Overview

Energy efficiency and sustainability of AI data processing in Data Centres (IA)

Last updated 27 November 2026

Donor: European Commission
Reference: HORIZON-CL4-2027-04-DATA-09
Location: Europe
Deadline: 18 March 2027
Open

Purpose and scope

The European Commission's Horizon Europe Innovation Action (IA) topic supports energy efficiency and sustainability of AI data processing in data centres. Its regional implementation geography is Europe, supported by European reference-point and industry-uptake objectives.

Funding

The estimated EU contribution is EUR 9,000,000 to EUR 10,000,000 per proposal; different amounts may be requested and selected.

Who can apply

Legal entities established in China, and legal entities established in an eligible country but controlled by China, are excluded from participation in the action.

Priorities

Activities are expected to start at TRL 6–7 and reach TRL 8 by project end. Results are expected to contribute to one or more outcomes: improved heat removal from high-power AI chips with lower cooling energy and higher reliability; low-cooling-demand backup power prototypes that improve resilience and renewable-power use; or methods for efficient AI processing through workload and model optimisation, renewables integration and waste-heat reuse. Expected demonstrations include improved power usage effectiveness and external waste-heat use aligned with carbon-neutral heating and cooling goals.

Eligible activities include on-chip cooling and thermal management; energy-efficient backup and storage; sustainable data-centre architectures and AI workload optimisation; use of existing materials research for data-centre energy efficiency and thermal management; AI, computing architecture and virtualisation to reduce carbon and environmental footprints; and integration of data centres into energy systems and the wider region. Partners must establish open pilot

demonstration sites to test and integrate results, demonstrate, benchmark and disseminate findings among relevant industrial stakeholders, and serve as European reference points for uptake.

Sources

ec.europa.eu - Official call

ec.europa.eu - Call document

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Salient One analysis. Official call documents and amendments govern the funding conditions.