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Subject: Conclusions on the White Paper "How to master Europe's digital
infrastructure needs?"
- Council Conclusions (6 December 2024)

Delegations will find in the annex the Council conclusions on the White Paper "How to master Europe's digital infrastructure needs?", as approved by the Transport, Telecommunications and Energy Council at its meeting held on 6 December 2024.

COUNCIL CONCLUSIONS

on the White Paper “How to master Europe’s digital infrastructure needs?”

THE COUNCIL OF THE EUROPEAN UNION,

RECALLING

- The Directive (EC) 2002/58 of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications),
- The Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 on laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users’ rights relating to electronic communications networks and services and Regulation (EU) No 612/2022 on roaming on public mobile communications networks within the Union,
- The Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation),
- The Commission Notice of 19 July 2016 on the notion of State aid as referred to in Article 107(1) of the Treaty on the Functioning of the European Union,
- The Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 on establishing the European Electronic Communications Code,
- The Joint Communication of 16 December 2020: The EU’s Cybersecurity Strategy for the Digital Decade,
- The Commission Recommendation of 18 December 2020 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code,

- The Declaration of 19 March 2021 on “European Data Gateways as a key element of the EU’s Digital Decade”,
- The Joint Communication of 1 December 2021 to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank - The Global Gateway,
- The Communication from the Commission on the criteria for the analysis of the compatibility with the internal market of State aid to promote the execution of important projects of common European interest (IPCEIs) of 30 December 2021,
- The European Declaration on Digital Rights and Principles for the Digital Decade of 26 January 2022,
- The Nevers Call of 9 March 2022 to Reinforce the EU's Cybersecurity Capabilities,
- The Declaration of June 2022 ‘Toulouse Call for a Green and Digital Transition in the EU’,
- The Council Recommendation of 8 December 2022 on a Union-wide coordinated approach to strengthen the resilience of critical infrastructure,
- The Directive (EU) 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation (EU) No 910/2014 and Directive (EU) 2018/1972, and repealing Directive (EU) 2016/1148 (NIS 2 Directive),
- The Directive (EU) 2022/2557 of the European Parliament and of the Council of 14 December 2022 on the resilience of critical entities and repealing Council Directive 2008/114/EC,
- The Decision of the European Parliament and of the Council of 14 December 2022 establishing the Digital Decade Policy Programme,
- The Communication from the Commission of 31 January 2023 - Guidelines on State aid for broadband networks,
- The Joint Communication of 20 June 2023 to the European Parliament, the European Council and the Council on “European Economic Security Strategy”,
- The Communication from the Commission establishing Union-level projected trajectories for the digital targets of 29 September 2023,

- The Commission Recommendation of 3 October 2023 on critical technology areas for the EU's economic security for further risk assessment with Member States,
- The Council conclusions on the Revised EU Maritime Security Strategy (EUMSS) and its Action Plan of 24 October 2023,
- The Commission White Paper on “How to master Europe’s digital infrastructure needs?” of 21 February 2024,
- The Commission recommendation of 26 February 2024 on Secure and Resilient Submarine Cable Infrastructures,
- The Commission Recommendation of 11 April 2024 on a Coordinated Implementation Roadmap for the transition to Post-Quantum Cryptography,
- The Regulation (EU) 2024/1309 of the European Parliament and of the Council of 29 April 2024 on measures to reduce the cost of deploying gigabit electronic communications networks, amending Regulation (EU) 2015/2120 and repealing Directive 2014/61/EU (Gigabit Infrastructure Act),
- The Council Conclusions of 21 May 2024 on the Future of EU Digital Policy,
- The Council conclusions of 24 May 2024 on a competitive European industry driving our green, digital and resilient future,

1. RECOGNISES the positive effects of the digital convergence offering a wide variety of new services to end-users, companies and public institutions alike and ACKNOWLEDGES that there are important new dynamics affecting digital infrastructures.
2. RECOGNISES the extensive changes that have been shaping the landscape of the electronic communications sector and that are of critical relevance for the Union's economic security, global competitiveness and national security. These transformations have been driven by notable technological advancements, such as cloud and edge computing, the virtualisation of network functions, and the demand for data processing services; ACKNOWLEDGES that significant investments, in particular by the private sector, are needed for such transformations to deliver the Digital Decade targets in the area of digital infrastructures, taking into account the differences among Member States.
3. WELCOMES the Commission's goals to foster innovation, security and resilience of digital infrastructures to unleash further benefits of the Single Market's potential within the digital sector; WELCOMES the Commission's efforts to contribute to the development of a digital ecosystem that provides greater opportunities for companies to establish and roll out digital infrastructures, including edge cloud, and provide related services.
4. HIGHLIGHTS that high-quality, cutting edge, secure, resilient and sustainable digital infrastructures are crucial for the competitiveness of the EU's economy, and a forward-looking policy approach that facilitates the planning and rollout of such infrastructures, including next generation mobile technologies, is essential to enhance the Union's capabilities to address the challenges set by global competition.
5. ACKNOWLEDGES that the digital transition has a cross-sectoral nature, and it has an impact not only on the electronic communications sector, but on other sectors, such as transport, energy, agriculture and healthcare, and is crucial for society as a whole.

6. EMPHASISES that safeguarding the interest of consumers and business customers throughout the EU should be at the forefront of any proposals and initiatives impacting end-users' rights, obligations and benefits alongside objectives to enable the digitalisation of the EU's businesses.
7. WELCOMES the Commission's consideration in the White Paper to review the relevant financial instruments to achieve digital infrastructures that meet customer demands in all different geographies and make it possible to improve coordination between the various funding programmes and blend the funds for investment needs, where appropriate and in line with state aid rules.
8. UNDERLINES the importance to further analyse the challenges arising from emerging technological changes, some of which are outlined in the White Paper. Therefore, CALLS UPON the Commission to continue to explore the latest developments, consider future-proof solutions, and base any possible initiatives on evidence while keeping in mind the need for reducing the administrative burden on companies, in particular SMEs, and maintaining effective competition to promote consumers' welfare and incentivise investments. This requires a policy environment favourable to innovation without pre-empting certain market outcomes.
9. REINFORCES the need for consistency with the objectives of existing regulatory measures and EMPHASISES the importance of regulatory predictability by means of effective implementation in order to further enhance the EU's competitiveness and reach the Digital Decade targets.

10. STRESSES that the regulation of the electronic communications sector should proportionately address both supply and demand, including the affordability, freedom of choice, security, and quality of the services to consumers and businesses through, inter alia, competition. CALLS UPON the Commission to further investigate means to stimulate demand for cutting-edge digital networks and services, and to enable innovative and sustainable business models for the benefit of EU consumers as well as businesses, including for mobile operators, with a view to improving cross-border connectivity.
11. HIGHLIGHTS that the principles of subsidiarity, proportionality and technological neutrality should be reflected in all initiatives in the domain of electronic communications. RECOGNISES the importance of a clear and structured governance model building upon the existing governance structures, relevant national experiences and the dynamic evolution of the digital ecosystem.
12. ACKNOWLEDGES that significant investments are needed to meet the targets set under the Digital Decade Policy Programme 2030. CALLS ON the Commission to consider also other critical obstacles hindering infrastructure development, such as administrative burdens, lack of demand, scarcity of construction capacities or risk of low uptake of networks, especially in rural areas.
13. CALLS for a clearer definition and consistent use of the concepts of cloudification and virtualisation by advocating for a thorough exploration and analysis of the various layers that constitute the related infrastructure. This call underscores the importance of defining these fundamental concepts to enhance understanding in relation to their infrastructure layers.

14. NOTES the evaluation of the current status of the electronic communications market, outlined in the White Paper as well as in the Letta and Draghi reports. INVITES the Commission to conduct a detailed analysis of any proposals with regard to the electronic communications market in light of promoting investments, and the EU overarching principles of competitiveness, competition and consumers' welfare. RECALLS that any future legislative proposal requires a solid impact assessment.
15. NOTES the considerations in the White Paper on the promotion of a level playing field, but CONSIDERS that it requires further analysis whether and to what extent players of a converged ecosystem could fall under the same rules applicable. STRESSES the importance of net neutrality and of a functioning internet ecosystem, and that contractual freedom should be upheld as one of the primary principles, while keeping regulatory intervention at minimum level.
16. TAKES INTO ACCOUNT national security aspects of critical infrastructures of electronic communications systems. NOTES that questions related to the privacy of electronic communications should be reassessed to reflect technological developments and with a view to effectively ensuring the confidentiality of electronic communications. CONSIDERS that the implementation of a consistent privacy framework is crucial to ensure a fair, competitive and dynamic digital ecosystem.
17. HIGHLIGHTS that the current European electronic communications landscape is the result of historical and geographical circumstances, which should be factored in when undertaking actions to effectively increase competitiveness.
18. UNDERLINES the need to further digitalise the industry in order to incentivise the take-up of advanced technologies. STRESSES that the availability of high quality, affordable, reliable, sustainable, accessible, open, secure and trusted connectivity is of paramount importance to all citizens in the EU and that EU businesses and citizens should equally benefit from digitalisation.

19. STRESSES that electronic communications services that qualify as universal service should secure that all citizens in the EU have access to adequate quality, reliable and affordable connectivity that is necessary for social and economic participation in society.

Capacity building, innovation and technology capabilities

20. RECALLS the need for Europe to build on its solid research and innovation base in the digital value chain. Given the trend towards ever more critical applications, infrastructure security and resilience by design should be required. HIGHLIGHTS that knowledge transfer from research and innovation towards industrial applications needs to be strengthened and supported.

21. SHARES THE VIEW that the transformation of the EU's connectivity industry requires significant investment capacities. Therefore, and without pre-empting the negotiations of the next Multiannual Financial Framework (MFF), EU funding instruments and programmes should take into consideration the technological progress and the widespread use of AI applications. RECOGNISES the increasing importance of Horizon Europe, InvestEU, the Digital Europe Programme (DEP), and the Connecting Europe Facility (CEF) as well as of the R&I activities of the Smart Network and Services Joint Undertaking.

22. RECALLS that IPCEIs, especially the Next Generation Cloud Infrastructure and Services (IPCEI CIS) and the second IPCEI Microelectronics and Communication Technologies (IPCEI ME/CT), have the potential to unlock additional private investments, and RECOGNISES that Cable Projects of European Interest (CPEI) could induce similar effects.

23. EMPHASISES that when establishing large-scale pilots, the participation of smaller European players in consortia should be incentivised. UNDERLINES the need for cross-sectoral programmes to boost the adoption of new technologies by recognising the opportunities that connectivity technologies offer to other sectors. RECOGNISES the relevance of SMEs in the development of the EU ecosystem and the importance of creating an environment where they can develop and grow. CONSIDERS the acceleration of the take-up of new technologies as significant to achieve the 2030 Digital Decade targets.

Completing the Digital Single Market

24. STRESSES the significance of legal certainty and implementing the adopted legislative acts, including but not limited to the European Electronic Communications Code and the Gigabit Infrastructure Act. UNDERSCORES that any future regulatory measures to foster the development of the Digital Single Market, should also aim to promote connectivity and innovation, foster competition, and should contribute to consumer welfare, while ensuring a high level of cyber resilience and cybersecurity.
25. RECOGNISES that connectivity and computing are converging, and players from different segments of the value chain would work best together on a level-playing field. However, this does not necessarily imply that the same regulations should apply to them, since this depends on their activities across the value chain. CALLS on the Commission to assess if effective competition is stifled and to propose possible solutions where necessary and appropriate, including to reduce administrative burden.

26. NOTES that copper switch-off could be gradually realised to support the very high-capacity networks rollout and the achievement of the Digital Decade targets, but STRESSES that Member States' specificities, competition and consumer welfare should be taken into account. In particular, in the context of the migration from copper to fibre, competition and the rights of end-users should be safeguarded.
27. ACKNOWLEDGES that the digital sector currently consumes significant amounts of energy and produces e-waste. NOTES that fibre networks can contribute to achieving some of the EU environmental targets through securing better energy efficiency of networks and contribute to the environmental sustainability of other sectors. STRESSES, however, that fibre rollout should not remain the only tool for decarbonising the digital sector in order to align with the EU's climate targets. CALLS for easily implementable solutions in that regard, including more efficient techniques in the use of digital networks. Furthermore, NOTES that widening the scope of the EU taxonomy for green investment in electronic communications networks can create incentives to attract investments necessary to roll out more environmentally sustainable networks (such as fibre, 5G and in the future 6G).
28. EMPHASISES that the possibility of ex-ante control on certain access markets needs to be maintained. CALLS UPON the Commission to further elaborate on the potential impact in terms of competition and consumer welfare of relying solely on ex-post control for electronic communications in certain circumstances. Intervention based on ex-ante regulation should remain grounded in finding a lack of effective competition by the NRA, without any prejudice to the number of competing networks in a given market. CALLS UPON the Commission to take Member States' specificities into account.
29. NOTES the proper functioning of the Internet Protocol (IP) interconnection market in the EU and ACKNOWLEDGES the experience of national regulatory authorities in handling dispute resolution matters. In case of future deficiencies of this market, STRESSES the importance of a comprehensive, thorough analysis and impact assessment as foundation for any mitigating initiatives, including a dispute resolution mechanism. Any potential measures should be in line with the open internet principles.

30. EMPHASISES that effective competition in itself contributes to service quality, choice, innovation and benefits for consumers. In electronic communications, the spectrum awards influence the market structure and the competition dynamics. Simultaneous selection procedures could in certain circumstances have the adverse effect of limiting competition and penalising smaller operators competing in national or sub-national markets. RECOGNISES that in the case of services that are potentially cross-border and transnational, such as satellite services, enhanced coordination of procedures and conditions could be examined in light of existing regulation and taking into account national circumstances.
31. NOTES that effective spectrum management should address emerging demand and challenges arising from modern wireless network developments as well as from social and economic issues. NOTES that regulatory decisions need to take into account societal needs, technological development, demand and environmental aspects. RECOGNISES that the current peer review mechanism has proven to be valuable and that proposals that seek to improve its efficiency and consistency should not create delays for spectrum awards and 5G rollout, and undue administrative burdens.
32. NOTES that technology-neutral spectrum harmonisation in the EU facilitates developments at national and Union level and favourable investment conditions. RECOGNISES that the current cooperation between the Member States and the Commission, and within the European Conference of Postal and Telecommunications Administrations (CEPT) works well. SUPPORTS the maintenance and further development of the existing transparent governance system in order to streamline EU policies. EMPHASISES, that decisions in the context of radio spectrum policy, in particular regarding licensing solutions, should be based on the expertise of relevant bodies such as the Radio Spectrum Policy Group (RSPG) and the Body of European Regulators for Electronic Communications (BEREC).

33. RECOGNISES that spectrum management remains a key public policy tool for Member States and EMPHASISES the sustained significance of Member States' national competencies in that regard. NOTES the number of instances of cross-border interference from third countries, which necessitates increased focus and more robust mitigation efforts. Such efforts should include support to the Member State upon request, whenever spectrum coordination with third countries falls beyond purely technical matters. Furthermore, ACKNOWLEDGES the increasing number of Global Navigation Satellite Services interferences, which, among others, may lead to significant safety risks, and STRESSES the need to act jointly in the relevant international fora.
34. WELCOMES the general commitment to the greening of digital networks and CALLS UPON all digital ecosystem players to aim for minimising their environmental footprint. ACKNOWLEDGES the importance of coupling the green and digital transition and CALLS UPON the Commission to consider proposing a target on green digitalisation in the context of the review of the Digital Decade Policy Programme, based on an agreed monitoring methodology. HIGHLIGHTS the necessity of establishing common tools for the measurement of the environmental impact of electronic communications networks and services, in order to efficiently assess developments.
35. WELCOMES the objective to simplify applicable rules related to the provision of electronic communications networks and services throughout the Union in order to facilitate cross-border operation; NOTES that the introduction of the 'country of origin' principle to rules related to authorisation for core networks and core network service providers needs further, detailed analysis, including the establishment of relevant definitions and an assessment of market trends, and should not interfere with the competences and abilities of Member States with regard to law enforcement, and their sole responsibility with regard to national security. HIGHLIGHTS the risk of encouraging practices such as 'forum shopping', which may pose challenges to national regulatory authorities, lead to jurisdictional conflicts and jeopardise end-user protection.

36. UNDERLINES that the White Paper mentions the emergence of pan-European operators without considering its impact on the competition of the markets of individual Member States and operators that are unable to operate on a pan-European scale. STRESSES that operators of all sizes should have business opportunities in the single market and be able to benefit from and contribute to effective competition. ENCOURAGES the Commission to further investigate to what extent opportunities for cross-border operation and service provision can effectively address the investment challenges identified in the White Paper at European level, but also how other instruments (such as ex-post control or industrial policy measures) could stimulate investments in the EU digital/electronic communications sector and what would be the impact on consumer welfare.
37. UNDERLINES that consolidation should be assessed by the relevant authorities taking into consideration its potential impact to maintain and develop effective competition in the relevant market. Authorised market driven consolidation could, provided there is effective competition in the relevant market, create economies of scale in electronic communications networks in the EU and thus open up further opportunities for market players. CONSIDERS that, in the context of the wider ecosystem, the question of optimal scale is set by market forces and subject to applicable market rules.

Secure and resilient digital infrastructures for Europe

38. ACKNOWLEDGES that, in light of the growing importance of digital technologies, the current legal framework entails important cybersecurity elements, such as security and resilience by design, to address cybersecurity vulnerabilities in digital products, services, and processes. AGREES that, since many cybersecurity-related issues are cross-border, the security and resilience of the EU's digital networks are essential elements of Europe's digital sovereignty in an open manner and Member States' national security and UNDERLINES the importance of close cooperation among Member States on cross-border cybersecurity-related issues.

39. UNDERLINES that post-quantum cryptography is essential for protecting our digital information from the future threat posed by quantum computers; emphasis should be placed on a coordinated effort at the European and international level, involving government agencies, standardisation bodies, industry stakeholders, researchers and cybersecurity professionals, for the development of standards and their consistent use across the Union in order to guarantee security. ACKNOWLEDGES the importance of the work performed within the NIS Cooperation Group towards the definition of a Coordinated Implementation Roadmap for the transition to Post-Quantum Cryptography (PQC). In addition, a longer-term strategy is needed to create a future secure, resilient and robust infrastructure that leverages quantum technology.

40. RECOGNISES the importance of ensuring security and resilience of submarine cable infrastructures. Whilst recalling that national security falls within the competence of Member States, INVITES the Commission to consider further measures to promote the security, resilience and integrity of submarine cable infrastructures, based on the work of the Critical Entities Resilience (CER) Group and NIS Cooperation Group, and the Submarine Cable Infrastructure informal Expert Group. EMPHASISES the need for a strategic approach and an effective EU-fund allocation, and INVITES Member States to support critical submarine cable infrastructure initiatives in their efforts to secure funding.
