COMMENTS OF THE
ACM EUROPE TECHNOLOGY POLICY COMMITTEE ON
"ESTABLISHING A PRO-INNOVATION APPROACH
TO REGULATING AI" POLICY PAPER

The Association for Computing Machinery (ACM) is the world's largest and longest established professional society of individuals involved in all aspects of computing. It annually bestows the ACM A.M. Turing Award, often referred to as the "Nobel Prize of computing." ACM Europe Technology Policy Committee (Europe TPC) is charged with and committed to providing technical information to policy makers and the general public in the service of sound public policy formation. ACM and Europe TPC are non-profit and non-lobbying organisations.

Europe TPC supports the intent of the UK Government to establish a "pro-innovation approach to regulating AI" (AI Regulatory Framework) and welcomes this opportunity to comment[1] on the July 2022 Policy Paper addressing these issues (Policy Paper).[2]

Europe TPC respectfully submits its responses to each of the six discrete inquiries enumerated in the Policy Paper and offers four general recommendations:

- Environmental risks and impacts should explicitly be considered and addressed;
- AI regulation must be compatible internationally to enable the technological; interoperability needed to sustain a thriving global ai ecosystem;
- Critical elements of the proposed cross-sectoral principles should be clearly defined; and
- Development of an ai regulatory framework must remain a highly transparent process.

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[1] The principal author of this document for Europe TPC was Alejandro Saucedo, Engineering Director at Seldon Technologies and Chief Scientist at the Institute for Ethical AI & Machine Learning. Also contributing were Europe TPC Chair Chris Hankin, Fellow of the Institute for Security Science and Technology and Professor of Computing Science at Imperial College, London; and Committee members Bran Knowles, Senior Lecturer at Lancaster University, and Natasa Milic-Frayling, CEO at Inact Digital.

[2] See Command Paper: CP 728 (updated 20 July 2022) [https://www.gov.uk/government/publications/establishing-a-pro-innovation-approach-to-regulating-ai/establishing-a-pro-innovation-approach-to-regulating-ai-policy-statement].

GENERAL RECOMMENDATIONS

I. *Environmental Risks and Impacts Should Explicitly be Considered and Addressed*

Europe TPC recognises the potential of AI applications to aid in mitigating the effects of climate change, but also notes the significant carbon-generating impact of AI technologies themselves. We note with concern the absence in the Policy Paper of references to cross-cutting principles related to constraining these environmental impacts. Moreover, absent such constraints, explicit commitments to growth and innovation could counterproductively spur carbon emissions, undermining efforts to meet internationally agreed climate targets. Accordingly, the UK's efforts to regulate AI should be informed and shaped by consideration of their intrinsic carbon impact. Europe TPC recommends that such matters be explored by bodies, such as the Digital Regulation Cooperation Forum to understand the impacts of AI on the economy, society, and environment.

II. *AI Regulation Must be Compatible Internationally to Enable the Technological Interoperability Needed to Sustain a Thriving Global AI Ecosystem*

The Policy Paper is silent with respect to the mechanisms to avoid and mitigate adverse effects of internationally incompatible regulations and policies.[3] Regulatory alignment Is required to enable for the full social and economic potential of AI-powered products and services offered by the United Kingdom internationally, as well as when these are procured from international providers. Regulatory alignment can also support the development of systems that facilitate interoperability,[4] which is necessary when exchanging or restricting access to relevant data, metadata and/or resources[5] between AI powered products and services globally. This is of critical important as national and international AI regulatory frameworks are put in place, such as the European Commission's Artificial Intelligence Act (AI Act).[6]

Europe TPC recommends that such matters also be expressly addressed in the forthcoming UK AI Regulatory Framework plan. Absent such consideration, we note that disparate compliance requirements across borders could well lead to market barriers, increased bureaucratic burdens, and thwarted innovation particularly in highly regulated, heavily multi-national sectors, such as finance and pharmaceuticals. Aligned cross-border AI policy

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[3] *E.g.*, the European Commission's approach to regulating AI and the recent creation of the National Artificial Intelligence Advisory Committee in the US.

[4] Interoperability is defined as the ability of different systems, devices, applications or products to connect, communicate and exchange information efficiently in a coordinated way with reduced overhead for manual intervention See https://dictionary.cambridge.org/dictionary/english/interoperability.

[5] AI related data, metadata, and resources (such as AI models) are defined in the European Union Agency for Fundamental Rights report on Data Quality and AI. https://fra.europa.eu/sites/default/files/fra_uploads/fra-2019-data-quality-and-ai_en.pdf

[6] https://digital-strategy.ec.europa.eu/en/policies/european-approach-artificial-intelligence

and regulation will be necessary to enable UK-based organisations to benefit from AI services provided by companies and organisations based in other jurisdictions.

This could require the establishment of a mechanism similar to the Safe Harbor Privacy Principles,[7] which provide a legal route for companies to transfer personal data from the European Union to the United States.

III. Critical Elements of the Proposed Cross-Sectoral Principles Should be Clearly Defined

Europe TPC supports the UK's pro-innovation approach to regulating AI through the listed cross-sectoral principles,[8] which have the potential to establish UK policy as a blueprint for how the responsible development and deployment of AI technologies at a national level can lead to a thriving economy and healthy AI ecosystem. To that end, however, we urge the government of the UK to develop concrete taxonomies and unambiguous definitions of key terms that presently are imprecise, such as "fairness," "explainable," "transparent," and "risk."

The broad idea of "fairness," for example, can encompass both the equitable distribution of benefits and risks of AI across society, as well as statistically unbiased decision making. Similarly, "risk" is an equally complex concept that may address issues as divergent as the potential of AI-induced harm to a relatively few individuals and the technologies' environmental risks globally.

IV. Development of an AI Regulatory Framework Must Remain a Highly Transparent Process

Europe TPC welcomes the important role of the AI Council in contributing to the development of the Policy Paper. We expect the process of developing and maturing the regulation will remain a transparent process with broad opportunities for engagement by the public and stakeholders diverse in all respects. It also is essential that to ensure that the process is meaningfully informed by diverse voices. Europe TPC looks forward to contributing to this process and urges the UK government to emulate the European Commission's approach of transparently gathering and validating evidence from expert groups and individuals. Specifically, we recommend that a "High-Level Expert Group" for Artificial Intelligence be established.[9]

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[7] See
https://www.ftc.gov/business-guidance/resources/federal-trade-commission-enforcement-us-eu-us-swiss-safe-harbor-frameworks

[8] These principles, as drafted in the Policy Paper, are: ensure that AI is used safely; ensure that AI is technically secure and functions as designed; make sure that AI is appropriately transparent and explainable; embed considerations of fairness into AI; define legal persons' responsibility for AI governance; and clarify routes to redress or contestability. These principles, the Policy Paper notes, are to be: 1) context specific; 2) pro-innovation and risk-based; 3) coherent; and 4) proportionate and adaptable.

[9] See https://digital-strategy.ec.europa.eu/en/policies/expert-group-ai.

SPECIFIC INQUIRY RESPONSES

The following specific responses to the six questions posed by the UK government in the Policy Paper reflect the foregoing Europe TPC general recommendations:

1) *What are the most important challenges with our existing approach to regulating AI? Do you have views on the most important gaps, overlaps or contradictions?*

The most important challenges with the proposed approach to regulating AI are encapsulated by Europe TPC's four recommendations:

I.   Environmental Risks and Impacts Should Explicitly be Considered and Addressed
II. AI Regulation Must be Compatible Internationally to Enable the Technological Interoperability Needed to Sustain a Thriving Global AI Ecosystem
III. Critical Elements of the Proposed Sectoral Principles Should be Clearly Defined
IV. Development of an AI Regulatory Framework Must Remain a Highly Transparent Process

2) *Do you agree with the context-driven approach delivered through the UK's established regulators set out in this paper? What do you see as the benefits of this approach? What are the disadvantages?*

Europe TPC welcomes the UK's context-driven approach to effective AI regulation, but would like to highlight, however, that care must be taken to ensure that it does not untenably require or incentivise regulators to focus overly on technological details and insufficiently on the risks AI technologies may pose to individuals in specific use cases. Defining critical terms, as emphasized in our third recommendation, could reduce the odds that this unintended dynamic will develop. *(Recommendation III)*

3) *Do you agree that we should establish a set of cross-sectoral principles to guide our overall approach? Do the proposed cross-sectoral principles cover the common issues and risks posed by AI technologies? What, if anything, is missing?*

Europe TPC believes that the UK's proposal to establish a set of cross-sectoral principles to guide the development of AI regulations is sound. As reflected above, however, the environmental risks and impacts of such technologies must be addressed explicitly in those principles as developed through a highly transparent process informed by substantial expert and public input. *(Recommendation I)*

4) *Do you have any early views on how we best implement our approach? In your view, what are some of the key practical considerations? What will the regulatory system need to deliver on our approach? How can we best streamline and coordinate guidance on AI from regulators?*

Europe TPC highlights the importance of a transparent and diverse process to develop an effective AI Regulatory Framework. *(Recommendation IV)*

5) ***Do you anticipate any challenges for businesses operating across multiple jurisdictions? Do you have any early views on how our approach could help support cross-border trade and international cooperation in the most effective way?***

Per our comments above, Europe TPC would like to highlight the importance of regulatory alignment and technological interoperability in formulating a comprehensive AI Regulatory Framework plan to ensure a thriving pro-innovation environment globally. *(Recommendation II).*

6) ***Are you aware of any robust data sources to support monitoring the effectiveness of our approach, both at an individual regulator and system level?***

Europe TPC believes that, to effectively monitor and enforce a pro-innovation approach to regulating AI, it will be necessary to design and implement a transparent process in which diverse policy and technology experts can support the creation of an AI Regulatory Framework. *(Recommendation IV)*