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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

The annual Union work programme for European standardisation for 2018

{SWD(2017) 284 final}

1. Introduction

The Commission supports the voluntary application of standards and industry's leading role in their development. At the same time, it considers as essential, to secure a high level of acceptance, that the standardisation process should benefit from the technical knowledge of industrial, governmental and scientific representatives and other stakeholders. The regulator can establish requirements in legislation and ask the European Standardisation System (ESS) to develop voluntary European standards (to be published in the *Official Journal*), which can be used for indirect reference and as a basis for a presumption of conformity or safety. An efficient standardisation system must therefore be based on close partnership between the regulator, standardisation bodies and industry¹.

The Commission set out a strategic vision for European standardisation in its 2011 Communication on *A strategic vision for European standards: moving forward to enhance and accelerate the sustainable growth of the European economy by 2020*². This was given legal form in Regulation (EU) No 1025/2012 on European standardisation, which has been in force since 1 January 2013.

The Regulation requires the Commission to identify strategic priorities for European standardisation. These priorities, which reflect the Commission's policy objectives, are published in annual Union work programmes for European standardisation (AUWPs). The AUWPs indicate what standards and standardisation deliverables the Commission intends to request from the European standardisation organisations³ (ESOs), i.e. how it intends to use standardisation in support of new or existing legislation and policies and what formal standardisation requests (mandates) this may involve.

Standardisation requests are essential for the functioning of the single market, since standards enable the implementation of legislative acts. This generates legal certainty for manufacturers and facilitates the development and commercialisation of products and services.

The standardisation activity prioritised in this 2018 AUWP reflects a number of the current Commission's policy priorities, and supports recently approved major legislation and policy documents. Further important elements include action to enhance the visibility of European standardisation in other countries and international organisations, and action to improve the functioning, performance and delivery of the ESS.

The Commission welcomes the European Parliament resolution of 4 July 2017 on European standards for the 21st century⁴ ("hereinafter EP report on standardisation"), and acknowledges and underlines "*the opinion that standards are an important tool for the operation of the Single Market, to enhance European competitiveness, growth and innovation, to support quality, performance and protection of consumers, business, workers, and environment and to develop interoperability of networks and system*". In particular, the AUWP addresses and echoes the challenges and considerations surrounding Standards Essential Patents, on ICT standardisation, the international dimension of standardisation and

¹ COM(2016) 358.

² COM(2011) 311.

³ CEN — European Committee for Standardisation, Cenelec — European Committee for Electrotechnical Standardisation and ETSI — European Telecommunications Standards Institute

⁴ <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P8-TA-2017-0278+0+DOC+XML+V0//EN&language=EN>

on autonomous vehicles. Furthermore, the report is crucial in support of the inter-institutional reporting and dialogue and has served as an important reference for this AUWP.

The AUWP also reflects the joint initiative on standardisation (JIS), which was proposed by the Commission in 2015 (as part of the single market strategy⁵) and signed in June 2016. The JIS sets out a shared vision that supports the Commission's 10 policy priorities, and specific actions to be delivered by 2019 to improve the European standardisation system mobilising the EU institutions and the European standardisation community. It has been widely recognised as the way forward for European standard-setting in the light of technological development, political priorities and global trends. To date, it has been signed and endorsed by a total of 109 participants, including EU and EFTA Member States and organisations, representing a high level of engagement throughout the ESS.

This work programme:

- is addressed to all Member states, ESOs, national standardisation bodies (NSBs), Annex III organisations (SBS, ANEC, ETUC and ECOS)⁶ representing respectively SMEs, consumers, workers and environmental interests in standardisation, industry and other stakeholders involved in the standardisation process, and calls for their active participation in the priority actions;
- seeks to make the ESS more effective by concentrating available resources on the sectors that enable it to deliver on Commission priorities; and
- calls on ESOs to base their work programmes on implementation of the key strategies, actions and policies highlighted here.

The AUWP has no budgetary impact over and above what is already foreseen in the financial perspectives for 2018.

2. Strategic priorities for European standardisation in support of Union legislation and policies

The European standardisation process is a cornerstone of the internal market. Its role goes beyond developing harmonised standards: it contributes directly to single market integration and supports job creation, the overall growth of the EU economy, competitiveness, innovation and industrial leadership. It is therefore an integral part of the single market strategy and an important component of the Commission's political priorities and several major policy initiatives, such as the digital single market strategy⁷. By supporting the development of European standards in strategic priority areas representing expanding markets, the Commission aims to create a competitive advantage for European firms, in particular SMEs.

This section focuses on action to support relevant initiatives under the Commission's 2017 work programme and the standardisation needs for 2018 that flow from them. The proposals do not represent an exhaustive list of the actions that the Commission intends to take in the policy fields in question. They reflect the needs identified in the course of preparing or implementing the relevant legislative acts and policies, and are in line with the Commission's strategic objectives in delivering a Europe that 'protects, empowers and defends'.

⁵ COM(2015) 550.

⁶ [Small Business Standards](#), [the European consumer voice in standardisation](#), [the European Trade Union Confederation](#) and [the European Environmental Citizens' Organisation for Standardisation](#)

⁷ COM(2015) 192.

A particularly pertinent area of digital standards development for European industry is related to manufacturing and production. An Industry-developed reference framework (RAMI – Reference Architecture for Manufacturing in Industry) exists and is actively used and developed for IT systems that support the manufacturing environment. Further developments of this framework are urgently needed, to include services and delivery through platforms.

2.1. Action in support of the digital single market strategy

A year after the publication of the Commission's priorities on ICT standardisation⁸, the actions outlined in the 5G communication networks, Internet of Things (IoT), cloud computing, cyber security and (big) data technologies as priority domains as well as the sectorial domains on eHealth, intelligent transport systems and connected & automated vehicles, smart energy, digitising industry, smart homes, cities and farming are progressing, in collaboration with the ESOs, global SDOs and the standardisation community. In the same way, the Commission has initiated actions to improve the ICT standardisation ecosystem including work with ESOs and stakeholders on possible measures to improve the Standard Essential Patents (SEP) ecosystem, promotion of open source and its interaction with standardisation, and to strengthen the EU presence in international ICT standardisation. The Mid-Term Review on the implementation of the Digital Single Market Strategy presented the overall implementation of the standardisation actions.

Furthermore, availability of the initial global 5G standards by the end of 2019 is among the actions of the 5G Action Plan⁹. Interoperability and standards is part of building a European data economy, which aims at fostering the best possible use of the potential of digital data to benefit the economy and society¹⁰. The proposal for a Regulation on Privacy and Electronic Communications¹¹ calls for standardised icons in order to give an easily visible and intelligible overview of the collection of information emitted by terminal equipment, its purpose, the person responsible for it and of any measure the end-user of the terminal equipment can take to minimise the collection. In July 2016, as part of the Communication on Strengthening Europe's Cyber Resilience System and Fostering a Competitive and Innovative Cybersecurity Industry¹², the action on the blueprint to handle large-scale cyber incidents on the EU level was announced, where the lack of interoperable solutions (technical standards), practices (process standards) and EU-wide mechanisms of certification are identified as gaps affecting the single market in cybersecurity. In autumn a Communication about the SEP is foreseen providing clarifications towards a balanced and sustainable framework.

Certain actions are implemented through the related Public Private Partnerships¹³, such as the Alliance for Internet of Things Innovation (AIOTI)¹⁴, the 5G Infrastructure Public Private Partnership, the Big Data Value Association (BDVA), Factories of the Future PPP, the European Cyber Security Organisation (ECSO) and through Horizon 2020 research and innovation projects¹⁵.

⁸ COM(2016) 176.

⁹ COM(2016)588

¹⁰ COM(2017)9

¹¹ COM(2017)10

¹² COM(2016) 410

¹³ 5G: <https://5g-ppp.eu/>, ECSO: <https://www.ecs-org.eu/cppp>, Big Data Value Association: <http://www.bdva.eu/>

¹⁴ <https://www.aioti.eu/>

¹⁵ <https://ec.europa.eu/programmes/horizon2020/>

In addition, the ICT standardisation needs in support to EU policies are outlined in the 2017 version "Rolling Plan for ICT Standardisation"¹⁶, which is established by the European Commission services in collaboration with the Multi Stakeholder Platform (MSP) on ICT standardisation and has been aligned to reflect the priorities identified in the Communication on ICT standardisation priorities.

This work is also useful for the accessibility of products and services in the EU. In addition, effort to mainstream accessibility following a Design for all approach should be step up to mainstream disability issues in relevant standardisation processes.

In addition, possible standardisation requests related to ICT standardisation are identified in the Annex.

2.2. Action in support of the energy union strategy

The speed and scale of digital transformation is impacting many industries, including the energy sector. Exploring the interplay between digitisation and the energy union is a priority. Standardisation is expected to assist the swift transition towards a decarbonised and integrated internal market, and thus represents a priority for the energy union. To this end, standardisation has also been identified as an important enabler for market-adoption of low-carbon technologies in the Accelerating Clean Energy Innovation Communication¹⁷. Specific action should target the interconnection of electricity networks, support diversified gas supply streams and integrate renewable energy into the consumption mix. Standardisation is already assisting energy efficiency and moderation of demand by targeting buildings through a new set of standards on energy performance of buildings; further efforts should focus on improving the measurement of energy consumption of devices and supporting Smart Cities through green public and innovation procurement.

These objectives have led, *inter alia*, to the ongoing development of a standard for the local and regional monitoring of air quality with mobile and portable monitoring devices that meet the data-quality objectives in the Ambient Air Quality Directives (2008/50/EC and 2004/107/EC).

In the context of the EU's ambitious targets for decarbonising transport needs, standardisation should provide vehicle manufacturers with opportunities to shift to cleaner modes of transport, allowing lower fuel consumption and further reducing emissions of CO₂ and other pollutants.

Further support through standardisation is needed to reduce the energy inefficiency of buildings by providing end-consumers with adequate information on the performance of district heating and cooling systems. This would contribute to global efforts to reduce greenhouse gas emissions and fuel consumption, while also aiming to foster cooperation with regions and countries outside the EU.

In implementation of the EU Green Infrastructure Strategy¹⁸ there are standardisation needs in relation to physical building blocks for harmonisation between standards; for including or strengthening the concept and principles of green infrastructure in the different standard

¹⁶ https://ec.europa.eu/growth/content/2017-rolling-plan-ict-standardisation-released_en

¹⁷ COM(2016) 763 final

¹⁸ COM(2013)249

categories (performance, procedure, methodology) and for interoperability between technical standards applied in different project phases (planning, design, and construction).

2.3. Action in support of the space strategy for Europe

The Commission operates three satellite programmes (global positioning with Galileo, navigation with EGNOS and observation with Copernicus). Given the economic potential of the services and data these programmes will offer to businesses and the public, they are crucial for the EU's competitiveness. The Commission encourages the uptake of space solutions through standardisation measures and roadmaps, and by integrating space into future strategies, e.g. on autonomous and connected cars, railways, aviation and unmanned aerial vehicles.

2.4. Action in support of the circular economy action plan

In its *Report on the implementation of the Circular Economy Action Plan*¹⁹, the Commission asked ESOs to develop generic standards on the durability, reusability, recyclability and documentation on material efficiency aspects (including use of Critical Raw Materials) of certain products.

Harmonised standards will help improve the safety and effectiveness of CE-marked fertilisers. Producers will be able to appeal to a wider group of customers, enjoying possible price premiums by virtue of the widely recognised quality guarantee of the CE mark. According to estimates²⁰, about 120 000 jobs could be created in recycling bio-wastes into organic-based fertilisers. Research, innovation and investment in the circular economy will be encouraged and will generate value from domestically sourced secondary resources which would otherwise be disposed of as waste.

2.5. Action in support of the European defence action plan

The European defence market suffers from fragmentation and insufficient industrial collaboration. In accordance with the European defence action plan²¹, the Commission is committed to supporting the development of standards in the field of defence that Member States have identified as necessary for cooperative projects in priority areas.

2.6. Action in support of the European agenda on security

Innovative technology tools are needed to protect us from terrorist threats.²² Further efforts are needed both in the use of detection technology and towards standardising its use. European industry is well placed to understand the authorities' needs and capacity to deploy the solutions it offers. This could be supported by the creation of platforms to link the various solutions, avoid duplication and build on innovative ideas. European standardisation should bridge systems, methods and products by offering standards that support data quality and the interoperability of data systems recording crime statistics and by establishing requirements for detection equipment, in areas other than aviation.

¹⁹ COM(2017) 33 final.

²⁰ [http://europa.eu/rapid/press-release MEMO-16-826_fr.htm](http://europa.eu/rapid/press-release_MEMO-16-826_fr.htm)

²¹ COM(2016) 950.

²² COM(2015) 624 final.

2.7. Action in support of a deeper and fairer internal market with a strengthened industrial base

Other standardisation needs have been identified in relation to the Commission's priority of a Europe that stands up for its industry.

There is a market need for new harmonised standards for specific types of machinery for 3D printers, robots, **autonomous vehicles**²³, wind turbines and automated machines. Such innovative products are being developed quickly in response to demand and are spreading fast on the European market. In order to overcome the current situation of self-certified conformity procedures, it is very important that European standards are available to ensure safety and market access. Further to this, relevant international standardisation activities should be taken into account.

Directive (EU) 2016/1629²⁴ has confirmed the role of the European Committee for Inland Navigation Standards (CESNI) as the body of reference for developing technical standards in the EU inland navigation sector. CESNI, a committee composed of representatives from EU and third countries, is also the reference for technical standards of vessels under the Revised Convention for Rhine Navigation²⁵. Given the different legal frameworks and timeframes for the decision-making procedures, it is important to strengthen the functioning of CESNI in support of a deeper internal market for inland navigation. The standards developed by CESNI are of key importance for the competitiveness of the fleet and for ensuring safety and environmental performance requirements. Therefore, European standard(s) will be developed to cover technical requirements for inland navigation vessels.

Also, to improve safety and remove technical barriers, there will be a focus on establishing new technical specifications for interoperability in rail system infrastructure and rolling-stock subsystems.

Interoperability and standardisation are key to removing technical barriers and extra costs in public procurement procedures. Ideally, bidders, including SMEs, should be able to communicate and participate easily in multiple markets. Therefore, potential areas of interest for standardisation are data/contract registries, the electronic European single procurement document (eESPD) and the accreditation of e-procurement platforms, e-catalogues and e-forms.

To improve the free movement of goods in medical devices markets, uniform application of the legal requirements for placing *in vitro* diagnostic devices on the market needs to be ensured so as to improve safety and performance. Attention will be paid to reviewing and/or updating all existing standards and the possible development of new standards. Support under Horizon 2020 for medical technologies and devices, designed to preserve timely access to innovative healthcare solutions and support the competitiveness of European industry, will also provide industry and users with the testing facilities needed to develop and test medical devices in compliance with these new regulations and associated standards.

²³ See also the EP report on standardisation

²⁴ Directive (EU) 2016/1629 of the European Parliament and of the Council of 14 September 2016 laying down technical requirements for inland waterway vessels, amending Directive 2009/100/EC and repealing Directive 2006/87/EC

²⁵ http://www.ccr-zkr.org/files/conventions/convrev_e.pdf

There is a need to update the current harmonised standards on civil explosives to reflect the latest developments in technology and improve the safety and quality of conformity assessments of such products. Harmonised standards would support the setting of minimum requirements for improving the health and safety protection of workers potentially at risk from an explosive atmosphere.

3. International cooperation²⁶

Maintaining and improving the presence of EU industry in international markets are key to creating jobs and growth in Europe. Standards facilitate companies' market access worldwide and two main objectives are instrumental in this respect:

- strengthening the competitiveness and global reach of European industry by reducing technical barriers to trade (TBTs); and
- enhancing worldwide interoperability by using common technically aligned standards that support trade in goods and services.

These objectives can be achieved, first and foremost, by aiming for the greatest possible coherence between international and European standards, and by facilitating the use of European and/or international standards outside the EU **while striking the proper balance between the European, national and international dimensions**²⁷. In 2018, the Commission will intensify its policy dialogue with international standardisation actors. It will also continue to raise awareness and promote the advantages of the international and European system of standardisation in multilateral fora (e.g. the World Trade Organisation and the relevant United Nations committees) and contribute to the EU's regulatory/policy dialogues with economically relevant partners and to negotiations on the TBT chapters of free-trade agreements.

Similarly, the Commission will finance visibility projects in economically relevant countries, such as the current 'seconded European standardisation experts' scheme in China and India, and web-based standardisation platforms with China. The overall objective of such action is to present the ESS as an alternative to other regions'/countries' standardisation arrangements, provide standardisation-relevant intelligence, facilitate bilateral cooperation on standardisation matters and support European companies facing standardisation-related obstacles to access to non-EU markets.

The Commission will also use the Foreign Policy Instrument to support promotion of the European Standardisation System globally, in particular in the ICT sector. Finally, to strengthen the European presence in ICT international standardisation in 2018 an observatory of international standardisation activities and a financial support mechanism for participation of key experts in international standardisation meetings to promote European interests will be established.

The Commission will continue supporting international cooperation in standardisation in the context of research through Horizon 2020.

²⁶ See also the EP report on standardisation.

²⁷ See also EP report on standardisation.

4. Public-private partnership

Public-private partnership is the cornerstone of the ESS and has been at the heart of its successful functioning over the years. Its further development requires the commitment and close cooperation of all stakeholders.

4.1. Governance

To ensure the smooth adoption and publication of harmonised European standards, the standardisation community needs appropriate financial, organisational and human resources.

The Commission is currently working with the ESOs to develop an action plan with a number of priority steps to address the stock of unpublished harmonised standards in the short, medium and long term. In particular, this involves prioritising the standards with the greatest market impact, developing clearer processes for the delivery and publication of the standards, and upgrading IT support tools. In 2018, the Commission will establish a new network of consultants tasked with supporting the production of harmonised standards at technical level.

The Commission will propose to the ESOs that, from 2018, a minimum percentage of the financing from EU operating grants be allocated to activities to support the technical committees which prepare the European standards. It will feed lessons from the first year of implementation (2018) into future exercises.

Finally, the Commission will discuss with the ESOs the possibility of strengthening the private-public partnership through its future involvement in their governance structures, such as the CEN, Celenec and ETSI Joint Presidents' Group which reflects on political and economic developments likely to affect standard-making.

4.2. Training

The Commission will organise inter-institutional training to enhance legislators' and co-legislators' understanding of the use of standards in the implementation of legislation and policies. This will be organised in cooperation with ESOs and international standardisation bodies, so as to ensure coverage of a broad range of subjects and improve knowledge of the interaction between European and international standardisation activity.

4.3. Inclusiveness

Since the entry into force of the Regulation, significant efforts have been made to allow SMEs and societal and social stakeholders to participate effectively in standardisation activities. However, as acknowledged in past AUWPs, many challenges remain in ensuring adequate participation by Annex III organisations. When standards relate to legislation protecting public interests, like for example accessibility, participation of societal stakeholders affected like in this case those representing persons with disabilities is essential. In 2018, the Commission will continue closely to monitor progress in the implementation of the Regulation's provisions on the inclusiveness of the ESS. It will continue to cooperate with the standardisation community in the context of the JIS, under which a number of actions address the issue of inclusiveness.

The Commission invites ESOs, NSBs and Annex III organisations to maintain their efforts to address the challenges to stakeholder participation and to step up their cooperation. It invites the ESOs to maintain and intensify their efforts to facilitate the work of Annex III organisations and of all interested stakeholders, with a specific focus on their internal rules and procedures, and on work at international level, in particular within ISO and IEC.

5. Delivering on the Joint Initiative on Standardisation (JIS) and the next cycle

The action formulated in the standardisation package of June 2016²⁸ and the JIS should be developed further and implemented so as to continue to improve the annual governance cycle and deliver on the commitment to modernising, prioritising and speeding up the timely delivery of standards. Among the key priorities for 2018 will be:

- supporting EU-level assessment of the impact of standards by improving knowledge of the broader economic and societal effects (Action 1; see also section 5.2);
- action to improve the timely delivery and referencing of standards (Action 8); and
- greater inclusiveness and effective stakeholder participation in the standardisation process at different levels (Action 9).

5.1. Inter-institutional reporting and dialogue

Involving the co-legislators in priority-setting for the ESS is an important success factor. For this work programme, the Commission has based its work on the European Parliament's report on standardisation referred to above, as well as on interactions with the co-legislators. In line with the commitment in the standardisation package, the adoption of the next AUWP will be preceded by a single report from the Commission to the European Parliament and the Council on the implementation of EU standardisation policy. On the basis of this document, which is planned for October 2017, the Commission shall engage in an inter-institutional dialogue with the the European Parliament and the Council. The European Parliament's report on standardisation, this AUWP and the consecutive dialogue will serve as further policy input to the preparation of the AUWP 2019.

5.2. Study on the economic and societal impact of standardisation

Standards play a vital (albeit sometimes invisible) part in supporting economic growth by boosting productivity, competitiveness, innovation and societal welfare. The impacts of standards within businesses and their supply chains are less well understood, and the same is true of the public sector: there is sometimes a lack of awareness and information about the impact of applying standards to public policies.

Following an invitation from the Council²⁹ and in line with the Joint Initiative on Standardisation, the Commission is preparing a study on the economic and societal impact of standardisation in the EU. It plans to launch this in 2018 on the basis of a feasibility study in

²⁸ Communication on *European standards for the 21st century* (COM(2016) 358); *Tapping the potential of European service standards to help Europe's consumers and businesses*, dedicated guidance on service standards (SWD(2016) 186); Article 24 report (COM(2016) 212); and *Annual Union work programme for European standardisation for 2017* (COM(2016) 357 and SWD(2016) 185).

²⁹ The Competitiveness Council of 2 March 2015 'invites the Commission to finalise the independent review and analyse the impact of standardisation on the economy, taking into account the interests of all the parties'.

2017. The structure of the feasibility study will be established in consultation with European academics and will take account of input from them in an exchange in May 2017.