



Introduction

- **AI presents an environmental paradox:** it is both a mitigation tool and an emissions driver
- **Data centre electricity demand will double** to reach 945TWh by 2030, equal to Japan's consumption in 2025



- In 2025, **the US** hosted **45%** of data centres (5427), **the EU** only **2269**

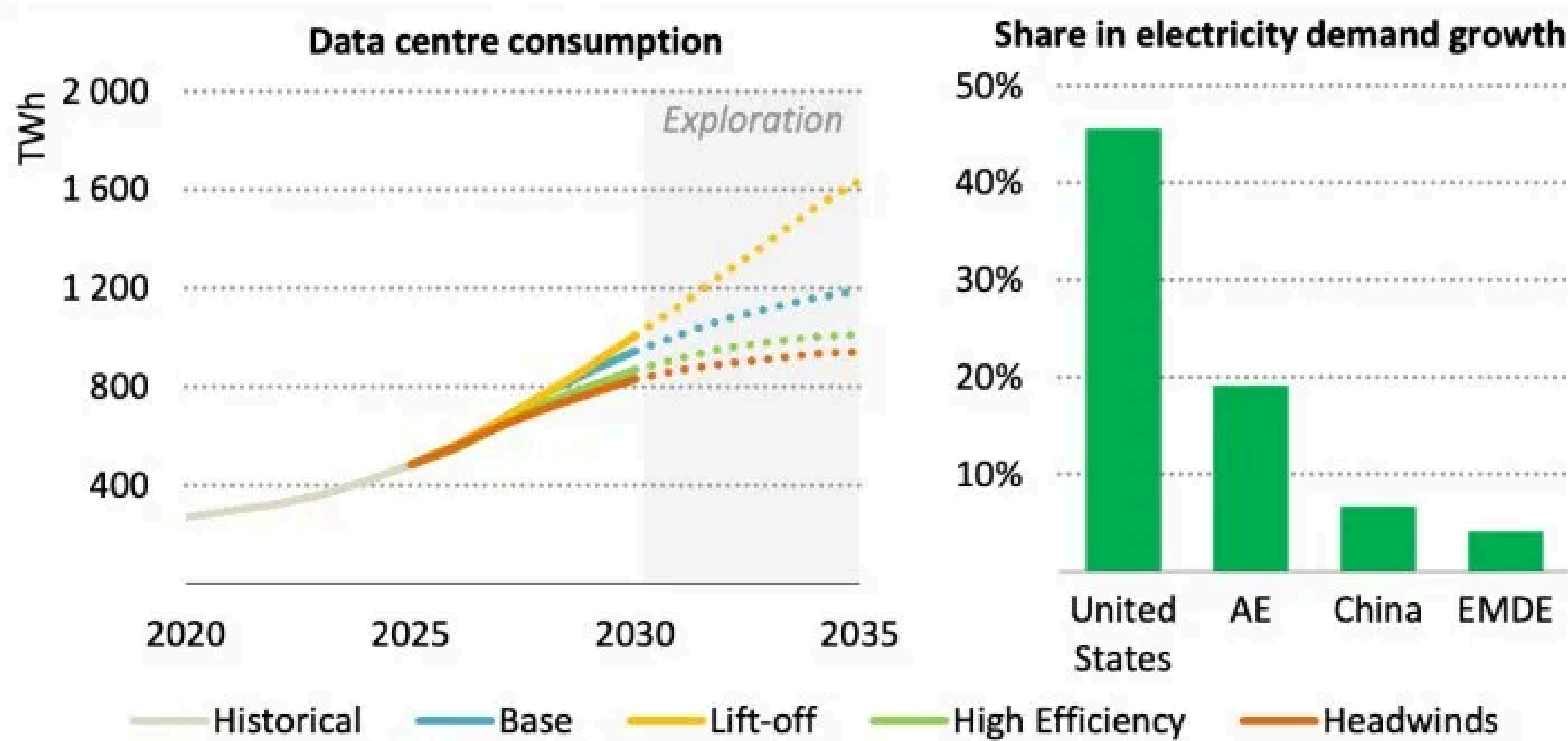
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Methodology

- **Socio-Legal Approach:** doctrinal legal analysis & qualitative sociological research
- **Expert Interview:** Cambridge Center for Climate Engagement
- **Literature Review**

Figure 1.4 ▶ IEA cases for data centre electricity consumption, 2020-2035



Results

- **Legislative Gap:** in the AI Act, environmental law and EU law on data centres
- **Political Barriers:** Hyperscaler lobbying and competitiveness concerns consistently prevent a policy window from opening
- **Harms materialise outside the EU** in regions under environmental stress - e.g. water scarcity in Querétaro or toxic contamination in Nairobi
- Individual biases, social pressure & network effects create a **self-reinforcing cycle of GenAI use:** 32.7% of EU citizens are accustomed (2025)

Conclusion

- EU regulation **insufficiently addresses** climate harms of AI
- **Structural Asymmetry:** Growing AI adoption in the EU, yet data centres remain outside EU reach
→ *shifting harms beyond EU borders*
- **Limitations:** Solution is bounded by EU jurisdiction, no quantitative analysis
- **Future Research** → regulating AI use

Proposal

Relocate AI data centres to the EU through legislation:

→ subject AI infrastructure to **stricter EU** environmental & sustainability **standards**

→ **support European AI companies** through subsidies & investment mechanisms by **incentivising relocation**

→ **strengthen EU digital sovereignty**

