

DATA CENTRES :

Within environmental limits

EEB concerns and recommendations for Europe's AI infrastructure build-out

Why environmental NGOs are engaging

Europe plans to at least triple data-centre capacity within 5–7 years

Energy

Water

Land & nature

Materials

Pollution

Rights

Not a binary choice

Digitalisation or the environment

Digital infrastructure must operate within planetary boundaries.

The boom is not neutral — or inevitable

- Projected demand is being treated as something Europe must automatically accommodate.
- Digital services have value, but infrastructure still has a physical and societal footprint.
- The democratic questions come first: how much capacity, for what purposes, where, who bears the costs and within which limits?

NEED

≠

INEVITABILITY

Energy demand reshapes the whole system

- Efficiency gains can be cancelled by rebound effects and expanding compute demand.
- Renewable electricity is not automatically additional; scarce clean power has competing uses.
- New demand can prolong gas use, strengthen arguments for nuclear expansion and require diesel backup.
- Operators must not shift grid and flexibility costs onto households.

21%

of Irish metered electricity

used by data centres in 2023

Water impacts are local

- Cooling can consume significant volumes of freshwater, including during drought.
- Efficiency ratios conceal the critical facts: quantity, water type, location and timing.
- Data centres compete with ecosystems, drinking water, agriculture and other users.
- Assessment must happen at catchment level and include cumulative demand.

WATER

shared resource

Not just an efficiency metric

Land, forests and nature

- Large campuses seal soil and can remove or fragment habitats.
- Substations, grid connections, transmission and generation enlarge the footprint.
- Forest clearance has already been raised in relation to projects in Finland.
- Cluster-level cumulative assessment is essential; brownfield sites should come first.

SITE

matters

The footprint extends beyond the campus

Pollution, chemicals and waste

- Cooling equipment raises concerns about PFAS and other hazardous substances.
- Diesel backup generation adds local air pollution.
- Rapid hardware replacement creates electronic and hazardous waste.
- Assessment must cover the full facility and hardware lifecycle.

PFAS

DIESEL

E-WASTE

AI has a material footprint

- Servers, chips, batteries, cooling and grids all depend on physical resources.
- Expansion increases demand for critical and strategic raw materials.
- Short replacement cycles increase embodied impacts and e-waste.
- Policy must address absolute material demand, durability, repair, reuse and recovery.

AI

is physical

Chips • minerals • equipment • grids

Transparency is not yet accountability

- Communities lack site-specific figures on electricity, water and local impacts.
- Commercial confidentiality too often overrides the public right to environmental information.
- AI users and public procurers cannot compare model-level footprints.
- Reporting is only useful when it drives binding performance and accountability.

36%

reported

in the first data-centre reporting cycle

Faster must not mean weaker

- Major projects can escape full EIA, as highlighted by Google's Kronstorf project.
- Acceleration zones and compressed timelines risk curtailing participation and scrutiny.
- Plans and clusters need SEA and cumulative assessment, not only project-by-project review.
- Aarhus rights to information, participation and justice apply fully.

SPEED

≠

a licence to bypass environmental law

Set environmental limits — not only efficiency targets

ABSOLUTE IMPACT

- Create an EU framework covering absolute energy, water, land and material footprints.
- Test new capacity against climate, energy, water, nature and circular-economy objectives.
- Address rebound effects and total demand, not only unit efficiency.

TOTAL

consumption matters

Efficiency is a means, not the
environmental objective.

Make environmental transparency the default

RIGHT TO KNOW

- Require public, site-specific reporting of absolute energy, water, emissions, backup generation, land and materials.
- Disclose energy sources, renewable additionality, water type and local water stress.
- Do not allow blanket commercial-confidentiality claims to conceal environmental information.
- Extend meaningful footprint disclosure to AI models and services.

PUBLIC

by default

Shared resources require public information.

Ensure development serves the public interest

NECESSITY TEST

- Apply a public-interest and necessity test to strategic status, public funding and privileged resource access.
- Prioritise essential public services, research and activities with demonstrable public benefit.
- Condition EU and national support on climate, water, nature, circularity, transparency and community rights.
- Use procurement to favour lower-impact models, services and technologies.

PURPOSE

before scale

Not every projection of private demand is a public need.

Plan democratically — constrain corporate power

GOVERNANCE

- Set binding EU siting and exclusion criteria, including water stress, nature, forests, grids and cumulative demand.
- Be transparent about lobbying, subsidies, tax incentives and infrastructure agreements.
- Treat hyperscaler concentration and bargaining power as an environmental-governance issue.
- Keep public authority to limit, condition or refuse incompatible projects.

PUBLIC

interest first

Environmental decisions cannot be outsourced to hyperscalers.

Protect the energy transition and consumers

ENERGY

- Require credible access to additional renewable electricity.
- Prevent fossil-gas lock-in and strictly condition diesel backup generation.
- Make operators pay for the grid expansion and flexibility their demand requires.
- End preferential arrangements that shift costs towards households and SMEs.

POLLUTER

pays

No socialising of private infrastructure costs.

Protect scarce water resources

WATER

- Require impact assessment based on local and seasonal water scarcity.
- Restrict water-intensive cooling in water-stressed catchments.
- Minimise freshwater use without substituting other environmental harms.
- Include cumulative water demand from multiple facilities in permits.

BASIN

not average

Water decisions must reflect local ecological limits.

Protect land, forests and biodiversity

NATURE

- Apply a strong brownfield-first principle.
- Exclude protected areas, valuable habitats, forests and high-quality agricultural land.
- Assess grid and energy infrastructure as part of the full footprint.
- Require cumulative assessment of data-centre clusters.

AVOID

then mitigate

Siting is the first environmental decision.

Reduce the material footprint

CIRCULARITY

- Apply Ecodesign, durability and right-to-repair principles to servers and infrastructure.
- Require repair, refurbishment, reuse and high-quality recycling.
- Include critical raw materials and embodied emissions in assessment and procurement.

KEEP

value in use

Longer lifetimes reduce extraction and waste.

Make major projects subject to assessment

EIA + SEA

- Create EU thresholds or criteria that reliably trigger EIA for large projects.
- Screen smaller projects wherever significant effects are possible.
- Cover cumulative energy, water, land, nature, pollution, climate and infrastructure impacts.
- Subject enabling strategies and development zones to Strategic Environmental Assessment.

ASSESS

the whole impact

No major project should fall through a legal gap.

Do not sacrifice environmental democracy for speed

AARHUS RIGHTS

- Improve resources, coordination and predictability in permitting without reducing evidence or rights.
- Reject tacit approval when administrative deadlines expire.
- Guarantee adequate information, participation, access to justice and civil-society involvement.
- Strategic importance is not a licence to bypass environmental law.

BETTER

not weaker

Fast decisions still need legitimate decisions.

Europe can build digital capacity without abandoning environmental limits

Build only what Europe can justify.
Site it where impacts are acceptable.
Make operators pay their full costs.
Protect environmental law and democratic rights.

Thank you