Qualifications Pilot phase II
Report
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**Context**

In the framework of the EQF process, countries are invited to link information on their national qualifications to the European portal "Learning Opportunities and Qualifications in Europe" (LOQ)\(^1\) and to the ESCO portal. The aim is to enhance understanding of individual qualifications. This information will support the qualification related needs of employers, public and private employment services, learners, workers, jobseekers, education and training providers, and other actors in their sectors of activity. The information should be as complete and transparent as possible to meet these needs.

This pilot project was carried out in the framework of the Interoperability Solutions for European Public Administrations, Businesses and Citizens Programme of the European Commission (ISA\(^2\)) as part of its action on semantic interoperability. It was led by DG Digit, with the support of DG Employment.

Following the completion of the Qualifications Pilot Phase 1\(^2\), it was clear that further steps could be taken to further enhance the integration and visualisation of information on qualifications on the following two aspects:

- Distributed publishing
- Annotation of learning outcomes

The purpose of the Qualifications Pilot Phase 2 was then to further demonstrate the use of the qualifications metadata schema (QMS) to publish and visualise information on qualifications and to increase transparency.

**Objectives and scope**

The main purposes of this pilot were to:

- Test the first released version of the Qualifications Metadata Schema and show all the metadata that can be captured by the schema;
- Show how information about an individual qualification can be published by different stakeholders and how this distributed information can be retrieved, aggregated and represented;
- Show how to visualise the source of qualification metadata;
- Show that the learning outcomes of a qualification can be expressed in terms of ESCO skills/competences and knowledge by embedding them as metadata in the published qualification information.

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\(^1\) https://ec.europa.eu/ploteus/

\(^2\) Results were presented to the MAI in March 2016
Use Cases

a) Distributed publishing

In the first phase of the pilot, we demonstrated **how various stakeholders can provide information about their qualifications**. There are different publishers of qualifications but all the information about a certain qualification originates from one particular source (for instance, the owner of the national qualifications database). We showed how the qualification metadata schema can be used to publish data on qualifications and how this information can be harvested, aggregated and represented in a uniform way.

In the second phase of the pilot, we went a step further. We demonstrated **how various stakeholders can provide complementary information about the same qualification**. In real life, not all information of a certain qualification will come from one and the same source. In the distributed web of data, information can come from different sources. In this scenario, not all information might be trustworthy for the final users, so they need to have tools at hand which enable them to make an educated decision about presented content.

This introduces the need for transparency regarding the provenance (source of information and its authority). There can be different stakeholders, each of them publishing that part of the information on qualifications they are responsible for, for example:

- An awarding body publishing metadata of their qualifications such as the curricula and learning outcomes.
- A Ministry publishing the national qualification framework levels for all qualifications that are part of it.
- An accreditation body publishing accreditation information for all qualifications which they accredited.

This pilot demonstrated how the qualification metadata schema can be used to support the publishing of distributed information about each individual qualification. It has also shown how we can increase transparency and create a trust based on the source of information.

b) Learning outcomes annotation

A second use case tested by this pilot is the link between qualifications and ESCO knowledge, skills and competences (KSC) concepts. One of the main aims of ESCO is to help bridge the (semantic) gap between the world of education and training and the labour market. This link can be established by expressing the learning outcomes of a qualification in terms of ESCO KSC. In this way, the terminology of ESCO could provide a bridge for communication of the labour market with the education and training sector.
This pilot demonstrated how ESCO KSC terminology can be integrated and visualised within the qualifications metadata. It also illustrated how the skills can be identified using annotation of learning outcomes.

The User is able to view the ESCO KSC related to the learning outcomes description of the qualification. This allows to evaluate several aspects of the qualification:

- How does the content of this specific qualifications compare to a CV and job vacancy;
- Which information will be readable by the machine while processing the qualification;
- Evaluate the information captured by the annotation process, as compared to information captured by the full-text learning outcome description.

Participants

For the purposes of this pilot, we counted with the participation of three Member States (UK Scotland, Greece and Slovakia) and one private awarding body (Microsoft).

In total, they provided 10 qualifications, with different EQF levels when applicable (level 5 and level 6), in different fields of education (health, sport, ICT).

Meetings were held with the participants through the whole process (kick off meeting, email exchanges and final meeting). Their feedback was integrated, and they were satisfied with the final result.

Amazon expressed its interest to participate and will be included in the pilot in the coming weeks.

The pilot website

The pilot website\(^3\) supports the functionality to search, browse and view the metadata of the qualification in a uniform and aggregated way. To support the phase two of the pilot, the three main screens were updated:

a. Search view.
b. List view.
c. Details view.

\(^3\)HTTP://QPILOT.SEMIC.EU/
Additionally, the pilot website shows provenance metadata on the different parts of qualification metadata depending its publisher.

The pilot website also visualises learning outcomes descriptions annotated with ESCO skills, competences and knowledge.
Conclusions and next steps

The pilot demonstrated the gathering of distributed information and its visualisation in a uniform manner while providing the source information. It also showcased how the annotation learning outcomes with ESCO skills can be integrated and visualised. There are additional steps that could be implemented in the future, in particular regarding annotation: during this pilot, it was demonstrated how the annotations of learning outcomes could be represented on a web portal, but semi-automatic tools and a methodology are needed to implement this annotation in practice across Member states. A study will be launched in the coming weeks in order to provide them with a framework that will support this process.

The results of this pilot will be showcased at the next Member States Working Group (in May, tbc), as well as at the EQF advisory group.