

AI Research and the Collaborative Path to Broad AI Adoption

24 March 2026

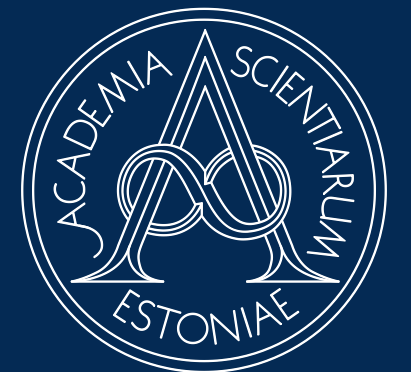
Estonian Academy of Sciences

Meelis Kull, University of Tartu, Professor of AI

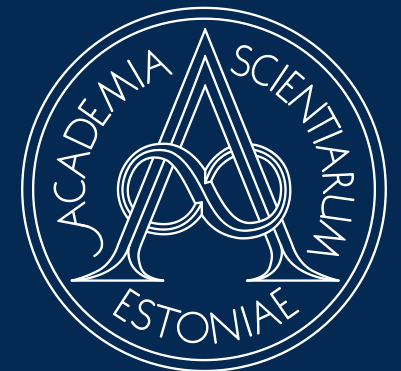
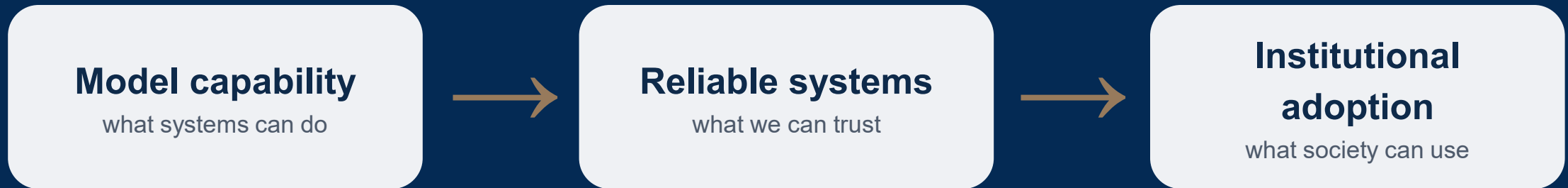


Value of broad AI adoption

- Better services and better decisions
- Productivity beyond a few early adopters
- Local capability, skills, and resilience



Three bottlenecks before broad adoption



Research for Trustworthy AI

Reliability

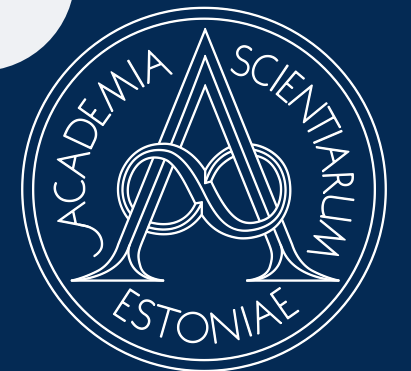
evaluation
uncertainty
robustness

Adaptation

domains
languages
workflows

Trust

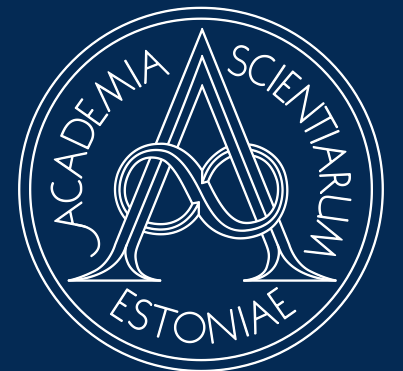
safety
privacy
accountability



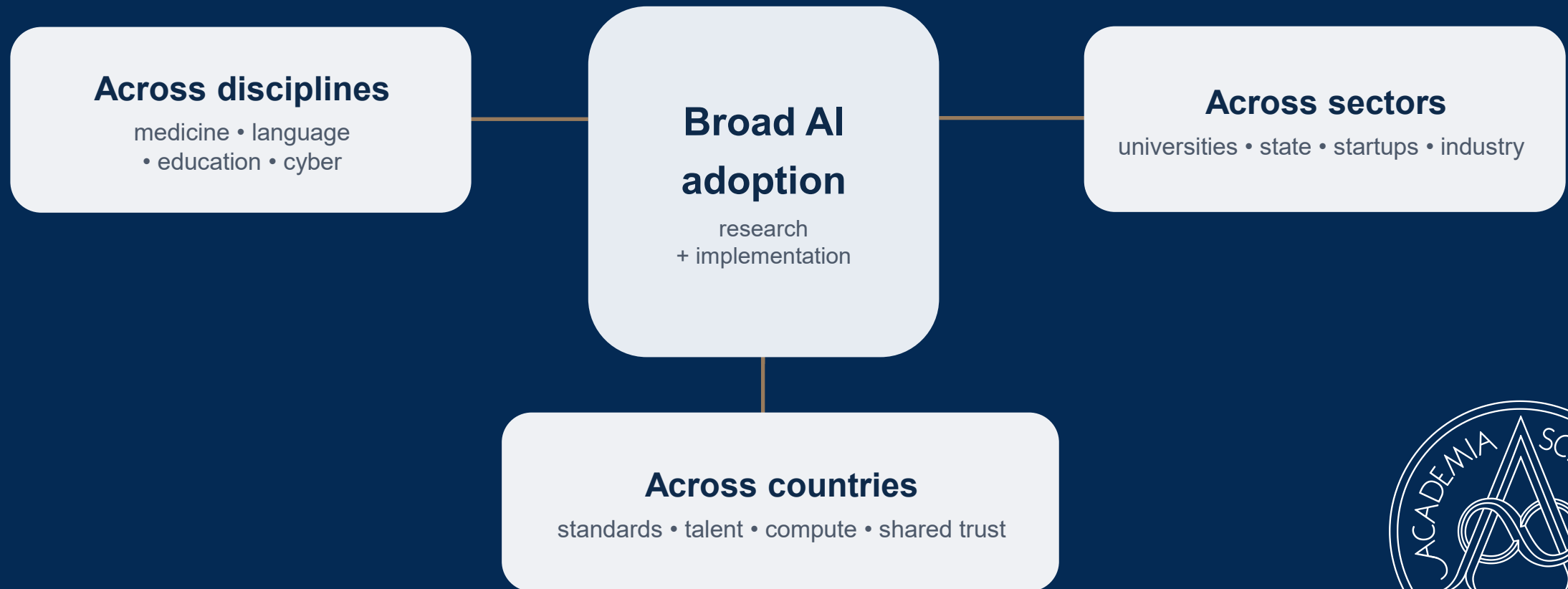
Sovereign AI

Independence from foreign services where it matters

- Avoid single-point dependency on foreign platforms
 - Keep control of sensitive data and essential workflows
 - Maintain domestic capacity to run, audit, and improve systems
 - Sovereignty requires talent, compute, security, and institutions
-
- How to achieve?
 - Collaboration!



Broad adoption is collaborative



Estonia as a compact testbed

Digital state

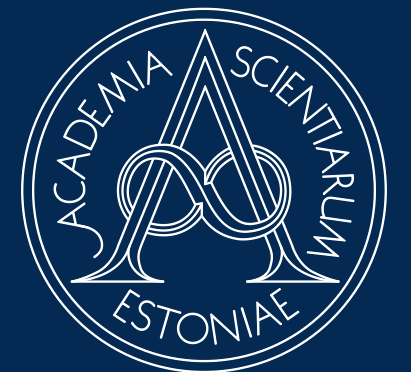
interoperable services, high digital maturity

Small-language setting

local models and speech technology matter

Short feedback loops

research, government, and companies close together



EXAI: Estonian Centre of Excellence in AI



USALDUSVÄÄRSE

TEHISINTELLEKTI

TEEJUHT

13 research groups

9 focus areas

Foundations:

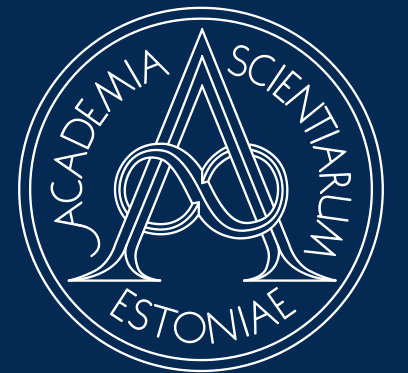
- Hybrid AI Pipelines
- Adaptation of Foundation Models
- Safeguards and Trust in AI
- Privacy and Security in AI

Applications:

- AI for E-governance
- AI for Healthcare
- AI for Business Processes
- AI for Cybersecurity
- AI for Education

From research to adoption: Examples

- Hans: transcribing the parliament since 2020
- Better Medicine: advancing cancer diagnostics with AI



Hans: transcribing the parliament (2020)

- **The Researchers (Academia):**

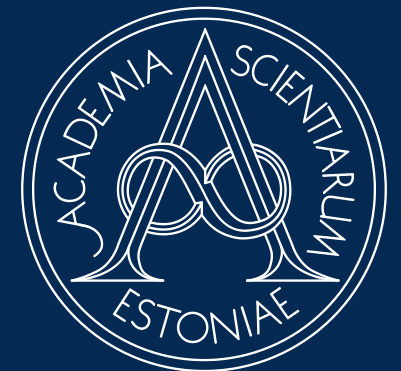
Tallinn University of Technology (TalTech).
Laboratory of Language Technology led by Tanel Alumäe.
They provided the core open-source speech recognition AI.

- **The Implementer (Private Sector):**

Finestmedia, an Estonian IT company.
Building the software interface and infrastructure (the HANS system)
that wrapped around TalTech's AI engine.

- **The Client (Government):**

The Chancellery of the Riigikogu.
Visionary adopters who recognized
the need for technological intervention.



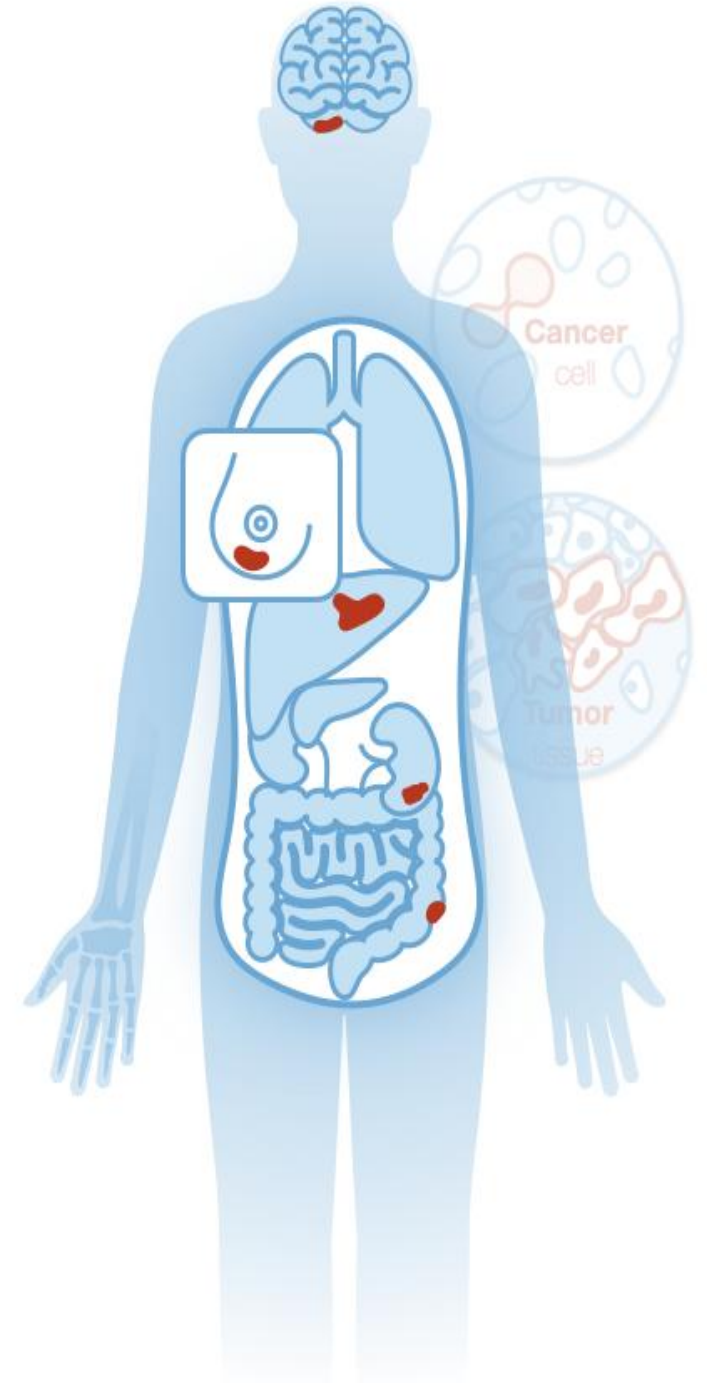
Collaborative Path:

- PhD student starting an industrial collaboration
- Building a research group
- Start a company
- Collaborating:
 - PhD students
 - Company
 - Hospitals

The World's First CE-certified and Clinically Validated AI Model for Kidney Lesion Detection

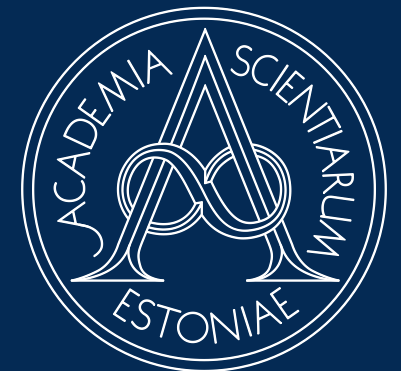


Tumor in kidney



Examples of rapid new AI capabilities

- OpenClaw – example of AI agents running 24/7 (since Jan 2026)
- NemoClaw – NVIDIA offering security framework for agentic AI



AI assistants are ready for digital work

How do we proceed?



AI assistants are ready for digital work

Are we ready?

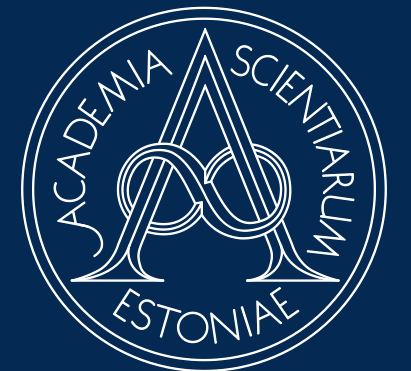


Broad AI adoption is a collaborative path.

Research makes AI more reliable, adaptable, and secure.

Collaboration makes it useful at scale.

Estonia is open to work together.



Thank you!

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