Council of the European Union

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NOTE

From:	General Secretariat of the Council
To:	Delegations
No. prev. doc.:	5906/25
Subject:	Draft Council Conclusions "Towards the EU strategy on AI in science" - Presidency text

Delegations will find attached a Presidency text on the draft Council conclusions "Towards the EU strategy on AI in science" with a view to the Research Working Party meeting on 27 February 2025.

Changes in comparison to doc. 5906/25 are marked in **bold underline** for additions and in ~~strikethrough~~ for deletions.

ANNEX

DRAFT COUNCIL CONCLUSIONS

TOWARDS THE EU STRATEGY ON AI IN SCIENCE

THE COUNCIL OF THE EUROPEAN UNION

RECALLING:

– its conclusions of 26 November 2021[1] on the Future Governance of the European Research Area (ERA);

– its conclusions of 2 December 2022[2] on the New European Innovation Agenda;

– its conclusions of 5 November 2024[3] on the European Court of Auditors' Special Report No. 08/2024 entitled 'EU Artificial Intelligence ambition – Stronger governance and increased, more focused investment essential going forward', stressing the need for coordinated efforts, scaled up investments and improved access to digital infrastructure for AI development;

TAKING NOTE OF:

– the Commission's communication on the Coordinated Plan on Artificial Intelligence (AI)[4], providing a framework for aligning Member States' strategies with EU priorities;

– the evidence review report of the Scientific Advice Mechanism to the European Union entitled "Successful and timely uptake of artificial intelligence in science in the EU" published in April 2024.

– **the Commission's guidelines on prohibited artificial intelligence practices established by the AI Act, notably its Annex on research exemptions**[5]**.**

1 14308/21.
2 14705/22.
3 14849/24.
4 COM(2021) 205 final
5 C(2025) 884 final.

1. RECOGNISES that rapid development of AI and AI technologies dedicated for science, which **is transforming** ~~have transformed~~ science practice and led to groundbreaking achievements and ~~creative~~ applications in science.~~, with AI being central to the discoveries awarded with recent Nobel Prizes in physics and chemistry~~.

2. ACKNOWLEDGES the excellence of European research and innovation (R&I) in AI and its critical role in enabling cutting-edge science, **both in basic and applied research**, addressing global challenges**, enhancing competitiveness, meeting societal needs,** and driving digital transition in Europe **in an efficient and inclusive manner**.

2a. Furthermore, RECOGNISES the importance of international AI collaboration in science, EMPHASISING that the EU should explore reciprocal partnerships with global AI leaders to enhance scientific exchange, interoperability, and the responsible and ethical development.

3. STRESSES the ~~unprecedented~~ **transformative** potential of responsible**, sustainable,** ~~and~~ ethical **and inclusive** use of AI in science to stimulate groundbreaking knowledge and **drive** ~~accelerate~~ innovation deployment, **accelerate time to market,** to strengthen R&I performance of the entire Union and boost its capacity to compete globally, thus leading to significant social and economic benefits and improved Member States' ability to grow, innovate, build strategic leadership in high-impact sectors, **reinforce economic security,** and tackle challenges ~~of various backgrounds~~.

~~4. HIGHLIGHTS a growing number of European researchers and entrepreneurs who are already harnessing AI in their pioneering projects.~~

5. CONSIDERING that AI systems and models specifically developed and put into service for the sole purpose of scientific research and development as well as research testing and development activity regarding AI systems or models **prior to their being placed on the market or put into service** are exempt from the AI Act[6], ~~emphasising the freedom of science and flexibility to enable exploratory and innovative activities~~.

[6] OJ L, 2024/1689, 12.7.2024, p.1.

6. NOTES that the EU currently has no dedicated and systemic policy to facilitate the uptake of AI in science; such a policy **should** ~~could~~ connect and complement existing **and upcoming** AI initiatives to boost the uptake of AI in science and provide for new, better targeted **actions** ~~policies~~ regarding its application.

7. **ACKNOWLEDGES** ~~CALLS therefore on~~ the Commission**'s** ~~to~~ work on a **forthcoming** European strategy ~~to accelerate responsible uptake~~ of AI in science, **based on the best available knowledge and practice and** in close cooperation with the Member States and **the research and innovation (R&I) community** ~~based on the best available knowledge~~.

8. HIGHLIGHTS that this strategy should in particular:

   – **support the development of an interdisciplinary research ecosystem around AI in science;**

   – enhance coordinated policy developments at the EU and national levels**,** for **an** increased responsible**, ethical and inclusive** use of AI in science;

   – provide for an efficient way of monitoring the impact of AI on the scientific process;

   – work on upskilling **and reskilling** researchers **and research professionals** to ~~equally~~ benefit from AI-based solutions ~~to accelerate research productivity in the EU~~;

   – promote **responsible,** ~~an~~ ethical, **sustainable and inclusive** ~~approach and transparent and responsible~~ use of AI-based systems, solutions and tools applicable in R&I;

   – support open access to reliable data based on FAIR principles (findability, accessibility, interoperability, reusability) **while ensuring robust security measures to protect sensitive information and uphold data integrity**;

   – enhance interconnectivity **and interoperability** between relevant strategic infrastructure and resources.

Coordinated policy and support for AI in science

9. STRESSES the importance of a common European agenda for AI in science, and INVITES the Commission to support the development of, interdisciplinary research community around AI in science, bringing together domain scientists, **including from the social and human sciences , and** ~~using~~ AI ~~and computer~~ scientists~~, in line with the Union's strategic interest.~~

10. NOTES the importance of funding, data, computational power ~~and~~ scientific talent **and skills** for EU competitiveness in AI and INVITES the Commission to propose innovative ways **to** ~~for~~ support~~ing~~ **appropriate** access to these resources by **the R&I community** ~~scientists~~.

11. TAKES NOTE of the idea of the creation of the EU AI Research Council, as announced by the President of the Commission, and CALLS on the Commission to **work with** ~~consult~~ Member States on the details of this initiative**, in particular its mission and governance to make the best use of existing initiatives and structures**.

12. **HIGHLIGHTS the need** ~~ENCOURAGES Member States~~ to align or, where appropriate, create dedicated **national or regional** strategies for AI in science, leveraging synergies with broader AI initiatives both at national and European levels. **NOTES the potential of the development of sector-specific roadmaps, mapping and monitoring of upcoming initiatives for avoiding duplication and fragmentation.**

~~13. HIGHLIGHTS the need of better alignment between EU and national AI strategies, including the development of sector-specific roadmaps, mapping and monitoring of upcoming initiatives to avoid duplication and fragmentation.~~

14. CALLS for improved coordination between AI foundation models **and broader methodologies** developed for science at the Member State level and those initiated by the Commission to maximise impact and **ensure their complementarity** ~~avoid duplication~~.

Upskilling and reskilling of the R&I community ~~researchers and innovators~~

15. CALLS on the Commission, Member States, and the European R&I communit**y**~~ies~~ at large to support ~~talents for~~ the development of **trustworthy** "made in Europe' AI solutions and ~~for~~ increased **and responsible** use of AI in science, and **continue** ~~to~~ work**ing** on **developing,** attracting, retaining, and bringing **back** AI research and innovation talent ~~back~~ to Europe, **including through the development of networks and exchange programmes for graduate and doctoral students and the ERA Talent Platform.**

16. EMPHASISES the need for comprehensive upskilling and reskilling programmes in AI, **considering the specific needs of** ~~dedicated to~~ researchers**, research support staff** and innovators, in order to **increase** ~~broaden~~ researchers' **capacity** ~~readiness~~ to benefit from AI opportunities, secure their ~~equal and~~ fair access to new knowledge and new technologies, and enable the transition of working methods in R&I**, as appropriate,** that leaves no one behind.

17. ENCOURAGES Member States**, in accordance with their national competencies,** to support **higher education,** ~~vocational~~ training and lifelong learning initiatives to meet the growing demand for AI expertise**, in science, including relevant market needs**.

18. HIGHLIGHTS the need to support **fair,** open and transparent access to technologies, **digital** ~~data~~ infrastructures **and computer facilities** for all researchers interested in AI use in science~~,~~**.** **STRESSES** ~~and to address gender inequalities in AI use for scientists~~ **that developments in AI technologies should avoid bias, gender prejudice, or other forms of discrimination**. CALLS FOR programmes to support underrepresented groups in STEM and AI research through**, for example,** mentorship and funding opportunities.

Ethical, sustainable, inclusive and human-centric approach

19. **RECOGNISES** ~~NOTES~~ that the AI uptake in science carries risks stemming from the tool's technical limitations, intentional or unintentional misuse, data manipulation, generation ~~reproduction~~ of factual errors, unethical algorithms **and models** design, **overreliance, and concerns related to explainability, data protection and intellectual property,** and other issues that might erode the reliability**, reproducibility** and integrity of research practices.

20. URGES the Commission to provide quality **benchmarks** ~~standards~~ for AI in science **in close cooperation with the scientific community** and, monitoring **the effects of** ~~opportunities and risks for~~ AI uptake in R&I, counteract malicious uses and alert on inappropriate practices **and other misuses**, in close cooperation with Member States. STRESSES the need to develop and frequently update guidelines, benchmarks and best practice for the use of AI in science to ensure the integrity **and transparency**, **and enhance** reliability, **and** validity ~~and transparency~~ of R&I **outputs** ~~results~~. WELCOMES, in this light, the ERA Forum Stakeholders' document: 'Living Guidelines on the Responsible Use of Generative AI in research'.

Open and reliable ~~responsible~~ data to feed AI for science

21. RECOGNISES the importance of high-quality, findable, accessible, interoperable, reusable (FAIR) and responsibly collected data for AI applications in science. **Thereby TAKES NOTE of the Lund Declaration on maximising the benefits of FAIR and open research data in Europe**. **HIGHLIGHTS the need to stimulate and reward researchers for making their curated data and models available according to ethical and FAIR principles, and also for** ~~STRESSES that the European Data Regulation framework should include targeted actions to~~ make**ing** data suitable for AI processing, fostering harmonised data sharing and interoperability.

22. INVITES Member States to contribute actively to **the implementation of** existing **common** European Data Spaces, such as the European Open Science Cloud (EOSC), **and** ~~to establish~~ new data spaces where necessary to support AI-driven research.

23. ENCOURAGES the adoption of open science practices in data collection, data sharing, and the **building of AI tools for science, including the** use of **open** models and algorithms, to increase the efficiency**, transparency, and reproducibility** of AI-powered science.

Fair access to AI solutions and interlinked infrastructure

24. CALLS on the Commission and the Member States for increased efforts to better connect AI-enabling infrastructure and resources across ~~Europe~~ **the whole Union,**, support equitable access to high performance computing ~~and advanced software~~ for researchers and innovators, and foster **cross-border and, where appropriate, international** collaboration among researchers~~,~~ **and relevant stakeholders (e.g.** startups and scaleups, industry, social organisations and policymakers**)**.

25. RECALLS the importance of developing dedicated AI technologies for application in science. TAKES NOTE of **EU and** Member States' efforts to enhance computing capacity and INVITES them to strengthen **stakeholders'** involvement**, notably from the private sector**, investment and collaboration to achieve further improvements.

26. STRESSES the need for **better involvement of the R&I community with the ecosystem built around** ~~a more comprehensive Federation of~~ European High-Performance Computers (HPCs~~), building on existing initiatives such as EuroHPC~~ and AI Factories~~, to support AI research and innovation~~. CALLS ON Member States and the Commission to further enhance **and facilitate access by researchers to** computational capacity, **to improve** infrastructure interoperability, and facilitate **fair** ~~undisturbed~~ access for researchers and innovators to HPCs ~~and software~~ for advancing research on AI and for its uptake in science, while considering energy **efficiency** ~~consumption needs~~.

27. NOTES the potential of EU companies, SMEs ~~and~~**,** startups **and scaleups** in supporting researchers **and innovators** to develop, and benefit from trustworthy AI-based technologies for R&I, and CALLS ON the Commission and Member States to stimulate and support work on systems, applications or tools for the targeted use of AI in R&I**, considering IPR and copyright**.

28. CALLS for leveraging public procurement and R&I funding, to foster the adoption of AI technologies in, **for example, higher education institutions** ~~universities~~, research organisations, technology transfer offices and accelerators, promoting the integration of AI into scientific processes, university spin-offs, innovative startups and scaleups