DIGITALEUROPE

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DIGITALEUROPE's Recommendations on Artificial Intelligence Policy

Executive Summary

In this paper, DIGITALEUROPE outlines its key recommendations on Artificial Intelligence (AI) policy. Our common goal is to stimulate and encourage a wide uptake of trustworthy AI across society and sectors, anchored by human-centric values, to the benefit of European citizens and businesses.

Multi-stakeholder discussion, together with agile, evidence and risk-based policy-making should therefore be the foundation of the European Union's AI policy landscape. This ensures a dynamic and flexible ecosystem that can adapt to the constant evolution of technology. We want to build on the strengths of European innovation while keeping a global perspective.

We want Europe to build and utilize trustworthy AI to the best of its citizens. To that end, we must define our common European mission, for sustainability, innovation, individual and societal well-being, economic growth and industrial competitiveness.

To reach these goals, we recommend EU policy-makers to:

- **Work with stakeholders to boost the uptake of Trustworthy AI.** To create a competitive ecosystem for AI, companies and governments need to partake in the shaping of rules and standards. Therefore the piloting phase of the AI High-Level Expert Group should be continued and expanded with Member States, to collect input from SMEs, enterprises, public sector and civil society.
- **Involve advisory bodies and multi-stakeholder platforms.** Groups such as the AI High-Level Expert Group should play a key role in the formulation of policy and governance. In the next Commission mandate, it should perform a thorough sector analysis on the development, use and uptake of Trustworthy AI.

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- **Take a risk-based approach.** AI regulation should be tailored to the type of application and service. Different use cases of AI have different impacts, and consequently require different methods to ensure transparency, accountability and fairness.
- **Build policy founded on evidence.** Any regulation needs to be based on evidence and facts, to have an accurate and comprehensive view on how complex a technology such as AI is developed and deployed. This also implies assessing potential gaps in existing legislation, rather than a full legislative overhaul.
- **Promote agile and flexible processes.** As technology evolves, we should aim to shape a general regulatory framework that allows for new developments and evolution. Regulation should be technology-neutral and consider testing and evaluating different options through sandboxing.
- **Boost the overall digital transformation.** Effective measures to improve and make the most out of AI can be taken today, by increasing investment in research and innovation, strengthening digital education and skills training as well as encouraging data access and infrastructure development.

Intro

DIGITALEUROPE's membership is fully committed to maximize the benefits of Artificial Intelligence for European society while minimizing potential risks. The European Union, national governments, industry, AI developers, academia, labour associations and civil society must work together towards a responsible, 'trustworthy AI' governance framework, safeguarding human rights in design and implementation while fostering innovative solutions and applications.

This ambition requires forward-thinking policies on data, education, investment and infrastructure to create opportunities rather than new barriers. We also see a key role for the public sector, to lead by example and stimulate digital transformation with the uptake of trustworthy AI and emerging technologies.

Across these recommendations, it is essential to remember that AI is a versatile and diverse set of technologies, including machine learning, and other types of advanced data analytics. Their application and potential are equally diverse. Many established EU regulations, policies and best practices also already offer a robust and wide toolbox to address potential challenges posed by AI.

Future policy proposals should therefore build on what already exists and carefully assess, based on relevant evidence, potential specific problems before proposing new prescriptive rules. Initiatives such as the AI High-Level Expert Group (AI HLEG) and in particular its Ethics Guidelines piloting phase consequently continue to play an important role in encouraging a more agile regulatory process, by analysing these different use cases, in a fast-moving and innovative technology world.

AI governance framework

To build trust and foster the uptake of AI, Europe should take an open and outcome-based approach to AI governance with clear principles based on the rule of law. The EU and its Member States need to define clear missions and targets towards sustainability, economic growth and societal well-being, and use these as guideposts for AI policy and governance.

Developers and deployers of AI applications alike should have clear guidance on how to achieve these goals. Policy coordination at the EU level is essential to avoid divergent or conflicting obligations, while ensuring that European values and human rights are respected and safeguarded.

Whether it comes to policy about the legal and regulatory implications of AI, or policy to increase investment, uptake and realizing the benefits of new

technologies, the role and importance of multi-stakeholder groups such as the AI HLEG cannot be underestimated. It is absolutely crucial to bring together industry, governments, academia and civil society to work towards a common understanding and action plan.

Initiatives such as the AI HLEG's piloting phase and sector analysis are consequently essential to monitor and support the uptake of Trustworthy AI. These should be continued and further strengthened, to get the buy-in and active engagement from all players in the AI eco-system, including in particular SMEs and public sector.

Regarding specifically on policy for Trustworthy AI, we find that many principles broadly esteemed essential for AI (from the AI HLEG Ethics Guidelines), such as transparency, security and fairness are not unique to algorithms. Some are already addressed by both sector-specific as well as horizontal (and non-AI specific) regulation.

Policymakers should therefore first examine the current regulatory and legislative framework to analyse whether it is fit for purpose. Existing rules and principles could be made more effective by additional guidance or targeted adjustments, per sector where needed. Furthermore, the European Commission and Member States should support ongoing work by industry and researchers to develop advanced tools that provide technological solutions for complex issues, for example by investing into training, education and research into explainable AI.

DIGITALEUROPE sees a fundamental role for accountability in relation to AI development, use and deployment, as an underlying principle to facilitate transparency, fairness, security and other core values. Industry is a key partner in this conversation, through the ongoing development of standardisation, best practices (such as documentation or design guidelines), codes of conduct and ethical review boards. Taking into account the specificities of each sector, risk and context of the AI use case, these measures give concrete guidance to stakeholders while being flexible in how to achieve effective accountability.

Transparency

A core element of trustworthy and human-centric AI is ensuring transparency around its use and application, as it may not always be evident what the role of algorithms may be in a decision-making process. DIGITALEUROPE's membership shares the ambition to deliver intelligible and meaningful information towards its users regarding AI or algorithm-driven products and services. This means that the information supplied should be tailored to the recipient and will necessarily be dependent of the purpose, context, impact and role of the AI application. Transparency of this nature will enhance users' trust in the technology and facilitate uptake across the board.

An additional dimension of transparency regards accountability and the proper governance of algorithm models and data. Internally, developers and deployers of AI strive to develop robust and comprehensive documentation practices (such as the work done in international standardisation bodies like with ISO9000 and in the ISO/IEC SC42 group). Such documentation can consider how the algorithms are designed, the AI model's purpose, how it may develop over time and how it is deployed. This is also closely linked to resilience and testing of the AI model, as well traceability of the training data.

These practices also facilitate external transparency, by providing a certain level of clarity for why AI works the way it does and delivers a certain outcome. Meaningful transparency should not be seen as revealing the complex algorithmic code, but rather general information on the algorithm's main parameters or used data. For example, AI used to assist decision-making with a direct impact on human healthcare may raise different concerns than AI for logistics and supply chain management, and would consequently mean that information should be conveyed differently to the respective audience (being mindful of different privacy and security needs as well).

In this context, there is of course a close relation to Europe's data protection and privacy legislation, such as the GDPR. The existing EU framework consequently sets robust and important safeguards on data gathering and usage, as well as on transparency and the provision of meaningful information dependent on the use case. To be effective, this requires a continuous balance with, for instance, IPR and trade secrets, cybersecurity and consumer protection to combat manipulation or fraud.

Overall, given these core differences, there will be only a limited scope for a 'one-size-fits all' approach towards AI governance on transparency (and beyond). Instead, a risk-based and proportionality-driven approach will be needed to assess those cases where an AI application may require a different set of measures. That could include a combination of updated sector-specific principles and regulatory guidance for those specific use cases, to further develop or interpret existing rules.

Fairness

It is essential that AI and data processes are in line with European social norms. For AI to benefit society at large, we must therefore ensure that AI systems are not skewed by bias hidden in data. This can originate from using inadequate datasets that are incomplete, outdated or not diverse enough. Unwanted discriminatory bias can also be the result of unconscious or historical behaviours and patterns. Just removing sensitive data may not be enough, as the AI model could pick up on or recognize patterns between other proxies.

AI models may never be completely free of unfair bias, as bias permeates our society. However, we can minimise the problem and constantly improve models. Developers and deployers can take action to identify and avoid bias in data, including through analysis and building common criteria and data quality standards. By increasing the quality of input data, paired with thorough scrutiny and diversity of sources, we can greatly improve the output as well.

In order to try avoiding such problems in the first place, especially as regards implicit biases, and to ensure ethical, fair and accountable AI, many companies have set in place constant re-evaluation processes, to detect divergences and anomalies, and to quickly correct these flaws. This also requires to an equal degree diversity across input and high-quality datasets, and among designers and software engineers for assessing and interpreting the output. It is also important to ensure appropriate training for data scientists and software engineers, so they can acknowledge and address their own biases.

Overarching digital policy recommendations

Data use

Many forms of AI depend on the availability of data to train and develop algorithms, machine and deep learning. Accessing data in enough quantity to make their solutions work is critical for many providers. EU policy should therefore seek to increase and incentivize the generation and use of data, by a more widespread digital transformation and infrastructure development. The current legal and regulatory framework for data plays a key role in establishing adequate protection and privacy standards, while being cautious not to create impediments for efficient and beneficial use of data.

As a positive example, DIGITALEUROPE welcomes the recent revision of the re-use of public sector information (PSI) directive, strengthening obligations to public bodies to give access to their data. Its proposed high-value datasets could also be used as pilots for increasing the quality and availability of data. As noted above, this is incredibly important in striving towards reducing bias and integrating values of diversity and fairness into AI processes. Steps towards making data available on a real-time basis, or as close to collection as possible, should be a priority.

However, further work is needed at EU level to incentivize data cooperation and exchanges across both public and private sectors. Technical, administrative and cultural hurdles must be overcome to make datasets available for AI across Europe. In this context, we need to find a balance ensuring a high level of data and IPR protection, guaranteeing confidentiality and respecting any applicable

contractual arrangements, without undermining innovation and the possibility for European businesses to compete in a global market.

Research and technical measures towards data accessibility in machine-readable formats, into secure interoperability APIs, and for overall data analysis and insight-gathering should be funded and supported as well. Additional efforts are also required to boost data usability through curation and annotation. Such investment and research efforts may take place through encouraging innovation hubs or regulatory sandboxes where companies can test innovative solutions and policy-makers can get closer to how such technologies work in practice.

Liability and safety

The European Union features a robust and balanced regulatory framework concerning liability and safety of new products and technologies, including for example the Product Liability and Machinery Directives. Standards, safety requirements and cybersecurity norms are among the highest in the world, fostering consumer and business trust. In the context of AI, robotics and related technologies, a common question raised is whether the existing regulatory framework is fit for purpose.

In practice, we see that the Product Liability Directive and Machinery Directive have worked and continue to function well. Even with new technologies, the underpinning foundations, rules and responsibilities remain clear and offer legal certainty to the various partners in the value chain, including consumer and business end-users. We also see this recognised in the recent assessments and consultations carried by the Commission.

Risks should therefore be identified in the first place to assess whether existing regulation is adequate. Only then it would be possible to evaluate whether the risks are fairly split between all parties involved. Further analysis on the complex matter of liability, negligence and fault, and attribution of risk and accountability should be therefore done in an informed and evidence-based manner.

Education and skills

In order to ensure that AI and its digital transformation capabilities will benefit people and society as a whole, DIGITALEUROPE advocates as a fundamental principle the continuous dialogue between all stakeholders across governments, education institutions, employers, employees and trade unions. We consequently advocate a stronger promotion and support of business-education links and public-private partnerships. Work-based education pathways linking education and private sector, such as apprenticeships, can produce significantly better results in terms of employability, inclusion, and youth employment.

As the workplace of the future is unknown and unpredictable, flexibility in terms of adjusting training and education will be crucial to adequately prepare for the digital transformation impact of AI on the labour market. To have that fast response, more effort should be put on comprehensive data collection, analysis and interpretation at both national and European levels, in order to better predict the skills needs and adjust trainings accordingly. Authorities should also leverage AI's potential in giving better insights into the trajectory of future skills needs.

Moreover, the EU must promote throughout the Member States an inclusive society from the beginning and make digital a key part of school curricula through a bigger emphasis on STEM. As a common and immediate goal, we need to ensure that the whole society possesses at least basic digital skills. Continuing on, we must also support the development of advanced skills, in both higher education and vocational training fields and, in terms of disciplinary subjects, in science and engineering as well as arts and culture. This does not only help people utilizing new technologies in our current working environment and build up diversity for AI development, but also prepares the ground for the jobs and activities of the future.

EU policy should therefore urgently foster increased investments in training, upskilling and professional development, throughout working life. EU Member States need a joint master plan for education, dual vocational training, and training that meet the future demand for skills. Re-training of the workforce should be part of national training funds and tax incentives schemes. In addition, EU funds and programmes should support and be included into a comprehensive plan for digital skills and new technologies.

Investment and competitiveness

To promote investments and uptake in AI, the EU needs to strongly increase its investments, to reduce the current research gap compared to other continents. This should be combined with an openness to the industry to foster an innovative public-private environment for AI.

An increase in EU funding for the future Horizon Europe and Digital Europe programmes would be crucial to create a nurturing environment for AI activities in Europe. EU innovation investment programmes award grants to consortia gathering public and private actors. With the current lack of investment in research and innovation, many consortia proposals are not awarded a grant: the success rate in the ICT field for Horizon 2020 was of only 6.7% in 2015. Low success rates create an 'oversubscription' which has a direct impact on the effectiveness of the EU funding programmes and their ability to ensure that AI research pilots are quickly initiated and their results scaled up.

For Europe to be a leader in AI, the EU needs to support collaboration between public and private organisations, particularly through public-private partnerships and the deployment of Digital Innovation Hubs. Whether it is made through grants, public procurement or loans, investment in AI should include, as much as possible, private companies and tailor funding rules to make them industry-friendly. Adapting the EU funding obligations to the business environment would ensure the participation of key industrial sectors and companies and allow to support the needs of all actors in innovation.

Policy-makers should also embrace Europe's diversity and key differentiating strengths in managing multi-disciplinary projects (including sandboxing use-cases), by investing and fostering cross-sector collaboration that can timely bring innovation in industrial AI to life. Europe should promote this type of projects in AI research centres, superclusters, as well as in the implementation phase, such as through the Digital Europe programme.

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About DIGITALEUROPE

DIGITALEUROPE represents the digital technology industry in Europe. Our members include some of the world's largest IT, telecoms and consumer electronics companies and national associations from every part of Europe. DIGITALEUROPE wants European businesses and citizens to benefit fully from digital technologies and for Europe to grow, attract and sustain the world's best digital technology companies. DIGITALEUROPE ensures industry participation in the development and implementation of EU policies.

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