



2018/0227(COD)

9.11.2018

OPINION

of the Committee on Civil Liberties, Justice and Home Affairs

for the Committee on Industry, Research and Energy

on the proposal for a regulation of the European Parliament and of the Council
establishing the Digital Europe programme for the period 2021-2027
(COM(2018)0434 – C8-0256/2018 – 2018/0227(COD))

Rapporteur for opinion: Jeroen Lenaers

PA_Legam

AMENDMENTS

The Committee on Civil Liberties, Justice and Home Affairs calls on the Committee on Industry, Research and Energy, as the committee responsible, to take into account the following amendments:

Amendment 1

Proposal for a regulation

Recital 5

Text proposed by the Commission

(5) Pursuant to paragraph 22 and 23 of the Inter-institutional agreement for Better Law-Making of 13 April 2016⁵⁴, there is a need to evaluate this Programme on the basis of information collected through specific monitoring requirements, while avoiding overregulation and administrative burdens, in particular on Member States. These requirements, where appropriate, **can** include measurable indicators, as a basis for evaluating the effects of the Programme on the ground.

⁵⁴ Interinstitutional Agreement between the European Parliament, the Council of the European Union and the European Commission on Better Law-Making of 13 April 2016; OJ L 123, 12.5.2016, p. 1–14.

Amendment

(5) Pursuant to paragraph 22 and 23 of the Inter-institutional agreement for Better Law-Making of 13 April 2016⁵⁴, there is a need to evaluate this Programme on the basis of information collected through specific monitoring requirements, ***correlated to existing needs and complying with the Regulation (EU) 2016/679 of the European Parliament and of the Council^{54a}***, while avoiding overregulation and administrative burdens ***for all beneficiaries***, in particular on Member States ***and SMEs***. These requirements ***should***, where appropriate, include measurable indicators, as a basis for evaluating the effects of the Programme on the ground.

⁵⁴ Interinstitutional Agreement between the European Parliament, the Council of the European Union and the European Commission on Better Law-Making of 13 April 2016; OJ L 123, 12.5.2016, p. 1–14.

^{54a} ***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) (OJ L 119, 4.5.2016, p. 1).***

Amendment 2

Proposal for a regulation

Recital 6

Text proposed by the Commission

(6) The Tallinn Digital Summit⁵⁵ of September 2017 and the Conclusions of the European Council⁵⁶ of 19 October 2017 indicated the need for Europe to invest in **digitising** our economies and addressing the skills gap to maintain and enhance European competitiveness, our quality of life and social fabric. The European Council concluded that the digital transformation offers immense opportunities for innovation, growth and jobs, will contribute to our global competitiveness, and enhance creative and cultural diversity. Seizing these opportunities requires collectively tackling **some of** the challenges posed by the digital transformation **and** reviewing policies affected by the digital transformation.

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<https://www.eu2017.ee/news/insights/conclusions-after-tallinn-digital-summit>

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<https://www.consilium.europa.eu/media/21620/19-euco-final-conclusions-en.pdf>

Amendment 3

Proposal for a regulation

Recital 7

Amendment

(6) The Tallinn Digital Summit⁵⁵ of September 2017 and the Conclusions of the European Council⁵⁶ of 19 October 2017 indicated the need for Europe to invest in **efficient digitalisation of** our economies and addressing the skills gap to maintain and enhance European competitiveness **and innovation**, our quality of life and social fabric. The European Council concluded that the digital transformation offers immense opportunities for innovation, growth and jobs, will contribute to our global competitiveness, and enhance creative and cultural diversity. Seizing these opportunities requires collectively tackling the challenges posed by the digital transformation **in several ways, including by ensuring that the essential building blocks on which new technologies rely are put in place, by creating effective and easily enforceable legal rules, by** reviewing policies affected by the digital transformation, **and by creating an innovation-friendly environment in which the interests of users are fully safeguarded.**

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<https://www.eu2017.ee/news/insights/conclusions-after-tallinn-digital-summit>

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<https://www.consilium.europa.eu/media/21620/19-euco-final-conclusions-en.pdf>

Text proposed by the Commission

(7) The European Council concluded in particular that the Union should urgently address emerging trends: this includes issues such as artificial intelligence **and distributed ledgers technologies (e.g. blockchain)**, while at the same time ensuring a high level of data protection, digital rights and ethical standards. The European Council invited the Commission to put forward a European approach to artificial intelligence by early 2018 and called on the Commission to put forward the necessary initiatives for strengthening the framework conditions with a view to enable the EU to explore new markets through risk-based radical innovations and to reaffirm the leading role of its industry.

Amendment

(7) The European Council concluded in particular that the Union should urgently address emerging trends: this includes issues such as artificial intelligence, while at the same time ensuring a high level of data protection **in full compliance with Regulation (EU) 2016/679**, digital rights, **fundamental rights** and ethical standards. The European Council invited the Commission to put forward a European approach to artificial intelligence by early 2018 and called on the Commission to put forward the necessary initiatives for strengthening the framework conditions with a view to enable the EU to explore new markets through risk-based radical innovations and to reaffirm the leading role of its industry.

Amendment 4

Proposal for a regulation
Recital 7 a (new)

Text proposed by the Commission

Amendment

(7 a) For a successful implementation of this Programme, more is needed than following the trends. The Union needs to be committed to privacy-enabling technologies (i.e. cryptography and decentralised applications (DApps)) as well as increased investments in future-proof infrastructure (fibre-optic networks) to enable a self-determined digitalised society.

Amendment 5

Proposal for a regulation
Recital 9

Text proposed by the Commission

(9) The Communication “Towards a common European data space”⁵⁸, addresses the new measure to be taken as a key step towards a common data space in the EU - a seamless digital area with a scale that will enable the development of new products and services based on data.

⁵⁸ COM (2018) 125 final

Amendment

(9) The Communication “Towards a common European data space”⁵⁸, addresses the new measure to be taken as a key step towards a common data space in the EU - a seamless digital area with a scale that will enable the development **and innovation** of new products and services based on data.

⁵⁸ COM (2018) 125 final

Amendment 6

Proposal for a regulation
Recital 10

Text proposed by the Commission

(10) The general objective of the Programme should be to support the digital transformation of industry and to foster better exploitation of the industrial potential of policies of innovation, research and technological development, for the benefit of **businesses and citizens** all over the Union. The programme should be structured into five Specific Objectives reflecting key policy areas, namely: high-performance computing, cybersecurity, artificial intelligence, advanced digital skills, and deployment, best use of digital capacities and interoperability. For all these areas, the Programme should also aim at better aligning Union, Member States and regional policies, and pooling of private **and industrial** resources in order to increase investment and develop stronger synergies.

Amendment

(10) The general objective of the Programme should be to support the digital transformation of industry **and society** and to foster better exploitation of the industrial potential of policies of innovation, research and technological development, for the benefit of **citizens and businesses** all over the Union. The programme should be structured into five Specific Objectives reflecting key policy areas, namely: **IT infrastructures including** high-performance computing, cybersecurity, artificial intelligence, advanced digital skills, and deployment, best use of digital capacities and interoperability. For all these areas, the Programme should also aim at better aligning Union, Member States and regional policies, and pooling of **public and** private resources in order to increase investment and develop stronger synergies, **so as to attain the greatest possible impact**.

Amendment 7

Proposal for a regulation

Recital 11

Text proposed by the Commission

(11) A central role in the implementation of the Programme should be attributed to Digital Innovation Hubs, which should stimulate the broad adoption of advanced digital technologies by industry, **by public *organisations*** and academia. A network of Digital Innovation Hubs should ensure the widest geographical coverage across Europe⁵⁹. A first set of Digital Innovation Hubs **will** be selected based on Member States' proposals and then the network will be enlarged through an open and competitive process. The Digital Innovation Hubs **will** serve as access points to latest digital capacities including high performance computing (HPC), artificial intelligence, cybersecurity, as well as other existing innovative technologies such as Key Enabling Technologies, available also in fablabs or citylabs. They **shall** act as single-entry points in accessing tested and validated technologies and promote open innovation. They **will** also provide support in the area of advanced digital skills. The network of Digital Innovation Hubs should also **contribute to** the participation of the outermost regions in the Digital Single Market.

⁵⁹ As indicated in the Communication on Digitising European Industry (COM(2016) 180 final)

Amendment

(11) A central role in the implementation of the Programme should be attributed to Digital Innovation Hubs, which should stimulate the broad adoption of advanced digital technologies by industry ***within all sectors and by companies of all sizes and by the public sector*** and academia, ***thereby addressing the strong digitisation discrepancies***. A network of Digital Innovation Hubs should ensure the widest geographical coverage across Europe⁵⁹. A first set of Digital Innovation Hubs ***should*** be selected ***by the Commission*** based on Member States' proposals and then the network will be enlarged through an open and competitive process. The Digital Innovation Hubs ***should*** serve as access points to latest digital capacities including high performance computing (HPC), artificial intelligence, cybersecurity, as well as other existing innovative technologies such as Key Enabling Technologies available also in fablabs or citylabs. They ***should*** act as single-entry points in accessing tested and validated technologies and promote open innovation. They ***should*** also provide support in the area of advanced digital skills. The network of Digital Innovation Hubs should also ***facilitate*** the participation of the outermost regions in the Digital Single Market.

⁵⁹ As indicated in the Communication on Digitising European Industry (COM(2016) 180 final)

Amendment 8

Proposal for a regulation

Recital 12

Text proposed by the Commission

(12) The Programme should be implemented through projects reinforcing essential digital capacities and their wide use. This should involve co-investments with Member States and, when needed, the private sector. This should notably require reaching a critical mass in procurement to obtain better value for money and guarantee that suppliers in Europe stay at the forefront of technology advancements.

Amendment

(12) The Programme should be implemented through projects reinforcing essential digital capacities and their wide use. This should involve co-investments with Member States and, when needed, the private sector. This should notably require reaching a critical mass in procurement to obtain better value for money and guarantee that suppliers in Europe stay at the forefront of technology advancements. ***The Programme should also aim at protecting the interests of the citizens of the Union.***

Amendment 9

Proposal for a regulation

Recital 14

Text proposed by the Commission

(14) The Programme's actions should be used to address market failures or sub-optimal investment situations, in a proportionate manner, without duplicating ***or crowding out*** private financing and have ***a clear European*** added value.

Amendment

(14) The Programme's actions should be used to address market failures or sub-optimal investment situations, in a proportionate manner, without duplicating private financing and have clear added value ***for the Union and its citizens.***

Amendment 10

Proposal for a regulation

Recital 16

Text proposed by the Commission

(16) The high performance computing and the related data processing capacities in the Union should allow to ensure wider use of high performance computing by industry and, more generally, in areas of public interest in order to seize unique opportunities that supercomputers bring to society as regards health, environment and

Amendment

(16) The high performance computing and the related data processing capacities in the Union should allow to ensure wider use of high performance computing by ***research, civil society,*** industry and, more generally, in areas of public interest in order to seize unique opportunities that supercomputers bring to society as regards

security as well as competitiveness of industry, notably small and medium-sized enterprises.

health, environment and security as well as competitiveness of industry, notably small and medium-sized enterprises.

Amendment 11

Proposal for a regulation Recital 17

Text proposed by the Commission

(17) The support to the Union's intervention in this area was expressed by the Council⁶⁰ and, by the European Parliament⁶¹. Moreover, in 2017 nine Member States signed the EuroHPC Declaration⁶², a multi-government agreement where they commit to collaborate with the Commission to build and deploy state-of-the-art HPC and data infrastructures in Europe that would be available across the Union for scientific communities, public and private partners.

⁶⁰ null

⁶¹ null

⁶² null

Amendment

(17) The support to the Union's intervention in this area was expressed by the Council⁶⁰ and, by the European Parliament⁶¹. Moreover, in 2017 nine Member States signed the EuroHPC Declaration⁶², a multi-government agreement where they commit to collaborate with the Commission to build and deploy state-of-the-art HPC and data infrastructures in Europe that would be available across the Union for scientific communities, public and private partners. ***European leadership in supercomputing can only be attained if Union intervention in this area also focusses on enhancing the Union's attractiveness to European and international researchers, thereby reducing brain drain.***

⁶⁰ null

⁶¹ null

⁶² null

Amendment 12

Proposal for a regulation Recital 18

Text proposed by the Commission

(18) For the high performance computing specific objective a joint undertaking is deemed the most suited implementation mechanism, in particular to

Amendment

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coordinate national and Union strategies and investments in high performance computing infrastructure and research and development, pool resources from public and private funds, and safeguard the economic and strategic interests of the Union⁶³. Moreover, high performance computing competence centres in Member States will provide high performance computing services to industry, academia and public administrations.

⁶³ Impact Assessment accompanying the document "Proposal for a Council Regulation on establishing the EuroHPC Joint Undertaking"
(<https://ec.europa.eu/digital-single-market/en/news/proposal-council-regulation-establishing-eurohpc-joint-undertaking-impact-assessment>)

coordinate national and Union strategies and investments in high performance computing infrastructure and research and development, pool resources from public and private funds, and safeguard the economic and strategic interests of the Union⁶³ **and its citizens**. Moreover, high performance computing competence centres in Member States will provide high performance computing services to industry, academia and public administrations.

⁶³ Impact Assessment accompanying the document "Proposal for a Council Regulation on establishing the EuroHPC Joint Undertaking"
(<https://ec.europa.eu/digital-single-market/en/news/proposal-council-regulation-establishing-eurohpc-joint-undertaking-impact-assessment>)

Amendment 13

Proposal for a regulation Recital 19

Text proposed by the Commission

(19) Developing capacity related to artificial intelligence is a crucial driver for the digital transformation of industry and also of the public sector. Ever more autonomous robots are used in factories, deep sea application, homes, cities and hospitals. Commercial artificial intelligence platforms have moved from testing to real applications in health and environment; all major car manufacturers are developing self-driving cars, and machine learning techniques are at the heart of all main web platforms and big data applications.

Amendment

(19) Developing capacity related to artificial intelligence is a crucial driver for the digital transformation of industry and also of the public sector. Ever more autonomous robots are used in factories, deep sea application, homes, cities and hospitals. Commercial artificial intelligence platforms have moved from testing to real applications in health and environment; all major car manufacturers are developing self-driving cars, and machine learning techniques are at the heart of all main web platforms and big data applications. ***European leadership in artificial intelligence can only be attained if Union intervention in this area also focusses on enhancing the Union's attractiveness to European and***

international researchers, thereby reducing brain drain.

Amendment 14

Proposal for a regulation

Recital 20

Text proposed by the Commission

(20) The availability of large-scale data sets and testing and experimentation facilities are of major importance for the development of artificial intelligence.

Amendment

(20) The availability of large-scale data sets and testing and experimentation facilities are of major importance for the development of artificial intelligence. ***At the same time, these large-scale data sets need to be secure and comply with Regulation No 2016/679.***

Amendment 15

Proposal for a regulation

Recital 21

Text proposed by the Commission

(21) In its resolution of 1 June 2017 on digitising European industry⁶⁴ the European Parliament highlighted the importance of a common European cybersecurity approach, recognising the need to raise awareness and considered cyber-resilience as a crucial responsibility for business leaders and national and European industrial security policymakers.

Amendment

(21) In its resolution of 1 June 2017 on digitising European industry⁶⁴ the European Parliament highlighted the importance of a common European cybersecurity approach, recognising the need to raise awareness and considered cyber-resilience as a crucial responsibility for business leaders and national and European industrial security policymakers. ***Furthermore, in its resolution of 3 October 2017 on the fight against cybercrime the European Parliament underlined the fact that cross-border cybercrime is increasing rapidly which makes it necessary to urgently step up the response at Union and Member State level, and furthermore stressed that, next to the necessary legal measures, the fight against cybercrime is first and foremost about technological challenges, in particular safeguarding and hardening critical infrastructures and other***

⁶⁴ Document ref. A8-0183/2017, available at:
<http://www.europarl.europa.eu/sides/getDoc.do?type=TA&language=EN&reference=P8-TA-2017-0240>

⁶⁴ Document ref. A8-0183/2017, available at:
<http://www.europarl.europa.eu/sides/getDoc.do?type=TA&language=EN&reference=P8-TA-2017-0240>

Amendment 16

Proposal for a regulation Recital 22

Text proposed by the Commission

(22) Cybersecurity is a challenge for the whole Union that cannot continue to be addressed only with fragmented national initiatives. Europe's cybersecurity capacity should be reinforced to endow Europe with the necessary capacities to protect its citizens *and* businesses from cyber threats. In addition consumers should be protected when using connected products that can be hacked and compromise their safety. This should be achieved together with Member States and private sector by developing, and ensuring coordination between, projects reinforcing Europe's capacities in cybersecurity and ensuring the wide deployment of latest cybersecurity solutions across the economy, as well as by aggregating the competences in this field to ensure critical mass and excellence.

Amendment

(22) Cybersecurity is a challenge for the whole Union that cannot continue to be addressed only with fragmented national initiatives. Europe's cybersecurity capacity should be reinforced to endow Europe with the necessary ***technological*** capacities ***and legislation*** to protect its citizens, businesses, ***public institutions and democracy*** from cyber threats ***and attacks***. In addition consumers should be protected when using connected products that can be hacked and compromise their safety. This should be achieved together with Member States and private sector by developing, and ensuring coordination between, projects reinforcing Europe's capacities in cybersecurity and ensuring the wide deployment of latest cybersecurity solutions across the economy, ***including by promoting public-private cooperation and by means of awareness raising measures,*** as well as by aggregating the competences in this field to ensure critical mass and excellence.

Amendment 17

Proposal for a regulation Recital 24

(24) Trust is a prerequisite for the Digital Single Market to function. Cybersecurity technologies such as digital identities, cryptography or intrusion detection, and their application in areas such as finance, industry 4.0, energy, transportation, healthcare, or e-government are essential to safeguard the security and trust of online activity and transactions by both citizens, public administrations, and companies.

(24) Trust is a prerequisite for the Digital Single Market to function. Cybersecurity technologies such as digital identities, cryptography, **encryption** or intrusion detection, and their application in areas such as finance, industry 4.0, energy, transportation, healthcare, or e-government are essential to safeguard the security and trust of online activity and transactions by both citizens, public administrations, and companies.

Amendment 18

Proposal for a regulation Recital 28

(28) The advanced digital technologies supported by this Programme, such as high performance computing, cybersecurity and artificial intelligence are now sufficiently mature to move beyond the research arena and be deployed, implemented and scaled-up at Union level. Just as the deployment of these technologies require a Union response so does the skills dimension. Training opportunities in advanced digital skills need to be scaled up, increased and made accessible throughout the EU. Failing this could impede the smooth deployment of advanced digital technologies and hamper the overall competitiveness of Union's economy. The actions supported by this programme are complementary to those supported by the ESF, ERDF and Horizon Europe programmes.

(28) The advanced digital technologies supported by this Programme, such as high performance computing, cybersecurity and artificial intelligence are now sufficiently mature to move beyond the research arena and be deployed, implemented and scaled-up at Union level. Just as the deployment of these technologies require a Union response so does the skills dimension. Training opportunities in advanced digital skills need to be scaled up, increased and made accessible throughout the EU **to tackle the digital divide that is based on social-structural factors, such as income, gender or age**. Failing this could impede the smooth deployment of advanced digital technologies and hamper the overall competitiveness of Union's economy. The actions supported by this programme are complementary to those supported by the ESF, ERDF and Horizon Europe programmes.

Amendment 19

Proposal for a regulation

Recital 28

Text proposed by the Commission

(28) The advanced digital technologies supported by this Programme, such as high performance computing, cybersecurity and artificial intelligence are now sufficiently mature to move beyond the research arena and be deployed, implemented and scaled-up at Union level. Just as the deployment of these technologies require a Union response so does the skills dimension. Training opportunities in advanced digital skills need to be scaled up, increased and made accessible throughout the EU. Failing this could impede the smooth deployment of advanced digital technologies and hamper the overall competitiveness of Union's economy. The actions supported by this programme are complementary to those supported by the ESF, ERDF and Horizon Europe programmes.

Amendment

(28) The advanced digital technologies supported by this Programme, such as high performance computing, cybersecurity, ***data protection*** and artificial intelligence are now sufficiently mature to move beyond the research arena and be deployed, implemented and scaled-up at Union level. Just as the deployment of these technologies require a Union response so does the skills dimension. Training opportunities in advanced digital skills need to be scaled up, increased and made accessible throughout the EU. Failing this could impede the smooth deployment of advanced digital technologies and hamper the overall competitiveness of Union's economy. The actions supported by this programme are complementary to those supported by the ESF, ERDF and Horizon Europe programmes.

Amendment 20

Proposal for a regulation Recital 29

Text proposed by the Commission

(29) Modernising public administrations and services through digital means is crucial to reducing administrative burden ***on industry and*** on citizens ***in general*** by making their interactions with public authorities faster, more convenient and less costly, as well as by increasing the efficiency and the quality of the services provided to citizens and businesses. Since a number of services of public interest already have a Union dimension, the support to their implementation and deployment at Union level should ensure that citizens and businesses ***will*** benefit from the access to high quality digital services across Europe.

Amendment

(29) Modernising public administrations and services through digital means is crucial to reducing administrative burden on citizens ***and industry*** by making their interactions with public authorities faster, more convenient and less costly, as well as by increasing the efficiency and the quality of the services provided to citizens and businesses ***while at the same time increasing the efficiency of public spending***. Since a number of services of public interest already have a Union dimension, the support to their implementation and deployment at Union level should ensure that citizens and businesses ***may*** benefit from the access to

high quality digital services across Europe.
It is also important that these services be accessible to people with disabilities.

Amendment 21

Proposal for a regulation Recital 30

Text proposed by the Commission

(30) The digital transformation of the areas of public interest such as healthcare⁶⁸, mobility, justice, earth/environmental monitoring, education and culture requires the continuation and expansion of Digital Service Infrastructures, which make secure cross-border exchange of data possible and foster national development. Their coordination under this Regulation best achieves the potential for exploiting synergies.

⁶⁸

http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=51628

Amendment

(30) The digital transformation of the areas of public interest such as healthcare⁶⁸, mobility, justice, earth/environmental monitoring, ***security***, education and culture requires the continuation and expansion of Digital Service Infrastructures, which make secure cross-border exchange of data possible and foster national development. Their coordination under this Regulation best achieves the potential for exploiting synergies.

⁶⁸

http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=51628

Amendment 22

Proposal for a regulation Recital 32

Text proposed by the Commission

(32) The modernisation of European public administrations is one of the key priorities for successful implementation of the Digital Single Market Strategy. The mid-term evaluation of the Strategy highlighted the need to strengthen the transformation of public administrations and to ensure citizens have easy, trusted, and seamless access to public services.

Amendment

(32) The modernisation of European public administrations is one of the key priorities for successful implementation of the Digital Single Market Strategy. The mid-term evaluation of the Strategy highlighted the need to strengthen the transformation of public administrations and to ensure citizens have easy, trusted, ***secure*** and seamless access to public services.

Amendment 23

Proposal for a regulation Recital 34

Text proposed by the Commission

(34) Interoperability of European public services concerns all levels of administration: Union, national, regional and local. Besides removing barriers to a functioning Single Market, interoperability facilitates successful implementation of policies and offers great potential to avoid cross-border electronic barriers, further securing the emergence of new, or the consolidation of developing, common public services at Union level. In order to eliminate fragmentation of European services, to support fundamental freedoms and operational mutual recognition in the EU, a holistic cross-sector and cross-border approach to interoperability should be promoted in the manner that is the most effective, **and** the most responsive to end-users. This implies that interoperability is to be understood in a broad sense, spanning from technical to legal layers and encompassing policy elements in the field. Accordingly, the span of activities would go beyond the usual lifecycle of solutions to include all the interventions elements that would support the necessary framework conditions for sustained interoperability at large.

Amendment

(34) Interoperability of European public services concerns all levels of administration: Union, national, regional and local. Besides removing barriers to a functioning Single Market, interoperability facilitates successful implementation of policies and offers great potential to avoid cross-border electronic barriers, further securing the emergence of new, or the consolidation of developing, common public services at Union level **as well as preventing unnecessary double-storage**. In order to eliminate fragmentation of European services, to support fundamental freedoms and operational mutual recognition in the EU, a holistic cross-sector and cross-border approach to interoperability should be promoted in the manner that is the most effective, the most responsive to end-users **and that ensures a high level of data protection**. This implies that interoperability is to be understood in a broad sense, spanning from technical to legal layers and encompassing policy elements in the field. Accordingly, the span of activities would go beyond the usual lifecycle of solutions to include all the interventions elements that would support the necessary framework conditions for sustained interoperability at large.

Amendment 24

Proposal for a regulation Recital 40

Text proposed by the Commission

(40) ***The General Data Protection Regulation (GDPR), applicable from May 2018 onwards***, by providing for a single

Amendment

(40) Regulation **(EU) 2016/679** by providing for a single set of rules directly applicable in the Member States legal

set of rules directly applicable in the Member States legal orders, ***will guarantee*** the free flow of personal data between EU Member States and ***reinforce*** trust and security of the individuals, two indispensable elements for a real Digital Single Market. ***The*** actions undertaken under this Programme, when they involve the processing of personal data, should therefore ***support the application of the GDPR, for instance in the field of artificial intelligence and blockchain technology.***

orders ***guarantees*** the free flow of personal data between EU Member States and ***reinforces*** trust and security of the individuals, two indispensable elements for a real Digital Single Market. ***All*** actions undertaken under this Programme, when they involve the processing of personal data, should therefore ***be in full compliance with that Regulation. They should especially support the development of digital technologies that comply with the ‘data protection by design’ obligations which are binding pursuant to that Regulation to the extent that the processing involves electronic communications data, due respect is to be paid to Directive 2002/58/EC of the European Parliament and of the Council.^{1a}***

^{1a} Directive 2002/58/EC 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) (OJ L 201, 31.7.2002, p. 37).

Amendment 25

Proposal for a regulation Recital 40

Text proposed by the Commission

(40) The General Data Protection Regulation (GDPR), applicable from May 2018 onwards, by providing for a single set of rules directly applicable in the Member States legal orders, will guarantee the free flow of personal data between EU Member States and reinforce trust and security of the individuals, two indispensable elements for a real Digital Single Market. The actions undertaken under this Programme, when they involve the processing of

Amendment

(40) The General Data Protection Regulation (GDPR), applicable from May 2018 onwards, by providing for a single set of rules directly applicable in the Member States legal orders, will guarantee the free flow of personal data between EU Member States and reinforce trust and security of the individuals, two indispensable elements for a real Digital Single Market. The actions undertaken under this Programme, when they involve the processing of

personal data, should therefore support the application of the GDPR, for instance in the field of artificial intelligence *and blockchain technology*.

personal data, should therefore support the application of the GDPR, for instance in the field of artificial intelligence. *They should especially support the development of digital technologies that comply with the “data protection by design” obligations which are binding pursuant to the GDPR.*

Amendment 26

Proposal for a regulation Recital 42

Text proposed by the Commission

(42) Bodies implementing this Programme should *comply with the provisions applicable to the Union institutions, and with national* legislation regarding the handling of information, *in particular sensitive non-classified information and EU classified information*.

Amendment

(42) *To the extent that* bodies implementing this Programme *handle sensitive non-classified information or Union classified information, they* should *respect the relevant* provisions *laid down in Union acts or national* legislation regarding the handling of information, *as applicable*.

Amendment 27

Proposal for a regulation Article 2 – paragraph 1 – point e

Text proposed by the Commission

(e) 'Digital Innovation Hub' means legal entity designated or selected in an open *and competitive* procedure in order to fulfil the tasks under the Programme, in particular providing access to technological expertise and experimentation facilities, such as equipment and software tools to enable the digital transformation of the industry.

Amendment

(e) 'Digital Innovation Hub' means legal entity designated or selected in an open procedure in order to fulfil the tasks under the Programme, in particular providing access to technological expertise and experimentation facilities, such as equipment and software tools to enable the digital transformation of the industry *or software to enhance citizens' privacy*.

Amendment 28

Proposal for a regulation Article 3 – paragraph 1 – introductory part

Text proposed by the Commission

1. The Programme has the following general objective: to support the digital transformation of the European economy and society and bring its benefits to European citizens and businesses. The Programme will:

Amendment

1. The Programme has the following general objective: to support the digital transformation of the European economy and society and bring its benefits to European citizens, **workforce** and businesses. The Programme will:

Amendment 29

Proposal for a regulation

Article 3 – paragraph 2 – point a

Text proposed by the Commission

(a) Specific Objective 1: High Performance Computing

Amendment

(a) Specific Objective 1: **IT Infrastructure, including** High Performance Computing

Amendment 30

Proposal for a regulation

Article 4 – title

Text proposed by the Commission

High Performance Computing

Amendment

IT Infrastructure including High Performance Computing

Amendment 31

Proposal for a regulation

Article 4 – paragraph 1 – introductory part

Text proposed by the Commission

The financial intervention by the Union under Specific Objective 1. High Performance Computing shall pursue the following operational objectives:

Amendment

The financial intervention by the Union under Specific Objective 1. **IT Infrastructure, including** High Performance Computing shall pursue the following operational objectives:

Amendment 32

Proposal for a regulation
Article 4 – paragraph 1 – point c

Text proposed by the Commission

(c) deploy and operate a post-exascale⁷⁸ infrastructure, including the integration with quantum computing technologies and develop new research infrastructures for computing science.

⁷⁸ A thousand times faster than exascale

Amendment

(a) deploy and operate a post-exascale⁷⁸ infrastructure, including the integration with quantum computing technologies and develop new research infrastructures for **high-performance** computing science.

⁷⁸ A thousand times faster than exascale

Amendment 33

Proposal for a regulation
Article 5 – paragraph 1 – point a

Text proposed by the Commission

(a) build up and strengthen core artificial intelligence capacities in the Union, including data resources and libraries of algorithms in compliance with data protection legislation;

Amendment

(a) build up and strengthen core artificial intelligence capacities in the Union, including data resources and libraries of algorithms in **full** compliance with data protection legislation, **including the principle of data protection by design and by default, and the principle of security by design;**

Amendment 34

Proposal for a regulation
Article 5 – paragraph 1 – point b

Text proposed by the Commission

(b) make those capacities accessible to all businesses and public administrations;

Amendment

(b) make those capacities accessible to all businesses, **public research institutions** and public administrations;

Amendment 35

Proposal for a regulation

Article 5 – paragraph 1 – point c

Text proposed by the Commission

(c) reinforce **and network** existing artificial intelligence testing and experimentation facilities in Member States;

Amendment

(c) reinforce existing **ethical** artificial intelligence testing and experimentation facilities in Member States **and facilitate cooperation between such facilities across the Union;**

Amendment 36

Proposal for a regulation

Article 5 – paragraph 1 – point c a (new)

Text proposed by the Commission

Amendment

(c a) develop and integrate ethical guidelines for artificial intelligence, taking into account research and evaluation of possible implications of artificial intelligence, including autonomous systems powered by artificial intelligence, on society.

Amendment 37

Proposal for a regulation

Article 6 – paragraph 1 – point a

Text proposed by the Commission

(a) support, together with Member States, the procurement of advanced cybersecurity equipment, tools and data infrastructures in **full** compliance with data protection legislation;

Amendment

(a) support, together with Member States, the procurement of advanced cybersecurity equipment, tools and data infrastructures in **order to achieve a common high level of cybersecurity at Union level, in full support of and compliance with data protection legislation, including data protection and privacy by design;**

Amendment 38

Proposal for a regulation

Article 6 – paragraph 1 – point b

Text proposed by the Commission

(b) support the best use of European knowledge, capacity and skills related to cybersecurity;

Amendment

(b) support the ***development, exchange and*** best use of European knowledge, capacity and skills related to cybersecurity, ***including through more training and education***;

Amendment 39

Proposal for a regulation

Article 6 – paragraph 1 – point c

Text proposed by the Commission

(c) ensure a wide deployment of the latest cybersecurity solutions across the economy;

Amendment

(c) ensure a wide deployment of the latest cybersecurity solutions across the economy, ***including by raising awareness about those solutions among businesses and citizens and through code auditing of free and open source software***;

Amendment 40

Proposal for a regulation

Article 6 – paragraph 1 – point d

Text proposed by the Commission

(d) reinforce capabilities within Member States and private sector to help them meet Directive (EU) 2016/1148 of the European Parliament and of the Council of 6 July 2016 concerning measures for a high common level of security of network and information systems across the Union⁷⁹.

Amendment

(d) reinforce capabilities within Member States and ***the*** private sector to help them meet ***the requirements laid down in*** Directive (EU) 2016/1148 of the European Parliament and of the Council of 6 July 2016 concerning measures for a high common level of security of network and information systems across the Union⁷⁹.

⁷⁹ OJ L 194, 19.7.2016, p. 1–30

⁷⁹ OJ L 194, 19.7.2016, p. 1–30

Amendment 41

Proposal for a regulation
Article 7 – paragraph 1 – introductory part

Text proposed by the Commission

The financial intervention by the Union under Specific Objective 4. Advanced Digital skills shall support the development of advanced digital skills in areas supported by this programme, thus contributing to increase Europe's talent pool, fostering greater professionalism, especially with regard to high performance computing, big data analytics, cybersecurity, ***distributed ledger technologies***, robotics and artificial intelligence. The financial intervention shall pursue the following operational objectives:

Amendment

The financial intervention by the Union under Specific Objective 4. Advanced Digital skills shall support the development of advanced digital skills in areas supported by this programme, thus contributing to increase Europe's talent pool, fostering greater professionalism, especially with regard to high performance computing, big data analytics, cybersecurity, robotics and artificial intelligence. The financial intervention shall pursue the following operational objectives:

Amendment 42

Proposal for a regulation
Article 7 – paragraph 1 – point a

Text proposed by the Commission

(a) support the design and delivery of long-term trainings and courses for students, IT professionals and the workforce;

Amendment

(a) support the design and delivery of long-term ***and requalification*** trainings and courses for students, IT professionals and the workforce, ***including for work-seekers***;

Amendment 43

Proposal for a regulation
Article 7 – paragraph 1 – point b

Text proposed by the Commission

(b) support the design and delivery of short-term trainings and courses for entrepreneurs, small business leaders and the workforce;

Amendment

(b) support the design and delivery of short-term trainings and courses for entrepreneurs, small business leaders, ***innovators*** and the workforce;

Amendment 44

Proposal for a regulation

Article 7 – paragraph 1 – point c

Text proposed by the Commission

(c) support on-the-job trainings and traineeships for students, young entrepreneurs and graduates.

Amendment

(c) support on-the-job trainings and traineeships for students, young entrepreneurs and graduates **and the workforce**.

Amendment 45

Proposal for a regulation

Article 8 – paragraph 1 – point a

Text proposed by the Commission

(a) ensure that the public sector and areas of public interests, such as health and care, education, judiciary, transport, energy, environment, cultural and creative sectors, can deploy and access state-of-the-art digital technologies, in particular high performance computing, artificial intelligence and cybersecurity;

Amendment

(a) ensure that the public sector and areas of public interests, such as health and care, education, judiciary, **security**, transport, energy, environment, cultural and creative sectors, can deploy and access state-of-the-art digital technologies, in particular high performance computing, artificial intelligence and cybersecurity;

Amendment 46

Proposal for a regulation

Article 8 – paragraph 1 – point b

Text proposed by the Commission

(b) deploy, operate and maintain trans-European interoperable Digital Service Infrastructures (including related services) in complementarity with national and regional actions;

Amendment

(b) deploy, operate and maintain trans-European interoperable **state-of-the-art** Digital Service Infrastructures (including related services) in complementarity with national and regional actions;

Justification

Aligned with point (a).

Amendment 47

Proposal for a regulation

Article 8 – paragraph 1 – point c

Text proposed by the Commission

(c) facilitate the development, update and use of solutions and frameworks by European public administrations, businesses and citizens, including the re-use of interoperability solutions and frameworks;

Amendment

(c) facilitate the development, update and use of solutions and frameworks by European public administrations, businesses and citizens, including ***open source and*** the re-use of interoperability solutions and frameworks;

Amendment 48

Proposal for a regulation

Article 8 – paragraph 1 – point f

Text proposed by the Commission

(f) support the design, testing, implementation and deployment of interoperable digital solutions for EU level public services delivered through a data-driven reusable solutions platform, fostering innovation and establishing common frameworks in order to unleash the full potential of the public administrations' services for European citizens and businesses;

Amendment

(f) support the design, testing, implementation and deployment of interoperable digital solutions for EU level public services delivered through a data-driven reusable solutions platform, fostering innovation and ***creativity, and*** establishing common frameworks in order to unleash the full potential of the public administrations' services for European citizens and businesses;

Amendment 49

Proposal for a regulation

Article 8 – paragraph 1 – point h

Text proposed by the Commission

(h) support cooperation towards achieving a European ecosystem for trusted infrastructures ***using distributed ledger services and applications***, including support for interoperability and standardisation and fostering the deployment of EU cross-border applications;

Amendment

(h) support cooperation towards achieving a European ecosystem for trusted infrastructures, including support for interoperability, ***encryption*** and standardisation and fostering the deployment of EU cross-border applications;

Amendment 50

Proposal for a regulation

Article 8 – paragraph 1 – point i

Text proposed by the Commission

(i) build up **and** strengthen the network of Digital Innovation Hubs.

Amendment

(i) build up, strengthen **and promote** the network of Digital Innovation Hubs.

Amendment 51

Proposal for a regulation

Article 9 – paragraph 2 – point b

Text proposed by the Commission

(b) up to EUR **2 498 369 000** for Specific Objective 2, Artificial Intelligence

Amendment

(b) up to EUR **2 248 533 000** for Specific Objective 2, Artificial Intelligence

Amendment 52

Proposal for a regulation

Article 9 – paragraph 2 – point c

Text proposed by the Commission

(c) up to EUR **1 998 696 000** for Specific Objective 3, Cybersecurity and Trust

Amendment

(c) up to EUR **2 248 532 000** for Specific Objective 3, Cybersecurity and Trust

Amendment 53

Proposal for a regulation

Article 11 – paragraph 1 a (new)

Text proposed by the Commission

Amendment

1 a. Planning, development and procurement in the Programme shall be done with a view to enhancing Union competitiveness in the medium and long term. Priority shall be given to actions that increase the strategic potential and

limit the dependence on suppliers and products from outside the Union.

Justification

A European independence from suppliers from outside of Europe is not only relevant for a competitive industry, but also for securing the EU against foreign attacks on its digital and critical infrastructures. In order to achieve that, medium and long term objectives need to be favoured.

Amendment 54

Proposal for a regulation

Article 16 – paragraph 2 – introductory part

Text proposed by the Commission

2. For the purpose of the establishment of the network mentioned in paragraph 1, each Member State shall designate candidate entities through an open and competitive process, on the basis of the following criteria:

Amendment

2. For the purpose of the establishment of the network mentioned in paragraph 1, each Member State shall designate candidate entities, ***based on harmonised rules***, through an open, ***transparent*** and competitive process, on the basis of the following criteria:

Amendment 55

Proposal for a regulation

Article 16 – paragraph 2 – point a a (new)

Text proposed by the Commission

Amendment

(a a) social and ecological criteria, as well as the involvement of labour associations, the workforce, trade unions, social partners and civil society.

Amendment 56

Proposal for a regulation

Article 16 – paragraph 4

Text proposed by the Commission

Amendment

4. Additional Digital Innovation Hubs

4. Additional Digital Innovation Hubs

shall be selected on the basis of an open ***and competitive*** process, in such a way to ensure the widest geographical coverage across Europe. The number of entities of the network shall be proportional to the population of a given Member States and there shall be at least one Digital Innovation Hub per Member State. To address the specific constraints faced by the EU outermost regions, specific entities may be nominated to cover their needs.

shall be selected on the basis of an open process, in such a way to ensure the widest geographical coverage ***and the involvement of the workforce, trade unions, social partners, civil society and companies*** across Europe. The number of entities of the network shall be proportional to the population of a given Member States and there shall be at least one Digital Innovation Hub per Member State. To address the specific constraints faced by the EU outermost regions, specific entities may be nominated to cover their needs.

Amendment 57

Proposal for a regulation

Article 16 – paragraph 6 – point d a (new)

Text proposed by the Commission

Amendment

(d a) continuously transfer the expertise and know-how developed by this program to the general public to ensure the highest possible transparency for society at large, for example at dialogue events involving scientists, the workforce, civil society and industry.

Amendment 58

Proposal for a regulation

Article 20 – paragraph 1 – point e

Text proposed by the Commission

Amendment

(e) where applicable, the economic, social, climate and environmental impact, and accessibility;

(e) the impact on society, workforce, economy, climate, environment and accessibility;

Amendment 59

Proposal for a regulation

Article 20 – paragraph 1 – point e

Text proposed by the Commission

(e) where applicable, the economic, social, climate and environmental impact, and accessibility;

Amendment

(e) where applicable, the economic, social, climate and environmental impact, ***gender balance opportunities***, and accessibility;

PROCEDURE – COMMITTEE ASKED FOR OPINION

Title	Establishing the Digital Europe programme for the period 2021-2027						
References	COM(2018)0434 – C8-0256/2018 – 2018/0227(COD)						
Committee responsible Date announced in plenary	ITRE 14.6.2018						
Opinion by Date announced in plenary	LIBE 14.6.2018						
Rapporteur Date appointed	Jeroen Lenaers 9.7.2018						
Date adopted	5.11.2018						
Result of final vote	<table> <tr> <td>+: </td><td>34</td></tr> <tr> <td>–: </td><td>1</td></tr> <tr> <td>0: </td><td>4</td></tr> </table>	+:	34	–:	1	0:	4
+:	34						
–:	1						
0:	4						
Members present for the final vote	Heinz K. Becker, Monika Beňová, Michał Boni, Daniel Dalton, Frank Engel, Cornelia Ernst, Kinga Gál, Ana Gomes, Sophia in 't Veld, Eva Joly, Dietmar Köster, Barbara Kudrycka, Cécile Kashetu Kyenge, Juan Fernando López Aguilar, Roberta Metsola, Claude Moraes, Ivari Padar, Judith Sargentini, Giancarlo Scottà, Birgit Sippel, Csaba Sógor, Sergei Stanishev, Helga Stevens, Traian Ungureanu, Marie-Christine Vergiat, Josef Weidenholzer, Kristina Winberg, Auke Zijlstra						
Substitutes present for the final vote	Carlos Coelho, Pál Csáky, Maria Grapini, Sylvia-Yvonne Kaufmann, Maite Pagazaurtundúa Ruiz, Morten Helveg Petersen, Barbara Spinelli						
Substitutes under Rule 200(2) present for the final vote	Petras Auštrevičius, Rupert Matthews, Martina Michels						

FINAL VOTE BY ROLL CALL IN COMMITTEE ASKED FOR OPINION

34	+
ALDE	Petras Auštrevičius, Sophia in 't Veld, Maite Pagazaurtundúa Ruiz, Morten Helveg Petersen
ENF	Giancarlo Scottà
GUE/NGL	Cornelia Ernst, Martina Michels, Barbara Spinelli, Marie-Christine Vergiat
PPE	Heinz K. Becker, Michał Boni, Carlos Coelho, Pál Csáky, Frank Engel, Kinga Gál, Barbara Kudrycka, Jeroen Lenaers, Roberta Metsola, Csaba Sógor, Traian Ungureanu
S&D	Monika Beňová, Ana Gomes, Maria Grapini, Sylvia-Yvonne Kaufmann, Dietmar Köster, Cécile Kashetu Kyenge, Juan Fernando López Aguilar, Claude Moraes, Ivari Padar, Birgit Sippel, Sergei Stanishev, Josef Weidenholzer
VERTS/ALE	Eva Joly, Judith Sargentini

1	-
ENF	Auke Zijlstra

4	0
ECR	Daniel Dalton, Rupert Matthews, Helga Stevens, Kristina Winberg

Key to symbols:

+ : in favour

- : against

0 : abstention