

/ EU Artificial Intelligence Act – recommendations on ecological transparency

Ensure minimum transparency on the ecological sustainability parameters for all AI systems in the AI Act

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Context

The draft Artificial Intelligence Act (AI Act) will profoundly shape AI regulation in the next decades in the European Union (EU) and beyond. As it currently stands, the **AI Act misses a crucial opportunity to ensure that the development and use of AI systems can be done in a sustainable, resource-friendly way which respects our planetary boundaries**. This shortcoming of the AI Act is not only detrimental in the light of our collective endeavour to combat climate change but is also at odds with the objectives of other environmental EU policies.

The AI Act must address the environmental impact of AI systems

- AI has a “*multi-faceted relationship with climate change*”: it can be deployed to help with climate change mitigation and adaptation; can also be used in ways that contravene such efforts, therefore potentially increasing greenhouse gas emission; and AI systems themselves can directly emit greenhouse gases through computational energy consumption¹. Moreover, as the European Consumer Organization (BEUC) stresses, “*empirical findings have shown that digital technologies contribute to 4% of overall greenhouse gas emission, a number expected to double by 2025*”².
- The White Paper on Artificial Intelligence - A European Approach to excellence and trust³ [White Paper] which laid the ground for the draft AI Act, stressed that “*AI can help with finding solutions to climate change and environmental degradation*”, but “*it is important that it happens in an environmentally friendly manner*”. It set out that the “*environmental impact of AI systems needs to be duly considered throughout their lifecycle*”

¹ https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12527-Artificial-intelligence-ethical-and-legal-requirements/details/F2665623_en

² https://www.beuc.eu/publications/beuc-x-2021-088_regulating_ai_to_protect_the_consumer.pdf

³ https://ec.europa.eu/info/sites/default/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf

and across the entire supply chain, e.g. as regards resource usage for the training of algorithms and the storage data.” This consideration got translated into the voluntary application of codes of conduct for the AI Act, whereby providers may create and implement commitments related to environmental sustainability themselves. In our view, this does not go far enough to ensure that the development and use of AI systems are done in a sustainable, resource-friendly way.

- Both in order to contribute to the endeavour of combating climate change and to ensure the coherence among EU policies, we demand **the introduction of horizontal, public-facing transparency requirements on the resource consumption and greenhouse gas emission impacts of AI systems** – irrespective of risk level – in relation to design, data management and training and underlying infrastructures (hardware, data centres, etc.).
- Transparency indicators would have a twofold purpose: On the one hand, they could inform users and the general public about the ecological impact of AI systems, on the other hand we could gain invaluable insights in the potential issues for sustainability regarding AI that could lead to further political measurements.
- Moreover, **impact on the environment shall be considered as a factor when assessing the risk an AI system may pose and therefore as a criterion shall be included in Article 7.**

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The paper follows the Joint Civil Society Statement [‘An EU Artificial Intelligence Act for Fundamental Rights’](#) signed by 123 organisations in November 2021.