



Governing AI – The EU approach

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EUROPEAN STRATEGIC PLAN (April 2018)

To accompany Social and
economic changes

To boost AI
development and
deployment

To provide an
ethical and
legal
framework



In order to achieve the 3d objective, setting up of the AI HLGE →
Guidelines on ethical aspects of AI: « Towards a trustworthy AI »
(8 April 2019)

7 key Ethical/Legal requirements of the Guidelines (see also ALTAI - [Assessment List for Trustworthy AI](#), July 2020)

- ▶ **Human agency and oversight:** AI systems should empower human beings, allowing them to make informed decisions and fostering their fundamental rights. At the same time, proper oversight mechanisms need to be ensured, which can be achieved through human-in-the-loop, human-on-the-loop, and human-in-command approaches.
- ▶ **Technical Robustness and safety:** AI systems need to be resilient, secure, reliable and reproducible, and provide accurate results.
- ▶ **Privacy and data governance:** full respect for privacy and data protection, adequate data governance mechanisms.
- ▶ **Transparency:** the data, system and AI business models should be transparent. Traceability mechanisms can help achieving this. Moreover, AI systems and their decisions should be explained in a manner adapted to the stakeholder concerned.
- ▶ **Diversity, non-discrimination and fairness:** avoid unfair bias, ensure access to all and multiple stakeholders participation.
- ▶ **Societal and environmental well-being:** sustainable and environmentally friendly AI systems. Social and societal impacts should also be considered.
- ▶ **Accountability:** Auditability, report on negative impacts, and adequate redress mechanisms should be ensured.

From the AI White Paper to the EU Commission proposal: the 'Third Way'

- ▶ "We want the application of these new technologies to be worthy of the trust of our citizens [...]. We encourage a responsible approach to artificial intelligence centred on the human being." U. von der Leyen, *White paper on Artificial Intelligence - A European approach to excellence and trust*, 8 February 2020, COM(2020) 65 final
- ▶ "The European data strategy aims to make the EU a leader in a data-driven society. Creating a single market for data will allow it to flow freely within the EU and across sectors for the benefit of businesses, researchers and public administrations. People, businesses and organisations should be empowered to make better decisions based on insights from non-personal data, which should be available to all." *A European strategy for data*, COM/2020/66 final
- ▶ European Parliament Resolution of 20 October 2020 with recommendations to the Commission on a framework of ethical aspects of artificial intelligence, robotics and related technologies, 2020/2012(INL)
- ▶ "The revised plan therefore provides a **valuable opportunity to strengthen competitiveness, the capacity for innovation and the responsible use of AI in the EU**. The fast development and uptake of innovative AI in the EU can contribute to solving key societal challenges and accelerate the digital and green transitions at a time when the global AI landscape is evolving fast." « *Fostering a European Approach to Artificial Intelligence* », EU Commission Communication, 21 April 2021

The regulatory options taken into account by the Commission

Five policy options of different degrees of regulatory intervention were assessed:

- ▶ • **Option 1:** EU legislative instrument setting up a voluntary labelling scheme;
- ▶ • **Option 2:** a sectoral, “ad-hoc” approach;
- ▶ • **Option 3:** Horizontal EU legislative instrument following a proportionate risk-based approach;
- ▶ • **Option 3+: Horizontal EU legislative instrument following a proportionate risk-based approach + codes of conduct for non-high-risk AI systems;**
- ▶ • **Option 4:** Horizontal EU legislative instrument establishing mandatory requirements for all AI systems, irrespective of the risk they pose.

Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL LAYING DOWN HARMONISED RULES ON ARTIFICIAL INTELLIGENCE (ARTIFICIAL INTELLIGENCE ACT), April 21, 2021 Com(2021) 206 final – Still in discussion

SCOPE

- **AI definition** : “software that is developed with one or more of the techniques and approaches listed in Annex I and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with” (including not only machine learning I.S but also expert systems).
As regards robots, see the **Proposal for a Regulation on Machinery Products, COM(2021) 202 final**.
- **Territorial** : Applicable also to AI systems providers and users outside EU if the targeted market is EU residents.
- **Material** : except AI systems developed or used for military purposes / linked with sectoral regulations (e.g. medical, financial, ...).

A risk approach: the nature of the risks

➤ Which kind of risks?

- **Individual risks:** “one or more interests of an individual is wrongfully thwarted” (N. SMUHA) – traditional approach (e.g. data protection Act does protect only individual harms)
- **Collective risks:** “one or more interests of a collective or group of individuals is wrongfully thwarted” – Profiling concerns group of individuals as such and not only each individual of the group – idea of Group’s Privacy (B. van der Sloot)
- **Societal risks:** “a range of societal interest is wrongfully thwarted” – e.g. Cambridge Analytica or disinformation as a way to put into question the functioning of our democratic institutions – see also the threats as regards the equilibrium between powers

“Moreover, the societal dimension of AI's risks that surpasses the impact on individuals, such as the impact on the electoral process and the democratic institutions or the legal system, is not yet sufficiently considered. While a number of national and international mechanisms allow individuals to seek redress before a court when a human right is breached in the context of AI, this mechanism is currently underdeveloped as regards an interference with democracy or the rule of law, which concern broader societal issues. Their protection necessitates public oversight over the responsible design, development and use of AI systems whenever such risks exist, by setting out clear obligations or requirements to this end.”

Ad Hoc HLGE, Council of Europe, [Feasibility study on a legal framework for the creation, development and application of AI based on Council of Europe standards](#), Dec. 17, 2020

A risk regulatory approach according to the gravity of the risks

- ▶ **UNACCEPTABLE RISK** : AI applications explicitly forbidden (art. 5) with possible exceptions (law enforcement purposes):
social rating/ use of 'real time' biometric identification in public spaces/ Exploitation of vulnerable people
- ▶ **HIGH RISKS: exhaustive List in Annex 3 : Authorized if respect of legal requirements** and previous evaluation of the conformity with these requirements (see next slide) + EU marking of conformity + post market monitoring
examples: selection of candidates for a job/ detection of criminals by Law enforcement authorities/ selection of students ...
- ▶ **Interactive (Human-Machine) AI** (art. 52): Authorized BUT Obligation of transparency and information – Possibility to cumulate with High-risks systems
Chatbots, deepfakes, emotion or facial recognition systems, ...
- ▶ **Other AI applications**: Authorized without restriction but possibility of transparent (sectoral or not) codes of conduct (art. 69)

Legal and ethical requirements as regards High risk systems

- ▶ To be supported partly or totally by the different AI ACTORS (Providers, importers, users ...)

To establish and operate management risk processes AND According to the purposes pursued by the system

Use of testing, validation, data of high quality

Provide adequate documentation and use systems of traceability, auditability and verifiability

Transparency vis-à-vis the users as regards the functioning of the system

Human oversight (red button, regular control)

Robustness, cybersecurity, ...

Other provisions

- ▶ Sandboxes legislation are possible in order to stimulate innovation (Art. 53)
- ▶ Setting up of different entities in order to ensure the effectiveness of the regulation
 - ▶ **EU Database** registering the declaration of conformity (art 48 + art. 60: EU database for stand-alone high-risk systems)
 - ▶ **Notified bodies** Entities in charge of the control of the conformity assessment **but only regarding remote biometric identification AI systems** (art. 43)
 - ▶ **National supervisory authority : DPA ?????** (see EDPS/EDPB opinion) – Market surveillance and control of AI systems with possibility of fines in case of infringements (< 6 % of the annual business turnover)
 - ▶ **European Artificial Intelligence Board** (art. 56 and ff.) to coordinate the action of the different national authorities and to provide guidance on emerging issues



Considerations to be addressed

- ▶ **Any interference with fundamental rights needs to be prescribed by law, necessary and proportionate in a democratic society**
- ▶ **Any biometric system's use can pose significant risks for fundamental rights**
- ▶ **Independent evaluation of any right's interference** (self-assessment of conformity with the requirements by the provider is not sufficient)
- ▶ **Information rights for individuals** (not only for the user/ not only for the systems listed in art. 52)
- ▶ **Substantive rights for individuals, redress and complaints mechanisms**
- ▶ **Consultation and participation rights for the community members (democracy requirement)**
- ▶ **Environmental and societal impact** (the EP had taken these considerations into account in its Resolution of 20 October 2020 on a framework of ethical aspects of AI, robotics and related technologies – art. 10-11)

For an in-depth analysis of the shortcomings of the proposal: Response to the Commission by N. Smuha et al., 5 August 2021 – [How the EU can achieve legally trustworthy AI](#)

Conclusions

- **TRUST is the key issue ...**
- **A EU ethical and legal answer: a big step forward, but to be completed considering the risks incurred by individuals individually and collectively AND by our democracy and the rule of law**
- **Towards a technology assessment with public participation for major AI systems with societal issues (automated cars – use of facial recognition by law enforcement, genetic manipulations, ...)**
- **The EU bet is to be supported at the time when UNESCO is issuing global recommendations**
- **A bet that remains difficult to win when we do consider that the AI market is not dominated by EU players.**



Recommendations

- ▶ *Fundamental rights must never be balanced with mere interests, even economic ones. Instead, any interference with such rights must be prescribed by law, necessary and proportionate in a democratic society.*
- ▶ *An independent evaluation of the risks incurred not only by individuals but also by group of individuals and by our democracy and rule of law must be ensured. In particular, the societal and environmental impacts of ICT must never be overlooked.*