DIGITALEUROPE

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Proposal for the draft EU sustainability rating scheme for data centres

Executive summary

DIGITALEUROPE's vision for the EU's sustainability rating scheme for data centres aims to balance transparency with operational realities whilst driving meaningful environmental improvements across the sector. Building on the Energy Efficiency Directive's (EED) reporting framework,[1] we propose a rating scheme incorporating both building infrastructure and IT metrics as of May 2027.

Our approach recognises data centres' varying operational characteristics and improvement potentials. The scheme will initially focus on self-improvement, allowing operators to understand and enhance their performance within their specific operational context, before transitioning to a comparative framework in May 2030. We oppose the introduction of individual minimum performance standards, as these fail to account for the complex interdependencies between energy efficiency, water use and heat reuse potential, as well as the vast variety of operational controls across the sector.

We propose a point-based evaluation system combining base metrics like power usage effectiveness (PUE), water usage effectiveness (WUE) and renewable energy factor (REF) with bonus key performance indicators (KPIs) that reward advanced sustainability initiatives. A particular challenge lies in addressing accelerated compute facilities, which utilise specialised hardware with distinct operational characteristics and cooling requirements that differ significantly from traditional data centres. Whilst these facilities deliver substantial computational efficiency gains per workload, they may display different patterns in traditional sustainability metrics, requiring careful consideration in the scheme's future design.

The rating system should prevent regional disparities that could fragment the EU's digital infrastructure whilst ensuring fair comparison by categorising facilities appropriately. A detailed weighting mechanism and specific rating classes will be developed in early Q2 2025, forming the next phase of DIGITALEUROPE's work.

[1] Delegated Regulation (EU) 2024/1364 pursuant to Directive (EU) 2023/1791.

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This position paper details how such a scheme can drive sustainability improvements whilst maintaining EU competitiveness, protecting business-sensitive information and supporting continued innovation in the data centre sector.

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Introduction

Ahead of the European Commission's forthcoming policy proposal on a sustainability rating scheme for data centres, DIGITALEUROPE would like to share its vision for a future-proof and proportionate rating mechanism that creates a level-playing field for data centres across the EU. At the same time, the rating scheme should build on the 'energy efficiency first principle,' as per Art. 3 EED, and allow for reasonable flexibility to adopt new power and cooling technologies with the goal to achieve a resilient and integrated energy system.

This initiative has the potential to enhance transparency and accountability in the sustainability performance of the data centre sector. Supporting customers, data centre operators and investors in making informed decisions and understanding the opportunities for an improved rating. Hence, its guiding principles should focus on measurable KPIs across the data centre industry, seek to incentivise efficient use of data centre infrastructure and foster technical innovation under the principle of technological neutrality. Furthermore, the scheme should explicitly recognise the diverse operational requirements across different types of data centre facilities, encouraging early adoption of cutting-edge solutions that can accelerate Europe's transition to net-zero.

For this work, we examined various geographical regions and existing initiatives, including the EU's Climate Neutral Data Centre Pact (CNDCP),[2] the US Leadership in Energy and Environmental Design (LEED) and the Singapore Green Mark Certification Scheme. We also consulted with key stakeholders, such as the United Nations Environment Programme (UNEP), the International Energy Agency (IEA) and the European Committee for Standardisation and the European Committee for Electrotechnical Standardisation (CEN-CENELEC), to establish our guiding principles. We acknowledge the ongoing work by the Green Grid (TGG) on ICT capacity estimation method and IT efficiency metric and will continue to monitor these efforts.

To reduce fragmentation, we advocate for existing regulatory and voluntary frameworks to align with the EED and the forthcoming rating scheme for data centres.[3] This ensures consistent recognition of data centre performance across the single market and avoids duplicative or contradictive regional and local schemes. Additionally, it is important to align the rating scheme with upcoming AI, cloud and quantum initiatives to ensure coherence with Commission initiatives aimed at fostering innovation and sustainability across the digital sector.

[2] Available at https://www.climateneutraldatacentre.net/wp-content/uploads/2021/01/20210115_Self_Regulatory_Initiative.pdf.

[3] Notably, Regulation (EU) 2020/852 (taxonomy) and the EU Code of Conduct on Data Centre Energy Efficiency.

Key principles

DIGITALEUROPE recommends the following guiding principles for the EU's forthcoming rating scheme for data centres.

Alignment with EED reporting scheme

The proposed rating scheme should be based on data submitted under the delegated regulation for the first phase of establishing a common EU rating scheme for data centres and used to calculate key sustainability indicators. These indicators offer a robust framework for evaluating data centre sustainability and align with the scheme's objective to support the EU's climate neutrality goals. Ensuring that data centre owners and operators are actively contributing towards these objectives.

Integrated building infrastructure and IT metrics

Any comprehensive data centre rating should be anchored in a holistic evaluation that seamlessly integrates both building infrastructure and IT equipment performance. The rating scheme should operate on three distinct levels of transparency:

- First, external stakeholders (e.g. regulators, customers and broader public) should have access to a consolidated total score that reflects the overall sustainability and efficiency of the data centre. This approach prevents misinterpretation whilst maintaining clarity in facility comparisons.
- Second, for regulatory compliance and auditing purposes, data centre operators must provide authorities with performance band results for individual KPIs. This ensures proper oversight whilst protecting sensitive operational details.
- Third, operators may voluntarily choose to provide additional granular visibility of their performance through visual representations such as spider diagrams or performance bars. This optional layer of transparency enables operators to demonstrate detailed sustainability achievements whilst maintaining control over sensitive operational information.

Multi-layered approach

A multi-layered approach maintains the rating system's integrity whilst offering flexibility in how detailed information is shared with different stakeholders. It ensures that, whilst separate internal assessments and granular reporting can guide in-depth operational optimisation, the publicly available information remains clear and appropriate for its intended audience.

Success criteria and timeline

The Commission should consider reviewing reliable and comprehensive data from at least two complete EED reporting cycles. Given that data from 2023 is sparse and incomplete, only data from 2024 and 2025 (to be reported by 15 May 2026) should be considered reliable, comprehensive and complete. In practice, the design of a credible scheme and its full legislative process would not be completed before 2027.

The scheme should be implemented through a two-phase approach, beginning with a self-improvement phase, commencing on 15 May 2027, before transitioning to a comparability phase on 15 May 2030, whilst applying to data centres, as defined per Art. 2 EED[4], with an IT power demand of at least 100 kW (as per DIGITALEUROPE's previous positions).[5] This stable and predictable timeline reduces the risk of stranded investments, supports innovation by giving industry sufficient time to adapt and provides regulators with comprehensive, real-world evidence.

To provide visibility on market trends and support continuous improvement, companies that report data should receive an annual anonymised summary of reported KPIs per data centre size and per every business category (enterprise, colocation and co-hosting data centres). Helping to understand industry developments and make informed strategic decisions. For clarity, data centres that become operational between 10 October 2023 (the EED's entry into force) and the scheme's official launch in 2030 would be considered as 'existing.' Subject to any transitional provisions or reporting requirements agreed upon in the final framework. This approach ensures stability for ongoing projects whilst accommodating early movers ready to align with the scheme's sustainability goals.

Scheme system

The proposed rating scheme for data centres will be implemented through a two-phase timeline that balances continuous improvement with fair comparison.

- **Phase one (from 15 May 2027) – self-improvement focus:** During this preparatory phase, the scheme will concentrate on driving ongoing improvements in energy, sustainability and operational efficiency through internal benchmarking. Operators will track their progress using granular data, allowing both operators and regulators to understand

[4] *Notably, Regulation (EU) 2023/1791.*

[5] See *Working together towards climate-neutral data centres: DIGITALEUROPE's views on the Energy Efficiency Directive*, available at https://cdn.digitaleurope.org/uploads/2021/11/DIGITALEUROPEs-views-on-the-Energy-Efficiency-Directive.pdf.

improvement potential within their specific operational context. Self-assessment period will help establish realistic improvement trajectories across different data centre types, accounting for variables such as business model, size, redundancy requirements and compute type. This learning phase will inform the development of fair comparison frameworks.

- **Phase two (from 15 May 2030) – comparative assessment:** Building on insights gained during phase one, the scheme will transition to a comparative framework based on clearly defined categories. This approach ensures meaningful comparison between data centres with comparable operational characteristics and technical configurations. The categorisation will reflect key differentiating factors already recognised in the EED (i.e. business model, size and redundancy requirements) whilst also accounting for emerging considerations like compute type. The rating system will establish performance bands per metric that reflect these categorical distinctions, ensuring that all data centres are evaluated against appropriate peer groups. Whilst the detailed performance data will continue to guide internal improvements, public comparisons will be based on consolidated scores within these well-defined categories.

This phased implementation maintains the scheme's dual objectives. Driving continuous improvement in sustainability performance whilst ensuring fair and meaningful comparisons across the sector. Points will be awarded based on both absolute performance within appropriate bands and demonstrated improvement, creating a balanced incentive structure that recognises both leadership and progress.

Point-based system

A point-based structure with points attributed to the corresponding band of performance of base KPIs and of bonus KPIs offers a balanced and comprehensive evaluation. The total score, the sum of base and bonus points, determines each facility's rating band. This approach weighs indicators fairly, encouraging broad-based improvements whilst minimising contradictions or trade-offs that could cause unintended environmental impacts.

Base KPIs

The primary building infrastructure KPIs to be included are PUE, WUE and REF. Base KPIs focus on metrics entirely within the operator's control, ensuring fair evaluation and accountability.

Bonus KPIs to prioritise comprehensive sustainability

To incentivise additional efforts, bonus KPIs should encourage operators to go above and beyond cross other sustainability pillars, beyond power, although

relevant for energy efficiency and transition towards net-zero emissions. These should be made available to data centre operators meeting holistic sustainability goals, including but not limited to power. Bonus KPIs, such as energy reuse, depend on investments in infrastructure that enable effective recovery and utilisation of waste heat and committed waste heat off-taking parties. In line with Arts 25-26 EED, we invite EU Member States and regional authorities to ensure the feasibility of waste heat recovery systems, i.e. via incentives that support investments for the recovery and utilisation of waste heat as part of local heat plans.

Individual minimum performance standards (MEPS)

MEPS fail to consider interdependencies between energy efficiency, water use and heat reuse potential in data centres. For example, mechanically air-cooled data centres are typically less energy efficient than water-cooled data centres, but they are more water efficient. Additionally, data centres that recover waste heat often consume more energy to operate the necessary equipment. Secondly, there is significant variation in climate, resource availability, geographical conditions, cooling types, business models, industry standards and infrastructure across the EU. In some regions, water is abundant, in others, electricity supply is constrained. In certain areas, district heating networks are well developed, whilst in others, they are not. MEPS approach cannot account for these variations and the environmental priorities of individual Member States and municipalities. Therefore, we urge the Commission to stick to a more holistic approach which can be adequately delivered by the below described data centre rating scheme.

Confidentiality of business information

The rating system must protect the confidentiality of business information by avoiding reliance on KPIs that could be considered sensitive. The Commission should ensure uniform data-protection protocols across Member States and allow for aggregated or anonymised reporting whenever disclosing granular performance metrics might compromise critical intellectual property or competitiveness. Inconsistent handling of confidentiality across EED transpositions and national databases will result in inconsistent and incomparable data, which undermines the setting of performance standards and benchmarks. To prevent this, it is advisable for the Commission to identify specific use cases where confidentiality constraints might limit the ability to accurately score data centre. This approach will help ensure the rating criteria maintain its integrity and fairness.

Rating structure

Base KPIs

Building infrastructure KPIs

To achieve a comprehensive view of data centre sustainability, ensuring proportionate evaluation and accountability, it is essential to select appropriate building infrastructure KPIs that are within the operational control of the data centre operator. These KPIs should promote the adoption of energy-efficient design, operation and management practices for data centres, whilst being based on well-established international technical standards. More specifically, they should assess the sustainability performance of the relevant data centre building infrastructure and should consider the regional variation in weather conditions to allow the fair comparison of data centre efficiency decoupling the impact of ambient climatic effects. Therefore, we advise to consider three primary building infrastructure KPIs:

- **Power usage effectiveness (PUE):** Measures the ratio of total facility energy to IT equipment energy. Whilst inefficiencies in the facility's support systems (cooling, power distribution, etc.) are captured in an increased PUE value, we recognise that there are shortcomings of being able to hide inefficient IT equipment use and this should be taken into consideration when considering scoring. Weather normalisation using local cooling degree day (CDD) data ensures fair evaluation of data centre performance across different climate zones. Without this adjustment, data centres in warmer regions may show artificially higher PUE values compared to those in cooler climates, despite potentially having similar operational efficiency. This normalisation method creates a level playing field by accounting for local climate conditions, preventing unintended discrimination against facilities based on their geographic location.
- **Water usage effectiveness (WUE):** Measures the ratio of annual water usage to IT equipment energy, reflecting the trade-off between water and power consumption depending on the respective cooling technology. WUE enables operators to also assess the correlation between water and energy, compare the results and determine if any energy efficiency and/or sustainability improvements are needed. As mentioned above, weather normalisation using local CDD data will be required to ensure a fair evaluation of data centre performance across different climate zones. WUE is specifically limited to water use in processes due to site operations. We believe that it is essential to consider local water constraints and the type of water.
- **Renewable energy factor (REF):** Measures the amount of renewable energy used by the data centre. Although we recognise that REF is not strictly a building infrastructure KPI, it serves as a vital component in

advancing renewable energy development and significantly contributing to efficiency improvements. In line with EED, REF should consider power-purchase agreements (PPAs), onsite generation and guarantees of origin, allowing more flexibility in using different KPIs to measure renewable energy.

We suggest excluding ERF and CER from base KPIs. Energy reuse factor (ERF) should not form part of the base KPIs, as operators do not necessarily have full operational control over it. ERF can be influenced by location and the availability of off takers for waste heat. Additionally, ERF does not account for on-campus waste heat reuse. Therefore, ERF is better suited to be included in the list of bonus KPIs, complemented with an extended list of proactive waste heat actions that should be recognised by the bonus system.

Cooling efficiency ratio (CER) should be excluded from the list of base KPIs to avoid double counting as PUE is already included in the base formula and to remove bias to evaporative cooling systems However, efficient cooling equipment and strategies are important in the context of future developments/improvements to PUE.

Each base KPI should be given equivalent weighting in the final score, ensuring that improvements in one area do not overshadow other critical sustainability metrics and even create contradictory incentives. Overreliance on PUE alone risks driving optimisation in one dimension at the expense of water use or renewable energy uptake.

IT capacity KPIs

We recognise that IT KPIs are fundamental to the EED's primary goal and should form part of the base KPIs in the rating scheme, along with building infrastructure KPIs. Measurable comparability across data centres is essential to ensure for fair competition and accurate sustainability assessments.

Whilst data centres can internally track the energy efficiency of their IT equipment using existing metrics over time, there is presently no unifiable consistent approach that can be applied to make comparisons across different data centres. Due to the varying workload impacts, lack of standardised testing methodologies, effects of new cooling technologies and differences in processor designs and hardware configurations.

Given the ongoing development of metrics and methodologies in standardisation forums, such as the SPEC Corporation, we propose that any new metric be monitored at least until the start date of the rating scheme in 2030. This timeframe allows for assessment of the metric's effectiveness, adaptability and fairness across different technologies and data centre configurations. Ensuring it can accommodate advancements like AI compute workloads and new cooling methods.

Computing is currently undergoing a fundamental transformation from traditional integer-based calculations (classic compute) to floating-point computations (accelerated compute), representing a shift from simple whole-number processing to more sophisticated calculations that can handle decimal points and a wider range of values with varying levels of precision (32-bit single precision and 64-bit double precision). This transformation is driven primarily by accelerated compute needs. Whilst traditional systems excel at basic data processing and business applications, modern accelerator hardware specialises in more complex mathematical operations required for AI and HPC scientific computing.

The relationship between single and double precision operations varies significantly based on hardware architecture, application requirements, cooling technologies, processor designs and workload types. Given these complexities, we support the inclusion of IT capacity metrics in the rating scheme, provided it is based on industry accepted standards. We recommend self-monitoring of any newly available standardised metrics, accompanied by ongoing evaluation in the lead-up to the scheme's 2030 start date, allowing time to assess their effectiveness across different technologies, ensure adaptability to emerging compute paradigms, validate fairness across various data centre configurations and accommodate advancements in AI compute workloads.

As we move forward in considering floating point operations per second (FLOPS), as a potential indicator amongst many for capturing IT capacity of accelerated compute, we acknowledge the complexity in comparing performance across precision levels. The performance differential between single and double precision can vary significantly, ranging from 10-20 percent to several-fold, depending on specific applications and hardware configurations. This evolving landscape requires careful consideration in developing IT capacity metrics that remain relevant and fair across different computational approaches whilst supporting innovation in data centre technology. During this interim period, we support using the following indicators:

- **A compute capacity KPI:** Incorporates the Green Grid's new Cserv calculation methodology (PerfCPU) to ensure that data centres continue to report in a standardised manner under the EED. Whilst the PerfCPU methodology for calculating Cserv is suitable for several operators, there is a relevant percentage of data centre operators for which this methodology is not well-suited. The EED has acknowledged this by ensuring flexibility for operators to apply an equivalent recognised calculation methodology for calculating Cserv, as long as it is reliable, accurate and reproducible. As such, these data centre operators have operationalised their reporting under the EED and other regimes (e.g. ISO 50001) according to alternative, potentially equivalent methodologies. This flexible approach facilitates transparency across the industry whilst accommodating the diverse needs of different data

centre operators and ongoing advancements in technology and metrics development.

- **An IT capacity KPI for storage equipment:** Using the methodology included in the EED's delegated act, which is based on the sum of the raw (addressable) capacity of all solid-state drivers (SSD) and high-capacity hard driver (HDD) storage devices, depicted in petabytes.

Finally, DIGITALEUROPE opposes the inclusion of IT utilisation KPIs, as it is hard to measure, highly complex and not directly linked to efficiency, making comparison not possible. First, there is no reliable metric to measure utilisation. The complexity, in relation to energy efficiency, is that there are different workload types and there is trade-off between memory-bound workloads versus processor-bound workloads. Low utilisation does not mean inefficiency as such. Second, it is not possible to compare workloads, as there is variance in the workloads themselves. It should be noted that cloud service operators have no to limited control over how customers utilise their workloads. Hence, the focus should be on IT capacity, as this metric will give a comparable and accurate understanding of the amount of useful work that could be potentially done within a data centre. Therefore, we urge the Commission to maintain its current position and to not include utilisation KPIs (i.e. real-time utilisation) that have been recently recommended in the preparatory study for the in upcoming review of the eco-design regulation for servers and data storage products (i.e. Lot 9).[6] Additionally, we also stress the need to ensure confidentiality safeguards around the disclosure of such metrics within the rating.

We recommend that the Commission ensures proper coordination between DG ENER and DG CNECT to avoid overlapping and duplication of metrics, performance measurements and requirements, leading to potential contradictory incentives and further complexifying reporting burdens.

Bonus KPIs

Bonus KPIs serve the purpose of rewarding data centre operators for implementing ambitious sustainability initiatives and green technologies that rise above the industry standard. To ensure meaningful recognition of data centres investing in advanced technologies, the weighting of bonus KPIs is an important consideration for the overall rating scheme score for data centres. In doing so, the scheme encourages continued investment in next-gen infrastructure without undermining revenue potential from growth segments.

Nevertheless, base KPIs should remain the foundation of the rating scheme and the additional bonus KPIs should not disproportionately influence the overall outcome. It would be prudent to initially focus on stabilising the foundational KPIs before adding bonus points KPIs in subsequent years.

[6] Regulation (EU) 2019/424.

This approach allows for a solid implementation of the rating scheme, with the potential introduction of bonus KPIs over time. Therefore, we would like to emphasise that the current list of bonus KPIs will be subject to future review as part of the industry's ongoing efforts to incorporate technological innovations.

Scope of bonus system

Examples of sustainability initiatives that can earn bonus points include energy reuse, carbon capture, green backup power, battery systems, hydrogen fuel cells, energy storage, environmental protection systems, water replenishment programmes and circular economy initiatives. A point-based bonus framework can also reflect different maturity stages, such as 'experimental,' 'designed' and 'operational' for each bonus indicator, acknowledging a phased implementation. This transparent scoring ensures data centres receive incremental credit for advanced sustainability measures, from initial design commitments to fully operational solutions.

Proportional weighting for advanced measures

Proportional weighting for advanced measures encourages truly novel or high-impact solutions based on measurable sustainability outcomes and technological effectiveness. This approach ensures technology neutrality whilst recognising solutions that deliver significant environmental benefits. Industry leaders who implement solutions that achieve superior sustainability results should be appropriately acknowledged in the overall score.

Green on-site power

The list includes, but is not limited to, alternative fuels, such as bio and renewable diesel in generators, as well as battery energy storage systems (BESS), small modular reactors (SMRs) and hydrogen fuel cells.

Voluntary certification and Ecolabels

Bonus points could be earned by showing alignment with the EU Code of Conduct, CNDCP, LEED, recognised global ecolabel programmes (e.g. EPEAT) and Environmental Management System (EMS) Certification. The latter includes ISO 14001, which encompasses various environmental performance aspects, from resource use to waste management and emissions, zero waste certifications to monitor waste reduction. ISO 50001 specifically focuses on energy management.

Circular economy

The use, repair and recycling of servers, electrical equipment and other related component is a priority for data centre operators. Bonus points could be earned for certain percentages of total server materials repaired, reused or efficiently recycled.

Water stress

In water-stressed geographies, data centre operators can earn bonus points by improving water availability, quality and resiliency as quantified by the volumetric water benefit accounting (VWBA framework). Additional points should be awarded for water replenishment or restoration projects in partnership with local communities – initiatives that go beyond on-site conservation and align with broader goals to become 'water positive' transcending basic WUE improvements.

Water source

This metric depends on external factors and should only apply to water-stressed regions and for newly built data centres. In line with industry-known terminology such as the one adopted by CNDCP, we propose recognising the use of non-potable or untreated sources such as utility-provided recycled water, reclaimed onsite wastewater, rainwater and grey, black, brackish or sea water.

Energy reuse

Energy reuse factor (ERF) measures the amount of recovered heat energy put to productive use. Heat recovery design readiness assesses whether the data centre operator has provisioned in their design for a heat recovery system to be implementable. Assessment of potential off-takers evaluates whether the data centre operator has assessed and engaged potential off-takers for excess heat. For example, data centre operators should engage with local authorities (e.g. municipalities) who are required, under Art. 25(6) EED to draw up heating plans and consider secondary sources of energy.

Optimising resources

Adoption of technologies such as sensors, automation, liquid cooling, fault managed power (FMP) to optimise resources like water and energy.

Next-generation solutions

In line with the need for futureproofing, the scheme should allow for additional bonus points for a wide range of next-generation solutions, such as carbon capture and storage (CCS), alternative refrigerants, hydrogen or other green backup systems like eco-friendly building materials for ensuring operators remain incentivised to invest in innovation beyond today's norms.

Applicability of the scheme

We examined the complex landscape of various data centre types, alongside the Commission's ambition to establish a unified rating scheme for all data centres. Categories are critical for the purposes of comparison of a rating scheme. As mentioned above, to compare 'apples with apples,' one needs to define clear categories. Below are our key considerations for comparison purposes.

Distinguish between enterprise, co-location and co-hosting data centres

Each of these represents different business models, as recognised in the EED. They serve different purposes and have varying degrees of control over the parameters influencing a data centre's energy efficiency. Therefore, comparison should be made within these categories, not across different categories.

Distinguish between legacy, new and existing data centres

The scheme should distinguish between legacy, new and existing data centres. Establishing different performance thresholds for each category to ensure proportionality in comparing between legacy sites with new builds. For clarity, 'legacy' data centres are those that were operation before the EED entry into force (i.e. 10 October 2023). 'Existing' data centres would be those that began operations between this cut-off date and the scheme's enforcement date (i.e. 1 January 2030). 'New' data centres would be those that enter full operation (as defined by the CNDCP) after the scheme takes effect. It is essential for the rating scheme not to force operators to retrofit existing data centres or promote premature asset retirement, as this can hinder the single market's digital transition and competitiveness.

Several data centres are covered as large energy users under the EED, which requires continued operational improvements and efficient resource management. Nevertheless, if and when retrofitting does take place, energy efficiency measures should be prioritised and guided by a full lifecycle analysis.

Accelerated compute considerations

The emergence of AI and other advanced computing workloads presents unique challenges for the purpose of this scheme that require careful consideration. These facilities utilise specialised hardware with distinct operational characteristics and cooling requirements that differ significantly from traditional data centres. Current evaluation frameworks and metrics may not adequately capture their performance profiles. Whilst accelerated computers deliver substantial computational efficiency gains per workload, it can show different patterns in traditional sustainability metrics. For instance, these installations may display higher PUE values due to increased cooling

demands, despite achieving superior computational output per unit of energy consumed. This illustrates the need to evaluate whether separate performance bands or adjusted metrics might be appropriate for such facilities.

However, given that technology and its impacts are still evolving, it would be premature to establish specific metric adjustments or separate evaluation criteria at this stage. Instead, the rating scheme should maintain sufficient flexibility to accommodate these technological developments as our understanding of their energy and water consumption profiles matures. This could include provisions for future adaptation of performance bands or metrics once more comprehensive data becomes available.

We recommend monitoring the operational patterns of accelerated compute facilities during the scheme's initial implementation phase to gather empirical evidence that can inform potential future adjustments. This approach ensures the scheme remains technology-neutral whilst acknowledging the unique characteristics of emerging compute technologies.

As Europe seeks to remain competitive in advanced computing fields, including AI and accelerated compute, it is essential that the forthcoming data centre rating scheme fosters, rather than inhibits, growth in these areas.

We recommend establishing industry-wide research initiatives to develop appropriate metrics and evaluation methodologies for accelerated compute facilities. These collaborative research programs should examine the relationship between computational output and resource consumption, aiming to establish standardised approaches that benefit the entire data centre industry. This research-based approach, coordinated with EU digital policy, will ensure accelerated compute developments align with both Europe's digital transformation goals and sustainability objectives.

Distinguish between per availability class (uptime tiering system)

Data centres with a high availability level will have a lot of redundant equipment as a backup to guarantee the availability level. This additional equipment will consume more power than those without that level of redundancy/availability and should not be in the same category for comparison purposes.

Geographic market balance

The outcome of the scheme should aim to prevent geo-locking to ensure equitable access to technology and data centres across all regions. Geo-locking, which restricts certain areas from accessing advanced technologies and sustainable infrastructure, can have several adverse effects, including environmental impacts. Meanwhile, distributed data centres optimise resource use and reduce carbon footprints, leveraging local renewable energy sources more effectively. This distribution of hyperscale various data centre sites across

European regions generates positive economic and environmental benefits, enhances resiliency and reduces cross-border data transport overhead.

Applicability should consider capacity levels

The rating scheme is relevant for data centres that reach full capacity. For this purpose, we are relying on the following CNDCP definition of full capacity: 'A data centre is at full capacity 24 months after it becomes operational. Based on the power measured at the power meter(s) representing the critical load over a rolling 90-day period, when compared to the planned data centre design critical load capacity.'

Review timeline

The data centre rating scheme should be revised considering the typical design to build timeline for data centres, proximately five years. That way, newly built data centres could be operational and properly evaluated before the scheme is comprehensively reviewed. Similarly, the review timeline can also follow the same principle as the EU taxonomy cycle, where data centre reporting criteria are reviewed and updated every three years.

Assurance of the reported data

Instead of requiring external and specific auditing by third parties of the performance and related disclosures for the purpose of the rating scheme, data centre operators should be free to carry out quality assessments for self-declaring results. Regulatory bodies could then conduct quality checks based on sampling, which would reduce the burden of external auditing. To foster trust amongst customers and investors, the scheme could enable voluntary third-party verification for those operators who wish to demonstrate fuller transparency. This hybrid approach balances confidentiality with enhanced credibility of self-reported data. We also recommend that the Commission issues guidelines to indicate the principles and requirements for internal audit.

Optics of the scheme

The visual representation of the rating scheme must reflect both its complexity and dynamic nature. Data centres undergo continuous evolution, particularly in their IT layer, requiring regular reassessment of their sustainability performance. Therefore, traditional static rating approaches, such as product-style ecolabels or building energy performance certificates (EPCs), are unsuitable due to their long validity periods.

For public disclosure, the scheme should move beyond simplistic letter grades or traffic light systems that fail to capture the sophisticated nature of data centre operations. Instead, the visual representation should effectively communicate the consolidated score whilst acknowledging the dynamic and multifaceted nature of data centre performance.

For operators choosing to provide additional transparency, more detailed visualisations such as spider diagrams or dynamic dashboards could illustrate performance across multiple metrics. Such tools can better represent the complex interplay between different sustainability factors whilst maintaining the scheme's credibility and avoiding oversimplification.

Next steps

As a next step, DIGITALEUROPE members will develop appropriate rating classes and a granular weighting mechanism by way of establishing realistic baselines or tiered band performance for each KPI and creating a balanced point system for both base and bonus KPIs. The goal is to create a robust and fair rating system that accurately reflects data centre sustainability performance and drives continuous improvement across the industry, with clearly defined thresholds for each rating class.

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About DIGITALEUROPE

DIGITALEUROPE is the leading trade association representing digitally transforming industries in Europe. We stand for a regulatory environment that enables European businesses and citizens to prosper from digital technologies. We wish Europe to grow, attract and sustain the world's best digital talents and technology companies. Together with our members, we shape the industry policy positions on all relevant legislative matters and contribute to the development and implementation of relevant EU policies. Our membership represents over 45,000 businesses that operate and invest in Europe. It includes 108 corporations that are global leaders in their field of activity, as well as 41 national trade associations from across Europe.

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