

RAi Empowering and Connecting the Responsible AI Ecosystem

Responsible AI UK (RAi UK) is a £35 million UKRI investment, dedicated to delivering interdisciplinary research and has deployed over £17 million into projects to accelerate the adoption of responsible AI practices and technologies. RAi UK brings leading research-based expertise and engage with communities, publics, industries, and governments.

■ Research Thematic Clusters

- AI Fairness & Bias
- Culture
- Data Quality
- Education & Skills
- Infrastructure
- Labour & Jobs
- Public Attitudes
- Quality of Life
- Regulation, Policy & Law
- Society & Public Services
- Sustainability
- Verification

■ Key Achievements

- AI Health & SC Champions
- AI Fringe Perspectives
- Convenes 9 AI Hubs & 20+ AI CDTs
- International Sandpit in India
- International Partnerships

■ Upcoming Initiatives

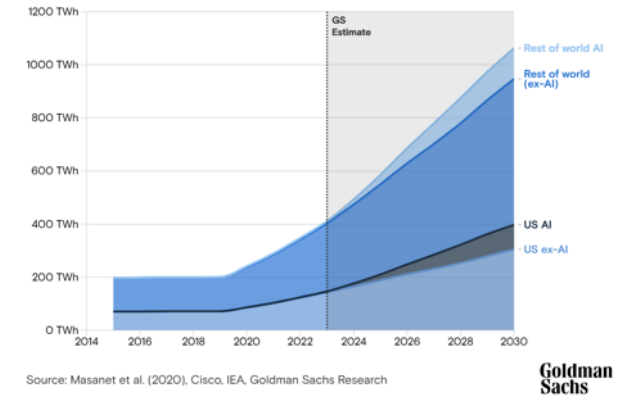
- Rai UK Thematic Workshops
- RAi UK Enterprise Fellowships
- AI & Robotics Research Awards
- AI Fringe Event - February 2025
- UKAiR – September 2025



AI and its Water/ Energy Demand



Data center power demand

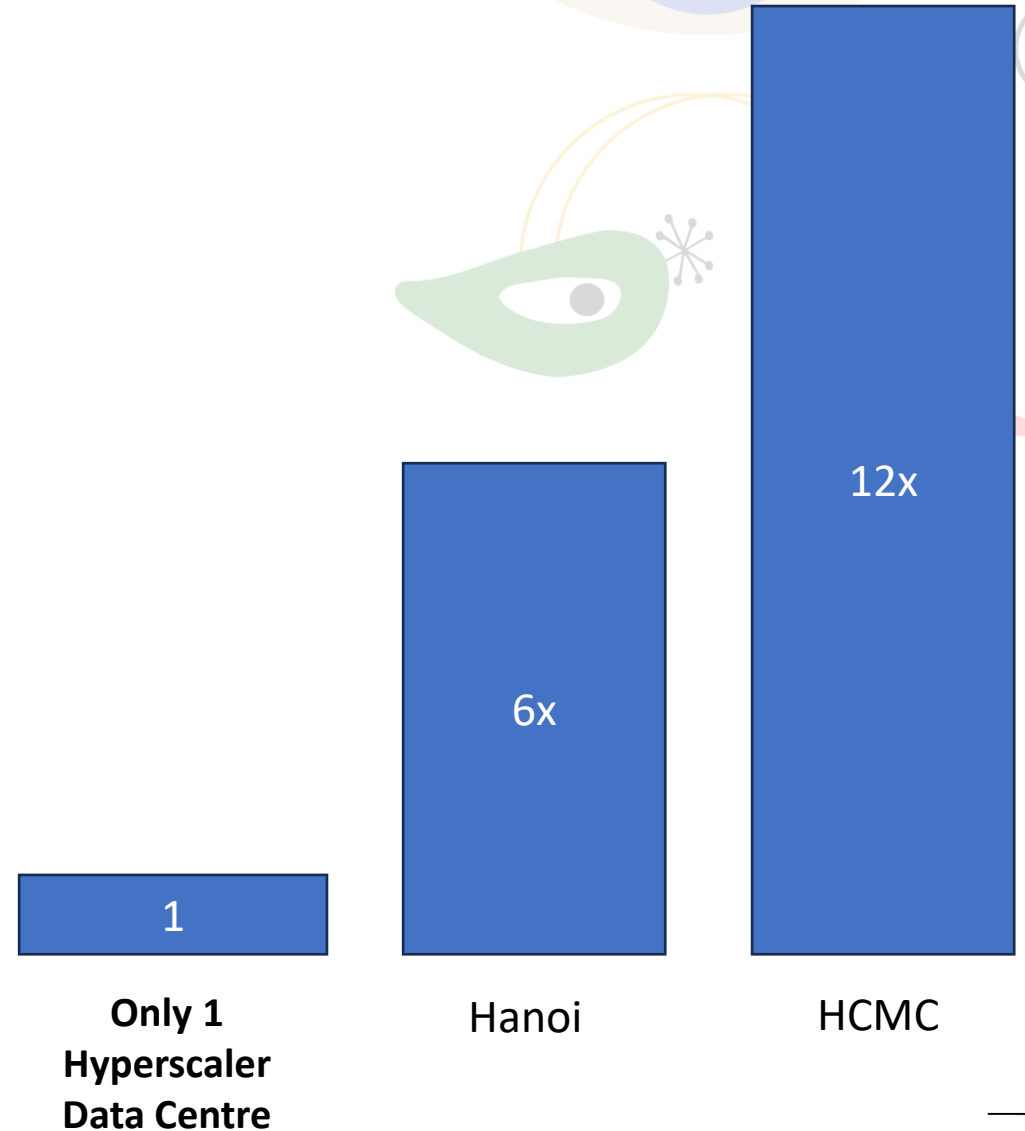
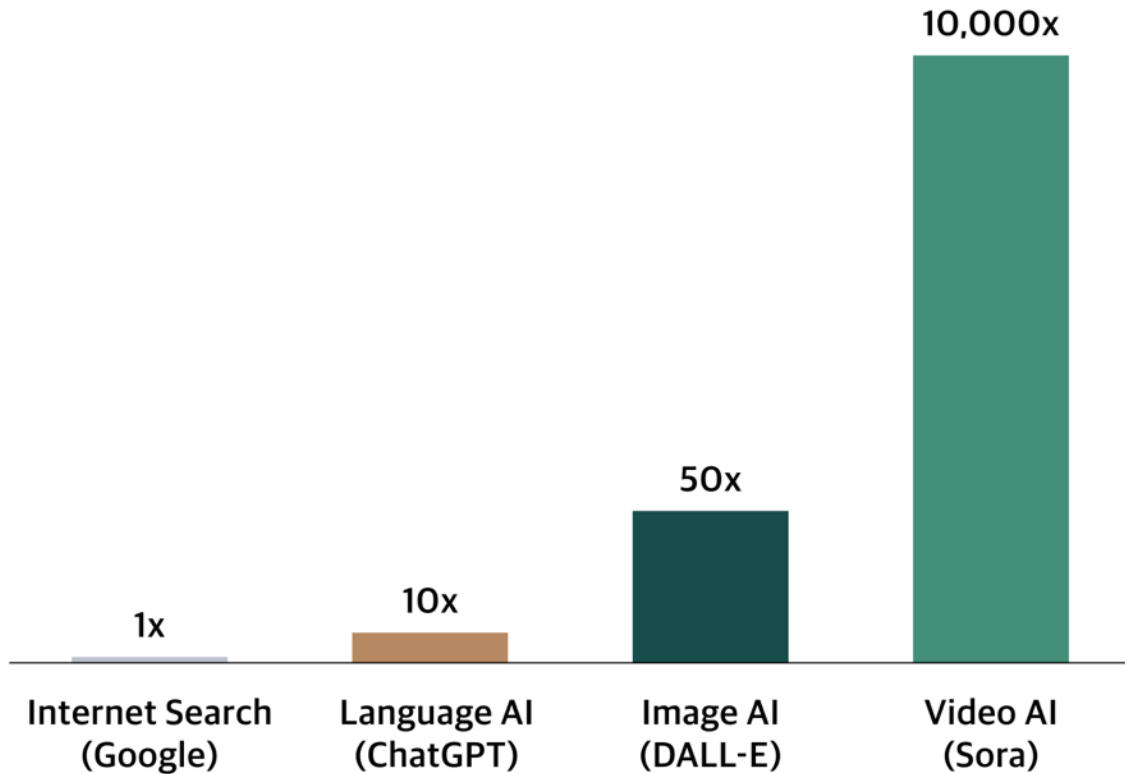


Average data centres are quite small in power terms, with demand in the order of 5-10 megawatts (MW)

But large hyperscale data centres, which are increasingly common, have power demands of 100 MW or more, with an annual electricity consumption equivalent to the electricity demand from around 350 000 to 400 000 electric cars.

AI Compute Energy Demands

Figure 2: AI Compute Power Required vs. Google Search ¹



Source: Internet Search & Language AI: Reuters, as of 2/22/2023 (latest available). Image AI: The Register, as of 12/4/2023 (latest available). Video AI: Factorial Funds, as of 3/15/2024. (1) Represents power consumption requirements.