



European Economic and Social Committee

SOC/578

Transition management in a digitalised world of work

OPINION

European Economic and Social Committee

EU concepts for transition management in a digitalised world of work – key input for an EU

White Paper on the future of work

[Exploratory opinion requested by the Austrian Presidency]

Rapporteur: **Franca Salis-Madinier (FR-II)**

Co-rapporteur: **Ulrich Samm (DE-I)**

Opinion requested by the Austrian Presidency of the Council	Letter of 12/02/2018
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Section responsible	Employment, Social Affairs and Citizenship
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Outcome of vote (for/against/abstentions)	151/1/4

1. Conclusions and recommendations

- 1.1 The European Economic and Social Committee (EESC) supports a fair digital transition, underpinned by respect for EU values that advocate full employment, social progress, a high level of protection, and reducing poverty and inequalities.
- 1.2 The EESC calls for the huge potential offered by new technologies to benefit everyone: workers, citizens and companies. In this transition process, there should be no losers. As a matter of priority, policies need to be geared towards strengthening the individual trajectories, in order to provide all citizens with the right skills, and the collectively-organised social security systems in order to facilitate the entitlement to social security benefits as provided for by the Charter of Fundamental Rights, the priorities declared in Gothenburg by the European institutions in the framework of the European Pillar of Social Rights, and the ILO conventions.
- 1.3 Jobs are likely to be altered as a consequence of automation, digitalisation and artificial intelligence. The EESC considers upskilling for European workers to be a priority, particularly for those whose low or obsolete skills prevent them from taking up the new jobs or the jobs that will be modified as a result of technologies. It stresses the urgent need for a policy at EU and Member State levels to transform initial training and life-long learning to promote relevant teaching methods, so as to develop the creative and digital skills that are increasingly required for the new jobs.
- 1.4 Diversity must be a top priority: the situation in sectors with a strong digital component is quite alarming in terms of the low number of women¹. It is important to monitor and measure these trends and to promote access for women in these sectors.
- 1.5 The EESC notes that investment in social policies accounts for only 0.3% of total public expenditure in the EU². Sufficient resources, in particular under the forthcoming post-2020 multiannual financial framework³, should be made available to strengthen these policies and support the digital transformation in the world of work, for the benefit of workers, companies and society as a whole.
- 1.6 Additional resources could be found in the productivity gains generated by digitalisation. The EESC recommends that the social dialogue on sharing the added value be organised at sector and company level in order to agree on how they are to be used.
- 1.7 In order to cover all the flexible forms of employment that digitalisation produces and not to leave any worker behind⁴, the EESC counts preserving the quality and financial viability of social protection systems among its priorities. It encourages the European Commission and the Member States to organise dialogue with the social partners on adapting social protection

¹ European Commission (2018). [Women in the Digital Age](#).

² [COM\(2017\) 206 final](#), p. 28.

³ [ECO/457](#) (adopted, not yet published in the Official Journal).

⁴ [OJ C 303, 19.8.2016, p. 54](#) and [OJ C 129, 11.4.2018, p. 7](#).

systems for the benefit, in particular, of workers who, because of their status, are not sufficiently covered by these systems.

- 1.8 In connection with the introduction of new technologies such as robots and smart machines, the EESC highlights in its study the importance of informing and consulting workers' representatives in advance and the need for collective bargaining to accompany the changes generated by these technologies⁵. It also points out that the directive on European works councils makes such consultation mandatory⁶.
- 1.9 Turning to artificial intelligence (AI), the EESC points out that the lack of clarity surrounding how algorithms work and how they make the choices that are beyond human control poses massive challenges for the EU and fundamental questions about the society we want to live in. The EESC has previously emphasised that, in the new world of work, it is crucially important to define the human-machine relationship. An approach focusing on human control over machines is vital⁷.
- 1.10 The EESC is in favour of global policy frameworks for AI that would give the EU a competitive advantage⁸, and encourages the development of socially responsible AI that serves the common good. It emphasises that the EU should support the new research field of "cognitive ergonomics", aimed at adopting measures facilitating a human-centred use of smart technologies.

2. Introduction

- 2.1 The EESC has already expressed its views on new forms of work and the future of work, in three exploratory opinions requested by the Estonian and Bulgarian Presidencies of the Council⁹. These opinions have been supplemented by a broader reflection on "a socially sustainable concept for the digital era", developed in connection with another exploratory opinion requested by the Bulgarian Presidency¹⁰.
- 2.2 The EESC disagrees with the assumption that "digitalisation will result in winners and losers". In this opinion, the EESC puts forward proposals aimed at ensuring that digitalisation benefits all citizens and that no one is pushed aside.
- 2.3 In order to avoid leaving some workers and citizens behind, expenditure on investment in social policies, currently amounting to only 0.3% of overall public expenditure in the EU¹¹, should be beefed up. Sufficient resources, in particular under the forthcoming post-2020 multiannual

⁵ EESC (2017). [Impact of digitalisation and the on-demand economy on labour markets and the consequences for employment and industrial relations](#).

⁶ [OJ L 122, 16.5.2009, p. 28](#).

⁷ [OJ C 288, 31.8.2017, p. 1](#).

⁸ [OJ C 288, 31.8.2017, p. 1](#).

⁹ [OJ C 434, 15.12.2017, p. 30 and p. 36](#), and opinion [SOC/570](#) (adopted, not yet published in the Official Journal).

¹⁰ [OJ C 237, 6.7.2018, p. 1](#).

¹¹ [European Union \(2017\). Reflection paper on the Social Dimension of Europe](#), p. 24.

financial framework¹², must be made available to support the digital transformation in the world of work.

- 2.4 The EESC stresses that, in order for automation to benefit society as a whole, the EU and its Member States need to be able to rely on a well-functioning, high-quality lifelong learning system, permanent social dialogue among stakeholders, relevant collective bargaining and an adequate taxation system.
- 2.5 It is urgently necessary to act now to ensure that the appropriate skills are available for the future, so that the EU and all of its Member States remain competitive and are able to create new businesses and new jobs, people are able to enter the labour market throughout their entire working lives, and well-being for all is assured.

3. **AI at the service of mankind for a fair and high-quality transition**

- 3.1 The EESC highlights the challenges for the EU posed by AI – i.e. all technologies aiming to use computers to carry out cognitive tasks traditionally performed by humans.
- 3.2 If digitalisation and increasingly powerful and effective AI are to be of benefit to workers, the public, businesses, the Member States and the EU, they must be harnessed and their potentially harmful effects anticipated and regulated.
- 3.3 The EESC considers the new generation of "collaborative robots" to be an opportunity potentially of benefit to society in its entirety. Such robots can become real partners of workers, easing their daily work to make it less stressful. They can also help people with physical or cognitive disabilities, or those of limited mobility.
- 3.4 The EESC emphasises again¹³ the human-in-command approach for all parts of the digitisation process. Our society has to cope with the fear that AI systems in particular may one day decide on important aspects of our life without any human interaction involved. The human-in-command approach defines a principle which guarantees that machines clearly have the role of serving humans and that the more complex human-related issues, such as taking responsibility, judging controversial/ethical cases or irrational behaviour, remain under the control of humans. This general principle can serve as a guiding principle for future regulations.
- 3.5 As the EESC noted in its own-initiative opinion on artificial intelligence¹⁴, control of algorithms and their transparency pose a formidable challenge for our democracies and our fundamental freedoms, including in the world of work. A socially and ethically responsible digital transformation must be an EU objective. The EESC is in favour of global policy frameworks for AI that would give Europe a competitive advantage. It emphasises that the EU should support the new research field of cognitive ergonomics, aimed at adopting measures facilitating a human-centred use of smart technologies.

¹² [ECO/457](#) (adopted, not yet published in the Official Journal).

¹³ [OJ C 288, 31.8.2017, p. 1.](#)

¹⁴ [OJ C 288, 31.8.2017, p. 1.](#)

- 3.6 Biased algorithms could result in the decisions and choices made exacerbating discrimination within businesses, for example in recruitment practices and in human resource activities in general¹⁵. However, good programming of data and algorithms could also make recruitment and human resource policies "smarter" and fairer.
- 3.7 European researchers, engineers and entrepreneurs who are involved in the design, development and marketing of AI systems must act in accordance with ethical and social responsibility criteria. One good response to this imperative could be to incorporate ethics and humanities into training courses in engineering¹⁶. An AI code of conduct might be appropriate.
- 3.8 The EESC would like to draw attention to a threat emanating from AI regarding cybersecurity and privacy. The new technology makes it much easier to produce high quality fake pictures, fake videos, fake speech and fake text. Coping with this serious threat has to be given the highest priority in EU policy.

4. **General comments**

4.1 *Impact on jobs*

- 4.1.1 The future impact on the volume of employment of automation, digitalisation and AI in various production processes is a highly controversial question. Depending on the method used – task analysis or occupation analysis – predicted job losses vary hugely¹⁷.
- 4.1.2 Regardless of these variations, one thing is certain: the vast majority of jobs will be impacted by digitalisation; and some occupations will be more affected than others and might disappear in the near future¹⁸. Others will be transformed and will require retraining.
- 4.1.3 There are significant differences between EU Member States when it comes to the impact of automation on jobs¹⁹. According to an OECD study, jobs in the United Kingdom, the Nordic countries and the Netherlands are generally less vulnerable to automation than those in the eastern and southern EU countries²⁰. These differences may be explained by several factors: differences in the organisation of tasks within economic sectors, differences in sector structures and in investment (those countries that have not yet adopted and invested in technologies likely to replace the workforce have a task structure that is more open to automation). There are also disparities in the way work is organised in general, as well as in workers' educational levels.

15 ILO (2018). [The impact of technology on the quality and quantity of job](#); see Villani, C. (2018). [Donner un sens à l'intelligence artificielle: Pour une stratégie nationale et européenne](#).

16 See the report by Cédric Villani on artificial intelligence (March 2018).

17 Nedelkoska, L. and G. Quintini (2018). [Automation, skills use and training](#). OECD Social, Employment and Migration Working Papers, No 202, OECD Publishing, Paris.

18 France Stratégie (2018). [Intelligence artificielle et travail: rapport à la ministre du travail et au secrétaire d'État auprès du premier ministre, chargé du numérique](#).

19 Cedefop (2018). [Insights into skill shortages and skill mismatch: learning from Cedefop's European skills and job survey](#).

20 Nedelkoska, L. and G. Quintini (2018). [Automation, skills use and training](#). OECD Social, Employment and Migration Working Papers, No 202, OECD Publishing, Paris.

4.2 *Ensuring that all citizens have the key skills*

4.2.1 Given this situation, appropriate skills can help EU Member States to integrate better into globalised markets and to specialise in cutting edge technologies, with more innovative businesses that keep pace with developments. To do so, all sectors need workers not only with high levels of cognitive and creative skills (in literacy, numeracy and solving complex problems), but also with managerial and communication skills and the ability to learn.

4.2.2 The workers who need to be given priority and stronger support are those in low-skilled occupations at high risk of automation, transformation, replacement or even disappearance.

4.2.3 In the Union, the gap between available skills and future jobs is widening. In the EU Member States, 22% of workers may not have the right digital skills to keep up with developments in their jobs²¹. The average duration of unemployment and long-term unemployment has risen since 2008, particularly for unskilled workers.

4.2.4 As stated in a recent EESC opinion, given the difficulties for these unemployed people in gaining employment, there is an urgent need to address the issue of training and skills²² through social dialogue at sector and regional levels, and at national and European levels, so that all workers can gain high-quality employment and develop in their professional career.

4.3 *Transforming initial training and fostering lifelong learning*

4.3.1 In view of these challenges, the EESC stresses the urgent need for a targeted policy at EU and Member State levels to transform initial training and life-long learning to promote relevant teaching methods, so as to develop the creative skills that are becoming increasingly indispensable.

4.3.2 A single uniform policy at European level is liable to be ineffective, as different Member States are facing different problems, but there is a universal need for a policy to reduce the gap between the available skills and future jobs²³.

4.4 *Key focal points regarding the risk of discrimination in the workplace and society*

4.4.1 Gender equality: The jobs of the future, and those that will gain the most recognition and the highest pay, will be in STEM fields (science, technology, engineering and maths), particularly in the IT sector. Diversity must be a top priority: the situation in sectors with a strong digital component is alarming in terms of the low number of women²⁴. It is important to monitor and measure these trends, and promote women's access to these sectors, if we want to avoid greater inequalities in the future world of work²⁵.

21 Cedefop (2018). [Insights into skill shortages and skill mismatch: learning from Cedefop's European skills and job survey](#).

22 [SOC/570](#) (adopted, not yet published in the Official Journal).

23 Cedefop (2018). [Insights into skill shortages and skill mismatch: learning from Cedefop's European skills and job survey](#).

24 EC (2018). [Women in the Digital Age](#).

25 EC (2015). [Monitoring the digital economy & society 2016-2021](#).

4.4.2 *Age inequalities*: Changes in the world of work have implications for workers' employment conditions, whatever their age. These shifts may have an impact on sustainable working throughout people's working lives. For example, the use of fixed-term contracts, which at the moment are – unfairly – earmarked mostly for young workers²⁶, could be extended to older workers, with potential consequences. At the same time, the technological development associated with digitalisation could offer opportunities for older workers. Studies on work will entail monitoring these developments.

5. **Innovative and anticipatory social and civil dialogue**

5.1 Social dialogue at all levels – European, national, industry, region and enterprise – must fully incorporate digital issues and develop anticipation policies informed by relevant data on the occupations affected by changes, the new jobs created and the skills to be developed to enter into these new jobs.

5.2 Social dialogue should address working conditions more comprehensively at the point when automation is implemented, in order to take account of the new risks and opportunities. The European Commission should undertake an analysis of the agreements that have come out of social dialogue in various EU Member States and sectors, with a view to implementing the results (the right to switch off²⁷, teleworking agreements, transferable rights for individuals, collective agreements signed with platforms²⁸, etc.)²⁹.

5.3 In order to cover all the flexible forms of employment that digitalisation produces and not to leave any worker behind³⁰, the EESC counts preserving the quality and financial viability of social protection systems among its priorities, in keeping with the European pillar of social rights. The Committee encourages the European Commission and the Member States to organise dialogue with the social partners on adapting social protection systems to the new forms of work.

5.4 Additional resources could be found in the productivity gains generated by digitalisation. Social dialogue focusing on sharing and redistributing added value must be conducted at sector and company level.

5.5 In fiscal terms, reforms of the tax systems need to be reviewed carefully to ensure similar levels of taxation for all forms of income, whether it is generated in conventionally organised sectors or in the sharing economy.

5.6 Civil society stakeholders should be actively involved in these developments. Training policies for vulnerable groups faced with rapid technological change and AI and digitalisation

²⁶ Eurofound (2017), Non-standard forms of employment: Recent trends and future prospects, p. 7, and Eurofound (2017) Working conditions of workers at different ages.

²⁷ [SOC/570](#) (adopted, not yet published in the Official Journal).

²⁸ See the [agreement signed in Denmark](#).

²⁹ [OJ C 434, 15.12.2017, p 30](#).

³⁰ [OJ C 303, 19.8.2016, p. 54](#) and [OJ C 129, 11.4.2018, p. 7](#).

development policies, the effects of which touch everyone, give legitimacy to the important role played by civil society organisations.

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Luca Jahier
President of the European Economic and Social Committee
