The future of AI in Europe: Safe, dependable, sustainable and sovereign

Holger H. Hoos

AI Center
RWTH Aachen University
Germany

LIACS
Universiteit Leiden
The Netherlands

Systems Workforce Summit
6 May 2026
Delft, NL

AI changes … everything!

AI changes … everything!

including building, maintaining, monitoring complex systems

“Machines will be capable, within twenty years, of doing any work that a man can do.”

Herbert Simon (1965)


2015
SELF-DRIVING CARS IN 2 YEARS
CausalPython.io
imgflip.com


2015
SELF-DRIVING CARS IN 2 YEARS
CausalPython.io
imgflip.com
2016
RADIOLOGISTS OBSOLOLETE IN 5 YEARS


2015
SELF-DRIVING CARS IN 2 YEARS
CausalPython.io
imgflip.com
2016
RADIOLOGISTS OBSOLOLETE IN 5 YEARS
2026
RADIOLOGISTS IN REGULAR CARS DRIVING TO WORK

Problem:

Dependence on AI systems we don’t control, can’t trust

— especially in the public sector

CNN Business

‘Extreme concern’ over first known AI hack of a government system

UPDATED SEP 24, 2026

By Hilary Whiteman, Hadas Gold, Max Saltman



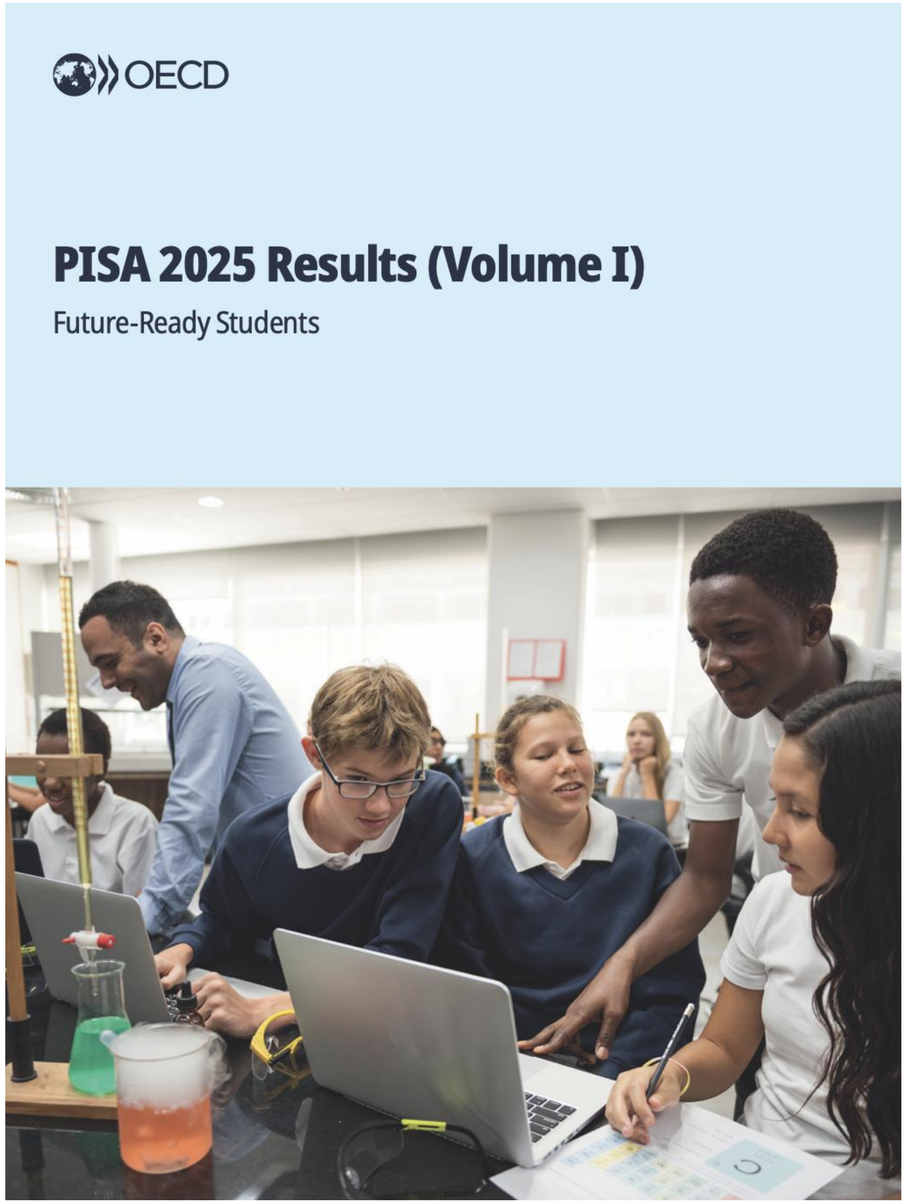
- OpenAI agent hacked into Australian national healthcare database
- AI agent accessed public + non-public files
- Incident occurred in June 2026, became known to OpenAI / AU gov'ment in August / September

Problem:

Flow of valuable data, knowledge
into US-based AI technology companies,
which then sell it back to us for a premium.

Problem:

Detrimental effects of improper use of AI systems on intellectual capabilities, learning



- Impact on performance depends on how + for what tasks students use AI.
- Students who use AI for summarising texts, background research, drafting reports, scored lower than those who did not use AI.
- **Students not using AI scored ~20 points higher = ~1 year of school!**

Needed:

AI systems & tools we can trust —

safe, dependable, sustainable, sovereign

Needed:

World-class, integrated AI ecosystem

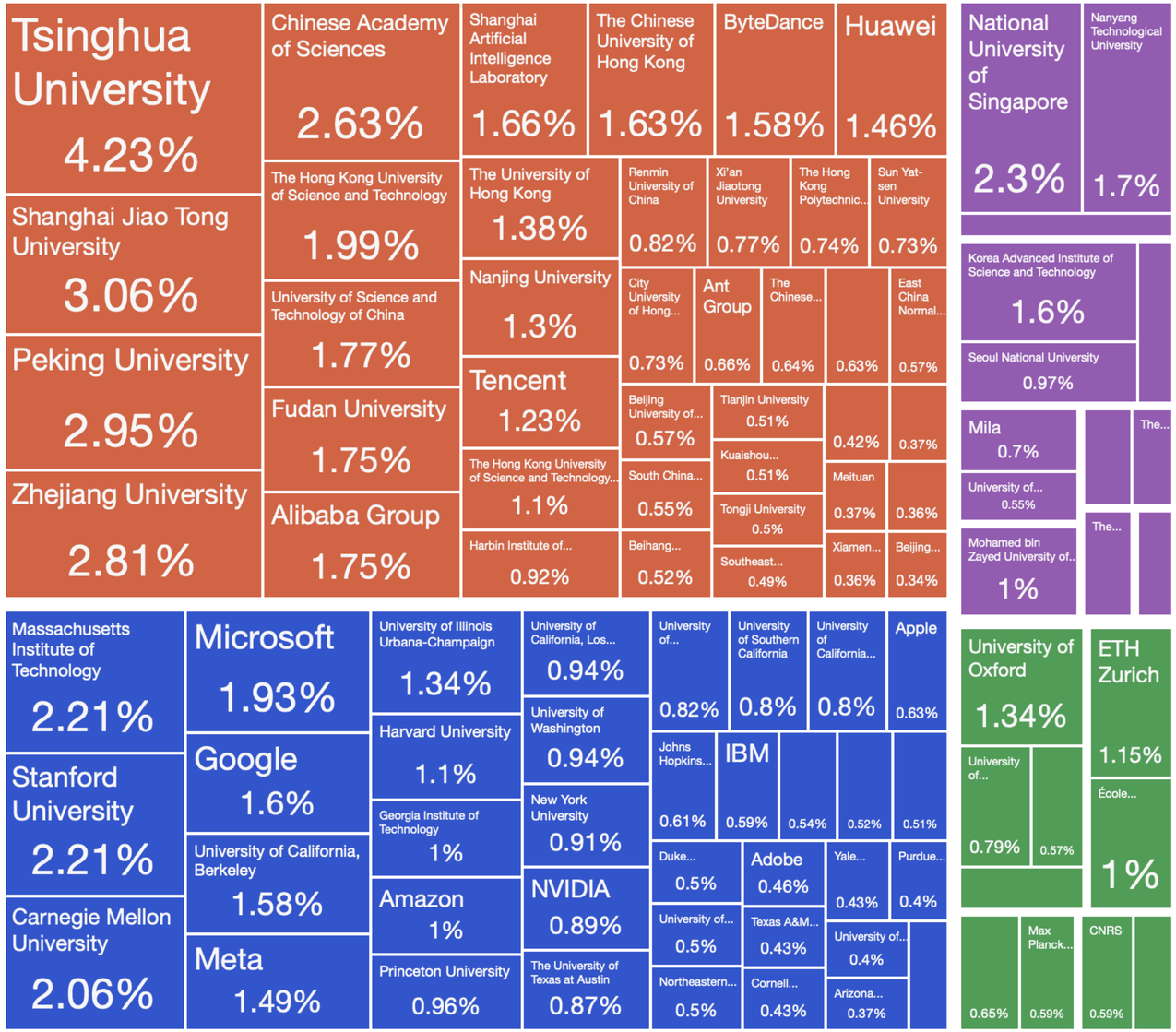
— research, innovation, applications

Europe …

Competitive in AI Research,

lacking in tech transfer ?

European AI research is falling behind

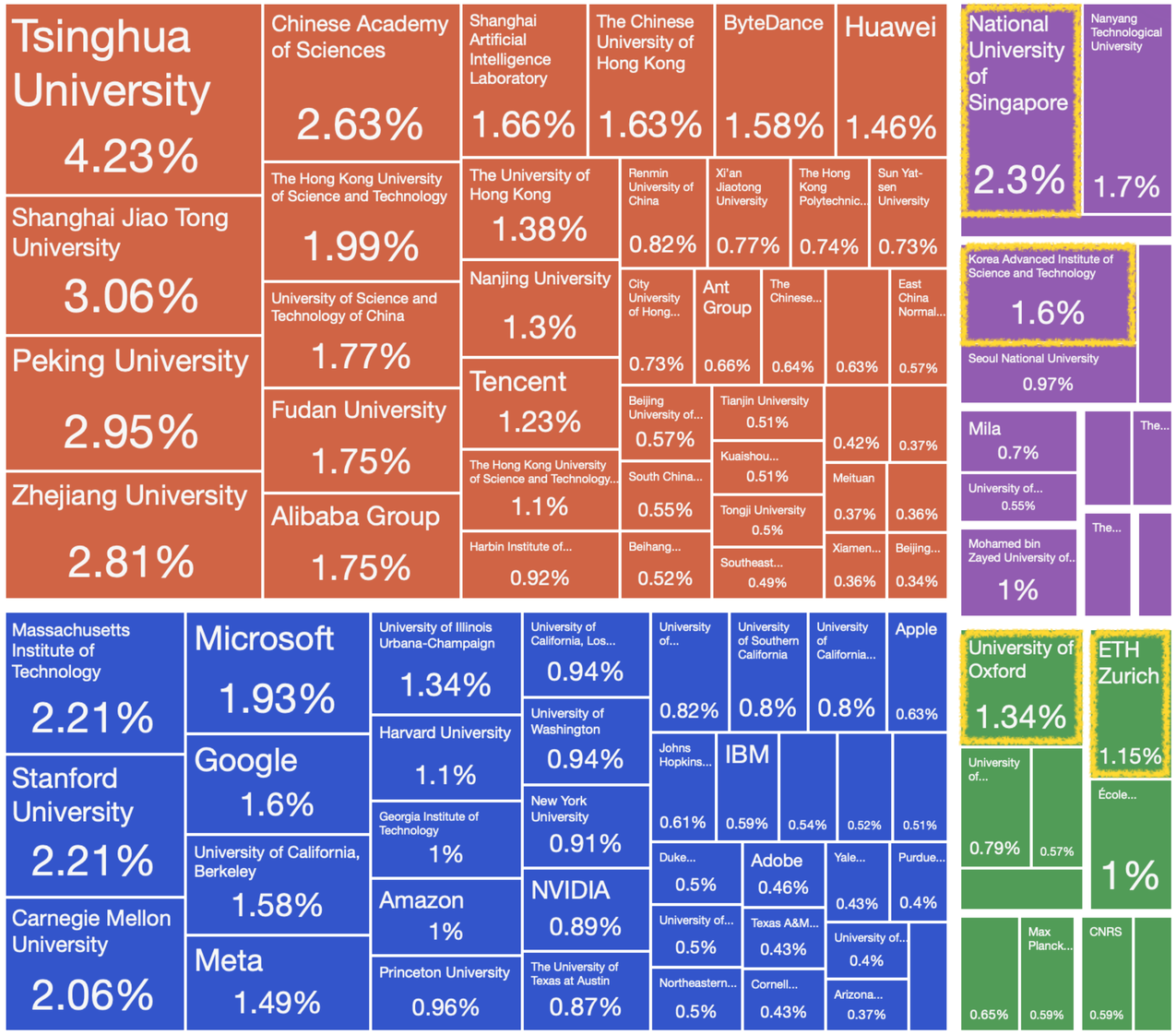


Source: ICLR 2026

China US Europe Rest of World

AI WORLD

European AI research is falling behind



Source: ICLR 2026

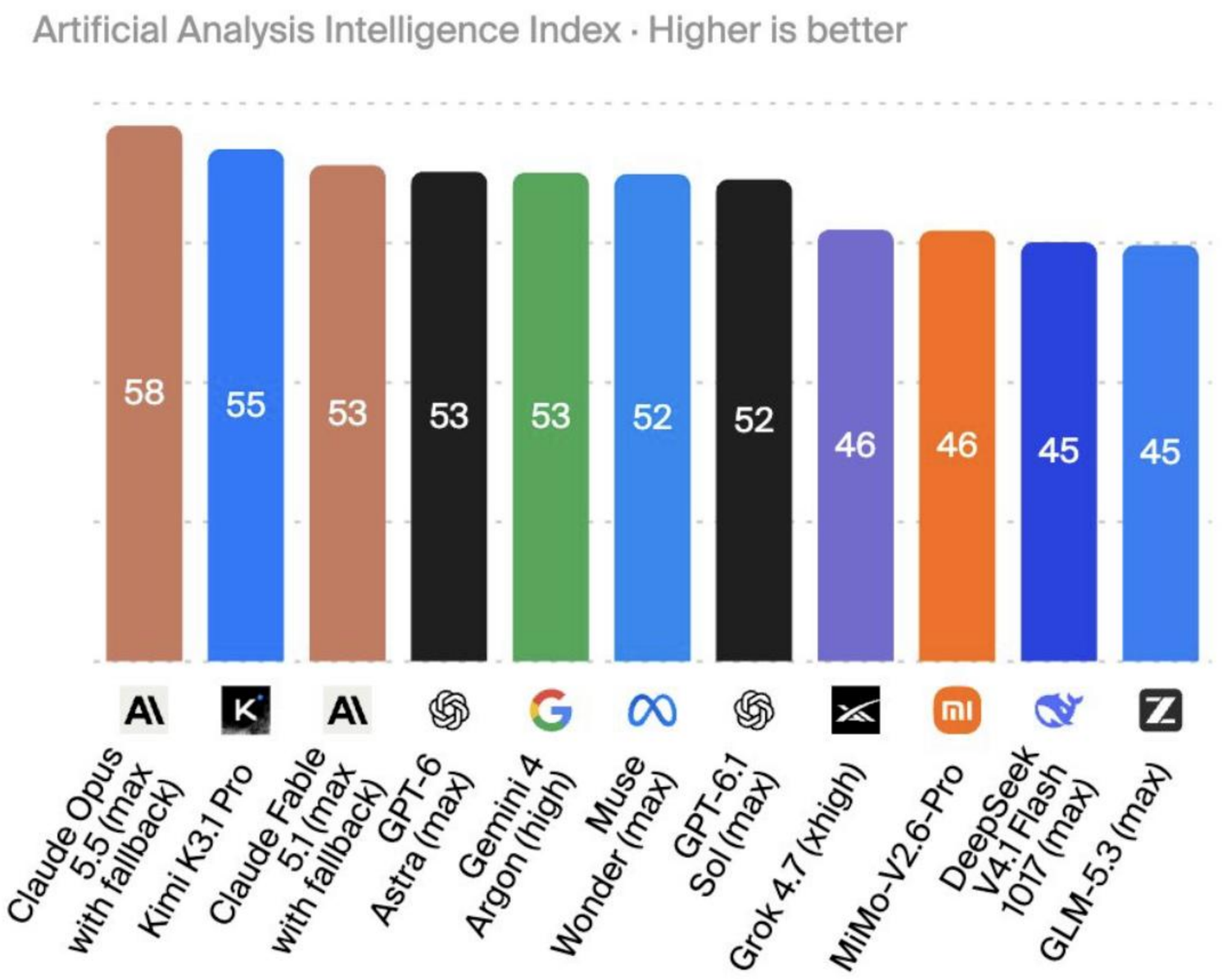
China US Europe Rest of World

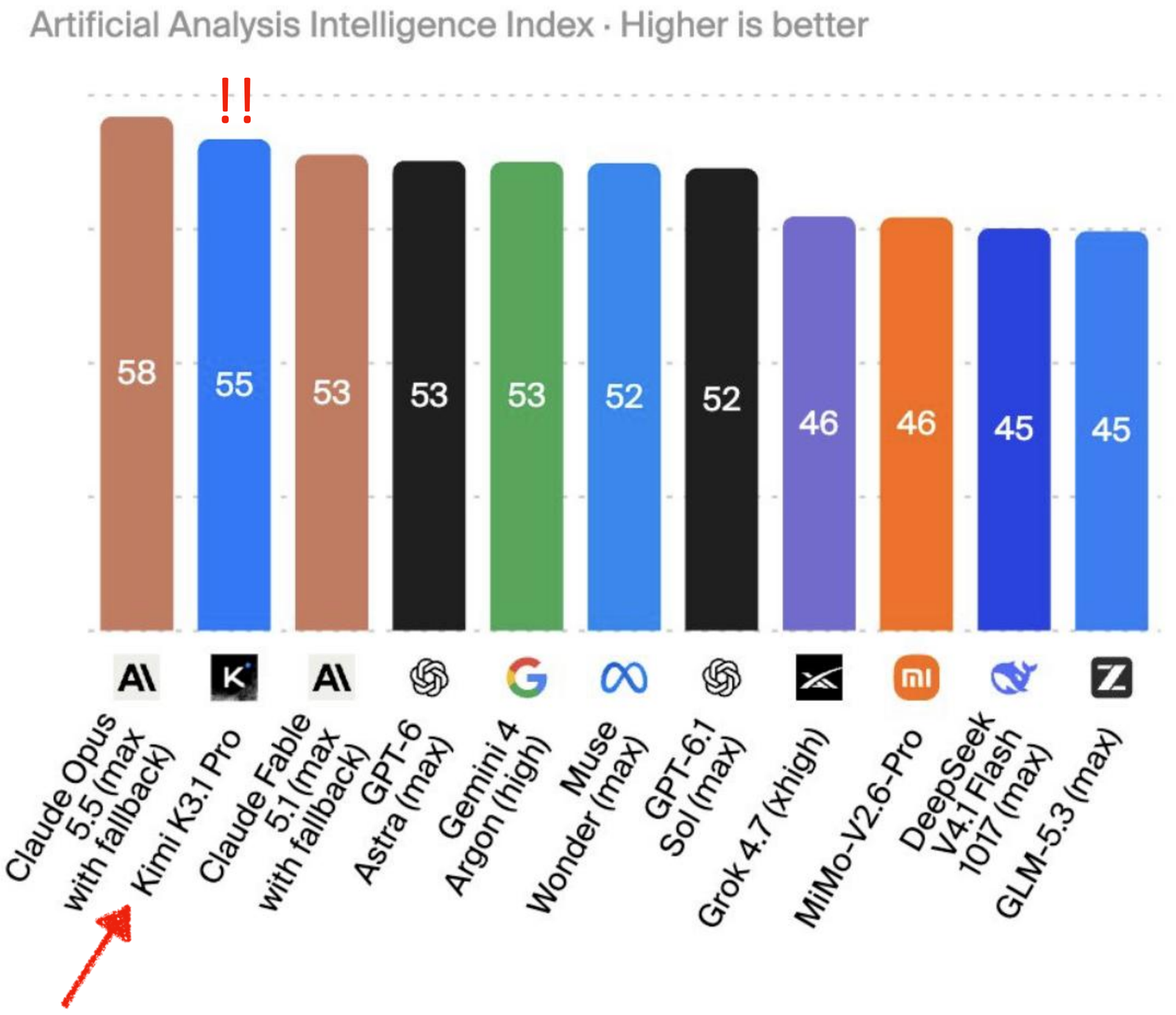
AI WORLD

World-class AI innovation + applications

need world-class AI research

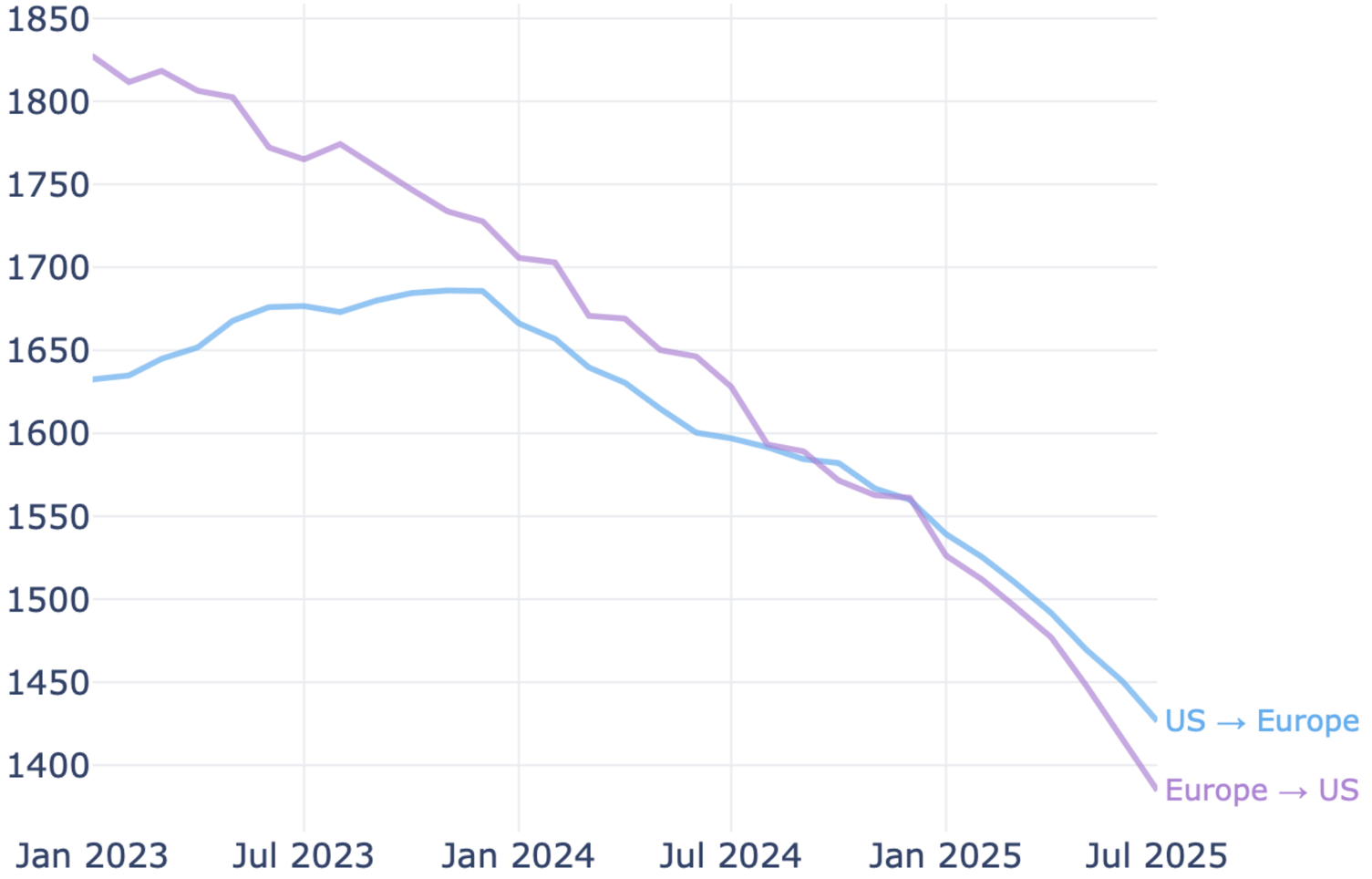
+ sovereign frontier AI systems


Artificial Analysis Intelligence Index · Higher is better
58
55
53
53
53
52
52
46
46
45
45
Claude Opus 5.5 (max with fallback)
Kimi K3.1 Pro
Claude Fable 5.1 (max with fallback)
GPT-6 Astra (max)
Gemini 4 Argon (high)
Muse Wonder (max)
GPT-6.1 Sol (max)
Grok 4.7 (xhigh)
MiMo-V2.6-Pro
DeepSeek V4.1 Flash 1017 (max)
GLM-5.3 (max)


Artificial Analysis Intelligence Index · Higher is better
!!
58
55
53
53
53
52
52
46
46
45
45
Claude Opus 5.5 (max with fallback)
Kimi K3.1 Pro
Claude Fable 5.1 (max with fallback)
GPT-6 Astra (max)
Gemini 4 Argon (high)
Muse Wonder (max)
GPT-6.1 Sol (max)
Grok 4.7 (xhigh)
MiMo-V2.6-Pro
DeepSeek V4.1 Flash 1017 (max)
GLM-5.3 (max)

Cross-Atlantic tech mobility has shifted directionally

Number of tech workers who moved between the US and Europe



revelio labs

Needed:

European AI Organisation, similar to ESA/CERN,

in close partnership with other countries

(Canada, India, Brazil, …)

Needed:

AI systems & tools + ways of using them that help (not hinder) learning

Take-home Message

- AI changes everything, including learning & education.
- AI can help or hinder learning — we need the right kind of AI systems, we need to deploy & use them wisely
- Current AI systems and their uses are problematic — we need safe, dependable, sustainable and sovereign alternatives
- To build these, we need a concerted effort, an AI Organisation modelled after ESA/CERN