



Co-funded by
the European Union



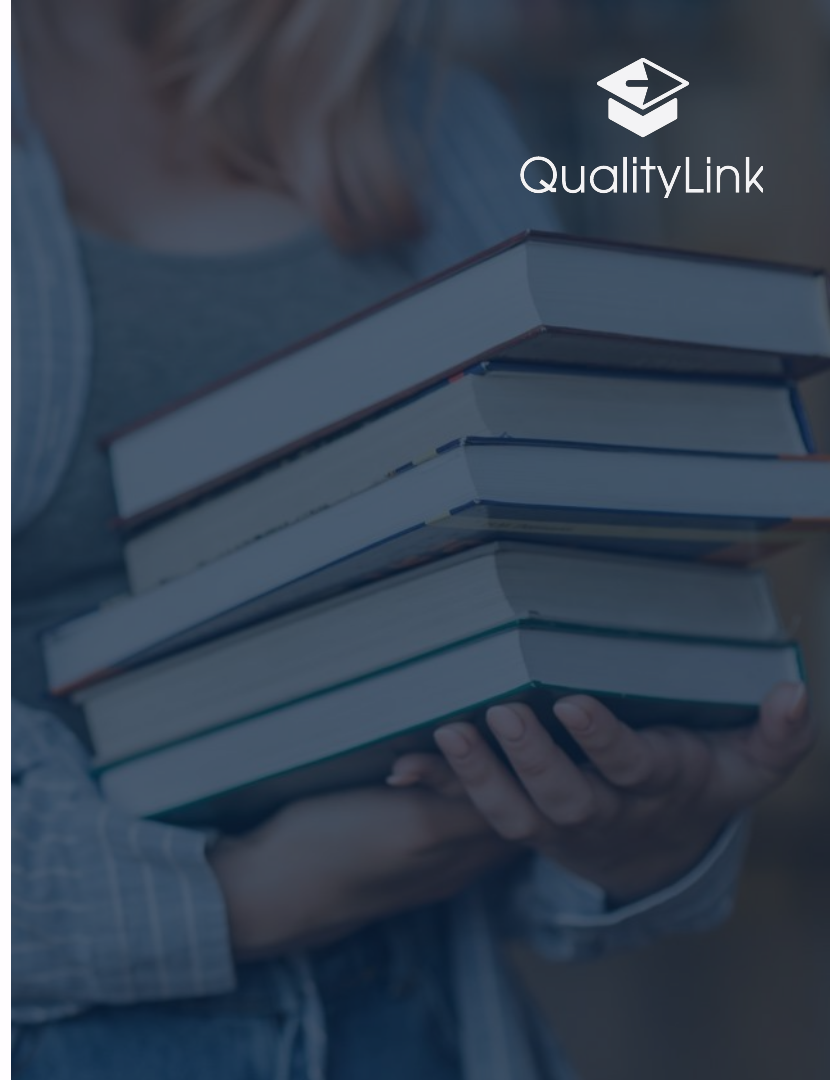
QualityLink

Better recognition through better data?

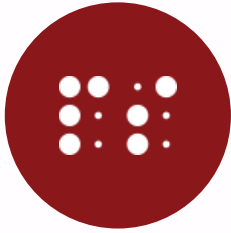
Insights from QualityLink and how
they could be scaled beyond Europe

Micro-Credentials Masterclass
26 February 2026, Amsterdam

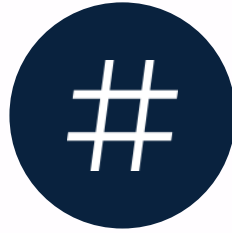
Jochen Ehrenreich (DHBW) & Colin Tück (KIC)



Current challenges



Reliable data is
essential for
recognition of
micro-credentials



Basic course data
often not published
in open &
structured form



Other data (ratings,
recognition history,
certifications, ...) rarely published
using open
standards

Use cases



Potential learners,
guidance



Recognition and
labour market



Alliances' joint
catalogues



Mapping and
benchmarking



Interoperability for
other apps



Europe-wide
visibility

Discover & Quality Indicators

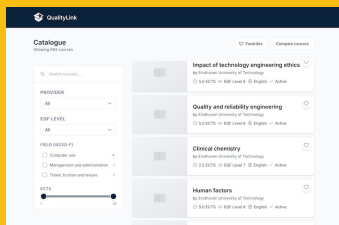
Quality Information about Learning Opportunities from different sources

- Content Relevance & Labour Market Demand
- Teaching Methodology
- Accessibility
- Learner-Centred Approach

Policies & Standards

- Unique Course Identifier
- Policy: data sources and access
- RDF ontology and application profile
- Data source discovery
- Data exchange, using established standards: ELM, OOAPI, Edu-API, OCCAPI

Pilot Aggregator and Catalogue



frontend for
learners



dashboard for
education providers

Community Co-Creation

QualityLink Standards Consultation Board

European University Alliances

EU4Dual
CHARM-EU
EuroTeQ
UNITA!
ECIU
ENHANCE

EdTech
1EdTech

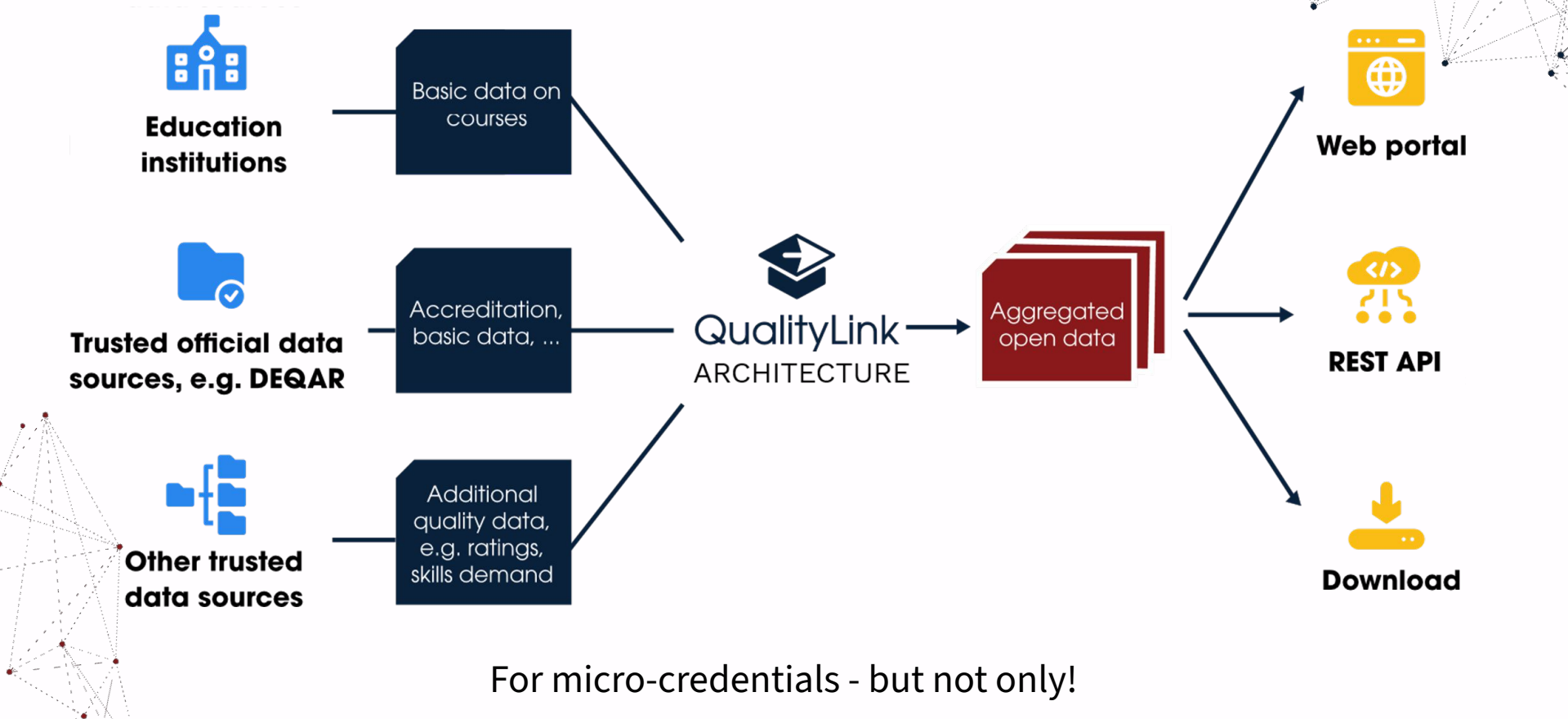
European Digital Education Hub

Interoperability Workgroup

Policy

SURF
EHESO
EQAR
NAWA
EWP/Emrex

The aim: an open quality data exchange architecture



Micro-credential standard elements

Mandatory

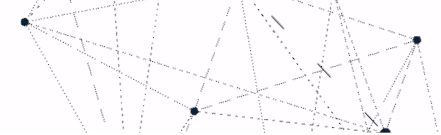
- Title of the micro-credential;
- Country(ies)/Region(s) of the issuer;
- Awarding body(ies)
- Learning outcomes
- Notional workload needed to achieve the learning outcomes (in ECTS credits, where possible)
- Level (and cycle, if applicable) of the learning experience leading to the micro-credential (EQF, QF-EHEA), if applicable
- Type of assessment
- Form of participation in the learning activity
- Type of quality assurance used to underpin the micro-credential

Optional

- Prerequisites needed to enroll in the learning activity
- Supervision and identity verification during assessment (unsupervised with no identity verification, supervised with no identity verification, supervised online, or onsite with identity verification)
- Integration/stackability options (stand-alone, independent MC/integrated, stackable towards another credential)

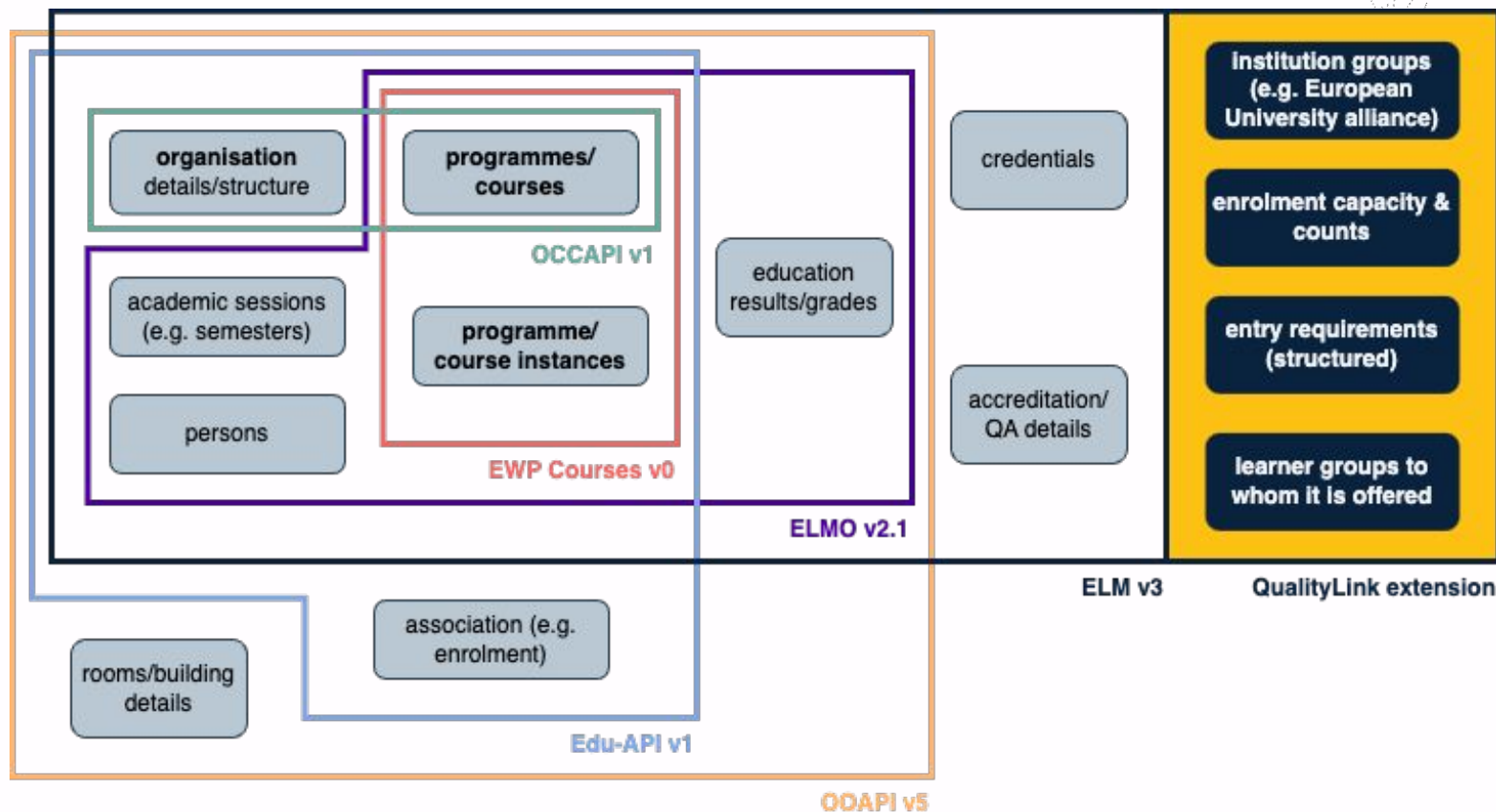
(based on Council Recommendation on a European Approach to MCs, 2022 - non-individual elements only)

Quality indicators prioritised

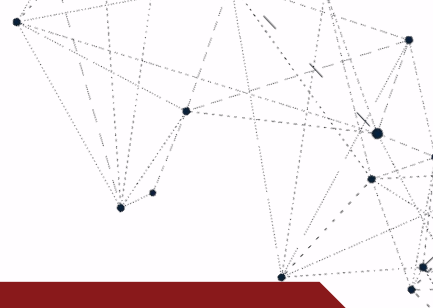


Domain	Indicator	Data Source
1. Content Relevance, Labour Market Demand and Accuracy	1.1 Accurate and up-to-date course information	Education Provider
	1.2 Demand for skills	Cedefop / Jobmonitor
	1.3 Stackability	Education Provider Coursera / EdX
2. Teaching Methods and Pedagogy	2.1 Quality Assurance (ESG)	DEQAR
	2.2 Tutoring	Education Provider
	2.3 Virtual learning environment available	Education Provider
3. Accessibility and Inclusivity	3.1 Recognition of prior learning	Education Provider
4. Learner-Centred Approach, Satisfaction and Success	4.1 Student ratings	EHESO / AuTh: AsCOLA
5. Institutional Reputation	5.1 Expertise of Lecturers	ORCID
	5.2 Networks	EURASHE / EDEN / others
	5.3 Recognition history	Education Provider

Landscape of data standards



Data source discovery



Trusted providers

DEQAR used as reference list of recognised higher education providers

Same principle possible for other providers - if trusted list available



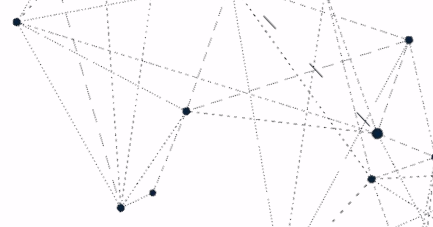
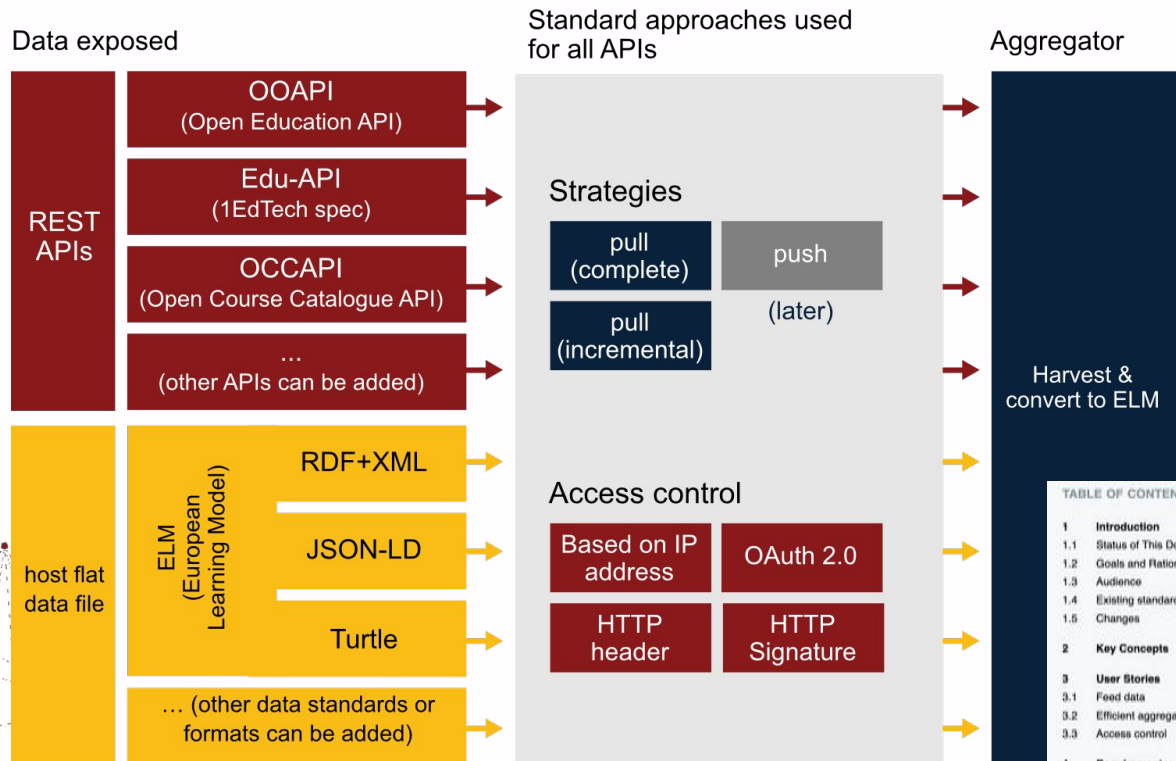
Internet domain

Every provider has an internet domain - in DEQAR as website as well as SCHAC code

Announce source

Institutions place a “manifest file” (a table of contents basically) under their domain - indicates where data can be found in which format

Data exchange architecture



<https://specs.quality-link.eu/>

TABLE OF CONTENTS

- 1 Introduction
 - 1.1 Status of This Document
 - 1.2 Goals and Rationale
 - 1.3 Audience
 - 1.4 Existing standards
 - 1.5 Changes
- 2 Key Concepts
- 3 User Stories
 - 3.1 Feed data
 - 3.2 Efficient aggregation
 - 3.3 Access control
- 4 Requirements
- 5 Methods
 - 5.1 Static ELM File
 - 5.1.1 Required Fields
 - 5.1.2 Incremental Transport
 - 5.1.3 Metadata
 - 5.2 OOAPI
 - 5.2.1 Required Fields

QualityLink Data Exchange Specification

Living Standard, 18 April 2025

Issue Tracking:

GitHub

Editors:

Colin Töck (Knowledge Innovation Centre; KIC) colin@knowledgeinnovation.eu

Tiago Simões (European University Foundation; EUF) tiago.simoes@uni-foundation.eu

Project Website:

<https://quality-link.eu/>

Project Reference:

Task 3.6 (Creation of a Technical Trusted List Standard)

[CC BY-SA 4.0] This work is licensed under a Creative Commons Attribution 4.0 International License. You are free to copy, remix, transform and build upon the material for any purpose, provided you give appropriate credit, provide a link to the license and indicate if changes were made.

This project has been funded with support from the European Commission. This website reflects the views only of the authors, and the Commission or the National Agency cannot be held responsible for any use which may be made of the information contained therein.



Abstract

This specification standardises how HEIs and other data providers can make data available for aggregation.

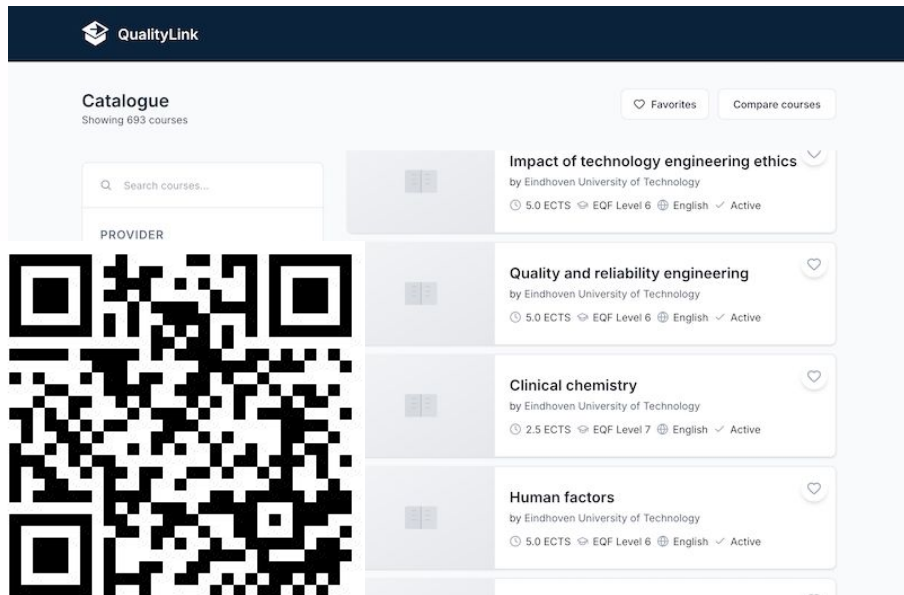
Overview: specifications developed

- **Data Sources and Access Policy** – terms and conditions for data use
- **Ontology** – extends the **European Learning Model (ELM)**
- **QualityLink Application Profile** – extends the ELM profile for Learning Opportunities and Qualifications (LOQ)
- **Course Identifier Specification** – common format for unique course identifiers
- **Data Source Discovery Specification** – mechanism to discover data sources exposed by institutions
- **Data Exchange Specification** – describes use of supported formats (**ELM**, **OOAPI**, **Edu-API** and **OCCAPI**)



<https://specs.quality-link.eu/>

Pilot aggregator & catalogue: draft specs implemented



<https://courses.app.quality-link.eu/>



<https://dashboard.app.quality-link.eu/>

Implementation options

Expose information

Export ELM data

Implement OOAPI

Implement Edu-API

Implement OCCAPI



Aggregate data

QualityLink aggregator
(hosted by project)

QualityLink aggregator
(own instance)

Custom aggregator



Public catalogue

QualityLink platform
(hosted, filtered view)

QualityLink platform
(own instance)

Own custom front-end



free to combine - all components open source

Status of implementation

ELM (static file) sources	supported (v3)
ELM – incremental updates	work in progress
OOAPI sources	supported (v5)
Edu-API sources	supported (v1)
OCCAPI sources	work in progress
Access control: based on IP address	supported
Access control: HTTP Request Header	supported
Access control: OAuth 2.0	on hold
Access control: HTTP Signature	on hold



[https://quality-link.eu/
step-by-step/](https://quality-link.eu/step-by-step/)

Future perspectives



Sign In Create an account

Welcome to SkillData

A skills intelligence platform that helps organisations connect learning to workforce needs. Map skills across job profiles and qualifications, identify gaps, and build personalised learning pathways for your employees or learners.

Extract skills from any text

Paste or write a course description, job description, or any text to find matching skills

Skill Finder · 13896 Job profiles · 6793 **Qualifications · 483** Skill frameworks · 4

E.g. 3D printing

Find skills

Everything you need to build with Skill Data. Documentation → Conditions of use → Large-scale API use →



Catalogue
Showing 693 courses

Search courses...

PROVIDER
All

EQF LEVEL
All

FIELD (ISCED-F)
☐ Computer use 4
☐ Management and administration 1
☐ Travel, tourism and leisure 1

ECTS
1 30

Impact of technology engineering ethics
by Eindhoven University of Technology
5.0 ECTS EQF Level 6 English Active

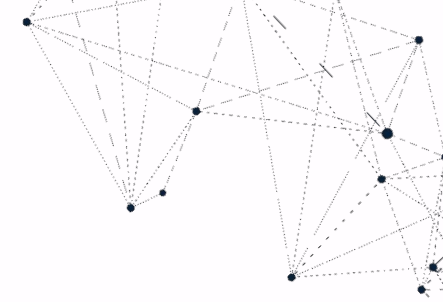
Quality and reliability engineering
by Eindhoven University of Technology
5.0 ECTS EQF Level 6 English Active

Clinical chemistry
by Eindhoven University of Technology
2.5 ECTS EQF Level 7 English Active

Human factors
by Eindhoven University of Technology
5.0 ECTS EQF Level 6 English Active

Future potential

Element	ELM	OOAPI	Edu-API	OCCAPI
Title	yes	yes	yes	yes
Awarding body	yes	yes	yes	yes
Learning outcomes	text + ESCO	text	no	text
Workload/ECTS	yes	yes	yes	yes
Level	EQF	EQF	yes	EQF
Type of assessment	yes	yes	no	yes
Form of participation	yes	yes	yes	indirect
Type of QA	yes	no	no	no
Prerequisites	yes	indirect	no	yes
Supervision and verification	yes	no	no	no
Integration/stackability	indirect	no	no	no



Core elements
to describe
credentials -
only European?
Need for global
consensus?

Short description of QualityLink

QualityLink aims to address all stakeholders' needs by furnishing them with all relevant information about courses and micro-credentials from a diversity of sources to improve recognition decisions and allow learners to follow flexible learning pathways. To make sure that the standards are of high quality and have ownership in the community, the consortium will create a Standards Consultation Board – a group of higher education interoperability experts from across different countries. Through creating open standards and collaboration, the project aims to establish the infrastructure for aggregating quality information from a wide range of sources.



The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

This work is licensed under a Creative Commons Attribution ShareAlike 4.0 International License.

You are free to:

Share — copy and redistribute the material in any medium or format

Adapt — remix, transform, and build upon the material

for any purpose, even commercially.

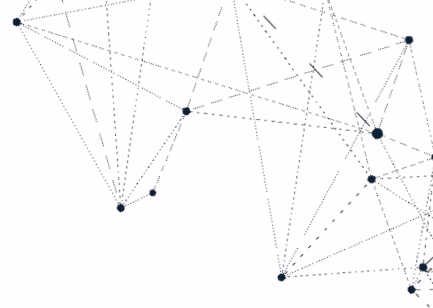
The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following conditions:

Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

ShareAlike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.

No additional restrictions — You may not apply legal terms or technological



Co-funded by
the European Union



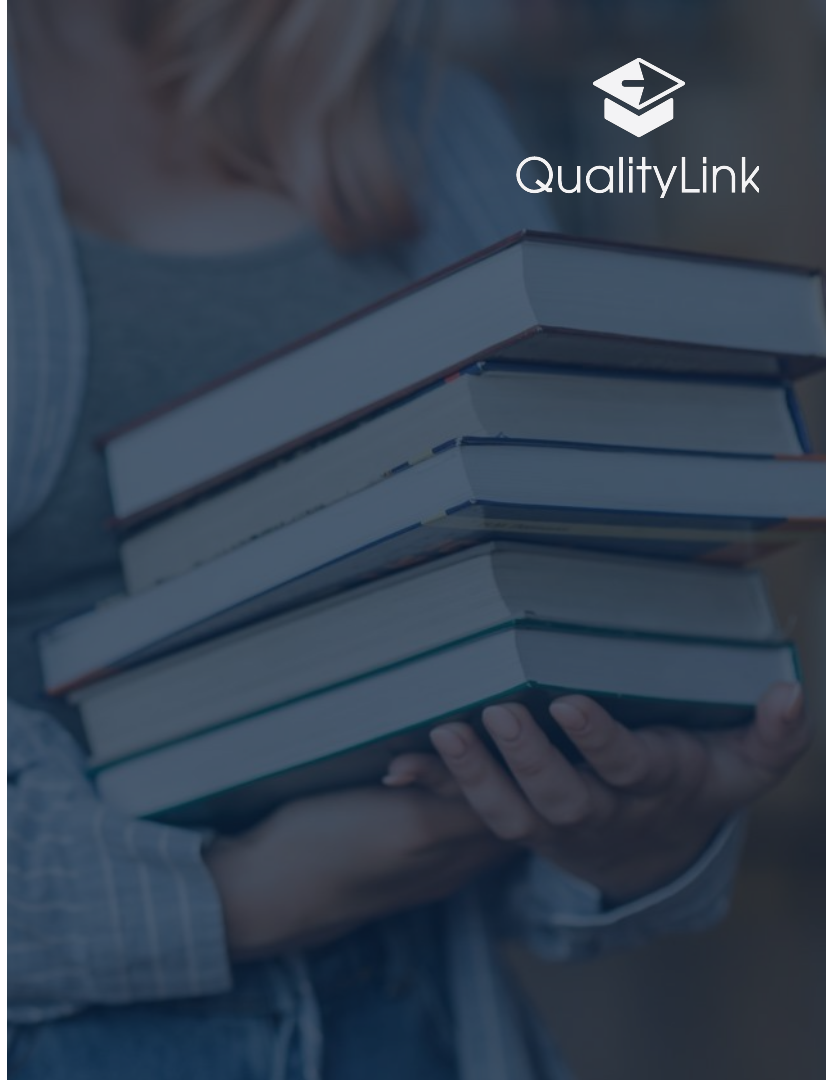


QualityLink

THANK YOU FOR
YOUR ATTENTION!



QualityLink



OUR ROADMAP

- Quality domains and indicators
- Indicator ranking with students and other stakeholders
- Standards Consultation Board
- Technical standards:
 - course identification
 - basic trusted metadata
 - publication of quality data



QualityLink



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)

Architecture – overview



QualityLink

