## **Scientific Advice Mechanism**

to the European Commission

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## Academies encourage the European Commission to adopt a careful and ethical approach to AI in European crisis management

A group of prominent scientists, nominated by the Academy Networks of SAPEA, part of the Scientific Advice Mechanism to the European Commission, is delivering today a report on the role of artificial intelligence in emergency and crisis management. The report is being offered to Maciej Popowski, Director-General of the European Commission's DG ECHO (European Civil Protection and Humanitarian Aid Operations).

<u>The Scientific Advice Mechanism</u> provides independent scientific evidence and policy recommendations to the European institutions. Scientists play a crucial role in guiding EU policy, especially in areas like AI in emergency and crisis management, where cross-sectoral coordination across Europe is essential.

Al offers significant potential to enhance emergency and crisis management in certain situations. Adopting a socio-technical lens, the report holds that Al tools must uphold human dignity, transparency and responsibility, whilst meeting European standards for safety and ethics. Careful monitoring is required to ensure compliance with legal frameworks, avoid algorithmic biases, and maintain meaningful human control.

Evidence suggests that AI performs best on standardised, data-intensive tasks typical in frequent disasters such as floods, wildfires, and droughts. It excels at repetitive monitoring tasks important for early warning systems and can process social media and assess damage at scales and speeds beyond the reach of human analysts. However, AI is not well suited to interpreting highly heterogeneous contexts or new situations where appropriate training data is lacking. Moreover, morally challenging decisions and trade-offs should not be referred to an AI tool.

The development and implementation of benchmarks, practical guidelines, codes of conduct and sandbox environments for AI in crisis management would allow the testing of AI under supervision and with ethical oversight, before full deployment.

A new European crisis management data preparedness framework, with common standards and agreed sharing protocols, could help fill data gaps and promote data harmonisation between Member States, enabling the training of EU-wide AI for relevant EU contexts, and helping deliver better EU crisis management tools.

"Crises cross borders, but data is managed at the national level, leading to different standards. This diversity can lead to fragmentation in the data landscape that AI cannot easily bridge.

Data preparedness is an important step to connecting these data systems that provide the necessary foundation for AI to provide effective decision support in European crisis management," explained Professor Tina Comes, chair of the SAPEA working group on Artificial Intelligence in Emergency and Crisis Management.

## Contact

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## **About us**

<u>The Scientific Advice Mechanism</u> provides independent scientific evidence and policy recommendations to the European institutions by request of the College of Commissioners. It includes the Science Advice for Policy by European Academies (<u>SAPEA</u>) consortium, which gathers expertise from more than 100 institutions across Europe, and the Group of Chief Scientific Advisors (<u>GSCA</u>), who provide independent guidance informed by the evidence.