

European Lighthouse to Manifest Trustworthy and Green AI

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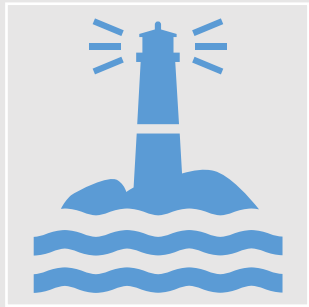
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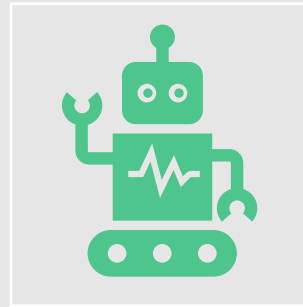


Funded by
the European Union

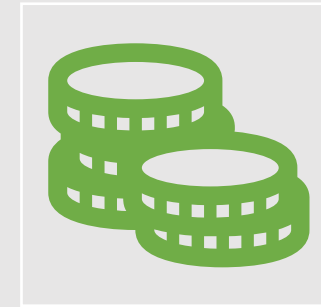
Background



European Network of AI
Excellence Centres: Expanding the
European AI lighthouse (RIA)
[HORIZON-CL4-2022-HUMAN-02-
02]



A Human-Centered and Ethical
Development of Digital and
Industrial Technologies 2022
(HORIZON-CL4-2022-HUMAN-02)



Budget ~ EUR 11.5 Million
Grant Agreement No.: 101120657

Background

The selected networks of excellence centers will contribute to the larger objective of the European Commission to establish the **European AI lighthouse**.

The AI lighthouse is expected to mobilize the AI community to collaborate on **key AI research challenges** and to progress faster in joined efforts rather than working in silos, leading to fragmented and duplicated efforts. This is essential to reach critical mass and overcome the present fragmentation of AI research in Europe.

The lighthouse will bring together **stakeholders from research, innovation, and deployment**, to become a **world reference in AI** that can attract investments and the best talents in the field. The lighthouse will build on key pillars, each of them being a network of excellence centers specializing in a given topic where Europe has the potential to become a global champion.



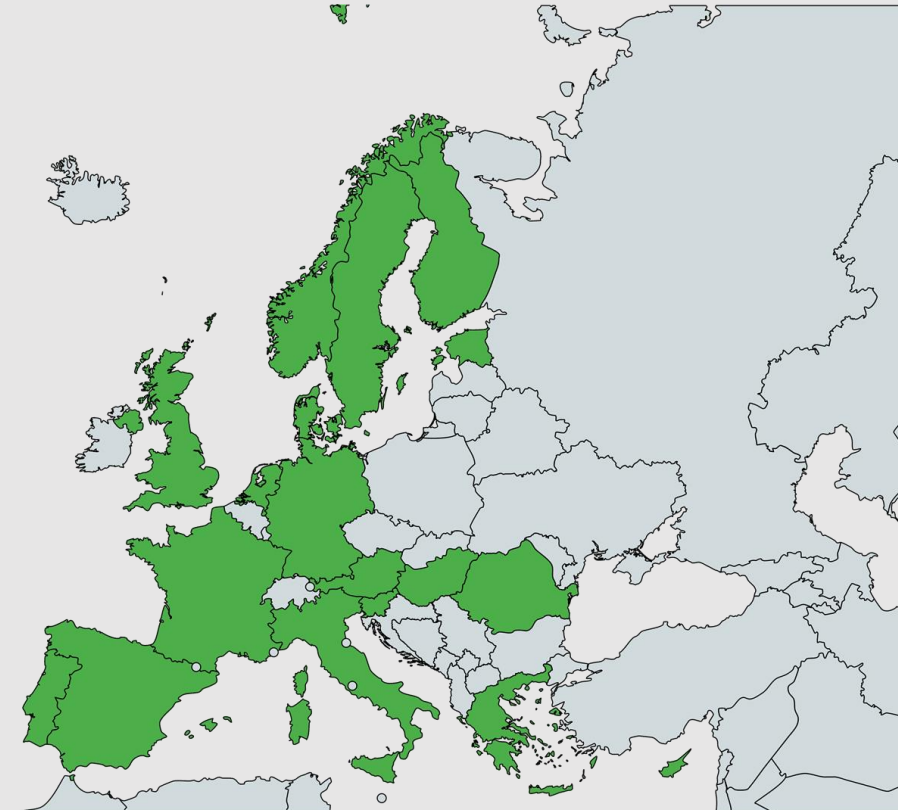
ENFIELD Information



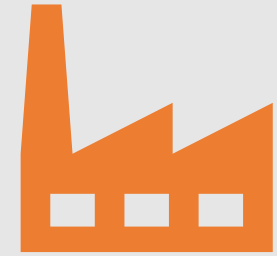
30 Partners



18 Countries



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Industry/SME



Academia/Research



Funded by
the European Union

ENFIELD Partners



ENFIELD Pillars



ADAPTIVE AI



GREEN AI



HUMAN-CENTRIC AI



TRUSTWORTHY AI

ENFIELD Verticals



HEALTHCARE



ENERGY



MANUFACTURING



SPACE

ENFIELD Pillars and Verticals



GREEN AI (SINTEF)



ADAPTIVE AI (IMT)



HUMAN-CENTRIC AI (TUE)



TRUSTWORTHY AI (NTNU)



ENERGY
(POLIMI)



HEALTHCARE
(ICCS)



MANUFACTURING
(POLIMI)

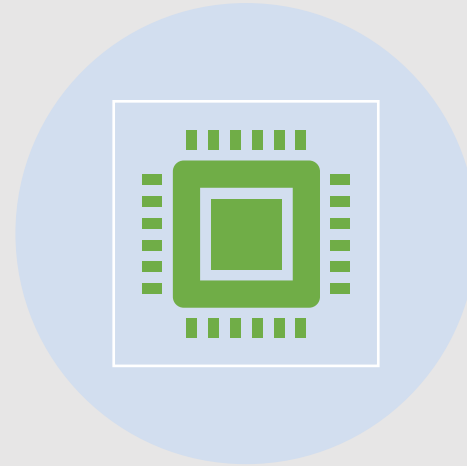


SPACE
(ECOE)

ENFIELD Open Calls



THIRD-PARTY EXCHANGE
SCHEME (TES)

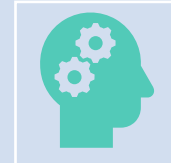


THIRD-PARTY INNOVATION
SCHEME (TIS)

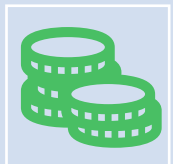
Third-Party Exchange Scheme (TES)



Mobility scheme to attract top-level researchers - 76 Researchers, 6 Months



Foundational research in AI



Budget EUR 1.1 Million



Allowance to researchers EUR 2400 P.M.



ENFIELD 1ST EXCHANGE SCHEME OPEN CALL SELECTED CANDIDATES

| Pillar | Project Title | Participants | Host Institution | Duration of Project (months) |
|------------------|---|--|---|------------------------------|
| Adaptative AI | <i>Adaptive Intelligence in Multi-Agent Systems: When Collective meets DRL</i> | Chuhao Qin United Kingdom | Institut Mines-Telecom (IMT) France | 6 |
| | <i>Improving Edge AI Performance by Federation and Adaptive Model Selection</i> | Ismail Ari Turkey | Norsk Regnesentral (NRS) Norway | 6 |
| Green AI | <i>Information-theoretic analysis of generalization in deep learning</i> | Linara Adilova Germany | Know-Center GmbH (KNOW) Austria | 3 |
| | <i>Advancing World model Learning with Neural Cloned-Structured Causal Graphs</i> | Tristan Manfred Germany | SINTEF AS Norway | 6 |
| | <i>Hybrid AI Model for Mixed-Gas Sorption Upper Bounds</i> | Eleonora Ricci United Kingdom | SINTEF AS Norway | 3 |
| | <i>Developing a framework for green AI practices</i> | Maria Ulan Sweden | TELENOR ASA Norway | 6 |
| Human-centric AI | <i>Constraints-Abiding Explainable Reinforcement Learning</i> | George Papadopoulos, George Vouros and Piyabhum Chaysri Greece | Eindhoven University of Technology (TU/e) Netherlands | 6 |
| | <i>Explainability-driven decision support systems for small clinical datasets</i> | Darian Onchis and Istin Condruta Romania | Politehnica University of Bucharest (UPB) Romania | 3 |
| Trustworthy AI | <i>Implementing and Evaluating Trustworthy Distributed AI Systems and Models</i> | Amanda Ericson Sweden | Chemnitz University of Technology (TUC) Germany | 5 |
| | <i>Democracy in the Age of Algorithm: Enhancing Transparency and Trust in AI-Generated Content through Innovative Detection Techniques</i> | Igor Calzada Spain | The Budapest University of Technology and Economics (BME) Hungary | 6 |
| | <i>A novel approach for AI detection content based on fine-tuned LLMs</i> | Marco Mugia Italy | The Norwegian University of Science and Technology (NTNU) Norway | 6 |
| | <i>Detecting and Explaining AI Using Language-Image Contrastive Insights</i> | Klemen Grm Slovenia | The Norwegian University of Science and Technology (NTNU) Norway | 6 |
| Vertical | Project Title | Participants | Host Institution | Duration of Project (months) |
| Energy | <i>Advancing Power Grid Inspection with SCENE-Net 1.5</i> | Cláudia Soares and Diogo Lavado Portugal | CNET Centre for New Energy Technologies SA (EDP CNET) Portugal | 6 |
| | <i>AI-based Edge Control of Electric Vehicles in Low-Voltage Grids Considering Operational Issues in Green Energy Systems with High Penetration of Renewable Energies</i> | Sajjad Fattaheian Finland | The Institute for Systems and Computer Engineering, Technology and Science (INESC TEC) Portugal | 6 |
| Manufactory | <i>AI-Driven Predictive Maintenance and Risk Management Approach for Machine Tools</i> | Hakob Grigoryan Spain | Polytechnic University of Milan (POLIMI) Italy | 6 |



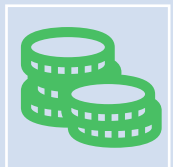
Third-Party Innovation Scheme (TIS)



Small projects grant for R&D intensive establishments - 18 Small Scale Projects



Applied research in AI



Budget EUR 1.1 Million



Grant of Maximum EUR 60,000

ENFIELD



THANK YOU