

From innovation to overshoot

How data centre expansion risks derailing climate goals – and how to fix it

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Report available on the ECOS ——website

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Rising environmental and social concerns

Emissions

Tech companies are increasingly

Data centres are essential infrastructure for the digital economy.

But their expansion is driven by an increasing demand for power – often dedicated to tasks of questionable necessity or low societal value.

Al exacerbates this

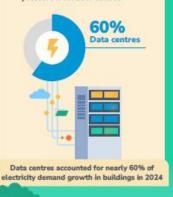




Energy grids are under mounting pressure from data centres

energy market.

showing interest in the data centres





- Many materials and resources are used for hardware production often inefficiently.
- The rapid obsolescence of equipment and hardware components used in data centres contributes significantly to the growth in e-waste.



Raw materials

- Masses of raw materials such as copper, aluminium, rare earth magnets, precious metals, silicon, tantalum, and semiconductors are needed for data.
- Extraction of raw materials can perpetuate harmful practices including deforestation, pollution, and the displacement of local communities
- Data centres require large amounts of land, electricity, and water.



EU policies to build on as part of a coherent vision on data centres



Energy Efficiency Directive (EED)



Renewable Energy Directive (RED II and RED III)



Ecodesign regulation for servers and data storage products



Sustainability reporting frameworks

e.g., the Corporate Sustainability Reporting Directive (CSRD), the Corporate Sustainability Due Diligence Directive (CSDDD), and the EU Taxonomy Regulation



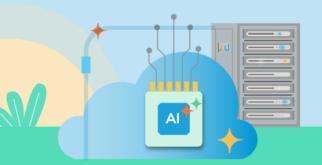
Green Public
Procurement Criteria
for Data Centres,
Server Rooms and
Cloud Services



The Cloud and Al Development Act and the Al Continent Plan



How to drive a sustainable digital transition



A coherent EU vision addressing the innovation and societal changes driving demand for data centres is vital — and lacking. We recommend that the EU develops a holistic approach to the drivers and impact of data centre uses, including ambitious environmental targets, as well as geostrategic, competitiveness, and societal objectives. Including:

- ✓ Focus on more than just efficiency
- Prioritise transparency

- Adopt sufficiency principles
- Give society a choice





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Panel





Pauline Denis
Project Manager –
Digitalisation at
The Shift Project



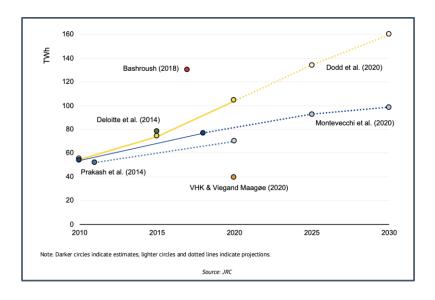
Nikolaos Kontinakis Policy Officer at the European Commission (DG ENER)

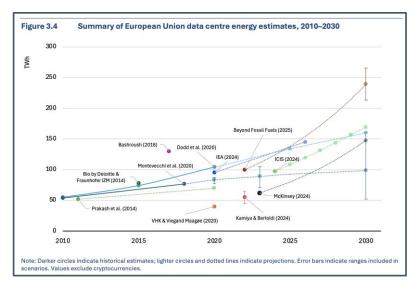


Samuel Rincé Co-Founder & President at GenAl Impact



Energy consumption – current situation



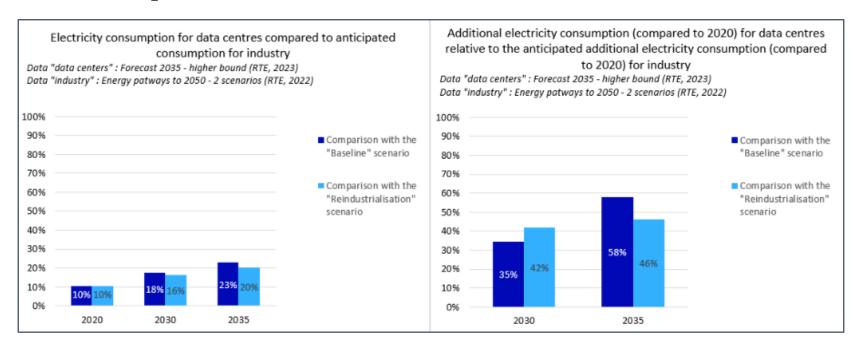


Figures: Overview of various estimates and scenarios for energy consumption in European data centres.

Source: (EDNA, Technology collaboration programme by IEA, 2025; European Commission, 2020).



Anticipating the energy and climate consequences of our choices



- Connections approved will have a full capacity ~ 10 years later
- Rising power system strains
- Conflict of use with regard to the electrification of key sectors (transport, heating, hydrogen, etc.)



Q&A



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Thank you



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