



European Economic and Social Committee

INT/851

Artificial Intelligence for Europe

OPINION

European Economic and Social Committee

**Communication from the Commission to the European Parliament, the European Council,
the Council, the European Economic and Social Committee and the Committee of the Regions –
Artificial Intelligence for Europe
[COM(2018) 237 final]**

Rapporteur: **Giuseppe GUERINI**
Co-rapporteur: **Gonçalo LOBO XAVIER**

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1. Conclusions and Recommendations

- 1.1 The EESC believes that artificial intelligence ("AI") and automation processes have enormous potential to improve European society in terms of innovation and positive transformation, but they also pose significant challenges, risks and concerns. It is therefore essential that European institutions quickly and comprehensively set about developing and regulating AI fully.
- 1.2 An advanced approach to AI in Europe needs to cover several areas including: (i) public and private investment in R&D and in advanced digital infrastructures; (ii) implementation of new legislative rules or adaptation of the existing applicable ones; (iii) development of adequate knowledge and awareness among citizens and consumers, and (iv) dedicated training programmes for workers.
- 1.3 In particular the liability challenges that occur in the context of emerging digital technologies should be systematically identified and dealt with at international, EU and Member State levels and the EESC would like to collaborate closely with the EU institutions in the analysis and evaluation of all the EU legislation on liability, product safety and civil responsibility which deserve adequate changes.
- 1.4 The EESC agrees with the aim of the Commission's Communication, namely to strengthen the EU's industrial and technological capacity in order to spread AI across the internal market. The effort required to keep pace with other global players is so great that coordination among all the instruments and funding available at European and national levels is greatly needed.

Having said that, EU values and principles should not be sacrificed in the name of global competitiveness.

- 1.5 With regard to the Commission's aim of *bringing AI to all potential users, with a focus on small and medium-sized enterprises*, the EESC thinks that addressing the challenge of global competitiveness requires AI to be accessible to as many entities as possible. Hence, it is crucial to make it available to all the different forms of enterprises active across the European single market, including SMEs, farmers, social enterprises, cooperatives, individual businesses, and consumer associations.
- 1.6 The European Commission and the Member States should work together to develop guidelines on artificial intelligence ethics and should involve all the relevant public and private stakeholders in this effort. These guidelines will need to include principles of transparency in the use of AI systems to hire employees and assess or control their performance. In addition to ethical principles, the EESC suggests that a clear, harmonised and mandatory legal framework be developed at the European level to duly regulate AI and to update the existing rules affected by AI, with particular regard to those relating to producer liability and consumer protection. The EESC would like to collaborate closely with the EU institutions in the analysis and evaluation of the relevant EU legislation, which will, in the future, require changes due to the development of AI.

- 1.6.1 The European Commission will also have to carry out a careful evaluation of the effects of AI on the labour market. This examination must take into account both the possible replacement of some workers by electronic devices or robots and the fact that certain functions, while not being fully automated, will be profoundly changed by the new technologies.
- 1.7 For this reason, the EESC recommends that the stated desire that "no one should be left behind" should not remain a mere proposal or exhortation but ought to be translated into concrete facts.
- 1.8 It is important to highlight the role of educational training programmes in protecting European workers operating in an environment that is being profoundly changed by the gradual emergence of AI. Europe's citizens should have access to appropriate information enabling them to be responsible and informed users of devices and applications made available by rapid technological developments.
- 1.9 In cases where new measures enable public administrations to utilise technology in order to make organisational decisions and quicker choices, it will be necessary to address the issue of effective legal responsibility for such decisions within a clear legal framework that guarantees the administration's full accountability to citizens.
- 1.10 Special attention should be given to the role of civil society and social economy organisations in increasing people's active participation in the economic and social processes that, owing to artificial intelligence, will increase participation in our society. Civil society organisations and social enterprises can play an important role in fostering understanding and acceptance of technologies by individuals, in particular through collaborative mechanisms that permit the involvement of people in the current digital transformation.
- 1.11 The current technological revolution cannot and must not be carried out without the significant and active inclusion of workers, consumers and social organisations, and ongoing technological developments must be directed in such a way as to ensure greater and more responsible participation of fully informed citizens. This is why the EESC recommends that, when setting up the European Alliance for IA, the European Commission should take into account the need to create an inclusive, multi-professional and representative platform for the different stakeholders representing European citizens, including the representatives of workers, who will have to interact with smart machines¹.

2. General comments

- 2.1 Digital devices and large-scale learning machines are daily increasing the capacity of algorithms to work with huge amounts of data and this capacity is likely to increase further in the future, owing to "neural networks" (which are already being used, for example, by smartphones for visual recognition of objects, faces and images).

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[See the EESC adopted opinion INT/845 – Artificial intelligence: anticipating its impact on jobs to ensure a fair transition \(own-initiative opinion\), rapporteur: Ms Salis-Madinier \(not yet published\).](#)

- 2.2 Such developments are transforming the traditional mode of "learning" that AI machines have hitherto employed, in that they are now no longer confined to learning by extracting rules from data, but are also developing a flexible and adaptive learning capacity. This process will increase the capacity of AI to learn and act in the real world.
- 2.3 In the face of the very rapid technological change underway, it is now crucial that the European Commission and the Member States work together to conduct an in-depth examination of the emerging challenges created by the rapid development of AI and involve all the relevant public and private stakeholders in the process without undermining the opportunities for progress and technological development.
- 2.4 Commission Communication COM(2018) 237 seeks to strengthen the EU's industrial and technological capacity and to encourage the spread of AI throughout the European economy in both the private sector and public administration. As noted earlier in own-initiative opinion², the EESC supports the Commission's initiative, which in fact incorporates in its communication a great number of the Committee's earlier suggestions, but urges the Commission to act promptly and decisively.
- 2.5 Adopting an effective European approach to AI involves encouraging significant investment in research and innovation, including digital infrastructures, which are necessary to prepare for the major socio-economic challenges that the advances in new technologies will create for European society and markets in the coming years.
- 2.6 The European Commission and the Member States should work together to frame some guidelines on the ethics of artificial intelligence and involve all the relevant public and private stakeholders in the process.
- 2.7 At the same time, a harmonised legal framework must be approved at European level in line with the EU Charter of Fundamental Rights and the principles embedded in the EU Treaties. The new regulatory framework should contain precise rules that address the risks that machine learning entail, such as market non-transparency, lack of competition, discrimination, unfair commercial practices, threats to cybersecurity and product safety.

In particular, the regulatory safeguards should be stringent in situations where data driving artificial intelligence systems are automatically retrieved during the utilisation of electronic devices and computers.

- 2.8 The EESC notes that the Staff Working Document SWD(2018) 137 final attached to the Commission's Communication duly analyses the implications of AI for EU legislation and maps the liability challenges that arise in the context of emerging digital technologies.
- 2.9 Moreover, comprehensive action plans will be needed to: (i) underpin the modernisation of education and training systems by nurturing the new skills required by the labour market of the

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INT/806 of 31 May 2017 – Artificial intelligence – The consequences of artificial intelligence on the (digital) single market, production, consumption, employment and society and society – [OJ C 288, 31.8.2017, p. 1.](#)

future, and (ii) guarantee high-level protection for citizens and workers against the expected challenges³.

- 2.10 The EESC encourages the Commission to proceed quickly with further action on both regulation and encouragement of investment: the current swift pace of change demands rapid adaptation times.

3. The European Commission proposal: European support for and investment in artificial intelligence

- 3.1 The Commission announces in its Communication that it will support the spread of AI with regard to both basic research and industrial applications. In this respect, the EESC stresses the importance of involving all types of players in such a process, including SMEs, service companies, social enterprises, farmers, cooperatives, consumer associations and associations representing older people.
- 3.2 With regard to the Commission's aim of "bringing AI to all potential users, with a focus on small and medium-sized enterprises", the EESC thinks that addressing the challenge of global competitiveness requires AI to be accessible to as many entities as possible. In addition to what the Commission has already planned in order to develop an "AI-on-demand platform", it is also important to establish appropriate forms of involvement of and consultation with the various stakeholders, including SMEs, social economy networks and civil society organisations (the last-named stakeholder has a crucial role to play in involving European citizens in an informed and active way).
- 3.3 The Commission has announced that it will support innovation based on artificial intelligence through a pilot project established by the European Innovation Council, which has a budget of EUR 2.7 billion for 2018-2020.
- 3.4 The EESC believes that this initiative may be useful for the development of AI, but stresses at the same time that research funding should rapidly pass from the experimentation phase to the structural stage. It is also important that the Commission encourage the various research centres currently located throughout the Member States in order to develop a collaborative network at European level which is dedicated to artificial intelligence.
- 3.5 The EESC notes that the Commission intends to increase investment in AI under the Horizon 2020 programme to around EUR 1.5 billion by the end of 2020. If adopted rapidly in current public-private partnerships, this approach could generate a further EUR 2.5 billion of investment within two years. The same approach must also be adopted in the future Horizon Europe framework programme.
- 3.6 From a different perspective, it is a good sign that the European Commission and the European Fund for Strategic Investments – which should play a central steering role in supporting the

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[The EESC adopted opinion SOC/578 - Transition management in a digitalised world of work \(not yet published\).](#)

development of AI in the EU –have launched the Venture EU programme, a EUR 2.1 billion venture capital fund to boost investment in innovative firms throughout Europe.

- 3.7 However, the effort required to keep pace with other global players is so great that coordination and synergy among all the instruments and funding available at European and national levels are greatly needed. It is clear that competing with China and the US in the area of AI necessitates bringing together the forces of all public and private stakeholders operating at European level so as to ensure that the EU plays a leading role on a world scale.
- 3.8 In order to profitably pursue a competitive role for the EU with regard to AI, it will also be important to invest adequately in appropriate IT software, hardware assets and digital infrastructures that can guarantee a credible role for the EU.
- 3.9 Investment in AI should take into account the fact that European companies are particularly strong in the areas of automation and robotics. Such sectors, which are part of AI in a broad sense, could therefore prove to be truly important in guaranteeing a significant global role for the EU with respect to the ongoing technological development and therefore they deserve specific attention.

4. Artificial intelligence and its impact on people and workers

- 4.1 It is indisputable that the development of AI is advancing at a very rapid pace. This is why the European institutions, when assessing the impact of every regulatory measure on artificial intelligence, must adopt a multidisciplinary approach that takes on board not just administrative, legal and economic aspects, but also anthropological, psychological, sociological and technological considerations.
- 4.2 To support these innovations, but above all to steer them in a direction that ensures human beings remain centre stage, it is important that the European Union acts to achieve a high degree of technological competitiveness without overlooking essential ethical, social and human considerations.
- 4.3 The EESC thinks that it is therefore crucial that: (i) individual privacy and responsible processing of individuals' data be governed by appropriate legislation, such as the effective launching of the new GDPR which, if necessary, will need to be constantly updated to keep pace with the rapid development of AI; (ii) important pieces of the applicable EU legislation be evaluated and, if necessary, adapted to the new scenarios occasioned by AI, and (iii) the competences and skills be developed that people, administrations and Europe's companies need to benefit effectively from the advantages offered by artificial intelligence.
- 4.4 As a starting point for the analysis to be carried out, it is worth noting that AI is based on the use and processing of large amounts of data, which form the basis of any application grounded in new technologies. This being the case, the main challenge for the European regulator is the establishment of transparent and regulated access to end-user data.

- 4.5 The better the quality of the data processed, the better the accuracy and performance of AI systems. It must not be forgotten, however, that data concerning individuals must be acquired legally and be used in ways known to those directly concerned, in order to ensure the utilisation of personal data for the predetermined and transparent purposes for which the user has previously granted proper and informed consent.
- 4.6 It is worth noting that several important parts of European legislation – for example those referring to online advertising, unfair commercial practices, product safety and liability, consumer rights, unfair contract terms, sales and guarantees, insurance, and price indication – may need to be changed and duly adapted to the new scenarios triggered by more extensive and refined utilisation of artificial intelligence in order to protect the end consumers.
- 4.7 The decisive issue of product safety and liability has been properly taken into account by the Commission in its working document SWD(2018) 137 final by means of analysis of case studies and by putting forward a list of the pieces of EU legislation that deserve further analysis and evaluation. The EESC fully encourages the Commission to continue this work and is willing to make its own contribution in this respect.
- 4.8 It is important to underline the role of cultural, educational and academic training, on the one hand, and provision of adequate information to the general public, on the other, in order to protect the rights of European citizens vis-à-vis the progress of the AI. In particular, it is important to ensure transparency and correctness in the management of AI algorithms and the databases on which they operate.
- 4.9 It is therefore crucial that Europe's citizens receive adequate training, as well as simple and understandable information, thereby enabling them to be responsible and informed users of the devices and applications made available by the rapid technological development that is currently taking place and becoming increasingly widespread at all levels.
- 4.10 In the light of all of these demands, the EU and Member States must offer clear and effective solutions, namely by promoting a modern education system and by constantly expanding lifelong training in the labour market and civil society.
- 4.11 The European Commission will have to carry out a careful evaluation of the effects of AI on the labour market. This is a major concern for many European workers who are advanced in their careers, but still far from retirement age and who look upon the changes taking place with mistrust and fear. The examination must take into account both the possible replacement of some workers by electronic devices or robots and the fact that certain functions, while not being fully automated, will be profoundly changed by new technologies. This examination and evaluation should be focused, therefore, not only on the inevitable and expected changes to production lines, but also on rethinking organisational processes and business objectives following a proper social dialogue with workers.
- 4.12 In some situations, such as those that happen and have happened with many other technologies, it will be advisable to test AI in stages and successive degrees of adaptation prior to full use, in

order to enable those involved to feel safe with the new technologies – including through appropriate training pathways – and to remedy any errors in adaptation during the process⁴.

- 4.13 The introduction of new technologies into companies requires social dialogue between the different partners involved. In this regard, workers' organisations and unions will need to be constantly informed and consulted.

5. **Artificial intelligence, public administration and civil society**

- 5.1 AI is a technological and social innovation capable of radically transforming the whole of society and of changing for the better the public sector and the relationship between citizens and the public administration. The opportunities afforded by artificial intelligence could increase both administrative efficiency and the satisfaction of citizens with services provided by the public administration and with the effective running of that administration.
- 5.2 For these objectives to be achieved, it is essential that civil servants also be prepared to face the changes and the challenges that AI will bring about in European society. Public employers and administration heads – together with teachers, trainers and the university staff referred to above – must be able to fully understand the AI phenomenon and to decide what new tools to introduce into administrative procedures.
- 5.3 The introduction of AI in the public and private sectors requires the design of procedures that foster understanding and acceptance of technologies by the users through cooperation mechanisms that allow citizens to contribute, if possible through participatory governance systems, to the development of technologies based on IA.
- 5.4 To obtain significant results on this front, it may be useful to develop increasingly reliable modes of collaboration and partnership between the public and private sectors that are aimed at seizing the opportunities arising from technological applications, artificial intelligence and robotics.
- 5.5 The challenge for public administrations is particularly difficult in legal and legitimacy terms, since the right balance will have to be struck between public interests (involving the exercise of public power) and individual ones (specific manifestation of the freedom of the individual). On this note, for example, the use of AI by public administrations will require the principle of transparency and publication of administrative documents to be reconciled with the protection of personal data and the individual's right to privacy within a clear and explicit regulatory framework.
- 5.6 In cases where new measures enable public administrations to utilise technology in order to make organisational decisions and quicker choices– such as selecting a contractor in a call for tender, managing a waiting list for particular services or recruiting new employees to a public administration – it will be necessary to address the issue of effective legal responsibility for

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[See the EESC's adopted opinion INT/845 – Artificial intelligence: anticipating its impact on jobs to ensure a fair transition \(own-initiative opinion\), rapporteur: Ms Salis-Madinier \(not published yet\).](#)

such decisions within a clear legal framework that guarantees the administration's full accountability to citizens.

- 5.7 Civil society organisations and social enterprises have an important role to play in fostering understanding and acceptance of technologies by individuals, in particular through collaborative mechanisms that permit involvement in the digital transformation processes. What is important here is the possibility of creating participatory governance systems, for example in a cooperative form, for these instruments, starting with the digital platforms which are already being used to structure new forms of economic relationship in work management.
- 5.8 Administrative authorities in charge of market monitoring mechanisms should have the expertise and the powers to protect fair competition, consumer rights, as well as the safety and rights of employees. Public or independent bodies should be placed in charge of algorithmic auditing. At the same time, companies should introduce effective mechanisms for auditing the AI's use of data.

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Luca JAHIER

The president of the European Economic and Social Committee
