

AIOps: AI-Assisted Development, Securely and at Scale

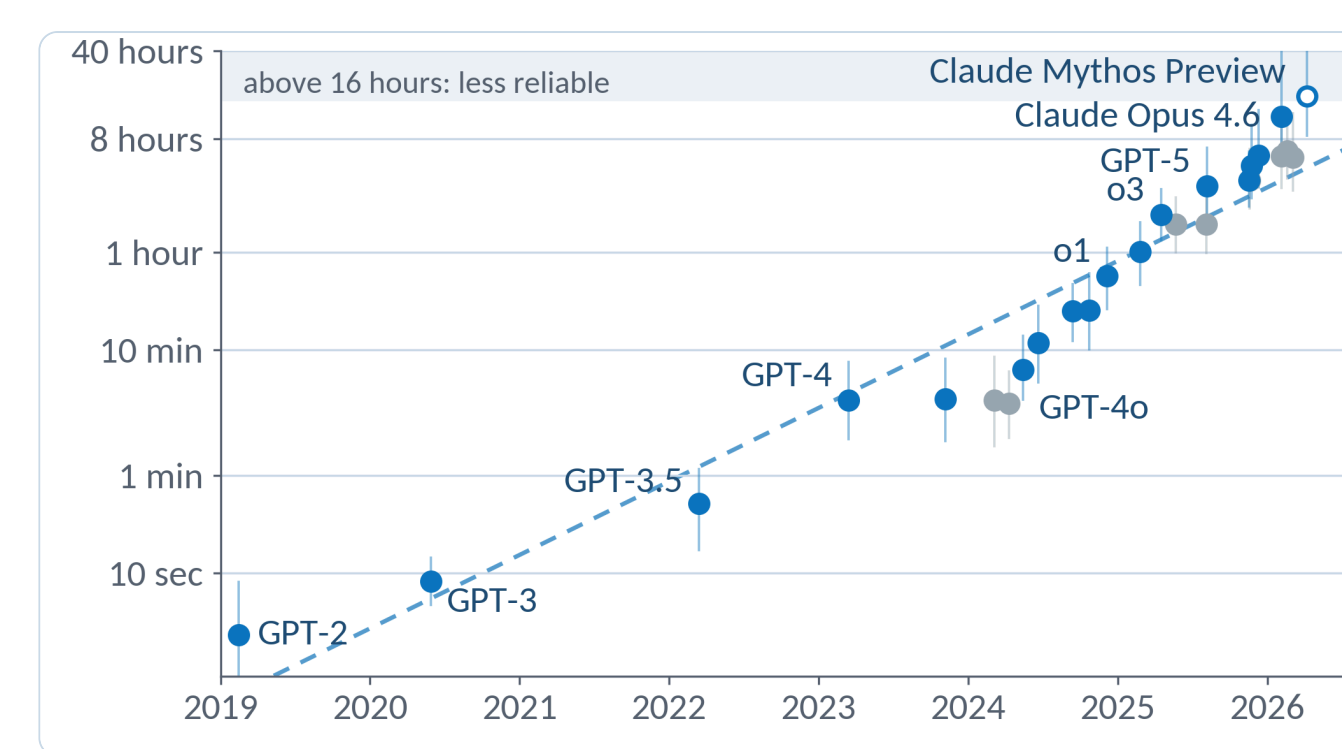
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Why now

AI agents now complete software tasks that take a skilled person hours. Researchers move from writing every line to **directing agents and judging the result**.

The open question is how to do this **safely, securely and at scale**.



Length of software tasks, in human working time, that AI models complete half of the time, by release date. The dashed line doubles every six months. Data: METR, metr.org, up to April 2026.

WHAT WE HAVE

2021 to 2026

A platform that already runs

Scalable AIOps made AI research reproducible from a single workstation to national compute.

30+

GPU workstations
on a secure mesh

10 yr

old robotics stacks
still run unchanged

4 labs

in AIICS, plus courses and theses

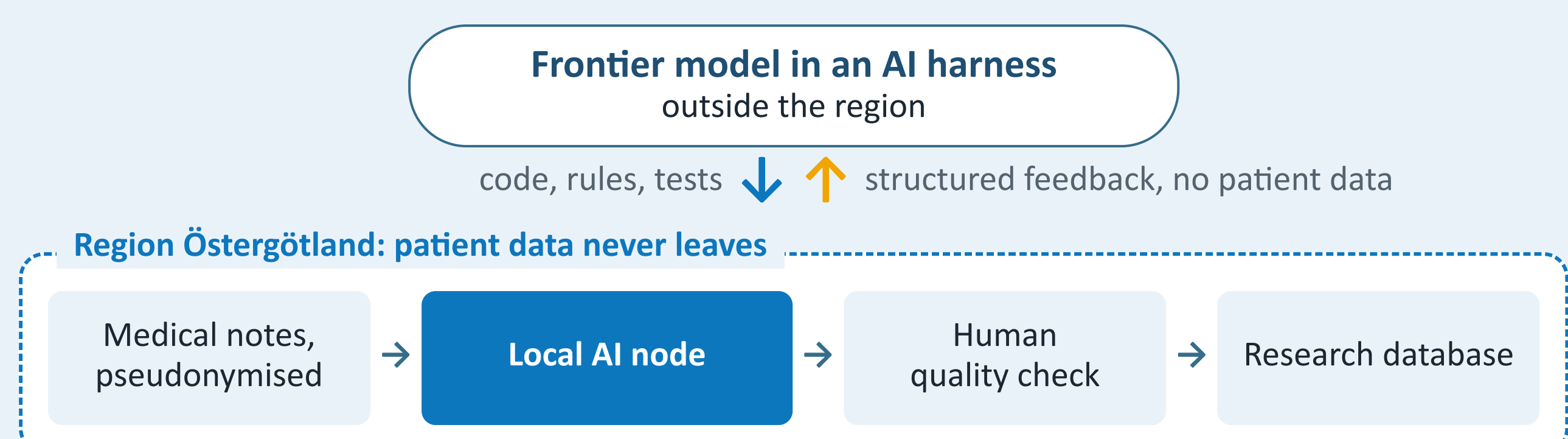
- Code, data, models and environments under version control
- Containers with direct GPU access, within university IT policy
- Idle workstations share jobs and step back when their user returns
- Local AI models for chat, coding and speech, shared with researchers and students

Also used by the EU project TrustLLM and the WASP arena WARA-PS.

In use with partners

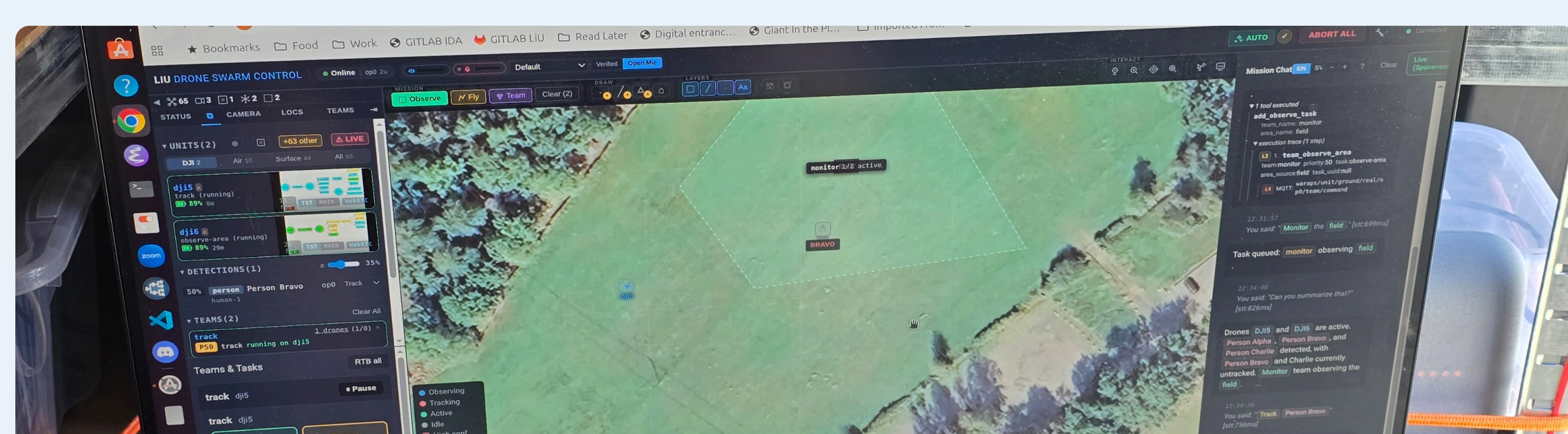
Healthcare data stays in the region

With Region Östergötland and CSAN, we are moving a local AI node into the region. There it structures information from medical notes, while a frontier model outside improves the code, rules and tests from structured feedback that holds no patient data and nothing derived from it. Ethical approval is in place.



Real-time voice command of a drone swarm TAU

A portable computer with two GPUs runs the language model and speech on board, in an AI harness that AI agents tuned for real-time conversation. In May 2026 it commanded a drone swarm by voice at Vinnova's drone swarm challenge, as the only academic team among the seven selected.



real-time voice conversation 2 × 96 GB GPU about 240 tokens/s no cloud needed

WHERE WE ARE HEADING

2027 to 2031

Goal

ELLIIT infrastructure that unlocks the full potential of AI-assisted development, securely and at scale.



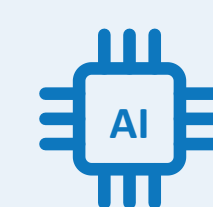
Safe deployment of AI-generated code

From prototype to production in a controlled, auditable and secure way.



Secure access to data and services

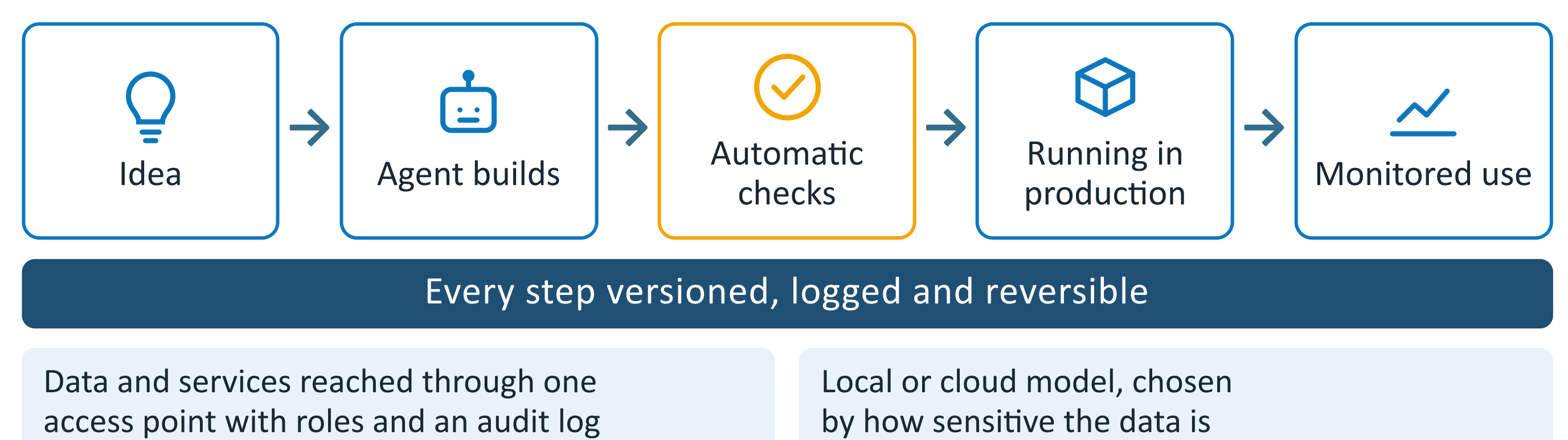
Role-appropriate access for AI agents, within security and privacy rules.



Local AI models

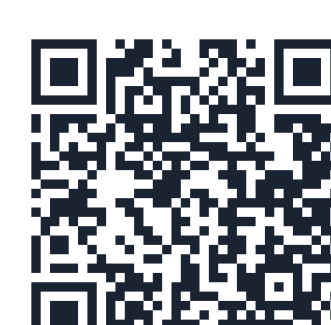
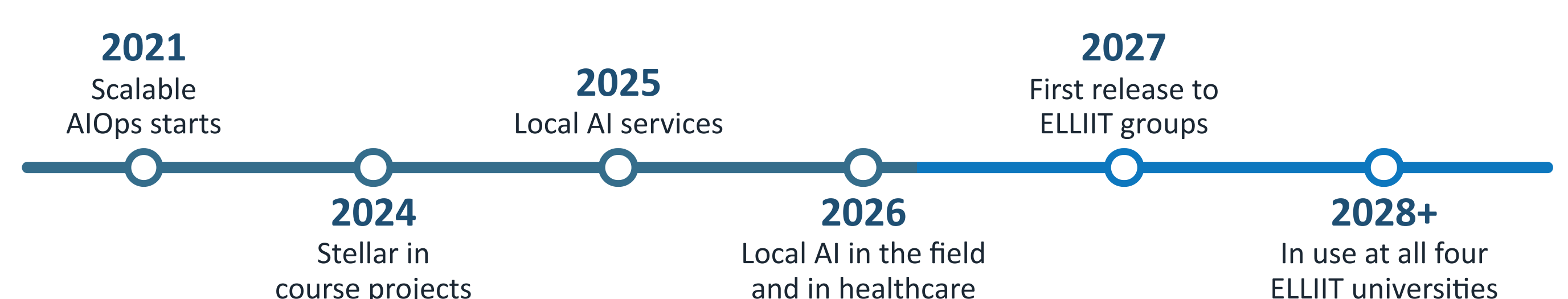
Reusable local services, and resilience if external providers become unavailable.

From idea to trusted service



What is made available to ELLIIT

- ✓ A packaged solution that any group installs on its own machines, with guides, templates and reference architectures
- ✓ Local AI that keeps sensitive data in-house and runs on most modern GPUs
- ✓ A shared pool of tools and blueprints that every group can add to
- ✓ Planned use with Lund and BTH through the SSF centres CHASS and RESIST



Drone swarm video



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