



***European Economic and Social Committee***

**TEN/677**  
**Digital Europe programme**

## **OPINION**

European Economic and Social Committee

**Proposal for a Regulation of the European Parliament and of the Council establishing the  
Digital Europe programme for the period 2021-2027**  
[COM(2018) 434 final – 2018/0227 (COD)]

Rapporteur: **Norbert KLUGE**  
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Consultation	European Parliament referral, 14/06/2018 Council referral, 25/06/2018
Legal basis	Articles 172, 173(3) and 304 of the Treaty on the Functioning of the European Union
Date of Bureau decision	19/06/2018
Section responsible	Transport, Energy, Infrastructure and the Information Society
Adopted in section	04/10/2018
Adopted at plenary	17/10/2018
Plenary session No	538
Outcome of vote (for/against/abstentions)	212/0/2

## 1. Conclusions and recommendations

- 1.1 The European Economic and Social Committee (EESC) welcomes the fact that the European Commission has established a Digital Europe programme, which underscores the intention to make Europe a leading player in digitalisation and to increase its economic strength and competitiveness on the world stage. The aim of the Digital Europe programme is to enable a digital single market and to shape the digital transformation in a positive way for all citizens of Europe. This programme has the potential to have a successful impact, but only if the as yet unknown details are arranged correctly.
- 1.2 Researchers are among the drivers of social and economic development, Skills and capabilities are the prerequisite for a high level of research and for the practical implementation of the programme. They are thus among the key factors in the programme's success. The EESC notes that the programme therefore places great value on the promotion of research and development.
- 1.3 In order to ensure that the results of research and development are disseminated and benefit all European Union (EU) citizens, the EESC would like to step up dialogue between researchers, the social partners and civil society organisations. Complex issues must be presented in such a way that they can be understood and followed by non-experts. The EESC also suggests that the programme should be linked with the principles of research funding under Horizon 2020 (Horizon Europe), which are based *inter alia* on the European Charter for Researchers and the principles of "responsible research and innovation" and "open science".
- 1.4 The EESC takes a positive view of the fact that support for digital skills has been made a key element in the programme. Digital knowledge and skills are the prerequisite for being able to achieve the other four priorities. It is regrettable that the budget for this priority is lower than that for the others. The EESC therefore supports the European Parliament's proposal that the budget should be increased from EUR 700 million (7.6% of the total budget) to EUR 830 million (9% of the total budget). It also stresses, however, that it is primarily the Member States, and their national budgets, that are responsible for education issues. The EESC notes that the budgets for digital training differ greatly between the EU Member States. It therefore calls upon the Commission to remind the Member States of their own large responsibility in this field to ensure that all people can benefit equally from digitalisation.
- 1.5 The EESC sees the need to train and recruit highly qualified young people in order to improve the attractiveness of Europe as a place of employment for this group in the global marketplace. At the same time, the EESC also emphasises that the programme must not focus solely on specific efforts to gain high-level and advanced digital skills and capacities. There should be comprehensive support for businesses, workers and consumers for the introduction and use of both basic and advanced digital technologies, as this is of decisive importance for the quantity and quality of jobs in Europe, and for its competitiveness. The EESC notes that there are still many companies, workers and citizens who lack basic technical equipment and skills. In this connection, the EESC would refer to the European Council conclusions of 19 October 2017, which state that investment in digital skills should aim "to empower and enable all Europeans"<sup>1</sup>.

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<sup>1</sup> [EUCO 14/17 – European Council meeting \(19 October 2017\) – Conclusions.](#)

- 1.6 The Digital Europe programme will be successful in this field if it "takes the lead" and maintains contact with other EU support programmes with similar objectives. Funds from the ESF+, for instance, must be included in the financing of key measures.
- 1.7 The EESC hopes that the social partners and civil society will be involved as a matter of course in the implementation of the digital innovation hubs. They should be given access to the digital innovation hubs. As non-governmental organisations, they can make the impact of the innovation hubs more visible and enhance their acceptance.

The EESC would, right from the outset, like to avoid a possible social imbalance in the implementation of the programme. As digitalisation affects all people and all areas of life, it is of the utmost importance that everyone in the EU can benefit from it. The EESC therefore considers it important to design the programme such that the advantages and opportunities of digital Europe can be seized by all parts of European society. Digitalisation in Europe must be made inclusive. People must not be excluded from digital progress on account of factors like gender, social status, education level, skills, digital capabilities, origin, age or disability. The resultant "digital dividend" must be distributed fairly, by means of appropriate policy measures. It must not only benefit a small number of stakeholders. Measures to implement the programme must take account of the principle in the EU that individuals are the owners of their data and will remain so.

- 1.8 The EESC would like the programme to be more closely tied to social realities. The effects on labour market policy and variations in the impact of digitalisation on the regions need to be taken into account. It therefore feels that an essential criterion for the success of the programme will be for digitalisation to lead to economic participation and jobs across all the regions of Europe.
- 1.9 The EESC would like the EU to be viewed as an actor on the global stage that communicates knowledge and can keep pace with China and the US in the international marketplace. This also includes businesses and workers trusting the technology. The Digital Europe programme can create added value particularly in areas where individual countries cannot achieve much on their own. This applies in particular to the objective of cybersecurity, involving the joint development of methods and strategies to combat cyber attacks originating outside of Europe. This includes, for instance, establishing an independent European microchip industry.
- 1.10 The EESC supports ethical principles being observed in any and all activity under the programme. In this context, the EESC would like to reiterate its demand that the "human in command" principle be enforced, especially in the further development and application of AI in the workplace. Based on such ethical principles, further statutory measures (e.g. regarding liability issues, data protection, worker protection and consumer protection) are essential. In the final analysis, the further digitalisation of our society will only be successful if appropriate cultural developments to sensitise people to benefits and risks are promoted alongside legislation.

## 2. Background – the Digital Europe programme

- 2.1 On 2 May 2018, the Commission adopted a proposal for the next Multiannual Financial Framework for 2021-2027. As part of this framework, on 6 June 2018 the Commission published a Regulation establishing the Digital Europe programme for the period 2021-2027.
- 2.2 The Commission's aim with the Digital Europe programme is to give the Digital Single Market strategy a sound financial framework and to bridge the investment gap, for which purpose it has set aside a total budget of EUR 9.2 billion. The general objective of the programme is to support the digitalisation of industry. The aim is to increase the gains from the digital transformation, to the benefit of all European citizens, public administrations and businesses in the EU.
- 2.3 The Digital Europe programme covers five specific objectives: (1) high performance computing, (2) artificial intelligence, (3) cybersecurity and trust, (4) advanced digital skills, and (5) ensuring widespread use of digital technologies throughout the economy and society. It also deals with the digitalisation of industry.
- 2.4 The "high performance computing" objective involves using supercomputers to create capacities to improve the ability to process the ever-increasing quantities of data. With a budget of EUR 2.7 billion, the programme is intended to increase the EU's capacities in high performance computing and data processing and make full use of those capacities in tackling climate change and improving health care and security.
- 2.5 The Commission wants to use the EUR 2.5 billion budgeted for artificial intelligence (AI) to build up and strengthen the EU's capacities in this area. This will include enabling the development and storage of, and secure access to, large datasets and algorithms. Existing AI testing and experimentation facilities in the Member States will also be reinforced, and cooperation between institutions will be promoted. The technological progress achieved will be used by businesses and public institutions.
- 2.6 The EUR 2 billion allocated to "cybersecurity and trust" will be used to ensure that the EU has the technological and industrial capacities it needs to secure its economy, society and democracy. These investments will be used *inter alia* to co-invest with the Member States in advanced cybersecurity equipment and tools, to ensure the deployment of the latest cybersecurity solutions in all sectors of the economy, to make the best possible use of existing European knowledge, and to reinforce capabilities in this area in the Member States and the private sector.
- 2.7 In order to capitalise on investment in digital technology, we need an empowered society and workforce. The Commission is allocating EUR 700 million to the fourth specific objective of promoting advanced digital skills, particularly in high performance computing, artificial intelligence, distributed ledgers (e.g. blockchain) and cybersecurity. The aim is to design and deliver long-term training and courses for students, IT professionals and the workforce, and also to support short-term training and courses, and on-the-job training. This training will primarily be delivered through digital innovation hubs.

- 2.8 Public administration and the provision of services in areas of public interest will be supported under the fifth specific objective. The EUR 1.3 billion budget will be used to ensure that the public sector and areas such as health and care, education, transport and the cultural and creative sectors can deploy and access state-of-the-art digital technologies. In addition, public administrations and industry – especially small and medium-sized enterprises (SMEs) – will be helped to introduce digital technologies.

### 3. **General comments**

- 3.1 Digitalisation and the changes to our working and living environments entailed by technological progress are omnipresent. There are barely any spheres of life that are not already affected.
- 3.2 The EESC welcomes the Commission's presentation of the Digital Europe programme, as it shows how much importance the Commission attaches to the subject. The priorities set may bring clear EU added value by promoting modern, cutting-edge technology that may help to tackle the most challenging issues of our time and have a positive impact on employment, competitiveness and the general living conditions of all citizens. This is confirmed by the fact that, in the communication on the multiannual financial framework, the Commission presents a scenario whereby investment in digital would be doubled<sup>2</sup>. The EESC also stresses the need for social investment in connection with the digital transformation, in order to ensure that society as a whole benefits from that transformation. It is highlighted that a person must always retain control of the machine (human in command) – especially in the field of AI.
- 3.3 The EESC is pleased that, with the Digital Europe programme, the Commission is supporting the introduction and optimal use of digital capacities. The EESC agrees with the Commission that digital capacities provide the basis for innovation in areas of general interest and in the economy. To achieve a positive digital transition in the EU, it is indispensable to have access to leading digital technologies and the right skills. The EESC considers the proposed budget to be substantial, but not comparable with that of the competition from the US and China. It is nevertheless convinced that the stated objectives can be achieved with this budget while warning that there will also need to be a substantial increase in investment in the EU Member States to maintain a world-class level in Europe.
- 3.4 The EESC considers it important that everything should be done to ensure that the whole of European society can participate in technological development. The aim of the Digital Europe programme should be to ensure that the digital dividend gained in various areas over the coming years and decades is distributed fairly among the entire population of Europe, such as the ownership of data. As digitalisation affects all people and all areas of life, it is of the utmost importance that everyone can benefit from it. The full economic and social benefits of digitalisation will only be delivered if Europe can provide high-capacity networks in urban and rural areas and across all of society. This will require public investment since, on its own, the market will not cover all remote areas and guarantee minimum digital access for the vulnerable members of our society.

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[COM\(2018\) 98 final](#).

- 3.5 For the EESC, it is important that a focused and coordinated approach in the EU can provide added value that the individual countries could not achieve on their own. This includes, in particular, establishing an independent European microchip industry via the support programme for high performance computing<sup>3</sup>, jointly developing methods and strategies to combat external cyber attacks<sup>4</sup>, setting standards for the digital single market, consistently applying the European General Data Protection Regulation, and further developing it in particular for applications relating to AI<sup>5</sup> and self-driving vehicles<sup>6</sup>. The application of European values (data protection, privacy, social protection, sustainability) in the development of AI could one day be a competitive advantage, when people become increasingly aware of third-party data usage methods (USA) and the surveillance potential of AI systems (China).
- 3.6 The EESC welcomes the fact that the Digital Europe programme repeatedly puts the spotlight on the digitalisation of industry. There is no doubt that the digital transformation can only succeed if all businesses and their workers can benefit from it. It would therefore be a good idea to integrate this aspect more consistently into the programme so that the progress made can be identified, for example by means of indicators of digitalisation among businesses of various sizes.
- 3.7 In order to boost technical and digital capacities, a large proportion of the budget will go to research projects and innovation programmes. The EESC emphasises the need for the support to be closely linked with the principles of research funding under Horizon 2020 (Horizon Europe), which are based *inter alia* on the European Charter for Researchers<sup>7</sup> and the principles of "responsible research and innovation"<sup>8</sup> and "open science"<sup>9</sup>. Compliance with these principles is the only way of ensuring that the research is undertaken in the interests of humanity. The research results should be made comprehensible to non-experts, disseminated and utilised. In short, the research should be relevant to society.
- 3.8 In order to ensure that the research is relevant to all of European society, dialogue sessions should be held on a regular basis, in which researchers can exchange views and inspiration both with each other and with society at large.
- 3.9 In this regard, it is good to see that one of the programme's aims is to allow public administrations and businesses to participate in development. The EESC is in favour of exchanges between the various stakeholders, and encourages the Commission to undertake such exchanges across all regions, sectors and business sizes. The take-up of advanced technologies

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3 [OJ C 283, 10.8.2018, p. 89.](#)

4 [OJ C 227, 28.6.2018, p. 86.](#)

5 [OJ C 288, 31.8.2017, p. 1](#), [INT/851](#) on Artificial Intelligence for Europe (not yet published in OJ), and TEN/664 on the Initiative addressing online platform challenges as regards the spreading of disinformation (not yet published in OJ).

6 [TEN/673](#) on Connected and automated mobility (not yet published in OJ), and [INT/846](#) on Trust, privacy and consumer security in the Internet of Things (IoT) (not yet published in OJ).

7 <https://euraxess.ec.europa.eu/jobs/charter>.

8 <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/science-and-society>.

9 <https://ec.europa.eu/research/openscience/>.

by businesses, and especially SMEs, can be facilitated by partnerships and a good environment for industry. The EESC also hopes that the partnership principle will be followed and that the social partners and civil society organisations will be involved in the implementation of the Digital Europe programme. The social dialogue between the social partners supports the implementation of the Digital Europe programme for the workers.

- 3.10 The EESC sees a need to train and recruit highly qualified young people in order to improve the attractiveness of Europe as a place of employment for this group in the global marketplace. At the same time, the EESC emphasises that the Digital Europe programme must not focus solely on highly qualified workers with advanced digital skills. Precisely because the programme aims to enable the digital single market and to shape the digital transition in a positive way, it is important for all citizens, and all workers, in the EU to be able to benefit from this robust funding programme. If this cannot be achieved, there is a risk that the social divide in Europe may widen further. As the EESC has pointed out in other opinions, the highest priority for achieving the digital single market is to close the skills gap, including with regard to digital skills<sup>10</sup>. The European Commission refers in its programme to support programmes such as ESF+ and the ERDF as ways of transmitting basic digital skills. However, the way these programmes are structured means that they cannot provide comprehensive support across Europe, and the Digital Europe programme should therefore also cover different skills levels. Should the necessary funds in this programme not suffice to guarantee that all people will benefit from digitalisation, these demands must be made of the other programmes, like ESF+. The Digital Europe programme should take the lead on this topic and maintain contact with the other programmes so that the objectives can be achieved. Otherwise, the various EU support programmes might end up being of benefit to only a minority of people.
- 3.11 In this connection, the EESC also highlights the objective of pursuing an inclusive society that fosters equality for all. People must not face any disadvantage in the digital transformation on account of factors like gender, social status, education, skills, digital capabilities, origin, age or disability.

#### **4. Specific comments**

- 4.1 The EESC supports the Commission's aim of facilitating access to digital capacities and technologies for businesses, especially SMEs. However, the programme's focus on advanced technologies overlooks the fact that, even now, many workers and businesses still need support with the basics of digitalisation. The EESC emphasises that providing businesses with comprehensive support for the introduction of both basic and advanced digital technology is of decisive importance for competitiveness and employment in Europe. The EESC encourages the social dialogue between the social partners to be held in relation to investments from the programme as well.
- 4.2 The EESC welcomes the specific focus on cybersecurity and trust in the programme. Cybersecurity is equally relevant for both the development and the functioning of our

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<sup>10</sup> [OJ C 71, 24.2.2016, p. 65.](#)



democracies. The trust of businesses and workers in cybersecurity is critical for the success of the programme.

- 4.3 The programme should be tied as closely as possible to social realities. The effects on labour market policy and the variations in the impact of digitalisation on the regions should be taken into account. The EESC therefore considers it important, when implementing the programme, to identify the opportunities that digitalisation creates for economic participation and jobs. It is also of the utmost importance to nurture these opportunities in the regions of Europe. The planned coordination with the European Regional Development Fund (ERDF) and the Cohesion Fund is a good way of achieving this. There should be regular exchanges between the Digital Europe programme, the ERDF and the Cohesion Fund. In addition, the innovation hubs set up on the ground in the regions should work towards the goal of regional development.
- 4.4 The fourth objective ("advanced digital skills") and the digitalisation of industry are intended to be implemented in particular via innovation hubs, which will serve as access points to the latest digital capacities. The EESC is pleased to see how well thought out the implementation of the programme is. It endorses the objective of establishing at least one digital innovation hub in each Member State and of giving additional hubs to Member States in the outermost regions of the EU. The EESC supports collaboration between the innovation hubs, but has concerns regarding the heavy administrative burden associated with the development of the innovation hubs. Cross-border consortia could be of assistance in this connection. In addition, the involvement of social partners and civil society should be a precondition for the digital innovation hubs: such involvement can ensure that the work done by the hubs is tailored to the needs of local businesses, workers and other users of the technologies, and made available to broad swathes of the population.
- 4.5 The specific objective of promoting advanced digital skills will be a key element in achieving the other four objectives, and it is therefore regrettable that it has a lower budget than the others. The EESC supports the European Parliament's proposal that the budget should be increased from EUR 700 million (7.6% of the total budget) to EUR 830 million (9% of the total budget)<sup>11</sup>. The EESC also stresses, however, that it is primarily the Member States, and their national budgets, that are responsible for education issues. However, the EESC doubts whether the Commission will be able to use all necessary means to sensitise the Member States to the urgency of digital education for all population groups from primary education upwards. Budgets for this task vary greatly between Member States. To ensure that no one is excluded from the training programmes on account of inadequate national budgets, the EU should closely monitor implementation of this objective and communicate its conclusions publicly.
- 4.6 The EESC agrees with the European Parliament<sup>12</sup> that all actions undertaken under the programme should comply with ethical principles. Particularly for work on artificial intelligence, the existing and future principles<sup>13</sup> need to be followed. In this context, the EESC

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<sup>11</sup> [Draft opinion 2018/0227 \(COD\)](#).

<sup>12</sup> [Draft report 2018/0227 \(COD\)](#).

<sup>13</sup> <https://ec.europa.eu/digital-single-market/en/high-level-expert-group-artificial-intelligence>.

would like to reiterate its call regarding the "human in command" principle, which is intended to act as a key guideline for future developments. Based on such ethical principles, further statutory measures (e.g. regarding liability issues, data protection and consumer protection) are essential. In the final analysis, the further digitalisation of our society will only be successful if an appropriate cultural development to sensitise people to benefits and risks is promoted alongside legislation.

- 4.7 The EESC would like the specific objective on artificial intelligence to focus, in addition to strengthening capacities and making them accessible, on the issue of legal liability in the use of AI and automated systems. It is positive to see that databases will also be made freely available to SMEs, The public sector should also be granted access. In addition, businesses need to be prepared for this work, and there needs to be clear legal guidance on who is liable in the events of accidents and such like. The protection of workers and citizens should have the same weight as the generation of economic growth.

Brussels, 17 October 2018.

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The president of the European Economic and Social Committee

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