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Opinion of the European Economic and Social Committee

Connectivity package on digital networks and infrastructure

(own-initiative opinion)

(C/2024/6865)

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1. Conclusions and recommendations

1.1. The EESC highlights the importance of the digital economy for the EU economy and the benefits of interconnectivity for homes, public transport, health and personal relationships.

1.2. The EU has adopted new regulations on the digital economy and has also adapted its industrial policy. However, new decisions are necessary to promote a key sector for social and economic progress. The White Paper on mastering Europe's digital infrastructure needs should achieve that goal. In the new technological and market context it is essential to level the playing field between all players in the digital ecosystem and ensure consumers are protected in the same way regardless of the supplier.

1.3. The EU faces multiple challenges:

— in the field of technology;

— in terms of investment, as it requires substantial, coordinated investment of more than EUR 200 billion from the public and private sectors;

— achieving a more integrated single market in the field of telecommunications;

— the need to overcome a fragmented approach to radio spectrum management;

— establishing a regulatory framework that guarantees equal conditions for digital operators;

— overcoming excessive dependence on large suppliers from third countries;

— the need to increase innovation and industrial capabilities across the telecommunications value chain;

— sustainability;

— security and resilience of communication networks, including undersea cables.

1.4. Fragmentation derives not only from different implementing authorities, but also from differences in the transposition of directives between Member States, which is why the EESC proposes:

— prioritising legislation through regulations where possible;

— applying the single authority principle provided for in European standards;

— accelerating the certification process, which can currently take 12 or even 24 months;

— applying the country of origin principle instead of the national general authorisation regime;

— publishing appropriate guidelines on qualification and regulations applicable under the European Electronic Communications Code;

— setting a realistic deadline for copper disconnection;

— accelerate the deployment of the next generation network;

— harmonising the regulations applicable to numbering resources.

1.5. The EESC advocates the creation of strong operators in the market economy that promote employment and social dialogue in line with European values.

1.6. The way forward. EESC proposals

— Connectivity. Increase spectrum harmonisation in Europe

— Boost risk capital investment

— Invest in infrastructure that can support more extensive use of AI

— Secure Europe's critical infrastructure: cybersecurity for regulated entities

2. **Introduction**

2.1. Digital technologies have a far-reaching impact on the competitiveness of the EU economy, boosting efficiency and innovation.

2.2. Interconnectivity benefits people in a number of ways, such as:

— safer and more energy-efficient workplaces;

— cheaper and cleaner public transport;

— the option of more efficient health systems, banking systems, social security systems and tax systems as well as the option of more widespread use of artificial intelligence.

2.3. To preserve its industrial leadership, the EU needs to attain a leading role in key digital technology 'verticals', from artificial intelligence to quantum computing, microelectronics and virtual reality, and to deploy digital infrastructures, from cybersecurity and 5G to cloud computing and data.

2.4. In the outgoing legislative cycle, new regulations such as the Digital Services Act, the Digital Markets Act, the Artificial Intelligence Act, the Data Act and the Data Governance Act were put in place. Besides regulation, the EU also updated its industrial policy in 2021, aiming to organise the digital and green pillars through several initiatives and, most notably, through the Important Projects of Common European Interest (IPCEIs). So far, these projects have not had the expected impact.

2.5. The 2030 Digital Decade Policy targets include:

— connectivity: gigabit connectivity for all;

— cutting-edge semiconductors: double the EU's share of global production;

— data - edge & cloud: 10 000 climate-neutral highly secure edge nodes;

— information technology: first computer with quantum acceleration.

3. **Challenges for the EU**

3.1. The European Commission and digital economy players agree on the many challenges that the EU needs to overcome:

3.1.1. Technology challenges: rapid developments in communications and computing technologies are giving rise to new business models and network applications. They require a continuous exponential increase in data processing, storage, and transmission, but also in technology capacity.

3.1.2. Investment needs: Europe needs substantial, coordinated investment of more than EUR 200 billion from the private and public sectors to roll out high-capacity digital networks, which will help us meet the targets set in the 2030 Digital Decade Policy Programme. Moreover, the successful transformation of leading telecoms operators into network and cloud service providers would require additional significant investment capacities. A prudent investment strategy is needed that takes into account location and population density. We should also address the need to maintain and upgrade the infrastructure. The life time for undersea cables is 25 years, but there is no strategy in place for proactive lifecycle management.

3.1.3. The EU regulatory framework has been playing a pivotal role in promoting liberalisation and investment in the last 25 years. In this regard the EU and the Member States should improve their ability to support horizontal collaboration and research in technological evolution and speed up procedures, through both more flexible regulation and more streamlined procedures.

3.1.4. Compared to other players, cheap, innovative mobile and fibre services are widely spread across the EU. The existing regulatory framework, based on the ladder of investment and regulatory sunset clause, must be maintained, and supplemented where necessary to take into account new services and players. Taking into account the development of M2M services, potential differences in national numbering plans and authorisation regimes must be overcome, possibly by creating ad hoc pan-European regimes for these inherently transnational services. It is pivotal that the policy and regulatory scenarios put forward by the Commission in the white paper be swiftly implemented through concrete actions aimed at supporting the investments needed to achieve the EU Digital Decade targets and to keep up with the other main global economies, making sure European consumers do not lag behind in terms of service availability and quality.

3.1.5. Fragmented approach to radio spectrum management: earlier attempts to establish greater EU coordination in spectrum management were not fully successful, and, in parallel, discrepancies and delays have been observed in the timing of spectrum assignments and in network infrastructure deployment across Member States. In this regard, the EESC welcomes the Commission's proposal to better harmonise the release and licensing of radio spectrum for mobile services.

3.1.6. Lack of a level playing field: currently, in the new technological and market context it is essential to level the playing field between all players in the digital ecosystem and ensure consumers are protected in the same way regardless of the supplier. The existing EU regulatory framework for electronic communications networks and services does not reflect the convergence between cloud and telecoms providers and does not ensure equivalent rights and obligations for all actors and end users of digital networks, both public and private. The white paper rightly describes an ecosystem where the borders between the roles of the various players are becoming more and more blurred and characterised by an array of different relationships. Therefore, asymmetric regulatory treatment for 'traditional' electronic communications providers, on the one hand, and cloud/digital service providers, on the other, is not justifiable any longer. This is even more true in a context where digital markets and services are very concentrated, and few large communication automation platforms (VLOPs/gatekeepers) have significative and entrenched market power and supply 'must-have' content/applications to end-users.

The EESC appreciates the fact that the Commission states in the white paper that 'the stable bedrock of any future regulation should be the European Declaration on Digital Rights', thereby confirming its commitment to 'develop adequate frameworks so that all market actors benefiting from the digital transformation assume their social responsibilities and make a fair and proportionate contribution to the costs of public goods, services and infrastructures, for the benefit of all people living in the EU'.

3.1.7. The cloud centres of the big players are often connected with networks that, under current regulation, may well not have been categorised as either public or private and therefore suffer from regulatory uncertainty.

3.1.8. Need for more innovation and industrial capacities across the telecom value chain: to ensure the economic security of its network infrastructures, the EU might facilitate a cooperative and multi-disciplinary environment, and improve access to finance for EU actors, encouraging a closer cooperation between private and public investment strategies.

3.1.9. Sustainability: the Information and Communication Technology sector accounts for around 7-9 % of global electricity consumption, around 3 % of global greenhouse gas emissions and increasing amounts of e-waste. Used properly, the benefits of digital technology can outweigh its emissions and help cut global emissions, but this entails the need for further investment by operators.

3.1.10. Security: in a geopolitical environment increasingly marked by tension and conflict, the cybersecurity, security and resilience of critical infrastructure should be based on trusted suppliers, on the development of security standards for end-to-end connectivity, and on a higher level of resilience and integration at all levels: terrestrial, non-terrestrial, access and backbone networks, including undersea cable infrastructures.

4. **The need for a Digital Single Market**

4.1. The EESC does not believe that abrupt changes to the Telco regulatory framework are needed. The current model is still suitable for opening up markets and avoiding the market concentration that is usually detrimental to customers in terms of pricing and innovation.

4.2. Besides promoting competition in the UBB sector, the regulatory framework should focus on addressing new issues such as the regulatory treatment of M2M/IoT services which are transnational.

4.3. In some cases, it could be necessary to ensure access/interconnection to trunks connecting data centres in order to reduce the cost of setting up new cloud data -centres, which may become the next 'bottleneck'. Possible regulation of such networks should follow the 'traditional' three-steps procedure, which allows national regulatory authorities, under European Commission surveillance, to set requirements in new markets.

5. **To compete in global markets in terms of digital and technological sovereignty, the EU needs high-quality jobs**

5.1. Since 2015 a major change in types of jobs has been seen within the telecommunication sector. The transition in job types should be carried out in cooperation with local stakeholders, ensuring retraining opportunities and sufficient staff for improving the future of the digital network infrastructure sector.

5.2. The 'same service, same rule' principle could be used to establish a new framework for all digital players, streamlining the rules, extending the scope of the current framework and applying the same rules to analogous services, thereby ensuring equivalent rights and obligations for all actors and end-users of digital networks.

5.3. The EESC encourages that operators who invest in new networks can benefit from a lease agreement as part of the regulation that forces them to share their networks with other operators. It is important to ensure a fair distribution of costs among the operators.

5.4. The EESC advocates the creation of strong operators in the market economy that promote employment and social dialogue in line with European values.

6. **Harmonise rules, reform governance, simplify reporting**

6.1. Fragmentation stems not only from different enforcement authorities but also from differences in way Member States transpose directives. There are even differences in criteria within a Member State where powers are shared between different regional authorities. This creates a regulatory labyrinth that requires legal experts to be recruited and holds up decision-making.

6.2. The following are therefore necessary:

6.2.1. Prioritise legislation through regulations as far as possible.

6.2.2. Apply the single authority principle provided for in European rules.

6.2.3. Speed up the certification process, which can currently take 12 or even 24 months. Harmonise, where possible, rules and costs regarding spectrum allocation. Some Member States have assigned frequencies at very high costs to operators, which can slow down investments in the new networks.

6.2.4. Apply with regard to specific, more virtual and typically transnational services (e.g., Machine2Machine (M2M) and Internet of Things (IoT) services) the country of origin principle in place of the national general authorisation regime.

6.2.5. Issue guidelines on the qualification and on the regulation applicable under the EECC to private e-comms services/networks and to e-comms services which are number-independent but still rely on a number to identify the end-user.

6.2.6. Set a realistic deadline for copper switch-off, also taking into account the fact that there are different situations in the Member States, in terms of geography and population and the length of the last mile, with the consequence that in some areas it may make sense to allow the use of hybrid technologies (Fiberto the Cabinet (FTTC), vectoring, etc.) for longer.

6.2.7. To speed-up the roll-out of Next Generation Network (NGN) impose a set of horizontal (symmetric) obligations on all stakeholders which own civil infrastructures that can be used to apply cables and antennas.

6.2.8. Harmonise regulations applicable to numbering resources, which, as a consequence of digitalisation and virtualisation of services and networks, are increasingly used across borders by business users.

7. **Way forward**

7.1. Connectivity. Strengthen spectrum harmonisation in Europe:

— Member States and the Commission should improve coordination of binding decisions at European level to boost private investment impact.

— Uniformly roll out an ambitious Gigabit Infrastructure Act across the EU with easy access to public infrastructure and a single contact point in each Member State.

— Issue unambiguous guidance on compliance for specialised services under the Open Internet Regulation.

7.2. Release risk capital investment:

7.2.1. Speed up the creation of late-stage investment vehicles; transition towards one set of EU rules for all national capital markets supported by more cooperation between local and EU authorities.

7.3. Increase research into smart grids and reduce latency:

7.3.1. Medical devices and remote diagnostics are very vulnerable to latency in digital networks. The ability to improve healthcare diagnostics in remote areas and options for AI assistance in this field depends heavily on fast, reliant digital network infrastructure.

7.3.2. Smart grids can reduce emissions and create more energy-efficient workplaces and homes and provide a dynamic way of ensuring more load-efficient public transportation.

7.3.3. Follow the principle of once only reporting endorsed by the Commission and report to a single designated authority.

7.4. Data economy:

— Clarify that firms are subject to a single lead competent authority under the Data Act.

— Recognise the Data Act's primacy as a framework governing business-to-government data sharing for official statistics in the EU.

— In the case of healthcare, ensure a harmonised framework for health data, data protection and privacy, including alignment and consistency between the General Data Protection Regulation and the future European Health Data Space.

7.5. Secure Europe's critical infrastructure: cybersecurity for regulated entities:

— Issue guidance clarifying the interplay between the EU Cybersecurity Directive (NIS2)and the Cyber Resilience Act for remote data processing services.

— Follow the principle of once only reporting endorsed by the Commission and report to a single designated authority.

— Consolidate cybersecurity entities to enhance operational efficiency and better support the resilience of critical infrastructure such as energy grids.

— Agree a clear timetable for the development and approval of EU certification schemes and ensure that these schemes are structured exclusively around technical cybersecurity safeguards.

7.6. Harmonise software communication protocols.

7.7. Set some basic requirements for all communication software, e.g. all transfers of data should be encrypted.

7.8. Public procurement of digital services:

7.8.1. Turn the Public Procurement Directive into a regulation and promote harmonised contract award criteria, valuing cybersecurity and sustainability in the same way as cost. In the short term, issue guidelines under the directive for the purchase of software.

Brussels, 18 September 2024.

The President
of the European Economic and Social Committee
Oliver RÖPKE