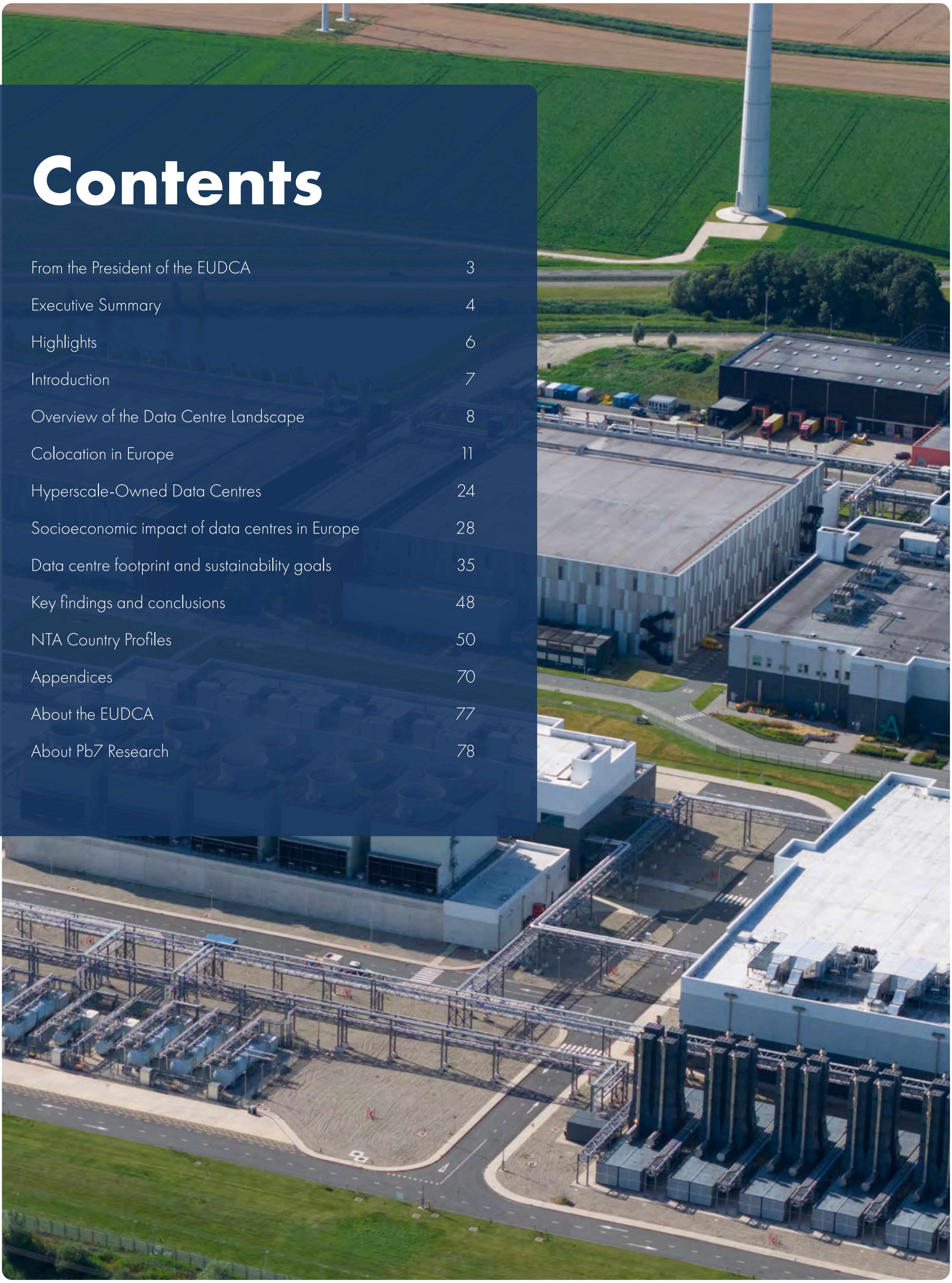
EUROPEAN DATA CENTRE ASSOCIATION

STATE OF EUROPEAN DATA CENTRES 2026

Building a sustainable digital infrastructure for a strong and competitive Europe

Contents



From the President of the EUDCA

It is with great pride as president of the European Data Centre Association (EUDCA), I can present the second edition of our State of European Data Centres, for 2026.

Building on last year's milestone achievement, it is only possible through the invaluable contribution and cooperation of our members, and we are excited to share the results of this comprehensive research with the public.

This year has seen the deepening impact of artificial intelligence, the continued emergence of new centres of activity, and the constant issue of energy availability. Building on the expanding resource that is the Energy Efficiency Directive (EED) data, the report reflects an industry that is experiencing rapid growth even amid the challenges of a more demanding regulatory environment and changing geopolitical and cybersecurity landscapes. Huge strides have been made in efficiency and sustainability, with progress on PUE and WUE, as well as heat reuse.

With digital security and sovereignty becoming ever more important, data centres now stand as not just the foundations of our digital economy, but also central to our efforts for a secure, sustainable future.

As the EUDCA continues its mission to build a strong European digital industry necessary for a competitive digital economy, we continue to engage EU policymakers to create fair, future-ready regulations that support innovation and investment.

By working to set clear industry standards, track progress, and prove our positive impact with real data, we drive sustainability and social value, marrying responsibility with economic growth.

President of EUDCA, Lex Coors

Executive summary

The European data centre industry is entering a new phase of unprecedented expansion, technological transformation and strategic relevance.

Driven by accelerating digitalisation, the rapid adoption of artificial intelligence (AI), and the growing need for resilient and sovereign digital infrastructure, including dark fibre, the sector is expanding at record speed across multiple regions in Europe. While the FLAP-D (Frankfurt, London, Amsterdam, Paris, Dublin) markets remain essential to Europe's digital core, growth is now increasingly distributed across Southern Europe, the Nordics, Central and Eastern Europe, and a rising group of Tier-2 metropolitan regions.

From 2025 into 2026, Europe's data centre sector is reaching a structural inflection point. Demand continues to accelerate, driven by AI, cloud adoption and the digital sovereignty imperative. However, growth is increasingly constrained not by capital or customer appetite, but by energy availability, grid readiness, and permitting complexity. Data centres have evolved from digital real estate into strategic infrastructure critical to Europe's economic competitiveness and security.

Rapid growth

Colocation data centres continue to grow rapidly, fuelled by enterprises modernising their IT estates, the ongoing migration to hybrid cloud, and the surge in AI-related workloads requiring high density, highly scalable infrastructure. Scale colocation campuses — designed to accommodate cloud and AI platforms at industrial scale — are now the primary driver of new capacity additions. Investments in new construction are reaching new highs, with €176 billion in cumulative investments expected in Europe between 2026 and 2031.

Growth has shifted from strong, cloud-led expansion to AI-driven hyper-expansion, with higher power intensity and faster scaling requirements. This acceleration is reinforced by strong demand from hyperscale providers launching new cloud regions, expanding sovereign cloud zones, and deploying AI-dedicated facilities.

Similarly, investment has moved from capacity expansion to capital-intensive, AI-optimised infrastructure at industrial scale, with significantly higher spend per site.

Still, the continued challenge of access to power is holding back a lot of investments. As a result, total data centre power will not be able to triple as required, according to the European Union.

Hyperscale extending beyond

Hyperscale-owned data centres also continue their expansion across Europe, extending beyond traditional hubs into regions with abundant renewable energy, favourable climates, and increasingly strong international connectivity. The Nordics, Southern Europe and parts of Central and Eastern Europe are rapidly becoming integral components of Europe's hyperscale footprint. At the same time, operators are adapting facility designs to support extreme rack densities, liquid cooling, advanced electrical architectures, and new forms of energy integration. The market has shifted generally, from hub-centric expansion to a distributed, energy-driven location strategy, fundamentally altering Europe's data centre geography.

Socioeconomic contributions

Data centres remain a significant contributor to Europe's socioeconomic fabric. The industry stimulates billions of euros in annual investments, will create more than 300,000 high-skilled jobs across the whole sector, and contribute €138 billion in GDP annually for colocation data centres alone by 2031. Even more importantly, the sector underpins the digital competitiveness of European enterprises and public institutions. As Europe prioritises technological sovereignty and resilience, digital infrastructure — including cloud regions, AI platforms, subsea connectivity, and edge locations — plays an increasingly strategic role.

Sustainability at the core

Sustainability remains at the core of sector development. The sector has moved from sustainability commitment to measurable delivery and regulatory integration, even as absolute energy use continued to rise sharply.

The implementation of the new Energy Efficiency Directive (EED) marks a major shift toward harmonised reporting and transparency across Europe. The sector continues to lead in renewable energy procurement, including a growing share of enhanced high-impact Power Purchase Agreements (PPA), while investing in advanced cooling technologies, energy-system flexibility, and heat-reuse initiatives.

At the same time, operators face rising environmental expectations and a growing need to integrate their facilities more deeply into national energy and heat systems.

Sectoral challenges

Despite strong momentum, the sector faces significant challenges. Power availability is now the single most important inhibitor to growth, especially in major metropolitan hubs. Grid congestion, long lead times for new connections, complex permitting procedures, geopolitical uncertainties, and the escalating requirements of AI workloads all require coordinated action between policymakers, grid operators, regional authorities and the data centre industry.

Underpinning digital sovereignty, economic strength and competitiveness

Overall, the European data centre sector continues to expand at high speed, driven by demand for cloud, AI and advanced digital services. Through innovation, sustainability leadership and strategic investment, the industry underpins Europe's digital sovereignty, economic strength and global competitiveness. The sector has moved from economic enabler to strategic asset.

The coming years will determine Europe's ability to build a resilient, sustainable and technologically independent digital infrastructure capable of supporting the next wave of economic and societal transformation.

Highlights

Growth, Size, Market

Growth Markets: Spain, Italy, and Portugal
Are surging due to new subsea cables.

>2/3
Of IT power is now delivered by commercial colocation and hyperscale facilities.

AI Hubs: The Nordics
Have entered a new phase of hyperscale and AI-training campus development.

Constraint:
Grid capacity and land constraints
Remain the primary challenges.

Socio-economic

€137.5bn
Projected GDP contribution by 2031 (up from €53bn in 2025), growing at 16.3% CAGR.

€26bn
Annual scale colocation investment, driven to new highs by AI infrastructure.

Community Benefits:
Facilities are delivering district heating, biodiversity projects, and public facilities (e.g., Gibraltar's Pelagos campus, AWS wetlands, and Queen Mary University heat re-use).

Sustainability

90%
Of energy consumed by European data centres is now from renewable sources.

70%
Of operators report compliance with 75% renewable or hourly carbon-free energy.

55%
Have already achieved 2030 Water Usage Effectiveness (WUE) goals.

Energy efficiency is holding firm even as usage rises. The sector is embracing circular construction and innovation in heat reuse.

Energy

17%
CAGR Projected growth in IT Power demand across Europe through 2031.

67%
Operators cite access to power as their single greatest challenge **(down from 76%).**

1 MW
AI clusters now reaching extreme densities per rack, driving a shift to liquid and direct-to-chip cooling.

Introduction

Data centres are firmly embedded into the European social and economic landscape, serving as essential components of the continent's digital infrastructure.

They house the IT equipment required to store, process and distribute data, enabling the digital transformation of the economy and society. These facilities support cloud services, the internet, business applications, digital media and artificial intelligence (AI), forming the backbone of Europe's digital ecosystem.

The European data centre market continues to develop rapidly. Demand for capacity remains high, driven by ongoing cloud adoption, digitalisation across industries and the accelerating rise of AI-driven workloads. Alongside the established hubs, new data centre locations are emerging throughout Europe, attracting significant levels of investment, strengthening digital resilience and contributing to Europe's competitiveness and digital sovereignty.

As the sector expands, its responsibility grows too. Data centres consume electricity, water, land, and construction materials, and their environmental footprint is receiving increasing attention from policymakers, regulators, and society. Colocation and hyperscale data centres generally operate more efficiently than enterprise facilities and tend to make greater use of renewable energy, but continued growth requires sustained investment in efficiency, transparency and sustainability.

Objectives of this study

The European Data Centre Association (EUDCA), as one of the leading bodies representing the data centre community in Europe, has commissioned Pb7 Research to conduct an independent follow-up study of the European data centre market. The primary objective of this research is to create a reliable, harmonised and data-driven view of the structure, scale and socioeconomic impact of data centres in Europe.

The study aims to:

- Qualify and quantify the economic and societal value of the sector.
- Provide a consistent view of colocation, hyperscale, and enterprise data centres using harmonised definitions.
- Analyse regional developments and capacity expansion across Europe.
- Provide insight into sustainability performance, including Energy Efficiency Directive (EED) aligned metrics and operator initiatives.
- Support policymakers, regulators, grid operators and industry participants with objective, comparable data.
- Contribute to a better understanding of the sector's opportunities and challenges as Europe's digital infrastructure continues to grow.

The report builds on and extends the methodology used in the inaugural edition (2025), ensuring continuity and comparability where possible.

Methodology

To achieve these objectives, a combination of research methodologies and analytical approaches was used. The foundation of the analysis is a comprehensive colocation and hyperscale data centre database built and maintained by Pb7 Research. This database is developed through desk research, cross-checking of public and proprietary sources, and validation where possible. When no direct data is available, estimates are made based on building characteristics, power infrastructure, and other relevant indicators. The database covers all European countries, both EU and non-EU, with the exception of Belarus, Russia, Ukraine, Moldova, and Türkiye, and aims to include all facilities offering 50 kW IT power or more.

The enterprise data centre is quantified using a combination of a database of enterprise data centres and a model. The database provides an insight into the high end of the market and helps generate benchmark data that is used to fill the gaps and the long tail of the market. The data is cross checked using server installed base input.

An anonymous survey was conducted in October 2025 among 69 colocation and hyperscale data centre decision makers. Although not a large number in absolute terms, the respondents' organisations represent approximately 59% of the European colocation market in terms of installed IT power. The survey results have been used to quantify market characteristics, sustainability performance and investment trends, and to provide insight into operator expectations and plans.

To quantify economic impact, Pb7 Research applied established input/output models, combining operator-reported data with national economic statistics. Both direct effects (jobs and GDP generated by data centre operations) and indirect and induced effects (supply chain impacts and downstream economic activity) are included. Forecasts were created using a combination of bottom-up analysis of announced and probable projects, and top-down alignment with international datasets and market expectations. Please note that the methodology behind models are reviewed based on evidence that the indirect impact is higher than previously assumed.

More detailed methodological explanations are provided in Appendix III of this report.

Overview of the Data Centre Landscape

Europe's data centre sector has entered a new phase of expansion, diversification and technological acceleration.

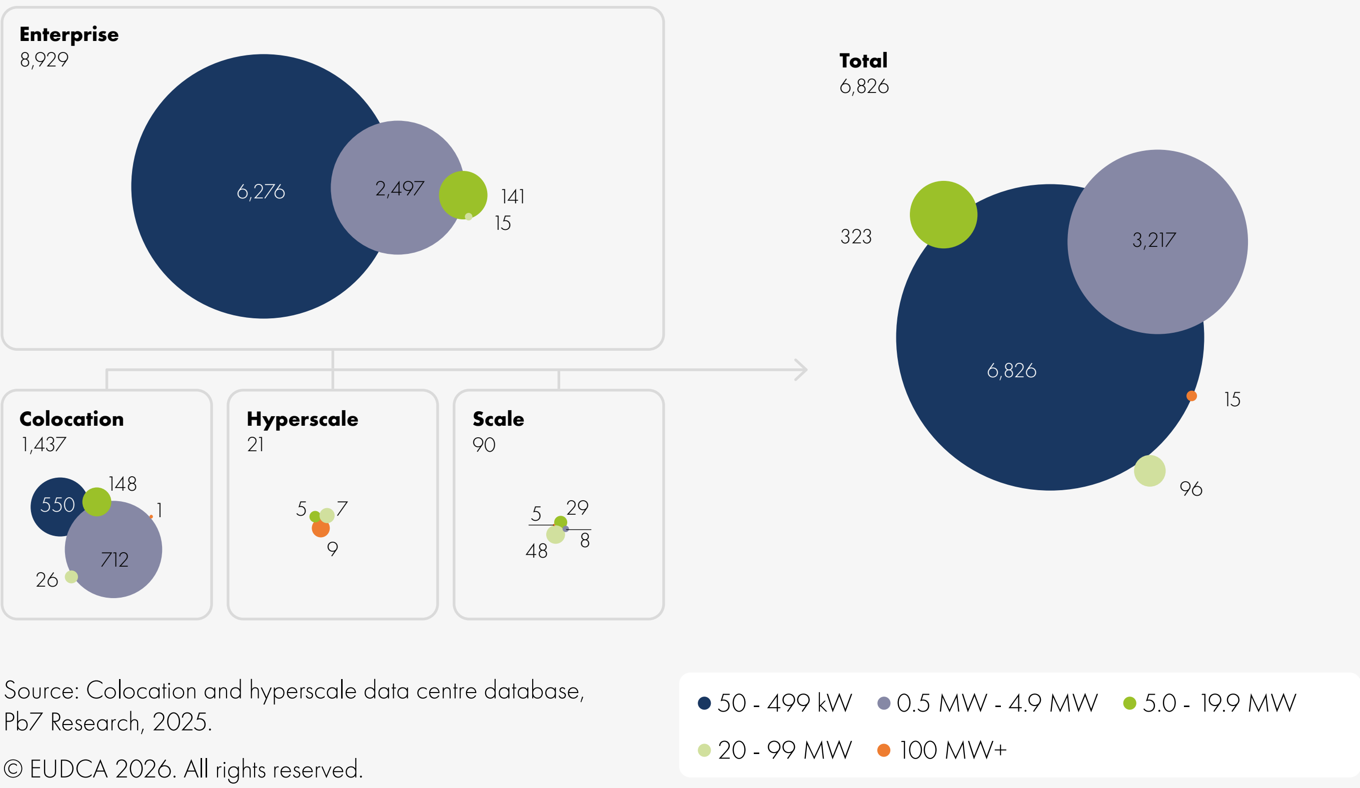
What was once a market concentrated in a handful of major metropolitan hubs has evolved into a distributed network of large-scale colocation facilities, hyperscale campuses and rapidly emerging AI-optimised data centres across the continent. Growth continues to be driven by the rising demand for cloud services, the rapid adoption of artificial intelligence and the ongoing consolidation of enterprise IT infrastructure into more efficient commercial facilities.

At the same time, Europe's energy transition, connectivity investments and evolving regulatory environment are reshaping where data centres are built and how they operate. Regions with strong renewable-energy potential, improved submarine cable access and available grid capacity are capturing a growing share of new development, while established hubs face tightening constraints and more complex permitting conditions. These combined forces are redefining the geography, design and strategic role of Europe's digital infrastructure.

The landscape in numbers

Europe's data centre sector has expanded into one of the most strategically important pillars of the continent's digital and economic infrastructure. Across Europe, thousands of enterprise, colocation and hyperscale-owned data centres form a distributed but increasingly interconnected landscape. The composition of this landscape has shifted significantly over the past decade. While enterprise data centres remain numerically dominant, despite a slow consolidation, the majority of IT power — more than two-thirds — is now delivered by commercial colocation and hyperscale facilities. These facilities operate at higher densities, higher efficiency, and with increasing alignment to sustainability goals, making them central to Europe's digital economy.

Figure 1. Data centres in Europe by type and IT Power (50 kW or more), 2024



Source: Colocation and hyperscale data centre database, Pb7 Research, 2025.

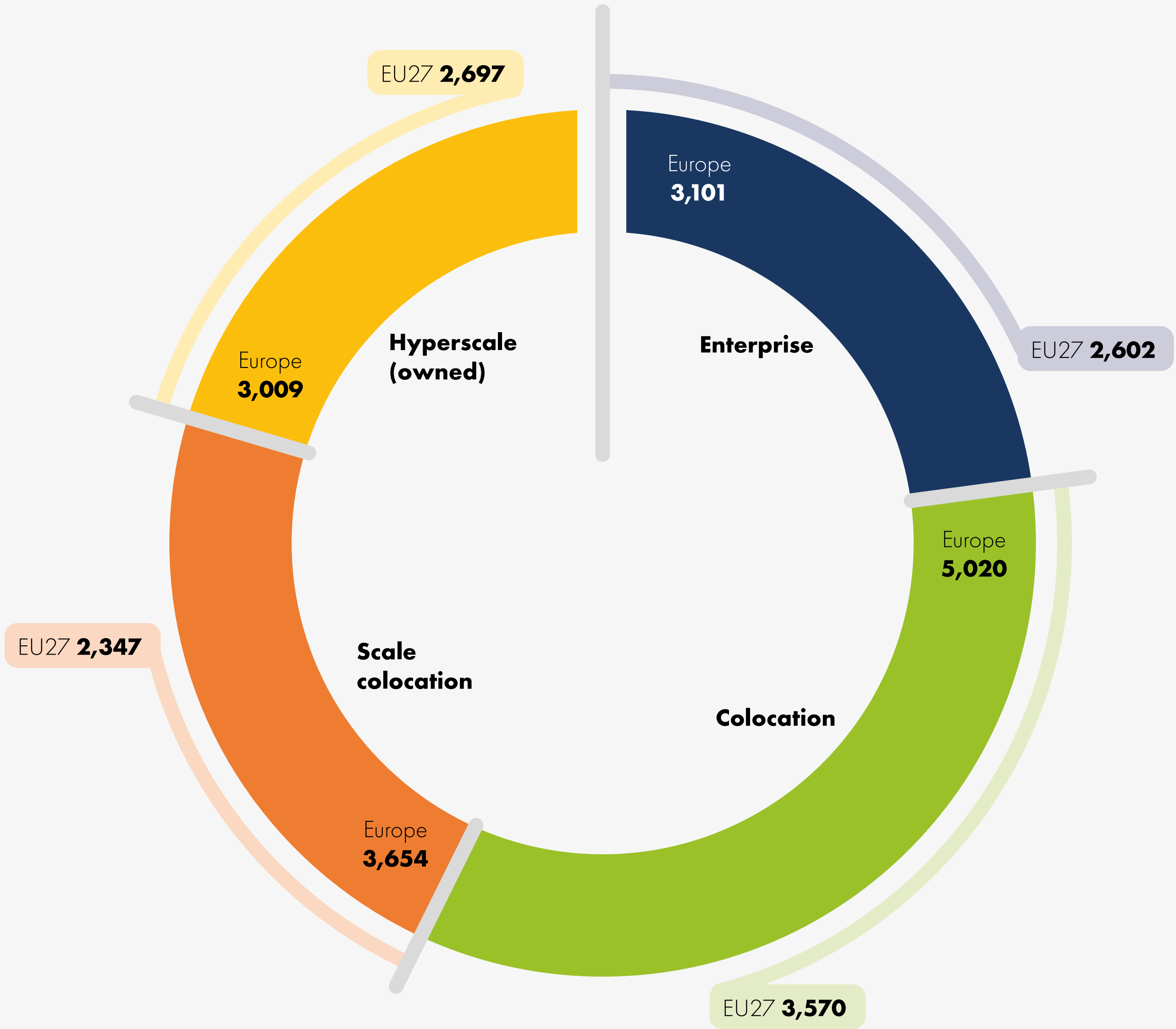
In 2025, the European market surpassed all previous records in installed IT power, driven by rapid expansion in the key hub in the metropolitan areas of FLAP-D, accelerated hyperscale activity in the Nordics and Southern Europe, and a new wave of scale-colocation projects. The arrival of AI-optimised data centre capable of supporting rack densities that were unthinkable only a few years ago — has further shifted the balance. Europe is no longer a market defined by a handful of digital hubs; it is evolving into a multi-centre digital ecosystem characterised by distributed resilience, cross-border connectivity and rapid regional specialisation.

From the 2025 report, the 2023EY total IT Power for Europe stood at 10,539 MW (**Appendix II**). As can be seen in Figure 2, at the end of 2025, that stands at 14,784 MW, a growth rate of 20% per year.

Key Trends and Developments

Looking ahead, the forces shaping Europe's data centre sector are becoming clearer and more pronounced. The evolution of the market is driven by a combination of shifting demand patterns, rapid technological progress and a tightening regulatory environment. On the market side, continued digitalisation across industries, accelerating cloud adoption, the rise of edge[1] architectures and the explosive growth of AI are reshaping how and where capacity is needed. Technological developments are redefining facility design, with high-density computing, new cooling approaches and unprecedented energy requirements becoming central themes. At the same time, Europe's regulatory landscape is consolidating and expanding. EU-

Figure 2. IT Power (MW) volume in Europe by type of data centre, 2025



Source: Colocation and hyperscale data centre database, Pb7 Research, 2025

wide measures, most notably the Energy Efficiency Directive (EED), and diverse national and municipal rules are setting new expectations for transparency, sustainability and resource use. These overlapping frameworks can add complexity to planning and permitting, particularly as non-EU countries introduce similar standards. Together, these market, technology and regulatory trends are setting the direction for Europe's next phase of data centre development.

Market Trends

The market continues to experience sustained, double-digit growth, driven primarily by the cloud sector, AI workloads, demand for sovereign hosting, and the continuing decline of small enterprise facilities. Colocation and hyperscale supply are expanding at an unprecedented pace. Regions such as Spain, Italy and Portugal have emerged as major growth markets, supported by new submarine cable systems and large-scale renewable energy investments. The Nordics, long favoured for their renewable energy and cooling efficiency, have entered a new phase of hyperscale and AI-training campus development. Meanwhile, power constraints in Amsterdam, Dublin, London and parts of Paris increasingly shape where and how growth occurs. These constraints have triggered a pattern of peripheral expansion into second-ring metropolitan zones and the rise of strategic alternatives such as Brussels, Berlin and Marseille.

Technology Trends

The rapid adoption of AI is the most transformative technological force in the sector. Whereas traditional cloud and enterprise workloads required moderate-density racks, in the 8kW to 12kW range[2], AI clusters now demand extreme densities, frequently exceeding 30–80 kW per rack, with next-generation designs capable of supporting multi-kW processors. This shift is accelerating the industry-wide transition to liquid cooling and hybrid cooling architectures (operating a combination of liquid cooling techniques alongside traditional air cooling). Large-scale AI training requires vast, centralised power availability, favouring regions with abundant renewable energy and lower land constraints. In contrast, AI inference — driven by latency-critical applications — pushes compute capacity back into metropolitan areas. This duality is reshaping facility design standards, utility connections, cooling system architectures and the distribution of capacity across Europe.

The increased sophistication of monitoring systems, automation, energy-aware workload placement and advanced control systems also marks a technological evolution. Operators are increasingly integrating digital twins, full-stack telemetry, and workload-optimisation algorithms to improve resilience, efficiency and sustainability performance.

Regulatory Trends

Europe's regulatory landscape is becoming a significant force shaping data centre development. The introduction of the Energy Efficiency Directive and its delegated acts mark the first time operators must report detailed data on energy use, water consumption, IT power and heat reuse at EU level, signalling a broader shift toward transparency and measurable sustainability performance. In the years ahead, regulatory pressure will increase as Member States begin to implement national rules that go beyond EU-wide requirements. Several cities and regions, notably Frankfurt, are already moving toward mandatory heat-reuse commitments, stricter water-management expectations and more demanding environmental assessments as part of the permitting process.

At the same time, power scarcity in major metropolitan areas is driving more formalised grid-access rules, prioritisation schemes and, in some cases, temporary moratoriums on new connections. Renewable-energy sourcing is also becoming more regulated, with some countries tying approvals to demonstrable commitments to green power or long-term Power Purchase Agreements (PPA). Alongside sustainability policy, the security dimension is expanding: the NIS2 Directive introduces more stringent cybersecurity obligations, while national sovereignty requirements influence where certain workloads may be hosted.

Together, these developments point to a future in which regulatory compliance plays an increasingly central role in site selection, design choices and long-term operational strategy, adding complexity but also accelerating innovation and sustainability within the sector.

At the same time, Europe is also turning an important page, acknowledging the need to invest in digital infrastructure to modernise the European economy, be competitive in the global marketplace, and facilitate digital sovereignty at the same time. With a goal to triple the data centre capacity to accommodate this, in particular for Artificial Intelligence needs, the EU is showing strong ambitions. Non-EU countries across Europe show a similar resolve. To accommodate this, some countries accommodate fast-tracking to create easier access to power, land and permitting. The EU is rolling out acts and plans in support of this, including the AI Continent Action Plan, the proposed Cloud and AI Development Act and the partial funding of AI factories and gigafactories.

Summary

Europe's data centre landscape is entering a period of exceptional growth and structural change. The sector is no longer defined solely by the dominance of FLAP-D but by the rapid rise of the Nordics, Southern Europe and a range of Tier-2 metros benefiting from improved connectivity, renewed hyperscale investment and shifts in power availability. Market momentum is driven by cloud expansion, the accelerating adoption of AI and the continued consolidation of enterprise IT footprints into commercial facilities.

Technological change is equally transformative. High-density compute, widespread adoption of liquid cooling and rising energy requirements are reshaping facility design and accelerating the transition toward more efficient, AI-capable infrastructure. At the same time, Europe's regulatory environment is becoming more influential, with new rules on energy reporting, heat reuse, renewable sourcing, grid access, cybersecurity and sustainability shaping how and where facilities can be developed.

Collectively, these dynamics signal a sector that is expanding rapidly but also becoming more distributed, more energy-integrated and more tightly governed. The next phase of Europe's data centre evolution will be defined by its ability to balance growth, sustainability and regulatory alignment while meeting the surging digital and AI-driven demands of the European economy.

Colocation in Europe

Colocation has become the backbone of Europe's digital infrastructure. As enterprises consolidate legacy facilities and accelerate their shift toward cloud and AI workloads, colocation providers supply the scalable, energy-efficient and connectivity-rich environments required to support modern IT architectures.

The sector's growth has consistently outpaced that of most other digital infrastructure segments, driven by sustained demand for cloud on-ramps, high-density compute environments, interconnection services and, increasingly, sovereign hosting capacity.

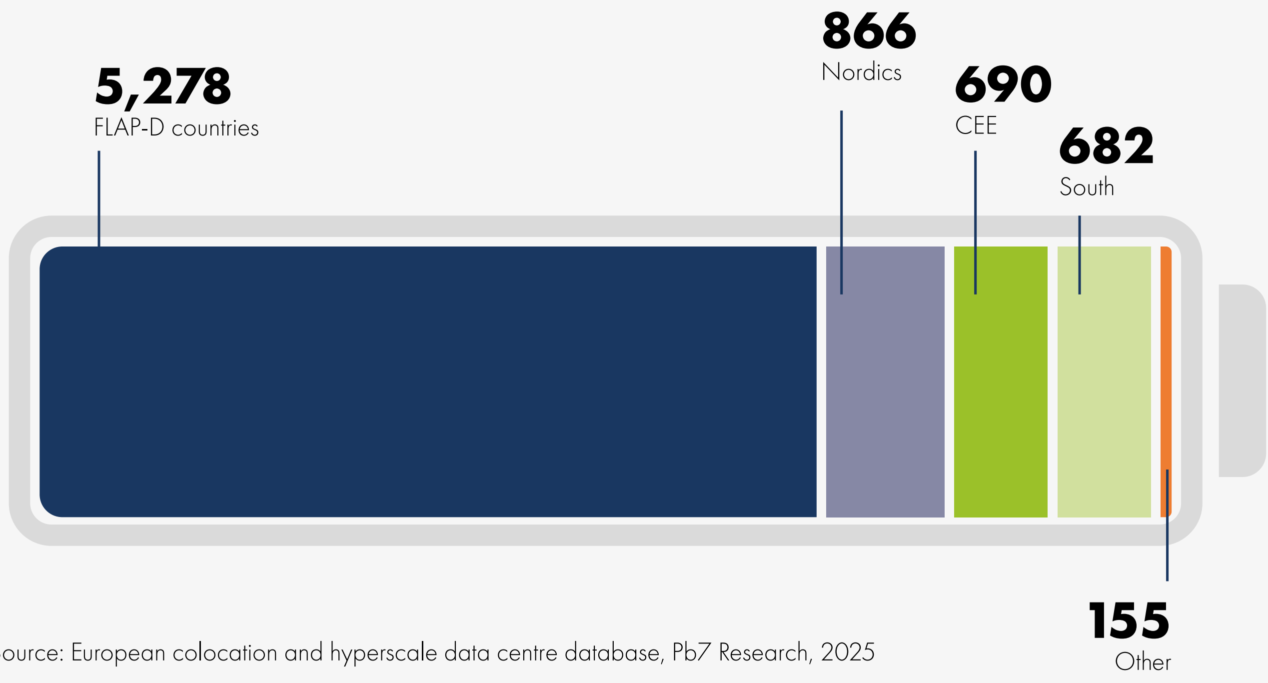
While colocation development was once heavily concentrated in a few metropolitan hubs, the market is now expanding across nearly all European regions. Power availability, renewable-energy access, and submarine cable connectivity have become decisive drivers in determining where operators build next. As a result, Europe's colocation landscape is shifting toward a multi-regional, multi-tier ecosystem in which the balance of power is gradually diversifying beyond the traditional FLAP-D metros.

Colocation Market Landscape

Europe's colocation sector is experiencing one of the strongest growth cycles in its history. Total installed IT power supply continues to expand at double-digit rates, with scale colocation facilities driving a rising share of capacity additions. The shift toward scale is significant: operators are increasingly developing larger, campus-based facilities that offer long-term expansion potential for cloud and AI workloads.

FLAP-D remains the most mature and densely developed colocation region, but its relative dominance is slowly declining as other regions accelerate. Southern Europe, the Nordics and certain Tier-2 metros are attracting unprecedented levels of investment, often driven by improved connectivity, the availability of renewable power, and more favourable permitting conditions. At the same time, near-metro and second-ring expansions around constrained hubs, such as Amsterdam, Dublin, London and Frankfurt, are becoming an important pattern in market development. Second-ring expansions allow further growth in these regions. Key to the success of these expansions is the growing scale of the individual data centre size, making the business case feasible to invest in strong (inter-)connectivity across a longer distance.

Figure 3. Colocation and Scale Colocation IT Power Supply (MW) in Europe by Region, 2024



Source: European colocation and hyperscale data centre database, Pb7 Research, 2025

Moving away from a country perspective of the colocation market and taking a hub or metro perspective, the dynamic between tier-1 (FLAP-D) and tier-2 colocation market becomes more apparent. It also shows strong variation in the individual markets. While Frankfurt is steaming ahead, the other tier-1 metropolitan areas are seeing significantly lower growth, well below the expected market average of 17%. Despite strict regulation, Frankfurt has become the de facto colocation data centre capital of the EU after Brexit, attracting more and more investment. The lack of space in the city of Frankfurt itself has led to a strongly growing second ring, where space and power are easier to access.

The selection of tier-2 metropolitan areas shows that overall, they are growing faster than market average. Madrid and Milan are clearly taking the lead and are both able to attract the biggest additional investments. It can safely be said that they are on their way to becoming additional tier-1 locations. Other tier-2 markets are showing solid growth but will not be closing the gap any time soon. They will benefit from the growing regional AI and cloud investments, also from hyperscale customers, but are only able to compete to a limited extent on the wider international markets.

An interesting example, representative of the trend in the Nordics, is Stockholm. While our research indicated that the annual supply growth for Sweden is expected to average 29%, the Stockholm area itself only shows moderate growth. Crucially, most Nordic colocation investments are scale investments in more remote regions where renewable power is available in large quantity.

Table 1. Colocation IT Power Supply (MW) forecast in Europe by Type, 2024 - 2031

	2024	2025	2026	2027	2028	2029	2030	2031	CAGR 2024 - 31
Frankfurt	830	1,023	1,273	1,588	1,869	2,205	2,376	2,546	17.4%
London	1,155	1,228	1,333	1,450	1,571	1,723	1,885	2,045	8.5%
Amsterdam	639	666	778	937	1,039	1,175	1,336	1,454	12.5%
Paris	580	622	670	746	834	925	1,013	1,102	9.6%
Dublin	407	456	478	518	584	667	758	849	11.1%
TOTAL TIER-1	**3,610**	**3,994**	**4,533**	**5,239**	**5,897**	**6,696**	**7,368**	**7,996**	**12.0%**
Madrid	207	289	384	492	607	757	839	944	24.2%
Milan	179	234	388	511	724	890	1,016	1,143	30.3%
Warsaw	106	132	188	233	233	280	301	329	17.5%
Zurich	164	185	205	234	259	274	296	318	9.9%
Vienna	46	48	55	74	88	98	107	117	14.3%
Stockholm	99	104	122	128	135	141	146	151	6.3%
Brussels	48	57	61	69	77	88	100	112	12.8%
TIER-2 SELECTION TOTAL	**850**	**1,050**	**1,403**	**1,742**	**2,122**	**2,528**	**2,805**	**3,112**	**20.4%**

If we move from the tier-1 and tier-2 hubs to country markets, there is further evidence that the regional composition of Europe's colocation capacity is undergoing rapid evolution. Countries that are home to the FLAP-D hubs still represent the single largest concentration of colocation IT power, supported by unparalleled connectivity ecosystems and dense enterprise demand. However, this cluster now faces grid constraints that increasingly redirect new developments to neighbouring regions.

The Nordics have emerged as a second major growth engine. Their combination of abundant renewable energy, competitive power pricing, cool climate and increasing submarine cable connectivity has positioned them as a leading destination for scale colocation and AI-capable facilities.

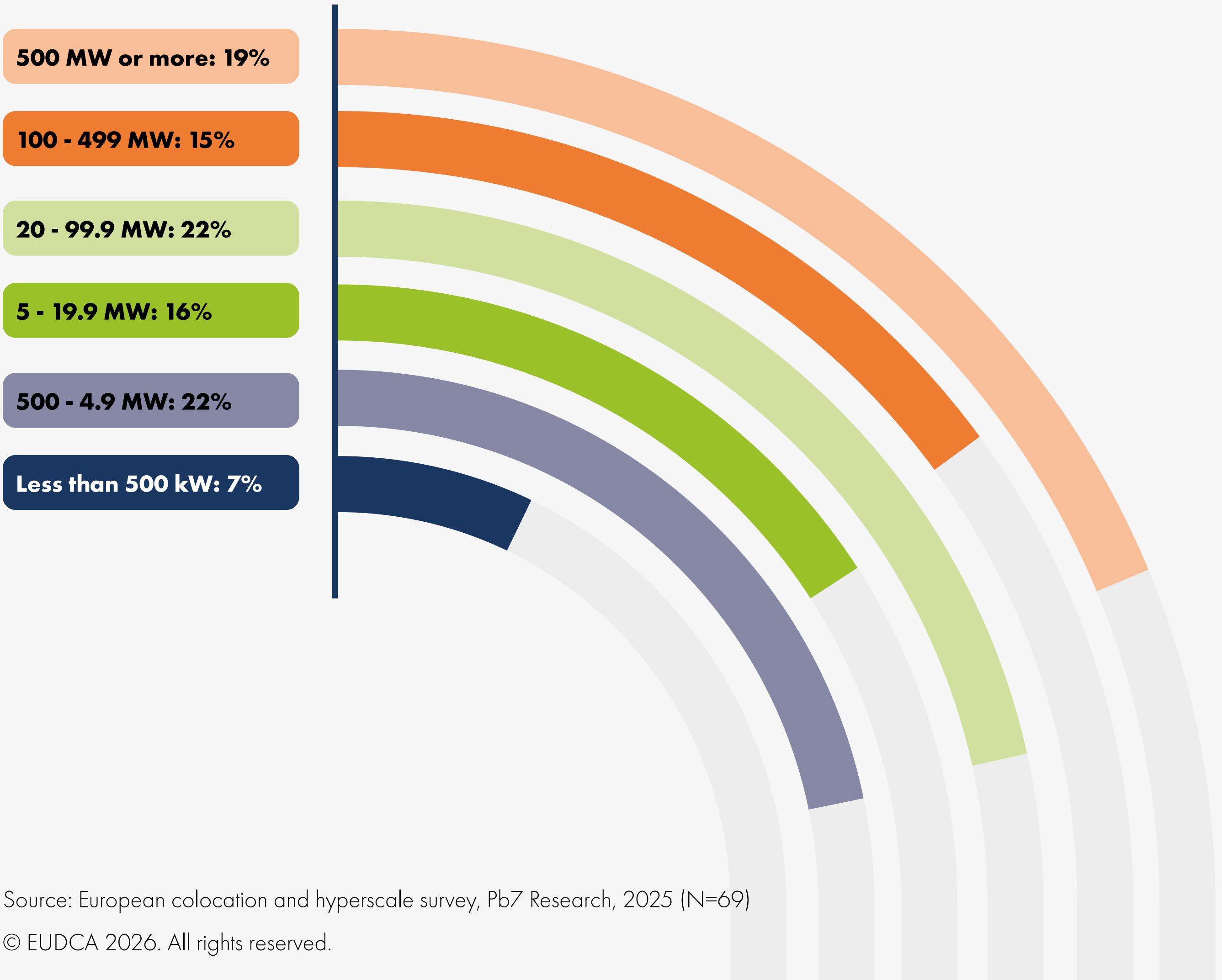
Southern Europe shows the most dramatic acceleration. Spain, Italy and Portugal are benefiting from new transatlantic and Mediterranean cable systems, expanding cloud-region commitments and strong renewable-energy potential. Greece is rapidly advancing from a smaller base as connectivity upgrades reshape its regional role.

Central and Eastern Europe display a more varied pattern, with Poland and Romania leading growth while other markets expand more gradually. Northwestern Europe outside FLAP-D, including Belgium and Luxembourg, is also gaining importance as operators seek stable alternatives to power-constrained metros.

Colocation data centre survey

To get a deeper understanding of the dynamics in the colocation (and hyperscale) market, Pb7 Research interviewed 69 data centre operators across Europe, typically members of the EUDCA or from the various National Trade Associations (NTAs) across Europe that participated. The survey is skewed towards the high end of the market. That also means that a major part of the footprint of the sector is presented and provides a good representation of the impact of the sector as a whole. In the survey, particular attention is paid to growth dynamics, obstacles, and challenges. Also, it provides key insights into the footprint and its stewardship.

Figure 4. How much IT power is available for customers in the total of your data centres within Europe? (MW)



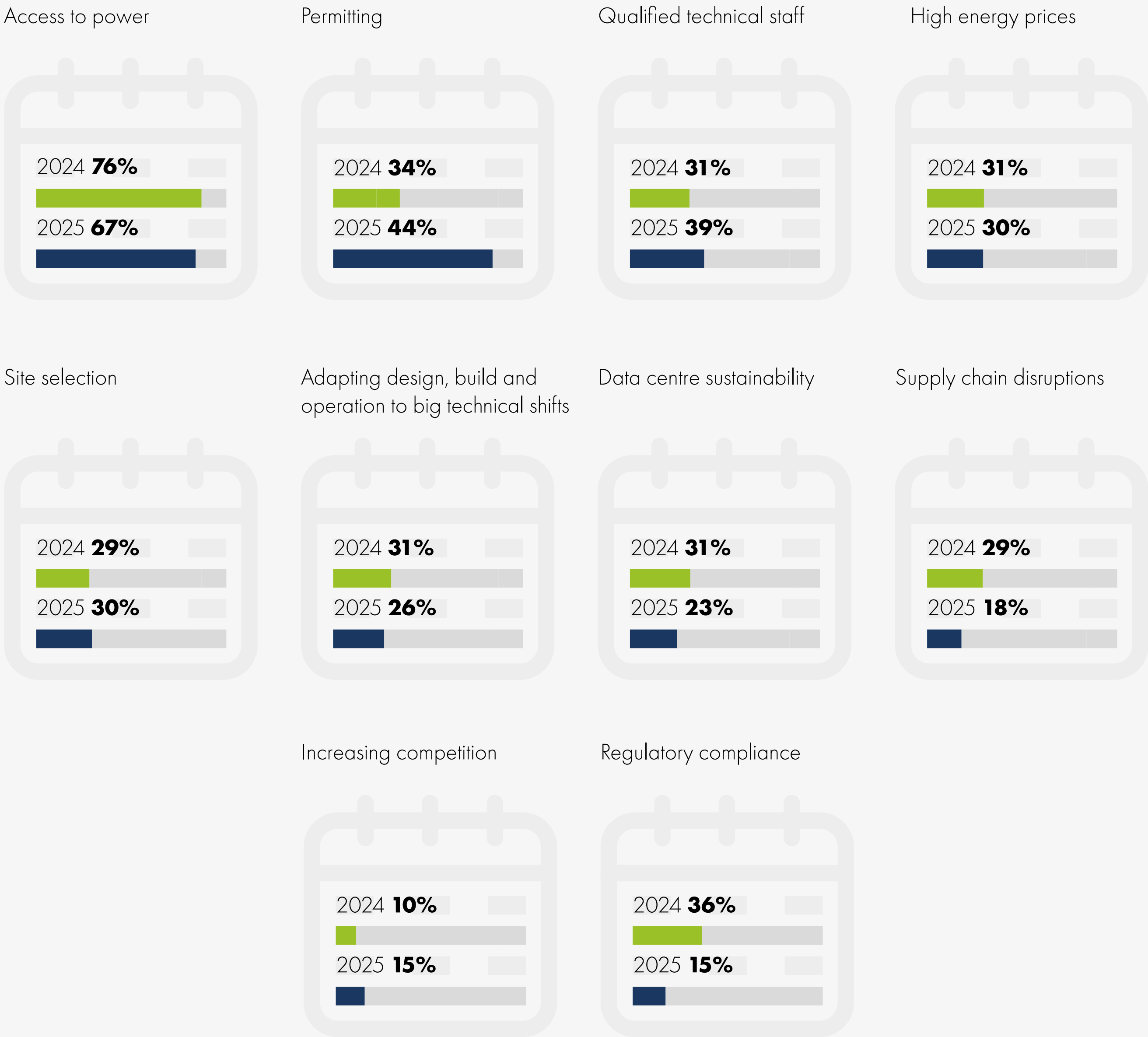
Source: European colocation and hyperscale survey, Pb7 Research, 2025 (N=69)

Demand Drivers and Inhibitors

Market demand for colocation continues to rise, shaped primarily by digitalisation, cloud adoption and the exponential growth of AI. Enterprises increasingly prefer colocation over on-premises facilities due to higher efficiency, stronger sustainability performance and better access to interconnection and cloud ecosystems. Digital sovereignty and compliance requirements further encourage the use of professionally operated environments.

However, the sector also faces structural inhibitors. In many metropolitan areas, the availability of electrical grid capacity is restricted, resulting in delays or reshaping of development plans. Land constraints, local zoning policies and permitting complexity can further slow expansion. Rising construction and energy costs influence investment decisions, particularly for high-density or AI-ready facilities. Despite these challenges, overall demand continues to grow faster than supply in most regions.

Figure 5. Question: What are the biggest challenges for your organisation for the next three years? [multiple response, top 10 answers]

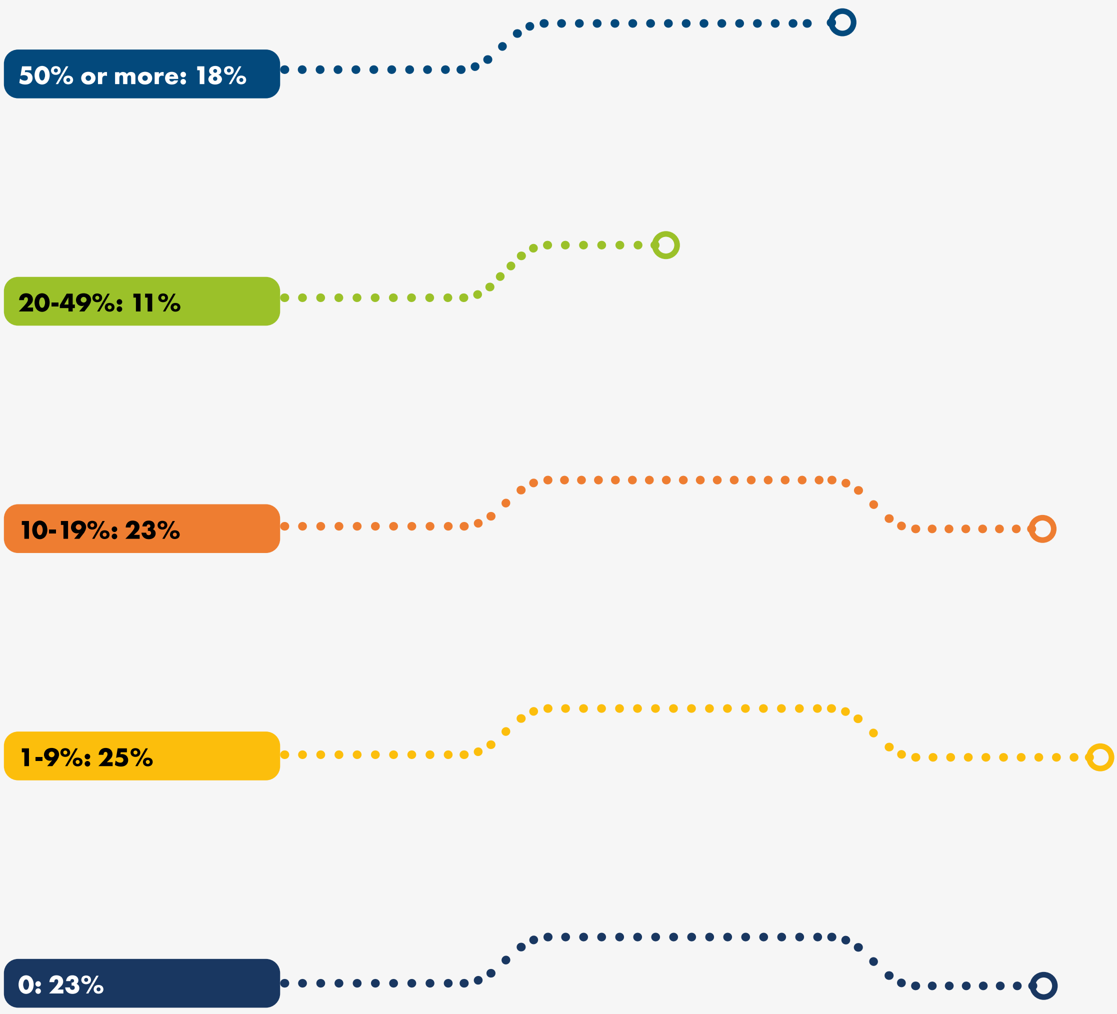


Source: European colocation and hyperscale survey, Pb7 Research, 2024 (N=63), 2025 (N=69)

The AI impact

AI has become the most disruptive force in the colocation market. Operators report that an increasing share of customer demand relates directly to AI-driven applications, with AI racks consuming significantly more power than traditional workloads. As a result, average power densities within colocation sites are rising sharply, and liquid cooling is transitioning from a niche capability to a mainstream requirement.

Figure 6. Question: Approximately, what percentage of IT power is currently being used for AI servers?



AI demand is reshaping facility design. Data halls are being engineered for higher rack densities, new cooling architectures, and more flexible electrical and mechanical configurations. Operators are investing in enhanced power delivery, higher-capacity transformers and advanced monitoring systems. As AI inference becomes more broadly deployed, demand for AI-capable capacity within metropolitan proximity zones is expected to increase significantly.

Figure 7. Question: What is the average power per "AI-rack" in your data centre(s)?

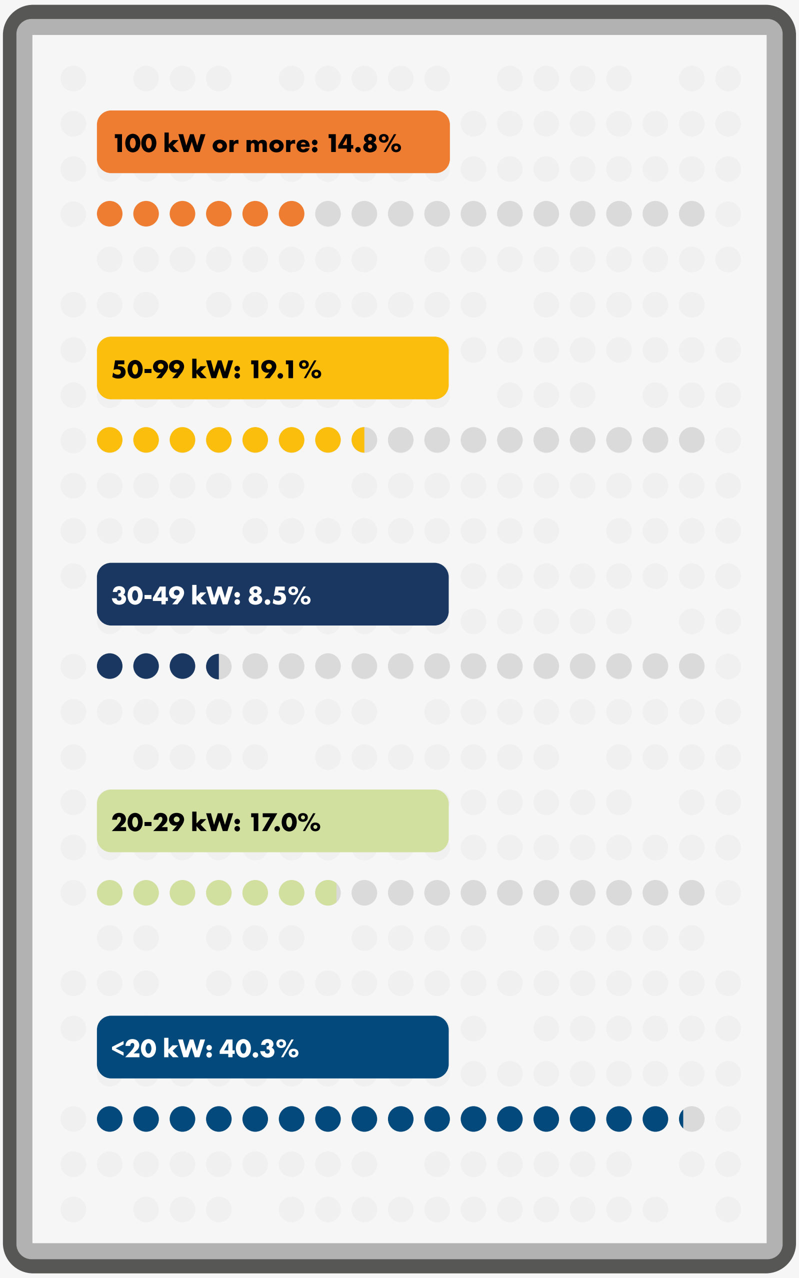
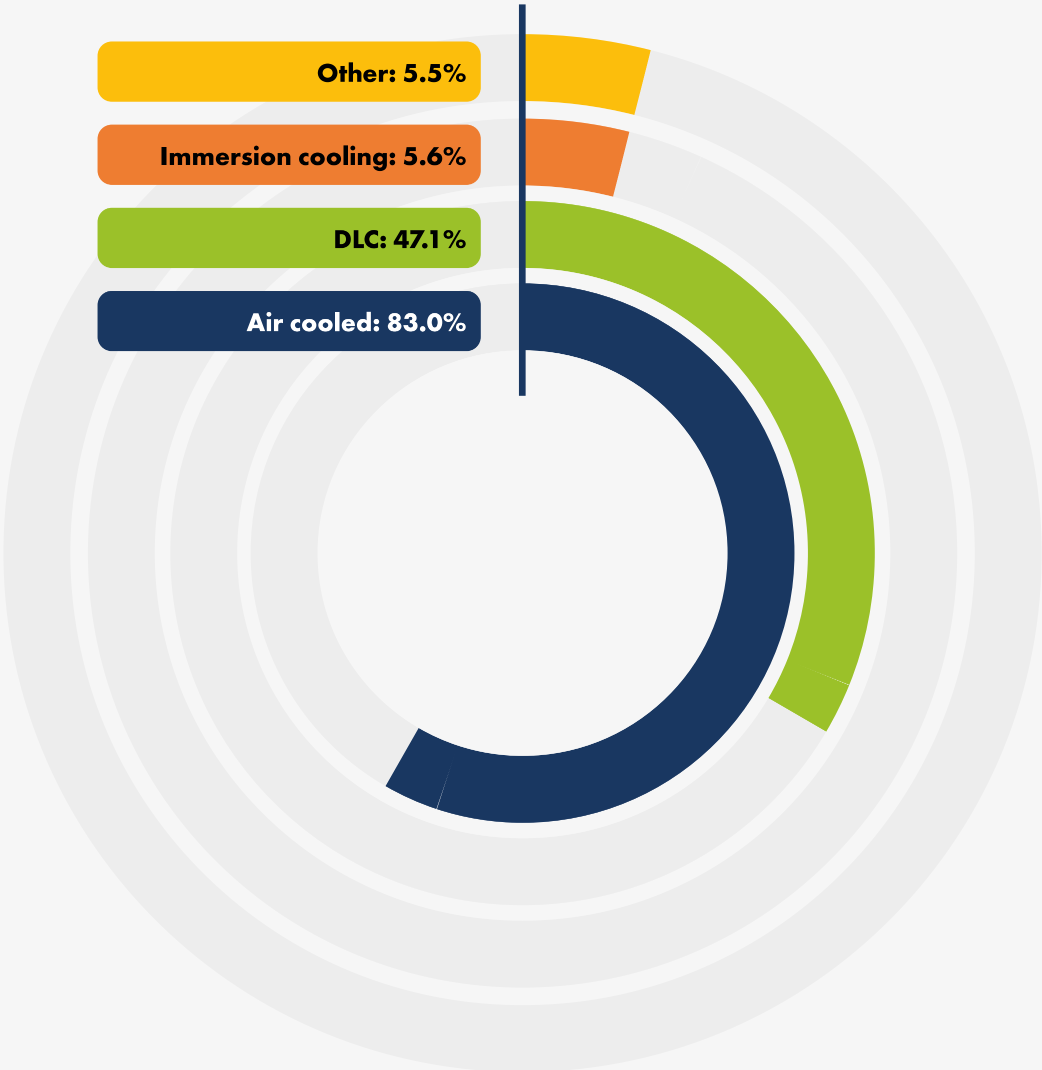


Figure 8. Question: What type of cooling do you use for high power racks? (Multiple answers allowed)



(DLC, or direct liquid cooling refers to various techniques, including direct to chip (DTC) cooling.)

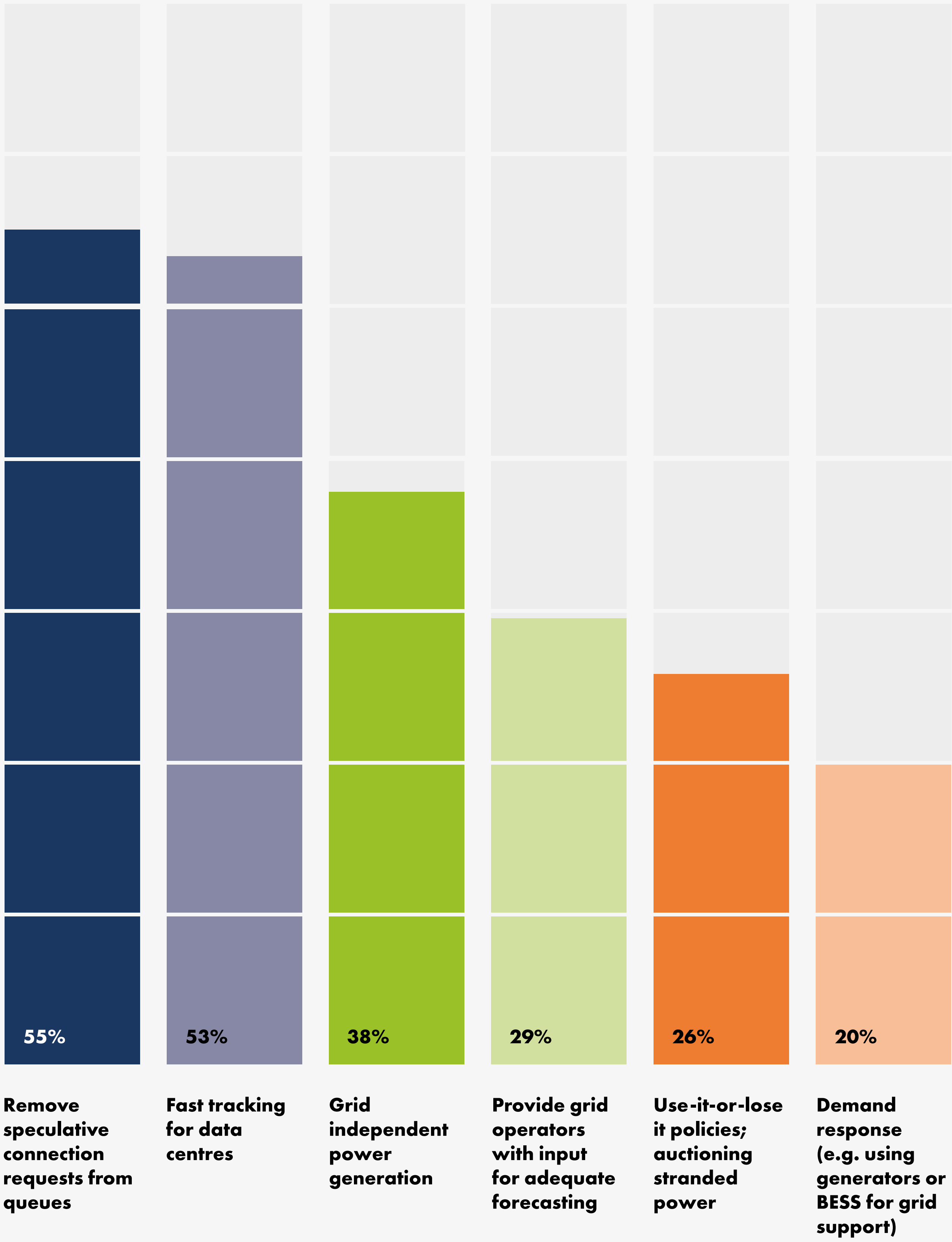
Power Constraints and Responses

Power availability has become one of the defining constraints on colocation development in Europe. In several major hubs, limits on grid capacity have created delays or strict allocation frameworks. This has encouraged a shift toward regions with greater availability of renewable energy and more flexible grid-connection policies.

In response, colocation operators increasingly explore on-site energy solutions, such as battery storage, behind-the-meter generation and renewable PPAs. Load-flexibility capabilities, including participation in demand-response programmes, are also gaining importance. On the customer side, AI workloads exacerbate the pressure on power systems, reinforcing the importance of strategic site selection and diversified regional growth.

The best ways to combat the access-to-power challenges are the removal of speculative grid connection requests from the queues of the grid operators and fast tracking. The data centre market is attracting a very large number of speculative investors that hope to secure powered land and sell it to the highest data centre bidder. The majority of these projects will never materialise, but first-come, first-served rules makes it difficult for realistic projects to get access to power. Fast tracking at locations where power is available and permitting is accelerated, can be a powerful solution to this challenge.

Figure 9. Question Which of the following solutions should have the highest priority in solving the access-to-power challenge?

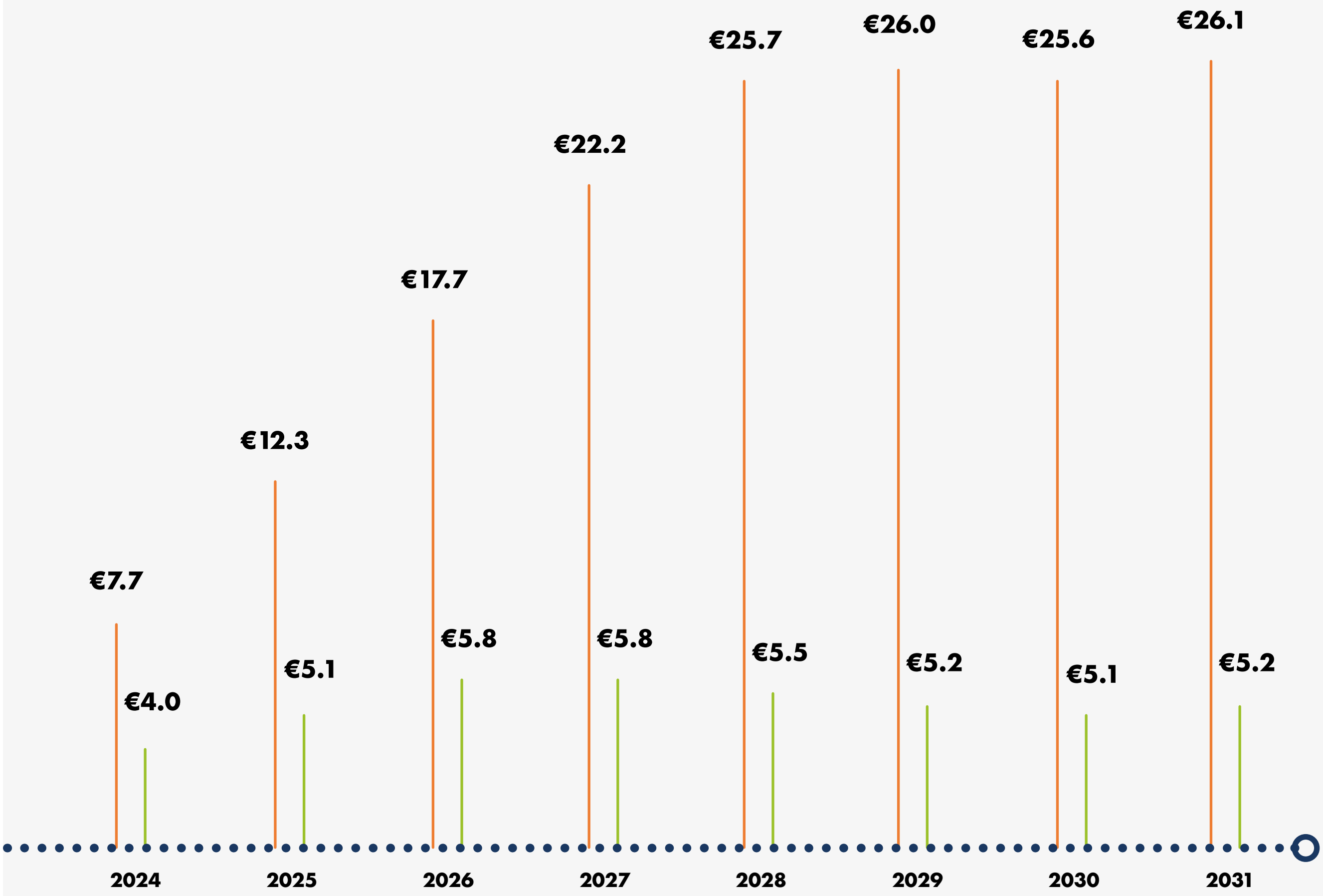


Investments and Market Outlook

Investment levels in European colocation remain exceptionally high, driven by long-term commitments from cloud providers, digital-first enterprises, content platforms and AI developers. Operators continue to build out significant future capacity pipelines across both traditional and emerging regions.

Compared to last year's model, there are some significant updates. Firstly, we see traditional colocation investments (retail and wholesale) in construction and installation stabilising, and at a slightly lower level, between €5 and €6 billion annually, compared to €5.5 and € 6.5 in the previous report. Scale colocation investments are being pushed to much higher levels to accommodate AI infrastructure, plateauing at €25 to €26 billion annually, compared to only € 12 billion last year. This also means that the overall multi-year investment value has increased, from €87 billion from 2025 to 2030, to € 176 billion for the period 2026-2031.

Figure 10. Data centre construction and installation Investments (€ Bn), Europe Colocation, 2024 – 2031 forecast



Source: Pb7 Research, 2025.

IT Power Supply

The expansion of IT power supply across Europe highlights the ongoing structural shift toward larger and more power-dense facilities. In 2024, total colocation IT power reached 7.6 GW, with retail & wholesale sites accounting for 4.6 GW and scale colocation for 3.0 GW. The latter expands far more rapidly: scale sites grow at an expected 27% CAGR toward 2031, compared with 8% for retail & wholesale. As a result, the total colocation market is projected to surpass 23.6 GW by 2031, more than tripling scale capacity over the period and gradually shifting market composition toward large-footprint campuses optimised for AI and cloud workloads.

Growth is particularly strong in markets with both energy availability and hyperscale adjacency. The EU-27 alone is expected to reach 17.8 GW by 2031, with scale colocation representing well over half of new capacity additions. This reinforces the structural divergence between highly connected metro regions, where power constraints are increasingly common, and peripheral or emerging markets that are now absorbing new investments.

Table 2. Colocation IT Power Supply (MW) forecast in Europe by Type, 2024 - 2031

	2024	2025	2026	2027	2028	2029	2030	2031	CAGR 24-31
Europe									
Retail & wholesale	4,607	5,020	5,499	6,039	6,550	7,000	7,420	7,809	8%
Scale	3,022	3,654	4,893	6,570	8,722	11,252	13,473	15,782	27%
Total colocation	**7,629**	**8,674**	**10,392**	**12,609**	**15,272**	**18,252**	**20,892**	**23,590**	**17%**
EU27									
Retail & wholesale	3,243	3,570	3,965	4,382	4,766	5,088	5,411	5,713	8%
Scale	1,908	2,347	3,423	4,812	6,463	8,522	10,350	12,120	30%
Total colocation	**5,151**	**5,917**	**7,388**	**9,193**	**11,229**	**13,640**	**15,761**	**17,833**	**19%**

Source: Colocation and hyperscale data centre database, Pb7 Research, 2025v2

Colocation revenue in Europe is growing slightly faster than the underlying expansion of IT power supply. According to the modelled revenue projections, the European colocation market increases at a compound annual growth rate of 17.7% between 2023 and 2030, while the EU-only segment grows slightly faster at 19.5%.

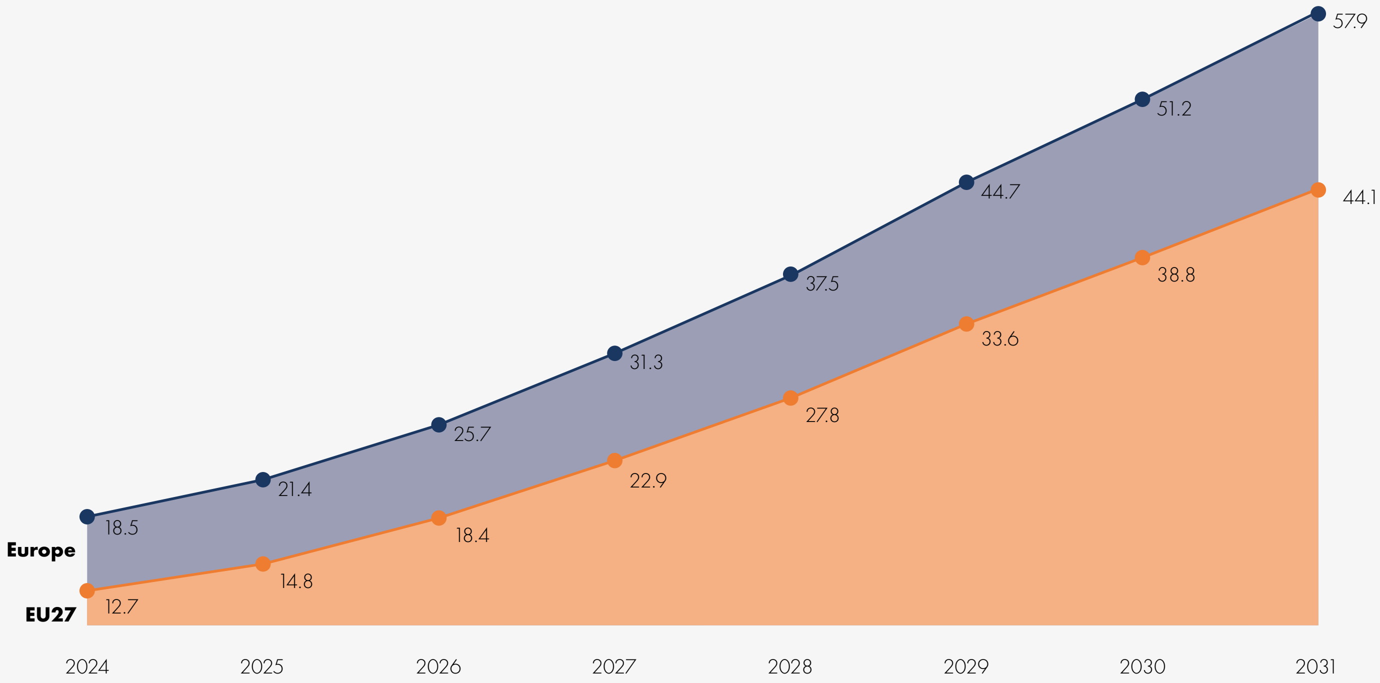
Several forces are driving this revenue growth. The most important is the rapid expansion of scale colocation, which serves large cloud and AI clusters and increasingly consists of multi-building campuses. Although scale colocation generates lower revenue per megawatt than traditional retail & wholesale colocation, its size and velocity of expansion more than compensate for this effect. As a result, the revenue mix is gradually tilting toward large-footprint, high-density deployments that secure long-term, high-volume contracts.

At the same time, operator pricing has risen across nearly all markets. Inflationary pressure on construction materials, energy, skilled labour and financing costs supports sustained increases in both MRR-based rack pricing and MW-based wholesale contracts. Survey feedback further suggests that price increases are no longer concentrated in constrained markets such as Amsterdam, Dublin or Frankfurt; they now extend to secondary and emerging metros as demand outpaces available, permitted and energised capacity.

Regionally, the strongest revenue momentum is found where IT power growth is steepest. Southern Europe shows the sharpest rise, supported by major developments in various countries, where IT supply is set to expand from hundreds to several thousand megawatts towards 2031. The Nordics follow closely, benefitting from sustained hyperscale adjacent demand, competitive energy markets and large-scale campuses that bring both volume and long-term contract stability. Meanwhile, the FLAP-D markets continue to represent the largest share of total revenue, but their growth is moderated by grid congestion and permitting delays that push some projects outward to satellite zones.

Overall, the revenue outlook reflects the sector's dual transformation. Demand for classical enterprise colocation continues, but its share is progressively overshadowed by AI-driven, high-density and highly modular scale deployments. As a result, Europe's colocation revenue base is becoming larger, more diversified across regions, and more directly tied to cloud and AI infrastructure cycles than in previous years.

Figure 11. Colocation revenue (€ Bn) in Europe EU, 2024 – 2031 (CAGR 23-30: Europe:17.7% ; EU 19.5%)



Source: Colocation and hyperscale data centre database, Pb7 Research, 2025.

Regional Developments

Regional differences remain substantial and are becoming more pronounced as AI-related projects consolidate in markets with favourable energy, land and permitting conditions. FLAP-D (Frankfurt, London, Amsterdam, Paris, Dublin) continues to dominate absolute volumes, but growth rates are markedly higher outside the traditional hubs. For example, Southern Europe shows a strong forward trajectory, driven by Portugal, Spain and Italy, which together move from 682 MW in 2024 to nearly 5.9 GW by 2031, representing a 36% CAGR.

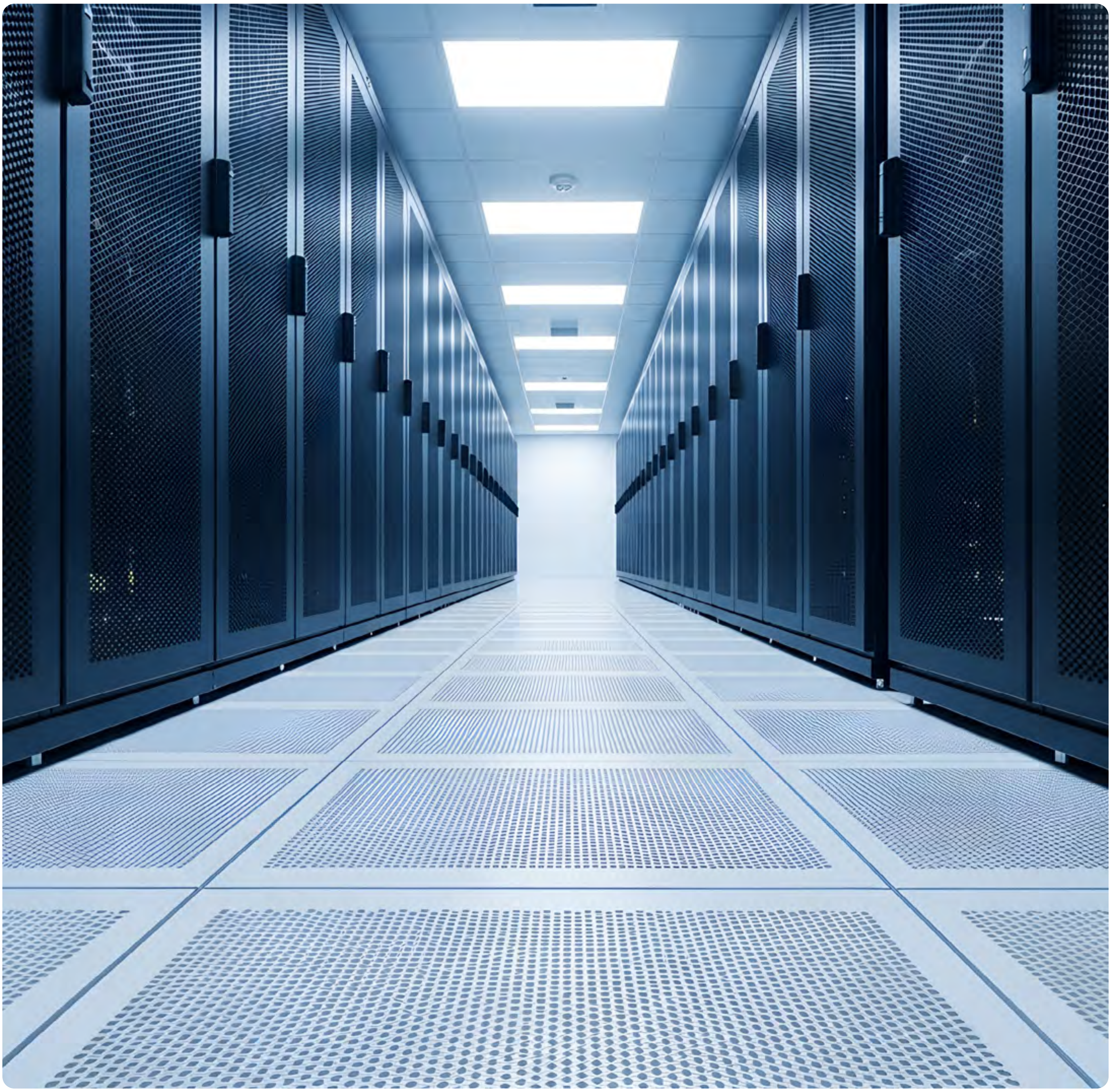
In the Nordics, energy availability and renewable sourcing continue to pull hyperscale and batch-AI investments northward. The region reaches over 4.4 GW by 2031, underpinned by competitive electricity pricing and a robust track record in large-scale campus development.

Central and Eastern Europe remains smaller in absolute terms but grows at a steady pace, with demand increasingly linked to sovereign cloud, regional resilience strategies and low-latency coverage of EU border regions.

Table 3. Colocation and Scale Colocation IT Power Supply (MW) forecast in Europe by Region and Country, 2024 - 2031

	2024	2025	2026	2027	2028	2029	2030	2031	CAGR 24-31
FLAP-D countries	5,278	5,816	6,626	7,557	8,540	9,607	10,589	11,529	12%
France	760	813	874	970	1,082	1,197	1,308	1,418	9%
Germany	1,458	1,737	2,167	2,606	3,091	3,556	3,892	4,228	16%
Ireland	485	543	569	617	695	795	903	1,011	11%
Netherlands	915	951	1,086	1,256	1,380	1,537	1,717	1,855	11%
United Kingdom	1,660	1,772	1,930	2,107	2,292	2,523	2,770	3,017	9%
Nordics	866	1,106	1,287	1,745	2,388	3,123	3,663	4,435	26%
Denmark	53	65	97	160	241	302	399	504	38%
Finland	115	167	208	293	379	551	653	820	32%
Iceland (EEA)	190	226	242	270	333	389	413	437	13%
Norway	352	451	495	659	943	1,201	1,408	1,731	26%
Sweden	157	198	246	364	493	681	790	944	29%
Baltics	36	50	53	63	63	71	72	77	11%
Estonia	14	18	18	21	21	24	24	24	8%
Latvia	10	20	22	29	29	34	34	39	22%
Lithuania	12	13	14	14	14	14	14	14	2%
CEE	690	763	883	1,035	1,163	1,280	1,401	1,510	12%
Austria	65	68	79	105	124	138	151	164	14%
Bulgaria	32	32	34	34	35	38	39	40	4%
Croatia	14	17	18	25	47	53	79	90	30%
Czech Republic	77	79	84	98	116	118	124	126	7%
Hungary	17	18	18	18	19	20	20	21	3%
Poland	197	228	291	343	365	428	466	511	15%
Romania	26	27	35	43	53	57	62	66	14%
Slovakia	14	14	15	15	15	15	15	16	1%
Slovenia	5	6	8	8	10	10	11	11	14%
Switzerland	243	274	302	345	380	402	433	464	10%
Southern Europe	683	855	1,475	2,128	2,993	4,025	4,990	5,849	36%
Greece	28	31	48	93	116	139	177	208	33%
Italy	267	363	577	775	1,079	1,335	1,568	1,800	31%
Portugal	35	56	272	520	763	1,028	1,262	1,532	71%
Spain	240	286	428	566	801	1,262	1,693	1,980	35%
Other Southern Europe	34	34	35	35	96	97	108	109	18%
Other North West	155	169	184	220	263	310	361	412	15%
Belgium	91	105	118	155	198	244	294	344	21%
Luxembourg	64	64	66	66	66	66	67	68	1%
EU27 TOTAL	**5,151**	**5,917**	**7,388**	**9,193**	**11,229**	**13,640**	**15,761**	**17,833**	**19%**
ALL	**7,629**	**8,674**	**10,392**	**12,609**	**15,272**	**18,252**	**20,892**	**23,590**	**17%**

Source: Colocation and hyperscale data centre database, Pb7 Research, 2025v2



Summary

Colocation is now vital to Europe's digital infrastructure, enabling the transition from traditional IT to cloud and AI workloads. Providers deliver scalable, energy-efficient, and highly connected environments, driving rapid growth that surpasses other digital infrastructure segments.

Demand is fuelled by cloud access, high-density computing, interconnection, and sovereign hosting. While development was once focused on major hubs (FLAP-D), expansion now spans across Europe, influenced by power availability, renewable energy, and submarine cable connectivity. Large, campus-based colocation facilities dominate new capacity, especially for AI and cloud needs. Southern Europe, the Nordics, and Tier-2 cities such as Madrid and Milan attract significant investment due to improved connectivity and renewable power.

AI is a disruptive force, increasing power density and making liquid cooling mainstream, while power constraints in major hubs push operators to regions with more flexible grids.

By 2031, colocation IT power in Europe is projected to exceed 23.8 GW, with scale sites growing at a 27% CAGR, and increasing regional diversification.

Hyperscale-Owned Data Centres

Hyperscale data centres remain one of the most influential pillars of Europe's digital infrastructure. Operated by the world's largest cloud and digital platforms, these facilities underpin global cloud regions, high-performance computing environments and increasingly vast AI training clusters.

Over the past decade, hyperscale investment has expanded far beyond Western Europe's traditional hubs into the Nordics, Southern Europe and selected Central and Eastern European markets.

In recent years a new class of large-scale investor, often referred to as neocloud (**Appendix 1**), has emerged alongside the established hyperscalers. These companies develop and operate extremely large, AI-optimised campuses with characteristics similar to hyperscale but often with greater architectural flexibility, denser compute footprints and a faster time-to-market. Their rise marks a significant evolution in Europe's high-density compute landscape and adds a new dimension to the region's long-term infrastructure outlook.

Drivers and inhibitors

Demand for hyperscale and neocloud infrastructure continues to grow as digital transformation accelerates across both the public and private sectors. Cloud adoption remains the foundational driver, as enterprises modernise applications and migrate from legacy environments to cloud-native platforms. AI has amplified this trend: training clusters require enormous concentrations of compute, power and cooling capacity, while inference workloads necessitate the regional distribution of high-performance infrastructure.

Neocloud providers reinforce this momentum. Their focus on ultra-high-density compute, rapid deployment capability and large power tranches aligns with the needs of AI developers, global model providers and emerging cloud-adjacent platforms. They typically seek locations where land, power and regulatory certainty support multi-phase build-outs in the hundreds of megawatts, often overlapping with — but not identical to — traditional hyperscale location strategies.

Despite strong demand, the sector faces structural inhibitors. Power availability remains the most significant limiting factor in high-demand metropolitan areas, with several European countries implementing grid-allocation controls or limiting new connections. Permitting complexity, sustainability obligations and community-driven land-use concerns also shape project timelines. In some markets, these constraints encourage hyperscale and neocloud providers to pursue development in second-ring metropolitan areas, the Nordics or Southern Europe, where regulatory conditions and renewable-energy availability are more favourable.

Investments and Market Outlook

Hyperscale-owned IT power capacity in Europe continues to expand at high double-digit rates, with major cloud providers strengthening their presence across multiple regions. The Nordics and Southern Europe have become primary destinations for large-scale developments owing to their favourable power conditions and connectivity improvements.

Neocloud operators are now adding a second engine of growth in this segment. While the established hyperscalers focus on cloud-region expansion and customer-facing services, neocloud platforms specialise in large, AI-ready campuses designed for extreme rack density, liquid cooling, and rapid scaling. Their projects often mirror hyperscale investment volumes and timelines, but with greater emphasis on flexible deployment models and compute-dense footprints. This is accelerating the distribution of high-performance infrastructure across both emerging and established markets.

Ireland, Germany and the UK continue to host substantial hyperscale capacity, although power constraints increasingly influence build-out strategies. Poland, Austria and Switzerland are emerging as the most dynamic Central European markets. The rise of neocloud providers adds momentum to regions with strong renewable-energy grids, such as Finland, Sweden, Denmark, parts of Spain, and Portugal.

Investments

Investment activity in hyperscale campuses remains exceptionally strong. Multi-phase campuses designed for 100–500 MW of IT power have become standard, and various projects already exceed these thresholds. Both hyperscalers and neocloud providers are committing to long-term renewable-energy procurement, including large PPAs and, with increasing frequency, direct participation in renewable-energy developments.

Neocloud operators in particular, favour rapid campus deployment using modular, pre-engineered, liquid-cooling–ready building blocks, enabling faster delivery of compute capacity. Their facilities are often placed in regions with abundant renewable energy and supportive permitting frameworks. This complements hyperscalers' broader mix of metro-proximate and remote large-scale builds, leading to a more diverse and resilient European infrastructure footprint.

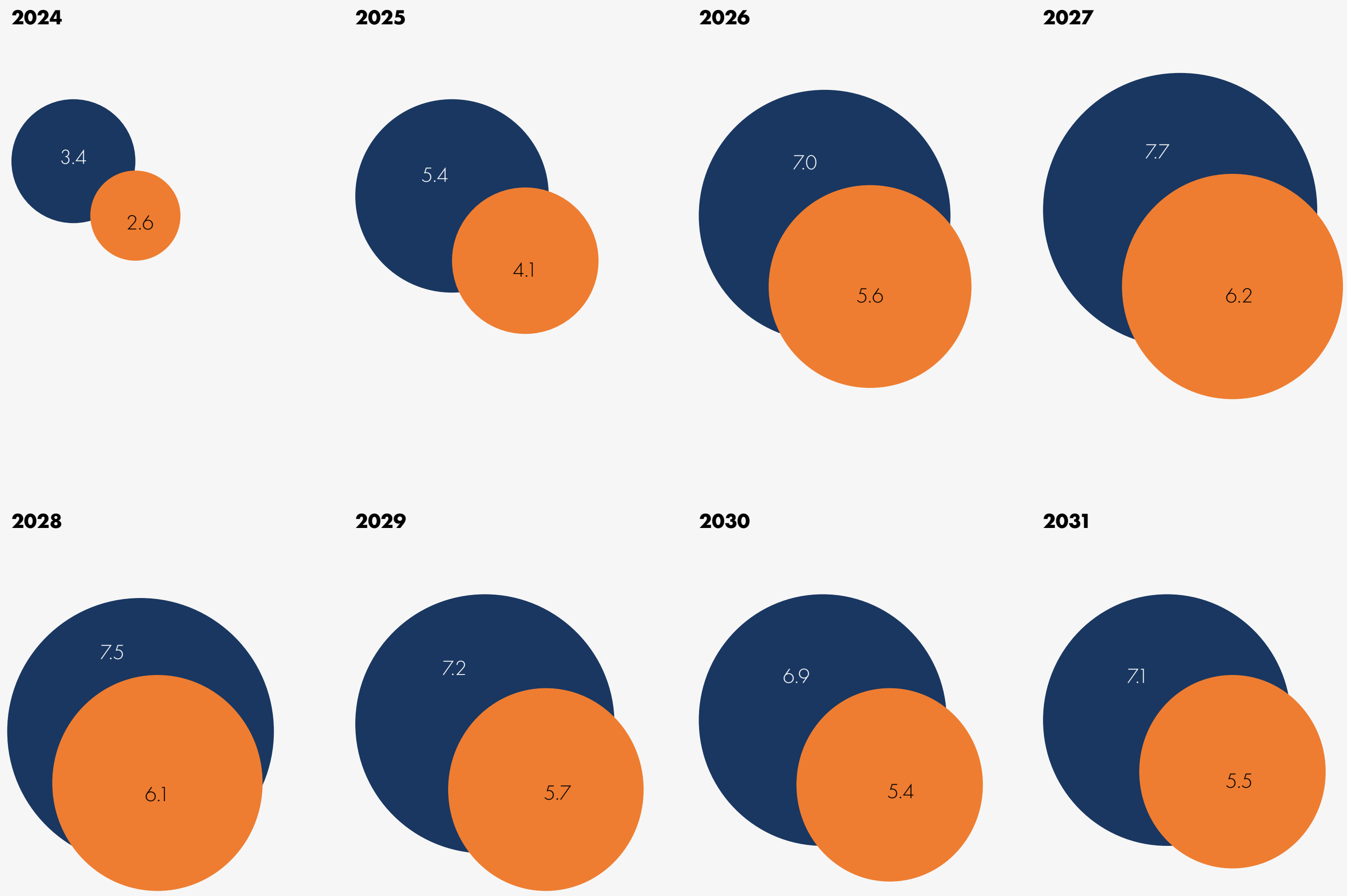
Across Europe, the value of investments is expected to stabilise around €7 billion annually. It is worth noting, there are a lot of investment announcements of hyperscalers that are obviously greater. This is for two reasons: firstly, a significant part of the investment will take place after 2031; and, more importantly, these numbers often also include IT and other related investments that are not part of data centre construction and installation.

IT Power Supply

The distribution of hyperscale and neocloud capacity is becoming more balanced as new regions attract large-scale investments. The Nordics host some of Europe's largest consolidated campus clusters, supported by reliable renewable power and improving connectivity. Southern Europe continues its rapid ascent, fuelled by new submarine cables, cloud-region commitments and strong solar and wind energy potential. Over the past year, major new hyperscale investments were announced, leading to significant upward adjustments of the forecast in Spain and Italy. Also, the Portuguese forecast has been adjusted strongly, due to a re-evaluation of the growth line of the 1.2 GW Start Campus in Sines.

Western Europe outside FLAP-D — particularly Belgium — remains strategically relevant, serving as an alternative to constrained hubs. Central and Eastern Europe continues to attract selective hyperscale investment, with Poland standing out as the region's primary growth node. neocloud providers amplify this geographic diversification by targeting locations where high-density compute can be deployed at speed, often reinforcing the growth trajectories of emerging markets.

Figure 12. Data centre construction and installation Investments (€ Bn), Hyperscale owned data centres, 2024 – 2031 forecast



Source: Colocation and hyperscale data centre database, Pb7 Research, 2025

Table 4. Hyperscale owned IT Power Supply (MW) forecast in the EU by Region and Country, 2024 - 2031

	2024	2025	2026	2027	2028	2029	2030	2031	CAGR 24-31
FLAP-D countries	1,601	1,682	1,838	2,108	2,437	2,767	3,170	3,573	12%
France	0	0	0	50	120	200	280	360	na
Germany	20	20	20	42	72	94	145	196	39%
Ireland	1,166	1,189	1,213	1,274	1,363	1,486	1,616	1,747	6%
Netherlands	385	385	420	450	507	537	589	641	8%
United Kingdom	30	88	185	292	375	450	540	629	54%
Nordics	859	971	1,058	1,251	1,373	1,570	1,664	1,758	11%
Denmark	359	387	387	387	387	406	406	406	2%
Finland	175	195	225	263	309	355	375	395	12%
Iceland (EEA)	0	0	0	0	0	0	0	0	na
Norway	0	10	40	102	154	196	238	280	na
Sweden	325	379	406	499	523	613	645	677	11%
Baltics	0	0	0	0	0	0	0	0	na
Estonia	0	0	0	0	0	0	0	0	na
Latvia	0	0	0	0	0	0	0	0	na
Lithuania	0	0	0	0	0	0	0	0	na
CEE	25	35	55	80	130	170	205	240	38%
Austria	10	20	40	40	90	130	165	200	53%
Bulgaria	0	0	0	0	0	0	0	0	na
Croatia	0	0	0	0	0	0	0	0	na
Czech Republic	0	0	0	0	0	0	0	0	na
Hungary	0	0	0	0	0	0	0	0	na
Poland	15	15	15	40	40	40	40	40	15%
Romania	0	0	0	0	0	0	0	0	na
Slovakia	0	0	0	0	0	0	0	0	na
Slovenia	0	0	0	0	0	0	0	0	na
Switzerland	0	0	0	0	0	0	0	0	na
Southern Europe	100	162	273	538	624	847	924	1,002	39%
Greece	0	0	0	10	19	19	29	38	na
Italy	20	34	64	123	150	187	194	201	40%
Portugal	0	0	5	5	5	5	5	5	na
Spain	79	126	201	396	444	629	689	749	38%
Other Southern Europe	1	2	3	4	5	6	7	8	35%
Other North West	143	158	158	248	298	333	333	333	13%
Belgium	143	158	158	248	298	333	333	333	13%
Luxembourg	0	0	0	0	0	0	0	0	na
EU27 TOTAL	**2,697**	**2,909**	**3,154**	**3,827**	**4,327**	**5,034**	**5,511**	**5,989**	**12%**
ALL	**2,728**	**3,009**	**3,382**	**4,225**	**4,861**	**5,686**	**6,296**	**6,906**	**14%**

Source: Colocation and hyperscale data centre database, Pb7 Research, 2025

Summary

Hyperscale-owned data centres are reshaping Europe's digital landscape with unprecedented speed. Cloud adoption, AI acceleration and the shift toward ultra-high-density computing continue to drive record investment levels across both established hubs and emerging regions. The Nordics and Southern Europe have become central destinations for large, power-intensive deployments, while metro regions retain a critical role for customer-facing cloud regions and inference-centric workloads.

The rise of neocloud providers adds a new layer to the market, expanding the scale and flexibility of Europe's high-performance compute infrastructure. Although constrained by power availability, permitting requirements and rising sustainability expectations, both hyperscale and neocloud investors demonstrate strong long-term momentum. Together, they form the core of Europe's evolving digital backbone, shaping the performance, resilience and sustainability of the continent's AI-driven future.

Socioeconomic impact of data centres in Europe

Data centres have evolved from a specialised digital utility into a fundamental enabler of Europe's economic competitiveness, innovation capacity, and labour market transformation.

As cloud services, artificial intelligence and digital public infrastructure become embedded in nearly every sector of the economy, the socioeconomic footprint of data centres has expanded far beyond their physical boundaries. Today, Europe's data centre ecosystem supports a wide range of economic activities: from construction and engineering to ICT services, logistics, energy systems, and advanced manufacturing.

The rapid growth of colocation and hyperscale facilities has generated substantial employment, investment and value creation in both established hubs and emerging regions. At the same time, the integration of data centres into energy systems, innovation ecosystems and digital public services underscores their increasing strategic importance for Europe's long-term competitiveness.

Economic impact

The economic contribution of data centres extends across multiple layers. Direct spending on construction, mechanical and electrical systems, land development, and IT infrastructure generates billions of euros in annual investment. This capital formation has been particularly strong in regions such as the Nordics, Southern Europe and FLAP-D metropolitan areas, but is increasingly spreading to Tier-2 markets as power availability and cloud region expansion diversify the geography of development.

In addition to construction-phase effects, data centre operations create stable, long-term economic activity. Operational expenditures include skilled labour, energy procurement, maintenance, security, network services and local supply chains. These activities stimulate significant indirect and induced economic output, supporting suppliers ranging from engineering firms to specialist contractors and professional service providers. The rise of AI and high-density compute has further deepened these economic linkages by increasing demand for advanced cooling technologies, electrical systems, specialised monitoring equipment, and high-grade components.

Summarising, we measure the impact at three levels:

- **Direct effects:** This includes the value of the goods and services produced by the company, or direct GDP contribution: the sales revenue minus the cost of goods and services purchased from other companies (intermediate consumption); employment within the data centre.
- **Indirect effects:** This includes the GDP contribution of the company's supply chain. It involves the production of goods and services by other companies that are necessary for the operation of data centres, such as materials, utilities, business services, and employment within the value chain.
- **Induced effects:** Consumer expenditures of the employees of both data centres and suppliers, such as groceries, housing, or hospitality; associated employment in the local economies.

In some studies, construction is included as part of the direct effect. Since it is methodologically more accurate to place that in the supply chain, we view it as an indirect effect. Finally, we note that new data centres also lead to additional tax revenues at the direct, indirect, and induced levels, but these are not quantified in this study.

Methodology

To build the economic impact model, the data centre database is combined with secondary data from desk research and data from the survey to first determine the direct effects (GDP contribution and employment by data centres). Revenue and employment data, partially from the colocation data centre survey and partially from partially identified by operators, are extrapolated and cross checked with metrics found in studies across various EU countries.

To calculate the indirect and induced effects, the proven method of applying national input/output statistics to build an economic impact model was employed. The IT services sector was used as a basis, but included adjustments based on studies of specific data centre spending patterns (for example above average spending on construction in the current high growth market) to improve the accuracy of the model.

In the latest version, the indirect multiplier effects for employment (the number of indirect employees per direct employees) and, to some extent, GDP contribution, were adjusted upwardly, since a thorough analysis indicated the effects had been underestimated. As a result, last year's indirect (and induced) data cannot be compared directly with the adjusted data.

Employment and Skills

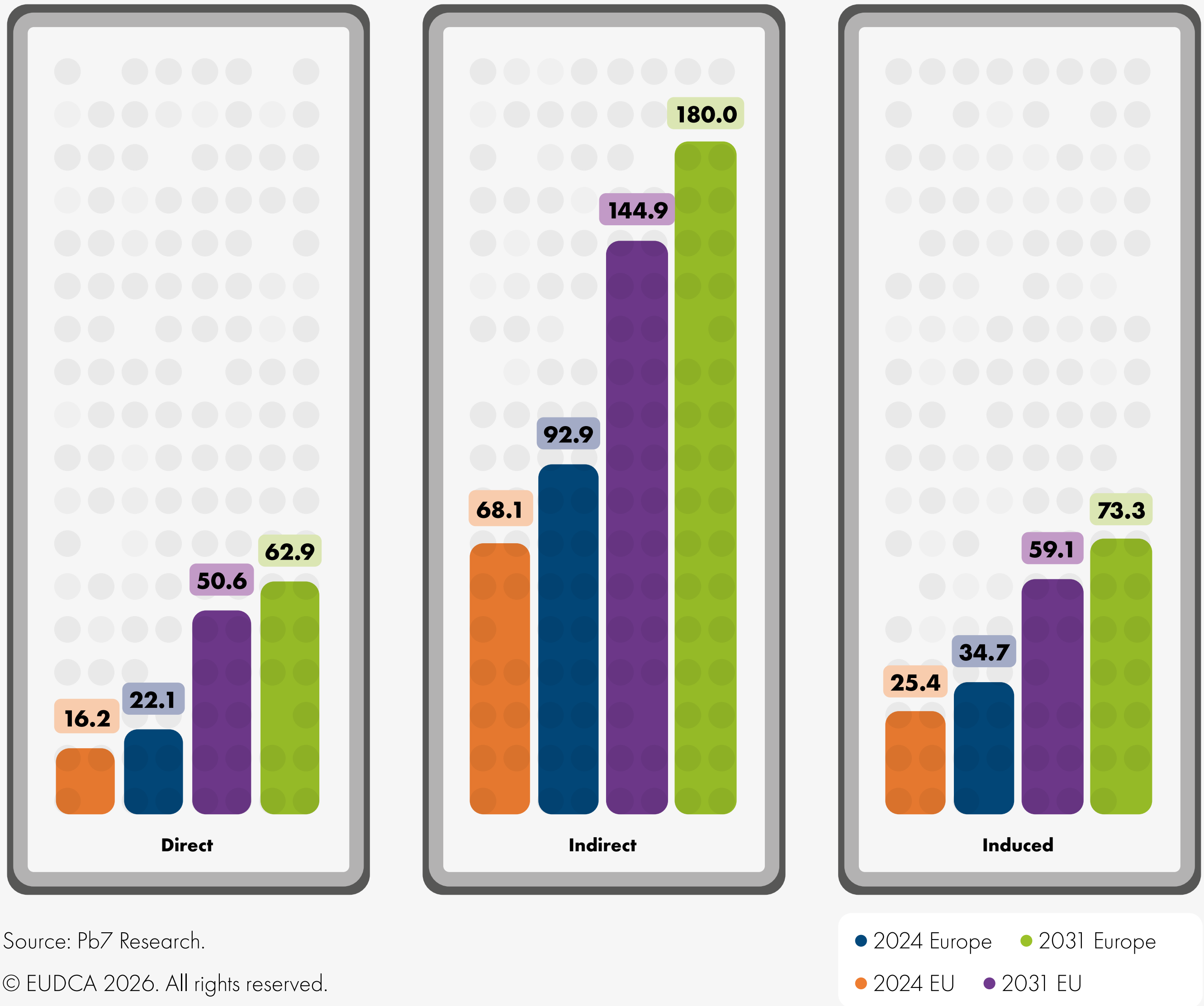
This study splits the market into colocation data centres (including scale colocation) and hyperscale-owned data centres. Enterprise data centres (including those operated by IT service providers) have been excluded. Colocation and hyperscale data centres typically benefit from significant economies of scale and can be run more efficiently than enterprise facilities. Another structural difference is that colocation data centres maintain dedicated front-office and back-office staff, whereas enterprise data centres (and hyperscalers) do not sell data centre services and generally rely on broader corporate support functions for back-office activities.

For 2024, it was found that 22,100 full-time employees (FTEs) are active in colocation data centres (excluding subcontractors). The calculation of jobs in colocation was relatively straightforward: the extrapolation from the database aligns with benchmark ratios observed in comparable international markets. The study deliberately uses a narrow definition of data centre employment to ensure that only roles directly involved in building, operating and maintaining the data centre are included. This encompasses (physical) security and reception staff, facility engineers (for climate control, power systems and related infrastructure), IT technicians (including cabling, connectivity, hardware maintenance and facility monitoring), site managers and associated project management.

While some studies also include broader IT roles — such as teams using these facilities or managing the IT systems housed within the racks — this study does not. These positions are considered "users" rather than "data centre employees". As a result of this more conservative approach, the total employment count is lower than figures reported in studies with a broader scope.

Apart from the colocation sector, the hyperscale-owned data centre market also employs a significant number of employees. In 2024, 7,000 FTEs were directly employed by hyperscale data centres. This is expected to almost double to well over 12,800 FTEs in 2031.

Figure 13. Economic impact of colocation data centres in Europe, employment effects, 2024-2031



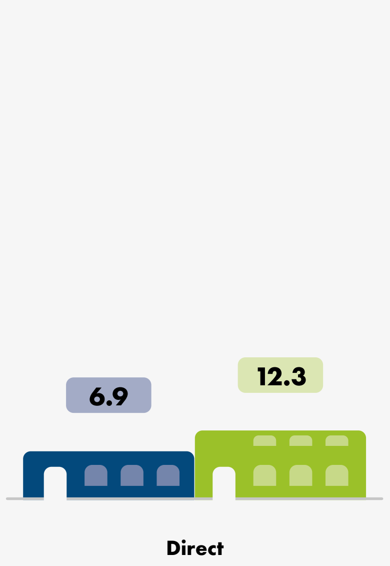
Source: Pb7 Research.

Figure 14A. Economic impact of hyperscale owned data centres in Europe, employment effects, 2024-2031

Source: Pb7 Research.

● 2024 ● 2031

Figure 14B. Economic impact of hyperscale owned data centres in the EU, employment effects, 2024



Source: Pb7 Research.

● 2024 ● 2031

Indirect and induced employment effects

The suppliers to data centres consist of a combination of construction and installation companies, suppliers of electrical equipment, security companies, utilities, and various business service providers. Due to the expenditures of data centres, these suppliers invest in order to meet the required level of products and services—much of which takes place within the EU. This includes renting and furnishing offices for temporary employees and their workspaces, purchasing raw materials, products, and components, and arranging temporary accommodation for hundreds or even thousands of construction and installation workers. As a result, colocation data centres are responsible for approximately 92,900 indirect jobs (FTE), while hyperscale data centres account for another 68,800. Given the considerable investment activity in new capacity—particularly in the colocation market—the proportion of indirect jobs is high compared to many other economic sectors.

Because skilled technical staff is scarce, a substantial share of the workforce consists of hired specialists, also counted as indirect employees. The average data centre employs 50 to 100 direct employees but typically contracts an additional group of external specialists. The larger the operator, the larger this pool of contractors tends to be. Bringing a new, large-scale facility online using only locally hired personnel would be an enormous, and often unrealistic, challenge. As new data centres transition into operational mode, they rely heavily on contractors, though operators generally aim to replace these roles over time with permanent—preferably local—employees.

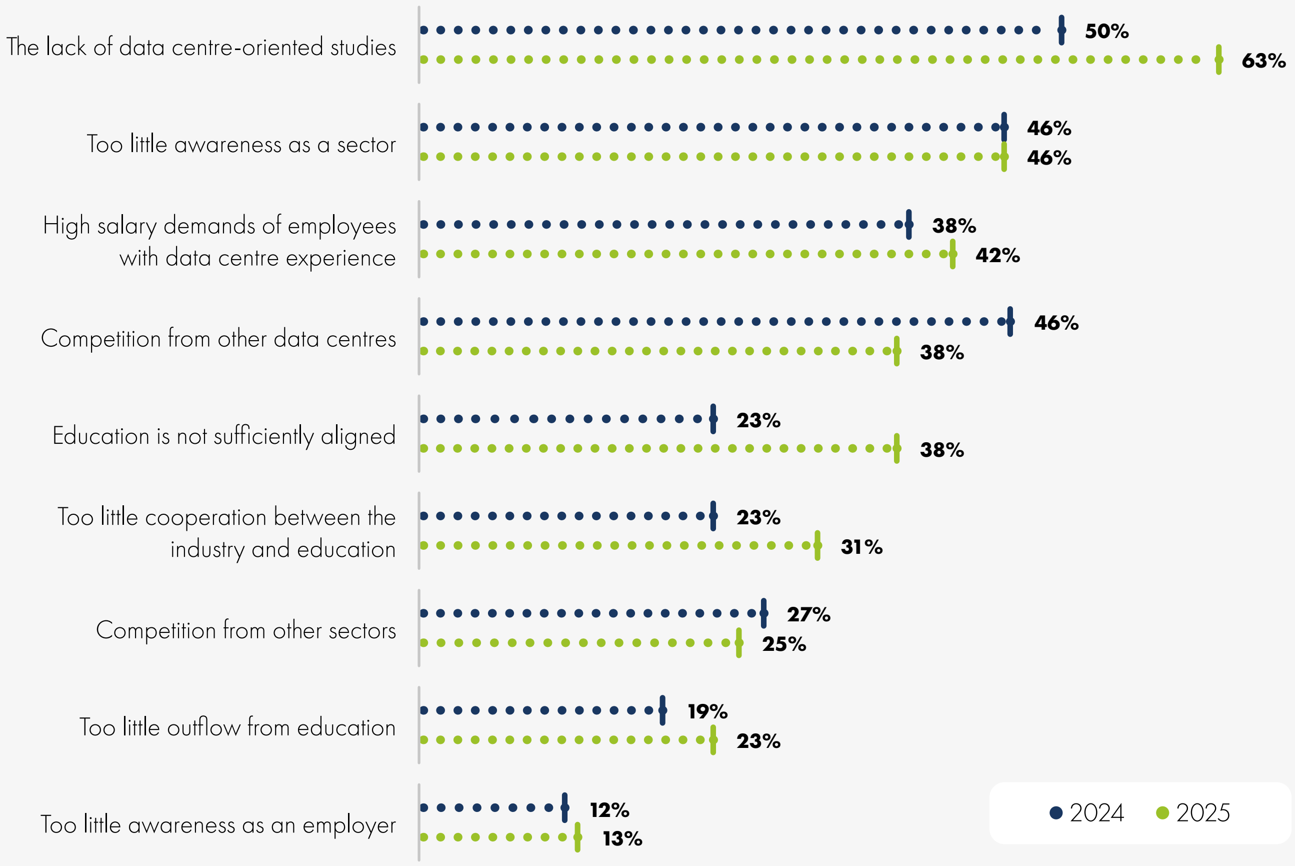
All direct and indirect employees spend a significant share of their income within the European economy, often very locally, on services such as groceries, housing, mobility and leisure. This results in an estimated 37,400 induced jobs (FTE) supported by colocation data centres, and 25,400 induced jobs attributable to hyperscale data centres. Adding all this up, the data sector is responsible for the employment of 369,000 FTEs across Europe in 2024, rising to around 778,000 by 2031.

Labour market challenges

Despite strong employment potential, the data centre sector continues to face labour shortages across nearly all European regions. The combination of rapid capacity expansion, rising technical complexity and the growth of AI-optimised infrastructure has intensified competition for skilled workers. Operators report that finding candidates with the right technical background, particularly in electrical systems, cooling engineering, automation and cybersecurity, remains a key barrier to scaling operations.

Training programmes have not yet kept pace with the required skills mix or are absent altogether. As a result, many providers invest in internal training, apprenticeships and partnerships with educational institutions. Regions with strong engineering universities and vocational training systems tend to scale more easily, while markets with constrained labour availability face higher costs and slower development timelines.

Figure 15. Question: What do you experience as the main obstacles in finding new employees? (Multiple answers allowed)



Source: European colocation and hyperscale survey, Pb7 Research, 2024 (N=63), 2025 (N=69)

When comparing the 2025 results with the survey from 2024, there are no major shifts in the obstacles that operators say they encounter in finding new employees: the lack of data centre oriented educational courses in the curriculum has become a problem for even more operators and continues to be the number one obstacle. The top 3 is completed by too little awareness as a sector and high salary demands from middle and senior staff. The key difference with last year is the sharp increase in those indicating that education is not sufficiently aligned. While data centre infrastructure is changing rapidly under the influence of AI, data centre focused education and training appear to find it hard to keep up.

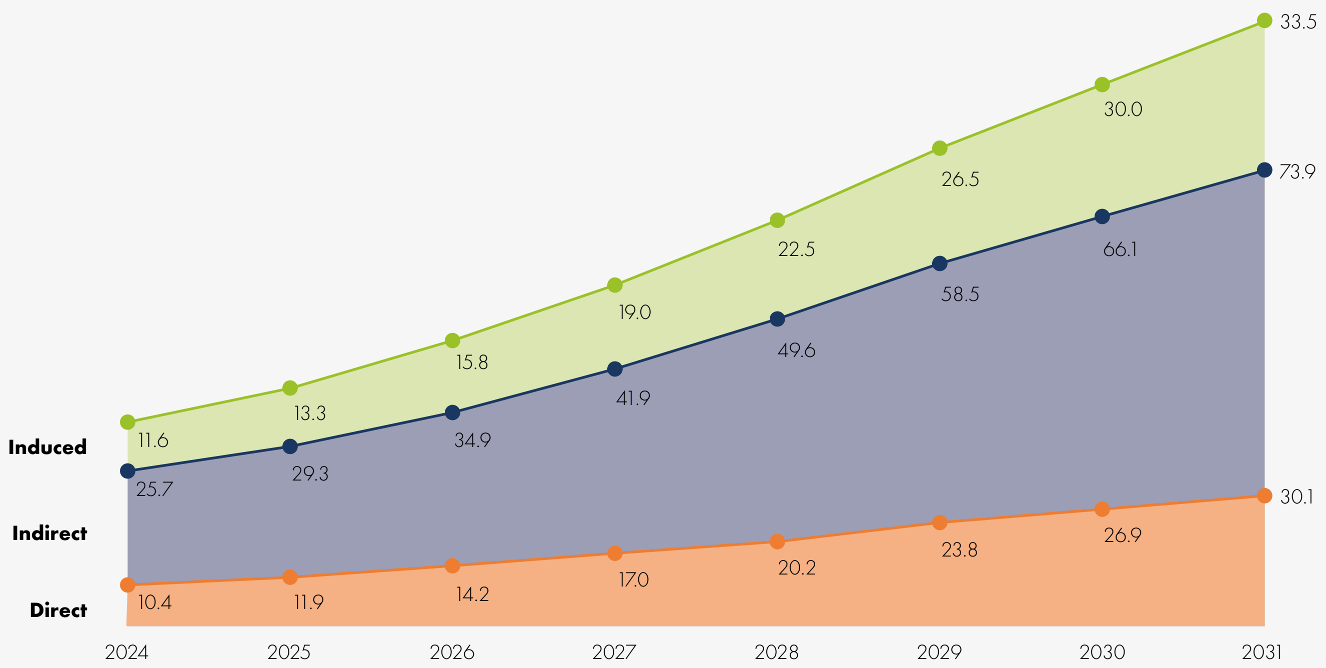
GDP contribution

Colocation data centres make a significant contribution to Europe's economy through their ongoing operations and the activity generated across their supply chains. In 2025, the sector accounted for a total GDP contribution of €53 billion, comprising €11.9 billion in direct operational value added, €29.3 billion in indirect effects through supplier activity, and €13.3 billion in induced household-spending effects.

Looking ahead, the economic footprint of the sector is expected to expand considerably. By 2031, total GDP contribution is projected to reach €137.5 billion, representing a compound annual growth rate of 16.3% from 2024. This growth reflects the continued build-out of operational capacity, increased demand across supporting industries, and rising employment linked to data centre operations and their wider supply chains.

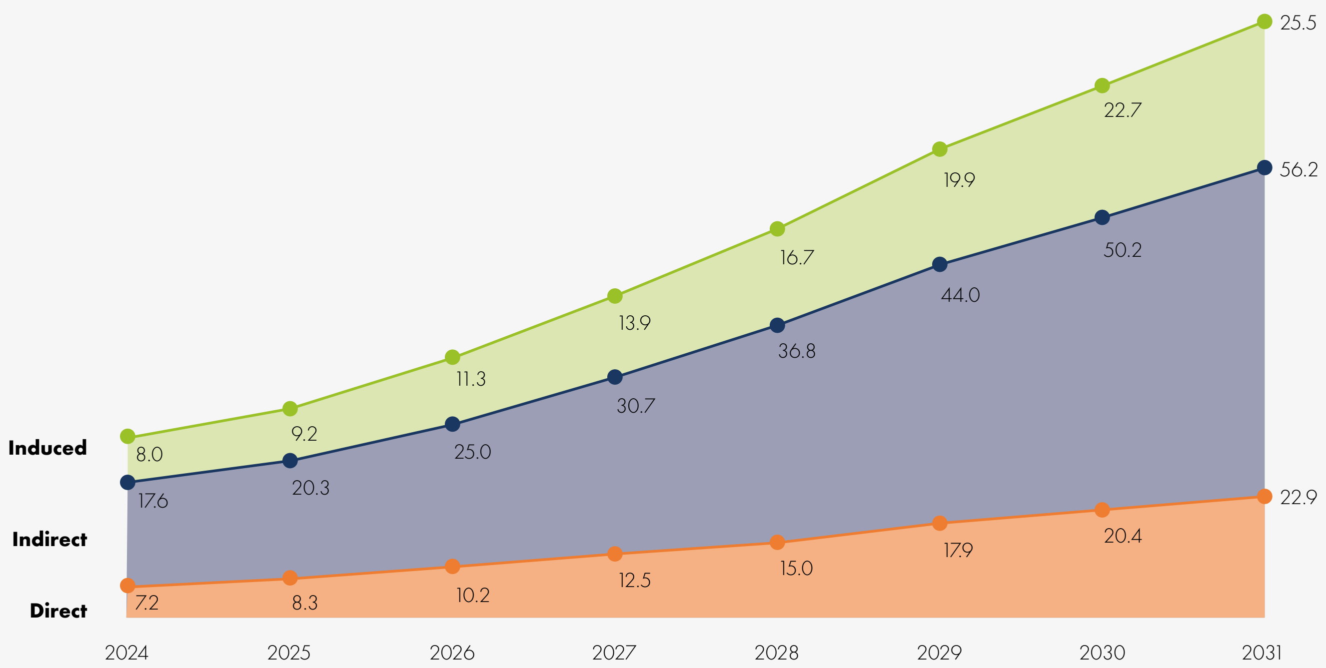
"When comparing the 2025 results with the survey from 2024, there are no major shifts in the obstacles that operators say they encounter in finding new employees"

Figure 16A: Economic impact (EUR Bn) of colocation data centres in Europe, GDP contribution (CAGR 2024-31: 163%)

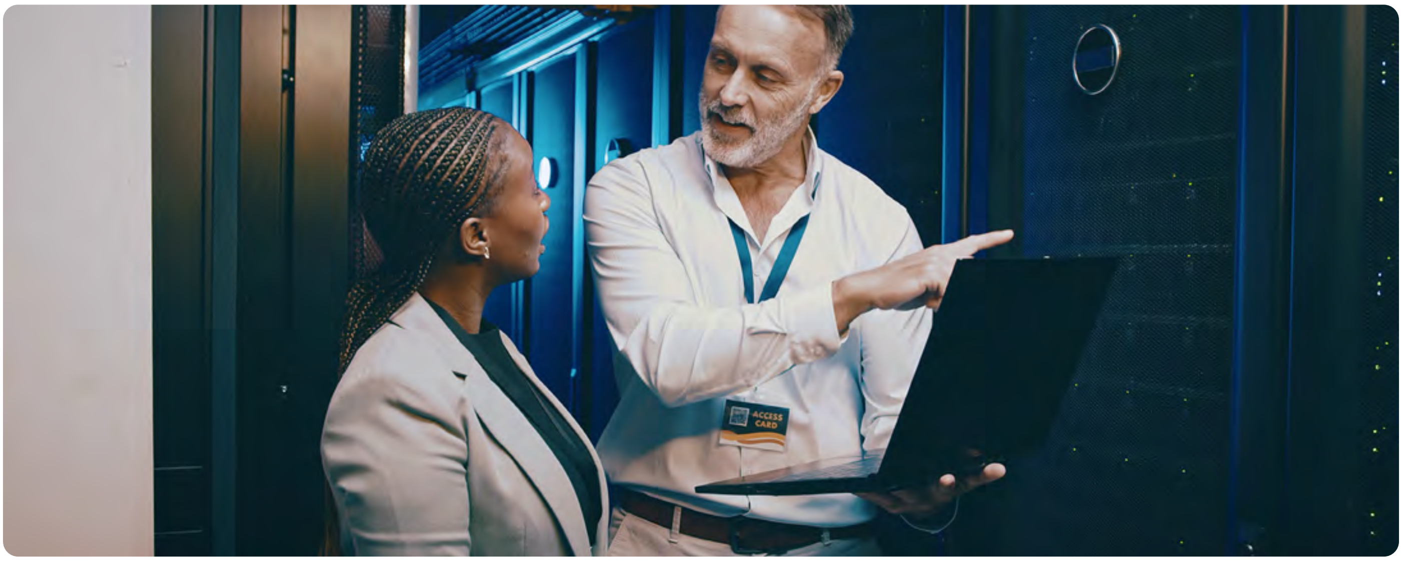


Source: Pb7 Research, 2025.

Figure 16B: Economic impact (EUR Bn) of colocation data centres in the EU, GDP contribution (CAGR 2024-31: 18.1%)



Source: Pb7 Research, 2025.



Community contributions

Data centres generate local community benefits, often in the form of infrastructure upgrades, public-private partnerships and environmental initiatives. Facilities support local district-heating networks through heat-reuse projects, contribute to grid stability through demand-response programmes or invest in renewable-energy capacity via long-term PPAs.

In several European regions, data centres play a role in improving digital inclusion by supporting local connectivity, cloud access for small and medium enterprises (SME) and collaboration with municipal digital-innovation initiatives. As sustainability becomes a more central focus, operators increasingly adopt resource-efficient designs, water-conservation programmes and circular-economy practices that contribute to local environmental objectives.

Interesting new use cases include:

- *Gibraltar – Pelagos 250 MW campus with public leisure facility.* The planned 250 MW Pelagos Data Centres campus at the Port of Gibraltar is being developed with a public leisure facility integrated into the project, explicitly positioned as a shared amenity for the local community rather than a purely private industrial site.
- *Microsoft – Clondalkin, Dublin (Ireland): Community Fund for digital skills and sustainability.* The Microsoft Community Fund for Dublin, linked to the company's data centre campus in Clondalkin, provides €100,000 per year for local community, school and nonprofit projects, with a strong focus on digital skills training and sustainability, and builds on more than €4 million invested in communities near the Irish data centres since 2008.
- *AWS – Katrineholm (Sweden): Wetland restoration and biodiversity project.* Near AWS's Swedish data centre sites, the company is investing around $4 million in a wetland and water-management project at Stora Djulö that improves flood protection, water quality and local biodiversity, while creating new recreational nature areas for residents.
- *Digital Realty – Marseille (France): biodiversity and training pathways.* In Marseille, Digital Realty combines support for local culture and biodiversity with training and professional integration programmes, specifically aimed at creating employment opportunities and equipping residents with skills that match the digital ecosystem around its data centres.
- *CyrusOne – Buckinghamshire (UK):* biodiversity-enhancing campus design. CyrusOne's new data hub in Buckinghamshire is designed to boost biodiversity on and around the campus, including wildflower and habitat measures, while creating local jobs aligned with the UK's digital infrastructure goals.
- *Queen Mary University — London (UK):* Waste heat from the Tier 2 data centre at Queen Mary University of London is repurposed to provide heating to the Joseph Priestley Building and the district heating system in the Mile End campus. The project uses a multi-stage heat recovery process to transform waste heat into water temperatures of 65-75°C.

Summary

Data centres play an increasingly important economic and social role across Europe. Their operational activities generate substantial direct, indirect and induced value added, contributing more than €50 billion to European GDP in 2025, with projections indicating a rise to €137.5 billion by 2031, as operational capacity and related supply-chain activity continue to expand. The sector also supports significant employment, both through highly skilled operational roles and through broader supply-chain engagement in engineering, maintenance and technical services.

Beyond their economic footprint, data centres contribute to local communities through targeted investments in digital skills, education, inclusion and biodiversity. Recent initiatives illustrate how operators increasingly position themselves as long-term community partners. As Europe's digital infrastructure continues to expand, these socioeconomic contributions — jobs, value creation, skills development and community programmes — are becoming foundational to the sector's acceptance and long-term integration within European regions.

Data centre footprint and sustainability goals

Sustainability has become one of the defining themes in the development of Europe's data-centre sector.

Although electricity use still represents the most visible part of the footprint, water, heat, materials, biodiversity, and the circular use of resources are increasingly important. As the sector grows, driven by cloud, digitalisation and especially AI, operators are expected to reduce emission levels, increase transparency and integrate more closely with local energy and heating systems. This chapter provides an integrated overview of how the sector is progressing across these domains, supported by new survey insights and data from EED reporting.

Energy Use and Efficiency

Electricity use remains the largest component of the sector's environmental footprint. Although overall consumption continues to rise — this year's calculations place European data-centre electricity use at just under 60 TWh — operators are maintaining efficiency as they scale. Survey results show typical PUE levels of around 1.36 for colocation and significantly lower values for hyperscale facilities, while especially small enterprise facilities are believed to lag behind. The EU-wide EED dataset confirms the same trajectory: efficiency varies with climate and design, yet the overall European average remains stable at around 1.40.

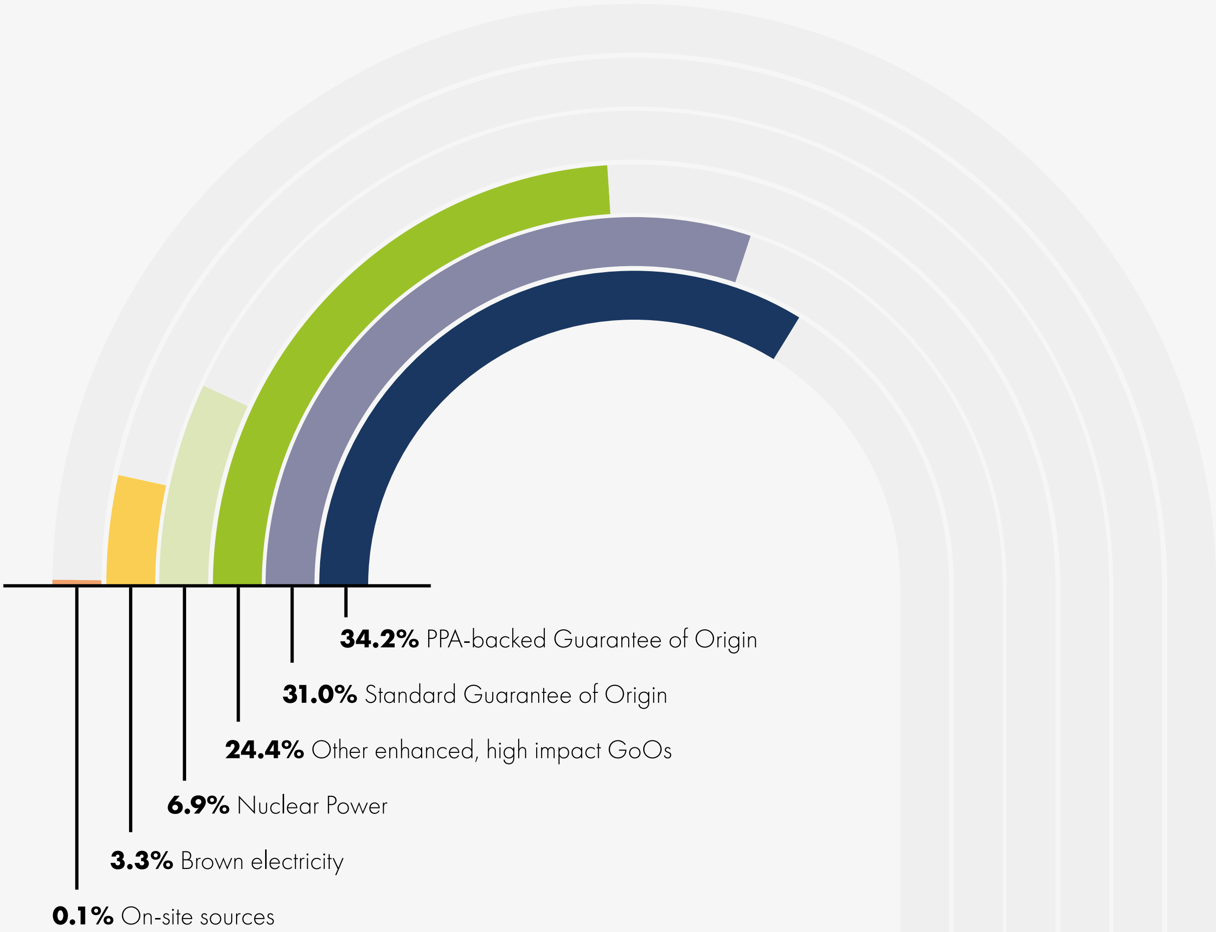
This stability is notable given the shift toward more power-intensive workloads. Efficiency improvements stem from more advanced cooling architectures, more efficient electrical systems, and, increasingly, the use of liquid-cooling technologies for AI-oriented compute. Operators also rely more heavily on digital-twin technology and real-time monitoring, allowing them to optimise cooling and power delivery with much greater precision.

Renewable Energy

Renewable-energy sourcing has become an essential component of sustainability strategies across Europe. Survey evidence indicates that operators now source roughly 97% of their electricity from low carbon sources, most of them renewable sources[3]. Guarantees of Origin (GoO) remain the dominant mechanism, but long-term PPAs are becoming more common, especially among large operators seeking predictable, low-carbon supply and responsible for 34% of all power usage. Beyond traditional GoOs and PPAs, the market is seeing strong growth in enhanced, high-impact GoOs — procurement models that prioritise additionality, temporal matching, and locational relevance. These GoOs go beyond simple annual certificate matching and actively contribute to expanding Europe's renewable-energy infrastructure. Enhanced high-impact GoOs typically include commitments to new-build solar or wind assets, hourly or sub-hourly alignment between renewable generation and consumption, and integration with local grid-stability or flexibility schemes. For data centres with rapidly growing and increasingly variable load profiles, particularly those driven by AI training cycles, these contracts provide a more credible pathway to real carbon reduction, while improving long-term supply certainty and mitigating exposure to power market volatility. The survey shows that about a quarter of all data centre power in 2025 came from these types of GoOs.

Several factors drive this shift. Corporate customers increasingly require demonstrable decarbonisation progress from their infrastructure providers. At the same time, operators anticipate more granular carbon-intensity reporting in the coming years, pushing the sector from annual matching toward time-aligned procurement. These developments are already influencing siting decisions, particularly in regions with strong renewable-energy resources or supportive permitting environments.

Figure 17. Question: How is the energy consumption of your data centre(s) approximately divided into the following variants?



Source: European colocation and hyperscale survey, Pb7 Research, 2025 (N=69)

Water Use and Cooling

Water use is gaining prominence as a sustainability metric, especially in markets experiencing seasonal or structural water stress. The survey results suggest average WUE levels around 0.31 L/kWh for colocation, while the broader EED dataset yields a slightly higher figure, reflecting a more heterogeneous mix of facility types. What matters most is that water use is now widely metered and monitored, with most operators applying water-conservation measures that range from improved cooling-system control to the use of non-potable or recycled water where available.

Cooling technology is evolving rapidly. AI-related density increases have accelerated the adoption of liquid cooling systems, which reduce reliance on evaporative water use in many cases. Hybrid dry/adiabatic systems and closed-loop chillers also limit water dependency in warm climates. These changes are making water use more predictable and, in many cases, lower than legacy evaporative systems while still supporting the thermal requirements of high-density compute.

The survey provides additional insight into how European data centre operators approach water use, cooling choices and conservation strategies. Not all operators are using water for cooling purposes. Still, at least 62% of operators indicate that they do use some form of water-based cooling, but not necessarily for all facilities. Water-based cooling was introduced to reduce the energy required for cooling. Many small and older facilities never made the step towards water-based cooling, with a relatively high PUE as a result. With the growing attention to water usage, in combination with the increasing adoption of liquid cooling and closed-loop chiller systems, a growing proportion of new build data centres are reducing water usage or eliminating it altogether.

Figure 18. Question: Do you use water based cooling systems?

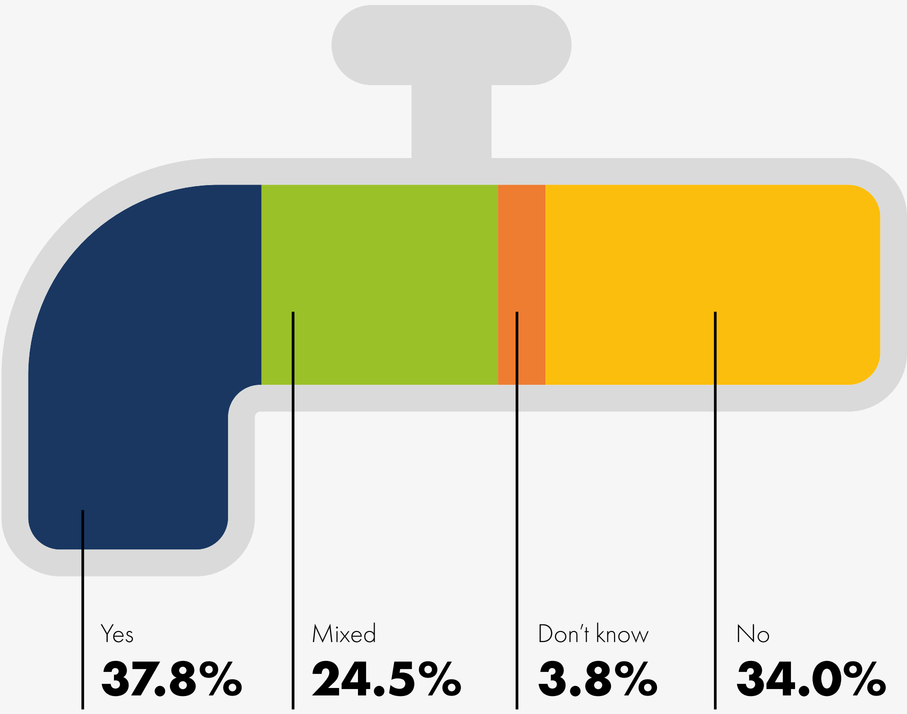
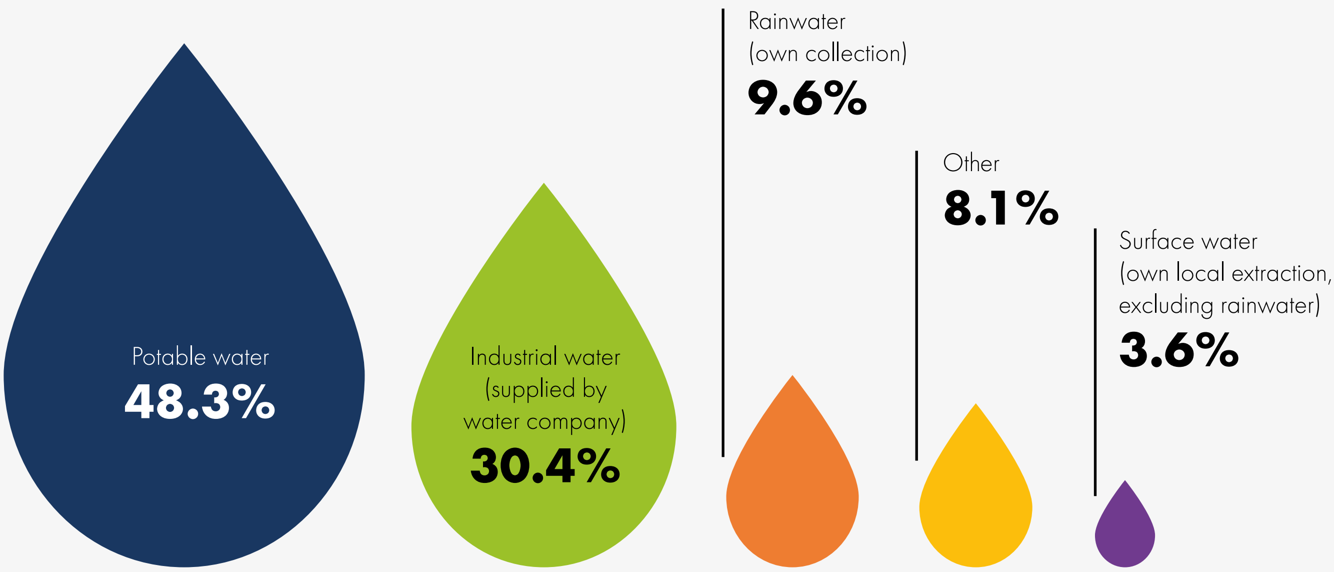


Figure 19. Question: How is the water consumption of your data centre(s) approximately divided into the following variants?



Source: European colocation and hyperscale survey, Pb7 Research, 2025 (N=69).

The distribution of water consumption shows that water use is not dominated by a single source. Instead, operators report a mix across potable water, non-potable sources, recycled/recirculated water and, in some cases, municipal or industrial reclaimed water.

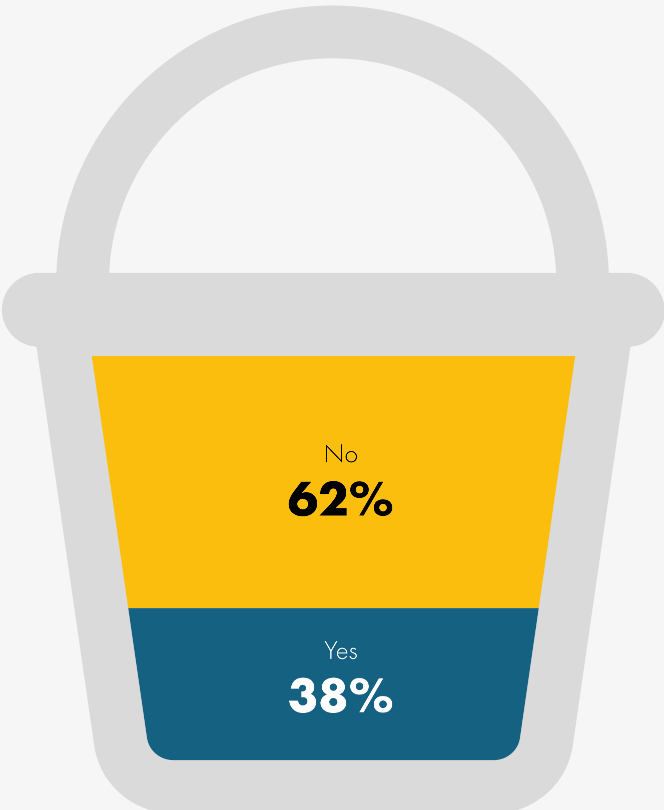
Notably:

- A significant portion, slightly more than half of total consumption, is non-potable, reflecting deliberate shifts toward lower-quality water sources that put less pressure on potable water availability.
- Recycled or recirculated water accounts for a meaningful share of 30%, indicating more mature water-recovery systems and closed-loop cooling designs.
- Potable water use remains present but is proportionally lower than in earlier years, suggesting the sector is actively reducing its dependency on drinking-water supplies.
- This diversification of water sources aligns well with regulatory and societal pressure to reduce the impact of large technical facilities on local water resources.

The survey reveals that a notable portion of operators (38%) have water-conservation programmes in place. These programmes typically include:

- Optimisation of cooling-tower cycles.
- Broader use of adiabatic-assist only during peak conditions.
- Increased adoption of dry cooling modes.
- Introducing closed loop cooling to eliminate water intake altogether after initial filling.
- Monitoring-based optimisation via more granular telemetry.
- Integration of reclaimed or industrial water sources where permitted.

Figure 20. Question: Do you have a water conservation programme in place to significantly reduce your WUE?



Source: European colocation and hyperscale survey, Pb7 Research, 2025 (N=69).

Land Use and Physical Footprint

The physical footprint of data centres is expanding as campus-scale developments become more common. These projects often require substantial land for multi-phase builds, substations, cooling infrastructure and internal roads. As a result, planning authorities place greater emphasis on land-use compatibility, visual mitigation, brownfield redevelopment and integration with surrounding industrial or energy zones.

Nature-positive site design is increasingly incorporated into planning approvals. Landscaping strategies such as green buffers, pollinator-friendly planting and restoration of natural features help reduce visual impact and support local ecological goals. In some markets, biodiversity enhancement is not only encouraged but formally integrated into permitting conditions.

Materials, Circularity and Embodied Carbon

Embodied carbon — the emissions embedded in construction materials and equipment — is becoming a prominent target in sustainability planning. Since construction often represents a significant share of a facility's lifecycle footprint, operators are increasingly exploring low-carbon concrete, recycled steel and modular prefabrication to reduce emissions.

Circular economy practices are gaining ground, including refurbishment of mechanical and electrical modules, reuse of racks and components, and the responsible recycling of decommissioned IT equipment. Modular design accelerates deployment while enabling easier component reuse at end of life. Some operators are beginning to publish lifecycle carbon assessments to identify additional reduction opportunities.

Biodiversity and Restoration Commitments

Biodiversity, as mentioned in the previous chapter as a key area for community contributions, has moved from a peripheral consideration to a core element of sustainability strategy. Data-centre sites increasingly incorporate habitat protection and enhancement measures, such as wetland restoration, forest replanting, ecological monitoring programmes, creation of pollinator-friendly zones and nature-positive landscaping. These initiatives align facility development with local environmental priorities and strengthen acceptance among communities. Recent examples include reforestation efforts, research collaborations with ecological institutes, on-campus wildlife monitoring and the integration of living structures into facility design. The sector's biodiversity actions have expanded significantly in regions where planning requirements emphasise ecological compatibility.

Sustainability Goals and Regulatory Drivers

European data centre operators are aligning their sustainability goals with national and EU climate frameworks, particularly climate-neutrality targets for 2030 and 2050. Sector-wide commitments generally include:

- 100% renewable-energy sourcing (PPA-based or grid-mix adjusted).
- Continuous improvement in PUE and WUE performance.
- Adoption of liquid cooling and high-efficiency heat-rejection systems for high-density compute.
- Integration of biodiversity and circular economy principles into campus development.
- Lifecycle carbon reporting, tracking and reduction strategies.
- Increasing participation in local energy systems and flexibility programmes.

Regulatory momentum is accelerating these commitments. The EED requires transparent reporting of energy use, IT power, water consumption, and heat-reuse potential across the EU. Member States are implementing additional sustainability obligations, including environmental impact assessments, water-efficiency standards and design requirements for land use and biodiversity. These frameworks are becoming central to how new data centre projects are approved, operated and expanded.

As a result of the EED, the sector is investing in more granular monitoring of the resources that are being used. PUE measurements (total power consumption divided by IT power consumption) are near ubiquitous. WUE and ERF may never reach 100%, since not all data centres use water or provide heat reuse. Still, monitoring efficiency closely is key to identifying areas for improvement.

Figure 21. Question: Which of the following indicators are actively measured, based on actual data?

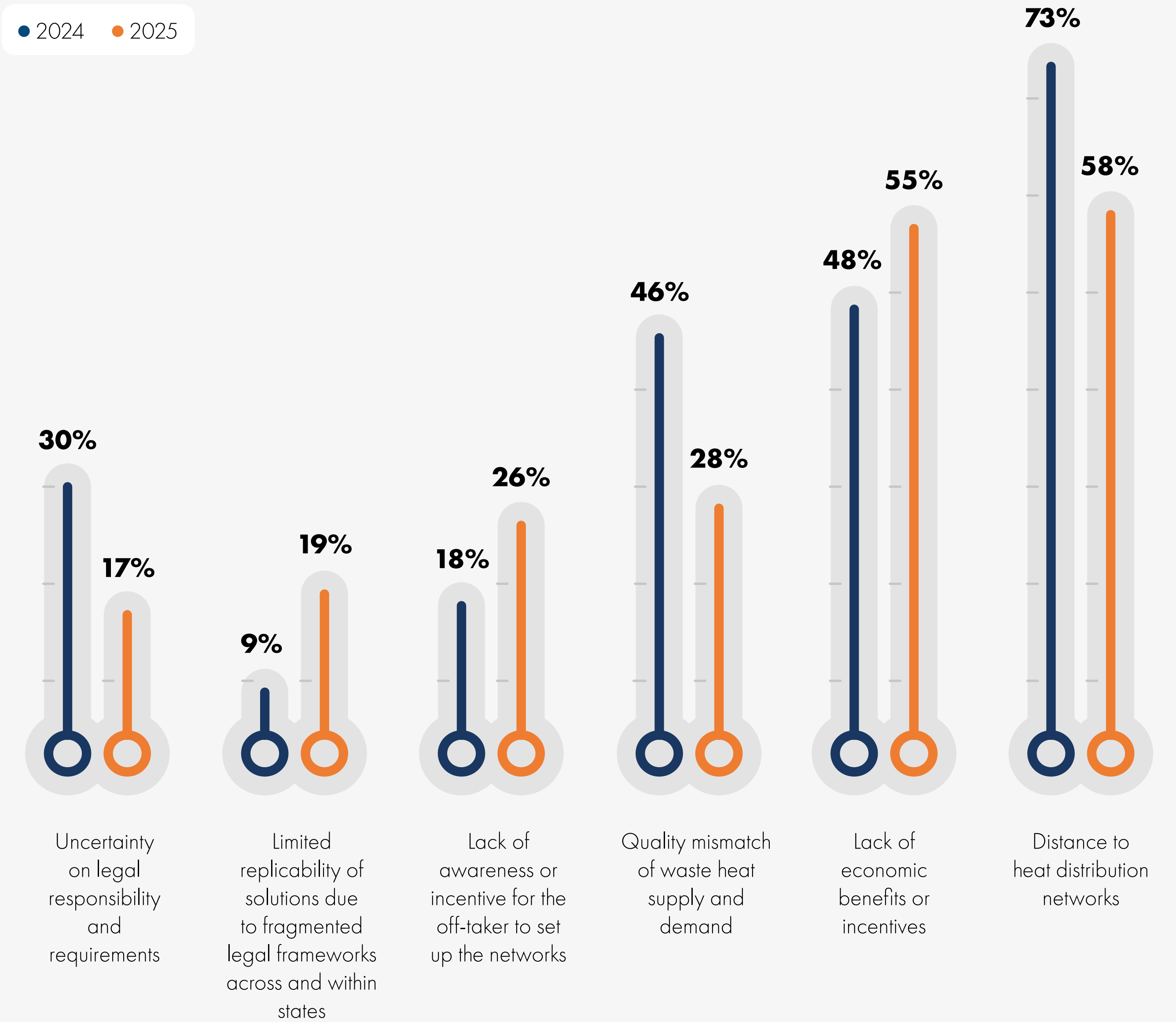
Source: European colocation and hyperscale survey, Pb7 Research, 2025 (N=69).

Heat Reuse

Heat reuse is an area where expectations and reality still diverge. The vast majority of European data centres generate large volumes of low-temperature residual heat, yet EED reporting and the survey data shows that only a very small share of this heat is currently reused. Among the minority of facilities that are connected to district heating networks, heat reuse performance is strong, demonstrating that the technical concept works well when the right conditions are present.

However, survey results clearly show why adoption remains limited. Many facilities are simply not located near viable take-offs such as district heating networks, and the typically low temperature of data centre heat, typically in the mid-20°C range, often requires significant upgrading before it can be used efficiently. Economic feasibility is therefore heavily dependent on local infrastructure, proximity, and long-term demand certainty. National policies are beginning to shift this landscape. Germany's Energy Efficiency Act, for example, introduces the first European heat reuse obligation for new data centres, and similar approaches are now being evaluated elsewhere. Over time, such policies will influence site selection and increase the number of facilities designed with heat export capability from the outset.

Figure 22. What are the main barriers to the export of heat?



Source: European colocation and hyperscale survey, Pb7 Research, 2025 (N=69).

When comparing this year's data with last year's, there are some marked differences. The number of operators that indicate the distance to heat networks is too great is decreasing. This may be related to the decreasing number of operators that perceive a quality mismatch. As a result of increased liquid cooling, the quality (read: temperature) of the heat makes it easier to reuse, reducing the need for heat pumps. Even though it is taking a long time for heat re-use to make a substantial overall impact on the industry, the conditions for its success appear to have improved markedly.

Measuring data centre footprint with EED metrics

The EED-aligned metrics reported by Pb7 Research provide a harmonised and methodologically consistent view of the sector's footprint. As Pb7 applies the European Commission's EED definitions across its own database, the figures represent a modelled, normalised estimate of sector-wide performance rather than a simple aggregation of raw operator submissions. This distinction is important for correctly interpreting the results.

The dataset shows colocation facilities currently accounting for the largest share of nominal installed IT power and electricity consumption, followed by enterprise and hyperscale (co-hosting) environments. This distribution reflects structural market dynamics — colocation remains the dominant environment for professionally operated compute capacity. As EED definitions are applied, the data shows a consistent and comparable footprint across facility types.

Based on the analysis, the overall power consumption of all data centres, colocation, hyperscale and enterprise, is estimated at 57.9 TWh for 2024, or 2.1% of all electricity usage in the European Union. As a group, colocation data centres are responsible for 48% of that, or 27.6 TWh. More precisely, 20.3 TWh is used by colocation customers, while 7.3 TWh is used by the colocation operator for cooling, lighting and other faciliatory uses. As we found in the survey, most of that, 90%, is renewable energy (and 97% is zero carbon).

EED Aligned Data Centre Footprint EU-27 countries, 2024

indicator	EED Annex	Metric	Colocation	Hyperscale (Co-hosting)	Enterprise	Total
IT Power Demand Installed (nominal)	XVD 1	MW	5,230	2,697	2,602	10,529
total Energy Consumption	XVD 4.1	TWh	27.6	10.2	20.2	57.9
total Energy Consumption IT Equipment	XVD 4.2	TWh	20.3	8.9	11.0	40.2
total Water input	XVD 5	m3 (mln)	12.1			
total Potable Water Input	XVD 5	m3 (mln)	5.7			
waste Heat Re-used	XVD 6.1	TWh	0,16			
total Renewable Energy Consumption	XVD 8	TWh	24.7			
PUE (Power Usage Effectiveness)	1.36					
WUE (Water Usage Effectiveness)	0.44	l/kWh				
REFE (Renewable Energy Factor for Electricity)	0.90					
ERF (Energy re-use factor)	0.01					

Sustainability metrics based on EED reporting, 2023, all respondents[4]

	Factor
PUE (Power Usage Effectiveness)	1.36
WUE (Water Usage Effectiveness)	0.39
REFE (Renewable Energy Factor for Electricity)	0.86
ERF (Energy re-use factor)	0.02

Source: European Commission (2025), Assessment of the Energy Performance and Sustainability of Data Centres in EU[5], data aggregated by Pb7 Research.

PUE Performance Across Europe

The average PUE of 1.36 for colocation (and 1.40 across all facility types) aligns with expectations based on the EED Annex definitions for total energy consumption. Since Pb7 applies these definitions uniformly, the resulting PUE values filter out methodological inconsistencies that can occur when operators self-report. Regional variation still follows climate and infrastructure patterns:

- Nordics & Baltics (1.19) — excellent performance driven by cool climate, advanced system design and hyperscale campuses.
- North West Europe incl. FLAP-D (1.45) — higher due to dense urban environments and older facilities.
- Southern Europe (1.57) — climate-driven cooling demands drive up PUE.
- CEE (1.54) — reflects a mixed building stock with fewer next-generation facilities.

These differences reflect real structural conditions and not differences in reporting methodology, since Pb7 normalises the analysis using EED metrics.

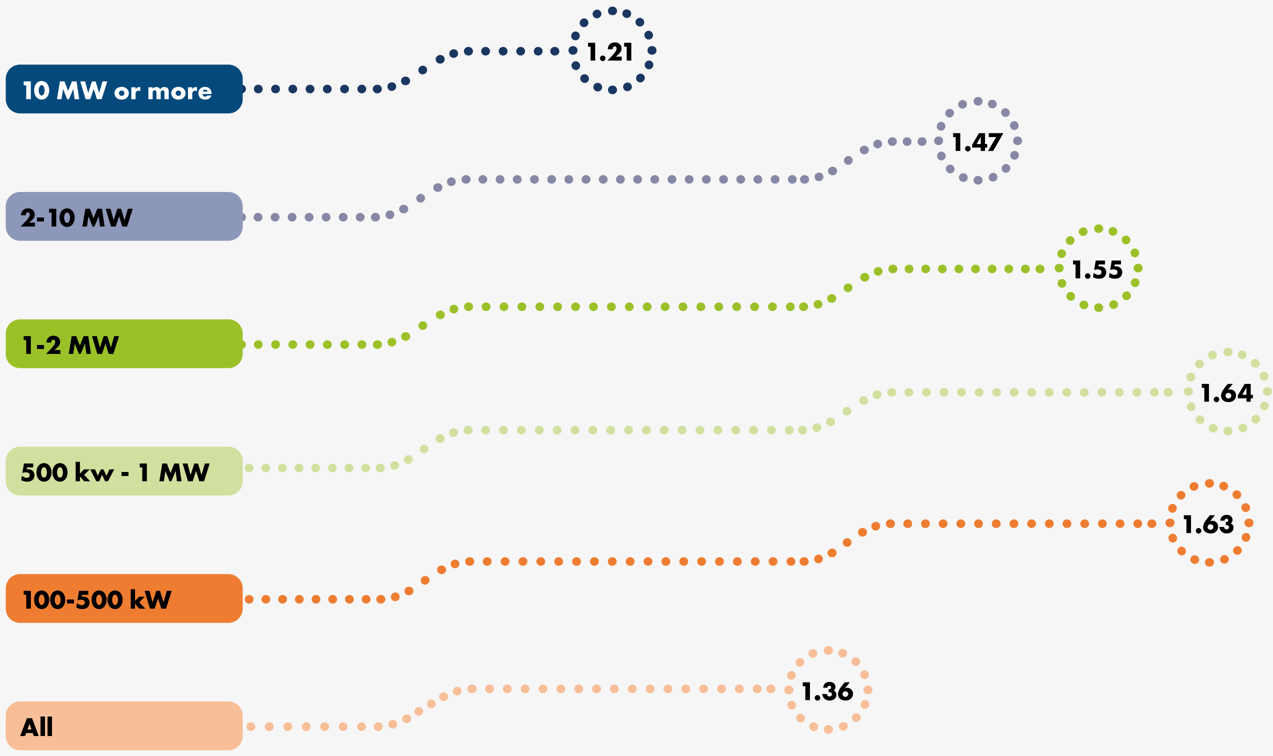
Apart from the climate, the EED report shows that data centre size has a big impact on the Power Usage Efficiency. Data centres with IT power of 10 MW or more report an average PUE of 1.21, compared to an average of more than 1.60 for facilities with 1 MW or less. The data may be skewed somewhat due to the fact that data centres have become bigger over time on average, while new data centres invest more in sustainability compared to earlier generations. But it does confirm that data centre efficiency benefits from scale.

PUE by Region based on EED reporting, 2023, weighted by installed IT power by country

	PUE
North West (FLAP-D & BeLux)	1.45
Nordics & Baltics	1.19
CEE	1.54
South	1.57
ALL	1.40[6]

Source: European Commission (2025), Assessment of the Energy Performance and Sustainability of Data Centres in EU, data aggregated and weighted by Pb7 Research.

Figure 23. PUE average by Installed IT Power value based on EED reporting, 2023, all respondents

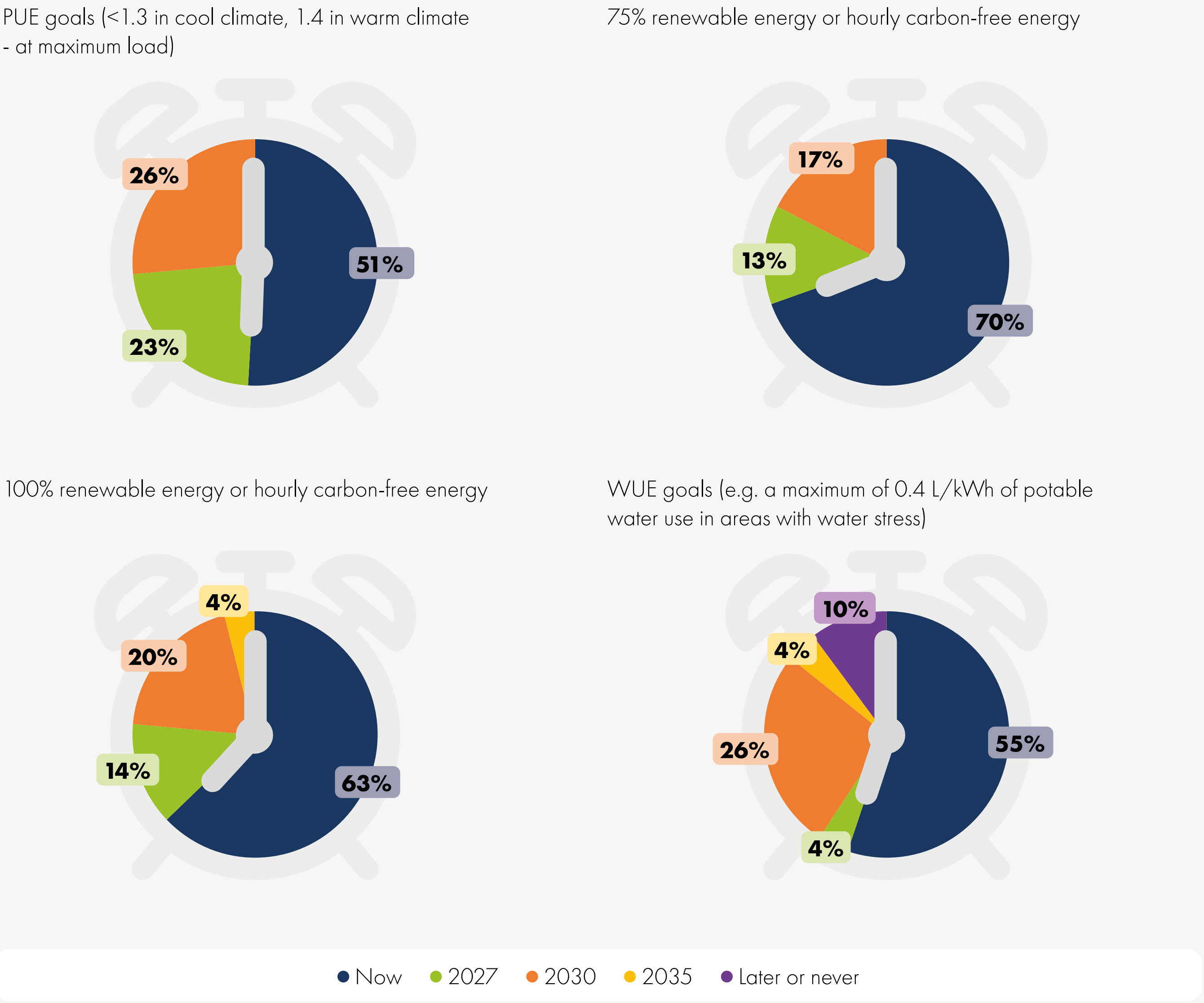


Source: European Commission (2025), Assessment of the Energy Performance and Sustainability of Data Centres in EU, data aggregated and weighted by Pb7 Research.

Progress Climate Neutral Data Centre Pact

The Climate Neutral Data Centre Pact (CNDCP)[7], driven by the EUDCA, continues to provide an important reference point for the sector. Survey results suggest that most operators feel confident in meeting the Pact's targets for efficiency, renewables, and water use. Only a small minority expect to struggle with the PUE thresholds for new facilities, and most expect to meet the renewable-energy and long-term water-efficiency commitments. Progress on the Pact's circularity and heat reuse goals remains more uneven, reflecting the structural barriers described above, but the overall direction is positive.

Figure 24. When do you expect to achieve the following goals, as formulated in the Climate Neutral Data Centre Pact?



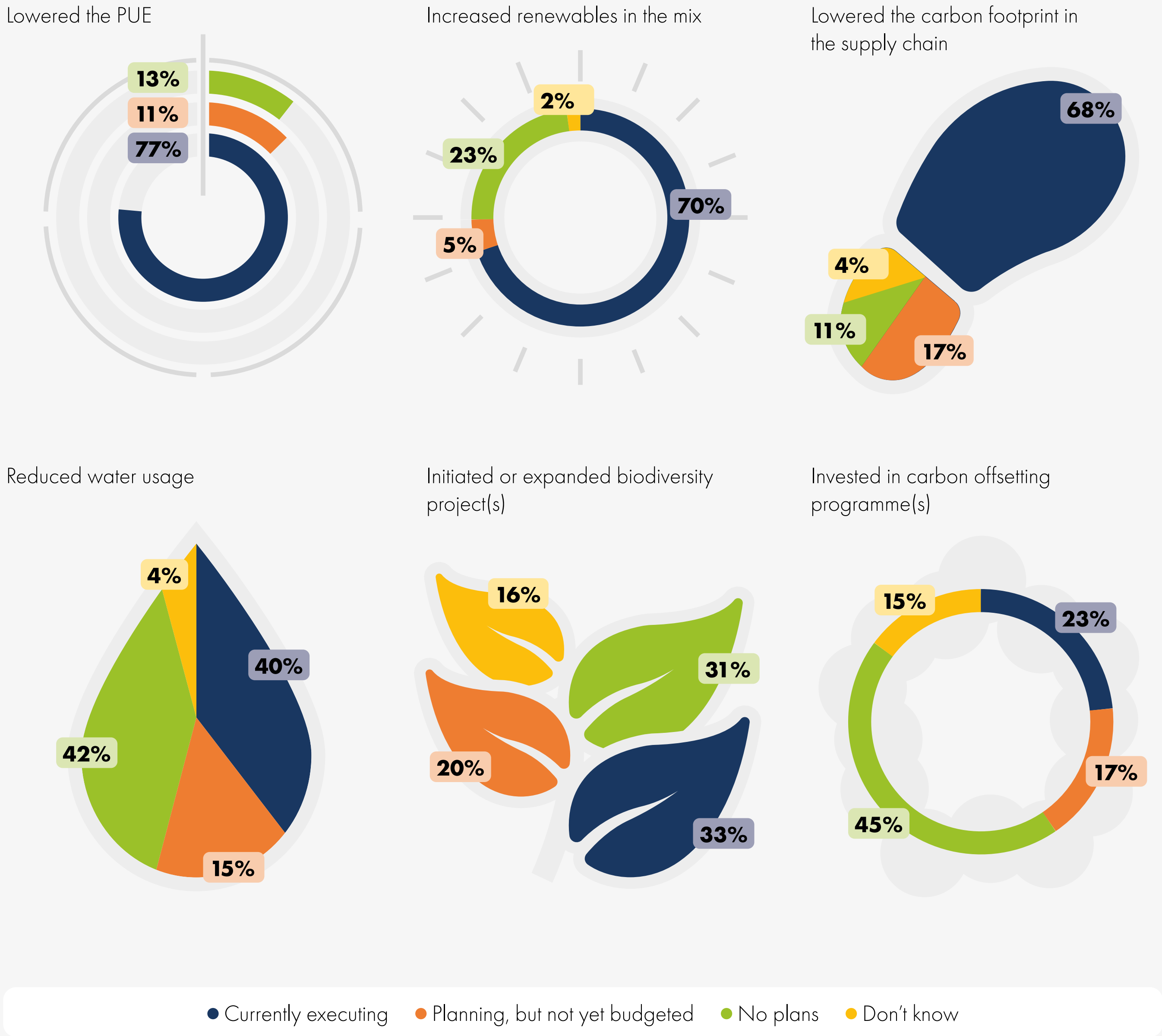
Source: European colocation and hyperscale survey, Pb7 Research, 2025 (N=69).

European data centres have made serious progress compared to last year's survey:

- In 2024, none of the surveyed colocation data centres had achieved their full PUE goals, with 37% expecting to have done so by the end of 2025. In 2025, more than half (51%) asserted compliance, exceeding previous expectations.
- 70% of respondents reported achieving the 75% renewable energy or hourly carbon-free energy target, compared to 56% one year ago.
- Almost two thirds (63%) report achieving 100% renewable energy or hourly carbon-free energy, up from more than half (56%) last year.
- More than half (55%) reported achieving 2030 WUE goals, compared to 39% last year.

This aligns very well with the activity that is going on in within data centres to improve sustainability. Two thirds or more of all surveyed operators indicate initiatives to lower PUE, increasing renewables into the energy mix and reducing the carbon footprint of supply chains. There is also a lot of activity in water reduction and biodiversity programmes.

Figure 25. Where did your organisation make clear improvements in terms of sustainability in the past 12 months?



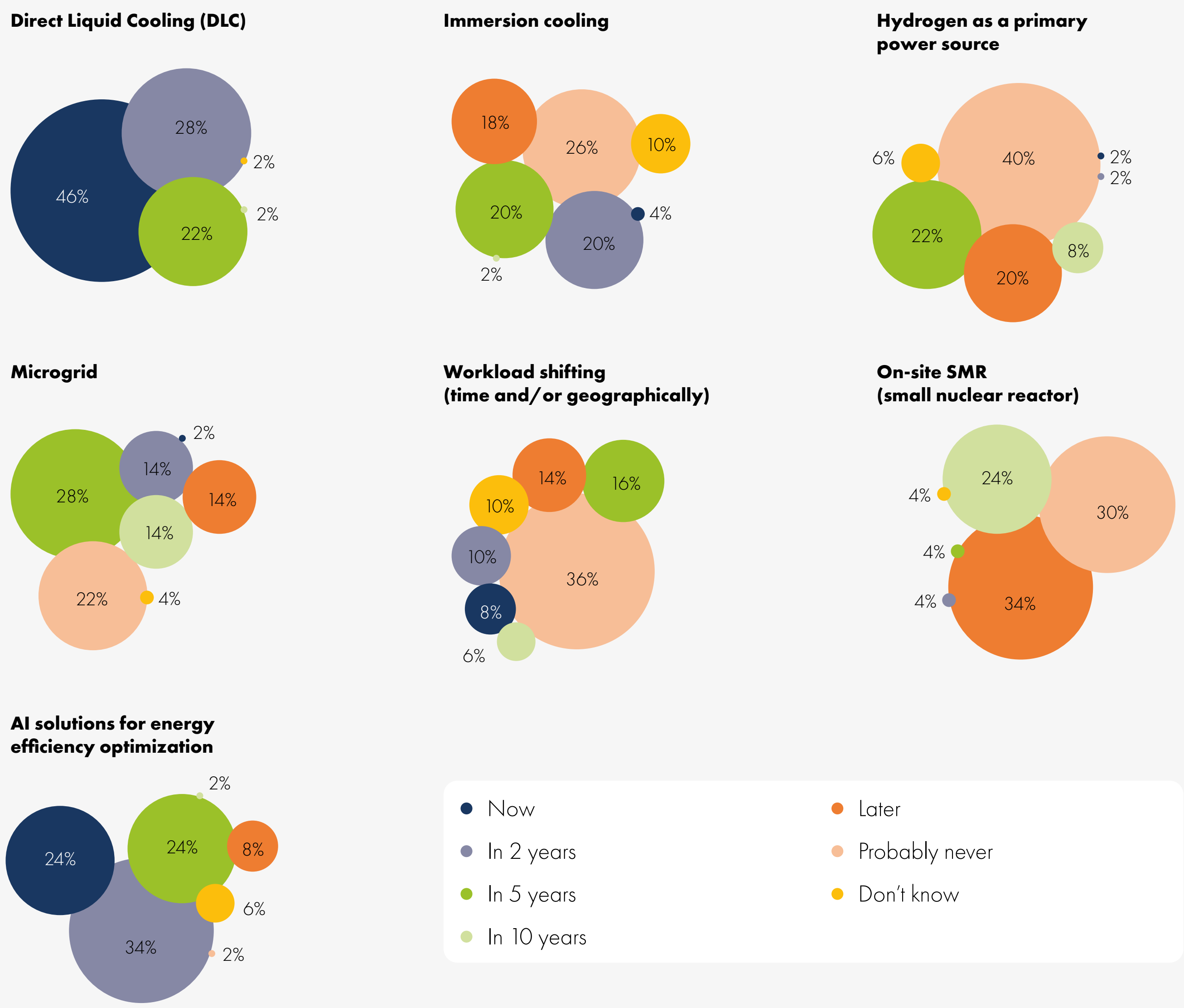
Source: European colocation and hyperscale survey, Pb7 Research, 2025 (N=69).

Innovation timeline

Survey responses highlight a strong wave of sustainability-oriented innovation, in many ways comparable to last year's results. The key difference is waning optimism for use of some emerging solutions for the short term This is especially so for hydrogen and on-site small modular reactors (SMR) as primary power sources, which together with workload shifting, have all become more aligned with reality. In terms of cooling, direct liquid cooling is already widely deployed, particularly in AI-dense environments, and many operators expect further adoption over the next two to five years. Immersion cooling has lost some momentum compared to last year, moving somewhat from anticipated use in the near future to a longer-term solution due to the extensive infrastructure adaptation it requires. DLC innovation is currently perceived to provide an effective solution for very high density racks.

On the power side, operators are piloting new energy backup options, including early hydrogen systems, and exploring opportunities for grid-interactive UPS and battery systems that can contribute to frequency regulation and demand-response markets. Innovation in monitoring and optimisation, especially through AI-driven control systems, is helping facilities maintain efficiency at higher loads and greater thermal complexity.

Figure 26. When, do you think, will the following innovations become a realistic option for your organisation? – Colocation & hyperscale



Summary

Europe's data centre sector is making steady and demonstrable progress across the key sustainability dimensions. Energy efficiency is holding firm even as electricity use rises; renewable-energy adoption is high and continues to expand; water use is increasingly measured and managed; and heat-reuse capabilities, while still limited, are gaining regulatory momentum. Circular construction and embodied-carbon strategies are emerging, and the sector is embracing innovation across cooling, power and monitoring.

Although challenges remain, particularly around heat reuse infrastructure, water stress in southern climates, and the retrofitting of older facilities, the overall trajectory is increasingly aligned with Europe's climate and energy policy goals. The combination of regulatory frameworks, industry commitments, and rapid technological innovation is shaping a more efficient, lower-carbon and more resilient digital infrastructure landscape.

"Europe's data centre sector is making steady and demonstrable progress across the key sustainability dimensions"

Key findings and conclusions

Europe's data centre sector is entering a period of exceptional expansion, structural diversification, and rapid technological transformation.

The findings in this report make clear that the European market has moved beyond the era of hub-centric development and is evolving into a distributed, energy-integrated, and AI-driven digital ecosystem. Across colocation, hyperscale and emerging neocloud platforms, operators are simultaneously scaling capacity, redesigning facilities for unprecedented density requirements, and navigating a tightening regulatory and energy landscape. The following key findings summarise the most decisive developments shaping the sector in 2026 and beyond.

1. A Multi-Regional Market Replaces the FLAP-D Dominance

While FLAP-D remains Europe's largest and most mature data centre cluster, its relative weight is declining. Power constraints, permitting complexity, and land scarcity are pushing new development outward, accelerating growth in the Nordics, Southern Europe, and a broad range of Tier-2 metropolitan regions. Southern Europe, especially Spain, Italy and Portugal, has become the fastest-growing region, supported by renewable energy availability, expanding subsea connectivity, and major hyperscale commitments. The Nordics continue to lead in environmentally aligned, high-capacity campuses, while markets such as Madrid, Milan, Warsaw, Zurich, and Brussels are rapidly maturing into international hubs.

2. Scale Colocation Becomes the Dominant Engine of Growth

The colocation sector continues to expand at double-digit rates, but its internal composition is shifting strongly toward large-footprint scale colocation campuses. These campuses, often developed adjacent to hyperscale cloud regions, now represent the majority of new megawatt additions. Scale colocation grows at a CAGR exceeding 25% through to 2031, reflecting rising demand for high-density cloud and AI clusters. Traditional retail and wholesale sites continue to expand, but their relative share of new capacity is declining as customers increasingly require multi-building, AI-ready environments with long-term scalability.

3. AI Has Become the Primary Structural Force Transforming Facility Design and Market Geography

AI workloads, both training and inference, are driving a fundamental redesign of European data centres. Rack densities far exceeding historical norms, rapid adoption of liquid and hybrid cooling, advanced electrical architectures, and high-capacity transformers are now core requirements. AI also reshapes Europe's geography of compute:

- Training workloads favour regions with abundant power availability (Nordics, remote areas of Southern Europe).
- Inference workloads increase pressure on metro-proximate colocation sites, driving demand inside or near major cities.

This duality is accelerating Europe's transition toward highly specialised regional clusters, with distinct roles along the AI value chain.

4. Power Scarcity Is the Single Most Significant Limiting Factor

Across Europe, operators report that access to power is the primary inhibitor to growth. Grid congestion in Amsterdam, Dublin, London, Frankfurt and Paris is directly impacting timelines and redirecting investments. Longer grid-connection lead times, ranging from several years to beyond a decade, require operators to plan further ahead, diversify geographically and invest in risk-mitigating strategies such as on-site storage, flexible load participation, and behind-the-meter generation. Power availability has overtaken connectivity as the leading site-selection criterion for new projects, marking a structural shift in market fundamentals.

5. Investment Levels Reach Historical Highs, Driven by AI and Hyperscale Demand

Construction and fit-out investments in European data centres have reached unprecedented levels. Scale colocation alone now drives annual investments in the €25–26 billion range, up sharply from the previous year's model. Across Europe, the multi-year investment pipeline (2026–2031) exceeds €176 billion. This rapid acceleration reflects both hyperscale regional expansion and the emergence of AI-dedicated campuses that require far greater power and density than traditional cloud facilities. Compared to previous cycles, capital is now more evenly distributed across multiple regions, with the strongest momentum in Southern Europe and the Nordics.

6. The Regulatory Environment Is Becoming More Demanding and More Central to Strategic Planning

The implementation of the EED is reshaping transparency expectations and data-centre reporting obligations across Europe. Operators must now publicly disclose detailed energy, water, and heat reuse metrics, while new national frameworks such as Germany's EnEfG and local heat-network obligations, push sustainability requirements far beyond EU-wide baselines. At the same time, grid-access rules, renewable-sourcing mandates, and sovereignty requirements influence site selection and long-term investment strategy. Compliance has shifted from an operational topic to a board-level strategic consideration.

7. Sustainability Is Evolving from Efficiency to System Integration

While PUE values among modern colocation and hyperscale facilities remain highly efficient, sustainability priorities are shifting. Operators are increasingly focusing on:

- Securing long-term renewable power supply (including enhanced high-impact PPAs).
- Deploying on-site storage and flexible load participation.
- Expanding heat reuse integration with municipal networks.
- Reducing water consumption through liquid cooling and dry/adiabatic systems.

The sector is moving from isolated efficiency gains to deeper integration with national energy systems and local heat networks.

8. Europe's Digital Sovereignty and Security Landscape Is Reshaping Strategy

Geopolitical shifts and concerns about Europe's reliance on non-European cloud and compute platforms have intensified the focus on digital sovereignty. The growing adoption of sovereign cloud zones, selective national investment incentives and stricter security obligations under NIS2 are influencing both hyperscale deployment patterns and colocation customer requirements. As digital infrastructure becomes a strategic asset, Europe's need for resilient, regionally diversified capacity continues to grow.

Conclusion

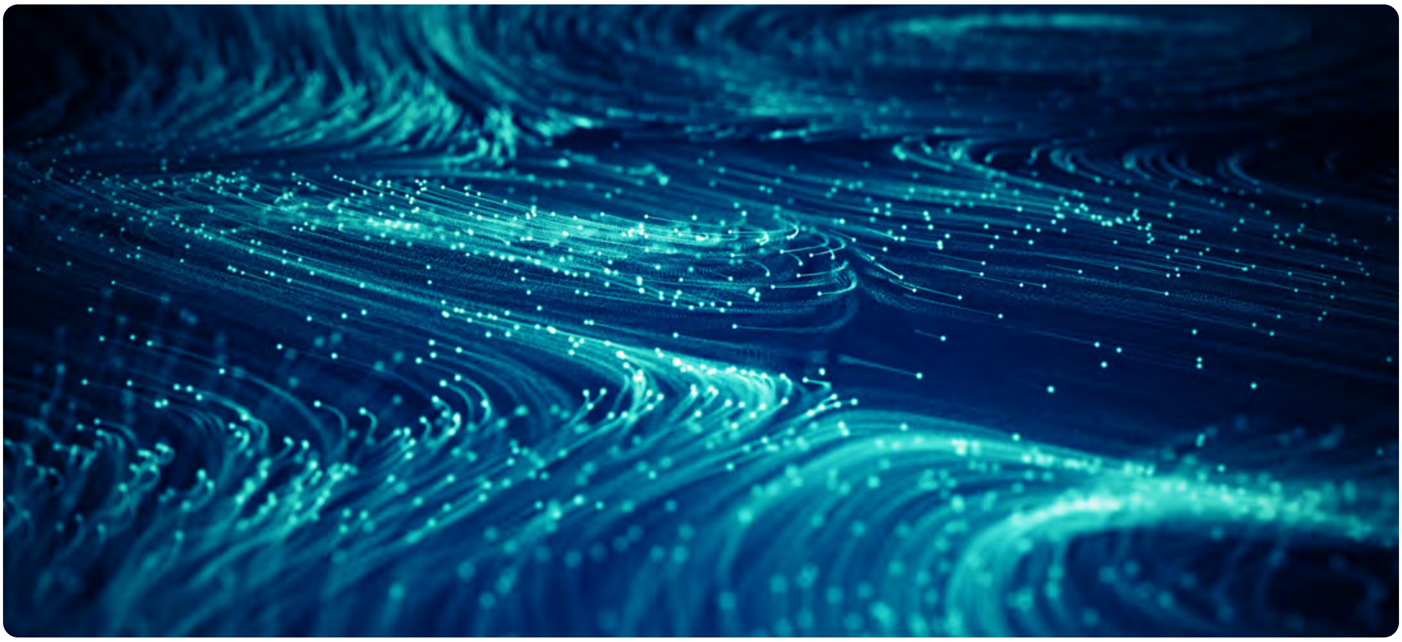
Europe's data centre ecosystem is evolving into a more distributed, AI-capable and energy-aware infrastructure layer that underpins the continent's digital future. Growth is robust and structurally anchored in long-term cloud, AI and digital-transformation trends, but it is accompanied by significant challenges — most notably power scarcity, regulatory complexity and rising sustainability expectations.

The sector's next phase will be defined by its ability to:

- Deliver massive scale while remaining sustainable.
- Build where the energy is while maintaining low-latency connectivity.
- Support AI acceleration without compromising resilience.
- Navigate increasingly demanding regulatory frameworks.
- Reinforce Europe's digital sovereignty and competitiveness.

If these challenges are met, Europe will be positioned not merely to accommodate growth in cloud and AI infrastructure, but to lead in the development of a secure, sustainable and strategically independent digital economy.

"Europe's data centre ecosystem is evolving into a more distributed, AI-capable and energy-aware infrastructure"



Country Profiles

National Data Centre Associations

EUDCA brings together both well-established and emerging national trade associations to align national and European policy efforts, enabling collaboration, knowledge exchange, and a coordinated, credible voice for data centre operators in EU policymaking.

AUSTRIAN DATACENTER ASSOCIATION

Austria

Austrian Data Center Association

TOTAL COUNTRY IT POWER (MW)

88

PRINCIPAL CONTACT

Doris Volkman, General Secretary

HQ ADDRESS

Vienna

Rockhgasse 6 /Top 6, 1010 Vienna, Austria

WEBSITE ADDRESS

https://austriandatacenter.org

SIZE OF ASSOCIATION

50 members

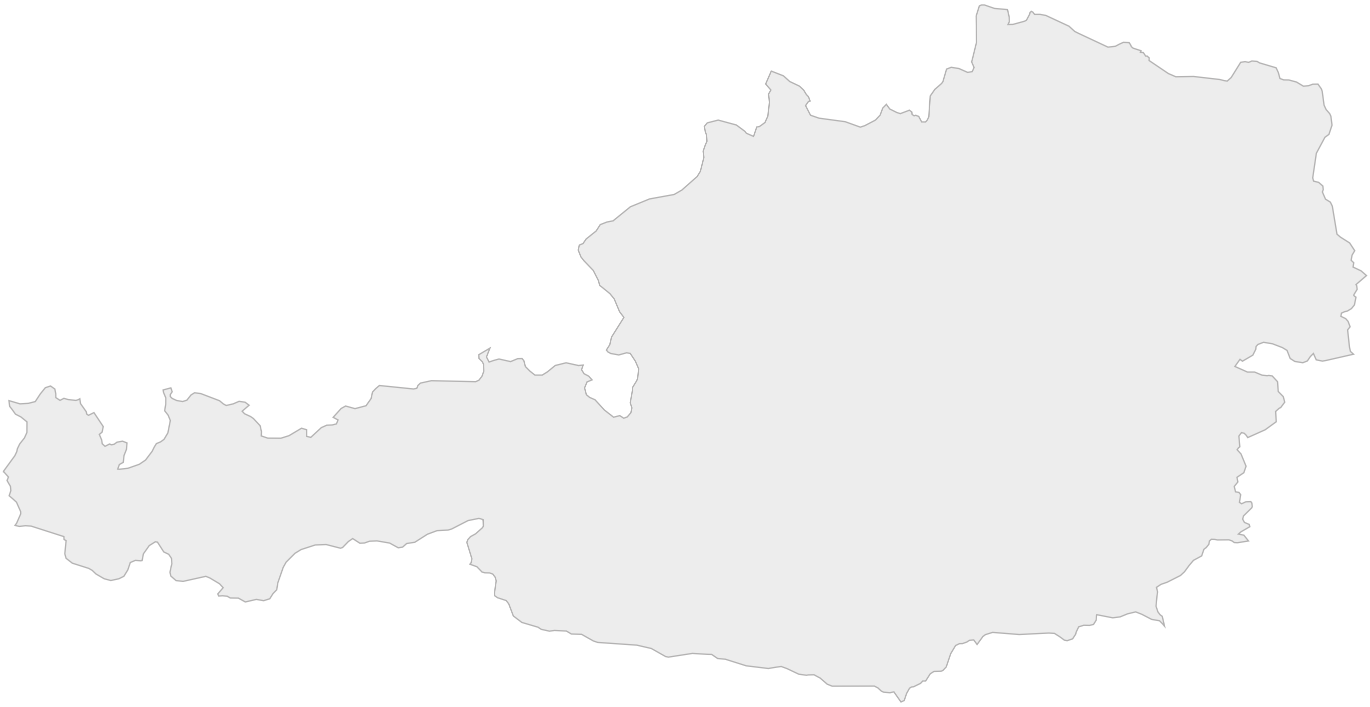
MISSION

To connect the various stakeholders of the data center industry with one another and to establish the necessary contacts with policymakers and public administration. Together, we aim to secure the framework conditions for a sustainable and competitive digital infrastructure in Austria over the long term.

CONTENT PUBLISHED IN 2025

ADCA Brochure 2025

https://austriandatacenter.org/wp-content/uploads/media/38a/imagebroschure-adca-web2024.pdf



.AGORIA

Belgium

Agoria

TOTAL COUNTRY IT POWER (MW)
263

PRINCIPAL CONTACT
Bart Meert

Senior Business Group Leader Digital Industries

HQ ADDRESS
Diegem & Brussels

Offices: Amber building, Hermeslaan 7, 1831 Diegem / Registered Address: Rue Ravensteinstraat 4, 1000 Brussels

WEBSITE ADDRESS
https://www.agoria.be

SIZE OF ASSOCIATION
2,200 members

MISSION
Connect all those inspired by technology, to help companies grow and to help shape a sustainable future.

CONTENT PUBLISHED IN 2025
https://www.agoria.be/en

BELGIAN DIGITAL INFRASTRUCTURE ASSOCIATION

Belgium

Belgian Data Centre Association

TOTAL COUNTRY IT POWER (MW)
263

PRINCIPAL CONTACT
Carole Santens, Managing Director

HQ ADDRESS
Excelsiorlaan 15, 1930 Zaventem, Belgium

WEBSITE ADDRESS
https://bdia.be

SIZE OF ASSOCIATION
70 members

MISSION
The BDIA promotes the sustainable development of digital infrastructure – data centres, connectivity, AI, and cloud – as a strategic pillar of Belgium's economy and society. As a connecting and neutral dialogue partner, we bring together governments, businesses, and knowledge institutions to build a resilient, sovereign, and future-proof digital economy.

CONTENT PUBLISHED IN 2025
The State of Belgian Data Centres 2025 –

https://bdia.be/insights/the-state-of-belgian-data-centres-2025

Czech & Slovak DIGITAL INFRASTRUCTURE Association

Czechia & Slovakia

Czech & Slovak Digital Infrastructure Association

TOTAL COUNTRY IT POWER (MW)

Czechia: 79

Slovakia: 14

PRINCIPAL CONTACT

Evzenie Tohami, Vice-Chair, Board member

HQ ADDRESS

Prague

Na Strzi 1702/65, Praha 4, 14000, Czechia

WEBSITE ADDRESS

https://www.csdia.online

SIZE OF ASSOCIATION

3 members

MISSION

Czech & Slovak Digital Infrastructure Association (CSDIA) represents an opportunity to participate in the creation of a new, unified voice for digital infrastructure in the Czech Republic and Slovakia.

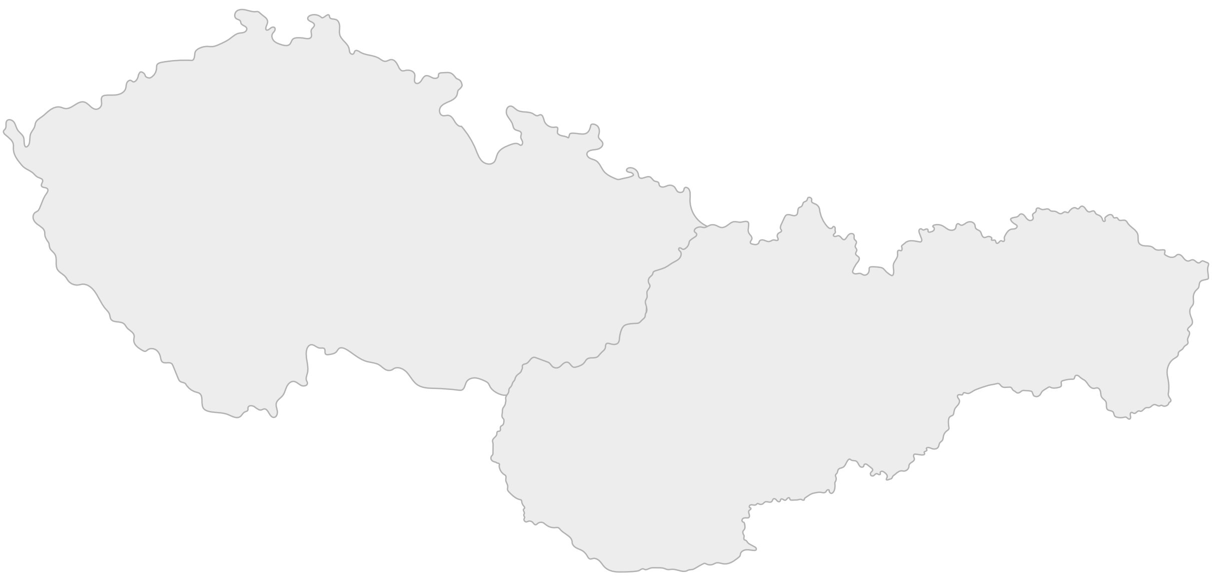
We connect companies, professionals, and institutions that seek to actively influence the future of data centers, cloud services, and digital infrastructure in Central Europe.

Our goal is to establish a respected platform for cooperation, information sharing, and strategic dialogue — regardless of the size or industry specialization of the member.

CONTENT PUBLISHED IN 2025

First annual report is to be issued in January 2026

https://www.csdia.online



DANISH DATA CENTER
INDUSTRY

Denmark

Danish Data Centre Industry

TOTAL COUNTRY IT POWER (MW)

452

PRINCIPAL CONTACT

Merima Dzanic, COO

HQ ADDRESS

Fredericia

Vendersgade 74B, 7000

WEBSITE ADDRESS

https://www.datacenterindustrien.dk

SIZE OF ASSOCIATION

160 members

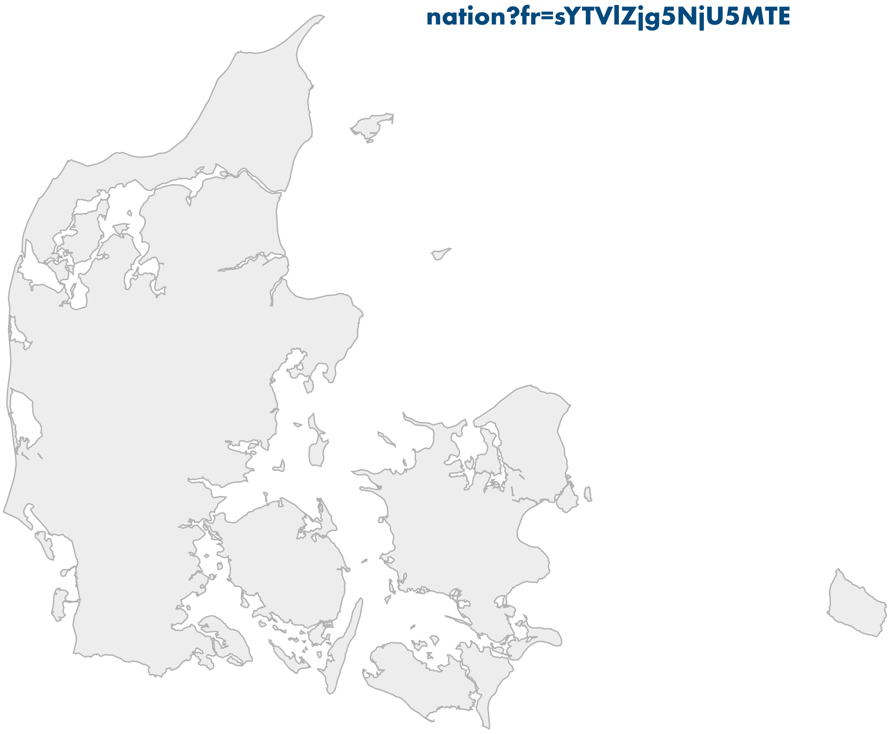
MISSION

The Danish Data Center Industry (DDI) promotes the data center sector in Denmark. As the industry association, we represent the interests of both the private and public sector, including operators, vendors, municipalities, educational institutions and utility companies. We support the establishment of new business relationships nationally and internationally. DDI actively works on strengthening the cooperation between private and public organisations, since the flexible and smooth cooperation between public and private sector in Denmark is an important competitive advantage compared to many other countries.

CONTENT PUBLISHED IN 2025

Denmark as a Data Center Nation

https://issuu.com/datacenterindustriendk/docs/ddi_whitepaper_denmark_as_data_center_nation?fr=sYTVlZjg5NjU5MTE



FDCA
FINNISH DATA CENTER ASSOCIATION

Finland

Finnish Data Center Association

TOTAL COUNTRY IT POWER (MW)
362

PRINCIPAL CONTACT
Veijo Terho, Chairman of the Board

HQ ADDRESS
Helsinki, Eteläranta 10, 7th Floor

WEBSITE ADDRESS
https://www.fdca.fi

SIZE OF ASSOCIATION
200 members

MISSION
FDCA is an independent, nonprofit association dedicated to the data center industry. FDCA provides the ecosystem for cloud & data center businesses in Finland. It was founded in 2014 in Helsinki, Finland by a group of data center professionals.

PR/CONTENT PUBLISHED IN 2025
Finnish data centre market survey 2025

https://www.fdca.fi/data-center-reports-studies

FRANCE datacenter

France

France Datacenter

TOTAL COUNTRY IT POWER (MW)
813

PRINCIPAL CONTACT
Michaël Reffay, Managing Director

HQ ADDRESS
Paris

17, rue de l'Amiral Hamelin - 75116 Paris

WEBSITE ADDRESS
https://www.francedatacenter.com

SIZE OF ASSOCIATION
170 members

MISSION
Building and promoting the French data center industry together as a high-performing and responsible industry, we bring together all the players in the data center value chain in France. Our members include large groups as well as small and medium-sized businesses that design, build, and operate data centers. As part of our mission, we promote the industry as a pillar of the digital economy to public authorities, we disseminate best practices among professionals, and we promote the industry's reliability and performance in the media.

CONTENT PUBLISHED IN 2025
Impact study on the datacenter industry in France

https://www.francedatacenter.com/ressource/etude-dimpact-et-barometre-du-datacenter-ey-france-datacenter-edition-2025

GERMAN DATACENTER ASSOCIATION

Germany

German Datacenter Association e. V.

TOTAL COUNTRY IT POWER (MW)

1,757

PRINCIPAL CONTACT

Martin Kohoutek, Managing Director

HQ ADDRESS

Frankfurt am Main

Mainzer Landstraße 181, 60327 Frankfurt am Main, Germany

WEBSITE ADDRESS

https://www.germandatacenters.com

SIZE OF ASSOCIATION

263 members

MISSION

The association's goal is to sustainably improve the framework conditions for the operation of data centers in Germany, strengthen the industry's public image and increase the attractiveness of German locations for investors.

CONTENT PUBLISHED IN 2025

Datacenter Outlook Germany 2025/26

https://www.germandatacenters.com/fileadmin/documents/publications/GDC-Outlook-en_2025.pdf

GRDCA
Greek Data Center Association

Greece

Greek Data Center Association (GRDCA)

TOTAL COUNTRY IT POWER (MW)

31

PRINCIPAL CONTACT

Sakis Amaxopoulos, Board Coordinator

HQ ADDRESS

Attica, Greece

37A Kifisias Avenue, 15123, Attica, Greece

WEBSITE ADDRESS

https://grdca.gr

SIZE OF ASSOCIATION

52 members

MISSION

The mission of the Greek Data Center Association is to promote the development and sustainability of data centers in Greece while serving as the reference point for the Data Center sector. This mission encompasses advocating for best practices, fostering innovation, and supporting the growth of the digital economy.

CONTENT PUBLISHED IN 2025

Annual report 2025

https://grdca.gr

Ireland

Digital Infrastructure Ireland

TOTAL COUNTRY IT POWER (MW)

1,757

PRINCIPAL CONTACT

Maurice Mortell, Board Chairperson

HQ ADDRESS

The Mews

Eagle Valley, Powerscourt Demense, Enniskerry, Co.Wicklow. A98 KN23

WEBSITE ADDRESS

https://www.digitalinfrastructure.ie/strategy

SIZE OF ASSOCIATION

80 members

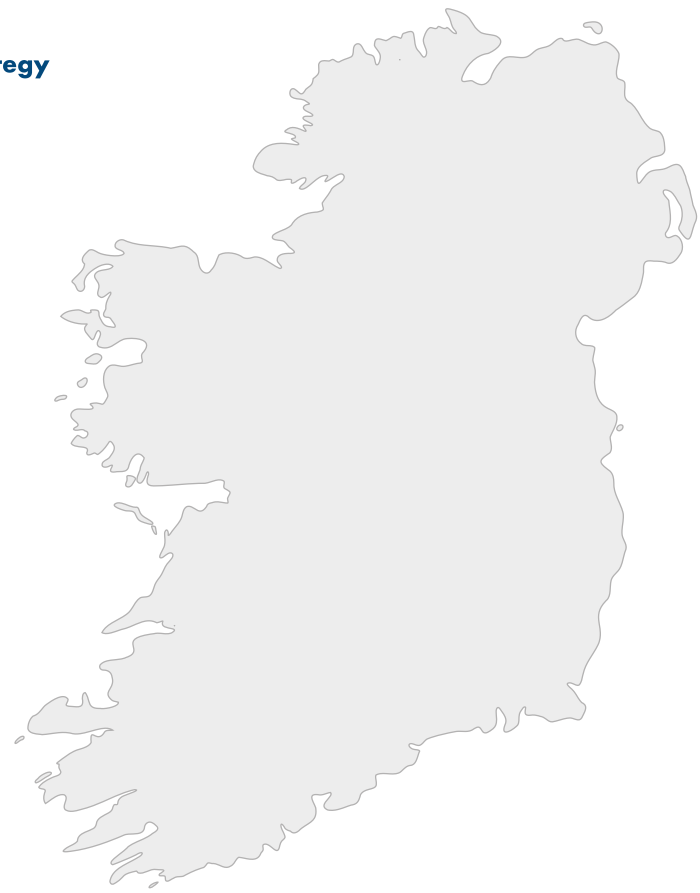
MISSION

Deliver impactful change for the industry through advocacy, policy influence, education, research, and community building.

CONTENT PUBLISHED IN 2025

Digital Infrastructure Ireland 2026-2028 Strategy

https://www.digitalinfrastructure.ie/strategy



iDA ITALIAN DATACENTER ASSOCIATION

Italy

Italian Datacentre Association (IDA)

TOTAL COUNTRY IT POWER (MW)

397

PRINCIPAL CONTACT

Giulia Tariello, Chief of Staff

HQ ADDRESS

Milan

Via Turati 29 - 20121 Milan

WEBSITE ADDRESS

www.italiandatacenter.com

SIZE OF ASSOCIATION

220 members

MISSION

IDA is the association of Data Center builders and operators that brings together all the ecosystem players of this sector in Italy. Our aim is to represent and ensure on a national level the promotion of Data Centers as the pillar of the digital economy.

CONTENT PUBLISHED IN 2025

Market Research 2025 Status of Data Centers in Italy

https://italiandatacenter.com/risorse

Netherlands

Dutch Data Center Association

TOTAL COUNTRY IT POWER (MW)

1,336

PRINCIPAL CONTACT

Laura Derksen, Manager Public Affairs

HQ ADDRESS

Amsterdam, The Netherlands

Herengracht 342, 1016CP Amsterdam, The Netherlands

WEBSITE ADDRESS

https://www.dutchdatacenters.nl

SIZE OF ASSOCIATION

170 members

MISSION

The DDA unites leading data centers in The Netherlands in a common mission: to strengthen the economic growth and awareness of the data center sector to government, media and society.

CONTENT PUBLISHED IN 2025

State of the Dutch Data Centers 2025:

https://www.dutchdatacenters.nl/en/publications/state-of-the-dutch-data-centers-2025

Polish
Data Center
Association

Poland

Polish Data Center Association

TOTAL COUNTRY IT POWER (MW)

243

PRINCIPAL CONTACT

Piotr Kowalski, Managing Director

HQ ADDRESS

Warsaw

Nowogrodzka 47A, 4th floor, 00-695 Warszawa, Polan

WEBSITE ADDRESS

https://pldca.pl/en

SIZE OF ASSOCIATION

70 members

MISSION

To foster the development of the Polish data center sector and to represent the industry in engagements with other economic sectors, the media, central government authorities, local government bodies, and international institutions.

CONTENT PUBLISHED IN 2025

Data Center Ecosystem Guide Poland 2025

https://pldca.pl/data-center-ecosystem-guide-2025

PortugalDC
Hosting the Digital Future

Portugal

Portugal DC

TOTAL COUNTRY IT POWER (MW)
56

PRINCIPAL CONTACT
Carlos Paulino, Vice President

HQ ADDRESS
Lisbon

WEBSITE ADDRESS
https://portugaldc.pt

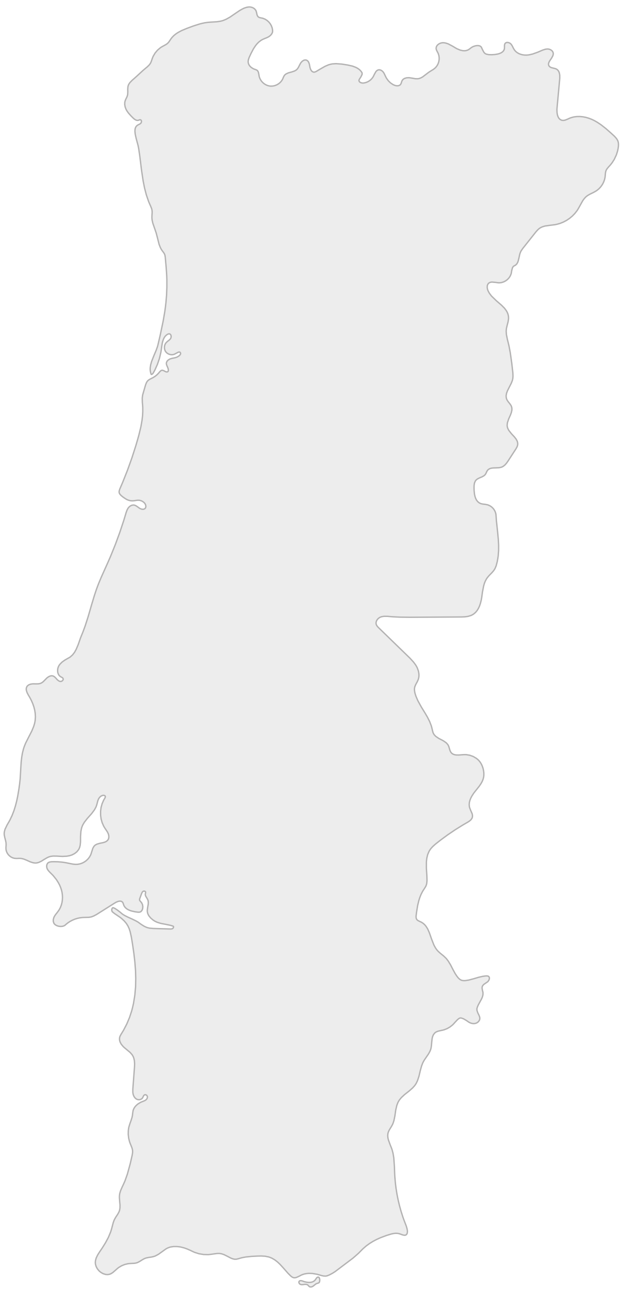
SIZE OF ASSOCIATION
150 members

MISSION
Our mission is to advance and empower the data center ecosystem in Portugal, committing to fostering innovation, sustainability, and collaboration.

Portugal DC wants to shape the future of digital infrastructure by establishing resilient, efficient and sustainable data centers, promoting collaboration within the industry, empowering the digital sector through support and education, and championing initiatives that contribute positively to communities and the environment. We strive to elevate Portugal as a global leader in digital innovation, driving industry growth while maintaining a strong commitment to ethical and responsible practices.

CONTENT PUBLISHED IN 2025
Annual Report 2025

https://portugaldc.pt



ICT Association of Slovenia

Slovenia

SITIP - ICT Association of Slovenia / IT Infrastructure & Data Centre Section

TOTAL COUNTRY IT POWER (MW)

6

PRINCIPAL CONTACT

Mateja Baebler, Consultant

HQ ADDRESS

Ljubljana

Dimičeva 13, 1000 Ljubljana, Slovenia

WEBSITE ADDRESS

https://www.gzs.si/en_zit

SIZE OF ASSOCIATION

63 members

MISSION

The mission of the IT Infrastructure & Data Center Section is to promote and support the development of IT Infrastructure and data centers in Slovenia, positioning them as a fundamental pillar of the digital transformation across the economy, public sector and wider society.

CONTENT PUBLISHED IN 2025

Name: ICT Sector in Slovenia - analysis

https://sitip.gzs.si/vsebina/Novice/ArticleId/90856/analysis-of-the-ict-sector-in-slovenia

Spain

SPAINDC

TOTAL COUNTRY IT POWER (MW)

412

PRINCIPAL CONTACT

Begoña Villacís, Managing Director

HQ ADDRESS

Madrid

C/ Orense, 25. Esc Dcha. 2ºB. 28020 Madrid.

WEBSITE ADDRESS

https://spaindc.com

SIZE OF ASSOCIATION

255 members

MISSION

Spain DC is the voice of Spain's data center industry. We unite operators and the full value chain to raise standards, accelerate sustainable and innovative growth, secure enabling regulation and clean, competitive energy, and make digital infrastructure visible as essential to citizens' daily life and national competitiveness.

CONTENT PUBLISHED IN 2025

Institutional Summary || 5th Annual Spain DC Congress

https://www.youtube.com/watch?v=4VfZzWuGCrg

SWEDISH DATACENTER INDUSTRY

Sweden

Swedish Datacenter Industry Association

TOTAL COUNTRY IT POWER (MW)

577

PRINCIPAL CONTACT

Ann Wingård

Managing Director

HQ ADDRESS

Göteborg

C/A Pär Åberg, Sten Sturegatan 4, 411 39 Göteborg, Sweden

WEBSITE ADDRESS

https://www.sdia.se

SIZE OF ASSOCIATION

119 members

MISSION

Uniting the industry to shape a sustainable, competitive, and globally leading data center sector in Sweden.

CONTENT PUBLISHED IN 2025

Impact Report that will be released in Q1 2026

https://www.sdia.se

Switzerland

Swiss Data Center Association

TOTAL COUNTRY IT POWER (MW)

274

PRINCIPAL CONTACT

Sergio Milesi, President

HQ ADDRESS

Dielsdorf

c/o Green Datacenter AG Niederhaslistrasse 4c 8157 Dielsdorf

WEBSITE ADDRESS

https://sdca.ch

SIZE OF ASSOCIATION

40 members

MISSION

SDCA is the association of all Swiss data centers in all regions of Switzerland and represents the interests of its members, especially data centers, towards political authorities. We represent our members and partners in relevant committees on laws, regulations, rules, standards and political topics. Through industry-specific events and active public relations, we aim to improve the perception of the industry in society and politics.

CONTENT PUBLISHED IN 2025

Vision and Mission & **Value and Tasks**

techUK
FOR WHAT COMES NEXT

United Kingdom

techUK

TOTAL COUNTRY IT POWER (MW)

1,860

PRINCIPAL CONTACT

Luisa Cardani, Head of Data Centres Programme

HQ ADDRESS

London

techUK 10 St Bride St, London EC4A 4AD

WEBSITE ADDRESS

https://www.techuk.org

SIZE OF ASSOCIATION

1,200 members

MISSION

techUK is the trade association which brings together people, companies and organisations to realise the positive outcomes of what digital technology can achieve. We create a network for innovation and collaboration across business, government and stakeholders to provide a better future for people, society, the economy and the planet.

CONTENT PUBLISHED IN 2025

techUK Report - Foundations For The Future: How Data Centres Can Supercharge UK Economic Growth:

https://www.techuk.org/resource/techuk-report-foundations-for-the-future-how-data-centres-can-supercharge-uk-economic-growth.html

Appendices

Appendix I: Data Centre Taxonomy

The data centre market has evolved significantly, leading to the emergence of specific data centre products that can be segmented accordingly.

Data centres come in various forms and sizes, with the key focus of this study being on colocation (multi-tenant) data centres. Additionally, hyperscale and enterprise data centres (single tenant) are examined, as they employ similar professionals, compete with colocation facilities for the housing and hosting of IT equipment, data, and applications, and must adhere to many of the same regulations. While there are different definitions for various types of data centres in the market, the following classifications are used:

Single tenant data centres

- **Enterprise data centre**
  - Data centres and server rooms (50 kW+ IT power).
  - Managed Service Provider data centres (IT services/ hosting, but no customer access).
  - Crypto mining facilities (no colocation).
- **Hyperscale data centre**
  - Designed and operated by hyperscalers such as Alibaba, Apple, AWS, Bytedance, Google, Meta, and Microsoft; typically, >20 MW.
- **Micro data centres** (<50 kW) are considered out of scope.

Multi-tenant or colocation data centres

- **Retail colocation** (customer contracts <1 MW): data centres that rent out rack unit space, racks, cages or even complete rooms or halls, but typically to customers with a contracted workload of a maximum of 1 MW.
- **Wholesale colocation** (customer contracts >1 MW): data centres that rent out bigger spaces, typically rooms or halls, sometimes cages, with contracted workloads of 1 MW or above.
  - AI Data Centres are a specific class of Wholesale colocation with power density exceeding 20 kW per cabinet.
- **Scale colocation:** very large facilities that are built-to-scale and/or powered shells by colocation data centre operators; typically, 20 MW.
- **Necloud:** Neocloud refers to a type of service provider that grew out of a shortage of GPUs, to provide GPU-as-a-service, and cloud-based virtualised or containerised instances (McKinsey, 2025). They are described as providers that offer access to advanced GPU clusters and AI development environments through flexible, pay-as-you-go models, allowing businesses to rent high-performance computing power as needed, without the burden of owning or managing the hardware (Savills, 2025).

Appendix II: Market Statistics (Tables)

Table 3. Colocation and Scale Colocation IT Power Supply (MW) forecast in Europe by Region and Country, 2024 - 2031

	2024	2025	2026	2027	2028	2029	2030	2031	CAGR 24-31
FLAP-D countries	5,278	5,816	6,626	7,557	8,540	9,607	10,589	11,529	12%
France	760	813	874	970	1,082	1,197	1,308	1,418	9%
Germany	1,458	1,737	2,167	2,606	3,091	3,556	3,892	4,228	16%
Ireland	485	543	569	617	695	795	903	1,011	11%
Netherlands	915	951	1,086	1,256	1,380	1,537	1,717	1,855	11%
United Kingdom	1,660	1,772	1,930	2,107	2,292	2,523	2,770	3,017	9%
Nordics	866	1,106	1,287	1,745	2,388	3,123	3,663	4,435	26%
Denmark	53	65	97	160	241	302	399	504	38%
Finland	115	167	208	293	379	551	653	820	32%
Iceland (EEA)	190	226	242	270	333	389	413	437	13%
Norway	352	451	495	659	943	1,201	1,408	1,731	26%
Sweden	157	198	246	364	493	681	790	944	29%
Baltics	36	50	53	63	63	71	72	77	11%
Estonia	14	18	18	21	21	24	24	24	8%
Latvia	10	20	22	29	29	34	34	39	22%
Lithuania	12	13	14	14	14	14	14	14	2%
CEE	690	763	883	1,035	1,163	1,280	1,401	1,510	12%
Austria	65	68	79	105	124	138	151	164	14%
Bulgaria	32	32	34	34	35	38	39	40	4%
Croatia	14	17	18	25	47	53	79	90	30%
Czech Republic	77	79	84	98	116	118	124	126	7%
Hungary	17	18	18	18	19	20	20	21	3%
Poland	197	228	291	343	365	428	466	511	15%
Romania	26	27	35	43	53	57	62	66	14%
Slovakia	14	14	15	15	15	15	15	16	1%
Slovenia	5	6	8	8	10	10	11	11	14%
Switzerland	243	274	302	345	380	402	433	464	10%
Southern Europe	683	855	1,475	2,128	2,993	4,025	4,990	5,849	36%
Greece	28	31	48	93	116	139	177	208	33%
Italy	267	363	577	775	1,079	1,335	1,568	1,800	31%
Portugal	35	56	272	520	763	1,028	1,262	1,532	71%
Spain	240	286	428	566	801	1,262	1,693	1,980	35%
Other Southern Europe	34	34	35	35	96	97	108	109	18%
Other North West	155	169	184	220	263	310	361	412	15%
Belgium	91	105	118	155	198	244	294	344	21%
Luxembourg	64	64	66	66	66	66	67	68	1%
EU27 TOTAL	**5,151**	**5,917**	**7,388**	**9,193**	**11,229**	**13,640**	**15,761**	**17,833**	**19%**
ALL	**7,629**	**8,674**	**10,392**	**12,609**	**15,272**	**18,252**	**20,892**	**23,590**	**17%**

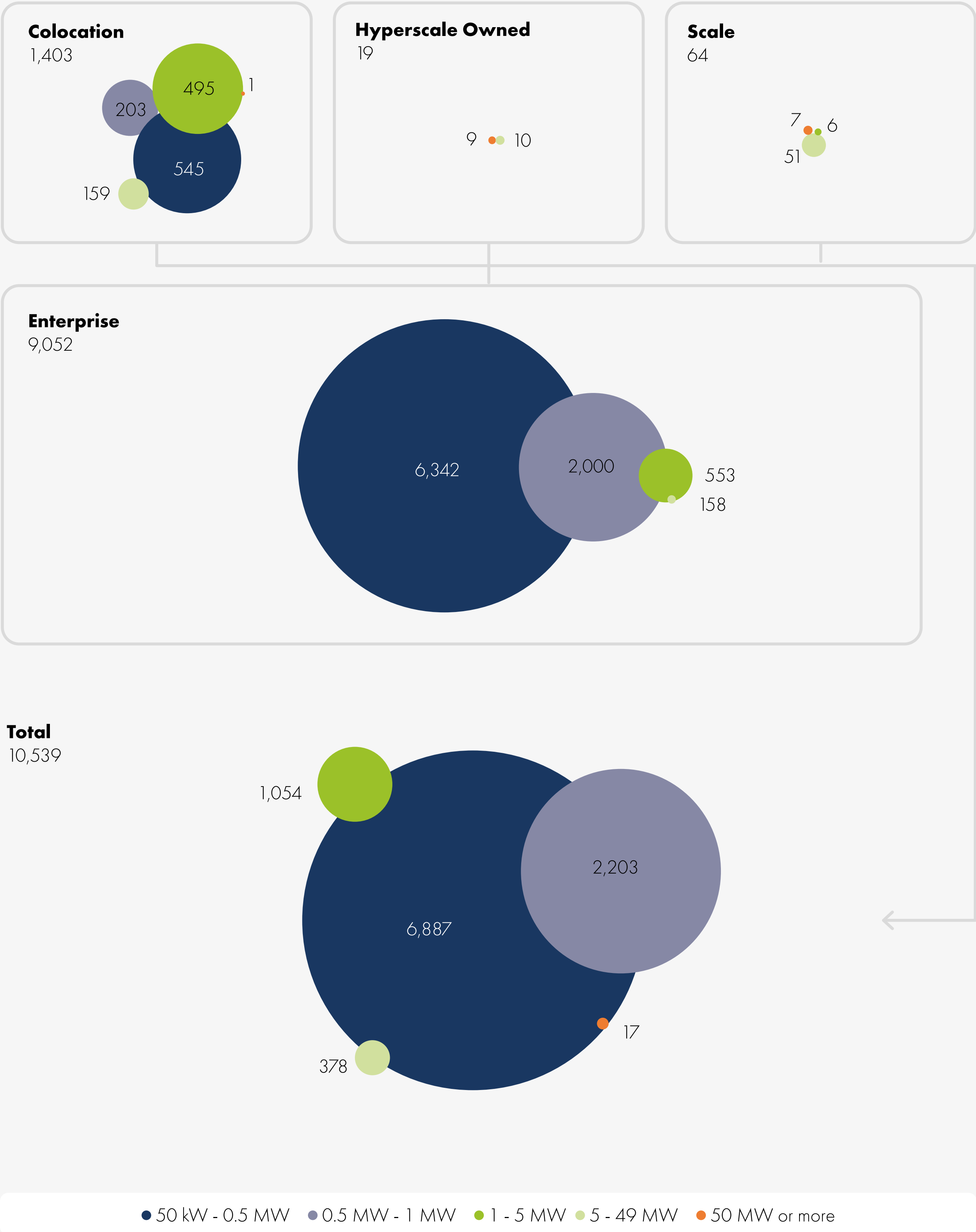
Source: Colocation and hyperscale data centre database, Pb7 Research, 2025v2

Table 4. Hyperscale owned IT Power Supply (MW) forecast in the EU by Region and Country, 2024 - 2031

	2024	2025	2026	2027	2028	2029	2030	2031	CAGR 24-31
FLAP-D countries	1,601	1,682	1,838	2,108	2,437	2,767	3,170	3,573	12%
France	0	0	0	50	120	200	280	360	na
Germany	20	20	20	42	72	94	145	196	39%
Ireland	1,166	1,189	1,213	1,274	1,363	1,486	1,616	1,747	6%
Netherlands	385	385	420	450	507	537	589	641	8%
United Kingdom	30	88	185	292	375	450	540	629	54%
Nordics	859	971	1,058	1,251	1,373	1,570	1,664	1,758	11%
Denmark	359	387	387	387	387	406	406	406	2%
Finland	175	195	225	263	309	355	375	395	12%
Iceland (EEA)	0	0	0	0	0	0	0	0	na
Norway	0	10	40	102	154	196	238	280	na
Sweden	325	379	406	499	523	613	645	677	11%
Baltics	0	0	0	0	0	0	0	0	na
Estonia	0	0	0	0	0	0	0	0	na
Latvia	0	0	0	0	0	0	0	0	na
Lithuania	0	0	0	0	0	0	0	0	na
CEE	25	35	55	80	130	170	205	240	38%
Austria	10	20	40	40	90	130	165	200	53%
Bulgaria	0	0	0	0	0	0	0	0	na
Croatia	0	0	0	0	0	0	0	0	na
Czech Republic	0	0	0	0	0	0	0	0	na
Hungary	0	0	0	0	0	0	0	0	na
Poland	15	15	15	40	40	40	40	40	15%
Romania	0	0	0	0	0	0	0	0	na
Slovakia	0	0	0	0	0	0	0	0	na
Slovenia	0	0	0	0	0	0	0	0	na
Switzerland	0	0	0	0	0	0	0	0	na
Southern Europe	100	162	273	538	624	847	924	1,002	39%
Greece	0	0	0	10	19	19	29	38	na
Italy	20	34	64	123	150	187	194	201	40%
Portugal	0	0	5	5	5	5	5	5	na
Spain	79	126	201	396	444	629	689	749	38%
Other Southern Europe	1	2	3	4	5	6	7	8	35%
Other North West	143	158	158	248	298	333	333	333	13%
Belgium	143	158	158	248	298	333	333	333	13%
Luxembourg	0	0	0	0	0	0	0	0	na
EU27 TOTAL	**2,697**	**2,909**	**3,154**	**3,827**	**4,327**	**5,034**	**5,511**	**5,989**	**12%**
ALL	**2,728**	**3,009**	**3,382**	**4,225**	**4,861**	**5,686**	**6,296**	**6,906**	**14%**

Source: Colocation and hyperscale data centre database, Pb7 Research, 2025v2

Figure 27. Data centres in Europe by type and IT Power (50kW or more), 2023EY



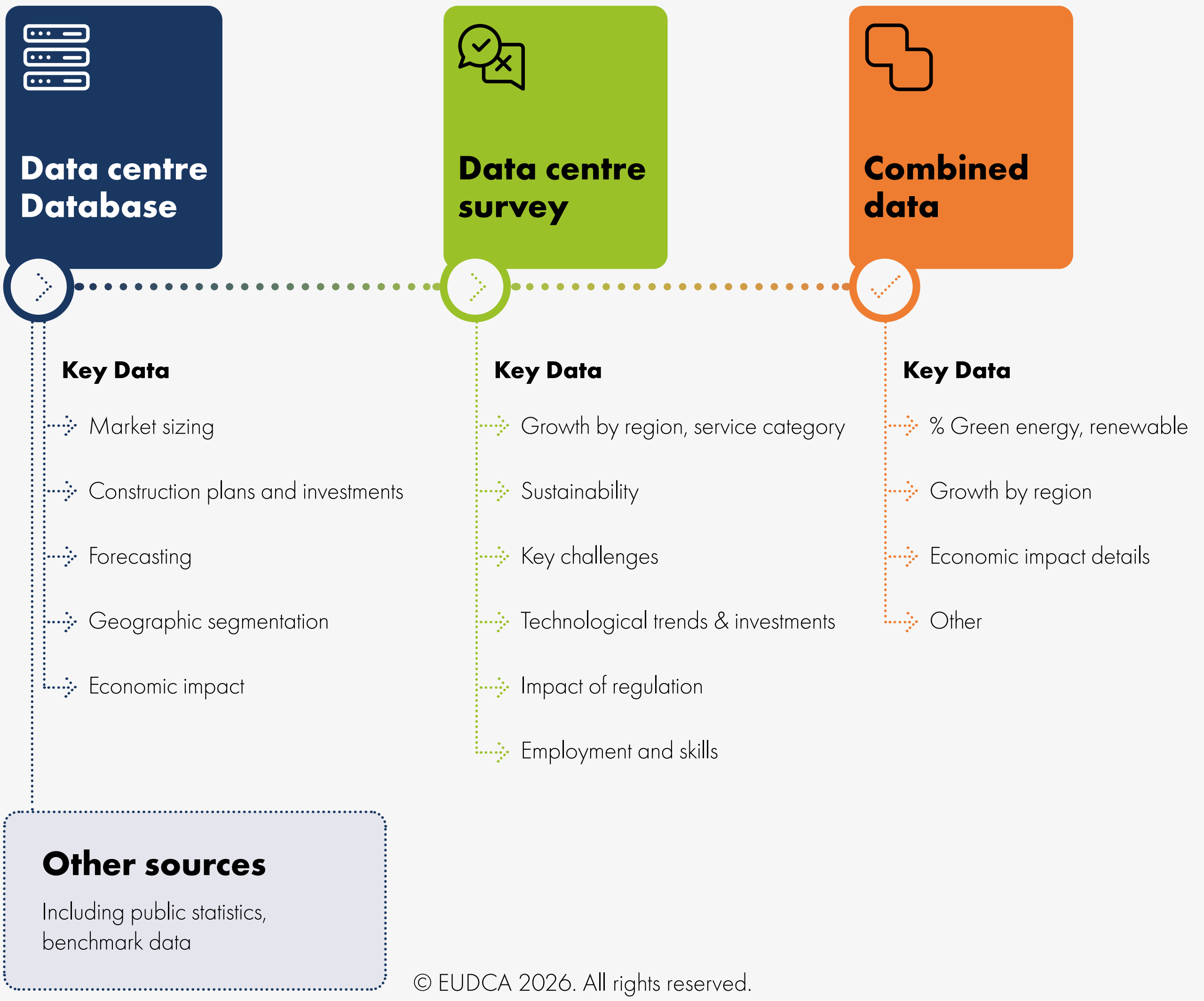
Source: Colocation and hyperscale data centre database, Pb7 Research, 2025.

Appendix III: Research Methodology

For this study, a selection of research methodologies and analyses have been used. The research is based on desk research and an anonymous survey.

Various sources and methods have been used to estimate market sizes, create forecasts, and quantify economic impacts as realistically as possible.

Figure 28. Research approach



Surveys

The survey was conducted in October of 2025. 69 colocation and hyperscale data centre decision makers completed the questionnaire, most, but not all, members of the EUDCA and associated National Trade Organisations. Although it is not a very large number, the respondents' companies are responsible for 59% of the total European colocation market in terms of IT Power supply (MW).

Colocation and hyperscale database

The basis for the quantification of the market is a strong colocation and hyperscale data centre database, using desk research. There are several lists available in the market, but none are close to being complete or consistent and tend to hold a lot of outdated information. The Europe data centre database is built and maintained by Pb7 Research through a combination of existing sources, online search and checks to verify data. If data is not available, estimates are made based on other sources (e.g., the number of racks or building layout). The aim is to include all existing (and planned, if made public) data centres that offer colocation with IT power of 50 kW or more. The database includes operator name, location (address), size of the data floor (m2), building (m2), and IT power capacity (MW). It was taken into account that it was not possible to identify a group of small facilities, and an estimate was created for facilities in the long tail. In total, this comprised about 2% of the market size.

Enterprise data centre model

While the overview of data centre space and IT power per colocation facility is virtually complete, similar details are collected for as many individual enterprise data centres as possible, which enables a reasonable actual picture at the high end of the market. In order to quantify the rest of the enterprise market, a model is created. The model combines business demographics (size, sector and geography) with server installed base data and data on data centre size per employee per segment. By calculating the averages per rack and MW (as collected across a wide number of cases by sector across Europe in Pb7's databases), the expected number of data centre facilities by size (>50kW) and the total capacity (MW) for enterprise data centres are quantified.

Economic impact

To build an economic impact model, additional data was collected to first determine the direct effects (GDP contribution and employment by data centres). Revenue and employment data identified by operators has been extrapolated and combined with the new survey data, for hyperscale and colocation data centres.

To calculate the indirect (GDP contribution in the supply chain) and induced effects (consumer spending by direct/indirect workers), the proven method of applying national input/output statistics[8] to build an economic impact model was used. The model includes some adjustments to the official input/output statistics based on previous bespoke studies about data centre spending patterns (e.g., above average spending on construction during periods of rapid expansion) to improve the accuracy of the model.

Build forecasts

To build market forecasts, a combined top-down and a bottom-up approach was used. From the bottom-up, it identified planned expansions and construction plans and distributed the expected deliveries over time based on realistic estimates. Estimates were included on those projects that are not yet visible but are likely to emerge in the medium long term. From the top-down, the approach compared outcomes with available (international) market forecasts, identified the gaps, and adjusted the data where necessary.

Many of the project announcements come with investment figures, leading to extrapolated figures for projects where no relevant data was published. Investment plans were distributed across the expected construction periods, taking into account potential delays, to forecast the investments on an annual basis.

To size and forecast the colocation market, a model was built that split the market into retail, wholesale, and scale colocation data centres. Revenues per segment per Megawatt were applied from bespoke research projects and cross checked with revenue figures from (globally) listed data centre operators, estimating the differences revenue per Megawatt by country. For the forecast, it was assumed that pricing will moderately increase across the forecast period.

About the EUDCA

The **European Data Centre Association** (**EUDCA**) represents the interests of the European data centre community. Established in 2011, the EUDCA is the voice of the industry, and a platform where our diverse members from European and international data centre operators and equipment suppliers to national trade associations, come together to discuss the role of data centres in supporting the twin green and digital transition of Europe. Our policies and initiatives are consistently centred around data centre operators, both in defining the data centre of the future and in regulating markets.

The EUDCA has been at the forefront of the energy transition efforts of the data centre industry. As co-founder of the **Climate Neutral Data Centre Pact**, the EUDCA is deeply committed to taking the industry on the road to climate neutrality by 2030.

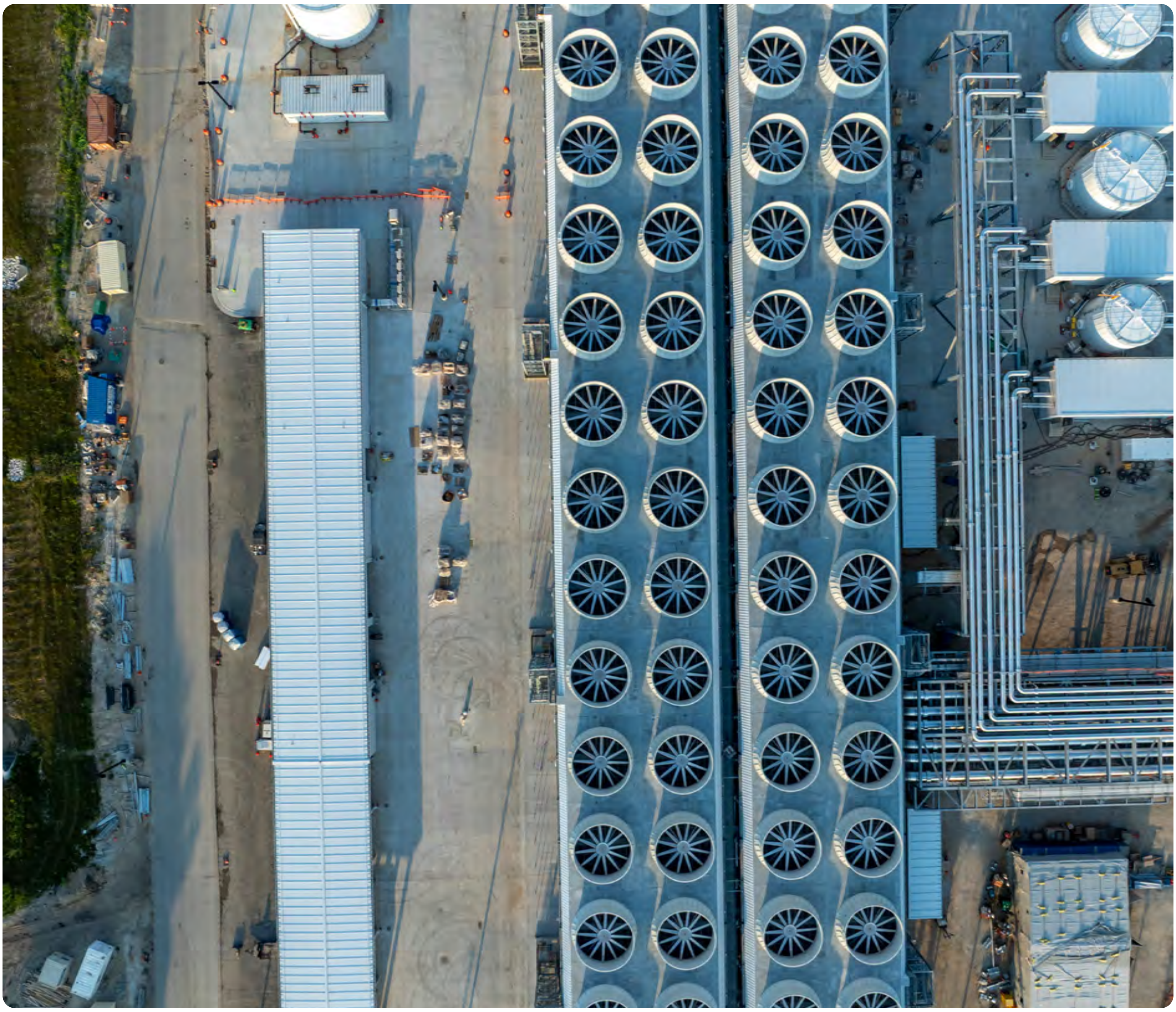
With a diverse membership and representation of the data centre industry sector in Europe, the EUDCA is proud to represent the interests of the sector and communicate our views on the challenges and opportunities of the industry with a unified voice.

About Pb7 Research

Pb7 Research is an independent IT research firm with a long track record in the data centre sector. It provides independent research and advice, aimed at the successful deployment of new technology in European markets. Pb7 supports technology marketers and strategists by identifying and analysing market and competitive opportunities and challenges, technology buyers in making well informed decisions and we help policy makers with key statistics and market insights. Pb7 Research is a specialist in data centre infrastructure and services, cloud, edge and IoT, and other emerging technologies.

Contact - Peter Vermeulen, Principal Analyst.

"Pb7 supports technology marketers and strategists by identifying and analysing market and competitive opportunities"



Endnotes

1 "Edge" refers to the compute paradigm where data stored and/or computed close to the user as opposed to centrally in a single cloud data centre. The first step is in bringing compute from global to regional and ever closer to the end-user or IoT device, right up to on-device computing. The definition we use for edge data centres specifically can be found in the taxonomy and only includes small, near device facilities.

2 **https://datacenter.uptimeinstitute.com/rs/711-RIA-145/images/2024.GlobalDataCenterSurvey.Report.pdf**

3 The EED results seem to point to a significantly lower average percentage. However, the EED data also indicates an average REF of 95% for colocation and 99% for cohosting.

4 In the official reporting, the mean WUE and ERF data is displayed only for data centres reporting more than 0. In this table, we have included the "0" responses.

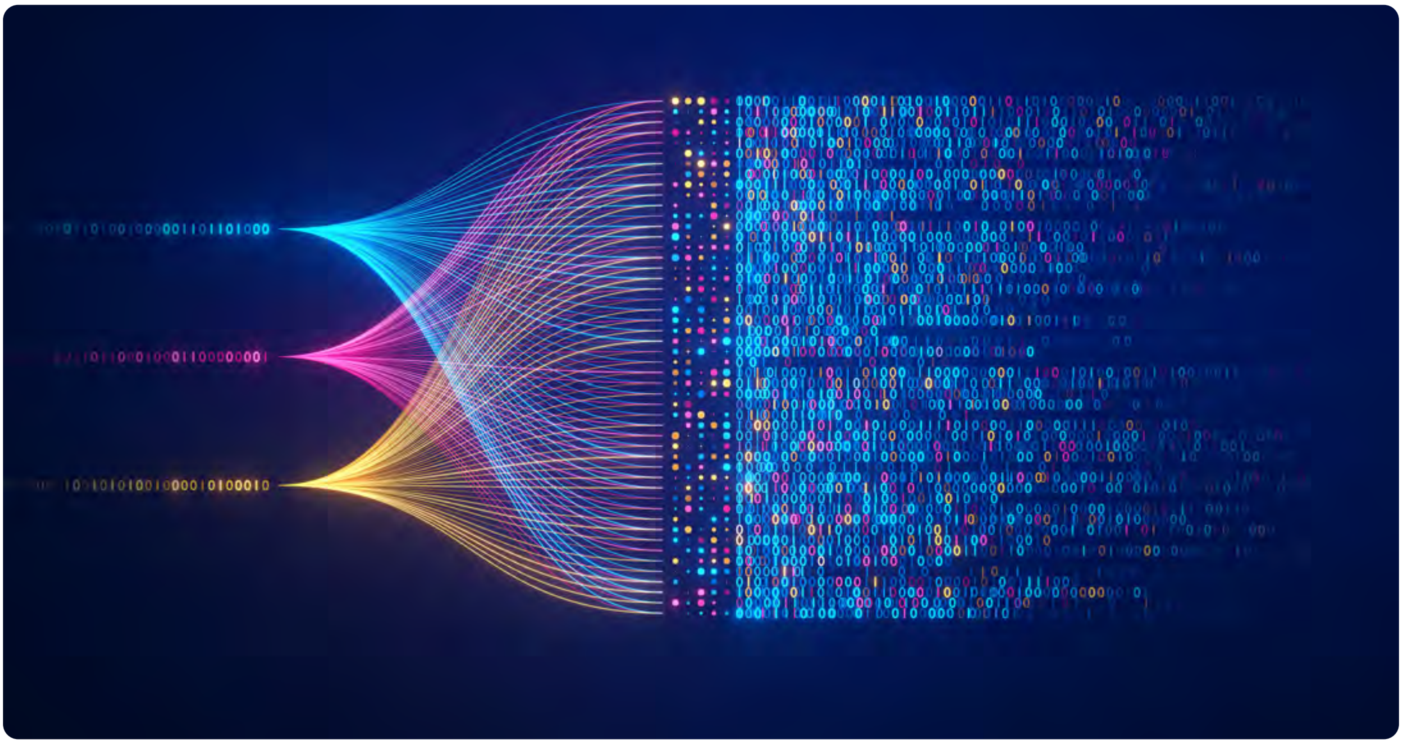
5 European Commission, *Assessment of the energy performance and sustainability of data centres in EU – First technical report*, Publications Office of the European Union, Luxembourg, 2025, ISBN 978-92-68-29508-3, doi:10.2833/3168794.

6 The difference with the table above is caused by the weighting procedure. The weighted data is viewed as the most accurate representation.

7 **Climate Neutral Data Centre Pact – The Green Deal needs Green Infrastructure**

8 **https://stats.oecd.org/Index.aspx?DataSetCode=IOTS_2021**

All data was compiled prior to the report publication. If data was not available, it was taken from the latest source.



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