

European Network of AI Excellence Centres publishes strategic research agenda for the development of trustworthy AI in Europe

European Learning and Intelligence Systems Excellence (ELISE) has today published its Strategic Research Agenda, setting out a roadmap for European leadership in the development of safe and effective AI systems.

Machine learning and AI technologies are already successfully deployed in a range of applications, from car driver assistance to language translation and in fields from climate science to drug development. Further advances in these technologies have the potential to transform economies and society, contributing to better healthcare, safer transport, more productive and competitive industry, and more effective public services. Recognising this potential, recent research and policy initiatives have placed AI at the heart of European visions for a thriving economy, healthy planet and effective public administration.

European Learning and Intelligence Systems Excellence (ELISE) is a consortium of artificial intelligence (AI) research hubs that connects Europe's leading researchers in machine learning and AI. ELISE's vision is of a powerhouse of European AI that advances machine learning technologies and their application to areas of pressing scientific and social interest. The network has today published its Strategic Research Agenda – a roadmap setting out the contribution that technological advances can make to the development of safe and effective AI systems.

“Despite recent advances, most of machine learning's enormous potential is still to be realised” says Professor [Samuel Kaski](#), PI of ELISE and Professor of Computer Science at Aalto University, Helsinki, “Europe's future success in AI will depend on its ability to attract excellent researchers developing cutting edge machine learning tools and using those tools for the benefit of wider society. ELISE's Strategic Research Agenda – created by a European community of machine learning experts – sets out how research advances can contribute to this vision.”

Introducing the Strategic Research Agenda, Professor [Neil Lawrence](#) of Cambridge University said “There is an opportunity today for a new wave of machine learning research that builds on the successes of recent years and helps create safe, effective and trustworthy AI systems. ELISE is bringing together Europe's leading technologists to create a new vision for AI technologies. ELISE-supported research will seek to increase the technical sophistication of machine learning, to ensure AI technologies perform well in deployment, and to align technology development with society's needs and concerns.”

The Strategic Research Agenda sets out core areas of interest for the ELISE network – in security and privacy; explainable and transparent AI; trustworthiness and AI certification; AI integration across systems; and AI ethics and societal impact. These themes connect 16 research programmes supported through ELISE and its partner network, the fast-expanding [European Lab for Learning and Intelligent Systems](#) (ELLIS). The research agenda reflects an opportunity today to create a new wave of European AI research that drives innovations in machine learning theory, methods, and applications to create AI technologies that can benefit people and society.

Both ELISE and ELLIS are set up to attract students and experienced researchers, to sustain high level independent research in academia, and to spread AI knowledge and methods across research, industry and society. Together, this community will build a new generation of machine learning systems that are technically powerful, effective when deployed in real-world environments, and aligned with society's values and concerns.