



European Economic and Social Committee

TEN/593
ICT Standardisation Priorities
for the Digital Single Market

OPINION

European Economic and Social Committee

**Communication from the Commission to the European Parliament, the Council, the European
Economic and Social Committee and the Committee of the Regions - ICT Standardisation
Priorities for the Digital Single Market**

[COM(2016) 176 final]

Rapporteur: **Gundars Strautmanis**

Consultation	European Commission, 19/04/2016
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Section responsible	Section for Transport, Energy, Infrastructure and the Information Society
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1. **Conclusions and recommendations**

1.1 **The EESC broadly welcomes** the document drafted by the Commission, as it provides a starting point for plans and initiatives promoting ICT standardisation; it establishes priority domains and key actions, accompanied by a timetable (roadmap).

1.2 **The EESC believes** that standardisation should help to increase added value, secure employment in all areas and improve the wellbeing of society as a whole. It is therefore particularly important to identify the priority domains where standardisation is to be carried out, including in the information technology and communication (ICT) sector, so as to resolve these issues which are vital for everyone. This demonstrates that this Commission communication is truly necessary, and also clearly shows why the drafting of this document is crucial for further ICT standardisation – and, in turn, the development of the Digital Single Market.

1.3 **The EESC wishes to put forward a number of recommendations** which could help the Commission further improve the communications and other accompanying documents that it has drawn up.

1.3.1 **Recommendation No 1**

The EESC recommends that in future communications and other related documents, the Commission should inform all stakeholders about the need to take a balanced approach to ICT standardisation: standards as a restricting factor versus creativity.

1.3.2 **Recommendation No 2**

The EESC recommends that efforts should be made to ensure consistency between the priority domains for ICT standardisation that have different names in the Commission communication and the annual Rolling Plan for ICT Standardisation. In order to create consistency between the various documents and all inter-related texts, unified terminology must be used.

1.3.3 **Recommendation No 3**

Given the importance of the task of setting priorities for ICT standardisation, **the EESC recommends** that more information should be provided in terms of the reasons, methodology and results with regard to the choice of priority areas.

1.3.4 **Recommendation No 4**

To ensure that all stakeholders have a better understanding of the implementation and consistency of the Commission communication, **the EESC recommends** that information should be distributed regarding the recurring activities to supplement or continue the work launched by this document.

1.3.5 Recommendation No 5

To ensure that all stakeholders can be confident that the Commission, when drawing up its communication, has looked beyond issues linked directly to priorities for ICT standardisation and has also assessed the impact of these priorities on various social concerns (see Article 11 TFEU), **the EESC recommends** that the Commission's future communications should contain specific details about the participation of various stakeholders and about the social consequences of its approach in the field of ICT standardisation, which already affects the whole of society.

1.4 While the Committee supports the Commission communication as a whole, **the EESC would nevertheless suggest** evaluating:

- whether, in terms of its form, the communication is sufficient to achieve the stated objectives, e.g. providing "leadership", or whether it might be necessary to use forms that allow for more action and decisiveness,
- whether the notion of "leadership" should be re-examined, and whether the Commission communication should perhaps focus on partnership-based cooperation with global standardisation organisations rather than following the principles of competition, given that we broadly share the same needs, which transcend the borders of the EU.

2. Introduction

2.1 On 19 April 2016, the European Commission adopted its communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on ICT Standardisation Priorities for the Digital Single Market (COM(2016) 176 final).

2.2 Objectives of the Commission communication:

- to support and strengthen Europe's role in the global digital economy,
- to ensure that ICT-related standards are set in a way that is more responsive to policy needs,
- to ensure that standards are dynamic, open, and more closely linked to research and innovation.

2.3 Spirit of the Commission communication:

- **A comprehensive strategic and political approach to standardisation for priority ICT technologies.** The communication sets out a comprehensive strategic and political approach to standardisation for priority ICT technologies that are critical to the completion of the Digital Single Market.
- **Addressing the challenges related to ICT standardisation.** To address the challenges related to ICT standardisation, the Commission announced that it would launch "an integrated standardisation 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".

2.4 **Context** of the Commission communication:

- **Common standards as the foundation of an effective Digital Single Market.** Common standards ensure the interoperability of digital technologies and are the foundation of an effective Digital Single Market. They guarantee that technologies work smoothly and reliably together, provide economies of scale, foster research and innovation and keep markets open. Differing national standards, however, may significantly slow down innovation and put European businesses at a disadvantage vis-à-vis the rest of the world.
- **Regulation 1025/2012 on European Standardisation.** The recent revision of the EU's standardisation policy resulted in the adoption of Regulation 1025/2012 on European Standardisation and the creation of a framework for a more transparent, efficient and effective European standardisation system for all industry sectors. **The communication builds on Regulation 1025/2012¹** and is linked to the planned Joint Initiative on Standardisation that is part of the wider Single Market Strategy (COM(2015) 550 final. Upgrading the Single Market: more opportunities for people and business.).

2.5 **Key issues** of the Commission communication:

- ICT standards as the cornerstone of the Digital Single Market
- Setting standards for ICT: a fast-changing and challenging global context
- Europe's response: a two-pillar plan to prioritise and deliver ICT standard-setting for the Digital Single Market
- Five priority domains: the building blocks of ICT standard-setting
- A high-level commitment to deliver and ensure leadership through standards

3. **Overview of and general comments on the text of the Commission communication**

3.1 **ICT standards as the cornerstone of the Digital Single Market**

3.1.1 Point 1 of the Commission communication states that the transformation of the global economy to a digital economy affects all industrial and service sectors. Similarly, point 1 addresses the general issues relating to the communication, such as:

- the purpose of the communication,
- the nature of the communication,
- the background to the communication.

3.2 **Setting standards for ICT: a fast-changing and challenging global context**

3.2.1 Point 2 of the Commission communication states that development of ICT standards faces several new challenges that require a focused and sustained EU-level solution.

¹

[OJ L 316, 14.11.2012, p. 12.](#)

3.2.2 The communication stresses that the potential consequences of these challenges could be a dispersal of limited resources, relatively poor efficiency and, more broadly, a dampening of Europe's innovative capacity.

3.3 **Europe's response: a two-pillar plan to prioritise and deliver ICT standard-setting for the Digital Single Market**

3.3.1 Point 3 of the Commission communication presents a priority action plan for the next wave of technology standardisation in the digital economy.

3.3.2 Approach proposed by the Commission:

- 1) The communication identifies a **list of priority building blocks** for the Digital Single Market where improved ICT standardisation is most urgent, accompanied by deliverables and a timeline.
- 2) The Commission proposes a high-level political process, to validate, monitor, and – where necessary – adapt the list of priorities. This process is expected to make use of the instruments of the European Standardisation System, and involve a wide range of stakeholders, both within the EU and at international level.

3.3.3 Both parts of this priority plan will need to be taken forward together, to ensure that the EU becomes a leader in the global digital economy.

3.4 **Five priority domains: the building blocks of ICT standard-setting**

3.4.1 In point 3.1 of the communication, the Commission identifies the five priority domains that constitute the **fundamental technological building blocks** of the Digital Single Market (order of listed domains is not important):

- cloud computing,
- internet of things – IoT,
- 5G communications,
- (big) data technologies,
- cybersecurity.

3.4.2 The priority areas were selected based on advice from the European Multi-stakeholders Platform on ICT Standardisation, which brings together industry stakeholders, standard-setters, governments and civil society representatives.

3.4.3 The digital transformation has important implications for different sectors as well as consumers. Many **important areas of ICT application** (for example: e-health, intelligent transport systems, smart energy, advanced manufacturing, smart cities, etc.) are based directly on the five selected priorities of ICT standardisation.

3.4.4 **The priorities selected will complement other standardisation instruments used to implement European standardisation policy.** In addition to the planned Joint Initiative on European standardisation, these are the Rolling Plan for ICT Standardisation, and the Annual Union Work Programme.

3.5 **A high-level commitment to deliver and ensure leadership through standards**

3.5.1 Point 3.2 of the Commission communication states that setting priorities for ICT standards for the Digital Single Market alone will not suffice. **Success depends on a high-level commitment to standardisation from a broad stakeholder base**, including from industry, standard-setting organisations, and the research community, as well as from EU institutions and national administrations.

3.5.2 **The Commission proposes a high-level process to achieve the prioritised actions.** This process will build on and complement the European Multi-stakeholders Platform, the Rolling Plan for ICT Standardisation and the Annual Union Work Programme for European Standardisation as a mechanism to implement and disseminate standards. The Commission communication describes each element of the process and all related activities.

4. **Particular comments**

4.1 **Balance between standardisation and creativity**

4.1.1 From the perspective of the Commission communication, standardisation is not an end in itself, but simply a means; one of its aims is to encourage research and innovation in ICT.

4.1.2 Standards are not just about opportunities; they also lay down frameworks and limitations. Standards may facilitate development, but they may also slow it down, particularly in sectors that are developing very rapidly, such as ICT.

4.1.3 Point 2 of the communication, entitled "Setting standards for ICT: a fast-changing and challenging global context", which discusses the problems encountered in the standardisation process, states that: "... the increasing complexity resulting from a proliferation of standards, and the diversity of technical communities involved in standard setting can **slow down innovation**".

4.1.4 The findings of the public consultation (Synopsis report on the public consultation "Standards in the Digital Single Market: setting priorities and ensuring delivery") reveal the views of the concerned stakeholder groups, such as the ICT sector. This sector wants a "bottom-up" standardisation process.

- 4.1.5 It is clear that imposing overly strict standards, or imposing them prematurely, may
- restrict creativity, which would hold back the development and implementation of innovative solutions,
 - lead to a situation where standards have been drawn up and approved, but where producers carry out their daily activities by following other "standards" which they themselves have set.

4.1.6 This means that, during the standardisation process, the situation should be carefully assessed as regards the design, adoption and implementation of each standard and a reasonable balance must be struck between standards as a restricting factor versus creativity, i.e. leaving open the possibility to express oneself freely in order to create new "non-standard" solutions.

4.1.7 **Recommendation No 1**

The EESC recommends that in future communications and other related documents, the Commission should inform all stakeholders about the need to take a balanced approach to ICT standardisation: standards as a restricting factor versus creativity.

4.2 **Inconsistencies between the priority domains in various documents on standardisation**

4.2.1 Point 3.1 of the Commission communication sets out the aforementioned five priority domains for ICT standardisation:

- cloud computing,
- internet of things – IoT,
- **5G communications,**
- **cybersecurity,**
- **(big) data technologies.**

4.2.2 At the same time, the communication refers to the annual Rolling Plan for ICT Standardisation. The different areas identified and described in the annual Rolling Plan for ICT Standardisation 2016 are listed below:

3.5. Key enablers and security	95
3.5.1. Cloud computing	96
3.5.2. Public Sector Information, Open Data and Big Data	101
3.5.3. eGovernment	106
3.5.3.1. DCAT Application profile for data portals in Europe	107
3.5.3.2. Exchange of metadata on re-usable interoperability assets (eGovernment)	107
3.5.3.3. Core Vocabularies to facilitate the development of interoperable solutions	107
3.5.4. Electronic identification and trust services including e-signatures	109
3.5.5. Radio Frequency Identification (RFID)	112

3.5.6. Internet of Things	114
3.5.7. Network and Information Security	120
3.5.8. ePrivacy	124
3.5.9. E-Infrastructures for Research Data and Computing-Intensive Science	127
3.5.10. Broadband Infrastructure Mapping	131
3.5.11. Preservation of digital cinema	134

4.2.3 Although these two documents – the Commission communication and the Rolling Plan for ICT Standardisation 2016 – are related and complementary, they use different terminology. Neither of the two documents makes a link between similar domains of standardisation.

4.2.4 **Recommendation No 2**

The EESC recommends that efforts should be made to ensure consistency between the priority domains for ICT standardisation that have different names in the Commission communication and the annual Rolling Plan for ICT Standardisation. In order to create consistency between the various documents and all inter-related texts, unified terminology must be used.

4.3 **Selection of priorities for ICT standardisation**

4.3.1 Point 3.1 of the Commission communication specifies the five priority areas for ICT standardisation; it is stated: "These areas were selected based on advice from the European Multi-stakeholders Platform on ICT Standardisation, which brings together industry stakeholders, standard setters, governments and civil society representatives. **A public consultation process confirmed a broad consensus around the prioritisation presented here.**"

4.3.2 Public consultation took place from 23 September 2015 to 4 January 2016 and there were 168 participants. The findings of the consultation are set out in the **Synopsis report** on the public consultation "Standards in the Digital Single Market: setting priorities and ensuring delivery".

4.3.3 Given that the results of the survey are taken into account when selecting the ICT strategy's priority areas, which are set out in the Commission communication and concern a large proportion of European entrepreneurs, a relatively low participation rate (168 respondents) could require additional information on the composition structure of respondents.

4.3.4 Information on the groups of respondents is available in the report:

[http://ec.europa.eu/information_society/newsroom/image/document/2016-17/synopsis_report_on_the_public_consultation -
standards in the digital single market setting priorities and ensuring delivery 15264.pdf](http://ec.europa.eu/information_society/newsroom/image/document/2016-17/synopsis_report_on_the_public_consultation_-_standards_in_the_digital_single_market_setting_priorities_and_ensuring_delivery_15264.pdf)

4.3.5 As can be seen, many respondents belong to different standardisation organisations. A relatively small proportion is made up of developers and producers – those who follow market needs closely, who set or follow trends in technological advances and who have their own development plans. In absolute terms, their numbers are small.

4.3.6 The findings of the consultation, which are set out in the Synopsis report, provide information on the selected domains but do not, however, indicate the number of domains actually examined or what they are (nor do they indicate the domains mentioned in the annual Rolling Plan for ICT Standardisation). They also do not specify who made the choices or, where the initial list included other fields, what the opinions were.

4.3.7 **Recommendation No 3**

Given the importance of the task of setting priorities for ICT standardisation, **the EESC recommends** that more information should be provided in terms of the reasons, methodology and results with regard to the choice of priority areas.

4.4 **Life cycle of the communication**

4.4.1 The Commission communication mentions many specific points that will change over time, including the priority domains, the key actions, the main deadlines, and many other things. This means that such a document, i.e. the Commission communication, cannot be designed for the long term.

4.4.2 Therefore, there needs to be a specific procedure, applied in practice, describing in what way and how often the document will be reviewed, public consultations organised, decisions taken, operational planning carried out and other activities undertaken – i.e., the regular life-cycle management of the document and any related activities should be planned.

4.4.3 **Recommendation No 4**

To ensure that all stakeholders have a better understanding of the implementation and consistency of the Commission communication, **the EESC recommends** that information should be distributed regarding the recurring activities to supplement or continue the work launched by this document.

4.5 **Insufficiently covered subjects**

4.5.1 The Commission communication mentions many aspects regarding the choice of priorities for ICT standardisation and the measures planned to take this work forward. However, on reading this communication and the related documents, the EESC study group found that several aspects that are important to society are not addressed at all or are mentioned only in passing.

4.5.2 Although the main purpose of the Commission communication is to identify priority avenues for ICT standardisation and related activities, its practical implementation and enforcement will also have an effect, whether direct or indirect, in areas such as:

- consumer rights,
- activity of small and medium-sized enterprises (SMEs),
- employment and job security,
- working time and conditions,
- how people with special needs can have access to ICT,
- environmental protection,
- various other issues connected with the social dimension.

4.5.3 The EESC notes that during the standardisation process, attention must be paid to:

- providing all stakeholders with a "common level playing field",
- the importance of stressing standardisation issues in EU bilateral free trade agreements,
- how activity sectors are demarcated,
- competencies of employees to meet requirements of standards,
- fundamental rights of employees,
- involvement of representatives of civil society in dialogue.

4.5.4 **Recommendation No 5**

To ensure that all stakeholders can be confident that the Commission, when drawing up its communication, has looked beyond issues linked directly to priorities for ICT standardisation and has also assessed the impact of these priorities on various social concerns (see Article 11 TFEU), **the EESC recommends** that the Commission's future communications should contain more specific details about the participation of various stakeholders and about the social consequences of its approach in the field of ICT standardisation, which already affects the whole of society.

Brussels, 21 September 2016.

Georges Dassis

The President of the European Economic and Social Committee
