

Standards in the Digital Single Market: setting priorities and ensuring delivery

Fields marked with * are mandatory.

General information on respondents

* Do you wish your contribution to be published?

Please indicate clearly if you do not wish your contribution to be published.

- YES
 NO

Submissions that are sent anonymously will neither be published nor taken into account.

The Commission may contact you in case a clarification regarding your submission is needed. If you do not wish to be contacted, please state this clearly in your reply.

I wish to be contacted:

- YES
 NO

* I'm responding as:

- An individual in my personal capacity
 The representative of an organisation/company/institution

* What is your name?

Rodríguez Cocina

* What is your surname?

Carlos Alberto

* Please enter your email address:

brussels@telefonica.com

Please enter your telephone number:

+3222309555

* Please enter the name of your institution/organisation/business:

Telefonica S.A.

* Is your organisation registered in the Transparency Register of the European Commission and the European Parliament?

Yes

No

* Please indicate your organisation's registration number in the Transparency Register.

52431421-12

* Please enter the address of your organisation:

Gran Via, 28 - 28013 Madrid

* My institution/organisation/business operates in:

EU

* What is the primary place of establishment of the entity you represent?

Spain

* Please indicate your main field of business activity and the field of activity related to the consultation's topic (if not identical to the overall business activity).

Telecommunications

* Please select the description that applies to your organisation.

Enterprise (not SME)

Is your organisation active in ICT standardisation?

- Yes
- No

* Please indicate the Standard Setting Organisations in which you are active:

ETSI, ITU, IETF, 3GPP, ONF, W3C, BBF, GCF, TMForum

And if possible:

- The approximate number of person-months devoted to standardisation related activities.

P/M

- The percentage this means to the total of your resources.

%

Questions

II.1 Questions on general framework and problem statement

It is of particular interest to understand if the standards currently under development effectively match interoperability and successfully creating a Digital Single Market. In addition, it is especially interesting to identify those actions in standards development that could act as a solution for wider industry and public needs, not limited to the specific technologies that have been standardized.

Please indicate whether you agree to the following statements and explain your answer briefly.

Q1.1 - Do you share the Commission's analysis in Part 2 of [this document](#)?

- YES
- PARTLY
- NO
- NO OPINION

* Please explain:

We agree in that it is important to launch an integrated standardization plan to identify and define key priorities for standardisation with a focus on the technologies and domains that are deemed to be critical to the Digital Single Market. However, it must be beared in mind that relevant standards are global, not just European. To make the difference, the most important factor is to be the first to make them available to the global market. As important as setting the right priorities is making the changes for the European Standardization processes (in ETSI, CEN, CENELEC) to be truly agile and quick. In the case of standards for software platforms, it is important to promote involvement or creation of global open source initiatives that produce open source reference implementations of API specifications which can be later adopted using fast-tracking adoption mechanisms in the referred European Standardization bodies (ETSI, CEN, CELENEC) as well as global Standard bodies (ITU, ISO, ...) and consortia (W3C, TMForum, ...).

Q1.2 - ICT is assuming a greater role in sectors of the economy which were not previously significant users of ICT. How do you see the role of ICT standards for the economy, in particular beyond the ICT sector?

- Very Important
- Important
- Modest importance
- Not important
- No opinion

* Your comment, indicating a specific sector:

As an example, open (i.e., public and royalty-free) standard platform specifications in the domain of Smart Cities could foster portability and interoperability of applications/solutions, enabling synergies between different services (transportation, energy, health systems...), driving innovation based on real-time open data and transforming the cities into platforms for the development of Smart Applications. Developing a single digital market of applications and services for cities through an open standard platform facilitates the necessary scale and the birth of ecosystems, where applications/solutions developed by large companies as well as SMEs and startups arise not only for the more efficient management of municipal services in the city, but for the support of the daily life of citizens and businesses in multiple sectors. By promoting an open platform and the economy of open data, the city becomes a platform for digital transformation of the economy and the society.

Q1.3 - Do you agree that setting priorities for ICT standards at EU level, accompanied by clear time-tables, could help standard-setting organisations in better organising their work and support the Digital Single Market?

- YES
- PARTLY
- NO
- NO OPINION

* Please explain why:

Yes. However there is a need to make European Standard Development faster, to make it really influential. Changing the processes and fostering integration of Public-Private Partnerships (PPP) with European standard setting organizations can help achieve the objective. In the case of software platforms, the creation of open source initiatives with a global ambition, supported under Public-Private Partnership schemas, is key (e.g., FIWARE).

Q1.4. - What other steps should be considered to ensure that any such prioritisation would enjoy broad support of key stakeholders?

Support of Public-Private Partnerships driven by the industry would play an instrumental role. They should have a long-term funding secured to better sustain a continuous dissemination of results, technical support to the adoption of results and technical evolution. Of course, periodic assessment of the impact of results is required to determine the level of funding needed. In the case of software platforms, the creation of open source initiatives with a global ambition, supported under Public-Private Partnership schemas, is key (e.g., FIWARE).

Q1.5 - What would be the most effective instrument at EU level to ensure that any such prioritisation is taken up by relevant standard-setting organisations? (please select and rank up to 3 instruments)

	1	2	3
A Commission Communication	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
A Commission Recommendation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Standardization requests issued to EU standard-setting organisations and included in the Annual Union Work Programme for European standardisation	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Priorities stated in the Rolling Plan for ICT Standardisation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
No opinion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
None of them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Your comment:

Q1.6 - What would be the impact of a priority ICT standards plan defined at the level of the EU on Europe's effort to pursue leadership in global standard-setting?

- POSITIVE
- NEUTRAL
- NEGATIVE
- NO OPINION

* Please explain:

It is positive to focus the efforts and limited resources on key priorities and for Europe to be the first developing Standards for those priorities.

Q1.7 - What would be the impact of a priority ICT standards plan defined at the level of the EU on the ability of European companies to capture new global market opportunities?

- POSITIVE
- NEUTRAL
- NEGATIVE
- NO OPINION

* Please explain:

If the Standards developed remain just within the level of the EU, there is no way to capture new global opportunities. The challenge is to be able to influence the market globally starting with the European ICT standards plan. The liaison between Public-Private Partnerships (PPP) and relevant European standard bodies and, in the case of software platforms, the support of global open source initiatives (e.g., FIWARE) where reference implementation of standards would be developed have to be integral elements of an European ICT standard plan.

Q1.8 - Besides establishing a priority ICT standards plan, what other measures could the Commission (or other EU institutions) take to ensure that standardisation plays its role in achieving a Digital Single Market?

Pre-commercial procurement mechanisms and shared rules in the public sector may foster take up actions of standards and increase the possibility of achieving shared goals. No standards or too many standards may hinder markets. There are possible roles such as setting goals, objectives and rules in particular for concepts such as smart cities that are heavily linked to public funding and where consistency at a European level make them work. Joining up users can help in promoting standards and the technology take up. Another example could be common certification schemes for public sector Cloud services.

Q1.9 - How should standard-setting organisations best respond to the increasing speed of technological development and the integration of technologies in business processes across all industrial sectors?

A - Regarding the adaptation of existing standards to new developments:

Fast-track adoption mechanisms could be put in place.

B - Regarding the introduction of new standards for new technologies/products:

Fast-track adoption mechanisms could be put in place.

Q1.10 - How do you see the involvement of European ICT Standardization experts in international standardisation organisations (ITU, ISO, IEC) and global standard setting organizations (i.e. IEEE, IETF, OASIS, W3C, ECMA international)?

A - The *SCOPE (or LEVEL?) of involvement.*

- Is appropriate
- Should be increased
- Should be decreased
- No opinion

Please explain:

B - The *QUALITY of involvement.*

- Is appropriate
- Should be improved
- No opinion

Please explain:

From a practical view, businesses may more easily be involved in working group meetings where its headquarters or experts are located. Funding from Europe and promoting European leading working groups in the top priority areas may help global standards aligned with European interests (as is the case of IETF for USA)

II.2 Questions on priority domains for standardisation in the Digital Single Market

In this section, the Commission invites survey participants to express opinions and ideas on setting priorities for ICT standardisation.

The Commission has identified 10 domains set out below, as well as a set of sub-domains within each domain. Please note that domains and subdomains are interrelated and that overlaps are possible and desirable in particular with respect to synergies between different sectors. Some domains are horizontal and may benefit a large number of sectorial applications; some other domains are more sectorial and were identified as areas where ICT standardisation would bring important benefits.

First check whether the list of domains is complete and relevant. If the list is considered incomplete, please complement it with additional domains that you consider priority.

Q2.1 - Please identify and rank the domains (up to 5) and subsequently subdomains (up to 3 per domain) within each domain that you consider a priority. If specific domains or subdomains are missing please add them.

at most 5 answered row(s)

	1	2	3	4	5
Domain 1: 5G communications	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Domain 2: Cloud computing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Domain 3: Cybersecurity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Domain 4: Data driven services and applications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Domain 5: Digitisation of European Industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Domain 6: eHealth and aging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Domain 7: Intelligent Transport Systems (ITS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Domain 8: Internet of Things	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Domain 9: Smart Cities	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Domain 10: Smart and Efficient Energy Use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Subdomains of Domain 1: 5G communications

at most 3 answered row(s)

	1	2	3
Architecture definition	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Channel model characterisation for innovative usages (e.g. V2V)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Converged control plane (fixed mobile)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evolved Packet Core (EPC)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multi domain SDN interoperability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multi tenancy and multi technology C-RAN	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Network slicing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New radio access technologies and waveforms, including backhaul/front haul integration	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Resource identification	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
SDN Northbound interface	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Domain 3: Cybersecurity

at most 3 answered row(s)

	1	2	3
Cyber security design requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Process standard for incident reporting	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Process standard for cyber risk management	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Process standard for vulnerability disclosure	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Technical standards for encryption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technical standards for public key infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technical standard for security and privacy by design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Domain 4: Data driven services and applications

at most 3 answered row(s)

	1	2	3
APIs for simplified data sharing and reuse between data-driven services and applications	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Big Data technologies (such as interoperability of Big Data technologies in software stacks)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data licensing conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data related processes (such as data collection, data curation, data management)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Data representation formats (such as XML)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data service protocols	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Entity identifiers for the sector	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Metadata schemata	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Domain 8: Internet of Things

at most 3 answered row(s)

	1	2	3
Advanced Manufacturing / M2M	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Building and Home automation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy / Environment monitoring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medical and health care systems	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Reference architectures and related standardised interfaces	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smart cities and communities	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Smart living environment for ageing well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smart farming and food security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transportation (including ITS, C2C, C2I, automated driving)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wearables	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Domain 9: Smart Cities

at most 3 answered row(s)

	1	2	3
Application Programming Interfaces for urban platforms	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Urban Indicators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Urban Management System (city planning)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Urban Ontologies (for specific domains (including city objects, geometric elements and themes) or cross-domain)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Urban Platforms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Urban transactions (payments, identification, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

* Other(s) subdomain(s):

Economy of data

Please answer to Q2.2 to Q2.6 for each of the domains selected. In your answer please specify if applicable the subdomains that you have selected.

* Q2.2 - For the **Domain 1: 5G communications** and the subdomains which you have selected, please explain briefly how the criteria indicated in Box I apply to them. We copy the criteria for your convenience.

- Link to DSM objectives and other EU policies
- Competitiveness of the European industry
- Clear and achievable targets
- Evidence of market relevance and stakeholders needs
- Domains where standard setting has direct benefits for consumers

Evidence of market relevance and stakeholders needs

Q2.3 - The Priority ICT standards plan should lead to the production of technical specifications, standards or architectures where there is a need/gap, but could also propose any other type of standardisation action such as landscape analysis, gap finding, roadmaps or, ecosystem building that could contribute to ensure that standardisation plays its role in achieving a Digital Single Market. Please explain if a standardisation need/gap exists in the **Domain 1: 5G communications** and sub-domains which you have selected. Please also indicate within which time-frame such need could be addressed. Please limit to a maximum of five needs/gaps per domain or sub-domain:

Q2.4 - Among those below, which action could be a priority in the **Domain 1: 5G communications** and sub-domains which you have selected.? Please rank the list below and explain your choice.

	1	2	3	4	5	6	7	8	9
• Mandating European Standardisation Organisations (ESOs) for fast delivery of standards/technical specifications.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Foster cooperation among standards development organisations for ICT priorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Support Research & Innovation projects to contribute to standardisation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Community Building	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Support creation of public-private partnerships - PPP	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Increase strategic coordination of ICT standardisation at EU level.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Ensure consistent application of existing standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
• Accelerate the identification of ICT technical specifications most commonly used for their reference in public procurement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• No opinion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Please explain:

In our opinion, public-private partnerships and Research&innovation projects contributing to standardization are the two most important factors for Standards adoption in the Digital Single Market

Q2.5 - Please indicate any other standardisation initiatives which would help achieving the Digital Single Market in the **Domain 1: 5G communications** and sub-domains which you have selected., and who in the standardisation landscape would be best placed to lead on these initiatives:

Q2.6 - Would your organisation be prepared to invest resources in standard-setting to achieve the priority standards within the proposed time-frames?

Please answer this question only if you are responding as the representative of an organisation/company/institution.

- YES
- YES, provided some conditions are met
- NO
- No opinion

*Q2.2 - For the **Domain 3: Cybersecurity** and the subdomains which you have selected, please explain briefly how the criteria indicated in Box I apply to them.

We copy the criteria for your convenience:

- Link to DSM objectives and other EU policies
- Competitiveness of the European industry
- Clear and achievable targets
- Evidence of market relevance and stakeholders needs
- Domains where standard setting has direct benefits for consumers

Evidence of market relevance and stakeholders needs

Q2.3 - The Priority ICT standards plan should lead to the production of technical specifications, standards or architectures where there is a need/gap, but could also propose any other type of standardisation action such as landscape analysis, gap finding, roadmaps or, ecosystem building that could contribute to ensure that standardisation plays its role in achieving a Digital Single Market. Please explain if a standardisation need/gap exists in the **Domain 3: Cybersecurity** and the subdomains which you have selected. Please also indicate within which time-frame such need could be addressed. Please limit to a maximum of five needs/gaps per domain or sub-domain:

Q2.4 - Among those below, which action could be a priority in the **Domain 3: Cybersecurity** and the subdomains which you have selected? Please rank the list below and explain your choice.

	1	2	3	4	5	6	7	8	9
• Mandating European Standardisation Organisations (ESOs) for fast delivery of standards/technical specifications.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Foster cooperation among standards development organisations for ICT priorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Support Research & Innovation projects to contribute to standardisation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Community Building	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Support creation of public-private partnerships - PPP	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Increase strategic coordination of ICT standardisation at EU level.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Ensure consistent application of existing standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
• Accelerate the identification of ICT technical specifications most commonly used for their reference in public procurement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• No opinion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Please explain:

In our opinion, public-private partnerships and Research&innovation projects contributing to standardization are the two most important factors for Standards adoption in the Digital Single Market

Q2.5 - Please indicate any other standardisation initiatives which would help achieving the Digital Single Market in the **Domain 3: Cybersecurity** and the subdomains which you have selected, and who in the standardisation landscape would be best placed to lead on these initiatives:

Q2.6 - Would your organisation be prepared to invest resources in standard-setting to achieve the priority standards within the proposed time-frames?

Please answer this question only if you are responding as the representative of an organisation/company/institution.

- YES
- YES, provided some conditions are met
- NO
- No opinion

* Q2.2 - For the **Domain 4: Data driven services and applications** and the subdomains which you have selected, please explain briefly how the criteria indicated in Box I apply to them.
We copy the criteria for your convenience:

- Link to DSM objectives and other EU policies
- Competitiveness of the European industry
- Clear and achievable targets
- Evidence of market relevance and stakeholders needs
- Domains where standard setting has direct benefits for consumers

Evidence of market relevance and stakeholders needs

Q2.3 - The Priority ICT standards plan should lead to the production of technical specifications, standards or architectures where there is a need/gap, but could also propose any other type of standardisation action such as landscape analysis, gap finding, roadmaps or, ecosystem building that could contribute to ensure that standardisation plays its role in achieving a Digital Single Market. Please explain if a standardisation need/gap exists in the ***Domain 4: Data driven services and applications*** and the subdomains which you have selected. Please also indicate within which time-frame such need could be addressed. Please limit to a maximum of five needs/gaps per domain or sub-domain:

APIs for simplified data sharing and reuse between data-driven services and applications: Definition of API for real-time access to context information enabling the development of context-aware applications.
Data related processes: Existence of global tool for collaborative standard data model creation and curation (e.g., similar to wikipedia, including moderation of open contribution and adoption driven by implementation, applicable to standard data models)
Metadata schemata: Standardization of data models including metadata describing ingredients of those data models.

Q2.4 - Among those below, which action could be a priority in the **Domain 4: Data driven services and applications** and the subdomains which you have selected? Please rank the list below and explain your choice.

	1	2	3	4	5	6	7	8	9
• Mandating European Standardisation Organisations (ESOs) for fast delivery of standards/technical specifications.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Foster cooperation among standards development organisations for ICT priorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Support Research & Innovation projects to contribute to standardisation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Community Building	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Support creation of public-private partnerships - PPP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
• Increase strategic coordination of ICT standardisation at EU level.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Ensure consistent application of existing standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
• Accelerate the identification of ICT technical specifications most commonly used for their reference in public procurement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Other	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• No opinion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Please explain:

In our opinion, Public-Private Partnerships (PPPs) and Research&innovation projects contributing to standardization are the two most important factors for the development of the required standards within a Digital Single Market strategy. In the case of "Data driven services and applications", we support prioritization of "Other" actions because, rather than creating new Public-Private Partnerships, it is highly relevant to leverage on the results and continuity of the Future Internet (FIWARE) PPP.

Q2.5 - Please indicate any other standardisation initiatives which would help achieving the Digital Single Market in the **Domain 4: Data driven services and applications** and the subdomains which you have selected, and who in the standardisation landscape would be best placed to lead on these initiatives:

Q2.6 - Would your organisation be prepared to invest resources in standard-setting to achieve the priority standards within the proposed time-frames?

Please answer this question only if you are responding as the representative of an organisation/company/institution.

- YES
- YES, provided some conditions are met
- NO
- No opinion

*Q2.2 - For the **Domain 8: Internet of Things** and the subdomains which you have selected, please explain briefly how the criteria indicated in Box I apply to them.

We copy the criteria for your convenience:

- Link to DSM objectives and other EU policies
- Competitiveness of the European industry
- Clear and achievable targets
- Evidence of market relevance and stakeholders needs
- Domains where standard setting has direct benefits for consumers

Evidence of market relevance and stakeholders needs

Q2.3 - The Priority ICT standards plan should lead to the production of technical specifications, standards or architectures where there is a need/gap, but could also propose any other type of standardisation action such as landscape analysis, gap finding, roadmaps or, ecosystem building that could contribute to ensure that standardisation plays its role in achieving a Digital Single Market. Please explain if a standardisation need/gap exists in the ***Domain 8: Internet of Things*** and the subdomains which you have selected. Please also indicate within which time-frame such need could be addressed. Please limit to a maximum of five needs/gaps per domain or sub-domain:

Reference architectures and related standardised interfaces: definition of reference architecture components for context information access, management and processing and their connection to IoT components.

Smart cities and communities: standard open API for context information access and management, standard context information models (context information = information describing what is going on in the city at any time beyond IoT data)

Medical and health care systems: standard data models for health-care measures provided by sensors, including metadata describing elements of those data models

Q2.4 - Among those below, which action could be a priority in the *Domain 8: Internet of Things* and the subdomains which you have selected? Please rank the list below and explain your choice.

	1	2	3	4	5	6	7	8	9
• Mandating European Standardisation Organisations (ESOs) for fast delivery of standards/technical specifications.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Foster cooperation among standards development organisations for ICT priorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Support Research & Innovation projects to contribute to standardisation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Community Building	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Support creation of public-private partnerships - PPP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
• Increase strategic coordination of ICT standardisation at EU level.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Ensure consistent application of existing standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
• Accelerate the identification of ICT technical specifications most commonly used for their reference in public procurement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Other	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• No opinion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Please explain:

In our opinion, Public-Private Partnerships (PPPs) and Research&innovation projects contributing to standardization are the two most important factors for the development of the required standards within a Digital Single Market strategy. In the case of "Internet of Things", we support prioritization of "Other" actions because, rather than creating new Public-Private Partnerships it is highly relevant to leverage on the results and continuity of the Future Internet (FIWARE) PPP.

Q2.5 - Please indicate any other standardisation initiatives which would help achieving the Digital Single Market in the **Domain 8: Internet of Things** and the subdomains which you have selected, and who in the standardisation landscape would be best placed to lead on these initiatives:

Promote a City open platform as the way to foster the adoption of a de facto standard. (FIWARE standard, as part of FI-PPP)

Q2.6 - Would your organisation be prepared to invest resources in standard-setting to achieve the priority standards within the proposed time-frames?

Please answer this question only if you are responding as the representative of an organisation/company/institution.

- YES
- YES, provided some conditions are met
- NO
- No opinion

*Q2.2 - For the **Domain 9: Smart Cities** and the subdomains which you have selected, please explain briefly how the criteria indicated in Box I apply to them.

We copy the criteria for your convenience:

- Link to DSM objectives and other EU policies
- Competitiveness of the European industry
- Clear and achievable targets
- Evidence of market relevance and stakeholders needs
- Domains where standard setting has direct benefits for consumers

Evidence of market relevance and stakeholders needs

Q2.3 - The Priority ICT standards plan should lead to the production of technical specifications, standards or architectures where there is a need/gap, but could also propose any other type of standardisation action such as landscape analysis, gap finding, roadmaps or, ecosystem building that could contribute to ensure that standardisation plays its role in achieving a Digital Single Market. Please explain if a standardisation need/gap exists in the **Domain 9: Smart Cities** and the subdomains which you have selected. Please also indicate within which time-frame such need could be addressed. Please limit to a maximum of five needs/gaps per domain or sub-domain:

Q2.4 - Among those below, which action could be a priority in the *Domain 9: Smart Cities* and the subdomains which you have selected? Please rank the list below and explain your choice.

	1	2	3	4	5	6	7	8	9
• Mandating European Standardisation Organisations (ESOs) for fast delivery of standards/technical specifications.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Foster cooperation among standards development organisations for ICT priorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Support Research & Innovation projects to contribute to standardisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Community Building	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Support creation of public-private partnerships - PPP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
• Increase strategic coordination of ICT standardisation at EU level.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Ensure consistent application of existing standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
• Accelerate the identification of ICT technical specifications most commonly used for their reference in public procurement	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• Other	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
• No opinion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Please explain:

In our opinion, Public-Private Partnerships (PPPs) and Research&innovation projects contributing to standardization are the two most important factors for the development of the required standards within a Digital Single Market strategy. In the case of "Smart Cities", we support prioritization of "Other" actions because, rather than creating new Public-Private Partnerships it is highly relevant to leverage on the results and continuity of the Future Internet (FIWARE) PPP.

Q2.5 - Please indicate any other standardisation initiatives which would help achieving the Digital Single Market in the **Domain 9: Smart Cities** and the subdomains which you have selected, and who in the standardisation landscape would be best placed to lead on these initiatives:

The Open and Agile Smart Cities (OASC) initiative, leveraging on results of the Future Internet (FIWARE) PPP is a city-driven initiative aiming at fostering the adoption of a common set of de-facto standards which could play a relevant role. More info at <http://oascities.org> and <http://fiware.org>

Q2.6 - Would your organisation be prepared to invest resources in standard-setting to achieve the priority standards within the proposed time-frames?

Please answer this question only if you are responding as the representative of an organisation/company/institution.

- YES
- YES, provided some conditions are met
- NO
- No opinion

II.3 Other Comments

Other comments:

There is an important domain that is not listed: Making the Internet truly open. In this sense there is a strong need to work on true open operating systems for all devices and interoperability of applications and data.

Background Documents

analysis.pdf (/eusurvey/files/f2d6718c-7e07-4955-9505-c94113bbbe0f)

Contact

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