

TAILOR

Foundation of Trustworthy AI: Integrating Learning, Optimisation and Reasoning



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TAILOR Consortium

- 54 partners from **18 EU countries** (AT, BE x2, CZ x2, DE x8, ES x4, FI, FR x6, GR, IE, IT x8, LU, NL x6, PL, PT, SE x2, SI, SK, UK x4), **Israel and Switzerland x2**.
- More than **ca 100 network members**.
- 23 Core partners (LiU, CNR, INRIA, UCC, KUL, UOR, LEU, IST-UL, UPF, UNIBO, BIU, TUE, CNRS, JSI, TUDA, UNIBRIS, ALU-FR, UOX, UNITN, DFKI, EPFL, FBK, CINI)
- 21 Partners (VUB, CUNI, CEA, CRIL, CVUT, TUD, FhG, TU Graz, IIIA-CSIC, LIRA, UOA, NEO-UMA, PUT, RWTH, slovak.AI, TNO, UniPI, UGA, UNIBAS, UPV, ICL)
- **10 Industry partners** (VW, ENG, Tieto, Philips, EDF, ABB, ZF, LIH, CBS, Bosch)

CLAIRE



Our vision

To develop the scientific foundations for
Trustworthy AI

- integrating Learning, Optimisation and Reasoning
- to realise the European vision of human-centered Trustworthy AI

Boosting Capacity to Tackle Major Scientific Challenges

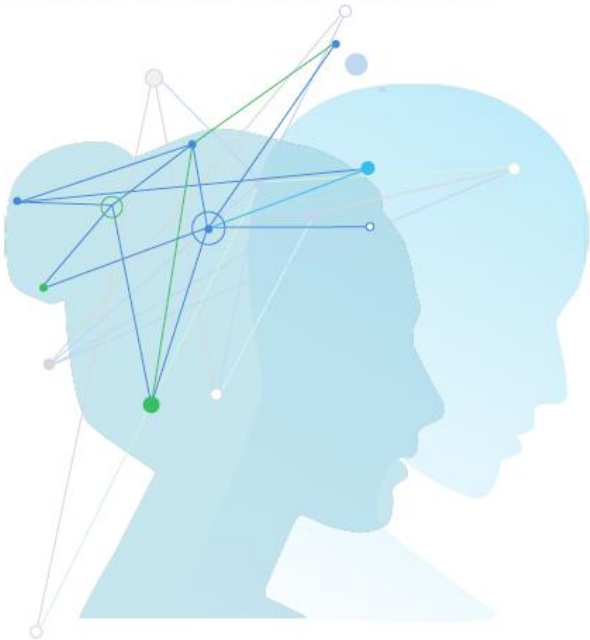
1. A core network of **outstanding AI research centres** and major European companies (partners) plus **mechanisms for extending the network** (network members and connectivity fund) to be adaptive and inclusive.
2. Five virtual research environments to **address the major scientific challenges** required to **achieve Trustworthy AI** supported by AI-based network collaboration tools.
3. Strategic research and innovation **roadmap** to drive the long-term **scientific vision** combined with **bottom-up coordinated actions** collaboratively addressing specific research questions.

A Strategic Research and Innovation Roadmap



STRATEGIC RESEARCH & INNOVATION ROADMAP OF TRUSTWORTHY AI

The Scientific Foundations of Trustworthy
AI in Europe for the Years 2022-2030

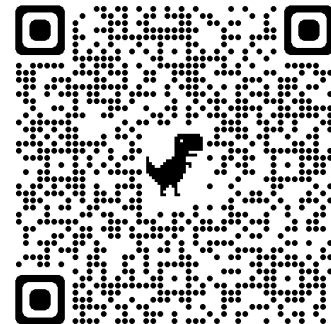


Funded by
the European Union

Aiming to *boost research on Trustworthy AI*

1. Providing guidelines for **strengthening** and enlarging the pan-European **network of research excellence centres** on the foundations of trustworthy AI
2. Defining paths for advancing the **scientific foundations for trustworthy AI** and translating them into technical requirements to be adopted broadly by industry.
3. Identifying directions for **fostering collaborations** between academic, industrial, governmental, and community stakeholders on the foundations of trustworthy AI

Version 1 has **12 clearly defined research challenges**



A Handbook on Trustworthy AI

The 6 dimensions of Trustworthy AI:

1. Explainability,
2. Safety and Robustness,
3. Fairness,
4. Accountability,
5. Privacy, and
6. Sustainability



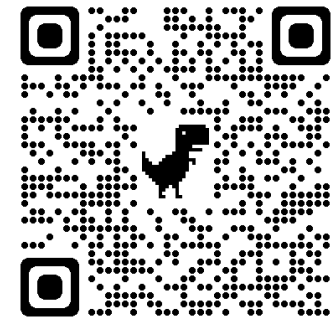
The Handbook is a web accessible encyclopedia:

a WIKI (using Jupyterbook)

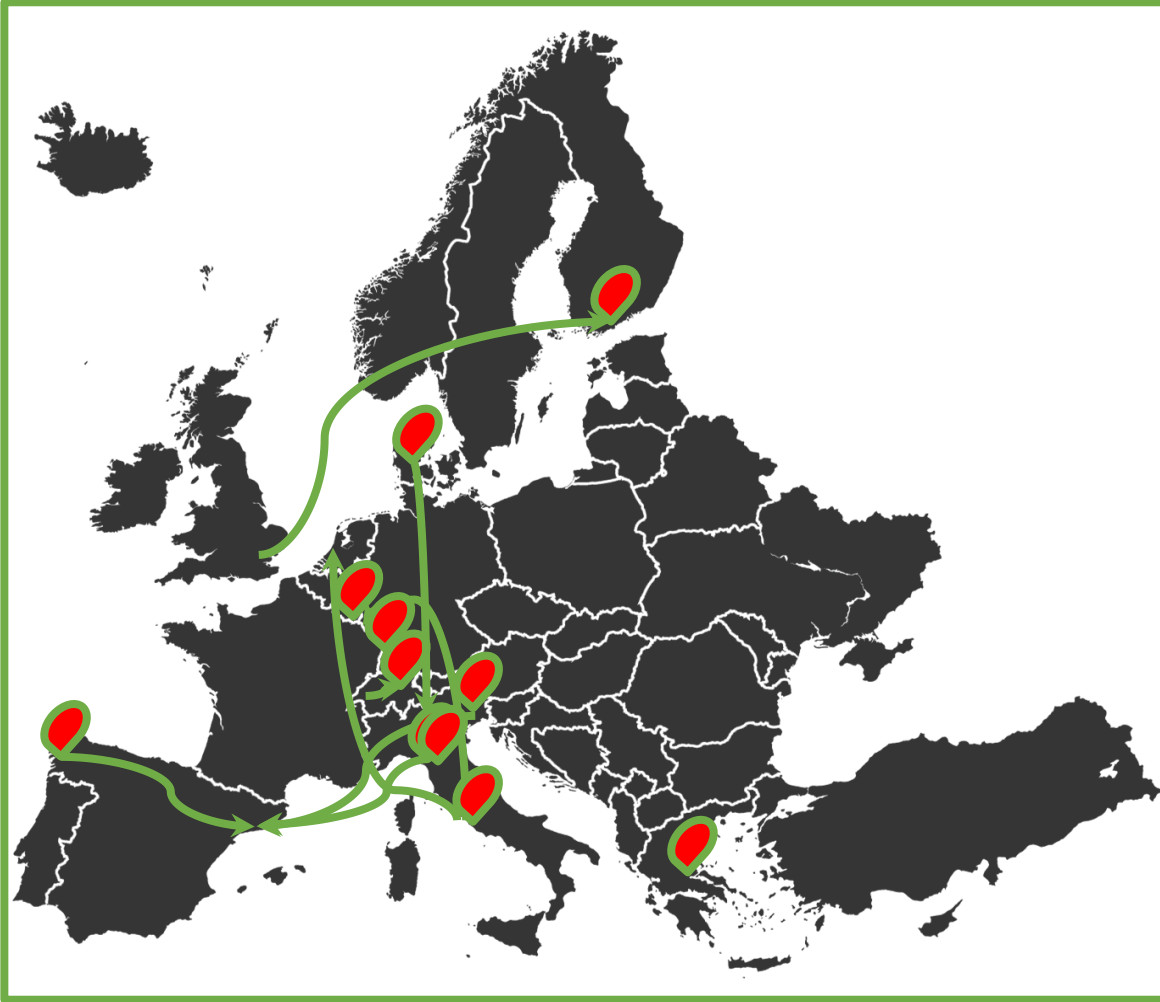
For each dimension of Trustworthy AI:

- Brief summary
- Abstract
- Motivation & Background
- Guidelines
- Software Frameworks Supporting Dimension
- Key concepts and their explanation
- Key References

Aiming for Trustworthy by Design



A Connectivity fund



Collaboration between TAILOR and non-TAILOR labs

- Build Excellence in Trustworthy AI
- Scientific step-up: help younger people gain experience in leading labs
- Scientific influx: bring in expertise from outside the network
- Scientific alliance: tackle fragmentation, align different AI initiatives

Goal: realise 100 visits / workshops

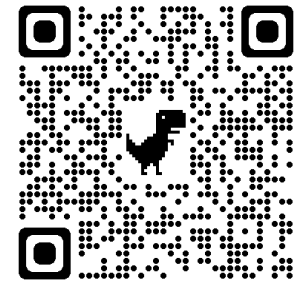
Next application deadline 15 November



Boosting Capacity to Tackle Major Scientific Challenges

1. A core network of outstanding scientists and major European companies, supported by a **connectivity fund** for extending the network

2. **99 Network Members;**
Early invites to events, meetings,
and funding opportunities!
3. **Please be welcome to join!**



collaboration on some research questions.
Roadmap (SKIN)

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THANK YOU!



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