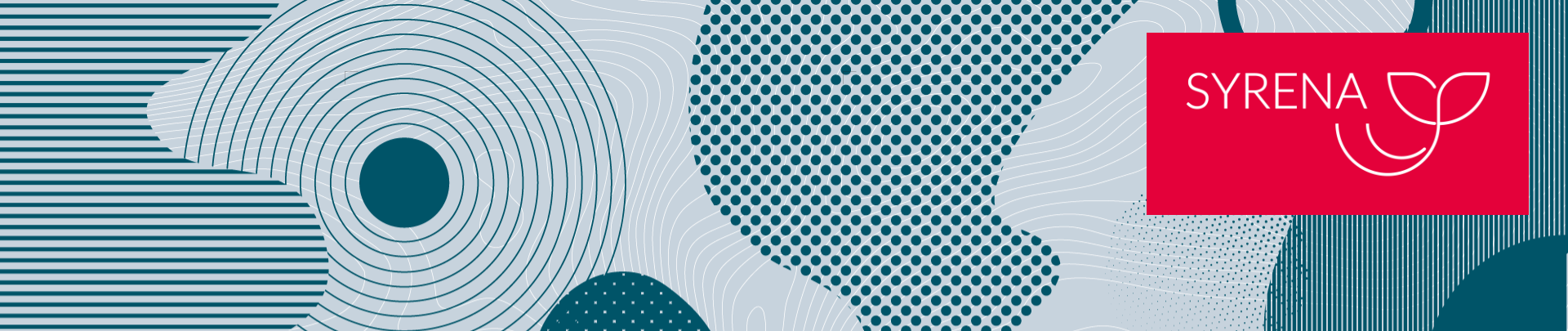
Report and decision ⓘ (Romanian)

Permalink <https://data.deqar.eu/report/99665>

Agency's identifier SP5134-2019-07-25

External link [View record on agency's website](#)

Verifiable Credential ⓘ DEQAR format

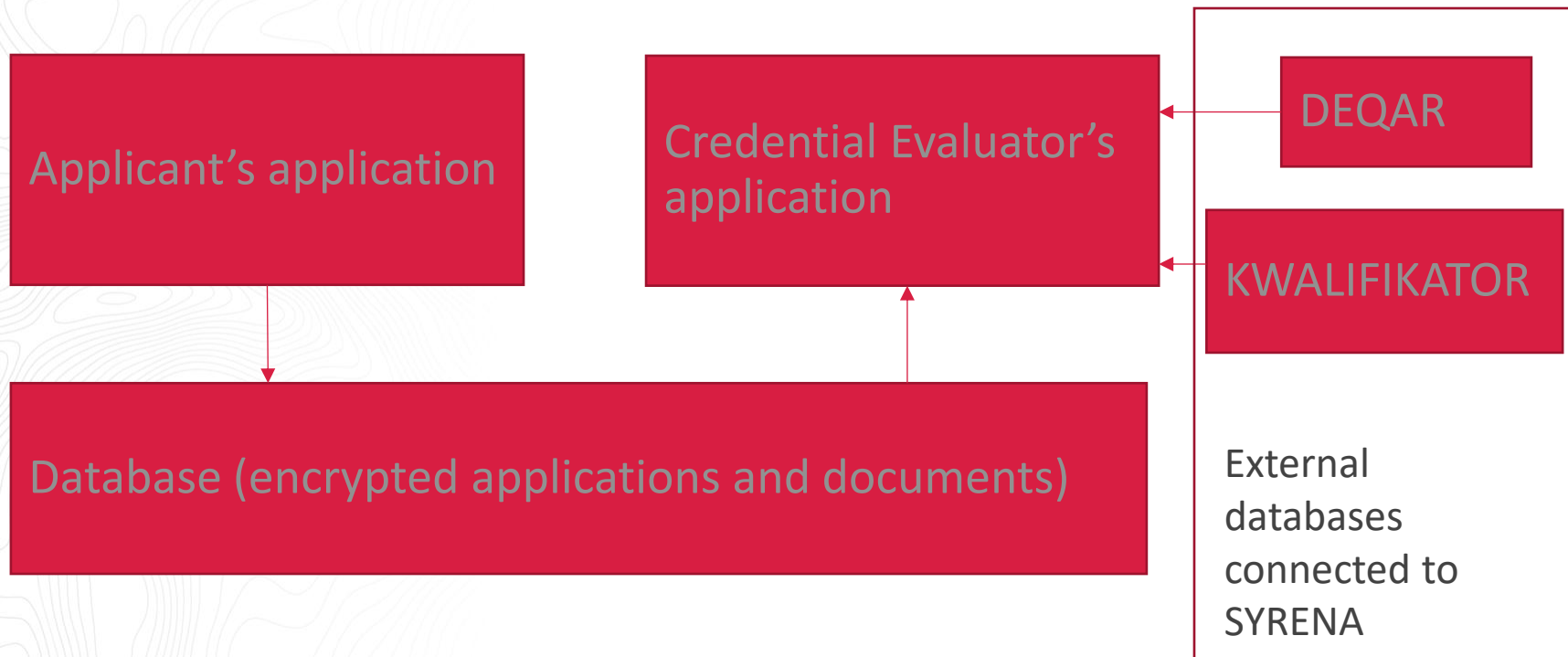


SYRENA 



NARODOWA AGENCJA
WYMIANY AKADEMICKIEJ

SYRENA – system for assessment of foreign qualifications



SYRENA

- allows to submit and process applications for recognition statements and appeals
- makes it easier for applicants to monitor status of their applications
- communicates with applicants:
 - confirms successful submission of application
 - asks for missing documents (incomplete application)
 - informs that the recognition statement (answer to appeal) is ready to download
- **cooperates with external databases: DEQAR and KWALIFIKATOR**
- sends the completed cases to archives, after the specified period of time
- deletes copies of IDs and passports from the applications
- **serves as a searchable database of past cases**

NAWA
NARODOWA AGENCJA
WYMIANY AKADEMICKIEJ

Wnioski

Wszystkie (283)

Niepotwierdzone (0)

Nowe (67)

W trakcie (2)

Do uzupełnienia (0)

Do weryfikacji (0)

Do podpisu (1)

Zakończone (0)

Odrzucone (7)

Archiwum (104)

Statystyki

Szczegóły sprawy: BUW.4201.137.2023.TEST

OgólneWniosekOcena formalnaOcena merytorycznaDEQARKwalifikatorSzablon odpowiedziOdwołanie - podglądSzablon odpowiedzi na odwołanieDodatkowe dokumentyLogi

ID wniosku: 3c14f60a-6653-4e63-922a-257fb3989995Język wniosku: pl-PLData złożenia: 2023-11-15 11:04Data potwierdzenia: 2023-11-15 11:06

Wnioskujący*

PKA

Kraj ukończenia studiów*

Niemcy

Poziom studiów*

Stopień naukowy

Nazwa dokumentu*

dplom ukończenia studiów

Data wydania dyplomu*

01.02.2023

Uczelnia, która wydała dyplom*

Technische Universitaet Muenchen

Rozpatrujący*

Hanna Reczulska

Ostatni komentarz do wniosku

do podpisu

Dekretuj

Do uzupełnienia

Do weryfikacji

Odrzuć wniosek

← Poprzedni

Następny →

Zapisz

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Wersja 1.0













18.09.2025

4

DEQAR



Ministry of Education egracons rp.pl Syrena OS Administrator - Syr... Pasek zakładek CST Adobe Acrobat

Ogólne

Wniosek

Ocena formalna

Ocena merytoryczna

DEQAR

Kwalifikator

Szablon odpowiedzi

Odwotanie - podgląd

Szablon odpowiedzi na odwołanie

Dodatkowe dokumenty

Logi

Kraj*

Niemcy

Instytucja*

Aachen University of Applied Sciences (DE0308)

Raport

ASIIN - ASIIN e.V. - EUR-ACE review - Civil Engineering (2017-03-31 - 2022-09-30)

Odpowiedź z DEQAR*

Id - 8538

Agency_Name - ASIIN e.V.

Agency_Acronym - ASIIN

Agency_Id - 19

Agency_Url - http://backend.deqar.eu/webapi/v1/browse/agencies/19/

Contributing_Agencies - []

Agency_Esg_Activity - EUR-ACE joint programme review

Agency_Esg_Activity_Type - joint programme

Name - EUR-ACE review

Institutions - [{"id": 590, "deqar_id": "DEQARINST0590", "name_primary": "Aachen University of Applied Sciences", "website_link": "http://www.fh-aachen.de", "is_other_provider": False}, {"id": 5546, "deqar_id": "DEQARINST5546",

Dekretuj

Do uzupełnienia

Do weryfikacji

Odrzuć wniosek

← Poprzedni

Następny →

Zapisz

KWALIFIKATOR



 NARODOWA AGENCJA
WYBIANY AKADEMICZNEJ

Wnioski

Wszystkie (265)

Niepotwierdzone (0)

Nowe (72)

W trakcie (3)

Do uzupełnienia (0)

Do weryfikacji (0)

Do podpisu (0)

Zakończone (4)

Odrzucone (1)

Archiwum (92)

Statystyki

Szczegóły sprawy: BUW.4201.141.2023.TEST

Ogólne

Wniosek

Ocena formalna

Ocena merytoryczna

DEQAR

Kwalifikator

Szablon odpowiedzi

Dodatkowe dokumenty

Logi

ID wniosku: aacf0e58-1f81-4658-bc29-8802e0b92385

Język wniosku: en-EN

Data złożenia: 2023-12-07 11:06

Data potwierdzenia: 2023-12-07 11:06

Kraj

Dyplom

Ukraina

ДИПЛОМ МАГІСТРА (PL: DYPLOM MAGISTR)

Odpo*w*ie*ź* z kwalifikatora *

Id - 6

Name - ДИПЛОМ МАГІСТРА

Name_PL - DYPLOM MAGISTR

Countryid - 1

Code - P4 - Studia drugiego stopnia lub studia jednolite

Educationlevels_PL - Studia drugiego stopnia lub studia jednolite

Qualificationscode - U01 - Uprawnia do kontynuacji kształcenia na studiach drugiego stopnia (ustawa)

Qualificationsdescription_PL - Uprawnia do kontynuacji kształcenia na studiach drugiego stopnia.

Qualificationslegalbasis_PL - Podstawa prawna: art. 326 ust. 2 ustawy z dnia 20 lipca 2018 r. Prawo o szkolnictwie wyższym i nauce (Dz. U. z 2020 r., poz. 85).

Id - 6

Dekretuj

Do uzupełnienia

Do weryfikacji

Odrzuć wniosek

← Poprzedni

Następny →

Zapisz

Dane zostały zapisane

KWALIFIKATOR

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Thank you!

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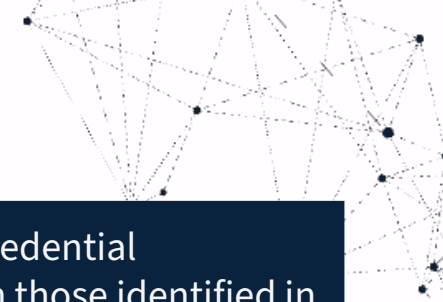
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Quality Domains and Indicators

- 1) Content Relevance, Labour Market Demand and Accuracy
- 2) Teaching Methods and Pedagogy
- 3) Accessibility and Inclusivity
- 4) Learner-Centred Approach, Satisfaction and Success
- 5) Institutional Reputation



Level of similarity of micro-credential skills/learning outcomes with those identified in forecasts (numeric scale)

The ratio of students per academic staff (numeric)

Ratio of students from a disadvantaged socio-economic background (numeric)

Grade distribution table, following ECTS Users' Guide practices (numeric)

HEIs that have recognised the micro-credential, e.g. towards a larger degree programme (numeric, list + links)

Use cases



Europe-wide
visibility



Potential learners,
guidance



Mapping and
benchmarking



Credential
transparency for
the labour market



Reliable
information for
recognition



Alliances' joint
catalogues

Landscape of data standards used in Europe

Standard	Maintained by	Used by	Tech
ELM	EU	EDC, QDR	RDF ontology & profiles
ELMO	EMREX	EWP, EMREX	XML schema
OOAPI	SURF	Dutch HEIs, European alliances	REST API
OCCAPI	EUF	Some HEIs	REST API
Edu-API	1EdTech	Various	REST API

DEQAR

EQAR

EQAR & QA agencies

REST API

- Builds on existing registries
 - Database of External Quality Assurance Results (DEQAR)
 - Erasmus Charter
 - EWP Network
- Manifest file under institution's web domain

