TO:
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Consumer and Competition Policy Directorate
Department for Business, Energy and Industrial Strategy

First of all, a lot of thanks to Consumer and Competition Policy Directorate (Department for Business, Energy and Industrial Strategy) for organising this important consultation.

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- any business secrets
- any trade secrets
- any confidential information.

This opinion is public.
PDF file of this opinion can be added to a relevant web page.

Annex 1 holds information about disclaimers and copyright.

Best Regards,

Jukka S. Rannila
citizen of Finland

signed electronically

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General page for my opinions

General web page for my opinions is following:
http://www.jukkarannila.fi/lausunnot.html

Consultation document is very extensive / Only some issues handled

The consultation document for this consultation is very extensive (Smart Data: Putting consumers in control of their data and enabling innovation). I handle only some issues mentioned on the consultation document.

About European Union / United Kingdom / Exit / European Union

We know at the moment that United Kingdom is leaving the European Union in the future. This opinion handles partially European Union issues and also issues at the national level. Therefore readers of this opinion can assess national (outside the European Union) issues.

Previous opinion: online harms white paper

I gave my opinion about online harms white paper on 28 June 2019. For this opinion I reiterate two issues: identifiers (ID) and open horizontal standards.

More and more identifiers (ID)

In the previous consultations there has been discussion about different identifiers (ID) in different systems. It can be noted from the previous opinions, that there will be several and different identifiers (ID) for different levels. At the European Union level there can be several identifiers (ID), e.g. following:

* global identifiers (ID)
* EU-wide identifiers (ID)
* general member state identifiers (ID)
* several identifiers (ID) in member states.

Proposal: There could be a systematic review of different identifiers (ID).

It can be noted, that some member states (EU) are federations, and different federal states can have their own identifiers (ID).

Examples of these identifiers are following:

1) Facebook ID for an individual person
2) Facebook ID for the individual up-dates of individuals
3) Data Universal Numbering System (D-U-N-S)

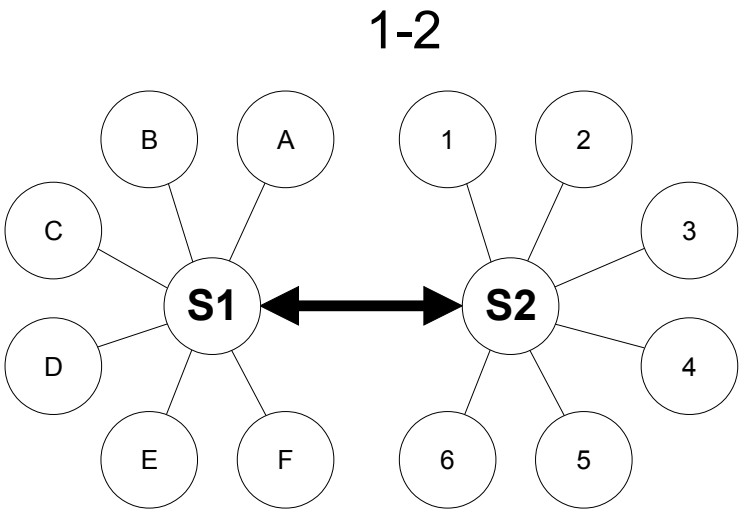
4) Reuters instruments codes (RICs)
5) Social security code for individual citizens in the European Union member states
6) Business identity code for a company in an European Union member state
7) Value added tax code for a company in an European Union member state.

The examples of private IDs (Facebook IDs, Data Universal Numbering System (D-U-N-S), Reuters Instrumens Codes (RICs)) show, that persons and/or communities can use or even demand of using IDs from privately owned information systems.

More new identifiers (ID)?

The current reality is, that there will be more and more IDs, since digitalisation of different areas will result new IDs and/or combination of new and old IDs.

The creation YET another public ID is not always organised by the European Union, and in some cases the European Union (and member states) just have to accept the reality of some of those public IDs – in some cases even private IDs are the norm. The Reuters Instrumens Codes (RICs) is an example of a near monopoly situation, and some of current private IDs might constitute (near) monopoly situations. Naturally, (near) monopolies can be assessed by the Competition Directorate-General, and it will be interesting to see possible new cases related to private IDs.



Note: Digitalisation of everything means more identifiers (ID).

Note: All new identifiers (ID) mean more work for developing existing and new informations systems.

Note: There can be new stakeholder groups in the near/distant future which mean more identifiers (ID).

Proposal: The could be some assessment(s) based on different versions of different identifiers (ID).

About different standards

I have proposed several times usage of ***open horizontal standards*** when developing different information systems.

Open horizontal standards

There are differences between horizontal and vertical standards. A simple example is naturally email solutions. There are several vertical standards when creating technically email solutions. Then there are horizontal standards which enable sending messages between technically different email solutions. Horizontal standards enables technological solutions which can work together. Horizontal standards hides different complexities in information systems.

Proposal: There could be assessment of vertical and horizontal standards.

Proposal: Using horizontal standards could be favoured when creating different information systems.

Opinion: The number of redundant standardisation efforts should be minimal.

Proposal: There could be separation of horizontal standards and vertical standards.

Proposal: There could be different standardisation efforts to horizontal standards and vertical standards.

Personally I have advocated using different horizontal standards. For example email standards (horizontal) are implemented with very different technologies (vertical).

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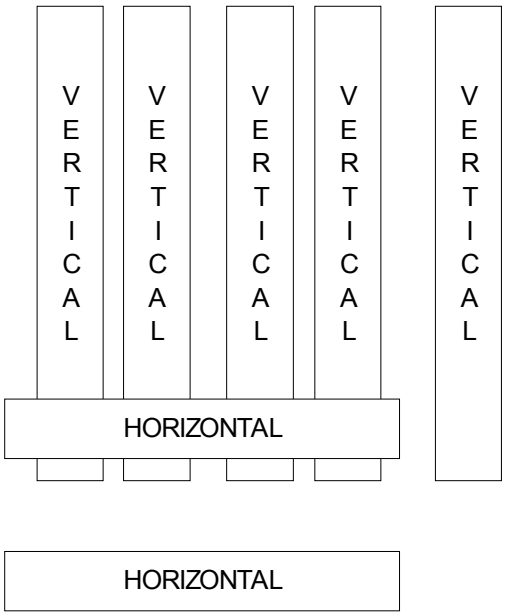


Proposal: Governments should especially concentrate on horizontal standards.

Proposal: Some government agencies could apply for memberships of different standard setting organisations which develop especially horizontal standards.

Here we can note some problems:

- some systems are based on **de-facto** standards
- some systems are based on **de-jure** standards
- there can be confrontations between **de-facto** and **de-jure** standards
- there can be a monopoly situation in some domain
- some standards may inhibit possible actions of some stakeholders
- there can be a standard war on some domains
- standards have different life-cycles
- systems have different life-cycles
- there can be mismatches between different life-cycles
- there can be failed standards
- there can be deprecated standards.

It is quite normal situation in the information technology field that there are competing standards for some application field. Therefore there are all the time ongoing “standards wars” or “format wars”. The information technology standards tend to be interrelated and one “standards war” or “format war” can lead to another similar situation.

I have advocated open standards even though in some cases open standards are not de facto standards. In practice public sector has very important role, when some standards are competing in

the market place. Because public sector has a considerable power when buying/developing information systems and therefore public sector can sometimes direct markets to certain standards. Therefore there should be serious vigilance when assessing different standards and “standards” in some application fields.

An example for cooperation: Web feeds (RSS and Atom)

I have advocated usage of web feeds [1] on several previous opinion documents. Actually there are two standards for web feeds: RSS [2] [3] and Atom [4] [5] [6].

> **Proposal: Web feeds (RSS and/or Atom) could be advocated when developing different informations systems (EU / Member states).**
>
> **Proposal: Web feeds (RSS and/or Atom) should be used extensively for providing (real-time) information for different stakeholder(s) (communities).**
>
> **Proposal: There can be different web feeds (RSS and/or Atom) for different stakeholder(s) – having just one web feed (RSS and/or Atom) may not be a feasible solution.**
>
> **Proposal: Several web feeds (RSS and/or Atom) can be based on different viewpoints.**

It can be easier to create web feeds in different information systems since web feeds enable connections without direct system-to-system connections.

It can be noted, that different back-office systems (with a wide variety of different technologies) can implement RSS standards, and these RSS feeds can be used in the front-office systems. With this kind solutions front-office systems don´t need direct system-to-system communications with back-office systems.

Some specific issues?

> Question 6 is following:
> **Do you agree that we should establish a cross-sector Smart Data Function with the proposed responsibilities set out above?**

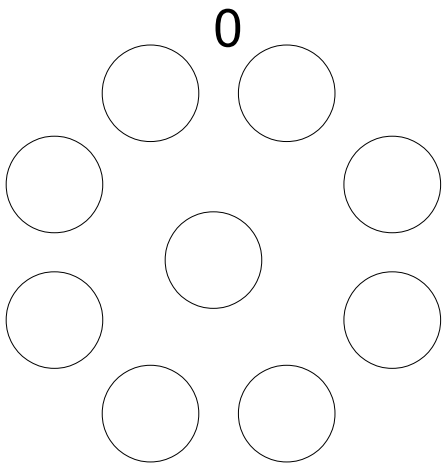
1 https://en.wikipedia.org/wiki/Web_feed
2 http://www.rssboard.org/rss-specification, RSS 2.0 Specification
3 https://en.wikipedia.org/wiki/RSS, Wikipedia / RSS
4 https://en.wikipedia.org/wiki/Atom_(standard), Wikipedia / Atom (standard)
5 https://tools.ietf.org/html/rfc4287, The Atom Syndication Format
6 https://tools.ietf.org/html/rfc5023, The Atom Publishing Protocol

Some ideas for Smart Data Function?

Based on previous consultations there can different solutions for cooperation between systems: (0) no connections, (1) complex many-to-many connections, (2) only one central system, (3) hierarchy between different systems.

there can be several ways for cooperation between systems.

First option means no connections between systems. The current reality (0) is that there can several systems which are not connected to other systems



Proposal :There could be assessment about of different unconnected systems.

Next possibility is complex many-to-many connections. Complex many-to-many connections causes different problems when there are changes in one system and this mean changes to other systems.

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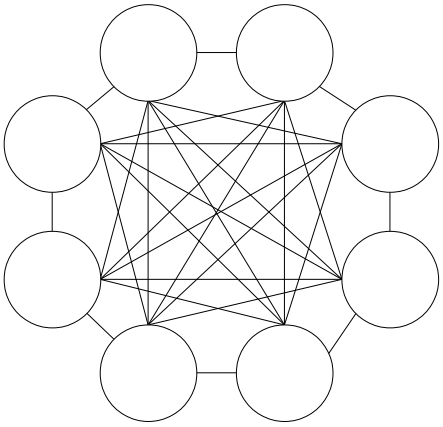
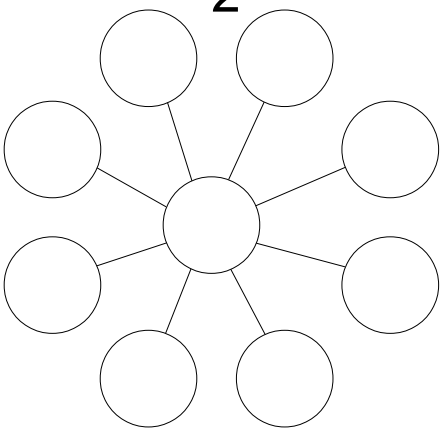


Problem with this option is management of several connections. Different changes in one system may mean several changes on other systems.

Proposal :There could be assessment of different connected systems.

Next option is just one central system which can connected with several (sub)systems. Problem with this solution is unwanted outages in one central system when all other (sub)systems have problems. Failure of the central system and this can lead to unwanted outage of several (sub)systems.

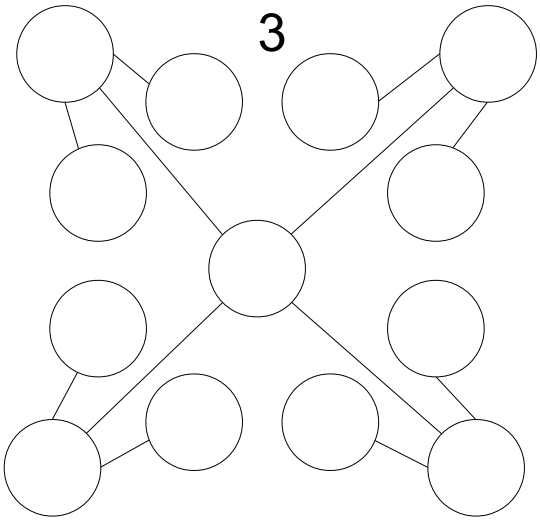
2



I have advocated hierarchy between systems. There could be one central system which is connected to some (sub)systems, which can be then connected to other subsystems. This means that unwanted outages don´t affect all possible system at the same time.

Proposal :There could be assessment about of different central systems.

Next option is to have some hierarchy between different systems when there is one central system and different subsystems.



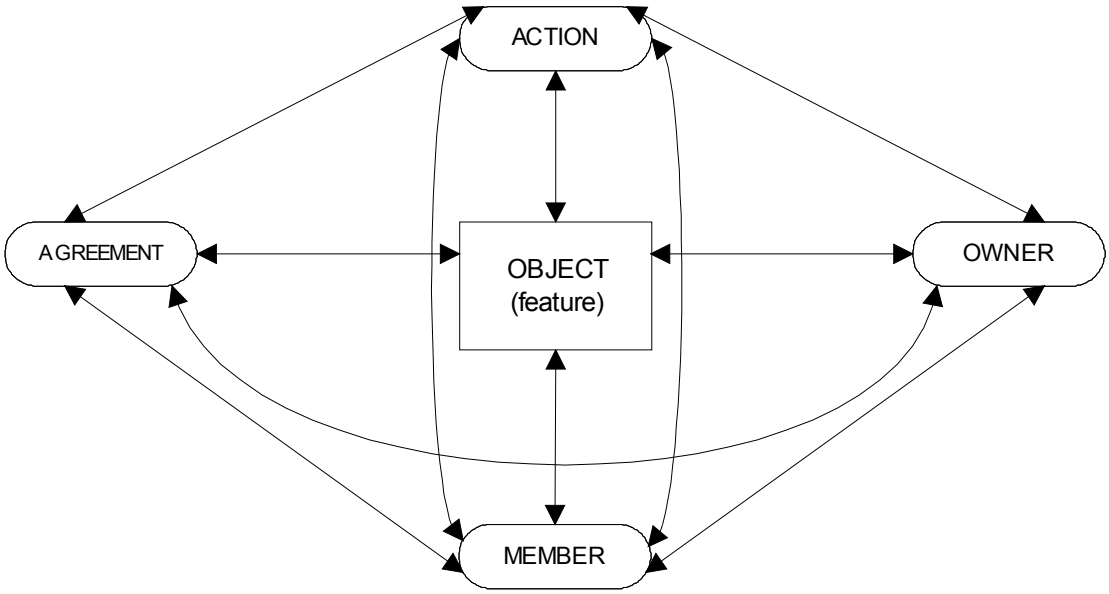
One option (3) is to have a hierarchy between different system. In this way there cab some systems which are not connected to the central system. With this approach not all (sub)systems face the same problem with a failure in the central system.

Proposal :There could be assessment of different hierarchical systems.

Proposal: Organising Smart Data Function could mean hierarchy between different system, since with hierarchical solutions there will be less problems when compared to other solutions: (0) no connections, (1) complex many-to-many connections, (2) only one central system.

There can be some examples:

a) There could be some regulations for providing interfaces (private, public)
b) There could be some regulations for document formats (private, public)
c) There could be some regulations for transmitting data between different systems
d) There could be some regulations for using databases (private, public)
e) There could be some regulations for using programs (private, public)
f) There could be some regulations for retrieving information from different systems.



Note: The relations between different aspects of information systems can result rather complicated (legal) network(s): i.e. Ownership, Membership, Agreement.

Here we can note the difference between owners, agreements and members. In reality ownerships agreements and memberships cause very complex networks, and those networks are changing all the time: divisions, mergers, ownership changes, agreement changes, cooperation with other entities, life-cycles, etc.

Here we can note that ownership, agreement and membership are interlinked in different ways. Generally speaking average usage of a system means an unique combination of ownership, agreement and membership. When everything works fine there are not problems. However changes with ownership, agreement and membership can result difficult situations.

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	Owner? Member? Agreement?	Standards?	OPEN	CLOSED
1. Device / Machinery				
2. Operating system				
3. Program(s)				
4. Data models / Conceptual models				
5. Documents				
6. Databases				
7. Communications				
8. Retrieve / Interface / Display				
9. Add / Interface / Display				
10. Remove / Interface / Display				
11. Change / Interface / Display				

Note: The relations between different aspects of information systems can result rather complicated (legal) network(s): i.e. Ownership, Membership, Agreement.

Proposal: There could be some considerations for assessing possible / future changes in ownerships, agreements and memberships.

Good luck!!!

This opinion is quite limited. Hopefully, there are other constructive ideas presented in other opinions. This remains to be seen.

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ANNEX 1

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