Analysis and Comment on the Proposed Revision to the European Interoperability Framework (EIF)

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This White Paper has been compiled by OpenForum Europe (OFE) as part of its response to the public consultation initiated by the European Commission. It is the result of internal and external discussions including the OFE Round Table "One Framework to Rule Them All" held in Brussels on June 8th 2016.

Analysis and Comment on the Proposed Revision to the European Interoperability Framework (EIF)

Overall

The revision has much to be welcomed. The restructuring of the table of contents shows that the atmosphere under which this revision is happening is more relaxed and that the document is less of a pamphlet than the previous version. The overall structure of the document is clearer now.

Overall, there is a notable shift in tone from being a guidance document for the (specific) use of pan-European public services, to more of a directive approach for all public services. Although we understand that the impact assessment is still ongoing and that it is still not decided what measures to take, we assume this shift to be deliberate.

Although the text makes many references to the Digital Single Market (DSM), it never becomes clear how the various elements of the DSM strategy (for example the emphasis on cloud technology) and the EIF are interlinked. Also, often the term 'Digital Single Market' is used where referring to the realisation of the Single Market would be more appropriate - the terms 'Digital Single Market' and 'Single Market' are not synonymous.

Whilst observing the rules of subsidiarity, it is clear that there is an increased expectation that Member States ('MS') will conform to the EIF:

- Whereas previously the EIF was seen as being an inspiration for National Interoperability Frameworks (NIFs), now the emphasis is that NIFs should 'conform' to the EIF whilst "adding additional elements on top" in order to address specific requirements. It is unclear how this will impact the evolution of existing NIF and National Interoperability Architectures.
- In the past, "Guidelines" were announced (but never published) as part of the interoperability pyramid (in addition to the European Interoperability Strategy (EIS) and the EIF); those guidelines are now replaced by a "European Interoperability Reference Architecture"; although such a Reference Architecture was published some years ago, it never went through the same adoption procedure as the EIF.
- Although we would expect the governance structure of the interoperability

OFE White Paper Analysis and Comment on the Proposed Revision to the European Interoperability Framework (EIF)

pyramid document to be a point of significant debate amongst MS, this topic is not discussed.

The EIF continues the well-proven approach of stating Principles as the basis for the document. It is no surprise that these principles are largely unchanged (but see below for a major exception) – they are meant to be technology independent. However, by re-ordering the Principles and introducing a group called "core interoperability principles" one gets the impression that interoperability has become a goal on its own, instead of a means to an end (i.e., the provision of better public services).

The approach of describing underlying ideas, and then formulating more concrete recommendations that was a feature of previous versions of the EIF seems to have been lost. There seems to be no rationale for the order of the recommendations. Also, there is much overlap between the text in the body of the various chapters and the recommendations listed under each chapter. As a consequence, there are far too many recommendations.

The "openness" idea underlying EIF version 2.0 has disappeared. Although the definition of openness in EIF version 2.0 was not very enlightening, the idea of openness (both as a state of mind that is a precondition for sharing, reuse and collaboration as well as the foundation for recommendations of technological neutrality and open standards) was omni-present in the document. It is strongly recommended that this idea should be re-introduced. The OFE paper on "Openness Principles" (available here) could be used as inspiration. In the present text, "openness" and "transparency" are apparently considered more or less as synonyms.

Moving on beyond the Principles, the next section of the document talks about the Conceptual Model (as in EIF version 2.0), and this section has been substantially updated. New sections on open data and catalogues have been added. Recognising the recent controversy over the latter, the wording is not specific: rather, all that is recommended is that MS should use common models.

The next section (on Interoperability layers) contains the areas where we expected most debate, referencing standards identification; however, at first reading, it would appear to contain little that is surprising. The EIRA is introduced as an aid

Analysis and Comment on the Proposed Revision to the European Interoperability Framework (EIF)

to identify new standards, as is the cataloguing of those standards.

Of great interest to OFE is the section on 'Openness of formalised specifications'. In fact, despite our hearing that this had been left to the very end, it has remained without any change. Whilst this has the benefit of avoiding any repeat of the lobbying that surrounded the final development of EIF version 2.0, it is a missed opportunity. Because of the non-definitive wording of EIF version 2.0, many MS continued to use a definition of "open standards" in their own legislation and frameworks that is aligned with the spirit and the wording used in EIF version 1. Here we consider that the Commission is missing a great opportunity to show leadership and provide guidance. Further, this is likely to provide another opportunity for MS to resist the EIF becoming a requirement for them over their current NIFs, which they may well view as being superior.

The emphasis on the use of FRAND-based standards in other documents that the Commission has recently published (see, e.g., the Communication on ICT Standardisation) as part of its work on the Digital Single Market is inconsistent with the world-wide acceptance of open source software as the basis of (e.g.) the most relevant cloud technology stacks. There is now an inconsistency in the Commission's own words. In his speech to Net Futures on 21st April, Commissioner Oettinger included a section on the importance of Open Service Platforms: "In addition, users feel that proprietary platforms do not satisfy their needs. They get locked-in to a specific provider and have very little influence on the evolution of the platform. On the other hand, large and complex software systems are developed through large collaborations that need a common licensing to function and be effective. Therefore, industry-friendly open source licenses become the norm, for example Open Air Interface, Drupal and FIWARE. Open platforms give the control back to users. Open platforms enable faster innovation, facilitate interoperability, allow reuse of applications and avoid vendor lock-in. In addition, users can fully benefit from open innovation ecosystems of developers and start-ups. Open platforms are fully in line with the DSM objectives and will act as a key driver for the Digitisation of the European Industry." He went on to emphasise the importance of standardisation and included "... We must encourage open source communities to submit their innovations for standardisation. Open source standards enable transparency and build trust."

The Commission still seems to display a lack of understanding about the problems of implementing FRAND-based standards in open source software. Whilst

Analysis and Comment on the Proposed Revision to the European Interoperability Framework (EIF)

Royalty-Free ('RF') is indeed a form of FRAND, RF in itself is not sufficient to implement the standard in open source software. A good description of the incompatibility between FRAND and open source software is given in a recent blog post by Simon Phipps, former director of the Open Source Initiative (and an OpenForum Academy fellow).

The insistence on FRAND-based standards makes it impossible for organisations that want to "conform" to the EIF to create a level playing field for open source software.

Specific Comments on Document Content and Structure

Section 1 Introduction

1.1 Background

The benefits of interoperability are expressed in terms of facilitating cooperation between public administrations. The text should be restructured by putting the end-user in the centre (principle of user-centricity) – Example: "Interoperability facilitates ..." instead of "Interoperability facilitates cooperation between public administrations in ...".

"E-barriers" are not limited to the "Digital Single Market". Most "e-barriers" are hampering the functional of the "Single Market" and/or are making it difficult for businesses and citizens to benefit from the four freedoms promised by the European Union.

1.2 Political and historical context

The EIF is part of an interoperability pyramid. As such, it is not an isolated document. But, much more than the EIF, the European Interoperability Strategy (EIS) document is outdated. The objectives and priorities as defined in the EIS need to be revised to ensure consistency within the present political context. And, given the importance of the European Interoperability Reference Architecture (EIRA) as the link between theory and practice, this document should also be subjected to a public consultation process, and so obtain an official status.

Analysis and Comment on the Proposed Revision to the European Interoperability Framework (EIF)

The European Interoperability Cartography (EICart) document, which lists tools and solutions available for reuse, has little to do with interoperability – there should never be any hint that interoperability can only be reached via everybody using the same tools and solutions (remember the old Microsoft mantra – "interoperability is no issue, everybody uses Microsoft").

1.3 The EIF purpose and legal framework

It would be good to explain how the EIF will "contribute to the establishment of the European Digital Single Market (DSM)".

It is wrong to restrict the applicability of the EIF to the <u>Digital</u> Single Market.

1.4 Scope, readership and usage of the EIF

The wording here seems to point to the desire to see the EIF as a Directive, with general applicability and a requirement for transposition at national level. As the EIF is not a Directive, then ideally, after final agreement on the text, MS (via the ISA executive) and EU institutions (via the Inter-institutional Committee on Informatics) would support the document and engage themselves to take it into account in future activities – one must assume that the Commission services responsible for different political domains have implicitly done so via the interservice consultation.

A catalogue of standards is introduced here. This catalogue should be included in the interoperability pyramid. The catalogue is a real instrument for interoperability, while the European Interoperability Cartography, that is included, is not (interoperability via using the same tools/products?).

1.5 Definitions

The definition of "European Public Service" - and indeed the whole document - do not take into account the evolution towards "Open eGovernment Services" and hence are not compatible with the eGovernment plan. The document appears still to be based on the idea that only public administrations (or organisations acting on their behalf) can provide public services.

Analysis and Comment on the Proposed Revision to the European Interoperability Framework (EIF)

The definition of a "European Public Service" has changed since EIF version 2, in which a European Public Service was by definition "cross-border" (hence "European"). In the revised text, this is no longer the case and so the addition of the adjective "European" is no longer needed. One should simply use the term "public service" throughout the document — and where appropriate the term "trans-border public service". However, in the present document, sometimes the old definition still seems to be assumed.

Section 2 Principles

2.2 Subsidiarity and proportionality

The text mixes two ideas:

- What, in the context of subsidiarity and proportionality that shall underlay all EU policy initiatives, is the rationale for the EIF, and how public administrations in Europe should use the EIF in their local context. The text here overlaps with the text in chapter 1.4 on the usage of the EIF but seems to contradict the more imposing character of this version of the EIF as described in chapter 1.4. Since the EIF is a descriptive document which contains a number of recommendations, it is not clear how the term "comply" in Recommendation 1 should be understood any 'recommendation' that becomes mandatory is no longer just a recommendation.
- The principle that political decisions and the public services that support such decisions shall be taken/implemented as close as possible to the citizen. This is a principle underlying the EU, but not specific to the EIF (although it was the first principle in EIF version 2).

2.3 Reusability

The text mainly speaks about the reuse of tools and solutions, and does not provide any rationale for the recommendation on data reuse – although this idea of "store once, reuse may times" is a very important one.

Analysis and Comment on the Proposed Revision to the European Interoperability Framework (EIF)

2.11 Openness and transparency

See above on the disappearance of the concept of openness from the EIF.

2.2 Technical neutrality and adaptability

Recommendation 6 is not related to the text of this chapter. Recommendation 6 is essentially the same as recommendation 3. The two recommendations should be merged and placed under the heading "Reusability". The text preceding recommendation 6 should be moved at the same time.

2.3 User centricity

The principle should take some inspiration from the work done on user-centricity in the UK.

Recommendation 9 is highly relevant and closely linked to the idea of "open government". This idea deserves some elaboration in the text.

Section 3 Conceptual model

3.1 Introduction

Recommendation 17 overlaps with recommendations 2 and 3. It is proposed that this recommendation should be dropped.

3.2 Model overview

In the conceptual model, there should be two kind of catalogues: a catalogue that is oriented towards the end user (via which the end-user can find the services he or she needs), and a catalogue of reusable services and other assets, that is oriented towards those that are developing/implementing public services.

^{1.} The numbering of the chapters starts here again with "2.1" in the published draft – we follow the same numbering.

Analysis and Comment on the Proposed Revision to the European Interoperability Framework (EIF)

3.3 Basic components

3.3.1 Coordination function

The text reveals confusion with the authors between two different things (that may need two distinct conceptual models):

- a high level architectural model of implemented public services (as in EIF version 2); and
- a high level view on the process of operating public services.

Demonstration: an aggregation function is needed (see EIF version 2), via which the user would get live-event driven public services composed of (many different) basic services. The description here of a coordination function that consists of "need identification", "planning", "execution", etc. belongs to a construction process.

3.3.2 Shared building blocks

"A building block is a self-contained interoperable and replaceable unit" - this statement does not make sense: interoperability can only exist when units interact with each other or when these units exist within the context of an architecture (this is mentioned later in the text), no unit can be interoperable by itself.

Recommendation 19 (and other statements about reuse of building blocks): the reuse of what already exists is certainly highly relevant to the efficient delivery of high quality public services. However there must be a balance between the promotion of reuse and the ideas of choice, avoidance of lock-in and technological evolution. This balance is missing.

Section 4 Interoperability layers

4.2 Interoperability governance

Rightly, the document stresses the need for "interoperability governance". It also stresses the importance of the EIS, the EIF and the EIRA as elements in this governance at the European level. It would be beneficial if a clear governance

OFE White Paper Analysis and Comment on the Proposed Revision to

the European Interoperability Framework (EIF)

structure could be proposed for (i) the further evolution and maintenance of these documents, and (ii) what the roles of the Commission and the MS should be in such a governance structure.

4.2.1 Identification and selection of standards

Within the context of the EIF, only interoperability standards (i.e., protocols, formats, etc.) - and not, e.g., quality standards - are relevant. Also, the inclusion of a short rationale as to why a selection of standards and technical specifications may be necessary would be useful (why not supporting all relevant standards?).

Chapter 4.2.1 and Recommendation 33 need to be improved. Currently this reads as if the Commission wishes to manage the entire life-cycle of a standard, but what is meant, however, is that the Commission should manage (end-to-end) all aspects relevant for the use of selected standards.

Recommendation 36 should include "technical specifications identified according to Regulation 1025/2012, Articles 13 and 14".

The sentence "The derived Cartography of solutions represents ..." does not fit in the reasoning of the chapter.

Analysis and Comment on the Proposed Revision to the European Interoperability Framework (EIF)

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