1
2 TO:
3 Unit H.3: eHealth, WellBeing & Ageing
4 Directorate-General for Communications Networks, Content and Technology
5 European Commission
6
7
8 **Reference: Commission Recommendation to Establish a Format for a European Electronic**
9 **Health Record (EHR) Exchange – Roadmap – Ares(2018)5986687**
10
11 First of all, a lot of thanks to (Unit H.3.) The Directorate-General for Communications Networks,
12 Content and Technology (CONNECT) for organising this important consultation.
13
14 This opinion represents an opinion of an individual citizen, not any legal entity.
15
16 This opinion does not contain:
17
18   –   any business secrets
19   –   any trade secrets
20   –   any confidential information.
21
22 This opinion is public.
23 PDF file of this opinion can be added to a relevant web page.
24
25 Annex 1 holds information about previous consultations at the European Union level.
26 Annex 2 holds information about disclaimers and copyright.
27
28
29
30 Best Regards,
31
32
33
34 Jukka S. Rannila
35 citizen of Finland
36
37 signed electronically
38
39
40 [Continues on the next page]
41

42
43   **Previous opinions**

44
45   Annex 1 holds information about previous consultations and my previous opinions.

46
47   Here we can note that I have repeated the same issues based on previous consultations. Different
48   units of the European Commission already know something about my previous opinions

49
50   **Proposed interoperability – viewpoints**

51
52   Consultation document contains following text:

53
54   "The open public consultation carried out in 2017 confirmed that all stakeholders see the
55   lack of interoperability between Electronic Health Records as a major barrier to seamless
56   access to health data."

57
58   Here we can note that interoperability is based on different viewpoints. This means that there can be
59   different levels of interoperability.

60
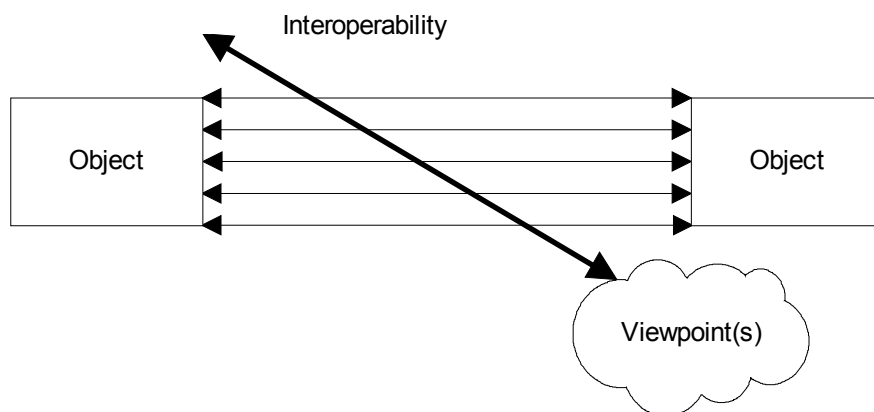
61
62
63   **Proposal: Different levels of interoperability should be assessed – e.g. results of this**
64   **consultation.**

65
66   **About different standards**

67
68   I have proposed several times usage of ***open horizontal standards*** when developing different
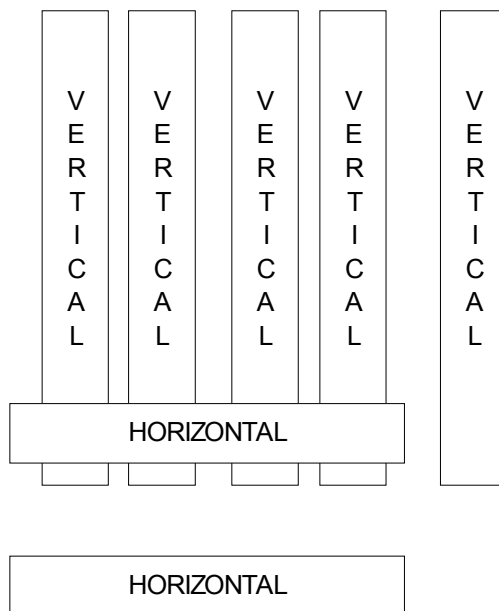69   information systems.

70
71   **Favouring open standards / Favouring horizontal standards**

72
73   There are differences between horizontal and vertical standards. A simple example is naturally
74   email solutions. There are several vertical standards when creating technically email solutions. Then

Jukka S. Rannila

OPINION

3 (19)

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3 December 2018

Public / WWW

75 there are horizontal standards which enable sending messages between technically different email
76 solutions.
77

```
┌───┐┌───┐┌───┐┌───┐  ┌───┐
│ V ││ V ││ V ││ V │  │ V │
│ E ││ E ││ E ││ E │  │ E │
│ R ││ R ││ R ││ R │  │ R │
│ T ││ T ││ T ││ T │  │ T │
│ I ││ I ││ I ││ I │  │ I │
│ C ││ C ││ C ││ C │  │ C │
│ A ││ A ││ A ││ A │  │ A │
│ L ││ L ││ L ││ L │  │ L │
│   ││   ││   ││   │  │   │
│ ┌─┴┴───┴┴───┴┴───┴┐ │   │
│ │   HORIZONTAL    │ │   │
└─┴─────────────────┴─┴───┘

      ┌─────────────────┐
      │   HORIZONTAL    │
      └─────────────────┘
```

78
79
80   **Proposal: There could be assessment of vertical and horizontal standards.**
81
82   **Proposal: Using horizontal standards could be favoured when creating different**
83   **information systems at the European Union level.**
84
85 Horizontal standards enables technological solutions which can work together. Horizontal standards
86 hides different complexities in information systems.
87
88   **Opinion: The number of redundant standardisation efforts should be minimal.**
89
90   **Proposal: There could be separation of horizontal standards and vertical standards.**
91
92   **Proposal: There could be different standardisation efforts to horizontal standards and**
93   **vertical standards**
94
95 Personally I have advocated using different open horizontal standards. For example email standards
96 (horizontal) are implemented with very different technologies (vertical).
97
98 Here we can note that different national details can be vertical standards.
99
100   **Proposal: Different (vertical) national details (standards) should not hinder usage of**
101   **(European) other standards (horizontal).**
102

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103
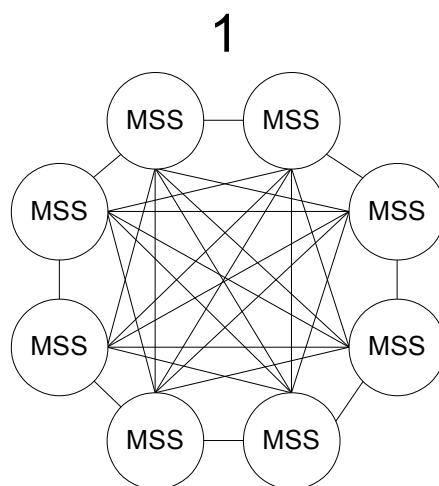104 **Complexity at the European Union level**
105
106 I have noted several times that different member state systems (MSS) can interlinked in many ways.
107 This means that co-operation with European Union systems means a lot of work. This leads to the
108 question of a European Contact Point (EUCP) for different member state systems (MSS).
109

110
111   **MSS = Member State System**
112
113 There are 28 member states (European Union) at the moment. In reality there are unique situations
114 with information systems in different member states. In some cases information systems can be
115 implemented based on complex system-to-system connections. Complex system-to-system
116 connections means a lot of work when there are changes in some systems.
117
118 Here we can calculate connections based on number of information systems.
119
120   1 x 28 member state systems = 28 systems
121   5 x 28 member state systems = 140 systems
122   10 x 28 member state systems = 280 systems
123   15 x 28 member state systems = 420 systems
124   20 x 28 member state systems = 560 systems.
125   28 x 30 member state systems = 840 systems
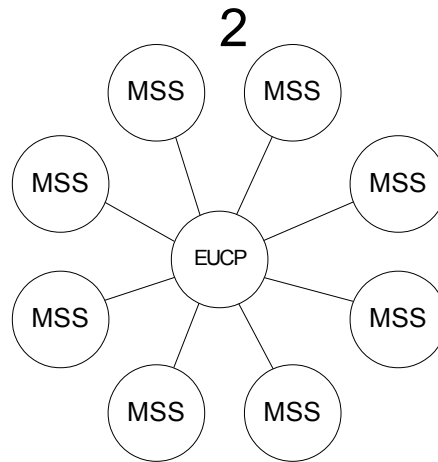126
127   **Proposal: Complex system-to-system connections implemented in information systems**
128   **could be assessed carefully.**
129
130
131 [Continues on the next page]

2

132
133   **MSS = Member State System**
134   **EUCP = European Contact Point**
135

136 Naturally there could be direct contacts between different member state systems (MSS) and
137 European Union Contact Point (EUCP). This option (MSS ↔ EUCP) could mean very large
138 number of different member state system. Based on 28 member state systems there could be
139 hundreds of connections. One option is to have a single European contact point for member state
140 systems. Here we can note that there can be hierarchy between different system (EU ↔ member
141 states) and there can be member state contact points (MCP). Then there can be some hierarchy
142 between different systems. (European Union ↔ EUCP ↔ MSCP ↔ MSS ↔ Member State). There
143 are unique situations with member statesystems in member states. Therefore member state contact
144 points (MCP) can reduce the complexity with European Union contact point (EUCP).
145

3
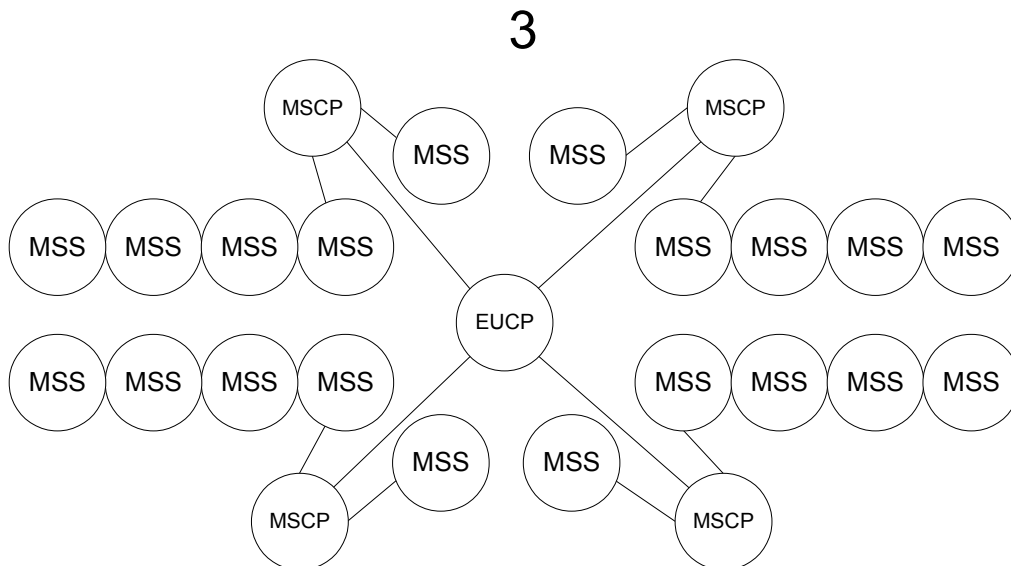
146
147   **MSS = Member State System, MSCP = Member State Contact Point,**
148   **EUCP = European Contact Point**

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149
150 Based on those calculations there could be a lot of direct connections to the European contact point.
151 Number of those connections can be overwhelming. The situation between member states can vary
152 in many ways. So there can different and unique systems between member states.
153
154 I have proposed several times creation of member state contact points which could handle different
155 system-to-system connections at member state level. Then it can be easier to create connections
156 between member state contact points and European contact point.
157
158   **Proposal: There could be one information system (member state contact point, MSCP)**
159   **at member state level.**
160
161   **Proposal: Different member state systems could be consolidated based on limited**
162   **number system-to-system connections (MSCP ↔ MSS).**
163
164   **Proposal: One information system (member state contact point, MSCP) at member**
165   **state level could handle system-to-system connections at the European Union level**
166   **(European contact point) (EUCP↔ MSCP).**
167
168   **Proposal: There could be some serious work for developing a standardised member**
169   **state contact points (MSCP).**
170
171   **Proposal: After developing a standardised member state contact point (MSCP)**
172   **different member states could consolidate their systems (MSCP ↔ MSS).**
173
174   **Proposal: European Union contact point (EUCP) and member state contact points**
175   **(MSCP) could then handle cooperation (EUCP ↔ MSCP ↔ MSS) at the European**
176   **Union level.**
177
178 Naturally we have to note that developing a standardised member state contact point (MSCP) means
179 more work. On the other hand a standardised member state contact point (MSCP) could handle
180 cooperation (EUCP ↔ MSCP ↔ MSS) based on unique situations in member states. Some member
181 states may have more systems than other member states. We have to note that there are different
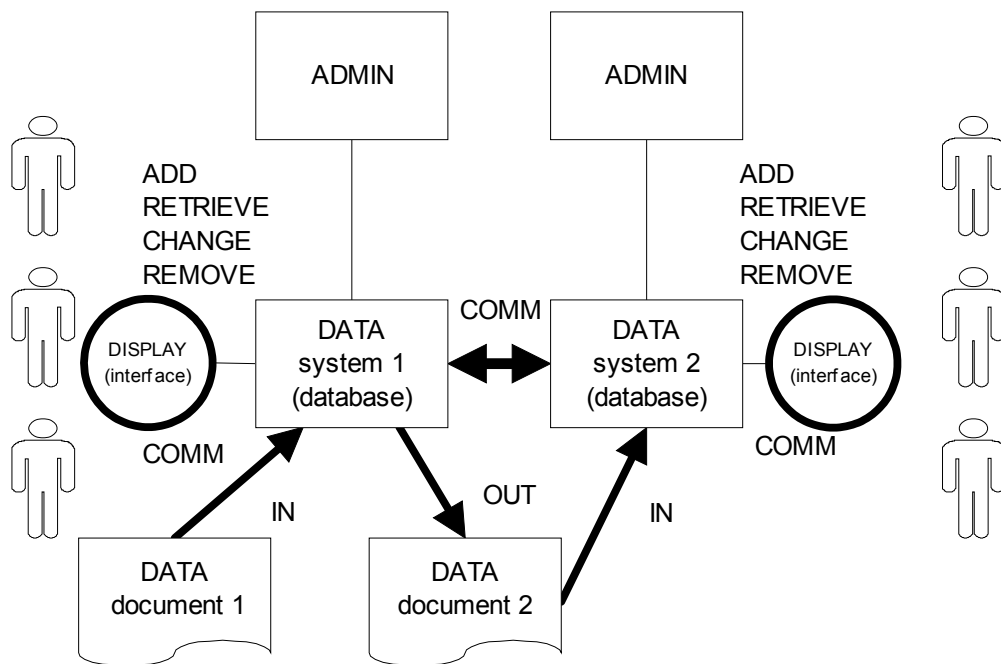182 systems based on several technological solutions.
183
184 **One presentation of information system**
185
186 [Continues on the next page]
187

188
189
190 Now we can add four basic functions, communication, displays, interfaces, users, documents, data
191 and databases for describing an information system. Like the figure indicates, there are databases in
192 different information systems. Then there are different documents for transmitting data between
193 different systems. Here we can note especially following standardisation needs for different parts of
194 different parts of an information system.
195
196 Here we can note several basic issues about documents and databases:
197   •   four basic functions (add, retrieve, change, remove)
198   •   administration of a system
199   •   displays and interfaces
200   •   direct communication between system (data)
201   •   transferring documents between systems (data).
202
203 Here we can note especially following standardisation needs for different parts of different parts of
204 an information system:
205
206 From this simple (figure) conception we can differentiate several standard classes:
207   1) Data (documents) standards
208   2) Data (database) standards
209   3) Standards for adding data to a system.
210   4) Standards for retrieving data from a system.
211   5) Standards for changing data in a system.
212   6) Standards for removing data from a system.
213   7) Display standards
214   8) Interface standards

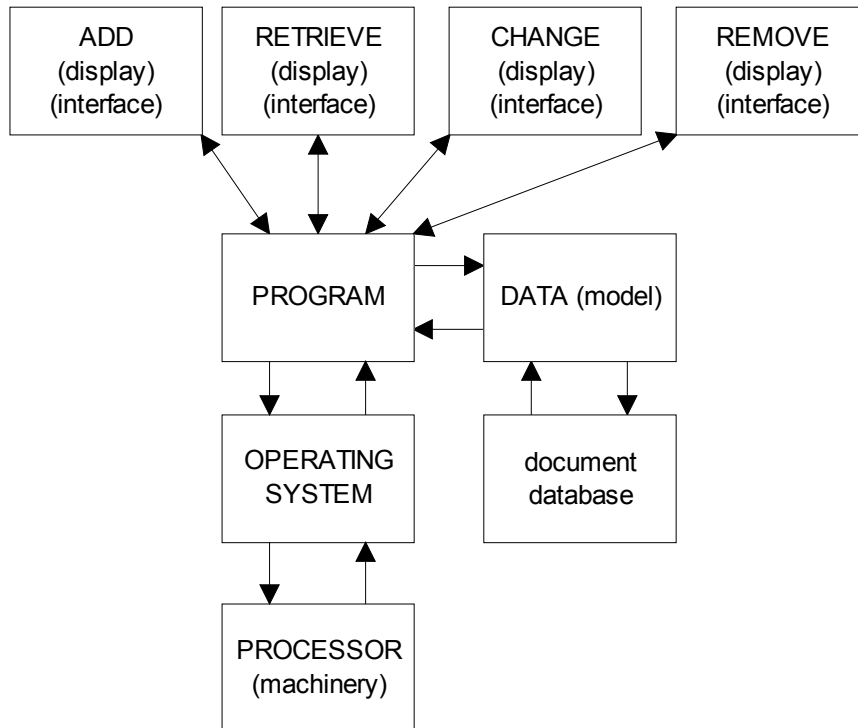Copyright, licence and disclaimers: check Annex 2.

215   9) Different communication standards.
216
217 **One presentation for information system**
218
219 Following figure on the reflection paper is one conception of information system. I have presented
220 the following figure as one conception of information system.

```
  ┌──────────┐  ┌──────────┐  ┌──────────┐  ┌──────────┐
  │   ADD    │  │ RETRIEVE │  │  CHANGE  │  │  REMOVE  │
  │ (display)│  │ (display)│  │ (display)│  │ (display)│
  │(interface)│ │(interface)│ │(interface)│ │(interface)│
  └──────────┘  └──────────┘  └──────────┘  └──────────┘

       ┌─────────────┐      ┌─────────────┐
       │   PROGRAM   │ ───► │ DATA (model)│
       └─────────────┘ ◄─── └─────────────┘

       ┌─────────────┐      ┌─────────────┐
       │  OPERATING  │      │  document   │
       │   SYSTEM    │      │  database   │
       └─────────────┘      └─────────────┘

       ┌─────────────┐
       │  PROCESSOR  │
       │ (machinery) │
       └─────────────┘
```

221
222 Generally speaking we have different techniques on the information technology field. Here we can
223 note that programs (most arrows) are in the middle of different information systems. Then programs
224 handle the data in a system (documents and/or databases). However we have to have one specific
225 program which is different – i.e. operating system. Operating systems handle connections with
226 machinery and processors. Generally speaking programs can work with an operating system and
227 developers of programs use different parts of an operating system.
228
229   **What this means to information systems?**
230   **1)   There can be several processor (machinery) possibilities**
231   **2)   There can be several operating systems possibilities**
232   **3)   There can be several programs possibilities**
233   **4)   Programs handle data in different ways**
234   **5)   The data can modelled in different ways**
235   **6)   There can documents and/or databases in different systems**
236   **7)   There are always four basic functions (add, retrieve, change, remove).**
237   **8)   There are several providers of different computer programs.**
238   **9)   There are naturally competing programs.**
239   **10)   Different programs comply with different standards.**

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240
241   We have to note that data can have different models and data (models) are developed and/or used by
242   different stakeholders (four basic functions). Especially in databases there are possibilities for
243   several data models; depending on the modellers there can be different data models in databases.
244   Generally speaking changing data models can be very difficult in many cases.
245
246   **There can be some examples:**
247
248   **a) There could be some regulations for providing interfaces (private, public)**
249   **b) There could be some regulations for document formats (private, public)**
250   **c) There could be some regulations for transmitting data between different systems**
251   **d) There could be some regulations for using databases (private, public)**
252   **e) There could be some regulations for using programs (private, public)**
253   **f) There could be some regulations for retrieving information from different systems.**
254
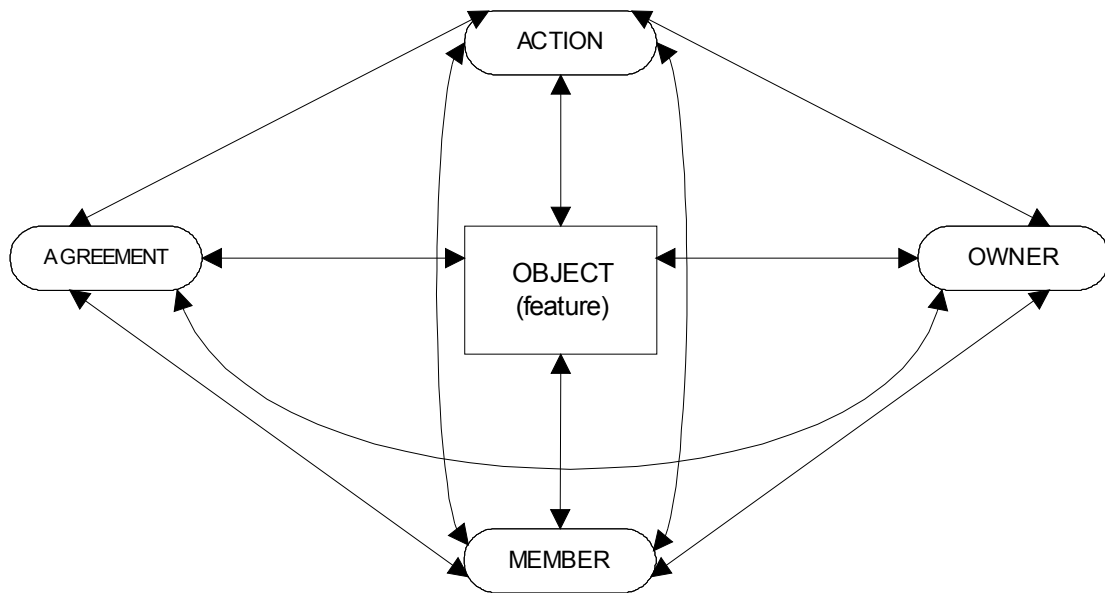
255
256   **Note: The relations between different aspects of information systems can result**
257   **rather complicated (legal) network(s): i.e. Ownership, Membership, Agreement.**
258
259   Here we can note the difference between owners, agreements and members. In reality ownerships
260   agreements and memberships cause very complex networks, and those networks are changing all
261   the time: divisions, mergers, ownership changes, agreement changes, cooperation with other
262   entities, life-cycles, etc.
263
264   Here we can note that ownership, agreement and membership are interlinked in different ways.
265   Generally speaking average usage of a system means an unique combination of ownership,
266   agreement and membership. When everything works fine there are not problems. However changes
267   with ownership, agreement and membership can result difficult situations.
268

	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				

269
270   **Note: The relations between different aspects of information systems can result**
271   **rather complicated (legal) network(s): i.e. Ownership, Membership, Agreement.**
272
273   **Proposal: There could be some considerations for assessing possible / future changes in**
274   **ownerships, agreements and memberships.**
275
276
277   **About different identifiers (ID)**
278
279   Developing a standardised member state contact point (MSCP) means some work to be done. Here
280   we can note that there will be several _**identifiers**_ when developing new systems and maintaining
281   current systems (EUCP ↔ MSCP).
282
283   I have proposed several times to use _**open and public identifiers**_ when developing different
284   information system.
285
286   **More and more new identifiers (ID)**
287
288   In previous consultations there has been discussion about different identifiers (ID) in different
289   information systems. It can be noted from the previous opinions that there will be several and
290   different identifiers (ID) for different levels.
291
292   Examples of these identifiers (ID) are following:

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293
294   1) Facebook ID for an individual person
295   2) Facebook ID for the individual updates of individuals
296   3) Data Universal Numbering System (D-U-N-S)
297   4) Reuters instruments codes (RICs)
298   5) Social security code for individual citizens in the European Union member states
299   6) Business identity code for a company in an European Union member state
300   7) Value added tax code for a company in an European Union member state.
301
302   The examples of private identifiers (Facebook IDs, Data Universal Numbering System (D-U-N-S),
303   Reuters Instrumens Codes (RICs)) show, that persons and/or communities can use or even demand
304   of using identifiers (ID) from privately owned information systems.
305
306   **Proposal: There could be a systematic review of different identifiers (ID) on different**
307   **levels.**
308
309   **Proposal: Possible systematic review of different identifiers (ID) should assess different**
310   **situations.**
311
312   Different information systems have also internal identifiers (ID) and external identifiers (ID) for
313   (possible) public usage. The added value for different stakeholders is provided by combination of
314   different identifiers (ID) in a specific information system.
315
316   **Proposal: The could be some assessment(s) based on different versions of different**
317   **identifiers (ID).**
318
319   It can be possible, that there are some legacy identifiers (ID) in the near future. It can be possible,
320   that gradually some legacy identifiers (ID) can be consolidated for more standardised identifiers
321   (ID), but this consolidation means some serious technical and administrative actions.
322
323   **Proposal: Legacy identifiers (ID) could be assessed seriously.**
324
325   When information about relevant identifiers is collected, there could be a serious assessment of
326   possible (near) monopoly situation of some identifiers. Depending on the nature of an identifier,
327   there may be a need for serious (anti-trust?) negotiations with providers of some identifiers.
328
329   **Proposal: The nature of different identifiers (ID) could be assessed.**
330
331   **Proposal: There could be serious negotiations with some providers of identifiers (ID).**
332
333   In the European Union there has been different anti-trust cases which are related to different private
334   sector identifiers (ID), since some of those private sector identifiers (ID) have been used in several
335   other systems. Some private sector identifiers (ID) can mean a (near) monopoly situation.
336
337

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338 **Different data fields**
339
340 Consultation document contains following text:
341
342   "It will recommend the establishment of a European Electronic Health Record exchange
343   format and will propose a set of common technical specifications for the transfer of health
344   data in chosen categories of health information such as patient summaries and e-
345   prescriptions, and proposing further categories."
346
347 Some previous opinions are based on proposed data fields. Here we can note that in many cases
348 there has been proposed XML format(s) for transferring data between different systems.
349
350   **Proposal: After this consultation there could be a consultation for assessing different**
351   ***data fields* for Electronic Health Record exchange format.**
352
353   **Proposal: After this consultation there could be a consultation for assessing possible**
354   ***XML formats* for Electronic Health Record exchange format.**
355
356   **NOTE: There are also other formats – not just XML format.**
357
358 Some previous consultations has been organised by ACER (Agency for the Cooperation of Energy
359 Regulators) based on proposing different data fields. Based on those consultations it can be noted
360 that the number of different data fields can be rather large.
361
362 One example can be ClaimReview standard for transferring fact-checking reviews of claims.
363
364   schema.org → ClaimReview
365   Canonical URL: http://schema.org/ClaimReview
366
367 Like the ClaimReview standard indicates there are several fields for transferring fact-checking
368 reviews of claims.
369
370
371 **Good luck!!!**
372
373 This opinion is quite limited. Hopefully there are other constructive ideas presented in other
374 opinions. This remains to be seen.
375
376
377 [Continues on the next page]
378

379
380
381   **ANNEX 1**
382
383 My opinions to the previous and relevant consultations – there consultations were mostly organised
384 by the European Commission. General page to all consultations – both in English and in Finnish:
385 http://www.jukkarannila.fi/lausunnot.html
386
387
388 My opinions to the previous and relevant consultations – there consultations were mostly organised
389 by the European Commission.
390
391 EN: Opinion 1: Review of the rules on access to documents
392 http://www.jukkarannila.fi/lausunnot.html#nro_1
393
394 EN: Opinion 2: Schools for the 21st Century
395 http://www.jukkarannila.fi/lausunnot.html#nro_2
396
397 EN: Opinion 3: The future of pharmaceuticals for Human use in Europe- making Europe a Hub for
398 Safe and Innovative medicines
399 http://www.jukkarannila.fi/lausunnot.html#nro_3
400
401 EN: Opinion 5: Consumer Scoreboard, Questionnaire for stakeholders
402 http://www.jukkarannila.fi/lausunnot.html#nro_5
403
404 EN: Opinion 6: Consultation on a Code of Conduct for Interest Representatives
405 http://www.jukkarannila.fi/lausunnot.html#nro_6
406
407 EN: Opinion 8: European Interoperability Framework, version 2, draft
408 http://www.jukkarannila.fi/lausunnot.html#nro_8
409
410 EN: Opinion 9: CAMSS: Common Assessment Method for Standards and Specifications, CAMSS
411 proposal for comments
412 http://www.jukkarannila.fi/lausunnot.html#nro_9
413
414 EN: Opinion 15: Collective Redress
415 http://www.jukkarannila.fi/lausunnot.html#nro_15
416
417 EN: Opinion 17: Opinion to Antitrust Case No. COMP/C-3/39.530
418 http://www.jukkarannila.fi/lausunnot.html#nro_17
419
420 EN: Opinion 18: Opinion Related to the Public Undertaking by Microsoft
421 http://www.jukkarannila.fi/lausunnot.html#nro_18
422
423

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424 EN: Opinion 19: Official Acknowledgement by the Commission
425 http://www.jukkarannila.fi/lausunnot.html#nro_19
426
427 EN: Opinion 20: SECOND Opinion Related to the Public Undertaking by Microsoft
428 http://www.jukkarannila.fi/lausunnot.html#nro_20
429
430 EN: Opinion 21: Opinion about the European Interoperability Strategy proposal
431 http://www.jukkarannila.fi/lausunnot.html#nro_21
432
433 EN: Opinion 23: Public consultation on the review of the European Standardisation System
434 http://www.jukkarannila.fi/lausunnot.html#nro_23
435
436 EN: Opinion 27: Public Consultation on the Modernisation of EU Public Procurement Policy
437 http://www.jukkarannila.fi/lausunnot.html#nro_27
438
439 EN: Opinion 28: Consultation on the Europe 2020 Project Bond Initiative
440 http://www.jukkarannila.fi/lausunnot.html#nro_28
441
442 EN: Opinion 30: Internet Filtering
443 http://www.jukkarannila.fi/lausunnot.html#nro_30
444 NOTE: Organised by the European Committee for Standardization (CEN) [1]
445
446 EN: Opinion 32: COMP/C-3/39.692/IBM – Maintenance services
447 http://www.jukkarannila.fi/lausunnot.html#nro_32
448
449 EN: Opinion 34: REMIT Registration Format
450 http://www.jukkarannila.fi/lausunnot.html#nro_34
451 NOTE: Organised by The Agency for the Cooperation of Energy Regulators (ACER) [2]
452
453 EN: Opinion 35: Exploiting the employment potential of the personal and household services
454 http://www.jukkarannila.fi/lausunnot.html#nro_35
455
456 EN: Opinion 37: CASE COMP/39.654 - Reuters instrument codes
457 http://www.jukkarannila.fi/lausunnot.html#nro_37
458
459 EN: Opinion 39: Registry options to facilitate linking of emissions trading systems
460 http://www.jukkarannila.fi/lausunnot.html#nro_39
461
462 EN: Opinion 40: Media Freedom and Pluralism / audiovisual regulatory bodies
463 http://www.jukkarannila.fi/lausunnot.html#nro_40
464
465 EN: Opinion 41: AT.39398: observations on the proposed commitments
466 http://www.jukkarannila.fi/lausunnot.html#nro_41

1   http://www.cen.eu/ (Accessed 2 July 2012)
2   http://www.acer.europa.eu/ (Accessed 2 July 2012)

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Jukka S. Rannila

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OPINION

3 December 2018

15 (19)

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467
468   EN: Opinion 42: Opening up Education
469   http://www.jukkarannila.fi/lausunnot.html#nro_42
470
471   EN: Opinion 43: Publication of extracts of the European register of market participants
472   http://www.jukkarannila.fi/lausunnot.html#nro_43
473   NOTE: Organised by The Agency for the Cooperation of Energy Regulators (ACER)
474
475   EN: Opinion 44: Evaluation policy guidelines
476   http://www.jukkarannila.fi/lausunnot.html#nro_44
477
478   EN: Opinion 45: About ICT standardisation
479   http://www.jukkarannila.fi/lausunnot.html#nro_45
480
481   EN: Opinion 46: Review of the EU copyright rules
482   http://www.jukkarannila.fi/lausunnot.html#nro_46
483
484   EN: Opinion 51: European Area of Skills and Qualifications
485   http://www.jukkarannila.fi/lausunnot.html#nro_51
486
487   EN: Opinion 52: Trusted Cloud Europe Survey
488   http://www.jukkarannila.fi/lausunnot.html#nro_52
489
490   EN: Opinion 53: Trade Reporting User Manual (TRUM) (Draft)
491   http://www.jukkarannila.fi/lausunnot.html#nro_53
492   NOTE: Organised by The Agency for the Cooperation of Energy Regulators (ACER)
493
494   EN: Opinion 55: European Energy Regulation
495   http://www.jukkarannila.fi/lausunnot.html#nro_55
496   NOTE: Organised by The Agency for the Cooperation of Energy Regulators (ACER)
497
498   EN: Opinion 59: Green paper on mobile Health
499   http://www.jukkarannila.fi/lausunnot.html#nro_59
500
501   EN: Opinion 60: Cross-border inheritance tax problems within the EU
502   http://www.jukkarannila.fi/lausunnot.html#nro_60
503
504   EN: Opinion 61: European Register of Products Containing Nanomaterials
505   http://www.jukkarannila.fi/lausunnot.html#nro_61
506
507   EN: Opinion 64: Corporate Social Responsibility - European Commission
508   http://www.jukkarannila.fi/lausunnot.html#nro_64
509
510   EN: Opinion 66: Net Innovation for the Work Programme 2016-2017
511   http://www.jukkarannila.fi/lausunnot.html#nro_66

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512
513   EN: Opinion 68: European Network Code Stakeholder Committees
514   http://www.jukkarannila.fi/lausunnot.html#nro_68
515   NOTE: Organised by The Agency for the Cooperation of Energy Regulators (ACER)
516
517   EN: Opinion 71: Common Schema for the Disclosure of Inside Information
518   http://www.jukkarannila.fi/lausunnot.html#nro_71
519   NOTE: Organised by The Agency for the Cooperation of Energy Regulators (ACER)
520
521   EN: Opinion 74: Enabling the Internet of Things
522   http://www.jukkarannila.fi/lausunnot.html#nro_74
523   NOTE: Organised by Body of European Regulators for Electronic Communications (BEREC) [3]
524
525   EN: Opinion 80: Mandatory Transparency Register
526   http://www.jukkarannila.fi/lausunnot.html#nro_80
527
528   EN: Opinion 84: Revision of the European Interoperability Framework
529   http://www.jukkarannila.fi/lausunnot.html#nro_84
530
531   EN: Opinion 86: 2016 Annual Colloquium on fundamental rights
532   http://www.jukkarannila.fi/lausunnot.html#nro_86
533
534   EN: Opinion 88: Evaluation and Review of the ePrivacy Directive
535   http://www.jukkarannila.fi/lausunnot.html#nro_88
536
537   EN: Opinion 89: BEREC Guidelines for net neutrality rules
538   http://www.jukkarannila.fi/lausunnot.html#nro_89
539   NOTE: Organised by Body of European Regulators for Electronic Communications (BEREC)
540
541   EN: Opinion 93: Safety of apps and other non-embedded software
542   http://www.jukkarannila.fi/lausunnot.html#nro_93
543
544   EN: Opinion 95: Targeted consultation on eForms
545   http://www.jukkarannila.fi/lausunnot.html#nro_95
546
547   EN: Opinion 97: COM(2016) 882 final - 2016/0408 (COD)
548   http://www.jukkarannila.fi/lausunnot.html#nro_97
549
550   EN: Opinion 98: Opinions related to six (6) co-decision (COD) proposals
551   http://www.jukkarannila.fi/lausunnot.html#nro_98
552
553   EN: Opinion 99: COM(2016)0863 - European Union Agency for the Cooperation of Energy
554   Regulators. Recast
555   http://www.jukkarannila.fi/lausunnot.html#nro_99

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

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556
557   EN: Opinion 100: Protection of personal data (EU)
558   http://www.jukkarannila.fi/lausunnot.html#nro_100
559
560   EN: Opinion 101: Governance of the Energy Union
561   http://www.jukkarannila.fi/lausunnot.html#nro_101
562
563   EN: Opinion 102: Smart Wearables
564   http://www.jukkarannila.fi/lausunnot.html#nro_102
565
566   EN: Opinion 106: Review of the European Union Agency for Network and Information Security
567   (ENISA)
568   http://www.jukkarannila.fi/lausunnot.html#nro_106
569
570   EN: Opinion 108: Single Digital Gateway
571   http://www.jukkarannila.fi/lausunnot.html#nro_108
572
573   EN: Opinion 110: Technical arrangements / Information systems / Union Customs Code
574   http://www.jukkarannila.fi/lausunnot.html#nro_110
575
576   EN: Opinion 111: Interoperability of information systems for migration and security
577   http://www.jukkarannila.fi/lausunnot.html#nro_111
578
579   EN: Opinion 113: Transform of health and care
580   http://www.jukkarannila.fi/lausunnot.html#nro_113
581
582   EN: Opinion 114: Premium content on ECS markets and the effect of devices on the open use of the
583   Internet
584   http://www.jukkarannila.fi/lausunnot.html#nro_114
585   NOTE: Organised by Body of European Regulators for Electronic Communications (BEREC)
586
587   EN: Opinion 118: Fake news and online disinformation
588   http://www.jukkarannila.fi/lausunnot.html#nro_118
589
590   EN: Opinion 119: European Social Security Number
591   http://www.jukkarannila.fi/lausunnot.html#nro_119
592
593   EN: Opinion 120: European Labour Authority
594   http://www.jukkarannila.fi/lausunnot.html#nro_120
595
596   EN: Opinion 121: 2nd Data Package
597   http://www.jukkarannila.fi/lausunnot.html#nro_121
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Jukka S. Rannila

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18 (19)

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601
602 EN: Opinion 122: Proposal to create a cybersecurity competence network with a European
603 Cybersecurity Research and Competence Centre
604 http://www.jukkarannila.fi/lausunnot.html#nro_122
605
606 EN: Opinion 123: Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF
607 THE COUNCIL on the re-use of public sector information (recast)
608 http://www.jukkarannila.fi/lausunnot.html#nro_123
609
610 EN: Opinion 125: Security of identity cards of Union citizens and of residence documents
611 http://www.jukkarannila.fi/lausunnot.html#nro_125
612
613 EN: Opinion 128: Summertime arrangements
614 http://www.jukkarannila.fi/lausunnot.html#nro_128
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619 My opinions to the previous and relevant consultations – there consultations were mostly organised
620 by the European Commission. General page to all consultations – both in English and in Finnish:
621 http://www.jukkarannila.fi/lausunnot.html
622
623
624 [Continues on the next page]
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