**ELiAS** European Lighthouse of AI for Sustainability

*Press Release*

## ELIAS Publishes Strategic Research Agenda: Building Europe's Pathways to Responsible and Sustainable AI

*Trento, Italy - October 3, 2025*

The **ELIAS Consortium** today announced the publication of its landmark report, *Pathways to Responsible and Sustainable AI – Strategic Research Agenda (SRA)*. Developed under the EU-funded **European Lighthouse of AI for Sustainability (ELIAS)** initiative, the document sets out a bold, long-term roadmap for AI research grounded in **environmental, societal, and ethical values**, demonstrating how Europe can lead globally in AI that delivers tangible benefits for people, society, and the planet.

Artificial intelligence is increasingly seen as a cornerstone of Europe's **digital and green transitions.** It offers immense potential for addressing global challenges, from climate change and resource efficiency to democratic resilience and economic inclusion, but also raises pressing questions around **energy consumption, fairness, privacy, and trust.** The ELIAS SRA responds by defining **long-term research priorities and actionable pathways** that embed sustainability into the entire AI lifecycle, from model design to deployment and governanc*e.*

As **Project Coordinator Nicu Sebe** emphasises, the Strategic Research Agenda is more than a research roadmap—it is a *"compass for Europe to lead globally in AI that is open, responsible, and impactful—not just for today's performance, but for the wellbeing of society and the planet in the future."* By grounding AI in sustainability, trust, and human values, the agenda ensures that European AI research delivers meaningful benefits for both people and the planet.

### Five Pillars of the ELIAS Strategic Research Agenda

The SRA defines five interconnected pillars across three core dimensions of Sustainable AI: the **planet, society, and the individual.** These pillars are supported by two cross-cutting enablers, **Fostering Scientific Excellence** and **Entrepreneurship & Tech Transfer**, ensuring ELIAS research delivers practical, scalable, and socially responsible AI innovations.

- **AI for a Sustainable Planet** – creating hybrid AI models that integrate scientific knowledge to accelerate clean energy, sustainable materials, and climate resilience, while reducing AI's own carbon footprint.
- **AI for a Sustainable Society** – developing systems to safeguard democracy, counter disinformation, support inclusive prosperity, and foster fair coordination of shared resources.
- **Trustworthy AI for Individuals –** ensuring AI systems are fair, transparent, privacy-preserving, and attentive to human cognition and diversity of needs.

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- **Fostering Scientific Excellence** – expanding PhD programs, fellowships, and cross-border collaborations to strengthen Europe's AI research community and train the next generation of talent.
- **Entrepreneurship & Tech Transfer (Sciencepreneurship)** – bridging the gap between research and real-world application through open calls, accelerators, internships, and sciencepreneurship initiatives.

Together, these pillars provide a **holistic framework** that balances technical excellence, ethical responsibility, human-centric design, and environmental stewardship, guiding research, policy, and innovation across Europe.

## From Research to Societal Impact

The SRA works hand-in-hand with the **Innovation & Sustainability Agenda (ISA)**, which details how research breakthroughs can move seamlessly from the **lab to the market and society,** creating lasting impact beyond the project's lifetime**.** ELIAS is already delivering tangible outcomes:

- **AI [competitions and challenges](#) i**n climate modeling and sustainable materials discovery.
- Dedicated **Sustainable AI track within the ELLIS [PhD program](#)**, with **[Fellows and Scholars](#)** appointed across Europe.
- Transformative Technology **Summer School** and **startup internship programs** equipping young researchers with entrepreneurial skills.
- **[Open Calls](#)** for SMEs (Small Medium Enterprises) and NGOs (Non Governmental Organisations) to co-develop sustainable AI solutions across Europe.
- **Launch of the [ELIAS Alliance](#)**, uniting **[eight European nodes](#)** to advance AI innovation, entrepreneurship, and open-source foundation models across academia and industry.

By translating cutting-edge AI research into tangible societal benefits—through competitions, PhD programs, startups, and Alliance—ELIAS is already shaping a more sustainable and inclusive future. Highlighting this vision, **Matthias Bethge, Co-head of the ELIAS Node Tubingen**, notes: *"Europe has a unique opportunity to demonstrate that AI innovation can strengthen open, pluralistic societies and resilience. Through the ELIAS Alliance, we build on academic excellence and education to inspire top talent to engage in value creation and to help build societies that are more confident, inclusive, and capable of tackling global challenges together. "*

Together, the SRA and ISA provide a comprehensive roadmap, ensuring that AI research translates into tangible environmental, social, and economic benefits, while delivering **policy-relevant, market-ready, and socially responsible solutions.**

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## Alignment with European Priorities

The agenda is explicitly aligned with the **European Green Deal, the Digital Decade, the forthcoming AI Act, and the UN Sustainable Development Goals.** By embedding sustainability, trust, and social responsibility into the AI innovation pipeline, ELIAS strengthens Europe's technological sovereignty and positions the region as a global leader in responsible AI.

The **ELIAS Strategic Research Agenda: Pathways to Responsible and Sustainable AI** is now available at www.elias-ai.eu.

## Acknowledgements

The publication of the Strategic Research Agenda reflects the collaboration of the entire ELIAS consortium and its wider community. We thank all ELIAS partners and contributors for their dedication.

## About ELIAS

The **European Lighthouse of AI for Sustainability (ELIAS),** under the coordination of the University of Trento, brings together 34 leading European institutions across 17 countries to drive **scientific excellence and responsible innovation** in AI. Building on the European Laboratory for Learning and Intelligent Systems (ELLIS), a highly acclaimed institution with international recognition, ELIAS integrates academic research with industry applications to deliver AI that is **sustainable, ethical, and socially beneficial.** The project is funded by the European Union's Horizon Europe Research and Innovation program under grant agreement No. 101120237.

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