

Policy Recommendations for Supporting EU's Strategy for Trustworthy and Human-Centered AI in Insect Farms and Beyond

The CoRoSect research activities have revealed that the currently applicable and the upcoming regulatory frameworks have certain gaps and shortcomings. The identified shortcomings and recommendations on how to address them can be divided into sub-categories, namely, the shortcomings in the AI Act, the lack of sector- and use-case-specific ethical guidelines and practical tools, and the need for an international human-rights based framework.

Given that the AI Act will have an important impact within the EU and potentially all around the world¹ as a result of its extraterritorial scope and the possible influence on other regulatory frameworks on AI worldwide, it has been discussed and criticized by many including not only scholars² but also numerous civil society organizations since the early days of the AI Act legislative processes³ until recently⁴. Even the United Nations High Commissioner of Human Rights sent a letter to the EU lawmakers in late 2023. This was an unusual act taken due to the potentially disruptive effects of the EU Act on the global AI landscape and significant effects on human rights.⁵ While certain concerns raised by these different actors have been addressed in the final draft of the AI Act, this is not the case for all those concerns.⁶ This deliverable, due to its particular focus on the CoRoSect project, cannot provide a comprehensive overview of all the shortcomings but instead examines the gaps and shortcomings related to, primarily, the human-robot collaboration in the workplace and more particularly, in insect farms. While no major amendment will likely occur at this point until the AI Act enters into force (as a political agreement on the AI Act draft has already been reached⁷), the EU Commission should take into account the issues raised below in its future reviews of the regulations as per Article 84 of the AI Act.

¹ Türk V, 'Türk Open Letter to European Union Highlights Issues with AI Act' (*UN OHCHR*, 8 November 2023) <<https://www.ohchr.org/en/open-letters/2023/11/turk-open-letter-european-union-highlights-issues-ai-act>> accessed 20 February 2024

² Almada M and Petit N, 'The EU AI Act: A Medley of Product Safety and Fundamental Rights?' (18 October 2023), p. 7. <<https://papers.ssrn.com/abstract=4308072>> accessed 20 February 2024

³ European Digital Rights (EDRI), 'Civil Society Calls on the EU to Put Fundamental Rights First in the AI Act' (*European Digital Rights (EDRI)*, 30 November 2021) <<https://edri.org/our-work/civil-society-calls-on-the-eu-to-put-fundamental-rights-first-in-the-ai-act/>> accessed 20 February 2024

⁴ 'EU Trilogues: The AI Act Must Protect People's Rights | A Civil Society Statement on Fundamental Rights in the EU Artificial Intelligence Act' (July 2023) <<https://edri.org/wp-content/uploads/2023/07/Civil-society-AI-Act-trilogues-statement.pdf>> accessed 20 February 2024

⁵ Türk (n. 1)

⁶ 'EU AI Act: Deal Reached, but Too Soon to Celebrate' (*European Digital Rights (EDRI)*, 9 December 2023) <<https://edri.org/our-work/eu-ai-act-deal-reached-but-too-soon-to-celebrate/>> accessed 20 February 2024

⁷ Bertuzzi L, 'EU Countries Give Crucial Nod to First-of-a-Kind Artificial Intelligence Law' (*www.euractiv.com*, 2 February 2024) <<https://www.euractiv.com/section/artificial-intelligence/news/eu-countries-give-crucial-nod-to-first-of-a-kind-artificial-intelligence-law/>> accessed 20 February 2024



- The upcoming AI Act will introduce a “sophisticated product safety regime” based on different risk levels for AI systems⁸. By adopting risk-based product safety regulation approach instead of a rights-based approach, the AI Act does not establish rights to individuals (except for the right to lodge a complaint with a market surveillance authority under Article 68a and the right to explanation of individual decision-making under Article 68c of the leaked final draft of the AI Act) despite the strong calls from the civil society for the EU lawmakers to ensure effective rights and redress for individuals impacted by AI⁹. This nature of the regulation -as a result of the chosen regulatory approach- might create a temptation on the regulators side to address any issues in terms of safety-related risks and this might not serve as framing for the protection of human rights.¹⁰ Nevertheless, the regulators should always prioritize the human rights of individuals (in line with the many references in the AI Act to the fundamental rights and the EU Charter of Fundamental Rights) and employ a perspective broader than one focusing on merely the safety related risks, in order to properly address the possible issues that may raise in the context of AI.
- Since the AI systems are not exclusively subject to the AI Act but instead, the AI Act, as a horizontal regulation¹¹, will be applicable to all sectors together with, possibly, many other regulations. In such a broad regulatory environment, the EU should carefully examine whether the currently applicable (or soon-to-be applicable) regulatory frameworks will be able to complement the AIA. Protection of human rights is particularly important for this reason as well given that, as previously mentioned, the AI Act does not entitle particular rights to individuals or directly ensure the protection of human rights. However, due to the lack of such a human-rights-centered, centralized regulatory approach, the number of different legal instruments at the levels of the EU and Member States might result in significant regulatory fragmentation and obstacles to the enforcement and protection of human rights.
- The fact that the companies classify the risk levels of the AI systems they design, provide, or deploy -in other words, self-assessment of the risk levels- has been deemed undermining the entire regulation as it could cause numerous challenges for enforcement and harmonization and also might incentivize big corporations to under-classify their AI systems¹².
- As explained previously in Section 2.2 of this deliverable, Recital 81 of the AI Act (together with Article 69) encourages the compliance of non-high-risk AI systems with the requirements of the regulations, most of which address the high-risk AI systems with the goal of ensuring a larger uptake of ethical and trustworthy AI in the EU. For this reason, inclusively developed and effective voluntary codes of conduct are the best practice suggested by the lawmakers, and the EU Commission’s potential key role here, in enabling the development of codes of conduct in an inclusive way, is noted as follows: “*The Commission may develop initiatives, including of a sectorial nature, to facilitate the lowering of technical barriers hindering cross-*

⁸ Kop M, ‘EU Artificial Intelligence Act: The European Approach to AI’ (*Stanford Law School*, 1 October 2021) <<https://law.stanford.edu/publications/eu-artificial-intelligence-act-the-european-approach-to-ai/>> accessed 20 February 2024

⁹ ‘Ensure Rights and Redress for People Impacted by AI Systems’ (2022) <<https://edri.org/wp-content/uploads/2022/05/Rights-and-Redress-AIA-Amendments-for-online.pdf>> accessed 20 February 2024

¹⁰ Almada and Petit (n. 2), p. 7.

¹¹ Hilliard A, ‘Regulating AI: The Horizontal vs Vertical Approach’ (*Holistic AI*, 16 August 2022) <<https://www.holisticai.com/blog/regulating-ai-the-horizontal-vs-vertical-approach>> accessed 20 February 2024

¹² ‘EU Trilogues: The AI Act Must Protect People’s Rights | A Civil Society Statement on Fundamental Rights in the EU Artificial Intelligence Act’ (n. 4)



border exchange of data for AI development, including on data access infrastructure, semantic and technical interoperability of different types of data.”

- The AI Act does not regulate the high-risk AI systems that were already on the market or in use before the AI Act enters into force. Its rules will be applicable to them only if they undergo significant changes in their designs. As an exemption, those used by public authorities will need to comply within four years after the entry of this regulation into force. Nevertheless, this creates a serious loophole and leaves the individuals subject to, possibly, serious risks raised by those AI systems. Combined with the lack of particular legal avenues for individuals to reclaim their rights, this may result in important harms and thus, should have been put in the scope of the regulation. While the best way to address this risk is to amend the regulation, the least that can be done by the EU Commission and national authorities is to provide detailed guidelines to the providers and deployers of those high-risk systems not subject to the AI Act. Another way might be to incentivize the establishment and adoption of the codes of conduct. As explained above, the EU Commission has a key role to play in this regard.

While the recommendations above with regard to the AI Act is applicable in many cases where AI-powered technologies are designed, provided and developed, it is of crucial importance when such technologies may have important (direct) effects on individuals, including AI-based robots collaborating with humans, such as the possible future use cases where the CoRoSect technologies may be used. Thus, the aforementioned actions should be taken to ensure the protection of the human rights of individuals – in this case, workers who will be in close contact with robots, sharing the same working environment, and collaborating with them.

Turning to the shortcomings of ethical guidelines and practical instruments specific to sectors and certain commonly carried out use cases:

- In the Ethics Guidelines for Trustworthy AI, there are references to the prevention of harm to the natural environment and all living beings although the related explanations are rather limited in number and in scope. These are primarily mentioned as part of one of the key ethical principles in the context of AI, namely “the principle of prevention of harm”¹³, and as one of the components of the “technical robustness and safety”, and more precisely safety, among the requirements of trustworthy AI¹⁴. Furthermore, it is noted that human-centric AI also entails the “consideration of the natural environment and of other living beings that are part of the human ecosystem” as well as sustainability “enabling the flourishing of future generations to come”¹⁵. These are definitely essential points but they are high-level and abstract and have not been properly operationalized and the prevention of harm to other living beings was not even covered by ALTAI (while the others were only briefly covered by the ALTAI Requirement 6: Societal and Environmental Well-being). In addition, the leaked final draft of the AI Act does not cover the prevention of harm to living beings other than humans and does not offer much in terms of binding rules for ensuring sustainability (however, it sets certain rules regarding the protection of the environment). Nevertheless, as CoRoSect project has demonstrated AI systems can be very well implemented in farms, and possibly many other contexts, where the AI may have important impacts on other life forms (such as insects as well

¹³ High-Level Expert Group on AI (AI HLEG), ‘Ethics Guidelines for Trustworthy AI’ (European Commission, 8 April 2019), p.12. <<https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai>> accessed 20 February 2024

¹⁴ *Ibid* p.17.

¹⁵ *Ibid* p.37.



as other animals and plants), environmental integrity, and sustainability¹⁶. Practical tools and guidelines with a particular focus on these aspects may offer great use to the farmers and many more persons who might use AI systems in a way that results in similar impacts. The CoRoSect technology impact assessment methodology with its monitoring survey can serve as a useful example for future tools and guidelines which could offer great benefits if the European Commission, the AI Office, or the Member States develop and encourage other organizations to develop for wide-use across Europe and beyond.

- Similarly, human-robot or human-AI collaboration in the workplace should also be a subject to be further elaborated by the policymakers and regulators to guide various organizations which may develop, deploy, or use systems that allow or facilitate human-robot or human-AI collaboration in the workplace. The Good Work Algorithmic Impact Assessment developed by the Institute for the Future of Work¹⁷ may, to some extent, be a good example of similar and related contextualization. More guiding documents and tools can provide tailored-to-the-particular-needs assistance in different sectors and uses and, thus, significantly facilitate compliance with legal requirements and fulfilling ethical principles.

Ensuring strong and effective protection of human rights beyond the EU, the Council of Europe can play a key role:

- The Council of Europe (CoE) Committee on Artificial Intelligence (CAI) has been working on a Convention on Artificial Intelligence, Human Rights, Democracy and the Rule of Law¹⁸, of which the Draft Framework was been published on 18 December 2023¹⁹, and this convention, as an internationally binding legal instrument, has the potential of ensuring the protection of human rights. Different from the AI Act, it is not based on a product-safety approach but enshrines positive and negative obligations on State Parties to ensure that human rights, democracy and rule of law are protected and upheld. This different perspective may serve an opportunity to address the shortcomings of the EU's AI Act (although the EU and CoE are separate, they have close connections and the EU acts as a major player in the EU including the efforts regarding this convention²⁰) and, thus, the human-rights risks associated to this fast-advancing class of technologies, now present in many aspects of our lives and most sectors, could be effectively minimized, or at least redress mechanisms will be provided.

¹⁶ As Floridi underlines, technology can and should work for the sustainability of nature as there is no time to lose. See for further information: Floridi L, 'The Green and the Blue: A New Political Ontology for a Mature Information Society' (4 January 2020) <<https://papers.ssrn.com/abstract=3831094>> accessed 20 February 2024

¹⁷ Institute for the Future of Work (IFOW), 'Good Work Algorithmic Impact Assessment' (28 March 2023) <<https://www.ifow.org/publications/good-work-algorithmic-impact-assessment-an-approach-for-worker-involvement>> accessed 20 February 2024

¹⁸ Council of Europe (CoE), 'CAI - Committee on Artificial Intelligence' <<https://www.coe.int/en/web/artificial-intelligence/cai>> accessed 20 February 2024

¹⁹ Committee on Artificial Intelligence (CAI), 'Draft Framework Convention on Artificial Intelligence, Human Rights and the Rule of Law' (18 December 2023) <<https://rm.coe.int/cai-2023-28-draft-framework-convention/1680ade043>> accessed 20 February 2024

²⁰ Koettering L, 'Important Advancements from Strasbourg and Brussels on First Binding Rules for Artificial Intelligence | EEAS' (*European External Action Service*, 19 December 2023) <https://www.eeas.europa.eu/delegations/council-europe/important-advancements-strasbourg-and-brussels-first-binding-rules-artificial-intelligence_en?s=51> accessed 20 February 2024



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