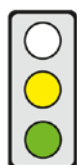


KEY ISSUES

Objective of the Communication: The Commission wants to press ahead with the standardisation of information and communications technology (ICT) based on five "priorities" – cloud computing, the internet of things, 5G mobile communications technology, cybersecurity and data technologies – in order to meet the needs of future technologies and strengthen the Digital Single Market.

Affected parties: Businesses and consumers that use ICT; all organisations involved in ICT standardisation.

Pro: (1) The five priorities designated for ICT standardisation by the Commission all involve sectors that are currently important drivers of digital transformation.



(2) The Commission can obtain value added most notably by coordinating standardisation processes.

Contra: (1) The Commission should not influence the content of standards; the proposed "political process" for achieving standardisation targets is therefore only acceptable if the Commission restricts itself – now and in the future – to general support for standardisation and does not influence the content of standards.

(2) The Commission must also refrain from influencing the content of certification standards by introducing a trusted label.

CONTENT

Title

Communication COM(2016) 176 of 19 April 2016: **ICT Standardisation Priorities** for the Digital Single Market

Brief Summary

► General Background

- In May 2015, the Commission submitted its Communication "Digital Single Market Strategy" [COM(2015) 192]. The third pillar of this strategy deals with "Maximising the growth potential of the digital economy" (see [cepPolicyBrief](#)).
- In April 2016, the Commission submitted four Communications for the third pillar on the following subject areas:
 - Digitising European Industry [COM(2016) 180; see [cepPolicyBrief](#)],
 - European Cloud Initiative [COM(2016) 178; see [cepPolicyBrief](#)],
 - Standardisation of information and communications technology (ICT) in the Digital Single Market (this [cepPolicyBrief](#)) and
 - European eGovernment Action Plan [COM(2016) 179; see [cepPolicyBrief](#)].

► ICT standardisation: Context

- A standard is "a technical specification, adopted by a recognised standardisation body [...]". Compliance with a standard is voluntary unless the standard has been declared binding by way of legislation or treaty. [Regulation (EU) No. 1025/2012, Art. 2 (1)]
- According to the Commission, "common, open standards" ensure the interoperability of digital technologies so that innovation can be fostered and market entry barriers lowered (p. 2)
- This Communication contains a "strategic and political" approach to standardisation in the information and communications technology sector (ICT standardisation). This approach covers (p. 3-5)
 - arguments for "improving" ICT standardisation,
 - five standardisation priorities for ICT and
 - a political process for implementing standardisation plans.

► Arguments for "improving" ICT standardisation

- All sectors of the economy increasingly rely on digital technologies that change ever faster, so a timely, harmonised setting of ICT standards is necessary (p. 3).
- The value of digital systems increasingly derives from cross-sector applications, data and technology convergence. "Modern" standards can provide the interoperability (p. 3).
- The proliferation of standards and the diversity of groups involved in standard setting give rise to increasing complexity which slows down innovation (p. 3).
- Ever more organisations are involved in standardisation around the world. The EU should ensure its interests are represented at a global level. (p. 3)

► **Five priorities for ICT standardisation**

The Commission wants to press ahead with ICT standardisation on the basis of five "priorities": Cloud computing, the internet of things, 5G communications, cybersecurity and data technologies (p. 5).

Cloud Computing

- Cloud computing means the use of computational resources such as data storage and computational power on external servers.
- The Commission wants to support (p. 6)
 - funding the development of standards needed for better interoperability of clouds and better portability of applications and data between clouds and at the same time ensure that producers of open source software are better integrated into standard setting processes,
 - the development of international standards for service level agreements on cloud computing services in order to ensure quality and transparency, particularly for small and medium-sized enterprises (SMEs).

Internet of Things (IoT)

- The internet of things refers to the digital connection and communication between objects such as household appliances or vehicles.
- The Commission wants to (p. 7)
 - explore how "guiding principles, options and standards" can contribute to trust, security and privacy in IoT e.g. by way of a "trusted IoT label".
 - foster an interoperable environment for the IoT together with the relevant standardisation organisations,
 - promote an interoperable IoT numbering space that transcends geographical limits – i.e. an internationally harmonised address system for items connected on the IoT –,
 - promote an "open system" for the identification and authentication of objects connected on the IoT,
 - promote the uptake of IoT standards in public procurement.

5G Communication networks

- 5G communication networks are the new, much more powerful fifth generation of mobile telephone communication.
- The Commission intends to (p. 7-8)
 - submit a 5G Action Plan for EU-wide deployment of 5G networks beyond 2020 which is as well intended to speed up the development of 5G standards,
 - foster the emergence of global "industry standards" under EU leadership for 5G technologies,
 - ensure that 5G standards are also compatible with "innovative use cases" through broader participation of industries, with sector-specific needs – such as the automotive and health sectors –, in 5G standardisation organisations.

Cybersecurity

- Cybersecurity refers to all the security issues relating to ICT.
- The Commission wants, in particular, to call on standardisation organisations (p. 8-9)
 - to draw up practical guidelines covering cloud computing, IoT, 5G, Big Data and smart factories – factories whose production is cross-linked by way of the IoT –,
 - to develop standards that support global interoperability and "seamless" trustworthy authentication across objects, devices and natural and legal persons.

Data Technologies

- The Commission intends to (p. 9-10)
 - increase investment in "research, development and innovation" in the areas of data-interoperability and -standards,
 - identify "missing standards and design options" in the field of big data,
 - support infrastructure services – such as clouds – which allow for the long-term storage, use and exchange of scientific data.

► **"Political process" for implementing standardisation plans**

- The Commission wants to realise its standardisation plans by way of a five-point "political process" (p. 12-14):
 - It wants to work together with the European standardisation organisations to establish annual timetables and a roadmap for achieving the targets in the "priority" areas and identify pathways to a "more agile response to ICT standardisation needs in Europe".
 - It wants to involve industry representatives, stakeholders and the European standardisation organisations in the monitoring of progress on achieving targets and ensure a "regular inter-institutional dialogue" in order to adapt the standardisation priorities where necessary.
 - It wants to use funds from "Horizon 2020" and the "Connecting Europe" facility for existing and "forward-looking standardisation activities" and fund pilot projects to validate and increase acceptance of standards.

- It wants to advocate a "fast, predictable and efficient licensing approach" for standard essential patents (SEPs). Standard essential patents are patented technologies whose use is mandatory in order to comply with a standard and for which companies other than the owner of the patent must generally buy a licence. The Commission's approach to licensing will be based on the so-called "FRAND principles" (Fair, Reasonable and Non-Discriminatory). These will allow both "fair return on investment" for patent holders and "fair access" to patents for all patent users, especially SMEs.
- It wants to campaign for the "global alignment" of ICT priorities and a consistent approach to standard setting and will strengthen European involvement in international standardisation bodies.

Policy Context

This Communication is part of an integrated approach to improving standardisation. It is supplemented by the EU rolling plan for ICT standardisation, the annual Union work programme for European standardisation and the Joint Initiative on Standardisation (JIS), which is to see that standardisation is reformed by 2019, consolidated according to priorities and streamlined. The legal framework for standardisation is governed by the Standardisation Regulation [(EU) No. 1025/2012, see [cepPolicyBrief](#)]. Lastly, in 2016, the Commission published the Communication "European Standards for the 21st Century" [COM(2016) 358] in which it sets out its vision for a European system of standardisation for the future. In addition to ICT standards, it gives particular attention to standards for services.

Options for Influencing the Political Process

Directorates General:	DG Internal Market, Industry, Entrepreneurship and SMEs
Committees of the European Parliament:	Internal Market and Consumer Protection (leading)
Federal Ministries:	Federal Ministry for Economic Affairs and Energy (leading)
Committees of the German Bundestag:	Committee for Economic Affairs and Energy (leading)

ASSESSMENT

Economic Impact Assessment

Positive network effects – i.e. the benefit of a technology increases if more people use it – play a major role in information and communications technology. In order to realise these network effects, appliances and technologies from different manufacturers must be interoperable across sectors. Standards facilitate this interoperability and realise the potential of ICT. The Commission therefore rightly highlights the subject of ICT standardisation.

The five priorities for ICT standardisation designated by the Commission – cloud computing, the internet of things, 5G communications, cybersecurity and data technologies – **all involve sectors that are currently important drivers of digital transformation.** That can change rapidly however. In the ICT sector, in particular, new fields of application can quickly take on great importance. If new fields of application are not included in the priority areas early enough, there is a danger of systematic neglect which could have a detrimental effect on Europe's chances in global competition for the digital core technologies.

It is therefore appropriate that the Commission intends to adjust its priorities where necessary in line with an "inter-institutional dialogue". It is, however, unclear exactly what this dialogue is going to cover and how it will be able to ensure the prompt adaptation of standardisation priorities.

The Communication is very vaguely worded. In particular, there is no clarification of where the Commission sees the limits of its involvement in standardisation.

The Commission should not influence the content of standards. The core work on standardisation is carried out by the standardisation organisations and the industry representatives who collaborate with them. Where politics tries to exert influence over the specific, material design of standards, there is a risk of politically generated standards without relevance to the market, bureaucratic over-standardisation and a policy which is not technology neutral (see [cepPolicyBrief](#) on COM(2015) 192) as well as the instrumental use of standards for political aims (see [cepPolicyBrief](#) on COM(2011) 315). **Thus, in particular, the Commission's proposed "political process" for achieving standardisation targets is only acceptable if the Commission restricts itself – now and in the future – to general support for standardisation.**

The Commission can obtain value added most notably by coordinating standardisation processes. This will be the case if it brings important EU-wide stakeholders into a joint dialogue or puts forward cross-sectoral arguments which the standardisation organisations – each being specialised in one sector – do not automatically recognise. As a result, standards will be better coordinated with each other.

The Commission must also refrain from influencing the content of, or undertaking its own, certification standards by introducing a trusted label for the internet of things. This could indirectly lead to interference by the Commission in product design which may be problematic, especially where it does not have the necessary expert knowledge.

Legal Assessment

Legislative Competency

Measures to improve ICT standardisation can be based on the internal market competence (Art. 114 TFEU) insofar as they are aiming to achieve better functioning of the internal market. Concrete follow-up measures are not yet foreseeable however.

Subsidiarity

Probably unproblematic. Common standardisation to strengthen the Digital Single Market is only possible at European level.

Proportionality with respect to Member States

Dependent on the actual design of the follow-up measures.

Compatibility with EU Law in other Respects

Dependent on the actual design of the follow-up measures. Since standardisation can encroach upon fundamental rights – such as where standards become legally binding as a result of future measures – it must also be compatible with fundamental rights, particularly the right to respect for private and family life [Art. 7 EU Charter of Fundamental Rights (CFR)], the right to protection of personal data (Art. 8 CFR), the freedom to conduct a business (Art. 16 CFR) and the right to property (Art. 17 CFR).

Conclusion

The five priorities designated for ICT standardisation by the Commission involve sectors that are currently important drivers of digital transformation. The Commission should not influence the content of standards; the proposed "political process" for achieving standardisation targets is therefore only acceptable if the Commission restricts itself – now and in the future – to general support for standardisation. The Commission can obtain value added most notably by coordinating standardisation processes. The Commission must also refrain from influencing the content of certification standards by introducing a trusted label.