Item 2. Proposal to bring OOTS and Emrex closer(draft)

May 10th 2023

The latest high level architecture (HLA) the Once Only Technical Systeme (OOTS) can be found in chapter 1 here: [OOTS+Technical+Design+Documents+-+Q1+2023](https://ec.europa.eu/digital-building-blocks/wikis/display/TDD/OOTS+Technical+Design+Documents+-+Q1+2023). At a glance the exchange patterns are not that different. And with some effort the resemblance can be even bigger, which will benefit everyone and certainly Emrex. Therefore this is a proposal from Emrex addressed at the EU-directorate Digit to change the HLA regarding loop 1.

Central in the HLA is an exchange pattern with ‘two loops’. However it is actually three:

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| --- | --- | --- | --- | --- |
| **OOTS loop** | **What does it do?** | **Source** | **Who services it?** | **OOTS protocol** |
| 0 | Search and find Dataservice | Dataservice Directory (DSD) | EU | E-delivery-API |
| 1 | Search and find Dataprovider | Regional registry | Member state | E-delivery-AS4 |
| 2 | Preview&consent evidence | Provider registry | Evidence provider | E-delivery-AS4 |

Loop ‘0’ is a REST-api to find the OOTS-dataservices. Loop 1 has been designed to return evidence providers for instance population administrations and tax authorities. For every regional dataservice there will be more or less one provider for every type of evidence. Loop 2 is a request - response for evidence. It includes the shift of user focus to the webapplication of the evidence provider for preview and consent and afterwards a shift back to the evidence consumer [[1]](#footnote-1).

Both OOTS and Emrex have services to find providers:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **OOTS loop** | **What does it do?** | **Source** | **Who services it?** | **OOTS protocol** |
| 0 | Search and find dataservice | Dataservice Directory (DSD) | EU | E-delivery-API |
| 1a | Search and find dataprovider | Regional registry | Member state | E-delivery AS4 |
| 1b | Search and find dataprovider | Sectoral registry (like Emreg) | Emrex | API |
| 2 | Preview&consent evidence | Provider registry | Evidence provider | E-delivery AS4 |

Sectoral and regional registries have the same purpose, to search and find the provider(s) where evidence can be obtained. The results from loop 1a will be limited to a region (all evidence types) and result from loop 1b to educational evidence (all regions, a few types).

The exchange protocols for each loop differ. Loop 0 accesses a registry at EU-level. It is not considered a border crossing and is designed with a REST-API protocol conforming to a European standard (see….). Loop 1a and 2 do cross a border. Therefore the HLA states that they cross the border using another European standard, EbMS3/AS4. Loop 1b on the other hand also addresses a registry at EU-level, although limited in evidence types.

Since regional and sectoral registries have are functionally equivalent Emrex proposes to harmonize the technical protocol to search and find providers:

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| **OOTS loop** | **What does it do?** | **Source** | **Who services it?** | **OOTS protocol** |
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This proposal is about defining an exchange pattern for regional and sectoral registries. This would be a collective agreement or standard including input- and output parameters, to be individually implemented by the different registries. That looks simple enough.

The public procedure “enrolment tertiary education” is one of the procedures in de SDG-regulation. It should follow OOTS and its loops for obtaining evidence from another country. But the numbers are different. There are about 3,000 institutions in the EU for higher education needing evidence from about 30,000 institutions including secondary and vocational.

1. Member states might follow an approach where loop 1 and loop 2 are combined and all evidence is provided by a the member state. [↑](#footnote-ref-1)