TO: European Commission


First of all, a lot of thanks to European Commission for organising this important consultation.

This opinion represents an opinion of an individual citizen, not any legal entity.

This opinion does not contain:
   – 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 previous consultations at the European Union level.
Annex 2 holds information about disclaimers and copyright.

Best Regards,

Jukka S. Rannila

citizen of Finland

signed electronically

[Continues on the next page]
About previous consultations / Repeating several issues

Annex 1 holds info about previous consultations. I have repeated the same issues several times and previous consultation documents can be assessed critically. Different units of the European Commission already know something about my previous opinions.

More and more identifiers (ID)

In the previous consultations there has been discussion about different identifiers (ID) in the different systems. It can be noted from the previous opinions, that there will be several and different identifiers (ID) for different levels. On 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 Instruments 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

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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.

EU-wide level?

I have noted several times that different member state systems (MSS) can interlinked in many ways. This means that co-operation with European Union systems means a lot of work. This leads to the question of a European Contact Point (EUCP) for different member state systems (MSS).

Naturally there could be direct contacts between different member state systems (MSS) and European Union Contact Point (EUCP). This option (MSS ↔ EUCP) could mean very large number of different member state system. Based on 28 member state systems there could be hundreds of connections:

\[
28 \times 10 = 280 \text{ MSS} \leftrightarrow 1 \text{ EUCP} \\
28 \times 20 = 560 \text{ MSS} \leftrightarrow 1 \text{ EUCP} \\
28 \times 30 = 840 \text{ MSS} \leftrightarrow 1 \text{ EUCP}
\]

Here we can note that there can be hierarchy between different system (EU ↔ member states) and there can be member state contact points (MCP). Then there can be some hierarchy between different systems. (EU ↔ EUCP ↔ MCP ↔ MSS ↔ Member state). There are unique situations with member state systems in member states. Therefore member state contact points (MCP) can reduce the complexity with European Union contact point (EUCP)

Based on those large numbers connecting (MSS ↔ EUCP) member state system I have to conclude that there should be member state contact points (EUCP ↔ MCP ↔ MSS).

MSS = Member State System, EUCP = European Contact Point

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In the current situation, European Union member states (and some co-operation states) have their own internal IDs for several information systems. Also, the members states organised as a federation have their own internal problems with state-level IDs.

Based on those calculations there could be a lot of direct connections to the European contact point. Number of those connections can be overwhelming. The situation between member states can vary in many ways. So there can different and unique systems between member states.

On the other hand, there are some working examples of joined or federated EU-wide registers. However, the amount of administration and needed legally binding agreements is considerable.

Proposal: There could be one information system (member state contact point, MSCP) on member state level.

\[
\text{MSCP} = \text{Member State Contact Point, EUCP} = \text{European Contact Point}
\]

The solution can be, that member states have own Member State Contact Points (MSCP) and different state level systems are combined gradually. Then the member state system IDs can be used in the European Contact Point (EUCP).

Based on those large numbers connecting (MSS ↔ EUCP) member state system I have to conclude that there should be member state contact points (EUCP ↔ MSCP ↔ MSS).

Here we can note that there can be hierarchy between different system (EU ↔ member states) and there can be member state contact points (MCP). Then there can be some hierarchy between different systems. (EU ↔ EUCP ↔ MSCP ↔ MSS ↔ Member state). There are unique situations with member state systems in member states. Therefore member state contact points (MCP) can

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reduce the complexity with European Union contact point (EUCP).

Proposal: Different member state systems could be consolidated based on limited number system-to-system connections.

Proposal: There could be some time frames for consolidating different member state systems (MSS) with member state contact points (MSCP).

Proposal: There could be some time frames for consolidating member state contact points (MSCP) with the European Union contact point (EUCP).

Proposal: One information system (member state contact point, MSCP) on member state level could handle system-to-system connections with the European Union level (European contact point).

Proposal: There could be some serious work for developing a standardised member state contact point (MSCP).

Proposal: After developing a standardised member state contact point (MSCP) different member states could consolidate their systems (MSS ↔ MSCP).

Proposal: European Union contact point (EUCP) and member state contact points (MSCP) could then handle cooperation (EUCP ↔ MSCP ↔ MSS) on the European Union level.

Naturally we have to note that developing a standardised member state contact point (MSCP) means more work. On the other hand a standardised member state contact point (MSCP) could handle cooperation (EUCP ↔ MSCP ↔ MSS) based on unique situations in member states. Some member states may have more systems than other member states. We have to note that there are different systems based on several technological solutions.

About different standards

I have proposed several times to use open horizontal standards when developing different information system.

Favouring open standards / Favouring horizontal standards

[Continues on the next page]
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.

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

Proposal: Using horizontal standards could be favoured when creating different information systems on the European Union level.

Horizontal standards enables technological solutions which can work together. Horizontal standards hides different complexities in 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).

Here we can note some problems:

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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.

**One presentation for information system**

Following figure is one conception of information system. I have presented the following figure as one conception of information system.

[Continues on the next page]
Generally speaking we have different techniques on the information technology field. Here we can note that programs (most arrows) are in the middle of different information systems. Then programs handle the data in a system (documents and/or databases). However we have to have one specific program which is different – i.e. operating system. Operating systems handle connections with machinery and processors. Generally speaking programs can work with an operating system and developers of programs use different parts of an operating system.

What this means to information systems?

1) There can be several processor (machinery) possibilities
2) There can be several operating systems possibilities
3) There can be several programs possibilities
4) Programs handle data in different ways
5) The data can modelled in different ways
6) There can documents and/or databases in different systems
7) There are always four basic functions (add, retrieve, change, remove).
8) There are several providers of different computer programs.
9) There are naturally competing programs.
10) Different programs comply with different standards.

We have to note that data can have different models and data (models) are developed and/or used by different stakeholders (four basic functions). Especially in databases there are possibilities for several data models; depending on the modellers there can be different data models in databases. Generally speaking changing data models can be very difficult in many cases.
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.

[Continues on the next page]
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.

More technical consultations?

Based on answers (consultation generally) there could be more technically oriented consultations. Previously mentioned issues (this opinion) could be detailed for new technically oriented consultations.

Proposal: More technically oriented consultations could be organised after this consultation.

For example different technical standards could be assessed carefully.

One option is cooperation with different national IT expert associations. It can be possible to ask opinions about technical issues from different national IT expert association’s members. Also other expert associations could be consulted based on development and legislation of different information systems. Naturally there are other stakeholders in the European Union.

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One option is establishing a committee for assessing different technical standards which should be as open as possible.

One option is organising two rounds for assessing different technical standards.

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

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I have advocated usage of web feeds on several previous opinion documents. Actually there are two standards for web feeds: RSS and Atom.

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 dont need direct system-to-system communications with back-office systems.

Good luck!!!

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

[Continues on the next page]

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ANNEX 1

My opinions to the previous and relevant consultations – there consultations were mostly organised by the European Commission. General page to all consultations – both in English and in Finnish: http://www.jukkarannila.fi/lausunnot.html

My opinions to the previous and relevant consultations – there consultations were mostly organised by the European Commission.

EN: Opinion 1: Review of the rules on access to documents
http://www.jukkarannila.fi/lausunnot.html#nro_1

EN: Opinion 2: Schools for the 21st Century
http://www.jukkarannila.fi/lausunnot.html#nro_2

EN: Opinion 3: The future of pharmaceuticals for Human use in Europe - making Europe a Hub for Safe and Innovative medicines
http://www.jukkarannila.fi/lausunnot.html#nro_3

EN: Opinion 5: Consumer Scoreboard, Questionnaire for stakeholders
http://www.jukkarannila.fi/lausunnot.html#nro_5

EN: Opinion 6: Consultation on a Code of Conduct for Interest Representatives
http://www.jukkarannila.fi/lausunnot.html#nro_6

EN: Opinion 8: European Interoperability Framework, version 2, draft
http://www.jukkarannila.fi/lausunnot.html#nro_8

http://www.jukkarannila.fi/lausunnot.html#nro_9

EN: Opinion 15: Collective Redress
http://www.jukkarannila.fi/lausunnot.html#nro_15

EN: Opinion 17: Opinion to Antitrust Case No. COMP/C-3/39.530
http://www.jukkarannila.fi/lausunnot.html#nro_17

EN: Opinion 18: Opinion Related to the Public Undertaking by Microsoft
http://www.jukkarannila.fi/lausunnot.html#nro_18

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EN: Opinion 19: Official Acknowledgement by the Commission
http://www.jukkarannila.fi/lausunnot.html#nro_19

EN: Opinion 20: SECOND Opinion Related to the Public Undertaking by Microsoft
http://www.jukkarannila.fi/lausunnot.html#nro_20

EN: Opinion 21: Opinion about the European Interoperability Strategy proposal
http://www.jukkarannila.fi/lausunnot.html#nro_21

EN: Opinion 23: Public consultation on the review of the European Standardisation System
http://www.jukkarannila.fi/lausunnot.html#nro_23

EN: Opinion 27: Public Consultation on the Modernisation of EU Public Procurement Policy
http://www.jukkarannila.fi/lausunnot.html#nro_27

EN: Opinion 28: Consultation on the Europe 2020 Project Bond Initiative
http://www.jukkarannila.fi/lausunnot.html#nro_28

EN: Opinion 30: Internet Filtering
http://www.jukkarannila.fi/lausunnot.html#nro_30
NOTE: Organised by the European Committee for Standardization (CEN) 7

http://www.jukkarannila.fi/lausunnot.html#nro_32

EN: Opinion 34: REMIT Registration Format
http://www.jukkarannila.fi/lausunnot.html#nro_34
NOTE: Organised by The Agency for the Cooperation of Energy Regulators (ACER) 8

EN: Opinion 35: Exploiting the employment potential of the personal and household services
http://www.jukkarannila.fi/lausunnot.html#nro_35

EN: Opinion 37: CASE COMP/39.654 - Reuters instrument codes
http://www.jukkarannila.fi/lausunnot.html#nro_37

EN: Opinion 39: Registry options to facilitate linking of emissions trading systems
http://www.jukkarannila.fi/lausunnot.html#nro_39

EN: Opinion 40: Media Freedom and Pluralism / audiovisual regulatory bodies
http://www.jukkarannila.fi/lausunnot.html#nro_40

EN: Opinion 41: AT.39398: observations on the proposed commitments
http://www.jukkarannila.fi/lausunnot.html#nro_41


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EN: Opinion 42: Opening up Education
http://www.jukkarannila.fi/lausunnot.html#nro_42

EN: Opinion 43: Publication of extracts of the European register of market participants
http://www.jukkarannila.fi/lausunnot.html#nro_43
NOTE: Organised by The Agency for the Cooperation of Energy Regulators (ACER)

EN: Opinion 44: Evaluation policy guidelines
http://www.jukkarannila.fi/lausunnot.html#nro_44

EN: Opinion 45: About ICT standardisation
http://www.jukkarannila.fi/lausunnot.html#nro_45

EN: Opinion 46: Review of the EU copyright rules
http://www.jukkarannila.fi/lausunnot.html#nro_46

EN: Opinion 51: European Area of Skills and Qualifications
http://www.jukkarannila.fi/lausunnot.html#nro_51

EN: Opinion 52: Trusted Cloud Europe Survey
http://www.jukkarannila.fi/lausunnot.html#nro_52

EN: Opinion 53: Trade Reporting User Manual (TRUM) (Draft)
http://www.jukkarannila.fi/lausunnot.html#nro_53
NOTE: Organised by The Agency for the Cooperation of Energy Regulators (ACER)

EN: Opinion 55: European Energy Regulation
http://www.jukkarannila.fi/lausunnot.html#nro_55
NOTE: Organised by The Agency for the Cooperation of Energy Regulators (ACER)

EN: Opinion 59: Green paper on mobile Health
http://www.jukkarannila.fi/lausunnot.html#nro_59

EN: Opinion 60: Cross-border inheritance tax problems within the EU
http://www.jukkarannila.fi/lausunnot.html#nro_60

EN: Opinion 61: European Register of Products Containing Nanomaterials
http://www.jukkarannila.fi/lausunnot.html#nro_61

EN: Opinion 64: Corporate Social Responsibility - European Commission
http://www.jukkarannila.fi/lausunnot.html#nro_64

http://www.jukkarannila.fi/lausunnot.html#nro_66

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EN: Opinion 68: European Network Code Stakeholder Committees
http://www.jukkarannila.fi/lausunnot.html#nro_68
NOTE: Organised by The Agency for the Cooperation of Energy Regulators (ACER)

EN: Opinion 71: Common Schema for the Disclosure of Inside Information
http://www.jukkarannila.fi/lausunnot.html#nro_71
NOTE: Organised by The Agency for the Cooperation of Energy Regulators (ACER)

EN: Opinion 74: Enabling the Internet of Things
http://www.jukkarannila.fi/lausunnot.html#nro_74
NOTE: Organised by Body of European Regulators for Electronic Communications (BEREC)

EN: Opinion 80: Mandatory Transparency Register
http://www.jukkarannila.fi/lausunnot.html#nro_80

EN: Opinion 84: Revision of the European Interoperability Framework
http://www.jukkarannila.fi/lausunnot.html#nro_84

EN: Opinion 86: 2016 Annual Colloquium on fundamental rights
http://www.jukkarannila.fi/lausunnot.html#nro_86

EN: Opinion 88: Evaluation and Review of the ePrivacy Directive
http://www.jukkarannila.fi/lausunnot.html#nro_88

EN: Opinion 89: BEREC Guidelines for net neutrality rules
http://www.jukkarannila.fi/lausunnot.html#nro_89
NOTE: Organised by Body of European Regulators for Electronic Communications (BEREC)

EN: Opinion 93: Safety of apps and other non-embedded software
http://www.jukkarannila.fi/lausunnot.html#nro_93

EN: Opinion 95: Targeted consultation on eForms
http://www.jukkarannila.fi/lausunnot.html#nro_95

http://www.jukkarannila.fi/lausunnot.html#nro_97

EN: Opinion 98: Opinions related to six (6) co-decision (COD) proposals
http://www.jukkarannila.fi/lausunnot.html#nro_98

http://www.jukkarannila.fi/lausunnot.html#nro_99

9 http://www.berec.europa.eu, Body of European Regulators for Electronic Communications (BEREC)

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EN: Opinion 122: Proposal to create a cybersecurity competence network with a European
Cybersecurity Research and Competence Centre
http://www.jukkarannila.fi/lausunnot.html#nro_122

EN: Opinion 123: Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF
THE COUNCIL on the re-use of public sector information (recast)
http://www.jukkarannila.fi/lausunnot.html#nro_123

EN: Opinion 125: Security of identity cards of Union citizens and of residence documents
http://www.jukkarannila.fi/lausunnot.html#nro_125

EN: Opinion 128: Summertime arrangements
http://www.jukkarannila.fi/lausunnot.html#nro_128

EN: Opinion 129: Format for a European Electronic Health Record (EHR) Exchange
http://www.jukkarannila.fi/lausunnot.html#nro_129

EN: Opinion 132: Informative guidance on the Regulation on the Free flow of non-personal data
http://www.jukkarannila.fi/lausunnot.html#nro_132

EN: Opinion 133: standard forms for the publication of notices in the field of public procurement
("eForms")
http://www.jukkarannila.fi/lausunnot.html#nro_133

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[Continues on the next page]
ANNEX 2

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