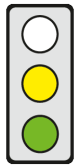


KEY ISSUES

Objective of the Communications: The Commission wants artificial intelligence (AI) to be developed and used in the EU and promote foreseeable and innovation-friendly legal provisions and ethical rules for AI.

Affected parties: AI developers, companies and natural persons who use AI or are affected by AI.



Pro: (1) Building an environment of trust around AI among users and those affected may promote acceptance of AI.

(2) It is appropriate that the Commission wants to “follow” the application of the GDPR in the context of AI applications because it is already possible to see problems in the implementation of the GDPR that are specific to AI.

The most important passages in the text are indicated by a line in the margin.

CONTENT

Title

Communication COM(2018) 237 of 25 April 2018: Artificial Intelligence for Europe

Communication COM(2018) 795 of 7 December 2018: Coordinated Plan on Artificial Intelligence

Note: Page references with "M1" refer to Communication COM(2018) 237, page references with "M2" to Communication COM(2018) 795, and page references with "CP" to the "Coordinated Plan" in the Annex of M2.

Brief Summary

► General Background

- Artificial intelligence (“AI”) refers to systems that display “intelligent” behaviour, analyse their environment and act with some degree of autonomy to achieve specific goals [M1 p. 1, M2 p. 1].
- AI can be [M1 p. 1]
 - purely software-based e.g. search engines, digital assistants and translation software, or
 - “embedded” in hardware such as robots or autonomous cars.
- AI facilitates economic growth and gains in efficiency across all sectors, such as [M1 p. 1, CP p. 1]
 - better healthcare, e.g. by more accurate and faster medical diagnoses,
 - a safer transport sector due to autonomous vehicles,
 - a reduction in energy consumption and in the use of pesticides in agriculture and
 - more efficient production processes because e.g. robots take on repetitive and dangerous tasks.

► Context and objectives of the Communications

- The EU is home to “world-class” AI researchers and AI start-ups, a strong robotics industry and world-leading companies in sectors such as transport, healthcare and manufacturing in which AI is becoming increasingly important. In the face of tough global competition, the EU must join forces. [M1 p. 5-6, M2 p. 2 et seq.]
- In 2018, all Member States made a [Declaration](#) indicating their commitment to cooperate on AI.
- The Communication “AI for Europe” (M1) sets out the “European AI strategy”. The Commission wants [M1 p. 2 et seq. and p. 6]
 - to push ahead with the development and use of AI in the EU so that the EU remains competitive;
 - the EU to take the lead on developing “responsible” AI which benefits humans and is human-centric.
- The AI strategy consists of three pillars [M1 p. 3]:
 - Pillar 1: Investment in AI to strengthen “the EU’s technological and industrial capacity” and the distribution of AI across the economy [see [cepPolicyBrief No. 2019-10](#)].
 - Pillar 2: Adapting education, training and social systems to the new labour market [[cepPolicyBrief No. 2019-12](#)].
 - Pillar 3: Creation of legal and ethical rules for AI [this [cepPolicyBrief](#)].
- More details are contained in the “Coordinated Plan on AI” in the Annex to M2, which was set up by the Member States, Norway and Switzerland, in conjunction with the Commission, in 2018, via the “Group on Digitising European Industry and AI” and which is to be updated annually [M2 p. 2, CP p. 2].
- This plan will bring together the parallel AI strategies in the EU, maximise the impact of investments, encourage synergies and cooperation and define collective measures [M2 p. 2, CP p. 2 and 4].

► **Third Pillar: Legal and Ethical Rules for AI**

AI creates new opportunities, but also poses challenges and risks. AI must therefore be trustworthy. To achieve this, AI must, inter alia

- be governed by “appropriate” legal rules that are based on the EU’s fundamental rights and values and existing legislation, particularly safety and liability rules,
- follow ethical rules.

► **Challenges and risks**

- AI poses challenges and risks and may raise ethical and legal questions [M1 p. 2, 14], e.g.:
 - AI trained with deficient – e.g. unrepresentative – data might produce biased outputs [M1 p. 14, M2 p. 8].
 - AI may make (automated) decisions which are wrong, e.g. due to errors in AI’s development, or which have been manipulated, e.g. by hacking or manipulation of algorithms or data, or may act in ways that are not envisaged at the outset [M2 p. 1, CP p. 17, M1 p. 14].
 - There is a need for clarification of who is liable for AI-driven decisions and how “wrong” decisions can be checked or corrected, given that AI may work in a way that “humans” do not understand [M1 p. 14, and 16, M2 p. 1 and 8].
 - The use of AI to create pieces of work raises questions about copyright and the patentability of such works [M1 p. 14].

► **Trust and accountability**

- Acceptance and use of AI requires an environment of trust and accountability around AI [M1 p. 13, M2 p. 7].
- Essential requirements for building user trust in, and social acceptance of, AI are in particular [M1 p. 15, CP p. 17]
 - the cybersecurity of AI, e.g. its protection against hacking or manipulation,
 - a “high level of safety” so that AI does not cause damages, and liability rules in case it does, and
 - effective redress mechanisms – i.e. legal remedies – for victims in case of damages.
- Beyond this, individuals should be clearly informed about [M1 p. 16]
 - the use, features and properties of AI-enabled products,
 - whether they are communicating with a machine or with another human and
 - how they can reach a human and have decisions corrected, whenever they interact with an automated system.

► **“Appropriate” legal rules for AI**

- The EU must ensure that the development and use of AI is governed by appropriate, predictable and innovation-friendly legal rules [M1 p. 2, M2 p. 8, CP p. 17] which must respect
 - the EU’s basic values set out in Art. 2 TEU, including democracy, equality and the rule of law [M1 p. 2, 13], and
 - the EU’s fundamental rights set out in the EU Charter of Fundamental Rights, including the right to human dignity, non-discrimination and privacy [M1 p. 2, 3 and 13 et seq., M 2 p. 7].
- The EU has a “sound and balanced legal framework”. Building on this, it can set the global standard for a “sustainable approach” to AI technology [M1 p. 14]. This framework includes, but is not limited to:
 - the regulations on [M1 p. 14]
 - the free flow of non-personal data [(EU) 2018/1087, cf. [cepPolicyBrief No. 2017-33](#)],
 - ePrivacy, which will ensure the free flow of electronic communications data [[cepPolicyBrief No. 2017-16](#)], and
 - cybersecurity, [(EU) 2019/881, cf. [cepPolicyBrief No. 2018-06](#) and [cepPolicyBrief No. 2018-16](#)].
 - high standards in terms of safety and product liability [M1 p. 14] as well as
 - the General Data Protection Regulation [(EU) 2016/679, “GDPR”] – which ensures the free flow of personal data EU-wide and provides a high level of data protection [cf. [cepStudy EU-Data Protection Law](#)]. The GDPR grants data subjects
 - the right to be informed about the existence of automated decision-making and about the logic involved [Art. 13(2)f, 14(2)g, 15(1)h GDPR] and
 - the right not to be subject to a decision based solely on automatic processing [Art. 22 GDPR].
- The Commission will monitor the application of the GDPR in the context of AI as will the national data protection authorities and the European Data Protection Board [M1 p. 14].
- To encourage innovation, the Commission will inter alia “discuss” in 2019 the creation of “regulatory sandboxes” – areas where regulation is limited or favourable to testing new, as yet unregulated products and services – [M1 p. 9, CP p. 8, 18 and 19].

► **Safety and liability**

- The EU legislation on safety – including the General Product Safety Directive [2001/95/EC], the Machinery Directive [2006/42/EC] and sector specific rules – and standards for AI-enabled devices based on this legislation protect consumers when using products marketed in the EU [M1 p. 15].

- Nevertheless, given the emerging and possibly widespread use of complex AI and autonomous decision-making, both horizontal and sectoral rules on safety and liability under civil law may need to be reviewed [M1 p. 15].
- The Commission will assess if the existing EU legislation can meet the challenges posed by AI and will inter alia publish by mid-2019 [M1 p. 16, CP p. 18]
 - a report on potential loopholes and an orientation on liability and safety rules for AI, the Internet of Things and robotics,
 - a guidance document on the interpretation of the Product Liability Directive [85/374/EEC] in light of AI.
- ▶ **“Ethical rules” for AI**
 - AI must also follow “ethical rules”, e.g. be fair and transparent [M1 p. 14, M2 p. 7, 8, CP p. 18].
 - To increase the transparency of AI and minimise the risk of biased or false decisions, AI must be developed in a way which allows “humans” to understand its actions or at least the basics of these actions [M1 p. 14].
 - The Commission has appointed an “independent AI High-Level Expert Group” [AIHLEG] to develop “ethics guidelines for trustworthy AI”, i.e. for “human centric AI” [M2 p. 8, CP p. 17]. The AIHLEG published a [final version](#) on 8 April 2019 [cepPolicyBrief to follow].
 - These guidelines are inter alia based on [M1 p. 16, CP p. 17]
 - the EU’s fundamental rights and
 - the principle of “ethics by design”, i.e. ethical aspects must already be “embedded” in AI products and services right from the start of the design process.
 - “Human-centric” AI – i.e. an AI that is trusted by its users – may become a global “competitive advantage” for EU companies [M1 p. 2, M2 p. 8, CP p. 17].
 - The Commission will inter alia support research in the development of “explainable AI” [M1 p. 16].

Policy Context

In 2017, the European Parliament called for EU-wide civil law rules on robotics complemented by ethical principles, and proposed a voluntary ethical conduct code [[EP resolution P8_TA\(2017\)0051](#)]. In 2019, it demanded a “guiding ethical framework” for “human-centric AI” based on the EU’s fundamental rights and values [[EP resolution P8_TA-PROV\(2019\)0081](#)]. The [European Council](#) called for a “European concept” [[EUCO 14/17](#)] on AI and approved the preparation of the “Coordinated Plan” [[EUCO 9/18](#)]. The Council supports the Coordinated Plan [cf. [Conclusions](#) of 02/19].

Options for Influencing the Political Process

Directorates General:	DG Communications Networks, Content & Technology
Committees of the European Parliament:	Industry, Research and Energy (leading)
Federal Germany Ministries:	Economic Affairs and Energy (leading)
Committees of the German Bundestag:	Economic Affairs and Energy (M1, leading); Education, Research and Technology Assessment (M2, leading); Enquete Commission “Artificial Intelligence”, Chair: Daniela Kolbe (SDP)

ASSESSMENT

Economic Impact Assessment

Building an environment of trust around AI among users and those affected, as envisaged by the Commission, **may promote acceptance** and use of AI. The measures proposed for achieving this goal, such as providing clear information about the properties of AI-enabled products, are essentially appropriate. **However, a general requirement for information, on how AI decisions can be assessed or corrected by humans, goes too far.** Such an obligation should be proportionate to the possible consequences of an AI decision. It would be proportionate where AI decisions have legal consequences for, or otherwise bind, the affected person.

It is appropriate that the Commission wants to “follow” the application of the GDPR in the context of AI applications because it is already possible to see three problems in the implementation of the GDPR that are specific to AI.

Firstly, the right laid down in the GDPR to be informed about the logic used in automated decision-making, could – on a broad interpretation – force companies to disclose data and algorithms that they have used to develop an AI or according to which the AI makes decisions. This may jeopardise the protection of trade secrets and reduce the incentive to innovate. In addition, this right cannot always be upheld because even the programmers of an AI are not always aware of the logic used in decision-making. This is true, for example, of an AI that is able to diagnose the symptoms of schizophrenia earlier than doctors can, although the underlying AI-logic is not known. It is therefore appropriate that the Commission wants to promote research into “explainable AI” in order to diffuse this problem.

Secondly, one of the main benefits of AI is the automation of activities that were not previously capable of automation. The right laid down in the GDPR for data subjects not to be subject to a decision based solely on automated processing, reduces this benefit and thus limits the use of AI. Thirdly, the GDPR’s high level of data-protection hampers the processing of personal data for European start-ups, as compared with American and Chinese start-ups.

Regulatory sandboxes promote innovation as they reduce costs for companies. They can only be applied, however, as long as they do not give rise to distortions of competition or damage to third parties. Ethical AI guidelines strengthen confidence in AI. This will promote the use of AI. The guidelines must, however, be balanced. Strict transparency rules, in particular, may make decisions by AI less precise and more expensive.

Legal Assessment

Legislative Competency

In exercising its internal market competence and in order to guarantee a high level of consumer protection, the EU can adapt harmonised product safety and liability law, such as the Product Liability Directive [85/374/EEC] or adopt new legislation in order to achieve the internal market for AI products and services [Art. 114, Art. 169 (1) TFEU]. The requirements are met because there is legal uncertainty regarding the extent to which the relevant law is applicable and appropriate for “defective AI” and thus also a risk that Member States will interpret this differently or adopt their own rules in order e.g. to establish liability for AI and enable redress.

The Commission can undertake appropriate political initiatives to promote the general interest of the Union [Art. 17 (1) TEU] and develop, or have developed, non-binding ethical guidelines for AI in order to initiate an EU-wide discussion on “trustworthy AI” for the purpose of preparing further legislation; in this regard, it must maintain a close dialogue with the civil society among others [Art. 11 (2) TEU].

Subsidiarity

Unproblematic. Only the EU can sensibly extend secondary legislation on safety and liability to cover AI-based products and services. The ethical guidelines are non-binding.

Proportionality with respect to Member States

Dependent on the actual design of the follow-up measures.

Compatibility with EU Law in other respects

The fact that both legal and ethical rules on AI have to comply with the fundamental rights and values of the EU is obvious. It is uncertain, however, what the “ethical rules” for AI should be based on. Ethical principles are either embodied in law, notably in the fundamental rights and values of the EU [Art. 2 TEU], or they go beyond it and in that case are legally non-binding. It is necessary to clarify which ethical principles apply to AI applications beyond the applicable law. Ethical views – despite shared basic values – diverge from Member State to Member State. Whilst primary law does not mention the term “ethics”, secondary law – such as in the field of biotechnology for example – does refer to “ethical principles”. How this term is used in the individual case, however, varies significantly; the European Court is somewhat reticent in matters involving “public morality” and ethics and concentrates on the legal aspects [Frischhut, ZaöRV 2015, 531 (542, 575)].

The requirement for AI to be “transparent” is too imprecise. It is unclear which procedures have to be traceable and by whom. The complexity of AI systems leads to problems where, for example, the causality of an untraceable defect in the AI is the condition for liability. Generally, however, transparency requirements should only apply where AI encroaches upon fundamental rights and where they are proportional to the level of encroachment.

According to the preamble of the EU Charter of Fundamental Rights, the EU contributes to the development of shared common values and, in doing so, respects the diversity of the cultures and traditions of the peoples of Europe. **The ethical guidelines that have been developed at the behest of the Commission by an “expert group”,** such as the AIHLEG, **can therefore only be a starting point for a broad and ongoing public debate on the ethics of AI in which all stakeholders – Member States and their national ethics committees, civil society, AI developers and the EP – must be included.**

The use of regulatory sandboxes for AI products and services in the EU is problematic as it may lead to increased risks for consumers and to distortions of competition. If at all, it may be considered where these risks can be reduced to a reasonable level – such as by way of a tight limit on duration and place of application, strict supervision and sufficient protective measures.

Impact on German Law

Dependent on the actual design of the follow-up measures.

Conclusion

Building an environment of trust around AI among users and those affected may promote acceptance of AI. However, a general information requirement on how AI decisions can be corrected by humans, goes too far. It is appropriate that the Commission wants to “follow” the application of the GDPR in the context of AI applications because it is already possible to see three problems in the implementation of the GDPR that are specific to AI. The requirement for AI to be “transparent” is too imprecise. The ethical guidelines that have been developed at the behest of the Commission by an “expert group” such as the AIHLEG, can only be a starting point for a broad public debate on AI in which all stakeholders must be included.