The value of data centres to Ireland

An independent report prepared by KPMG for the Department of Enterprise, Tourism and Employment

–

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Ireland's data centre mix

Data centre types

Hyperscale

- Owner-user
- Large-scale wholesale colocation

Non-hyperscale

- Retail colocation
- Small-scale wholesale colocation
- Enterprise

	Total	Hyperscale	Non-hyperscale
Data centre buildings	72	32	40
Data centre sites	36	9	27
Installed data centre IT capacity (MW)	1,543	1,363	180

96% of data centre buildings (69) are located in the GDA across 33 sites (92%), with 99% of installed data centre IT capacity in this area.

Key data at a glance

Estimated downstream impacts

Sector-enabled (2024)

Across six sectors in Ireland, data centres that are located in Ireland underpin:

- **€104bn** in annual GVA (19.4% of Ireland's total GVA)
- **876,000** jobs (32% of national employment)
- **€14.6bn** in employment related taxes generated (28% of Ireland's total employment related tax)

FDI (2024)

- Foreign owned companies that operate data centres in Ireland accounted for more than **20,000 high-value jobs**, through their combined data centre and other operations (if any) in Ireland.
- Computer services exports by foreign owned companies in Ireland was **€262bn** – 54% of total services exports.

Estimated upstream economic impacts

2010-2024

GVA	• **€22.2bn**, of which: • **€13.8bn** arising from construction activity • **€8.4bn** from operational data centres
Jobs	• Additional ~**17,000 jobs** – increasing from 2,478 in 2010 to 19,472 in 2024, of which: • **9,356** additional construction jobs • **7,636** additional operational jobs
Employment related tax	• **€2.8bn**, of which: • **€1.8bn** related to construction • **€1.0bn** related to operations

Projected 2025-2030 assuming a further 300 MW of capacity becoming operational over this period

GVA	• **€11bn**, of which: • **€3bn** arising from construction activity • **€8bn** from operational data centres
Jobs	• Construction related jobs are projected to **decline to zero**, on the assumption that no new grid connection contracts are entered into during this period. • **Additional 928 operational jobs** – increasing from 8,534 to 9,462.
Employment related tax	• **€1.36bn**, of which: • **€0.39bn** arising from construction activity • **€0.97bn** from operational data centres

Indigenous data centre skills exports (2024)

- Irish-owned High Tech Construction (HTC) generated an estimated **€2.1 billion** in European data centre construction exports – accounting for ~40% of all HTC exports.

Key findings

The primary aim of this study is to address current knowledge gaps concerning the makeup of the data centre sector in Ireland and the related economic and wider benefits arising from hosting data centres in Ireland. The study's findings provide a robust evidence base to inform future policy discussions regarding data centres. The key findings from this report are as follows:

- Ireland's data centre landscape hosts a mix of data centre types which can be broadly categorised as:
    - **Hyperscale**: Data centres designed for scalability and engineered for large-scale workloads, including those related to cloud services.
    - **Non-hyperscale**:
        - Retail colocation data centres: a facility in which multiple tenants rent small areas of space for their IT equipment;
        - Small-scale wholesale colocation data centres: one, or a small number of tenants, rent large areas of space for their IT equipment;
        - Enterprise data centres: a private facility used exclusively by one organisation to run its own IT systems.

- Hosting both non-hyperscale and hyperscale data centres in Ireland is important, but for different reasons:
    - **Hyperscale** data centres support Ireland's global digital competitiveness and innovation. They:
        - Underpin Ireland's role as a European digital hub by attracting tech investment - strong data centre capacity provides the reliable digital infrastructure global technology firms rely on to operate and expand.
        - Support large-scale cloud capacity for AI, High-Performance Computing (HPC), analytics and modern applications. This includes hosting large-scale AI training and high-performance computing workloads that underpin advanced analytics, cloud platforms and data-intensive digital services.
        - Support innovation for businesses, start-ups and public bodies by enabling them to develop, test and scale new digital products and public services using secure, high-performance cloud infrastructure.
        - Support scalable, resilient public digital services that do not need metro-level proximity.
    - **Retail colocation** and **Enterprise** non-hyperscale data centres need to be located in Ireland to support Ireland's national operational resilience and regulated sectors. They underpin:
        - Real-time national services such as payments, telecom cores and emergency systems.
        - Regulated sectors needing physical auditability and controlled connectivity.
        - Legacy, specialist and safety-critical systems requiring hands-on management.
        - Data sovereignty requirements and edge computing for local digital/industrial services.
    - **Small-scale wholesale colocation** data centres act as a middle layer between Ireland's non-hyperscale data centres, supporting national resilience and regulated sectors, and large hyperscale cloud. They give organisations private, secure, high power space for critical and demanding systems – including cloud services.

Key findings

- Data centres are **predominantly located in the Greater Dublin Area (GDA)**. It is estimated that hyperscale data centres account for ~1,350 MW of the total 1,543 MW of the installed data centre IT capacity across data centres in 2024, though smaller (non-hyperscale) data centre facilities account for 56% of the 72 operational data centre buildings in Ireland at this time.

- Estimates of the economic impacts associated with sectors in Ireland that have a high dependency on data centres illustrates the scale of the enabled economic impacts associated with data centres: across the six sectors in Ireland with the highest data centre dependency, it is estimated that in 2024, of the order of ~€104bn in annual GVA, 876,000 jobs and €14.6bn in annual employment related tax was enabled by the availability of digital infrastructure provided by data centres located in Ireland.

- **Economic impacts associated with the construction and operation of data centres are substantial** – though construction impacts are cyclical. In 2024, it was estimated that data centres in Ireland underpinned €2.2bn in GVA, 19,500 jobs and €280 million in employment related tax. [1]

- The build-out of the data centre landscape in Ireland has fostered the development of a highly specialised ecosystem of Irish-owned High Tech Construction (HTC) firms, whose advanced skills in areas such as design, engineering, and architecture for delivering complex digital infrastructure are now internationally recognised. This has driven export growth in Ireland's HTC: for 2024, it was estimated that for the European data centre segment, ~€2.1 billion in exports were associated with construction of data centres by Irish-owned companies, approximately 40% of all HTC exports by Irish-owned companies in that year.

- Foreign owned companies that operate data centres in Ireland, whether as part of their own infrastructure requirements or as a provider of services to other users, accounted for more than 20,000 high-value jobs in Ireland in 2024, through their combined data centre operations and other core operations (if any) in Ireland.

- Furthermore, the ability for foreign owned companies, that have their European headquarters located in Ireland, to be able to establish their own data centre infrastructure here has strengthened Ireland's ability in retaining existing and attracting new FDI from major players. Co-located HQ and data centre capacity creates a sticky investment footprint.

Note: **[1]** Development activity and data centre capacity growth peaked in 2020.

Key findings

- In addition, the opportunity for technology companies to establish or access the type of data centre facilities and services they require for their core operations has become an increasingly important component of Ireland's value proposition for retaining and attracting FDI by technology companies. These technology companies are critical to Ireland's economy, with the CSO reporting computer service exports in 2024 of €279bn. An estimated €262bn of these exports are generated by foreign-owned firms, accounting for ~54% of Ireland's services exports.

- By maintaining Ireland's reputation as a trusted data centre location and continuing to attract FDI from multinational data centre operators that provide the infrastructure and services required by technology companies, Ireland can sustain a virtuous cycle of investment from data centre operators and technology companies, supporting long-term economic growth.

- There are risks associated with stagnation of data centre development, in which economic contributions plateau, Ireland's competitive edge and relevance to technology companies erodes, and the delivery of essential public services and crisis response functions are constrained. Conversely, potential rewards from sustained or accelerated data centre growth offers continued gains, GVA, jobs and employment related tax revenue.

- Data centre growth would in turn imply further demand for electricity, However, it is important to acknowledge that, unlike countries such as Germany and the UK that have large heavy-industry bases that drive their electricity demand, Ireland's industrial electricity use is concentrated in supporting our digital economy.

- There are challenges to further developing the data centre landscape in Ireland, particularly around energy availability, grid constraints, and carbon impacts.

- However, data centres also present a significant strategic opportunity for Ireland's renewable energy transition, as their steady, long-term electricity demand can unlock and anchor investment in large-scale renewable energy projects - strengthening energy security and advancing national climate goals. Hyperscale facilities already underpin a material share of Ireland's renewable Corporate Power Purchase Agreement (CPPA) pipeline, demonstrating their role as reliable anchor off-takers that enable developers to finance new wind and solar capacity.

- The Government's Large-Energy User Action Plan (LEAP), introduced in January 2026, supports sustainable post-2030 data-centre development through a plan-led approach that promotes data centre co-location with renewable generation that will enable bankable, long-term offtake routes—such as CPPAs. By directing large electricity loads to strategic locations with suitable infrastructure, renewable potential, and with options for private-wire connections, grid risk will also be reduced.

Key findings

- However, it is acknowledged that even with access to large amounts of renewable energy, additional electricity demand from new data centre growth will still require sufficient dispatchable and flexible generation to provide reliable, on demand electricity when wind and solar are insufficient. In Ireland, this means reliance on fossil fuel sources until such a time that sufficient firm, low-carbon technologies and long-duration storage are developed and deployed at the scale needed to replace fossil-fuel backup generation. As a result, further data centre expansion will continue to give rise to carbon emissions. Though, with sufficiently high penetration levels of renewable generation in Ireland, of 80% and above, the research suggests data centre growth could be accommodated beyond 2030 while maintaining carbon impact levels associated with data centres below 2030 levels.

- The evidence base from this study supports the strategic opportunity for Ireland to expand its data centre landscape through regional diversification and the colocation of facilities with renewable energy sources. Subject to robust digital connectivity infrastructure being in place or developed, such an approach could enhance energy security, align with national climate ambitions, support regional economic development, and minimise additional pressure on the Dublin grid. This approach could also catalyse the growth of new sustainable data centre hubs in locations outside of Dublin and attract indigenous and global technology companies to locate in the regional location.

- In further considering the development of the data centre landscape, policymakers also need to be mindful of those data centre use cases where proximity to the GDA hub materially improves performance, resilience, or economic efficiency, and recognise that continued – though managed – development in this data centre hub will be required over time to maintain the attractiveness, competitiveness and economic importance associated with this established ecosystem.

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Introduction

Data centres underpin substantial economic value in Ireland, supporting significant gross value added (GVA), employment and employment related tax revenues through both their direct activity and their role as critical enablers of digitally intensive sectors across the economy. These impacts extend well beyond construction and operations, reflecting the central role of digital infrastructure in Ireland's economic model.

What are data centres?

Data centres are secure facilities that house servers – specialised computers supported by resilient power, advanced cooling and high-speed network connectivity – to ensure continuous and reliable operation. They are a critical component of the infrastructure underpinning modern digital economies.

Some of the essential types of services which data centres provide include:

- **Compute** – general purpose computer processing power that supports technology companies' digital platforms and services, localised applications, and the operation of enterprise IT systems and public sector digital services. [1].
- **Storage** – hosting and managing large volumes of data for:
    - technology companies (whose main products are digital platforms and services),
    - enterprises (all other businesses that use digital systems for their operations), and
    - public bodies (government and public sector services).
- **Accelerated processing** – specialised high-performance compute (e.g., GPUs, TPUs, AI accelerators) that enables AI, machine learning and high-performance computing workloads. [2].

Over the last decade and a half, the Greater Dublin Area (GDA) has emerged as a leading European data centre hub. Initial data centre investment was driven by a combination of location advantages (temperate climate, direct connections to subsea cables providing digital links to the U.S. and Europe, and EU market access), a reliable regulatory and legal environment, an attractive business environment, access to power and grid connections, fibre infrastructure, skilled talent, and the presence of major technology companies.

Data centre development in the GDA, and some of the services these facilities enable – such as cloud services, content delivery networks, fintech transaction processing, and enterprise SaaS – have, in turn, attracted investment in physical digital infrastructure [3] and connectivity services [4] that support fast and reliable data transmission. Development of this broader data centre ecosystem has triggered a self-reinforcing cycle of investment: each new entrant enriches the interconnection fabric, increases the ecosystem's value, and draws in even more investment.

Note: **[1]** A data centre may provide compute power as a managed service to enterprises and public bodies, or, provide services related to space, power, cooling, security, and connectivity with enterprises and public bodies installing and managing their own IT hardware (which undertakes compute requirements) in the data centre facility. **[2]** A workload is any application, service, or compute task that runs on IT infrastructure – such as servers in a data centre or cloud platform (noting that cloud platforms only exist because they run on physical servers located inside large data centres). **[3]** Such as fibre infrastructure, internet exchange points (IXPs) and carrier neutral facilities. **[4]** Such as high-speed links, private cloud connections provided by telecoms operators and internet connectivity to homes and businesses (the last mile) provided by internet service providers (ISPs).

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While the original factors attracting data centre investment to Dublin remain relevant, continued data centre growth has also been driven by the network effects associated with the development of the broader data centre ecosystem. Data centres (or clusters of data centre buildings operated by a single operator) become more valuable when located in data centre hubs because **their location in that hub area amplifies what it can do,** how efficiently it can do it, and how attractive it becomes to customers.

Data centre hubs increasingly play a strategic role in attracting and retaining technology companies – such as those in SaaS, fintech, Artificial Intelligence (AI), cloud, data-analytics, and digital-media companies. Technology companies prefer to locate their core operations near data centre hubs as being close to data, dense network interconnection, cloud infrastructure [1] and compute infrastructure improves the performance of their services.

There can be reasons and advantages associated with situating data centres in other locations outside a hub location. From:

- **A national perspective**: dispersing data centre infrastructure strengthens resilience by reducing dependence on single metropolitan areas, stimulates regional economic development, and generates and drives upgrades to broadband, power grids, and local utilities in the areas data centres are located. Furthermore, a large-scale data centre facility located outside existing hub areas can serve as an anchor for developing a new regional data centre hub. Over time, this could attract technology companies to the area and support broader regional economic growth.
- **A data centre customer perspective**: customers in the area benefit through access to lower-latency services, improved service continuity enabled by geographic redundancy [2] and wider access to high-quality digital services in underserved areas.
- **A data centre operator perspective**: non-hub areas can provide access to additional markets and improved resilience through geographic redundancy – adding facilities outside a data centre hub strengthens an operator's portfolio by reducing geographic concentration risk. Non-hub areas can also potentially offer lower construction and operating costs, more space for scalable growth, and better access to renewable-energy and faster development opportunities due to the availability of key enabling infrastructure, including electricity network capacity – which has become increasingly important to data centre operators in recent years.

Note: **[1]** Cloud infrastructure runs inside physical data centre facilities. **[2]** Geographic redundancy involves replicating data, applications, and IT systems across multiple locations in different regions. This setup helps maintain business operations by automatically switching to a backup site if the primary site becomes unavailable due to disasters, outages, or other disruptions.

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For some organisations, a key requirement is that data centres be located within the same country as their core operations. This supports operational resilience by keeping critical systems running during international network disruptions and improves performance through lower latency and responsiveness. In-country hosting may also be preferred by organisations so that their core operations and data centres remain under one set of national laws and one regulator, making compliance with data sovereignty obligations simpler for the organisation. In some cases this is mandatory, for example where governments mandate that security-critical data generated by public sector bodies remains within national borders. For these organisations [1], the primary priority may be to access domestically located data centres, even if this means they need to access data centre facilities outside major hubs such as Dublin.

Global digital transformation, together with accelerating AI adoption, is driving rapid expansion of data centre infrastructure worldwide, including in Ireland. It is thus timely to build a clear and up to date understanding of the national footprint of data centres in Ireland and the nature and scale of the economic value they generate. Such insight is essential to support evidence-based discussion and informed policy debate associated with the data centre sector.

It was on that basis that the Department of Enterprise, Tourism and Employment (DETE) commissioned KPMG to undertake an independent study to:

- Map Ireland's data centre landscape.
- Develop an evidence-based view of the economic value of data centres to the Irish economy as well as consideration of other benefits and non-financial costs associated with data centre development in Ireland.
- Identify the potential implications (primarily from an economic viewpoint) associated with ceasing or continuing data centre development beyond 2030.
- Outline the key challenges and potential mitigation measures for developing Ireland's data centre landscape beyond 2030 and identify any strategic opportunities for Ireland.

The study was guided by a Steering Group comprising representatives from the Department of Climate, Energy and the Environment, DETE, Enterprise Ireland, IDA Ireland, and the National Economic and Social Council and chaired by a senior official from DETE.

For the purposes of clarity, it is noted that this report looks to address the knowledge gaps in relation to the economic benefits of data centres, but it is not a cost-benefit analysis. The focus is on determining the value of data centres to Ireland to inform future policy discussion, and this focus reflects the objectives of the study and DETE's remit. While non-financial costs associated with data centres have been considered, this has been more narrowly assessed in comparison to the approach taken in determining data centre benefits. Further work will be required by relevant bodies to close the knowledge gaps on complete environmental data sets and the social impacts that arise from data centres.

Note: **[1]** EU data obligations apply whenever an organisation processes EU personal data, provides digital services in the EU, operates regulated or safety-critical workloads, deploys AI systems governed by EU law, or handles data subject to EU sovereignty requirements – regardless of where the organisation itself is located.

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- A mixed-methodology approach was employed for the research, which included:
  - Desk research.
  - Surveys of data centre operators; data centre suppliers; and data centre customers.
  - Interviews with policy stakeholders; data centre operators and industry bodies; data centre customers and suppliers; academics (with economic, energy, and climate-related expertise)
  - Consultations with KPMG Subject Matter Experts.
  - 6 international case studies to provide strategic lessons from countries that experienced similar barriers and opportunities in data centre development to Ireland.
  - Modelling:
    - Economic impacts of data centre construction and operation.
    - Sectoral economic impacts enabled by data centres.

Data centre taxonomy

To support the mapping of the data centre landscape in Ireland, this study sets out a defined taxonomy of data centre site types as follows:

- **Hyperscale:** Large data centres designed for scalability and engineered for large-scale workloads, including those related to cloud services, and an important component of Ireland's overall attractiveness to tech FDI. For the purpose of this study both owner-user (10+MW) and large-scale wholesale data centres (>= 30MW) are categorised as hyperscale data centres.
- **Colocation** (Retail (1-29MW) and small-scale wholesale (<30MW)): Provide businesses and organisations with a secure, shared environment to host their IT infrastructure without having to build and maintain their own facility.
- **Enterprise**: A data centre facility (0-10MW) designed to house and manage an organisations IT infrastructure but larger than a server room.
- **Edge data centres** [1]: While referenced later in this report, Edge data centres are not included as a distinct category in the data centre taxonomy, and hence not as a distinct category in the landscape mapping. This is because Edge data centres can be located within colocation data centres, meaning they often operate as a subset of colocation data centre activity.

Note: **[1]** Edge data centres are smaller, geographically distributed facilities that cache, process, and store data closer to where it is generated or consumed – typically near end-users, devices, sensors, or local operations. This reduces latency (the delay in data transfer), enabling faster response times for applications, websites, IoT devices, and cloud services. Edge Data Centres complement larger core data centre facilities by handling time-sensitive tasks locally, while less urgent data can be sent to the associated (more distant) core data centre.

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Mapping the data centre landscape in Ireland

Data centre landscape in 2025: Scale, mix, profile and location

Installed data centre IT capacity is commonly referred to as a facility's maximum possible supported IT and electrical load. It is recorded in terms of the scale of nominal energy connection a facility has. The data centre landscape in Ireland has evolved from a modest 100MW of installed data centre IT capacity in 2010 to 1,543MW in 2025 [1] [a].

Details of the data centre landscape in Ireland, in terms of installed data centre IT capacity, the number of data centre sites and buildings and the average per building installed data centre IT capacity are mapped out below according to data centre type.

Data centre landscape in Ireland

	Installed data centre IT capacity (MW)	Sites	Buildings	Average installed data centre IT capacity per building (MW)
Hyperscale	1,363	9	32	43
Small-scale wholesale colocation	84	3	7	12
Retail colocation	92	16	24	4
Enterprise	5	8	9	0.6
Total	**1,543**	**36**	**72**	

Note: **[1]** Figures associated with installed data centre IT capacity presented in this report may differ from publicly available data due to variations in how 'sites' and 'buildings' are classified, differences in scope (e.g. colocation facilities only), measurement (e.g. MW IT capacity, MVA, data centre capacity), and whether pipeline or operational data centres are included. This report estimates installed data centre IT capacity based on installed data centre capacity in respect of already operational data centres – those that are live and connected. This study identifies 72 operational, grid-connected data centre buildings as of 2025. Higher figures cited in other sources typically include public sector facilities (such as health and government data centres), enterprise server facilities, or sites not fully operational. These facilities fall outside the scope of this analysis, which focuses on operational data centres that may serve enterprise and the public sector (but not fully owned by public sector bodies).It does not therefore include projects in planning, regardless of whether they are in receipt of grid connection contracts.

Source: **[a]** Omdia. Includes only sites/buildings that are confirmed as being operational.

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Mapping the data centre landscape in Ireland

This study identifies 72 operational, grid-connected data centre buildings as of 2025. Higher figures cited in other sources typically include public-sector facilities (such as health and government data centres), enterprise server facilities, or sites not fully operational. These facilities fall outside the scope of this analysis, which focuses on operational data centres that may serve enterprise and the public sector (but not fully owned by public sector bodies). Based on the database developed for this study, the research finds that:

- The growth in installed data centre IT capacity over the past 15 years is largely reflective of growth in hyperscale data centre activity in Ireland.
    - As of 2025, 88% of Ireland's total installed data centre IT capacity is installed across a small number of large, campus-style locations in which hyperscale data centre buildings are located.
- Colocation data centres are the most common type of data centre in Ireland. These types of data centres support multiple customers, however installed data centre IT capacity across these data centres accounts for just over 11% of the total.
    - In 2025, retail and small-scale wholesale colocation data centre types together account for ~53% (19) of sites and ~43% (31) of buildings, yet only ~11% of installed data centre IT capacity.
- Enterprise data centres reflect a very small portion of Ireland's installed data centre IT capacity, indicating that many enterprises prefer to use cloud service (hosted in hyperscale data centres) or colocation facilities instead of building and maintaining their own data centres.
    - Enterprise facilities represented ~22% of sites (8) and ~13% of buildings (9) but just ~1% of installed data centre IT capacity in 2025.
- Although Dublin is well recognised as a major European data centre hub, the research highlights just how geographically concentrated Ireland's data centre landscape continues to be, with nearly all data centre sites, buildings and data centre capacity currently located within the GDA:
    - 33 sites (92%) and 69 buildings (96%) were located in the GDA in 2025, with more than 99% of Ireland's installed data centre IT capacity connected in this area.
- Location matters: hub proximity enhances latency, performance and ecosystem benefits, while non-hub domestic locations can meet data sovereignty, resilience and lower-latency requirements for many workloads.

Future outlook

Ireland's installed data centre IT capacity is projected to grow by 19% between 2025 and 2030, based on 300MW worth of existing contracts for further grid connections as of the end of 2025. [1] While this covers part of current data centre operator demand for capacity, it does not reflect the full level of interest by data centre operators/developers along the development pipeline. The research from this study estimates that a further 1,400MW (1.4GW) is at different stages in the development pipeline, though a recent market intelligence exercise undertaken by EirGrid indicates that additional demand by data centre operators/developers over the 15 years out to 2040 is of the order of 5.8GW. [2]

Note: **[1]** The growth in data centre capacity from 2025 to 2030 is estimated from data on contracts (as of Q4 2025) entered into by EirGrid, ESBN, and GNI with data centres but have not yet been connected – this estimate was supported by information from consultations with EirGrid, ESBN, GNI, and KPMG's internal SME network. **[2]** Based on findings from a Market Intelligence Exercise undertaken by Eirgrid in 2025 to better understand the scale of potential medium-term demand (out to 2040) from prospective data centre developers/operators. CRU Large-Energy Users Connection Policy – Available at: CRU2025236_Large_Energy_User_connection_policy_decision_paper.pdf

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Economic value of data centres in Ireland

In assessing the economic value of data centres in Ireland, this study has considered both upstream and downstream economic impacts of data centres. The analysis distinguishes between the economic impacts associated with data centre construction and operation and wider economic activity enabled by data centres, applying conservative assumptions to illustrate scale while avoiding over-attribution.

1. Upstream impacts.

Upstream impacts are generated during the construction and operational phases of data centres. Direct, indirect, and induced impacts are included in developing overall estimates of economic impact.

- **Direct Impacts**: Refer to the economic impacts generated as an immediate and direct consequence of the construction and operation of data centres.
- **Indirect Impacts**: Refer to the economic impacts generated through supply chain activity, where suppliers provide goods and services to support the construction and operation of data centres.
- **Induced Impacts**: Refer to the economic impacts created in the wider economy when employees in direct and indirect jobs associated with construction and operation of data centres spend their wages on goods and services (household spending). This spending on retail, hospitality, transport, and other local services supports additional economic activity across the wider economy.

The following upstream economic impact indicators were estimated: GVA [1], employment, and employment related tax across the 2010-2024 period. Projections for these economic indicators were also made for the period 2025–2030, based on the assumption that the only increase in installed data centre IT capacity during this period will come from already contracted energy connections that have not yet been activated. This would amount to approximately 300MW of additional installed data centre IT capacity. This assumption also implies that construction activity will taper off toward the end of the decade as a result of limitations on new energy connections. Upstream economic impacts were estimated using KPMG's economic impact model which is built on published CSO input-output tables, project-specific inputs and industry multipliers to estimate sector-wide impacts. This approach reflects standard methodology for assessing economic effects across key channels. The figure on page 20 shows how annual GVA collectively arising from construction (capex) and operation (opex) of data centres in Ireland varied over the 2010-2024 period, as well as how projected GVA is expected to vary over the 2025-2030 period. Similar trends in employment and employment related tax were also observed over these time frames. Economic impacts associated with data centre construction and operation **peaked in 2020** with:

- **€3.2bn** in GVA.
- **31,900** jobs.
- **€409** million in employment related tax.

Note: **[1]** GVA = Output – Intermediate Consumption. Output = the value of what a business or sector produces. Intermediate consumption = the value of the goods and services used up to produce that output (e.g., materials, energy, components). GVA helps build the figure most people know - GDP. GDP = Sum of all GVA + taxes on products – subsidies.

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Economic value of data centres in Ireland

The 2020 peak in economic impacts reflects the culmination of a major data centre build cycle, after which contributions moderated as the pace of new data centre construction slowed: impacts associated with construction vary year to year dependent on the level of construction activity while operational impacts provide a sustained impact, driven by the ongoing operation of data centres and increasing as more facilities come online.

The following upstream impacts were estimated using KPMG's economic impact model:
In **2024**, data centres in Ireland contributed [1]:

- **€2.23bn in GVA:**
  - €1bn in GVA related to construction: 57% direct, 23% indirect, and 20% induced
  - €1.23bn in GVA related to operations: 57% direct, 31% indirect, and 12% induced
- ***€1.90bn in GVA from hyperscale***
  - €0.89bn related to construction
  - €1.01bn related to operations
- ***€0.33bn in GVA from non-hyperscale***
  - €0.12bn related to construction
  - €0.21bn related to operations

- **19,472 jobs:**
  - 11,155 jobs related to construction: 54% direct, 23% indirect, and 23% induced
  - 8,316 jobs related to operations: 39% direct, 38% indirect, and 23% induced
- ***16,457 jobs from hyperscale***
  - 9,823 jobs related to construction
  - 6,633 jobs related to operations
- ***3,015 jobs from non-hyperscale***
  - 1,332 jobs related to construction
  - 1,683 jobs related to operations

- **€280m in employment related tax:**
  - €131m in employment related tax related to construction: 54% direct, 23% indirect, 23% induced
  - €149m in employment related tax related to operations: 39% direct, 38% indirect, 23% induced
- ***€233m in employment related tax from hyperscale:***
  - €115m in employment related tax related to construction
  - €118m in employment related tax related to operations
- ***€46m in employment related tax from non-hyperscale***
  - €16m in employment related tax related to construction
  - €30m in employment related tax related to operations

Note: **[1]** Where figures do not add up exactly, this is due to rounding.

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Economic value of data centres in Ireland

Over the period **2010-2024** construction and operation of data centres have given rise to:

- **€22.2bn in GVA**: €13.8bn construction (62%) and €8.4bn operation (38%)
    - €13.8bn related to construction: 57% direct, 23% indirect, 20% induced
    - €8.4bn related to operations: 57% direct, 31% indirect, 12% induced
  - ***€19.0bn in GVA from hyperscale***: €12.1bn construction (64%) and €6.9bn operation (36%)
    - €12.1bn related to construction
    - €6.9bn related to operations
  - ***€3.2bn in GVA from non-hyperscale***: €1.7bn construction (53%) and €1.5bn operations (47%)
    - €1.7bn related to construction
    - €1.5bn related to operations
- **An additional ~17,000 jobs** - increasing from 2,478 in 2010 to 19,472 in 2024.
    - 9,356 additional jobs related to construction 54% direct, 23% indirect, and 23% induced
    - 7,636 additional jobs related to operations: 39% direct, 38% indirect, 23% induced
  - ***An additional ~14,700 jobs from hyperscale*** – increasing from 1,796 in 2010 to 16,457 in 2024.
    - 8,455 additional jobs related to construction
    - 6,206 additional jobs related to operations
  - ***An additional ~2,300 jobs from non-hyperscale*** – increasing from 683 in 2010 to 3,015 in 2024.
    - 901 additional jobs related to construction
    - 1,431 additional jobs related to operations
- **€2.8bn in employment related tax**:
    - €1.8bn related to construction: 54% direct, 23% indirect, 23% induced
    - €1.0bn related to operations: 39% direct, 38% indirect, 23% induced
  - ***€2.4bn in employment related tax from hyperscale.***
    - €1.6bn related to construction
    - €0.8bn related to operations
  - ***€0.4bn in employment related tax from non-hyperscale:***
    - €0.2bn related to construction
    - €0.2bn related to operations

Looking ahead, over the period **2025-2030**, data centres are projected to:

- Add an additional €11bn in GVA to Ireland's economy: €3bn arising from construction activity and €8bn from operational data centres. By 2030, operational activity alone is anticipated to sustain €1.4bn in annual GVA, reflecting the enduring economic footprint of the sector.
- Increase the number of operational data centre jobs by 928 jobs, whereas, construction related jobs are projected to decline to zero [1]. It is assumed that the build cycle during this period relates to the construction of the data centres that have a total of 300 MW in existing grid connection contracts. It is also assumed that no further grid connection contracts will be entered into during this period and this would mean that construction of new data centres would cease by 2030.
- Provide an additional €1.36bn in employment related tax to Ireland's economy. This relates to €0.39bn arising from construction activity and €0.97bn from operational data centres.

Note: **[1]** The decline to zero is based on the assumption that there is no additional installed data centre IT capacity in 2030.

Executive summary

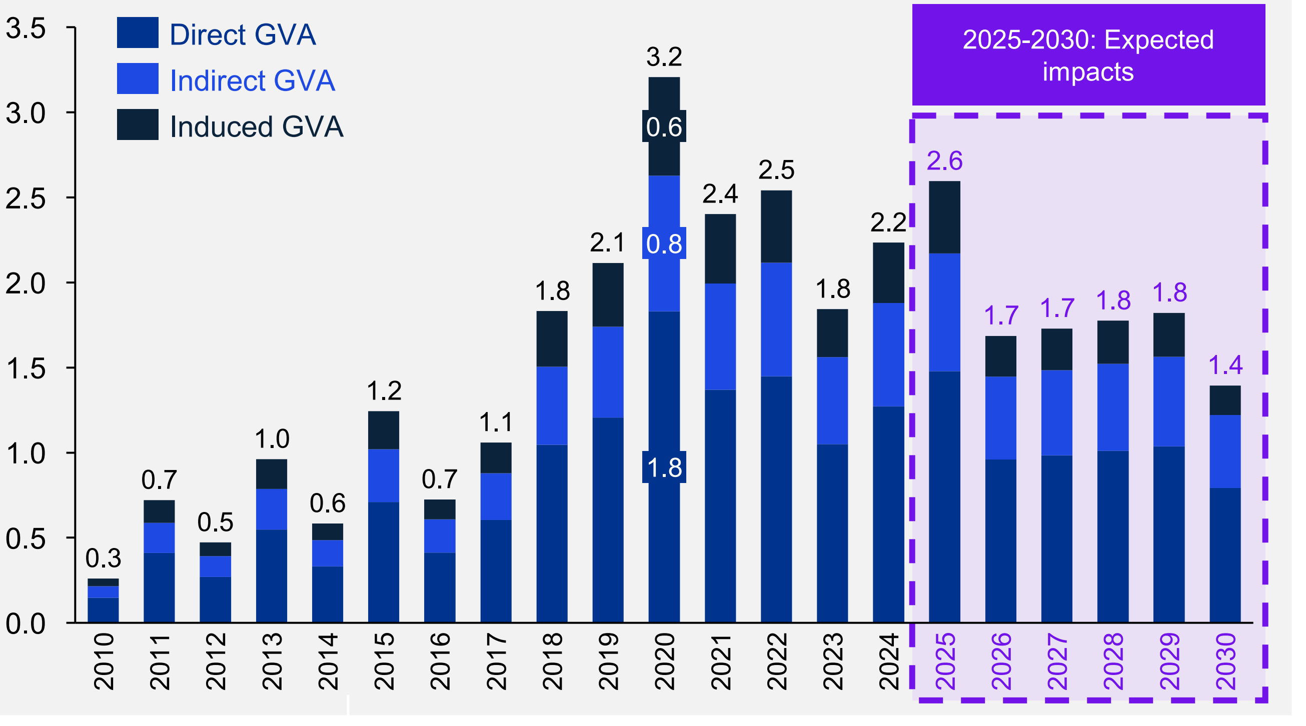
Economic value of data centres in Ireland

Overall, the analysis of upstream economic impacts of data centres indicates that:

- Construction and operation of data centres generate substantial spillover benefits: on average, every €1 million in direct GVA from data centre construction and operation generates an additional €0.75 million in GVA through supply chain and household spending effects, resulting in a total economic impact of €1.75 million.
- The construction of data centres delivers larger economic impacts, however these impacts are transient in line with build cycles, whereas impacts associated with operation of data centres persist over time.
- The operation of data centres relies on highly skilled professionals across a range of roles to ensure operations run smoothly and efficiently. These roles typically offer competitive salaries, ranging from approximately €52,500 to €160,000 a year depending on years of experience and specialisation. Average salaries in data centre operational roles are higher than Ireland's national average salary (€48,000) and typically higher than the average national industry salary (€69,000). [1]
- The build-out of data centres in Ireland has also led to the development of expertise in Irish-owned supply chain companies. This has driven export growth in Irish HTC: for 2024, it was estimated that ~€2.1 billion in exports was associated with construction of data centres by Irish-owned companies (accounting for ~40% of construction exports by Enterprise Ireland clients in 2024). [2]
- In the future, there will be sustained ongoing economic impacts associated with the operation of the current cohort of data centres, and future increases in annual upstream economic impacts will be dependent on further development of the data centre landscape, with the research indicating that there is significant demand from data centre developers/operators to build further in Ireland.

Estimated annual GVA impacts of data centre activity, capex and opex total

€bn



Note: **[1]** CSO – Earnings and labour costs, 2024. **[2]** Enterprise Ireland

Executive summary

Economic value of data centres in Ireland

Downstream Impacts

2.1 Sector-enabled impacts: Refer to the economic impacts generated by sectors in Ireland's economy whose **core functions are enabled by data centre services**. The following sector-enabled economic impact indicators were estimated: GVA, employment, and employment related tax. Estimates of upstream economic impacts from data centre construction and operation use established economic modelling techniques. However, data centres' primary role extends beyond these direct effects, as they enable digitally intensive sectors across the economy. While construction and operations generate direct value, the largest contribution of the data centre sector comes from the wider economic activity it supports. The downstream analysis therefore focuses on the scale and significance of activity dependent on data centre services, using a transparent framework based on primary customer research, sectoral data, and clearly defined assumptions to illustrate magnitude rather than precise attribution. This study identified the following sectors as being the six sectors in Ireland that are most dependent on data centres services for their core functions: ICT Services; Financial & Insurance Activities; Human Health & Social Work; Transportation & Storage; Retail & Wholesale Trade; and Professional Services. Collectively, these sectors contributed €240bn in GVA [a] to the economy in 2024, with each relying on data centres to deliver essential services.

The below downstream impacts were estimated using a study-specific approach. Three different scenarios were considered in determining the sector-enabled impacts of data centres:

- **Digitally enabled**: refers to estimated economic impacts associated with the six sectors that have the highest dependency on data centres for their core operations, regardless of whether those data centres are located in Ireland or overseas. It was estimated that in 2024 data centres (regardless of where those data centres are located) enabled:
    - €182bn in annual GVA: 33.9% of total GVA for Ireland.
    - 1.244 million jobs: 46% of total employment in Ireland.
    - €22.4bn in annual employment related tax: 44% of Ireland's total employment related tax.
- **Domestically enabled:** refers to estimated economic impacts associated with the six sectors that have the highest dependency on data centres for their core operations and these data centres are currently located in Ireland. It was estimated that in 2024 data centres located in Ireland enabled:
    - €104bn in annual GVA: 19.4% of total GVA for Ireland.
    - 876,000 jobs: 32% of total employment in Ireland.
    - €14.6bn in annual employment related tax: 28% of Ireland's total employment related tax.
- **Domestic + latency enabled:** refers to estimated economic impacts associated with the six sectors that have the highest dependency on data centres for their core operations and they access data centres located in Ireland because latency is important for core operations.

Source: **[a]** CSO total sector GVA (2024) values are expressed in real terms – inflation is stripped out.

Executive summary

Economic value of data centres in Ireland

It was estimated that in 2024, data centres located in Ireland and that support latency requirements across the six sectors, enabled:

- €89.2bn in annual GVA (16.7% of total GVA for Ireland).
- 746,000 jobs (27% of total employment in Ireland).
- €12.5bn in annual employment related tax (24% of Ireland's total employment related tax).

The analysis highlights the indispensable role of data centres in sustaining key sectors in Ireland's economy, and that a significant share of Ireland's economy currently depends on data centres that are located in Ireland.

2.2 The downstream economic impacts associated with Foreign Direct Investment (FDI)
A majority of data centres in Ireland are foreign owned. The upstream economic impacts linked to the construction and operation of these foreign owned data centres are already accounted for in the earlier analysis of upstream economic impacts. The overall downstream economic impacts generated in Ireland that rely on foreign owned data centres – including the impacts associated with the core operations of foreign owned companies that utilise their own data centres infrastructure in Ireland – are captured within the earlier estimates associated with domestically enabled sectoral economic impact.

Foreign owned companies that operate data centres in Ireland, whether as part of their own infrastructure requirements or as a provider of services to other users, accounted for more than 20,000 high-value jobs in Ireland in 2024, through their combined data centre operations and other core operations (if any) in Ireland. [a] The ability for foreign owned companies that have their European headquarters located in Ireland to be able to establish their own data centre infrastructure here has strengthened Ireland's ability in retaining existing and attracting new FDI from major players. Co-located HQ and data centre capacity creates a sticky investment footprint.

In addition, FDI from hyperscale data centre operators is important for Ireland even if these operators do not have their European HQ located in Ireland – their investment in data centre facilities supports the attraction and retention of FDI from technology companies that do not operate their own data centres. The economic impacts associated with technology companies that access data centre services in Ireland that are provided by hyperscale data centre operators located here is captured within the earlier estimates associated with domestically enabled sectoral economic impact.

Source: **[a]** IDA Ireland.

Executive summary

Economic value of data centres in Ireland

The economic importance of FDI in Ireland by foreign owned hyperscale data centres is further emphasised by considering Ireland's computer services exports. Computer services are a major driver of Ireland's export economy, and foreign owned technology companies account for the vast majority of this activity. The CSO reported computer service exports in 2024 of €279bn[a] – of which an estimated €262bn[b][1] were generated by foreign owned firms, accounting for ~54% of Ireland's total services exports. Computer services are underpinned by hyperscale data centres that enable cloud services, SaaS and AI workloads. While the data centres supporting Ireland's computer services exports are unlikely all located in Ireland (services can be routed through foreign owned companies located in Ireland but delivered through data centre facilities located elsewhere), it was estimated in this study that 36% of core operations in the ICT services sector are enabled by data centres in Ireland, and this indicates that a significant portion of computer service exports are routed through data centre facilities in Ireland.

While there are many factors influencing location decisions for FDI by technology companies (for example, skills and talent, pro-business environment, access to the EU single market, political stability), the ability to establish or access in Ireland the data centre services that these companies require for their core operations has become an increasingly important component of Ireland's value proposition for retaining and attracting technology-related FDI investments. Furthermore, the location of numerous technology companies in Ireland increases Ireland's attractiveness as a place for foreign owned data centres to locate due to the strong customer base.

By maintaining Ireland's reputation as a trusted data centre hub and continuing to attract FDI from foreign owned data centre operators that provide the infrastructure and services required by technology companies, Ireland can sustain a virtuous cycle of data centre and technology sector investment, supporting long-term economic growth.

Source: **[a]** CSO – International trade in services, 2024 **[b]** CSO – ICT value chain analysis, 2019

Note: **[1]** Estimate based on total output produced by the ICT industry - €128bn in 2019. Foreign firms made up €122bn or 96% of this output.

Executive summary

Wider benefits, costs, and trade-offs of hosting data centres in Ireland

Beyond upstream and downstream economic impacts, hosting data centres in Ireland offers wider benefits to Ireland, associated with:

- **Data sovereignty and resilience:** Access to data centres located in Ireland, and, services enabled by data centres located in Ireland ensures that critical national and enterprise data can be stored and processed within the Irish jurisdiction, thereby supporting continuity of essential services for organisations while also supporting compliance with EU data sovereignty obligations of these organisations. [1].
- **Skills development:** Data centres sit at the intersection of construction, engineering and ICT, supporting high-value employment and specialist skills. Operators and suppliers draw on both domestic capabilities and international talent, contributing to skills transfer across the wider digital and construction ecosystem. Additionally, data centres support upskilling through partnerships with universities and technical colleges. For example, Microsoft collaborates with Collinstown Park Community College and TU Dublin – Blanchardstown through its Datacentre Academy, offering specialised programs, hands-on training, and scholarships.
- **The presence of data centres in Ireland also fosters innovation**:
  - **Enabling sectoral innovation** in areas such as fintech, medtech, and manufacturing, where cutting-edge technologies (e.g., IoT, AI, automation) require ultra-low-latency, locally hosted data centre capability.
  - **There is an opportunity for R&D activity** to drive technological advancements in data centre operations, including performance optimisation, energy storage solutions, and green technologies that reduce energy and water use.
  - **Supporting the growth of digital-intensive start-ups** by providing the infrastructure needed for innovation and scaling.
- **Sustainability and Energy Transition:** Data centres also offer opportunities to support Ireland's sustainability goals and reduce its overall environmental impact, through for example:
  - **Heat reuse:** Waste heat from data centres can be used for district heating schemes, as demonstrated by the Tallaght District Heating Scheme.
  - **Support for renewable energy development:** Data centres present a significant strategic opportunity for Ireland's renewable energy transition, as their steady, long-term electricity demand can unlock and anchor investment in large-scale renewable energy projects – strengthening energy security and advancing national climate goals. Hyperscale facilities already underpin a material share of Ireland's renewable Corporate Power Purchase Agreement (CPPA) pipeline, demonstrating their role as reliable anchor off-takers that enable developers to finance new wind and solar capacity.

Note: **[1]** Data sovereignty obligations matters more in some sectors/organisations than others because of the type of data involved, the risk of harm if it is misused or inaccessible, and the legal obligations that apply to that sector/organisation. In short: the higher the sensitivity, criticality, or regulatory exposure of the data, the greater the importance of data sovereignty. Regulated sectors (e.g. health, finance, energy, justice, telecoms, public administration) are subject to sector-specific laws that go beyond general data protection rules. Compliance with these further data sovereignty and digital regulation obligations can be supported by locating data centres in Ireland (or typically) also elsewhere in EU for regulated sectors/sensitive data etc., when data needs to remain in the EU. **[2]** A precise estimate of the proportion of data centre electricity matched to CPPAs is not available, as CPPA contracts are commercially confidential, vary by operator and over time, and are not reported in aggregate at system level.

Executive summary

Wider benefits, costs, and trade-offs of hosting data centres in Ireland

- **Reducing carbon impact:** Greater utilisation of renewable energy across the data centre sector can help reduce the sector's carbon footprint. While many operators aim to achieve net-zero emissions within the next decade, progress in Ireland will depend on the availability of sufficient renewable energy.
- **Regional growth:** While the vast majority of data centres are located in the GDA, the development of data centres in other regions could stimulate local economies.

However, there are also (non-financial) costs associated with hosting data centres in Ireland to date and those that are most often cited are:

- **Energy demand**: data centres account for ~22% of Ireland's usage though overall non-residential demand aligns with European peers. [a]
- **Water usage**: Use is ~0.13% of Uisce Éireann's annual supply. [b]
- **Carbon emissions**: They account for ~4% of Ireland's total carbon emissions. [c]

Source: **[a]** CSO metered electricity consumption **[b]** McGrath-2024-Data-Centre-Water-Use-in-Ireland-.pdf **[c]** This estimate comes from annual CO2 emissions by data centre type based on capacity, total energy usage, SEAI emissions factors, and data centre utilisation rates – this value is not a publicly reported figure.

Executive summary

Wider benefits, costs, and trade-offs of hosting data centres in Ireland

Ireland differs from other countries such as Germany, the Netherlands, and the UK in its electricity demand profile – with relatively little heavy, energy-intensive industry, data centres account for a much larger share of electricity demand in Ireland. Other European economies devote more power to manufacturing, making Ireland a digital-infrastructure-led rather than industrial economy. However, total non-residential electricity consumption is broadly comparable with other European data hub countries. While the earlier analysis has highlighted the significant economic value of data centres to Ireland's economy, the scale of Ireland's data centre demand also presents system challenges, and there are opportunity costs and trade-offs associated with data centre development, some of which are outlined below.

Potential opportunity costs and trade-offs with data centre development (non-exhaustive)

	Potential opportunity cost
Financial	• Data centres attract **significant private investment** (over €15bn to date with €8-10bn more planned – according to the bitpower Q4 2024 Market Update). • Investment in infrastructure that supports data centre development also **supports Ireland's digital economy** and contributes to GDP, employment, tax revenues and productivity gains through digitally enabled services. • Grid infrastructure investment required to support large-energy users is currently recovered through regulated network charges.
Energy	• Data centres **currently consume 22% of Ireland's electricity** in 2024 (according to CSO data centre metred electricity consumption data) and are projected to consume more than 30% by 2030. To ensure continued robust energy security and power sector decarbonisation, this data centre expansion will likely require additional dispatchable and renewables generation, as well as grid reinforcement. • Operators are continuing to **invest in renewable energy development** via corporate PPAs and **support grid flexibility** through demand response and energy storage initiatives.
Environmental	• Backup diesel generators and on-site gas generation can **increase emissions** and reduce efficiency compared to grid power. • However, newer facilities are **adopting cleaner technologies**, including waste heat recovery and closed-loop cooling, which can contribute to decarbonisation in heating and industrial processes.
Economic	• Operational data centres typically create **relatively few direct long-term jobs**, which raises questions about whether the same land, energy, or incentives could support sectors with broader employment impacts. • However, data centres also generate **substantial construction employment** (and has helped Irish engineering firms become major European players), **stimulate local supply chains**, and **enable growth and economic activity** across sectors.
Land Use	• Many facilities **repurpose industrial or brownfield land** and can drive infrastructure upgrades that support broader regional development. • Additionally, Ireland is sparsely populated; data centres locate in areas **zoned for industrial development**, limiting their overall impact on wider land use requirements across sectors.

Executive summary

Potential implications of continuing or ceasing further development of Ireland's data centre landscape beyond 2030

Quantitative analysis completed in this study indicates the potential for substantial upstream economic impacts (related to data centre construction and operation) from further developing the data centre landscape beyond 2030.

Under a **no growth scenario** (no growth beyond 2030), upstream economic impacts of data centres by 2040 are estimated as:

- €1.4bn in annual GVA, the same as in 2030
- 9,500 jobs in 2040, the same as in 2030
- €169m in annual employment related tax, the same as in 2030
- Cumulative GVA of €14bn over the 2030-2040 period

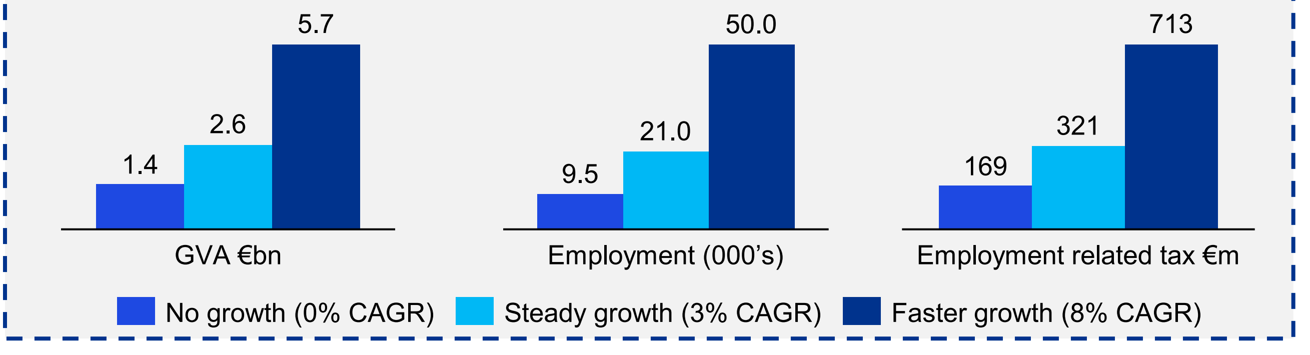
Under a **steady-state growth scenario** (3% CAGR in installed data centre IT capacity from 2030 onwards) upstream economic impacts of data centres by 2040 are estimated as:

- €2.6bn in annual GVA, an increase of €1.2bn in annual GVA relative to 2030
- 21,000 jobs in 2040, an increase of 11,000 in jobs relative to 2030
- €321m in annual employment related tax, an increase of €152m relative to 2030
- Cumulative GVA of €24bn over the 2030-2040 period

Under a **faster growth scenario** (8% CAGR in installed data centre IT capacity from 2030 onward) upstream economic impacts of data centres by 2040 are estimated as:

- €5.7bn in annual GVA, an increase of €4.3bn in annual GVA relative to 2030
- 50,000 jobs in 2040, an increase of 40,000 jobs relative to 2030
- €713m in annual employment related tax, an increase of €543m relative to 2030
- Cumulative GVA of €43bn over the 2030-2040 period

Summary of economic impacts under growth scenarios (2040)



In summary, the analysis shows that additional data centre construction and operation activities arising from further development of the data centre landscape between 2030 and 2040 could deliver billions of euro in annual GVA, generate hundreds of millions in employment related taxation, and support the creation of tens of thousands of jobs over the decade. Furthermore, it is the rate of installed data centre IT capacity growth rather than the mix of data centre types that would be the primary driver of these upstream economic impacts.

Executive summary

Potential implications of continuing or ceasing further development of Ireland's data centre landscape beyond 2030

Determining quantitative estimates of downstream economic impacts associated with stagnation or growth in the data centre landscape in Ireland is more difficult. To address this, the analysis adopts a conservative counterfactual approach focused on sectors whose core operations depend on domestically located, latency sensitive data centre capacity. Starting from the level of economic activity in these sectors in 2024, the analysis assumes a conservative growth rate of 2% per annum to 2030, reflecting continued digitalisation and rising demand for compute-intensive services. This provides an estimate of the scale of economic activity that could be supported in 2030 if data centre capacity were able to expand in line with digital requirements. This is then compared with a counterfactual scenario [1] in which data centre capacity does not scale in line with digital demand, constraining the ability of these sectors to grow. On this basis, the analysis indicates that in 2030, constrained data centre development could result in unrealised downstream economic activity of the order of:

- €11bn in annual GVA
- 94,000 jobs forgone
- €1.6bn in annual employment related tax revenues

Furthermore, if there is no further development of the data centre landscape beyond 2030, there is a risk that the data centre sector in Ireland will be limited in its ability to meet future demand for data centre services – both hosting IT infrastructure, providing managed IT services, and for processing and storing workloads. This could have a number of negative implications for Irelands economy. For example, where organisations' core operations [2] in Ireland depend on proximity to data centres, require low latency [3] and the data centre sector in Ireland cannot meet the business demand, then:

1. **In the case that workloads that underpin core operations are mobile**, this could give rise to:

- Existing data centre dependent enterprises in Ireland (both FDI and indigenous) being forced to relocate workloads that underpin core operations overseas in order to access appropriate data centre services elsewhere, which could lead to the loss of high-value employment, GVA, and employment related tax revenues, and corporation taxes if core operations shift to other jurisdictions [4].
- Digitally dependent start-ups and scaling enterprises – both FDI and indigenous – being unable to establish or grow operations in Ireland without access to suitable data centre services. This could impede Ireland's ability to support high potential digital enterprises to grow in Ireland.
- Digital first enterprises including those reliant on AI and high-performance compute being compelled to run workloads in data centres in other countries. This shift would relocate innovation, digital activity, and talent development to overseas hubs, weakening Ireland's domestic digital ecosystem and economy.

Note: **[1]** The scenario is that Ireland's data centre sector cannot meet the data centre needs to accommodate the digital growth in sectors whose operations require data centres to host their IT equipment in Ireland or need their data workloads to be served locally, for proximity and latency reasons, and for which overseas data centres are not a viable alternative. **[2]** A company's core operations are the activities that are essential to how it creates value, delivers its products or services, and stays in business. These are the functions that the organisation must perform well for it to succeed and they may depend on workloads processed in data centres. **[3]** Core operations being proximate to data centres means the workload that underpins the core operations need to sit in a data centre close to the organisation's systems or the organisation's customers. **[4]** If an organisation in Ireland runs its workloads in another country, its tech and operations teams may eventually move too, because being closer to the systems makes fixing problems and running things much easier. Once the key people and day-to-day operations are based abroad, it becomes harder for the company to keep its main base in Ireland, so the whole organisation may slowly shift away.

Executive summary

Potential implications of continuing or ceasing further development of Ireland's data centre landscape beyond 2030

Ireland could face several economic risks overtime if digitally intensive sectors are constrained, such as:

- A reduction in Ireland's national productivity growth, as digitally intensive sectors – typically high productivity industries – relocate or birth and grow operations abroad.
- Displacement of jobs and investment in organisations and sectors that depend on digitally intensive industries.
- Erosion of Ireland's competitiveness as a European digital hub due to limited access to appropriate data centre services.
- Declining attractiveness for future FDI, particularly among high tech and innovation driven firms seeking reliable digital infrastructure.

2. In the case that the workloads that underpin core operations of these organisations are not mobile, e.g., core operations (underpinned by data centres) in hospitals, financial Institutions, critical infrastructure operators:

- Organisations in Ireland may face delays in deploying or scaling digital services, increased costs, and pressure to continue using outdated or fragmented infrastructure. This can reduce system performance and resilience, limit the rollout of new digital capabilities, and heighten cybersecurity and compliance risks. All of which could have economic implications due to reduction in efficiencies in delivering services and functions, In severe cases, it may even constrain the delivery of essential public services and crisis response functions.

This study identified strong and continuing interest from data centre operators/ developers in building new capacity in Ireland – even when location of their data centres in Ireland is not technically required for proximity reasons. In addition, global and European trends point to ongoing growth in digital dependency, which will continue to increase demand for data centre services over time. These market signals and broader digital trends both point to demand for continued growth in the provision of data centre services over time. In the context of Ireland's economic model and enterprise mix, ongoing data centre development in Ireland will be indispensable beyond 2030 and promises to:

- Anchor Ireland's FDI attractiveness and ICT export leadership.
- Enable digital and AI-driven innovation and high-value job creation.
- Support compliance with EU data sovereignty and security standards.
- Maintain Ireland's competitiveness in an increasingly digital global economy.
- Support digitalisation of public services.

Executive summary

Potential implications of continuing or ceasing further development of Ireland's data centre landscape beyond 2030

The evidence points to a strong economic rationale for continuing to develop the data centre landscape over the 2030-2040 period. However, in the situation where there is further growth in installed data centre IT capacity, electricity related consumption will increase. Carbon impacts associated with data centre operations are dependent on the proportion of consumed electricity that stems from renewable sources as well as data centre utilisation rates. However, the analysis in this study suggests that with sufficiently high renewable penetration, of 80% and above [1], data centre growth could be accommodated from 2030-2040 while maintaining carbon impacts below 2030 levels (based on the assumption of 67% renewable energy usage by data centres in 2030) [2].

It is acknowledged that even with significant investment in renewable energy, additional electricity demand from new data centre growth will still require sufficient dispatchable and flexible generation to provide reliable, on demand electricity when wind and solar are insufficient. In Ireland, this means reliance on fossil fuel sources until such a time that sufficient firm, low-carbon technologies and long-duration storage are developed and deployed at the scale needed to replace fossil-fuel backup generation. As a result, further data centre expansion will continue to give rise to carbon emissions. Expanding data centres' access to and use of renewable energy is thus essential for balancing any future growth in installed data centre IT capacity in Ireland with meeting our climate goals.

Linking electricity demand to intensity

Assumed renewable energy	Intensity (TCO2/GWh)
40% (2024 generation) [2]	204.3 (2024 intensity)
67% [3]	112.4
80% (National target)	68.1
90%	34.1

This analysis uses the value of intensity of gross electricity supply from SEAI. In 2024, the intensity of electricity consumption in Ireland was estimated at 204.3 tCO2/GWh and assumes 40% renewable generation. From this, we derive the intensity per GWh of electricity consumption under different renewable energy scenarios as listed above.

Note: **[1]** The target for renewable electricity generation by 2030 is 80% – though it is currently estimated that Ireland will reach 67% renewable electricity by 2030. **[2]** Conversion Factors | SEAI Statistics | SEAI **[3]** The 67% figure is informed by discussions with DCEE and KPMG's internal SME network on the most plausible renewable-energy share in 2030. Ireland is advancing toward its 80% target but is not expected to achieve it by 2030.

Executive summary

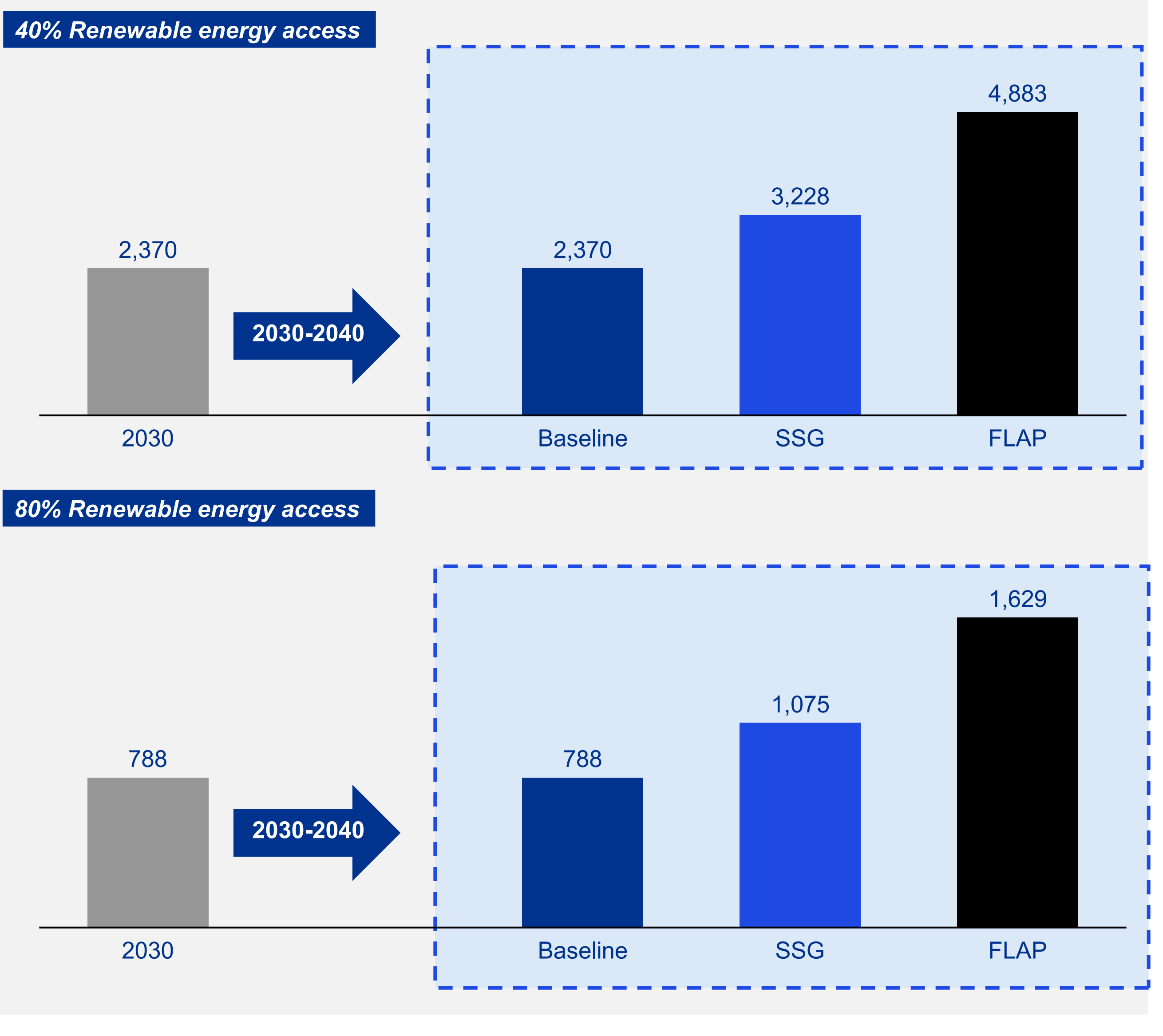
Greater renewable energy access from 2030-2040 can enable data centre growth while maintaining emissions below 2030 levels.

Increased access to renewable electricity materially reduces the carbon impact of data centre growth. Under an assumption of 80% renewable electricity supply, total data centre emissions are projected to remain at or below 2030 levels through to 2040, despite continued expansion in installed data centre IT capacity.

As shown below, emissions are consistently lower across all growth scenarios under an 80% renewable electricity assumption compared with a 40% renewable baseline.

Data centre emissions by scenario and sensitivity

tCO_2 (2030, 2040)



Source: SEAI

Executive summary

Challenges and opportunities associated with further data centre development in Ireland beyond 2030.

Challenges and potential mitigants to further development of Ireland's data centre landscape were identified and categorised under a number of themes as follows:

Energy and grid

Challenge: Ireland faces grid and energy constraints to serving new data centre capacity, particularly in the GDA.

Potential mitigant: Coordinated investment in grid capacity, accelerated renewable deployment, the use of decentralised energy solutions (such as on-site renewables, storage, and demand-side flexibility) and locating new data centres in regional locations. The Large-Energy User Action Plan (LEAP), introduced in January 2026 [1], will support sustainable planning of data centres post-2030 through increased colocation with renewable energy supply and regional development in green energy parks and enabling bankable, long-term offtake routes such as CPPAs that directly support the financing and build-out of new wind and solar projects. The plan-led approach will also alleviate grid pressure by directing large loads to strategic locations.

Carbon impacts

Challenge: New data centre development relates to increased electricity demand which risks increasing national emissions unless renewable generation continues to scale.

Potential mitigant: Accelerate renewable energy deployment plans supported by data centre-led CPPAs, scale low carbon technologies, including hydrogen-ready backup systems, energy storage, advanced cooling, and heat recovery.

Data centre planning and approval processes

Challenge: Slow and fragmented planning and permitting processes can reduce data centre investor confidence and delay project delivery.

Potential mitigant: Streamline approvals for high-performance, low carbon data centres and potentially designating data centres as critical infrastructure could accelerate development. Improved coordination, potentially through a national data centre-unit could help align planning with wider infrastructure and energy system development. In this context, the Large-Energy User Action Plan (LEAP) introduces a more plan-led approach to the development of large-energy intensive infrastructure, greater coordination between planning, grid investment and renewable energy deployment for data centres.

Sectoral needs and geopolitical factors

Challenge: Evolving sector-specific requirements including latency, resilience, and data sovereignty rules continue to shape data centre demand. Geopolitical trends also influence supply chains and digital policy priorities, and there is an emerging focus in developing sovereign cloud [2] in Europe, driven by geopolitical factors.

Potential mitigant: Ensuring future data centres are adaptable and modular, diversifying technology sourcing, and aligning with EU digital strategies will help maintain Ireland's position as a trusted, secure digital hub.

Note: **[1]** DETE - https://enterprise.gov.ie/en/publications/leap.html **[2]** Sovereign cloud refers to cloud services fully hosted and governed in Ireland or the EU, under local law, protecting sensitive workloads from foreign access.

Executive summary

Challenges and opportunities associated with further data centre development in Ireland beyond 2030.

Skills and workforce development

Challenge: Continued data centre development will increase demand for ICT, engineering, and sustainability skills to support data centre operations.

Potential mitigant: National initiatives in digital skills, apprenticeships, and micro-credentials, supported by stronger academic industry partnerships, can expand the talent pipeline. A focus on lifelong learning and upskilling will be essential as the sector integrates AI enabled operations and advanced energy management systems.

Community engagement

Challenge: Concerns and perceptions over energy use and water consumption associated with data centres, and a lack of understanding as to national and community benefits that data centres can bring, gives rise to public opposition to data centres and can delay and derail projects.

Potential mitigant: Early, transparent engagement clarifying the local benefits data centres can bring in terms of jobs, training, local infrastructure improvement and district heating, along with visible environmental responsibility of data centres, will be vital in building and sustaining trust amongst the public.

These findings align with the objectives of the Large-Energy User Action Plan (LEAP), particularly its emphasis on renewable integration, system coordination and sustainable planning for large-energy users.

In addition, international case studies from countries and locations that face similar challenges to Ireland for their data centre development provided valuable lessons and interesting approaches for Ireland to reflect on, for example:

- **Denmark** is exploring modular nuclear reactors for the first time in 40 years to address rising energy demand and balance renewables.
- **The Netherlands** introduced its Spatial Strategy for Data Centres 2030, directing development to energy-rich regions such as Eemshaven and Rotterdam to manage land and power constraints.
- **Singapore** paused all new data centre developments through a moratorium and now uses a Call-for-Application process requiring strict sustainability and clear economic value.
- **Spain's** main hub remains Madrid, but land and power limits are pushing large developments to Alcobendas, the Henares Corridor, and Aragon, supported by improved connectivity like the Grace Hopper subsea cable.
- **The UK**, while centred on London, is seeing expansion to regions like Blackpool for faster and greener power. Data centres were designated Critical National Infrastructure in 2024, improving planning and grid access.
- **Sweden** leverages abundant renewable energy and public-private partnerships to support technologies like heat reuse and liquid cooling, with local authorities offering repurposed industrial sites, free-zone approvals, and coordinated site selection via Business Sweden.

Executive summary

Strategic opportunity for Ireland to further develop the data centre landscape in Ireland beyond 2030.

The evidence clearly points to the important role data centres play in Ireland's economy, and consequently the importance of the data centre hub in the GDA where the majority of Ireland's data centres are currently located. As global economies continue to digitally transform and AI technologies become more deeply embedded across sectors, the ongoing development of Ireland's data centre landscape will be critical to ensuring that we remain positioned to reap the economic opportunities associated with these transitions. Ireland's future success in this regard will depend on its ability to address a series of challenges to further data centre development, in particular those related to climate goals, energy security, and grid and planning constraints.

This research supports the strategic opportunity for Ireland to expand its data centre landscape through regional diversification and the colocation of data centres with renewable energy sources. Subject to robust digital connectivity infrastructure being in place or developed, such an approach could enhance energy security, align with national climate ambitions, support regional economic development, and minimise additional pressure on the Dublin grid. This approach could catalyse the growth of new sustainable data centre hubs in locations outside of Dublin and attract indigenous and global technology companies to locate in the regional location.

However, policymakers need to recognise that continued, though managed development within the Dublin data centre hub will be required over time to sustain the attractiveness, competitiveness and the broader economic value associated with this mature ecosystem. In particular, certain data centre use cases derive material performance, resilience or efficiency advantages from proximity to Dublin's dense concentration of cloud infrastructure, enterprise customers and interconnection services. These include latency sensitive digital services; workloads that depend on frequent, high-volume data exchange between multiple collocated data centres (e.g., financial trading platforms syncing market data across multiple sites, or real-time payments coordinating across multiple data centres) and activities that benefit from access to a deep pool of specialised operational, engineering and network expertise. A managed approach to data centre development in the Dublin hub should therefore prioritise those use cases where location within this ecosystem delivers clear economic or operational advantages while taking account of the binding constraints related to energy availability, grid capacity and carbon impacts, and complementing this with the targeted development of data centre capacity in regional locations where appropriate infrastructure conditions can be met.

However, it is acknowledged that further data centre development will increase electricity demand and this in turn will give rise to data centre-related carbon emissions. Even with high levels of renewable deployment, data centres will still depend on dispatchable power sources during times of low renewable generation. In Ireland, this means reliance on fossil fuel sources until such a time that sufficient firm, low-carbon technologies and long-duration storage are developed and deployed at the scale needed to replace fossil-fuel backup generation. Though, with sufficiently high penetration levels of renewable generation in Ireland, of 80% and above, the research suggests data centre growth could be accommodated beyond 2030 while maintaining carbon impact levels associated with data centres below 2030 levels.

1.

Introduction to the study

Purpose and approach to the study (1/4)

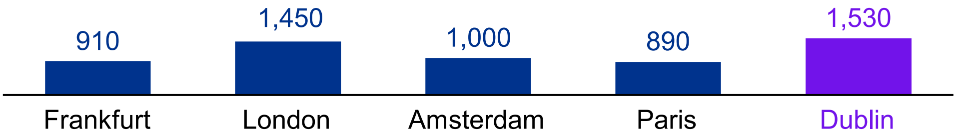
1.1 Study background and objectives:

Ireland has attracted data centre investment due to a combination of factors including a stable political environment, a reliable legal and regulatory system, a suitable climate and geography, an educated workforce and, an attractive tax regime.

Why Ireland is an attractive location to host data centres (non-exhaustive):

- Skilled workforce
- Cool climate
- Strategic location
- Robust energy infrastructure
- Fibre infrastructure
- Renewable energy
- Government support
- EU market access
- Presence of tech companies
- Construction ecosystem
- Access to subsea cables
- Regulatory/legal environment

Data centre capacity (MW) – FLAP-D markets [1]



This has led to Dublin becoming a key European hub for data centres alongside Frankfurt, London, Amsterdam and Paris. The development of the data centre landscape in Ireland over the past 15 years has led to a **rapid growth in energy demand from the data centre sector** at a time when Ireland is required to reduce its national emissions, decarbonise industry and society, transform the electricity grid, and electrify heat and transport while the population continues to grow.

It is important that Ireland manages future data centre development in a manner that ensures it can continue to **enhance its global position in the ongoing ICT revolution**, and which optimises the economic and wider benefits arising from data centres while ensuring Ireland is able to meet its climate and energy security objectives.

While there is a broad acceptance that data centres are required to underpin Ireland's digital economy, **specific evidence is lacking on the economic benefits arising from data centres in Ireland**.

- It was on that basis that the Department of Enterprise, Tourism and Employment (DETE) engaged KPMG to undertake this study.
- The study was overseen by a Steering Group chaired by a senior representative from DETE, and including other representatives from:
  - DETE.
  - Department of Climate, Energy and the Environment (DCEE).
  - Industrial Development Agency (IDA Ireland).
  - Enterprise Ireland (EI).
  - The National Economic and Social Council.

Note: [1] 2025 Data centre capacity (MW) estimates for Frankfurt, London, Amsterdam, and Paris were estimated using publicly available data from industry reports including: DCByte, Cushman & Wakefield, Goldman Sachs, JLL, Ember, CBRE. The Dublin estimate was estimated using a "data centre operator" database that was developed for this project – More detail on data centre capacity by region in Ireland can be found on page 47.

Purpose and approach to the study (2/4)

This study aims to:

- Map Ireland’s data centre landscape.
- Develop an evidence-based view of the economic value of data centres to the Irish economy as well as consideration of other benefits and non-financial costs associated with data centre development in Ireland.
- Identify the potential implications (primarily from an economic viewpoint) associated with ceasing or continuing data centre development beyond 2030.
- Outline the key challenges and potential mitigation measures for developing Ireland’s data centre landscape beyond 2030 and identify any strategic opportunities for Ireland.

Key economic metrics assessed in this report are GVA [1], jobs, wages and employment related tax revenues.

Study Boundaries:

- This report looks to address the knowledge gaps in relation to the economic benefits of data centres, but it is not a cost-benefit analysis.
- This study excludes consideration of national security and digital sovereignty risks, including risks arising from foreign ownership or control of data centre assets (e.g. access, control, or influence over data and infrastructure).
- While non-financial costs associated with data centres have been considered, this has been more narrowly assessed in comparison to the approach taken in determining data centre benefits.

Further work will be required by relevant bodies to close the knowledge gaps on complete environmental data sets and the social impacts that arises from data centres.

Note: **[1]** GVA = Output – Intermediate Consumption
Output = the value of what a business or sector produces.
Intermediate consumption = the value of the goods and services used up to produce that output (e.g., materials, energy, components)
GVA helps build the figure most people know - GDP. GDP = Sum of all GVA + taxes on products – subsidies.

Purpose and approach to the study (3/4)

1.2 Approach to the study

The study adopted a **mixed-methods approach**:

- **Desktop research** – drawing on information and data from different sources (non-exhaustive):
  - ABSEI survey data [1].
  - CSO data.
  - Data from System Operators (EirGrid, ESBN, GNI).
  - KPMG propriety datasets.
  - Omdia database.
  - Industry and regulatory publications.

- **Consultations:**
  - Stakeholder interviews – interviews were guided by a list of questions as shown in Appendix D, and included representation from the following:
    - *Government and policy – including input from project steering group, represented by DETE, Department of Climate, Energy and the Environment (DCEE), IDA Ireland, Enterprise Ireland, and the National Economic and Social Council (NESC).*
    - *Data centre operators and industry bodies.*
    - *Data centre customers and suppliers.*
    - *Academics with economic, energy and climate-related expertise.*
  - 3 Surveys – the questionnaire used to inform survey responses can be found in Appendix D:
    - *Data centre operators – 5 respondents.*
    - *Data centre suppliers – 30 respondents.*
    - *Data centre customers – 30 respondents.*
  - KPMG Subject matter experts (SMEs) with expertise in Construction, Data Centres, Energy, Infrastructure, and Technology.

- **Modelling:**
  - Economic impacts of data centre construction and operation.
  - Sectoral economic impacts enabled by data centres.

The modelling to estimate the economic impacts associated with the construction and operation of data centres was undertaken by **KPMG using its input-output (I/O) model** – Appendix A provides details on the modelling assumptions and methodology for 2010-2024 and 2025-2040. Appendix C provides details on the sensitivity analysis completed in relation to the economic impact associated with construction and operation of data centres for the 2030-2040 period.

The methodology for determining the sectoral economic impacts enabled by data centres is provided in section 3.2, with detail on the assumptions for the modelling provided in Appendix B.

- **6 international case studies** to provide strategic lessons from countries that experienced similar barriers and opportunities in data centre development to Ireland:

Denmark	Spain
Netherlands	Sweden
Singapore	United Kingdom

It is noted that a **"data centre operator database"** was built for this study from information collected through desktop research, data centre operators survey, ABSEI survey data, Omdia database, stakeholder consultations, and interviews.

Note: **[1]** The Annual Business Survey of Economic Impact (ABSEI) is a survey of approximately 4,200 client companies of Enterprise Ireland, IDA Ireland and Údarás na Gaeltachta employing ten or more employees in Ireland and comprises the Manufacturing and Information, Communication and Other Internationally Traded Services sectors.

Purpose and approach to the study (4/4)

1.3 Outline of report

Chapter 2:
- Provides context for the role of data centres in Ireland and their **upstream and downstream value**.
- It then sets out a **taxonomy for data centre types** and uses this classification to present an analysis of the data centre landscape in Ireland in 2025.
- This chapter also **presents data on the evolution of data centre capacity in Ireland** from 2010-2024 and the estimated data centre capacity growth between 2025-2030 and identifies the key elements that have influenced that trajectory.

Chapter 3:
- Focuses on **three aspects of economic impact** associated with data centres:
  1. **Upstream economic impact:** Economic impact associated with the construction and operation of data centres. This includes estimates of the potential economic impacts arising from construction and operation of data centres over the 2025-2030 period.
  2. **Downstream (sector-enabled) economic impact:** economic impacts associated with sectors that have a high dependency on data centres for their operations.
  3. **Downstream (FDI) impact:** The economic value associated with FDI related to data centres.
- The fourth subsection of this chapter **presents evidence on other benefits and costs** associated with data centres as well as a consideration of opportunity costs.

Chapter 4:
- Examines the global, European, and Irish trends associated with data centres and digital transformation, as well as Ireland's policies and enterprise mix.
- Defines **three scenarios based around different potential values** of additional data centre capacity post-2030, and assesses the potential upstream economic impact associated with construction and operation of data centres under each scenario.
- Explores the **potential foregone economic impacts** in the case that Ireland does not develop installed data centre IT capacity further beyond 2030, and the potential implications for Ireland's economy, with a spotlight on Ireland's digital exports.
- Considers the **potential wider opportunity costs** associated with curtailing data centre development beyond 2030.
- Evaluates how **changes to the share of total installed data centre IT capacity** across hyperscale and non- hyperscale data centres could impact on the economic impact arising from construction and operation of data centres.
- Assesses how **varying the levels of access to renewable energy and data centre utilisation rates** may influence the carbon impacts arising from data centre operations, across the different post-2030 data centre capacity growth scenarios.

Chapter 5:
- Identifies a series of **challenges to further developing the data centre landscape** in Ireland and **potential mitigants** to address these challenges.
- Highlights **lessons from peer countries** on sustainable growth, planning, innovation, regional diversification and criteria for prioritising investments.
- Presents key insights from the research and identification and considerations as to the potential strategic opportunities to data centre development in Ireland in the future.

2.

Overview of the data centre ecosystem in Ireland

Introduction to Chapter 2

Chapter 2 presents an overview of the role of data centres and an outline of their upstream and downstream economic impacts from 2010 to 2025.

- A **taxonomy for defining data centre types is then set out**, and it is noted that:
  - While there is no universally accepted classification system for data centres, the taxonomy presented is **in line with definitions used internationally**.
  - The category of "hyperscale site" includes both **owner-users** and **large-scale wholesale colocation** that host single large hyperscale tech tenants.
  - References to "installed data centre IT capacity" implies the **installed Megawatt (MW) capacity** for the IT functions of a data centre – this differs to the total power required to cover other power usage for the building for example, for heating and admin functions.
  - Installed data centre IT capacity does not mean that the **full amount of power** is currently being utilised by the data centre – actual utilisation depends on factors such as the number of operational servers, cooling requirements, and customer demand.
  - Many data centres operate **below their installed data centre IT capacity** to allow for future growth, redundancy, and maintenance flexibility. Therefore, installed capacity represents **potential and not real-time consumption** by a data centre.
  - The unit of measurement for "installed data centre IT capacity" is MW. This **differs to the unit of measurement** used by energy system operators such as EirGrid, which is typically reported in Megavolt-Amperes (MVA).
  - Installed data centre IT capacity refers to the **maximum real power** that the data centre can consume or deliver. Whereas MVA represents **apparent power**, which combines real power (MW) and reactive power (kVAR), together accounting for the total electrical load of a data centre.
  - Grid connection capacity, including Maximum Import Capacity (MIC) is typically specified in MVA. As a result, when comparing installed data centre IT capacity (MW) with grid connection or MIC figures (MVA), values may differ, typically by a value 0.8 and therefore the values associated with installed data centre IT capacity in this report may differ to those reported by system operators.
- The **analysis of the data centre landscape** in Ireland in 2025 is then presented in terms of:
  - Installed data centre IT capacity per data centre type.
  - Number of data centre operators, sites and buildings per data centre type and associated installed data centre IT capacity.
  - Location of sites and buildings per data centre type and associated installed data centre IT capacity.
- Finally, this chapter presents the **evolution of installed data centre IT capacity** in Ireland from 2010 to 2025; **projected installed data centre IT capacity** from 2025-2030; and the key elements over time that have influenced that trajectory.

Key takeaways from Chapter 2:

- **Data centre mix:** Ireland has 4 types of data centres: hyperscale, small-scale wholesale colocation, retail colocation, and enterprise – 88% of installed data centre IT capacity is hyperscale.
- **Installed data centre IT capacity:** As of 2025, there is 1,543MW across 72 operational buildings (36 sites) operated by 25 operators.
- **Location:** 99% of installed data centre capacity is in the Greater Dublin Area (GDA); 1% across Carlow, and Cork.
- **Growth forecast (2025-2030):** Installed data centre IT capacity to rise by 300MW, reaching 1,843MW by 2030.

The role of data centres in Ireland

Data centres are essential infrastructure of a modern, digital economy.

A data centre is a **secure facility that houses servers** – specialised computers supported by power, cooling, and high-speed connectivity to ensure continuous, reliable operation. Ireland currently hosts a combination of **hyperscale, colocation (retail and small-scale wholesale), and enterprise** data centres. Each data centre type provides different strategic functions for Ireland's digital economy: [1]

- **Hyperscale:** Provide capacity for large, scalable data centre solutions which is central to Ireland's tech FDI appeal – not only enabling big tech to host and support their own facilities and operations, but also providing critical access for other multinationals seeking local hyperscale capacity. [2].
- **Colocation (Retail and small-scale wholesale):** Provide businesses and organisations with a secure, shared environment to host their IT infrastructure without having to build and maintain their own facility.
- **Enterprise:** A data centre facility designed to house and manage an organisations IT infrastructure but larger than a server room.

Edge data centres are smaller, geographically distributed facilities that cache, process, and store data closer to where it is generated or consumed – typically near end-users, devices, sensors, or local operations. This reduces latency (the delay in data transfer), enabling faster response times for applications, websites, IoT devices, and cloud services. Edge data centres complement larger core data centre facilities by handling time-sensitive tasks locally, while less urgent data can be sent to the associated (more distance) core data centre. [2]

Data centres are essential to Ireland's digital infrastructure, enabling everything from cloud services and AI to secure data storage and real-time applications. They deliver **three core services**:

1). Compute:

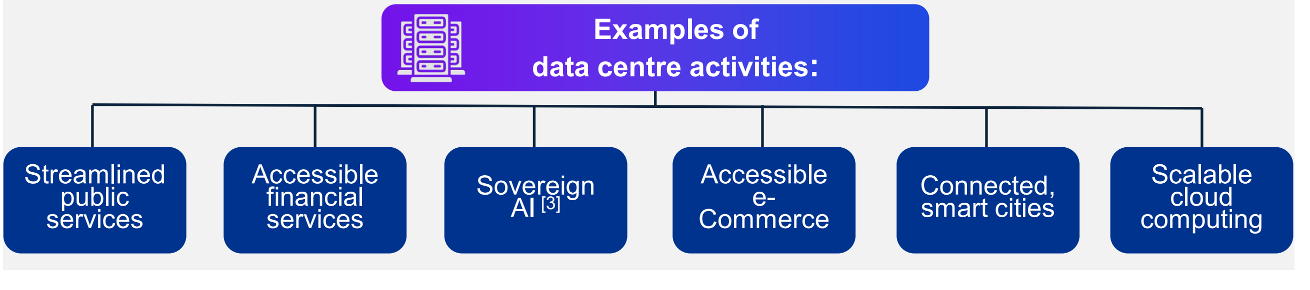
- **Hyperscale:** Delivers massive computing power to run global platforms (e.g. social media, search engines, enterprise SaaS).
- **Colocation / Enterprise:** Supports localised applications, enterprise IT, and public sector services.

2). Storage:

- **Hyperscale:** Hosts vast volumes of data for global users, including backups, media, and analytics.
- **Colocation / Enterprise:** Provides secure, scalable storage for SMEs, public sector, and regulated industries.

3). Accelerated Processing (AI & HPC):

- **Hyperscale:** Powers advanced AI models, machine learning, and high-performance computing at scale using GPUs and specialised chips.
- **Colocation / Enterprise:** Enables targeted AI workloads, and sector-specific innovation (e.g. healthcare diagnostics, financial modelling).



Note: **[1]** Greater detail on the taxonomy for each data centre type can be found on page 44. **[2]** An edge node is a single compute unit at the edge, while an edge data centre is a small facility that houses many such nodes with full power, cooling, and security infrastructure. **[3]** Sovereign AI refers to the control of AI systems which can be impacted by jurisdictional limitations.

Data centres in the wider value chain

From planning to digital services, data centres enable economic activity and connectivity across the value chain.

Upstream

Upstream data centre activities include all setup processes up to and including operations

1. Planning & Construction phase

- **Financing & land acquisition:** Capital investment, land and property purchase, real estate services.
- **Design & planning:** Planning consultancies, architects and design consultancies, bespoke energy solutions.
- **Infrastructure & build execution:** Grid connection, HV engineering, cost and project management, hardware installation.

2. Operations phase

- **Operator functions:** Day-to-day management, monitoring performance, uptime, and service delivery.
- **Energy provision:** Procurement and management of electricity supply, integration of renewable energy.
- **Retrofitting & upgrades:** Infrastructure upgrades, legacy system enhancements, installation and maintenance of computing components (e.g., CPUs, GPUs).

Data centres

Downstream

Downstream data centre activities refer to the services enabled by data centres

3. Tech and enterprise phase

- **Secure data processing & storage:** High-volume transaction handling, regulatory compliant data archiving, real-time analytics and reporting for private enterprises and public bodies.
- **Digital service delivery:** Cloud based platforms for client services, remote collaboration, AI-driven customer support and automation.

4. Households phase

- **Cloud and connectivity:** Access to online storage, apps, and smart services.
- **Digital media:** Streaming, gaming, and e-commerce.
- **Smart living:** IoT devices, virtual assistants.
- **Remote work & learning:** Video conferencing, virtual classrooms.

Source: Combined KPMG desktop research and consultations with industry stakeholders and internal KPMG SME network, and industry surveys.

A taxonomy for data centres in Ireland

The following defines a taxonomy of data centre types and classifications to analyse the data centre landscape and support economic modelling.

Data centre site type	Classification	Characteristics [1][2]
Hyperscale	Owner – User	• **Site capacity:** 10 - 100+MW. • **Ownership:** Operated by global tech and cloud providers (e.g. AWS, Meta, Google, Microsoft). • **Purpose:** Built for scalability and global service delivery. • **Function:** Supports cloud operations, AI, big data, analytics, storage and global apps.
	Large-scale wholesale colocation	• **Site capacity:** >=30MW. • **Ownership:** Owned by a specialised data centre operator who develops the building according to specific requirements of a single tenant. • **Purpose:** Suited for large enterprises and cloud providers. • **Function:** Big Tech companies (e.g. AWS, Microsoft) are prominent tenants in Ireland.
Colocation	Small-scale wholesale colocation	• **Site capacity:** <30MW. • **Ownership**: Owned by a specialised data centre operator and leased to one or a small number of tenants. • **Purpose**: Provides secure, data centre space for organisation whose requirements exceed retail colocation but not require full hyperscale capacity. • **Function**: Supports enterprise and large-scale workloads, including private cloud.
	Retail colocation	• **Site capacity:** 1 - 29MW. • **Ownership:** Owned by data centre operators and businesses rent space (e.g. racks or cages) for their servers and equipment. • **Purpose:** Designed for shared infrastructure and flexible tenancy. • **Function:** The provider manages operational control of the facility (e.g. power, cooling, physical security). Tenants can also include Big Tech companies.
Enterprise		• **Site capacity:** 0 - 10MW. • **Ownership:** Privately or publicly owned; operated by a single organisation with full control over infrastructure. • **Purpose:** Custom-built to meet specific business needs; typically located on-premises or in a dedicated facility. • **Function:** Supports internal IT operations; not shared

While there are no universal definitions to the data centre classifications, the above have been developed for this study to support economic modelling used to estimate the economic impact of data centres in Ireland across metrics such as GVA, employment, and employment related tax. This taxonomy also helps in determining insights on the broader impacts on Ireland's sectors and wider digital economy.

Note: **[1]** Site capacities by data centre type reflect typical scales in the context of Ireland; other European and Global regions may have different data centre mixes and classifications resulting in a different overall taxonomy. **[2]** Data centre capacity refers to a facility's maximum possible supported IT and electrical load. **[3]** While referenced later in this report, Edge data centres are not included as a distinct category in the data centre taxonomy, and hence not as a distinct category in the landscape mapping. This is because Edge data centres can be located within colocation data centres, meaning they often operate as a subset of colocation data activity.

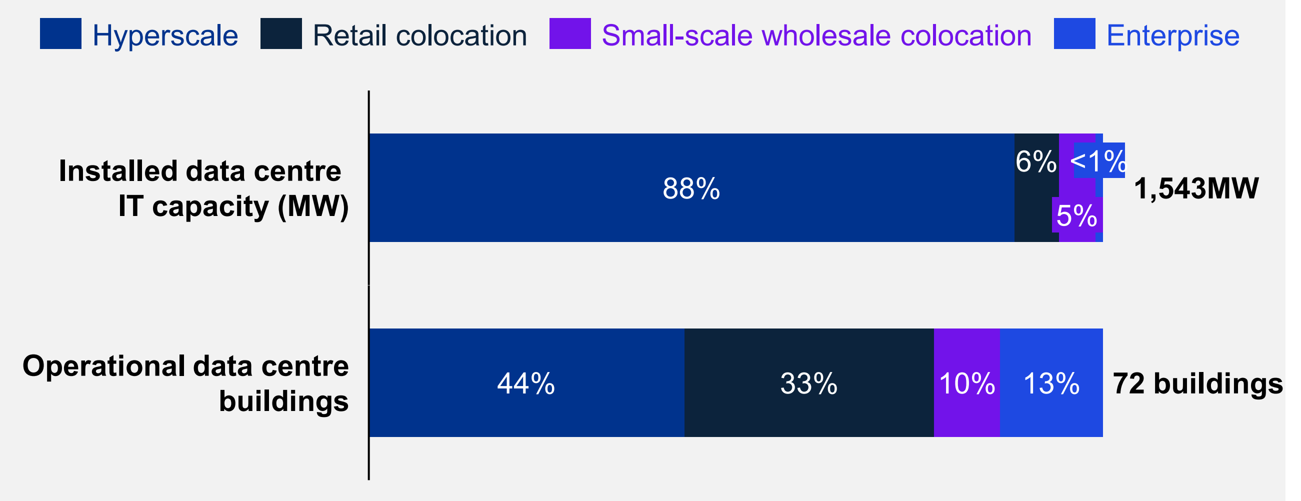
Source: Combined KPMG desktop research, data centre operator survey, consultations with data centre operators, and a data centre operator database.

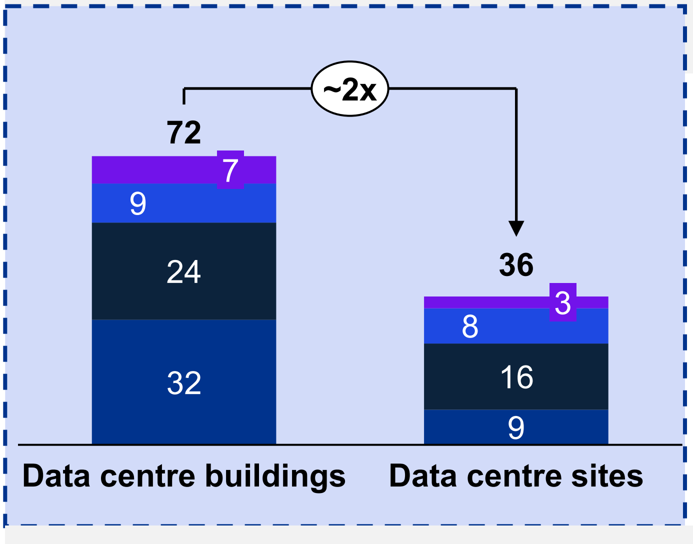
Data centre mix in Ireland: 2025 (1/2)

As of 2025, Ireland has approximately 1,543MW of installed data centre IT capacity, primarily in hyperscale buildings and sites.

Overview of installed data centre IT capacity (MW) and number of data buildings and sites [1]

The values below reflect 2025 installed data centre IT capacity for operational data centres in Ireland





- A data centre **site** is the physical location hosting one or more secure, climate-controlled data centre **buildings.**
- A data centre **building** is a single structure within that site that houses **IT equipment and is filled with racks.**
- Across all data centre types in Ireland, there is on **average 2 data centre buildings per data centre site.**
- Hyperscale data centres with higher installed data centre IT capacities typically **host more buildings over less sites** compared to data centres with smaller installed data centre IT capacities such as retail colocation or enterprise data centres.

As of 2025, Ireland has approximately **1,543MW of installed data centre IT capacity** across **72 operational data centre buildings across 36 sites:**

- **Hyperscale:** ~1,363MW across 32 buildings (~43MW per building on average).
- **Retail colocation:** ~92MW across 24 buildings (~4MW per building on average).
- **Small-scale wholesale colocation:** ~84MW across 7 buildings (~12MW per building on average).
- **Enterprise:** ~5MW across 9 buildings (~0.6MW per building on average).

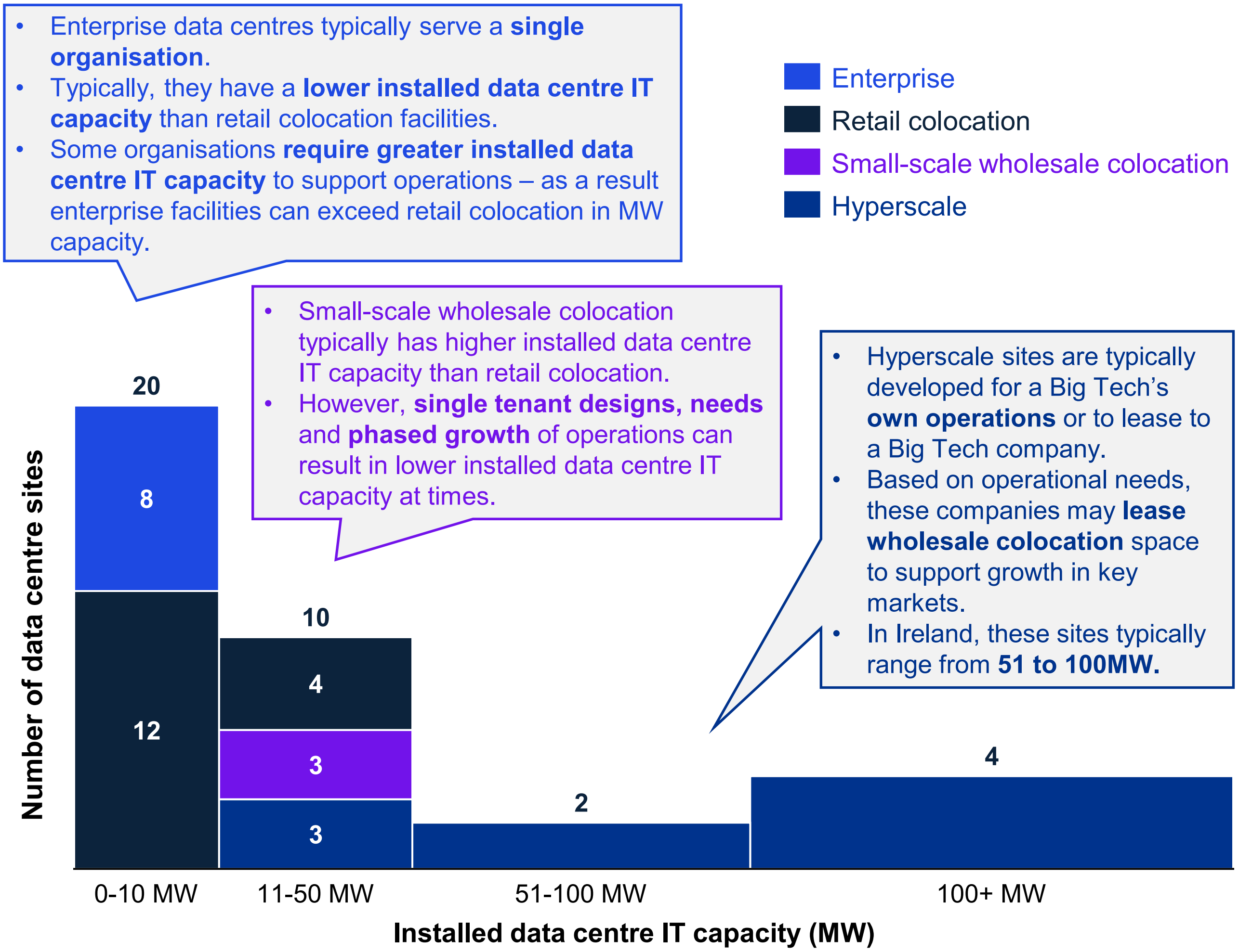
Note: **[1]** Data centre capacity/building figures in this report may differ from other publicly available data due to variations in how 'sites' and 'buildings' are classified, differences in scope (e.g. colocation facilities only), measurement (e.g. installed data centre IT capacity, MVA, data centre capacity), and whether pipeline and/or operational data centres are included. This report estimates data centre capacity (MW) based on operational data centres. This study identifies 72 operational, grid-connected data centre buildings as of 2025. Higher figures cited in other sources typically include public sector facilities (such as health and government data centres), enterprise server facilities, or sites not fully operational. These facilities fall outside the scope of this analysis, which focuses on operational data centres that may serve enterprise and the public sector (but not fully owned by public sector bodies).

Source: Combined KPMG desktop research, data centre operator survey, consultations with data centre operators, and a data centre operator database.

Data centre mix in Ireland: 2025 (2/2)

Hyperscale operators run fewer, high-capacity sites; retail and enterprise operators manage more, lower-capacity sites.

Distribution of installed data centre capacity (MW) and number of data centre sites by data centre type in Ireland



As of 2025, Ireland has 25 data centre operators across 36 data centre sites:

- **Hyperscale:** 6 operators across 9 sites (~1,363MW of installed data centre IT capacity).
- **Retail colocation:** 9 operators across 16 sites (~92MW of installed data centre IT capacity).
- **Small-scale wholesale colocation:** 3 operators across 3 sites (~84MW of installed data centre IT capacity).
- **Enterprise:** 8 operators across 8 sites (~5MW of installed data centre IT capacity).

In Ireland, Big Tech companies operate hyperscale sites only. In the other categories, some operators span across different data centre types. For example, one operator operates **3 retail colocation sites** and **1 small-scale wholesale colocation site**, totalling approximately 66MW of Ireland's total installed data centre IT capacity.

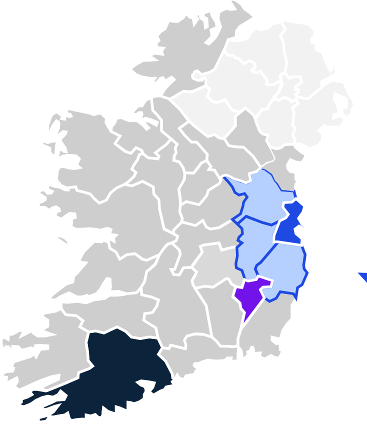
Source: Combined KPMG desktop research, data centre operator survey, consultations with data centre operators, and a data centre operator database.

Data centre locations in Ireland

As of 2025, Dublin leads in both the number and installed data centre IT capacity of data centres.

Data centre locations in Ireland [a][b][c][d][e][f][g]

Locations of data centre sites and buildings in operation as of 2025



Why cluster data centres?

For many real-time digital services (e.g., financial trading, telecoms, payments infrastructure) a key latency challenge is how quickly data centres can communicate and coordinate with each other, often in microseconds.
For these types of activities, this ultra-fast interconnection makes clustering a critical component of Ireland's digital infrastructure.

Location	Sites	Buildings	Data centre types	% proportion of Ireland's installed capacity (MW)
GDA	33	69	• Hyperscale • Retail colocation • Small-scale wholesale colocation • Enterprise	99% of total capacity
Cork	2	2	• Retail colocation	<1% of total capacity
Carlow	1	1	• Retail colocation	<1% of total capacity

Sector capacity overview:

- 33 (92%) of Ireland's operational data centre sites are concentrated in the GDA – accounting for approximately 99% of Ireland's total installed data centre IT capacity.

Dublin's ecosystem:

- Dublin hosts a strong colocation market which offers shared infrastructure and ecosystem.
- Dublin remains the leading hub for hyperscale and non-hyperscale data centres, supported by strong connectivity, a skilled workforce, and proximity demand – which is critical for reducing latency, improving performance, and lowering network costs.

Location outlook for data centres:

- Grid and planning constraints are prompting interest in regions beyond the GDA.
- Cork and Carlow are emerging alternatives where there is access to renewable energy and land is available.
- Regional expansion will likely favour locations that offer access to renewable energy supply and where robust connectivity is in place or can be developed.
- Regions that enable clusters beyond the GDA could deliver shared infrastructure and cost efficiencies – attracting regional FDI.

Source: **[a]** KPMG analysis and desktop research **[b]** Consultations and survey with data centre operators **[c]** Data centre operator database **[d]** Library & Research Service –- Houses of the Oireachtas: Data centres and energy **[e]** DCByte **[f]** Data centre operator websites **[g]** Datacenters.com

Locational flexibility of data centres in Ireland

How location requirements shape the broader economic contribution of data centres.

While many data centre facilities located in Ireland support the operations of organisations located in Ireland, the extent to which activities require local hosting varies depending on workload characteristics, latency sensitivity, and regulatory or operational requirements. Data centres range from highly location-dependent facilities to those that can operate flexibly across a distributed European footprint without direct proximity to Irish end-users. [1]

Proximity and operational criticality

- Non-hyperscale data centres, including colocation, enterprise and edge facilities, often require close proximity to users, systems or other data centres. These facilities support sectors such as financial services, telecommunications, healthcare, transport and emergency services, where low latency, physical access and rapid recovery are critical.
- In such cases, proximity – often within tens of kilometres – supports operational resilience, compliance and continuity of service. These facilities can be integral to Ireland's day-to-day economic and operational resilience.
- By contrast, hyperscale data centres operated by global technology firms typically operate with extensive redundancy across multiple regions. Their workloads are designed for regional or global distribution, meaning that if a data centre located in Ireland experiences downtime, services can be served from other European locations without disruption.
- As a result, physical proximity of hyperscale data centres to end-users in Ireland is generally less critical from a technical perspective, even though these facilities remain economically significant.

Latency considerations

- Latency-sensitive applications, such as real-time financial trading, communications and control systems, benefit significantly from data centres located close to users, where reduced latency improves performance and reliability.
- Other workloads hosted in Ireland are more latency-tolerant, including archival storage, batch processing and globally distributed SaaS platforms. For these services, small increases in latency typically have limited impact on functionality, reducing the importance of domestic location from a performance perspective.

Sovereignty and regulatory perspective

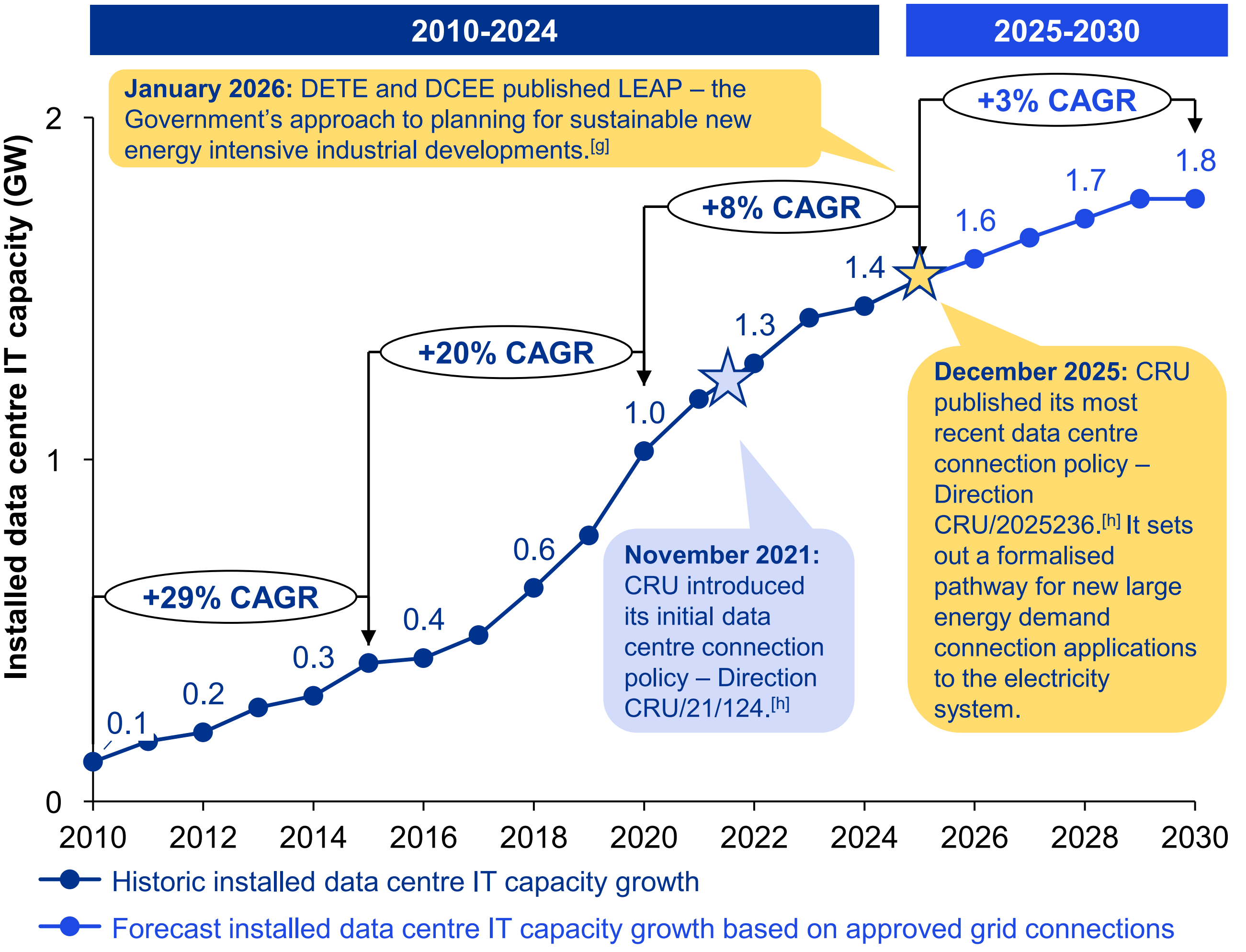
- Data sovereignty and regulatory requirements influence location decisions, particularly for public sector and regulated industries.
- Domestically located data centres can enable auditability, hands-on recovery and compliance with national obligations.
- However, many hyperscale facilities primarily support international clients whose governance requirements are driven by internal risk frameworks rather than Irish-specific regulation. While these facilities contribute to Ireland's digital economy, their role in national sovereignty and public-sector resilience depends on the nature of the workloads they support.

Note: **[1]** An overview of proximity, latency and data sovereignty can be found in Appendix F.

Data centre IT capacity growth: 2010-2030

Ireland's installed data centre IT capacity grew from 0.1 GW in 2010 to over 1.5 GW in 2025, with growth expected to reach ~1.8 GW by 2030 at a slower pace.

Installed data centre IT capacity growth in Ireland (2010-2030) [1][a][b][c][d][e][f][g][h]
GW of installed data centre IT capacity



As of Q4 2025, Ireland's installed data centre IT capacity stands at 1.5 GW. Grid operators – EirGrid, ESBN, and Gas Networks Ireland – have approved connections for an additional 300MW. While this covers part of current demand for capacity, it does not reflect the full level of developer and operator interest along the development pipeline.

A further 1.4 GW is at different stages in the development pipeline:
- ~0.5 GW in active development such as applying for grid connection and planning approval.
- ~0.9 GW at early planning stages such as project conceptualisation and feasibility assessment.

A recent market intelligence exercise undertaken by EirGrid to inform the CRU Large-Energy Users Connection Policy indicates that additional demand by data centre operators/developers over the 15 years out to 2040 is of the order of 5.8GW.

Note: **[1]** The values reported will differ from publicly available data from reports such as EirGrid's 'Ten Year Generation Capacity Statement, 2023–2032' and 'The Tomorrow's Energy Scenarios' which report data centre capacity in MVA.

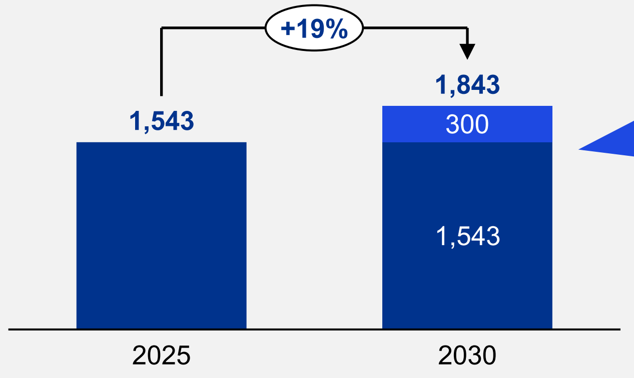
Source: **[a]** KPMG analysis and desktop research **[b]** KPMG stakeholder consultations **[c]** Data centre operator database **[d]** EirGrid **[e]** ESBN **[f]** GNI **[g]** DETE **[h]** CRU.

Grid-approved pipeline: 2025-2030

Ireland's installed data centre IT capacity is projected to grow by 19% between 2025 and 2030, supported by grid-approved connections.

Growth in installed data centre IT capacity (MW) 2025-2030 [1][2][a][b][c][d]

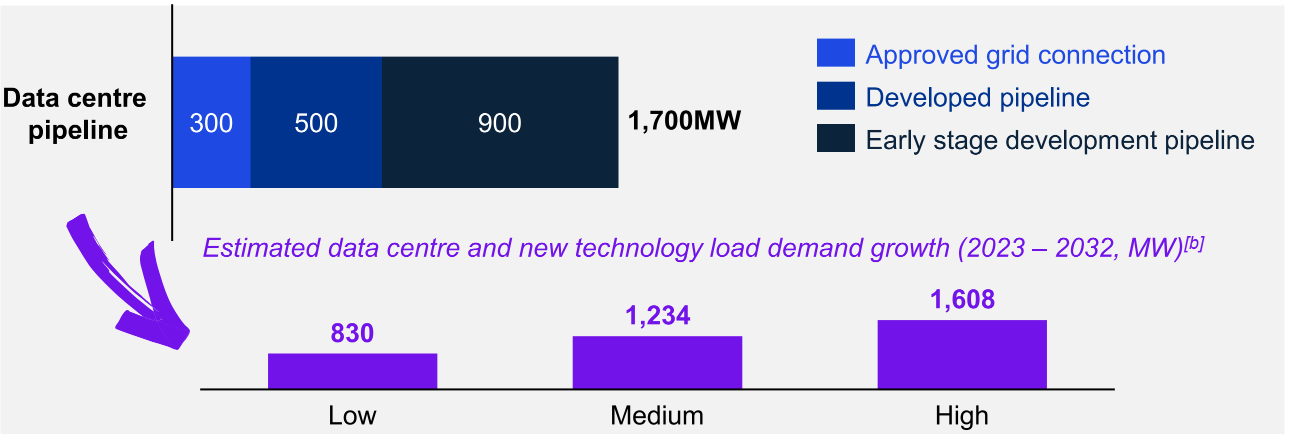
Values are recorded in MW



Grid–approved capacity outlook (2025-2030):
- Installed data centre capacity is projected to grow by **~300MW (~19%) by 2030**
- Based on contracts entered into by EirGrid, ESBN and GNI with data centres but for which the data centres have not yet been connected, **no additional projects are projected after 2029 based on current contracts**

Development breakdown and market context:
- **~90% of the 300MW pipeline** is expected from hyperscale projects via EirGrid connections, primarily in the GDA. The remaining ~10% is expected to come from retail colocation and enterprise developments.
- FLAP-D markets are projected to grow from 5.5GW to 8.1GW, with **Dublin contributing only 12% of that growth.**

Data centre development pipeline [a][b][c][d][e][f]



Approved vs. pipeline capacity:
- EirGrid, ESBN, and GNI approved grid connection for 300MW of new installed data centre IT capacity.
- This represents only part of the demand, with an additional 1,400MW demanded beyond 2030. This is based on KPMG research of what is in various stages of pipeline development. However it is noted that a recent EirGrid market intelligence exercise indicates demand for data centre capacity in Ireland in the post-2030 period could be in excess of this, with estimates of additional demand of 5.8GW over the 2025-2040 period.
- EirGrid's Generation Capacity Statement (2023 - 2032) projects that by 2032, growth in data centre and new technology load demand could range from approximately 830MW to 1,608MW.
- Load demand represents the total electrical power required by data centres and technology loads connected to the grid.

Note: **[1]** The 2025 capacity figure is an estimate from connected capacity as of Q3 2025. **[2]** The FLAP-D market refers to five of the most established and mature data centre hubs in Western Europe-Frankfurt, London, Amsterdam, Paris and Dublin.

Source: **[a]** KPMG analysis **[b]** EirGrid – Generation Capacity Statement **[c]** ESB Networks **[d]** Gas Networks Ireland **[e]** BitPower **[f]** DCByte

Ireland's data centre ecosystem: 2010-2024

Dublin has become a key European data centre hub, though growth has slowed due to energy, grid and policy constraints.

Timeline of key developments and changes to Ireland's data centre ecosystem (2010-2024)

2010-2025 Foundations

Rising Demand

The rise of smartphones and cloud services increased global demand for data centres

Big Tech expansion

Global tech companies such as Amazon, Google, and Microsoft developed large-scale hyperscale facilities, primarily along Dublin's M50 corridor. In 2012, Microsoft invested $130m to expand is Grange Castle site.

Strategic connectivity

Dublin provided access to the T50 fibre ring and transatlantic connections such as the AEConnect cable, fully completed in 2016.

Attractive climate

A competitive corporate tax rate, strong data protection laws (e.g., Data Protection Acts 1988-2003), strategic location between North America and Europe, temperate climate, and the Planning and Development (Strategic Infrastructure) Act 2006 made it attractive to developers and investors.

2016-2020 Rapid expansion

Increased hyperscale growth

By 2020, hyperscale sites made up 80% of total MW capacity, driven by growing investment from global tech firms.

Policy and investment

EirGrid committed to major upgrades to support large-energy users in Greater Dublin, including the Belcamp-Finglas 220kV line, which increased capacity for hyperscale in Clonshaugh and Grange Castle.

Key data centre hub in Dublin

By early 2020, Dublin was recognised as the 'D' in the FLAP-D data centre markets – alongside Frankfurt, London, Amsterdam, and Paris – highlighting its role in Europe's cloud and digital infrastructure.

2021- 2022 Regulatory shift

Electricity consumption

Data centre electricity rose 31% from 2021 to 2022, reaching 18% of Ireland's total metered consumption, increasing grid pressure and raising concerns over energy security and climate goals.

Policy and restrictions

At the end of 2021, EirGrid limited new data centre connection applications in the greater Dublin area until at least 2028 due to grid constraints, while considering other regions on a case by case basis. The CRU introduced stricter requirements, requiring on-site energy solutions for some data centres. By July 2022, the government issued a revised statement with sustainability principles aligned to the Climate Action Plan 2021 and National Energy Security Framework 2022.

2023-2024 Diversification

Growth in demand for AI

Rising AI and digital demand raised concerns over grid capacity, energy security, and climate targets. In response, stakeholders advocate private cables for direct renewable access.

Projects and investment

By mid-2024, Ireland had a substantial pipeline of data centre buildings spanning operational, under construction or approved.

2025-2026 LEAP / CRU

Policy developments

CRU and LEAP outline a coordinated framework for enabling new data centre connections, aligning grid access conditions with sustainable development and renewables, and providing greater certainty for operators.

Source: Combined KPMG desktop research and consultations with industry stakeholders and internal KPMG SME network, and industry surveys.

3.

The economic impacts and other benefits and costs of data centres

Introduction to Chapter 3 (1/2)

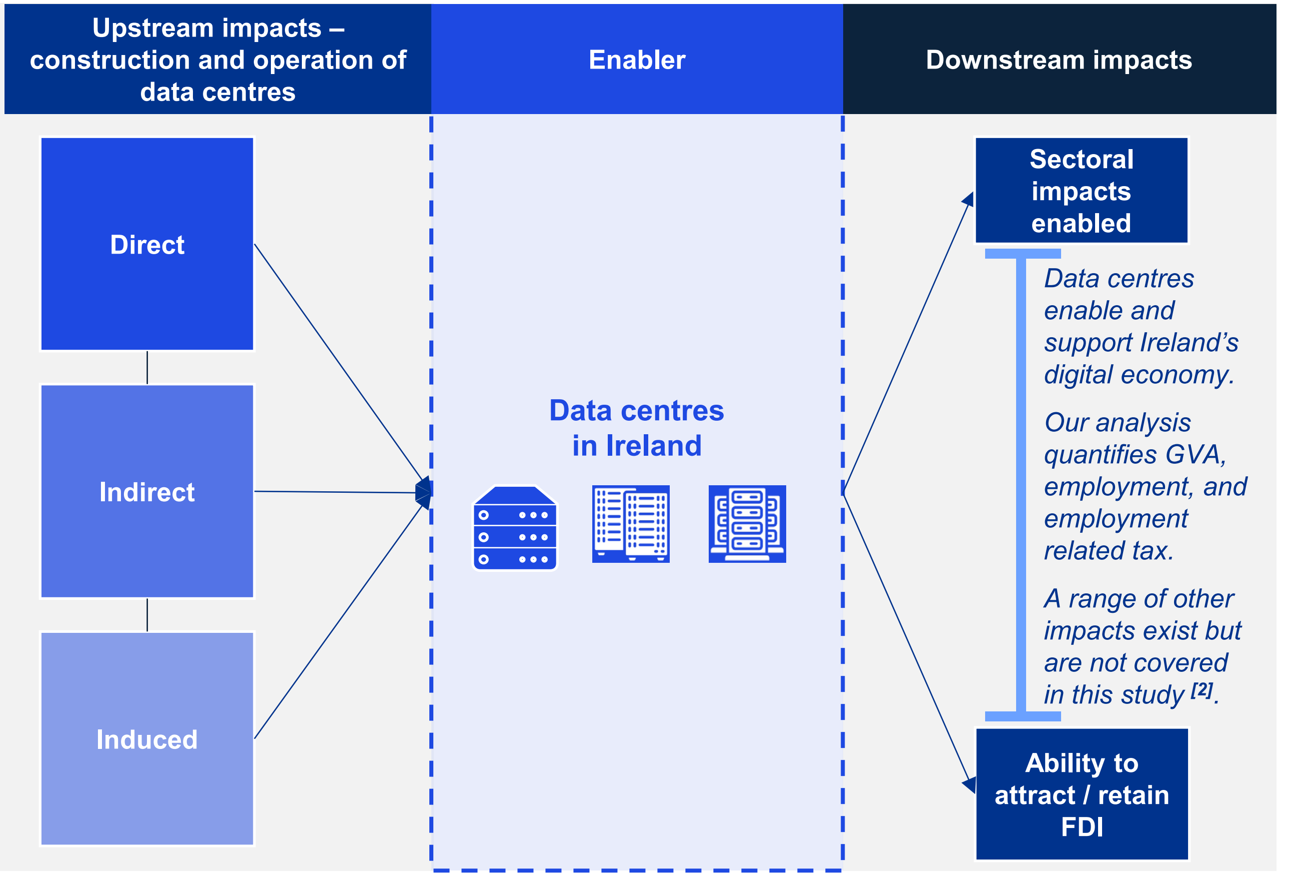
Chapter 3 of this study focuses on three aspects of economic impact associated with data centres:

1. **Upstream impact:** Economic impacts associated with the construction and operation of data centres (Direct, Indirect, Induced) over the period of 2010-2024 are presented; and projections are made for the period of 2025-2030. The upstream impacts (GVA, employment, salaries and employment related tax revenues) discussed throughout this section were estimated using KPMG's economic impact model. More detail on the economic impact modelling approach and assumptions can be found in Appendix A.

2. **Downstream (sectoral enabled) impact:** Sectoral economic impacts enabled by data centres. [1] Detail on the downstream impact modelling approach and assumptions can be found in Appendix B. The downstream impacts were estimated using a study-specific approach to estimating the sector impacts enabled by data centres in Ireland. A more detailed discussion can be found in Section 3.2.

3. **Downstream (FDI) impact:** The economic value associated with FDI related to data centres.

The fourth element of this chapter presents evidence on other benefits and costs associated with data centres as well as a consideration of opportunity costs.



Note: **[1]** Based on 2024 CSO published GVA data. **[2]** For example, corporation tax impacts were not estimated.

Introduction to Chapter 3 (2/2)

Chapter 3, Section 1 analyses the economic impacts associated with the construction and operation of data centres in Ireland, quantifying contributions to GVA [1], employment, salaries, and employment related tax revenues associated with the construction and operation of data centres in Ireland via direct, indirect, and induced channels, and noting differences by centre type. This section:

- Presents annual GVA from 2010–2024 and forecasts to 2030, distinguishing between CAPEX (construction) and OPEX (operational) phases, and positions the contribution of the economic impacts arising from construction and operation of data centres to the national economy in 2024. [2]
- Compares data centre sector salaries to national averages.
- Highlights the importance of data centre construction and operations for stimulating broader economic activity through the supply chain that supports the sector.

Chapter 3, Section 2 estimates economic value, employment, and employment related tax revenues enabled by data centres across Ireland's most digitally dependent sectors.

- Identifies six key sectors that are most dependent on data centres and introduces a scenario framework to assess activity enabled by data centres, considering digital dependency, proximity, and latency needs.
- Quantifies GVA, employment, and employment related tax revenues across scenarios, emphasising data centres' role in investment, competitiveness, and continuity.

Chapter 3, Section 3 explores data centres' role in attracting and retaining FDI.

- Highlights FDI "stickiness" and employment in foreign owned data centres and their wider operations in Ireland and computer services exports.

Chapter 3, Section 4 reviews wider benefits, costs, and trade-offs beyond financial measures.

- Assesses resource and environmental challenges (energy, water, emissions) and wider benefits like data sovereignty, innovation, regional growth, and renewable support.
- Discusses opportunity costs (land use, grid capacity) and how data centres foster skills, community benefits, and Ireland's digital hub status.

Key takeaways from Chapter 3:

- Data centre construction and operation have delivered billions in GVA to Ireland, peaking at €3.2bn and over 31,000 jobs at construction peak. Ongoing operations are estimated to sustain €1.4bn GVA and 9,500 jobs by 2030.
- Data centres generate substantial employment related tax revenues, peaking at €409m in 2020 and remaining strong through 2030. Operational jobs yield higher tax per employee than construction.
- Data centres support a broad supply chain – construction, engineering, manufacturing, and services. Both Irish and foreign suppliers invest in R&D, skills, and capital.
- Irish-owned firms have developed expertise in delivering complex, mission critical facilities for global hyperscalers. This makes data centres a core pillar of Ireland's High Tech Construction (HTC) exports. Approximately €2.1 billion (40%) of Ireland's High Tech Construction (HTC) exports in 2024 were associated with construction of data centres by Irish-owned companies.
- The sector offers stable, high-value jobs, with salaries above the national average. Specialist IT, engineering, and cybersecurity roles support skills growth across sectors.
- Data centres are critical to Ireland's digital sectors, supporting ICT, finance, health, transport, retail, and professional services. Up to €104bn in GVA and 876,000 jobs could depend on data centre capacity located in Ireland.
- Data centres are a key enabler of FDI, strengthening Ireland's ability to attract and retain digitally intensive multinationals by anchoring core operations and cloud infrastructure domestically.
- Risks include lost and foregone FDI attraction and retention, missed digital sector growth, and reduced competitiveness if Ireland cannot meet proximity and latency-sensitive sector needs.

Note: **[1]** GVA = Output – Intermediate Consumption. Output = the value of what a business or sector produces. Intermediate consumption = the value of the goods and services used up to produce that output (e.g., materials, energy, components). GVA helps build the figure most people know - GDP. GDP = Sum of all GVA + taxes on products – subsidies. **[2]** More detail on the upstream economic impact modelling approach and assumptions can be found in Appendix A.

3.1

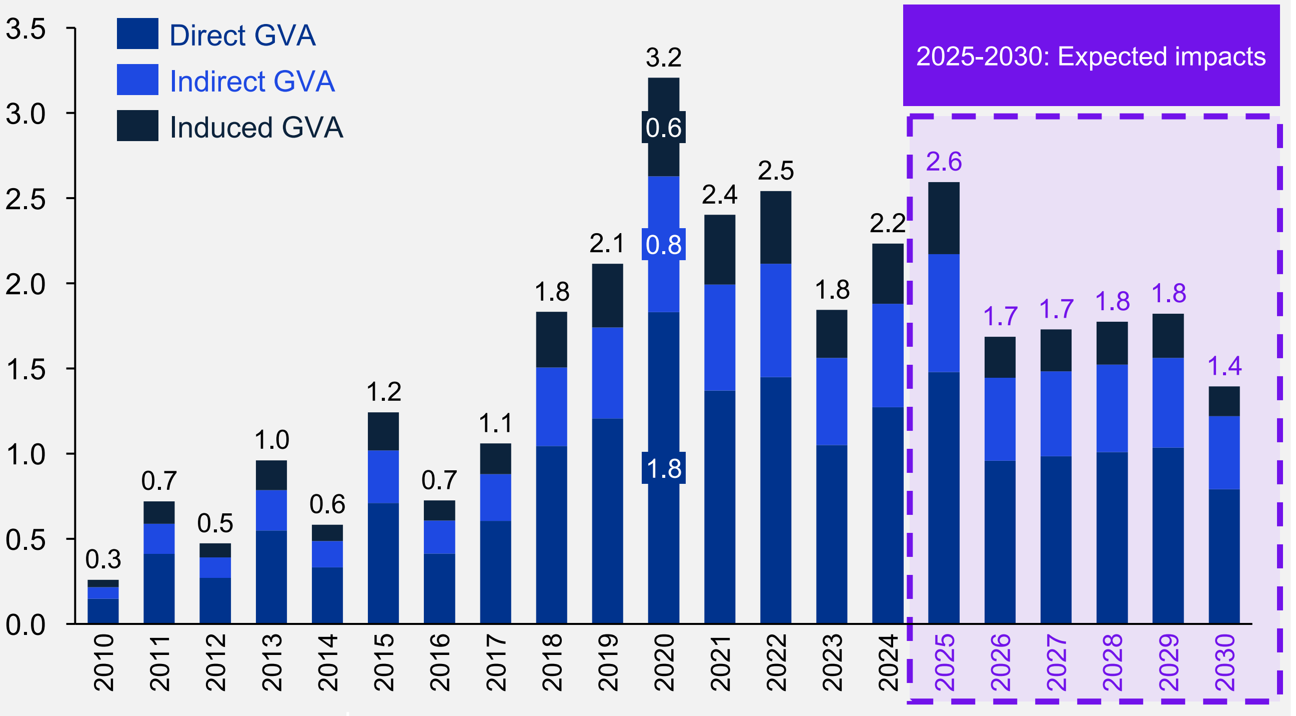
Upstream economic impacts associated with construction and operation of data centres

Total GVA impacts 2010-2030

Ireland's data centre sector contributed ~€3.2 billion in annual GVA at its 2020 peak, and could support ~€1.4 billion in annual GVA by 2030.

Estimated annual GVA impacts of data centre activity, capex and opex total [1][2]

€bn



1.75
multiplier effect

On average, €1 million in direct GVA from data centres **supports an extra €0.75 million** in the broader economy, resulting in a total impact of €1.75 million.

Since 2010, Ireland's data centre sector has been a steady contributor to the economy, driven by capital expenditure on construction and development and operational expenditure on running facilities.

Installed data centre IT capacity has grown from 0.1 GW in 2010 to a projected 1.8 GW by 2030, expanding the sector's economic footprint, strengthening supply chains, and supporting jobs.

In 2020, data centre activity is estimated to have generated €3.21 billion in GVA (equivalent to €7.88 billion in economic output), up from €0.66 billion in 2010, comprising:

- **€1.83bn in direct GVA** (+€1.68bn since 2010), from construction, staffing, and administration;
- **€0.80bn in indirect GVA** (+€0.73bn since 2010), driven by supply chain spending and;
- **€0.58bn in induced GVA** (+€0.53bn since 2010), driven by wage-related spending.

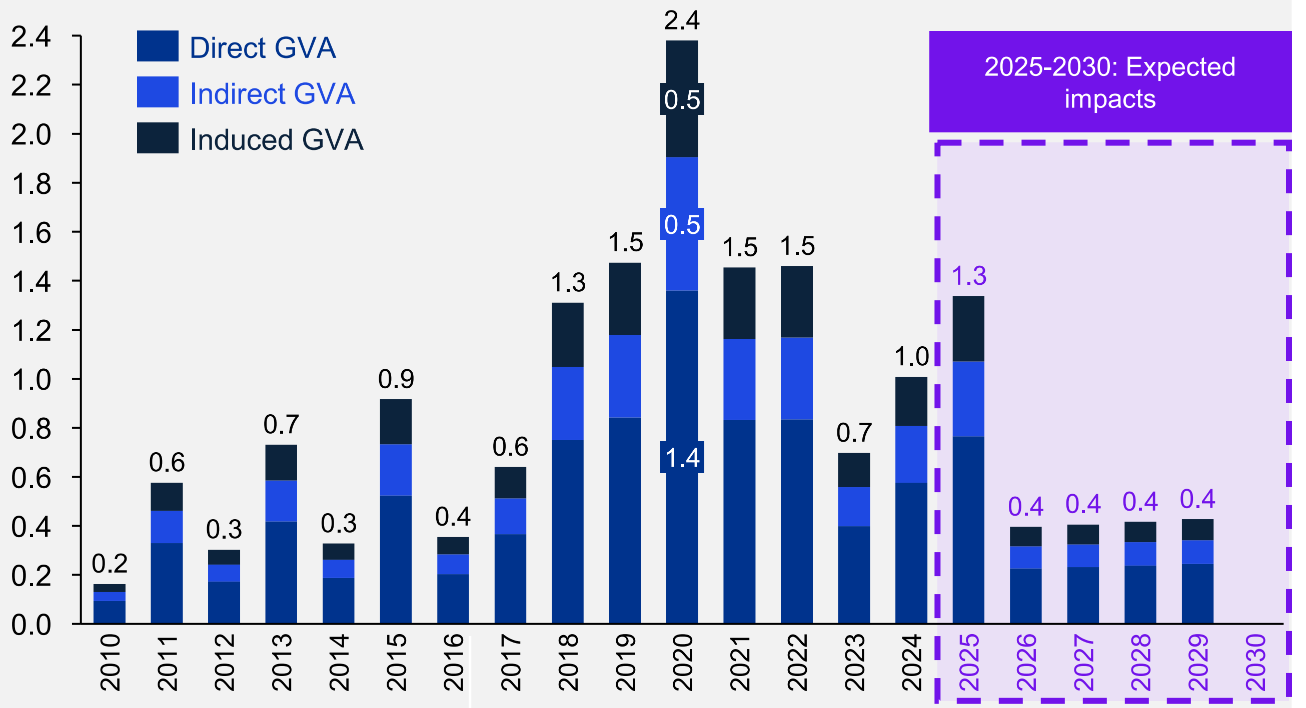
Capex impacts vary year to year with new capacity additions, while opex impacts accumulate as more facilities come online.

Note: **[1]** As of 2025, 300MW is expected to be delivered between 2025 and 2029, with no additional capacity in 2030 – resulting in no anticipated capex impact that year. **[2]** The GVA impacts for 2025-2030 are estimated assuming the proportion (in terms of installed data centre IT capacity) of hyperscale to non-hyperscale sites in 2024. This is maintained for each year from 2025-2030.
Source: **[a]** CSO input-output tables **[b]** Data centre operator, supplier, and customer surveys **[c]** KPMG economic impact model.

GVA impacts 2010-2030: CAPEX

Construction-driven impacts peaked at €2.4bn in 2020, reflecting Ireland's rapid capacity build-out – before stabilising as growth moderated.

Estimated annual GVA impacts of data centre activity (capex) [1][2]
€bn



1.75
multiplier effect

On average, for every €1m in GVA generated by capital expenditure, an additional **€0.75m** is supported elsewhere in the economy, resulting in a total impact of **€1.75m**.

Economic impacts from capital expenditure follow the pace of installed data centre IT capacity development each year. Total installed capacity has grown steadily since 2010 and is expected to keep rising through 2029, with the largest increases occurring between 2018 and 2022.

In 2010, capital spending on data centre construction and development generated €0.16bn in GVA (equivalent to €0.37bn in economic output). In 2020, at the height of installed data centre IT capacity growth in Ireland, capex impacts peaked at €2.38bn. Of this:

- **€1.36bn in direct GVA** from on-site construction and installation (civil works, fit-out, M&E engineering, commissioning, and professional services).
- **€0.54bn in indirect GVA** from supply chain purchases (materials, components, plant hire, logistics, ancillary services).
- **€0.48bn in induced GVA** from household spending by workers employed directly and in the supply chain.

No additional capacity is projected to be installed in 2030 beyond 2029, resulting in no anticipated capex impacts. This aligns with current grid connection contracts in place.

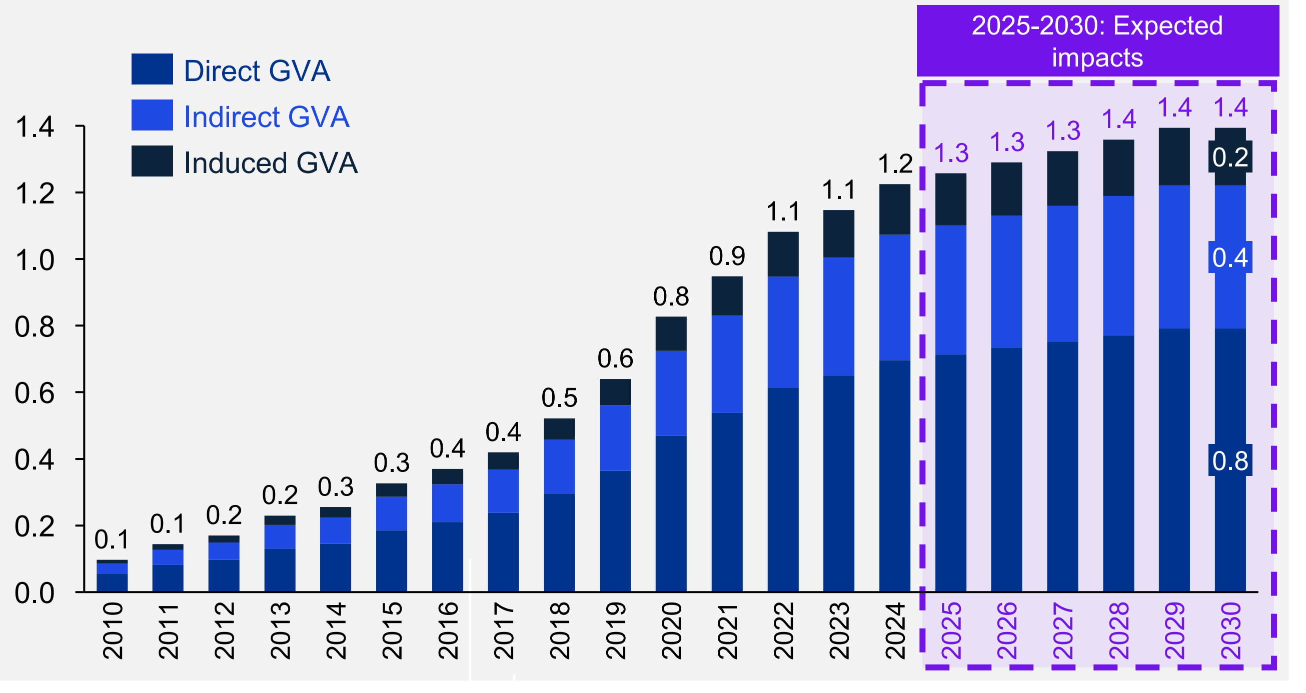
Note: **[1]** As of 2025, 300MW is expected to be delivered between 2025 and 2029, with no additional capacity in 2030 – resulting in no anticipated capex impact that year. **[2]** The GVA impacts for 2025-2030 are estimated assuming the proportion (in terms of installed data centre IT capacity) of hyperscale to non-hyperscale sites in 2024. This is maintained for each year from 2025-2030.

Source: **[a]** CSO **[b]** Data centre operator, supplier, and customer surveys **[c]** KPMG economic impact model.

GVA impacts 2010-2030: OPEX

Operational impacts rise with installed data centre IT capacity, reaching €1.2bn in 2024 and forecast at €1.4bn by 2030 – creating long-term economic value.

Estimated annual GVA impacts of installed data centre IT activity (opex) [1]
€bn



1.76 multiplier effect

On average, for every €1m in GVA generated by operational expenditure, an additional **€0.76m** is supported elsewhere in the economy, resulting in a total impact of **€1.76m**.

Operational impacts grow in proportion to cumulative installed data centre IT capacity. As more capacity comes online, the operational footprint expands, creating recurring economic benefits each year. Unlike capital impacts, these increase steadily over time.

- In 2010, operational GVA was €0.10bn, reflecting limited installed data centre IT capacity.
- **By 2024, operational GVA reached €1.23bn** and is forecast to rise to €1.40bn by 2030, including:
  - **€0.79bn in direct GVA** from on-site employment (operations, engineering, facilities management), energy procurement, maintenance, security, and admin services.
  - **€0.60bn in indirect and induced GVA** from supply chain purchases and household spending by employees.

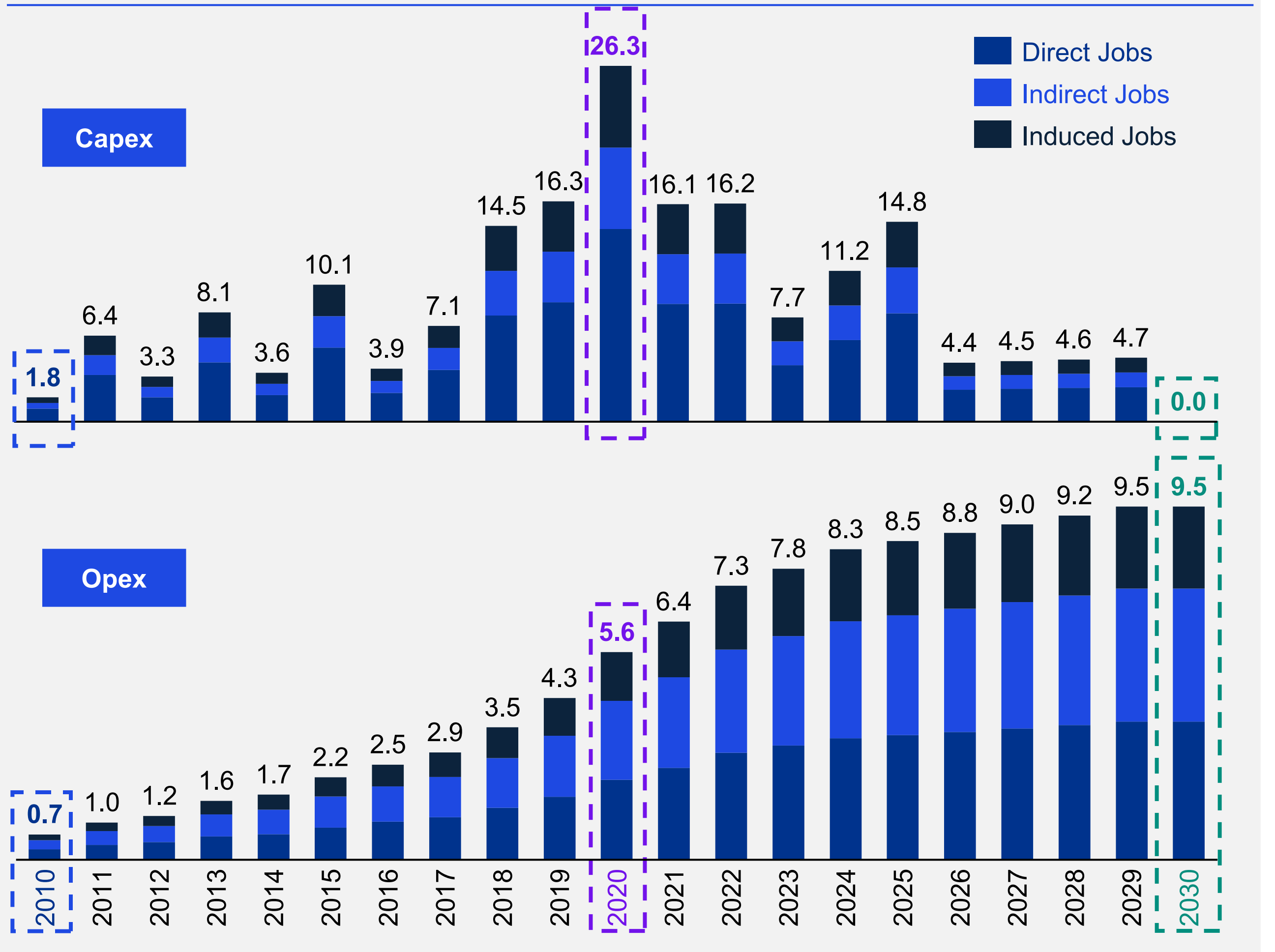
Operational impacts are enduring: once capacity is installed, it generates a stable stream of economic activity that supports jobs, local services, and supply chains regardless of new construction cycles.

Note: **[1]** The GVA impacts for 2025-2030 are estimated assuming the proportion (in terms of installed data centre IT capacity) of hyperscale to non-hyperscale sites in 2024. This is maintained for each year from 2025-2030.
Source: **[a]** CSO input-output tables **[b]** Data centre operator, supplier, and customer surveys **[c]** KPMG economic impact model

Employment impacts 2010-2030 (1/2)

Data centre construction supported over 31,000 jobs at the 2020 peak – with operational roles expected to rise steadily to 9,500 by 2030.

Jobs supported by data centre activity (capex and opex) [1][2]
Total number of jobs in '000s from 2010 to 2030



		2010	2020 (peak construction)	2030
Jobs	Capex	1,800	26,300	-
	Opex	700	5,600	9,500
	Total	**2,500**	**31,900**	**9,500**
Wages (€m)	Capex	76	1,118	-
	Opex	37	295	504
	Total	**113**	**1,413**	**504**

Note: **[1]** As of 2025, 300MW is expected to be delivered between 2025 and 2029, with no additional capacity in 2030 – resulting in no anticipated capex impact that year **[2]** Data centre construction peaked in 2020 – primarily a result of grid and energy connection constraints rather than weak underlying demand.

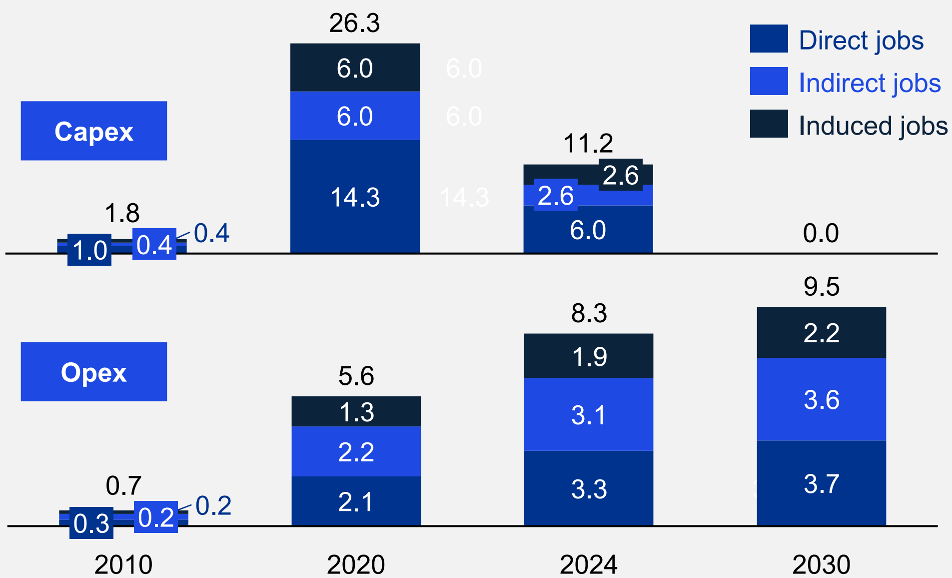
Source: **[a]** CSO **[b]** Data centre operator, supplier, and customer surveys **[c]** KPMG economic impact model.

Employment impacts 2010-2030 (2/2)

Data centres create jobs in construction, technology, utilities, and services – supporting thousands during build and operational phases.

Jobs supported by data centre activity (capex and opex) [1]

Total number of jobs in '000s from 2010 to 2030



Average wages

Capex	
Direct	€44,500
Indirect	€47,100
Induced	€32,900

Opex	
Direct	€70,700
Indirect	€47,700
Induced	€32,900

Jobs supported by data centres in Ireland

Capex jobs supported (2020 during peak construction)

Data centre construction supported **26,300 jobs** in 2020, including:

- **14,300 direct jobs** in roles such as construction workers, civil engineers and project managers.
- **6,000 indirect jobs** across the supply chain, including steel and concrete suppliers, electrical equipment manufacturers and logistics providers.
- **6,000 induced jobs** in sectors such as retail, hospitality and transport – driven by the wage-financed spending from construction and supply chain employees.

In 2020, this activity sustained **€1.1bn** in wages to direct employees and those in roles supported in the wider economy**.**

Operational jobs supported (2024)

Data centre operations supported **8,300 jobs** in 2024, including;

- **3,300 direct jobs** such as data centre technicians, network engineers and facility managers.
- **2,100 indirect jobs** in the operational supply chain, including equipment maintenance, security contracting, and energy/utilities.
- **1,900 induced jobs** in sectors like retail, hospitality, and transport – driven by the wage-financed spending of direct and indirect employees.

In 2024, this activity sustained **€443m** in wages for direct employees and those across the supply chain**.**

Note: **[1]** As of Q4 2025, 300MW is expected to be delivered between 2025 and 2029, with no additional capacity in 2030 – resulting in no anticipated capex impact that year.

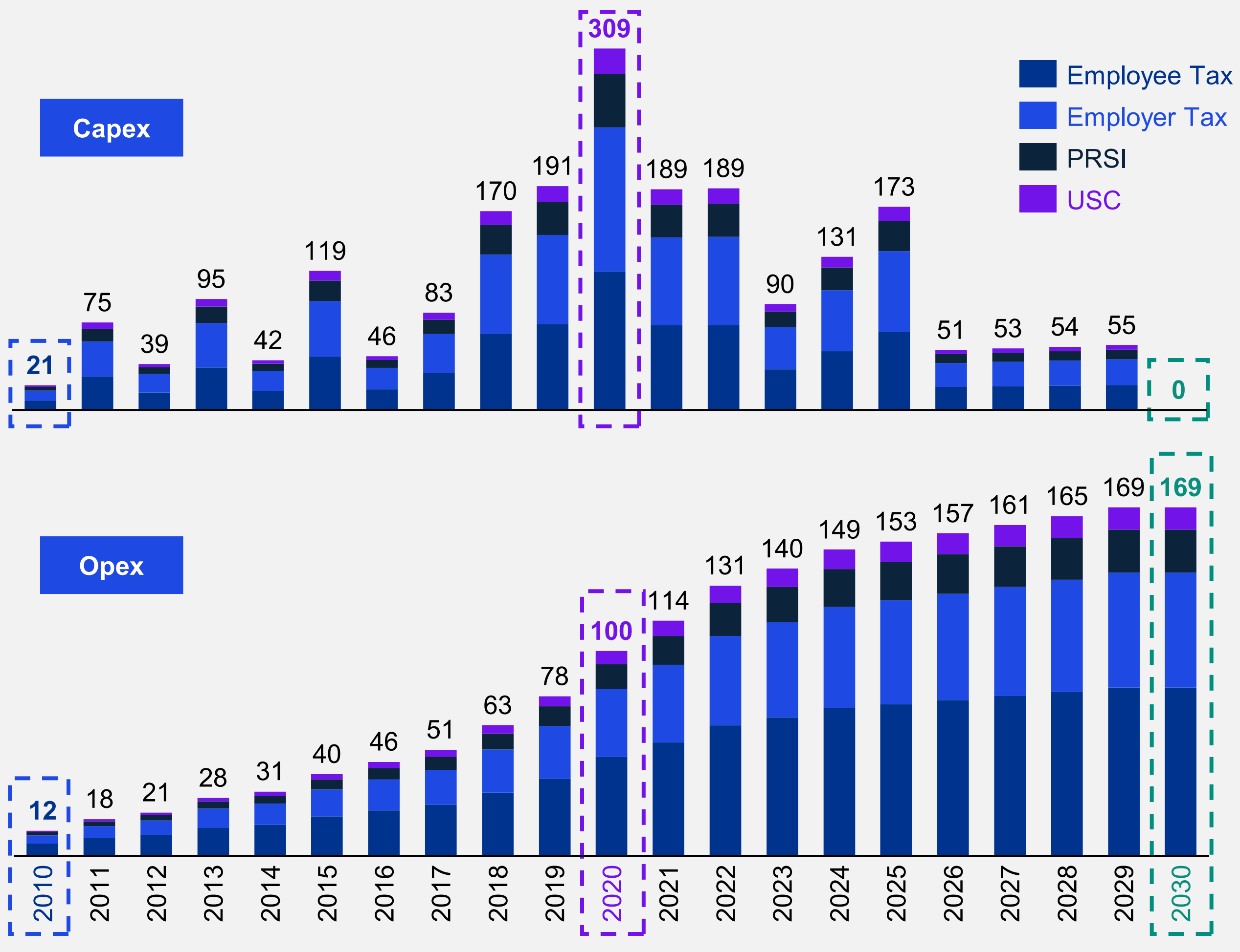
Source: **[a]** CSO input-output tables **[b]** Data centre operator, supplier, and customer surveys **[c]** KPMG economic impact model.

Employment related tax revenue (2010-2030)

At the 2020 construction peak, data centres generated an estimated €409m in employment related tax revenue across the value chain.

Estimated employment related tax revenue from data centre activity (capex and opex)

€m



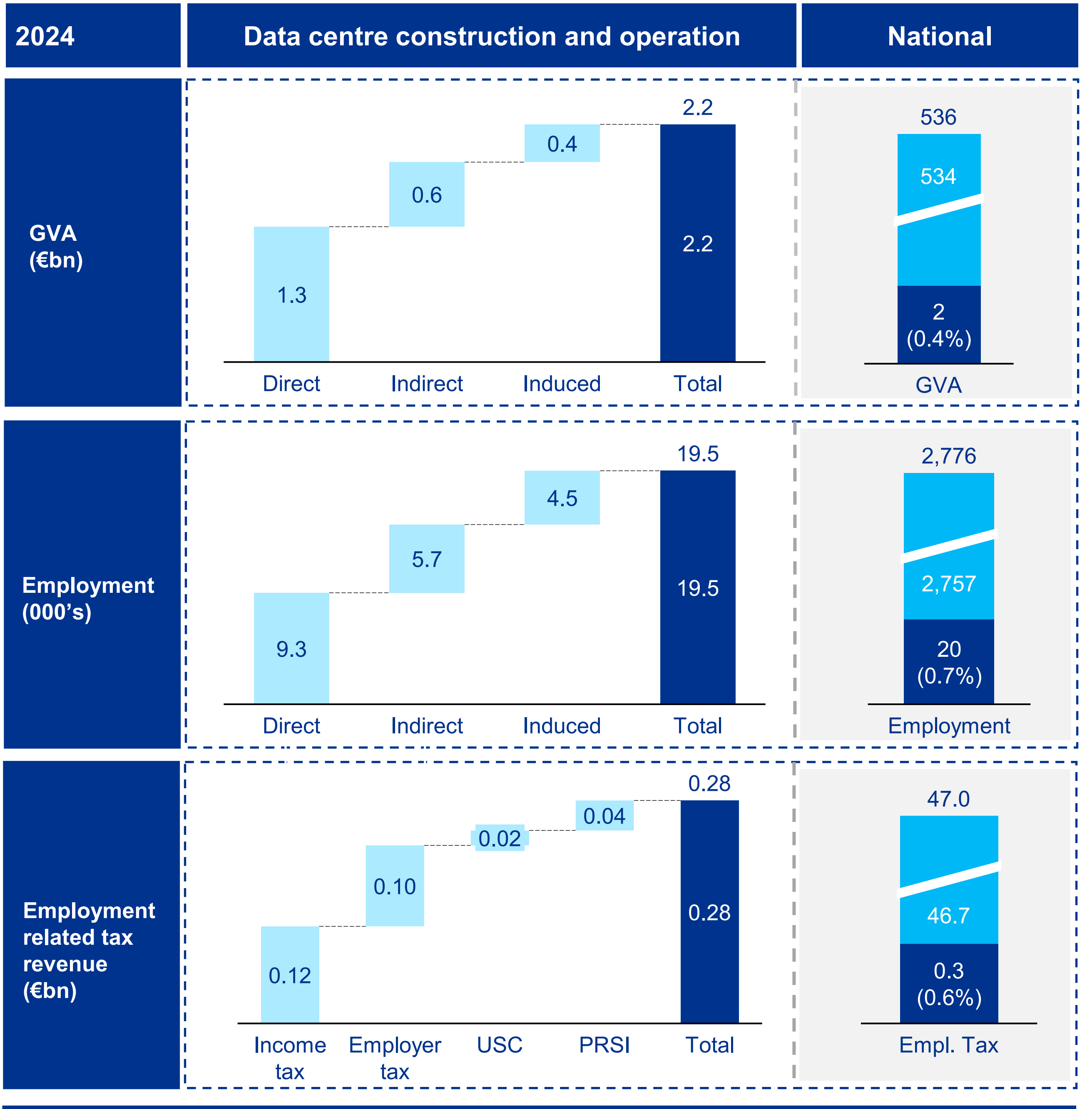
		Capex related jobs	Opex related jobs
Tax revenue per employee (€)	Average salary	€42,500	€53,800
	Average tax per employee [1]	**€11,700**	**€17,900**

		2010	2020 (peak construction)	2030
Employee-related tax Revenue (€m)	Capex	21	309	-
	Opex	12	100	169
	Total	**33**	**409**	**169**

Note: [1] Average tax per employee is inclusive of employee tax, employer tax, PSRI and Universal Social Charge (USC) at each respective average salary
Source: [a] Income tax calculator

National economic contribution (2024): Construction and operation

Beyond construction and operation, data centres power Ireland's digital economy.



The economic impacts presented above for 2024 only capture the upstream impacts of data centre construction and operation. The next sections of this report provide evidence of the wider role of data centres as critical enablers of Ireland's digital economy, with substantial downstream economic impacts arising through data centres role in enabling core operations across multiple sectors of our economy and supporting the retention and attraction of FDI to Ireland.

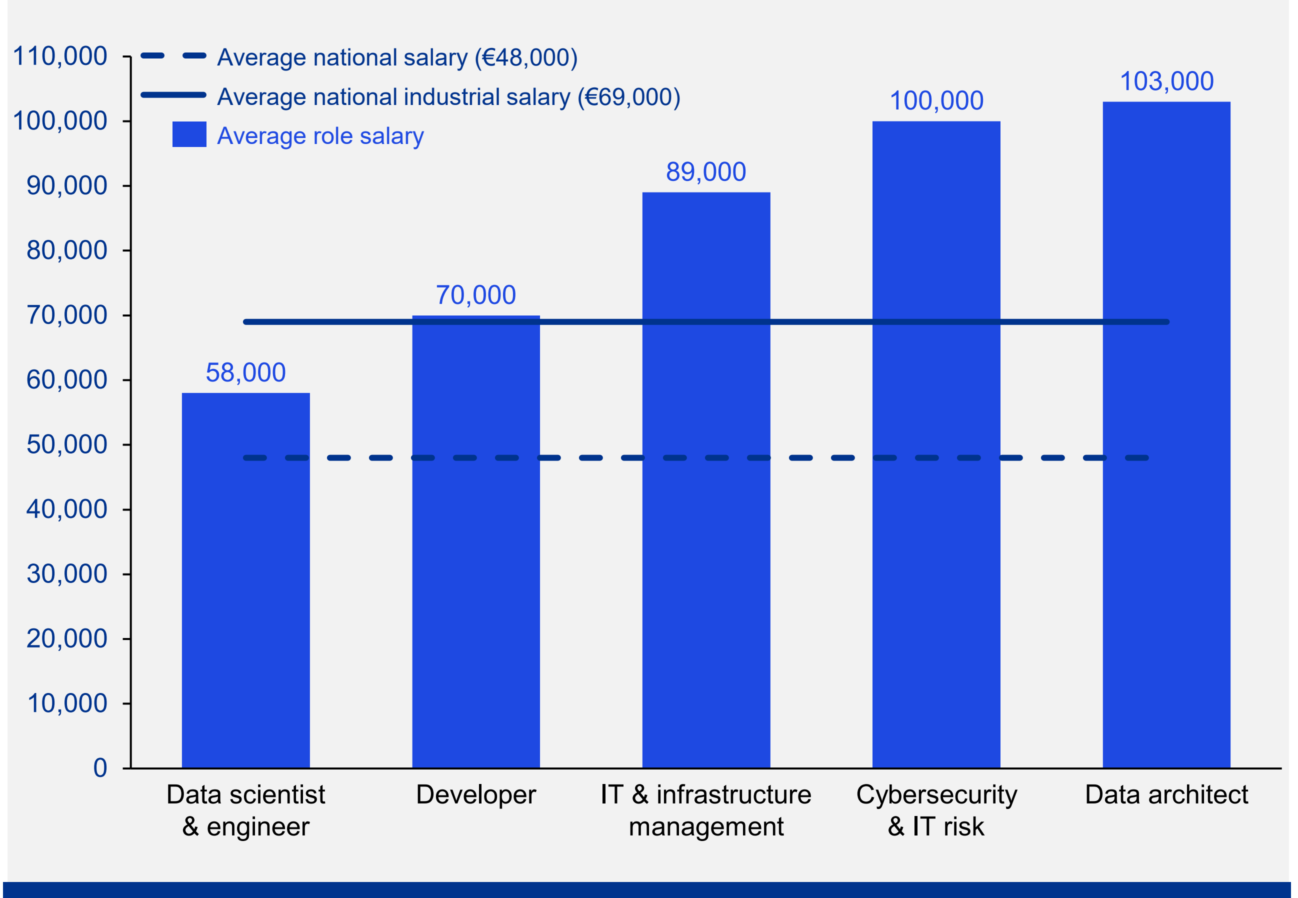
Source: **[a]** CSO **[b]** Data centre operator, supplier, and customer surveys **[c]** KPMG economic impact model

Average salaries: Data centres vs. industry

On average, data centre operational roles typically pay higher salaries than similar industries and the overall national average.

Data centres employ highly skilled professionals across a range of different fields and professions to support data centre operations.

Average annual salaries associated with data centres vs. national averages (€)
[1][2][3][a][b][c]



- Data centre operations rely on **highly skilled professionals** across a range of diverse roles to ensure operations run smoothly and efficiently.
- These roles typically offer competitive salaries, ranging from **approximately €52,500 to as high as €160,000** a year depending on years of experience and specialisation.
- Average salaries in data centre roles are **typically higher** than the average national industry average and Ireland's overall average salary.
- Specialist positions such as cybersecurity, IT risk, and data architects **rank among the highest paid** roles in terms of data centre salaries.
- These salary levels reflect the **premium placed on the expertise** required to support Ireland's data centre sector.
- Demand for these roles supports **skills development** and **fosters expertise** across sectors and services.

Note: **[1]** Average annual earnings are based on wage data from sectors in Ireland where data centre employees commonly work: Industry, Information and Communication, and Professional and Technical sectors. **[2]** The above values differ from those in the economic impact modelling – the economic impact results represent an average wage across direct, supply chain, and induced roles within the data centre ecosystem. **[3]** The graph is not to scale; bar heights reflect average salaries per role – the higher the bar the greater the average salary in the respective role.
Source: **[a]** CSO – earnings and labour costs **[b]** Robert Walters Salary Survey 2025 **[c]** KPMG analysis

Spotlight: Impact of data centre suppliers (1/2)

Supplier survey results show that data centre suppliers in Ireland employ an average of 250 – 370 FTE to support data centre-related activities.

Activities supported

Data centre suppliers support a range of activities in the Irish economy: [a]

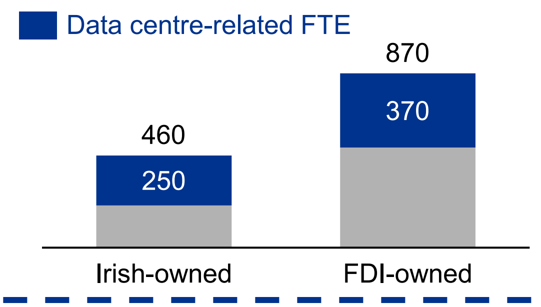
- Construction & civil engineering
- Data centre design & architecture
- Engineering consultancy & professional services
- Equipment manufacturing & installation
- Facilities management & operations
- ICT infrastructure & cabling
- M+E services
- Renewable energy systems & efficiency services

Skills and expertise enabled

Data centre suppliers rely on a number of skills to deliver data centre operations: [a]

- Electrical & mechanical engineering
- Data centre compliance
- Health & Safety management
- Installation of HVAC & cooling systems
- Sustainable design & energy modelling

Total employees (FTE) in Ireland per Irish-owned and FDI-owned data centre suppliers [1][a][b]



On average, an Irish-owned data centre supplier employs approximately **460 FTE** in Ireland, with an FDI-owned supplier employing approximately **870 FTE**.

Of these, **54% (~250 FTE)** of Irish-owned and **43% (~370 FTE)** of FDI-owned employees are engaged in data centre-related activities.

Drawing on insights from our survey of 30 data centre suppliers: [2]

- Data centre suppliers in Ireland **support diverse activities** across the economy (e.g. engineering, design, construction activities).
- They require a **mix of highly skilled** employees for both data centre and broader operations.
- On average, each supplier employs **approximately 250 – 370 FTE (43% - 54% of total)** to support data centre-related activities.
- Our total sample employs **~6,250 FTE (Irish-owned)** and **~1,850 FTE (FDI-owned)** – approximately 8,100 in total – to support their data centre customers.
- These roles span specialised engineering, sustainability, and manufacturing roles.
- Additionally, our sample employs **~5,250 FTE (Irish-owned)** and **~2,500 FTE (FDI-owned)** – approximately 7,750 in total – to support admin, security, and professional services.

Note: **[1]** FDI-owned data centre suppliers refer to suppliers that are not Irish-owned but operate in Ireland. **[2]** The employment figures presented are based solely on survey responses from data centre suppliers. These figures are intended for illustrative purposes and differ from employment data reported elsewhere in this report.

Source: **[a]** Data centre supplier survey **[b]** KPMG analysis.

Spotlight: Impact of data centre suppliers (2/2)

Data centre supplier investment in capital and workforce has direct and wider economic impacts for Ireland's economy.

Capital investments to support data centre-related activities – Sample of supplier testimonials: [a]

Survey question: Has your company made any capital investments in the past 3 years specifically to support data centre-related work (e.g. equipment facilities, R&D)? If yes, please describe the nature of these investments.

*"The company has recently invested specifically on **modern equipment based R&D programmes** for shifting towards more digitalised platforms in upcoming years along with management with certain project management tool setup for **better project delivery".***

*"Investments have been made in **specialist M&E equipment**, **digital documentations systems**, and **new training facilities to support large-scale data centre delivery".***

*"We invested in **new backup power equipment**, **energy efficiency solutions** and **tools** to better serve data centre projects and customers".*

*"We have invested in **advanced thermographic imaging equipment** and **HV testing rigs** to support on-site diagnostics for data centre substations plus upgrades to our facility for safer handling of high-voltage simulations for **hyperscale power needs".***

*"We have put a lot into developing our products, **boosting our cloud infrastructure** in the EU and strengthening security and compliance. These efforts are all aimed at improving commissioning, ensuring **better digital quality assurance** and **speeding up turnover of hyperscale data centre projects**".*

*"We have invested much over **digitalisation of project development** along with web management systems for better project ,management to meet the **increasing trends of AI-driven tools** and **high-density data centres".***

35% - 38%

From Q3 2024 to Q3 2025, Irish-owned and FDI-owned data centre suppliers in Ireland allocated between **35% - 38%** of newly hired employees to **support data centre activities in Ireland.** [1][a][b]

This supports the growth of Ireland's workforce through increased demand for high-skilled labour in the engineering and manufacturing sectors.

The data centre sector drives export growth for Ireland's High Tech Construction (HTC) industry. Irish owned firms have developed expertise in delivering complex, mission critical facilities for global hyperscalers. **This makes data centres a core pillar of Ireland's HTC exports**.

The sector has strengthened Ireland's wider construction industry. It brings together general contractors, M&E specialists, cleanroom installers, modular builders, and digital construction experts. These firms now export the capabilities they developed during hyperscale delivery to high-growth markets in the Nordics, Germany, Spain, and the broader European region.

Enterprise Ireland have estimated export figures for the European data centre segment **of €2.0bn – €2.1bn in 2024**. This constitutes a significant portion, approximately 40%, of overall HTC exports by Enterprise Ireland clients in 2024, and includes exports from Irish-owned companies only [c].

Note: **[1]** FDI-owned data centre suppliers refer to suppliers that are not Irish-owned but operate in Ireland.
Source: **[a]** Data centre supplier survey **[b]** KPMG analysis **[c]** Enterprise Ireland

3.2

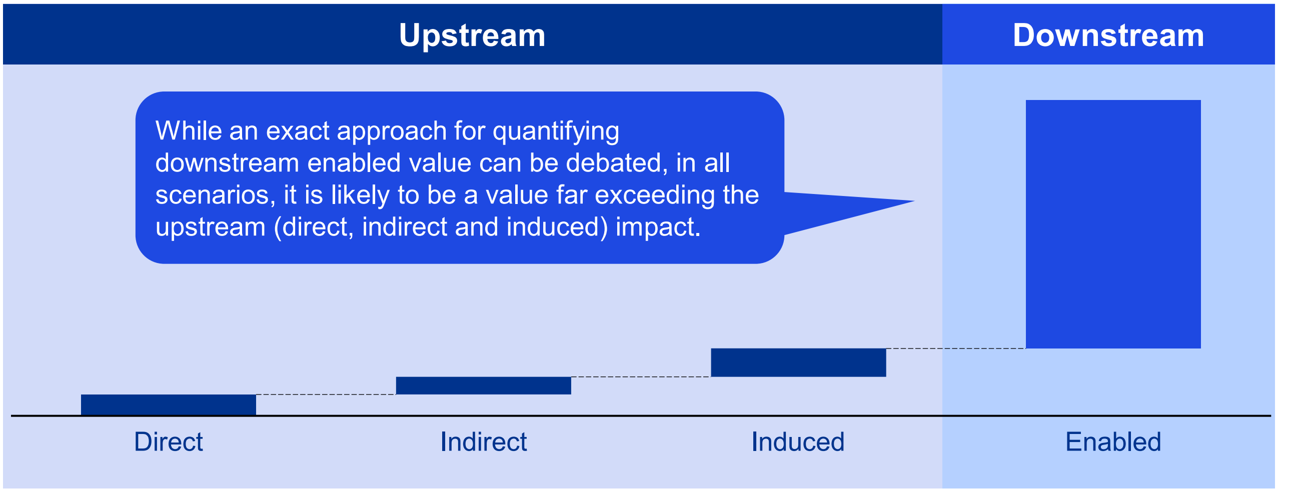
Downstream economic impacts enabled by data centres

Sectoral impacts enabled by data centres (1/9)

Survey results show that there is a strong dependency on data centres across several key economic sectors in Ireland.

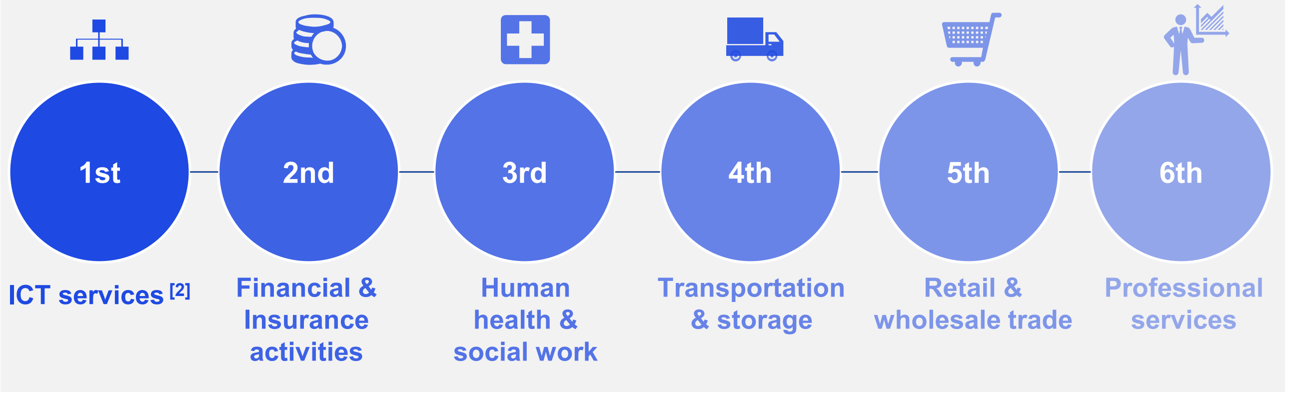
Upstream and downstream impacts in the data centre value chain

GVA – Scale of impacts for illustrative purposes



- In addition to upstream economic activity through construction and operations, data centres serve as **important enablers of downstream value creation by providing the digital infrastructure required for modern economic activity**.
- To assess the broader economic impact of data centres in Ireland, KPMG undertook primary research, including stakeholder consultations and customer surveys.
- **Identification of key sectors**: Using responses from a survey of data centre customers in Ireland, KPMG identified the sectors, sub-sectors and strategic functions most reliant on data centres. [a].
- The figure below highlights the six highest-ranked, based on survey results.
- Other sectors outside this top six have been excluded for simplicity.

Data centre customer survey insights – sector dependency ranking (Top 6) [1]



Note: **[1]** The analysis of downstream impacts from data centres on the Irish economy focuses on the 6 most digitally intensive sectors and therefore associated impacts should not be interpreted as representative of the entire Irish economy. **[2]** Throughout the sectoral analysis, figures presented under the heading 'ICT' refer specifically to ICT Services (NACE J).

Source: **[a]** Data centre customer survey – further information is included in Appendix D.

Sectoral impacts enabled by data centres (2/9)

The table below summarises the number of responses for each of the identified digitally intensive sectors.

Sector	ICT services	Financial and insurance	Human health and social work	Transportation and storage	Retail and wholesale trade	Professional services
Number of Survey responses	**7**	**5**	**4**	**4**	**5**	**7**
Of which:						
Are foreign owned	4	2	2	2	1	3
Are Irish-owned	3	3	2	2	4	4
Have 250+ employees	6	5	3	4	4	6
Average employment number	2,400	4,300	2,100	5,200	2,800	2,500

While the sample size is limited, we have conducted primary research to gather responses from large data centre customers who are representative of their sector. The average number of employees per respondent in each sector ranges from ~2,100 - ~5,200 and are therefore a robust representation of the digital dependence of data centre customers in each sector.

Survey responents were asked to select all sectors in which they operate. Of the 30 respondents surveyed, 23 reported operating in at least one of the six sectors listed above. Of these 23, seven indicated operation in more than one sector.

Survey questions used to inform the sectoral dependencies analysis.

Q: *What share of your organisation's core operations in RoI relies on access to digital infrastructure/cloud based services?*

Q: *What proportion of your RoI operations do you estimate require data centres to be located within 10-50km?*

Q: *On a scale of 1 to 10, how important is latency to your company's operations in RoI?*

Q: *Do you anticipate your company's data centre-supported operations to change between 2025 and 2030? If so, what is the expected annual change in expenditure on digital services during this period (as a percentage)? - RoI*

Q: *Do you anticipate your company's data centre-supported operations to change between 2030 and 2040? If so, what is the expected annual change in expenditure on digital services during this period (as a percentage)? - RoI*

Q: *On a scale of 1 to 10, how important is access to data centres for your decision to be located in RoI and invest further in your RoI operations?*

Source: Industry survey

Sectoral impacts enabled by data centres (3/9)

This framework defines three scenarios to estimate the sectoral share of economic activity that is dependent on data centres.

Purpose of this analysis

- We present **three progressively narrower scenarios (S1-S3)** to estimate the share of sectoral activity that depends on data centre infrastructure, and within that, the portion that is best supported by data centre capacity located in Ireland and then additionally those with strict latency requirements. This framework is designed to avoid over-claiming strict technical requirements, while reflecting customer preferences and performance needs.
- Each scenario applies progressively stricter filters – from **S1: Total data centre dependency, S2: Domestic dependency,** and **S3: Domestic and latency sensitive.**

	S1	S2	S3
Definition	Activity that relies on **digital infrastructure** or **cloud based services**.	Activity where **locating data centres in Ireland** provides operational, performance, regulatory or operational advantages.	Activity where **strict latency requirements, operational risk, or service-continuity considerations** mean that overseas servicing would introduce material inefficiencies or risks at scale**.**
Interpretation [1]	• Represents **Ireland's digital backbone** – activities where data, connectivity, and compute are essential to daily operations. • The data centres supporting this activity may not necessarily be required to be located in Ireland.	Captures workloads that are ideally **domestically located** for practical or regulatory reasons, such as: ✓ Operational / logistical integration with on-site or customer facilities. ✓ Data-residency or regulatory considerations. ✓ Control, resilience or security of local systems.	This scenario applies the strictest set of dependency conditions, **capturing only workloads** that are most appropriately located in Ireland because they: ✓ Require low latency for real-time processing and service continuity.
Key takeaway	**This scenario represents the upper estimate:** GVA enabled by digital infrastructure or cloud based services, irrespective of where that infrastructure is hosted.	**This scenario represents an intermediate estimate:** Removes digitally enabled activity that could feasibly be served by data centres located overseas, isolating the share of activity best supported by domestically located data centre capacity for practical/operational reasons.	**This scenario defines the most conservative estimate:** • Share of GVA that depends on domestic, low latency data centre capacity. • This estimate excludes all domestic workloads that are hosted locally without strict latency constraints.

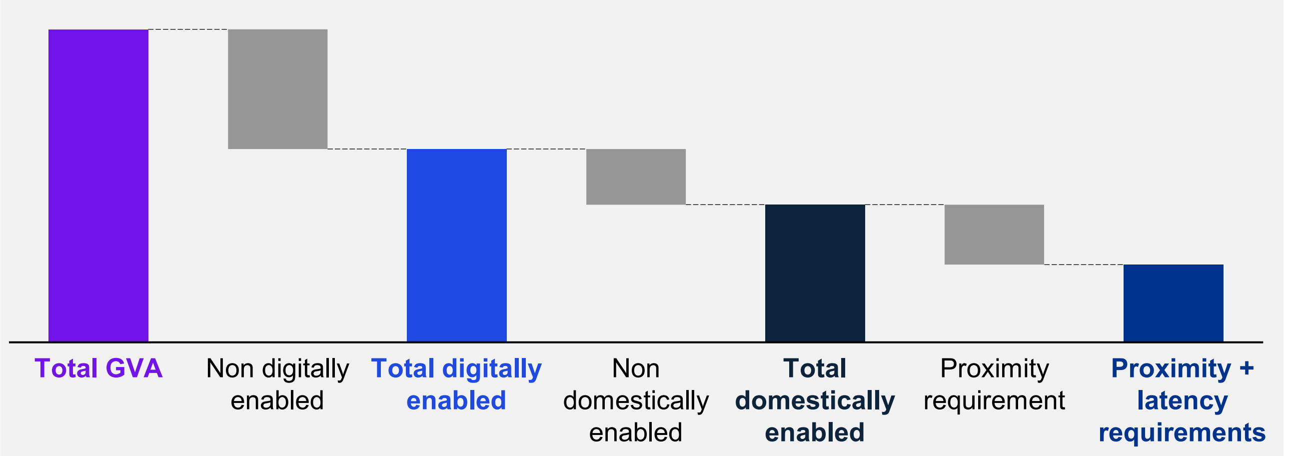
Note: **[1]** Latency for **(i) Real-time processing** is mission critical; even a small delay can break functionality **(ii) Performance & Continuity** affects efficiency and user experience but can tolerate small delays without significant impact.

Source: **[a]** Data centre customer survey – further information is included in Appendix D.

Sectoral impacts enabled by data centres (4/9)

The framework shows that broader dependency assumptions increase GVA estimates, while stricter constraints limit them to data centres in Ireland.

Conceptual framework for estimated downstream GVA enabled by data centres [1]
Scale of impacts for illustrative purposes



1. **Total GVA**: The analysis begins with total GVA in Ireland. This represents the **full scale of economic activity** in the Irish economy.
2. **Non digitally enabled**: A portion of total GVA comprises activities that are not directly reliant on digital infrastructure or cloud based systems.
3. **S1: Digitally enabled GVA:** The remaining share represents GVA that **relies on digital or cloud infrastructure**. This portion of GVA defines Scenario 1 and is the broadest measure of digital enablement, reflecting the importance of data centres as critical enablers of modern economic activity.
4. **S2: Domestically enabled GVA:** Within the digitally enabled share (S1), some workloads can and may be **supported from overseas data centre capacity** and for the purposes of this analysis are therefore classified as *non-domestically enabled*. S1 workloads could potentially use domestically located data centres, but in the absence of this information, we adopt a very conservative approach: if proximity or latency requirements don't apply, these needs are met by overseas data centres [2]. The remainder, those that are best supported by data centres located within Ireland define Scenario 2. This step **isolates the proportion of sectors that depend on proximity to domestically located data centres** for operational, regulatory control, resilience or security of local systems and represents an intermediate estimate for dependency.
5. **S3: Domestic requirement + latency:** Within Scenario 2, we further distinguish between workloads that simply require proximity and those that simultaneously depend on **proximity** and **low latency**. The satisfaction of these two constraints define Scenario 3, the most conservative estimate of dependency. This represents the proportion of GVA that is dependent on domestic, low latency performance and could not be efficiently or reliably served from overseas at scale.

This conceptual framework shows how each successive filter narrows the total economy down to the core portion of GVA that is both data centre dependent and non-substitutable. The transition from total GVA to Scenario 3 reflects the progression from broad digital enablement to that where domestic, latency sensitive data centre capacity plays a more significant role in supporting performance and continuity. It is important to note that data centres do not directly generate this value, but instead provide the infrastructure and support required by digitally reliant sectors of the economy.

Note: **[1]** To assess the robustness of this analysis, KPMG compared the impacts based on average sectoral responses with responses weighted by a revenue proxy, giving greater weight to larger firms. Weighted results were slightly higher; for conservatism, unweighted impacts are presented Weighted results are presented in Appendix B. **[2]** This is not to suggest that all of these needs are met overseas. They could be met by data centres in Ireland, but the analysis makes a very conservative assumption that data centre needs are met overseas when data centre proximity is not considered critical.

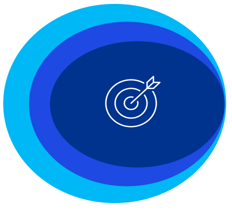
Sectoral impacts enabled by data centres (5/9)

We apply the following methodology to estimate the economic value enabled by data centres across three scenarios. [1][2]

Scenario 1: Data centre enabled GVA

Data centre enabled GVA sits ‘nested’ as a subset within total GVA.

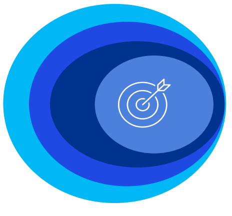
Q: *What share of your organisation’s core operations in RoI relies on access to digital infrastructure/cloud based services?*



Scenario 2: Domestically enabled GVA [3]

Domestically enabled GVA sits ‘nested’ as a subset within total GVA and digitally enabled GVA.

Q: *What proportion of your Republic of Ireland (RoI) operations do you estimate require data centres to be located within 10-50km?*



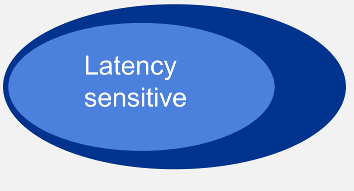
Scenario 3: Reliance on domestic and latency sensitive data centre capacity

We then nest the proportion of operations reliant on low latency within the proportion of GVA reliant on domestic digital infrastructure.

Q: *On a scale of 1 to 10, how important is latency to your company’s operations in RoI?*

Legend

Scenario 3 rationale



Although correlated, not all operations that require DCs to be within close proximity require low latency. The dark blue proportion represents the illustrative share of operations that require domestic DCs but don’t require low latency.

Scenario 3 takes the domestically enabled share (S2) and applies an additional filter – the proportion of operations requiring **strict latency** performance that cannot feasibly be met from overseas data centre services. This **excludes activity where domestic location is due to practicality or preference rather than a technical latency requirement.**

Note: Although data sovereignty obligations are not explicitly quantified as a constraint within any of the scenarios, it is recognised as an important strategic consideration for both public and private sectors. In practice, **data sovereignty requirements**, including compliance with EU data governance frameworks, organisational risk policies and jurisdictional control over sensitive data often **reinforce decisions to retain workloads within the country of operation.**

Note: **[1]** Venn diagrams for illustrative purposes – not to scale **[2]** Detailed approach outlined in Appendix B **[3]** This is a conservative estimate; customers may not require nearby data centres yet still use data centre services hosted in Ireland.

Sectoral impacts enabled by data centres (6/9)

The table below summarises the enabled impacts for each identified data centre dependent sector. [1]

Sector	Enabled GVA (€b)			Enabled employment (000's)			Enabled employment related tax revenue (€b)		
Scenario	**S1**	**S2**	**S3**	**S1**	**S2**	**S3**	**S1**	**S2**	**S3**
ICT services	97.3	40.0	35.5	227	93	83	6.1	2.5	2.2
Financial and insurance activities	21.0	12.9	11.1	153	94	81	4.2	2.6	2.2
Human health and social work activities	12.0	11.3	9.6	213	201	170	2.8	2.6	2.2
Professional services	6.5	4.4	3.9	188	126	111	2.3	1.5	1.4
Wholesale and retail trade	19.3	17.3	13.8	188	168	135	1.9	1.7	1.3
Transportation and storage	25.6	18.0	15.4	275	193	166	5.2	3.7	3.2
Total	**181.7**	**103.8**	**89.2**	**1,244**	**876**	**746**	**22.4**	**14.6**	**12.5**

Note: The estimation of upstream economic impacts associated with the construction and operation of data centres is based on established economic impact modelling techniques. However, their primary economic role extends beyond these upstream effects, as data centres function as enabling infrastructure for digitally intensive sectors. As a result, while construction and operational activity generates direct economic value, the greatest contribution of data centres arises from the economic activity they support across the wider economy.

The downstream analysis therefore focuses on illustrating the scale and significance of economic activity that relies on data centre services. It applies a transparent and structured framework, drawing on primary research with data centre customers, sectoral data, and clearly defined assumptions to support an informed understanding of magnitude rather than precise attribution. [1]

Note: [1] More detail on the downstream economic impact modelling approach and assumptions can be found in Appendix B.

Dependency on data centres: Scenario 1

Data centres enable ~€182bn in downstream GVA across the six sectors in Ireland that have the greatest data centre dependency.

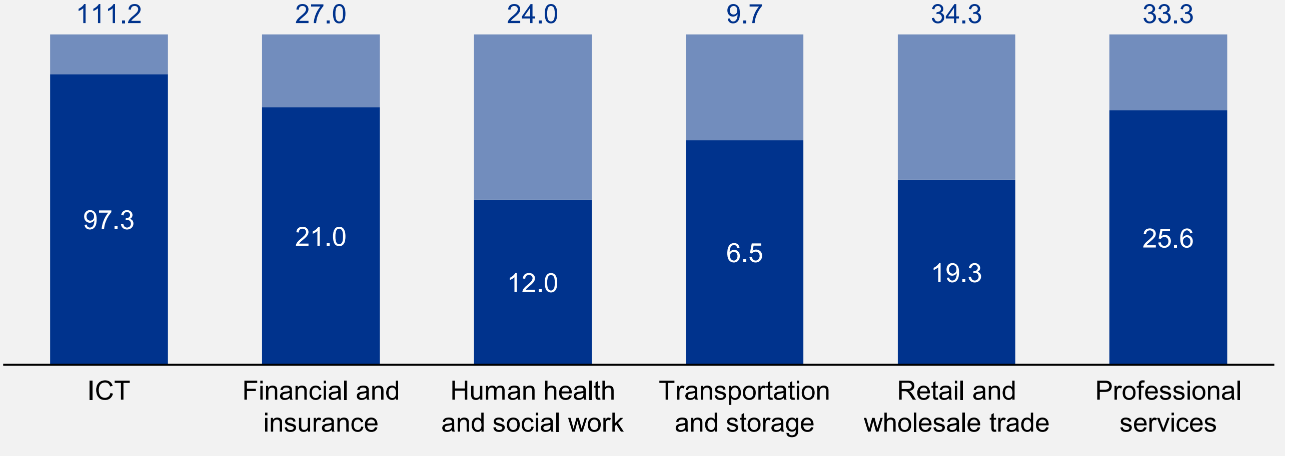
Downstream enabled GVA reliant on data centres – Scenario 1 [1][2]

€bn

Sector	ICT [3]	Finance & insurance	Health & social work	Transport & storage	Retail & wholesale	Professional services	Total
Sector Rank	**1**	**2**	**3**	**4**	**5**	**6**	**239.6 (45% of national GVA)**
Total sector GVA 2024 (€bn) [a]	**111.2**	**27.0**	**24.0**	**9.7**	**34.3**	**33.3**	
Data centre enabled GVA							
Data centre dependency	88%	78%	50%	68%	56%	77%	
Enabled GVA – €bn	**97.3**	**21.0**	**12.0**	**6.5**	**19.3**	**25.6**	**181.7 (34% of national GVA)**

Scenario 1 – Downstream enabled GVA – data centre enabled

€bn (2024)



This analysis determines the proportion of GVA that is enabled by data centres based on sectors in Ireland that are most dependent on data centres. While this portion of GVA is reliant on data centres, in practice a proportion of workloads may be served by overseas data centre capacity.

€181.7bn

"downstream" enabled GVA from top six sectors most reliant on **data centres**

33.9%

of Irish GVA enabled by **data centres**

Note: **[1]** Data centre customer survey was not issued to big tech companies in Ireland. **[2]** CSO total sector GVA (2024) **[3]** ICT services refer to NACE sector J as listed under NACE Rev.2 classifications.

Source: **[a]** CSO total sector GVA (2024) values are expressed in real terms – inflation is stripped out.

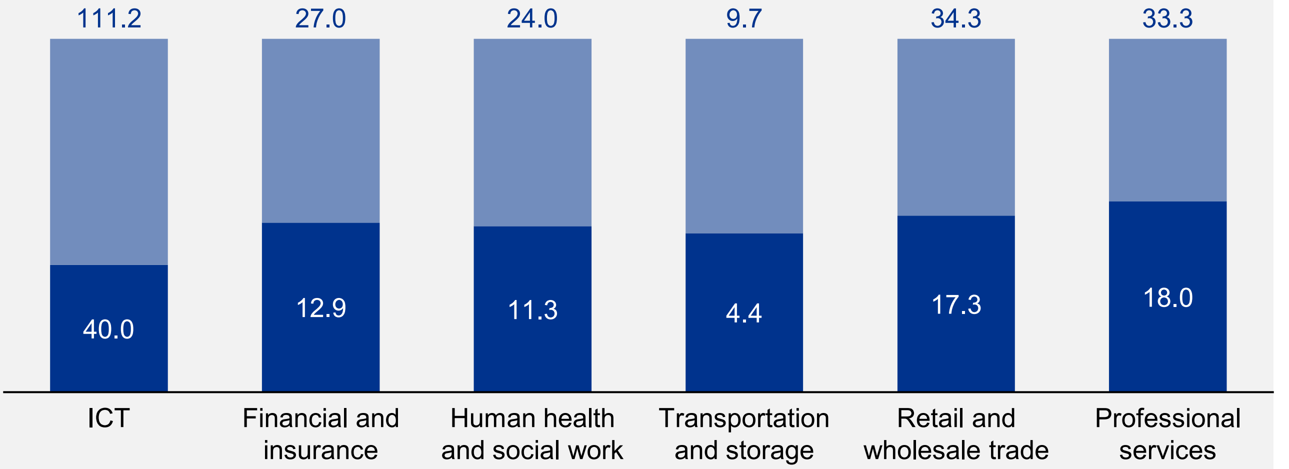
Dependency on data centres: Scenario 2

Domestically located data centres enable ~€104bn in downstream GVA across the six sectors that have the greatest data centre dependency.

Downstream enabled GVA reliant on data centres – Scenario 2
€bn

Sector	ICT	Finance & insurance	Health & social work	Transport & storage	Retail & wholesale	Professional services	Total
Sector Rank	**1**	**2**	**3**	**4**	**5**	**6**	
Total sector GVA 2024 (€bn) [a]	**111.2**	**27.0**	**24.0**	**9.7**	**34.3**	**33.3**	**239.6 (45% of national GVA)**
Data centre enabled GVA							
Domestically reliant	36%	48%	47%	45%	50%	54%	
Enabled GVA – €bn	**40.0**	**12.9**	**11.3**	**4.4**	**17.3**	**18.0**	**103.8 (19% of national GVA)**

Scenario 2 – Downstream enabled GVA – domestically reliant
€bn (2024)



Based on primary research, this analysis determines the proportion of GVA that is supported by digital infrastructure/cloud based systems located in Ireland in the six most digitally reliant sectors.

€103.8bn

"downstream" enabled GVA from top six sectors most reliant on **domestically-based data centres**

19.4%

of Irish GVA enabled by **domestically based data centres**

Source: **[a]** CSO total sector GVA (2024)

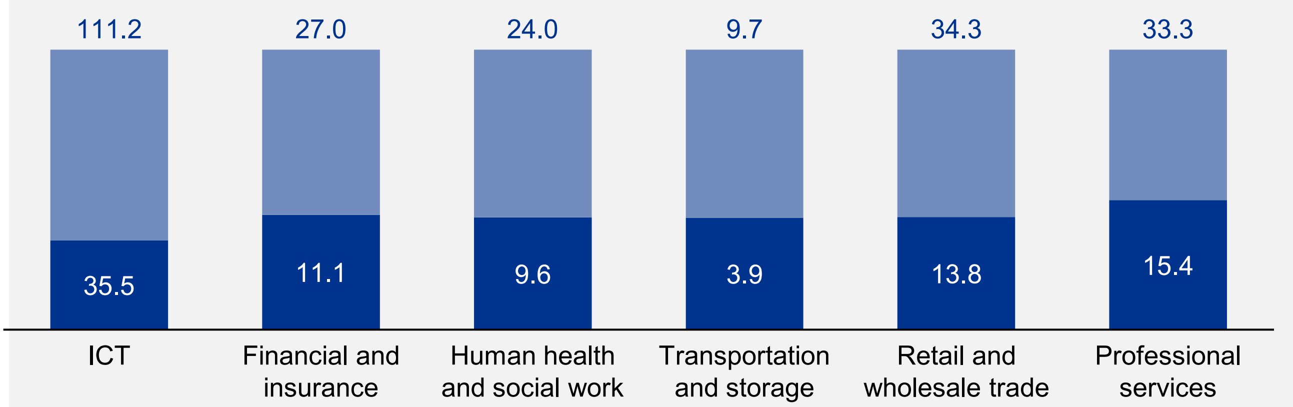
Dependency on data centres: Scenario 3

~€89bn in downstream GVA depends on domestically located data centre capacity that serve latency sensitive workloads that could not efficiently or reliably be met outside Ireland.

Downstream enabled GVA reliant on data centres – Scenario 3
€bn

Sector	ICT	Finance & insurance	Health & social work	Transport & storage	Retail & wholesale	Professional services	Total
Sector Rank	**1**	**2**	**3**	**4**	**5**	**6**	**239.6 (45% of national GVA)**
Total sector GVA 2024 (€bn) [a]	**111.2**	**27.0**	**24.0**	**9.7**	**34.3**	**33.3**	
Data centre enabled GVA							
Domestically reliant	36%	48%	47%	45%	50%	54%	**103.8**
Importance of latency	89%	86%	85%	88%	80%	86%	**89.2**
Effective ratio [1]	**32%**	**41%**	**40%**	**40%**	**40%**	**46%**	
Enabled GVA – €bn	**35.5**	**11.1**	**9.6**	**3.9**	**13.8**	**15.4**	**89.3 (16.7% of national GVA)**

Scenario 3 – Downstream enabled GVA – domestic, latency sensitive
€bn (2024)



This analysis determines the most conservative estimate for the proportion of GVA that is enabled by domestic, latency sensitive data centre capacity.

€89.2bn

"downstream" enabled GVA from top six sectors most reliant on **domestic, latency sensitive data centre capacity.**

16.7%

of Irish GVA enabled by **domestic, latency sensitive data centre capacity.**

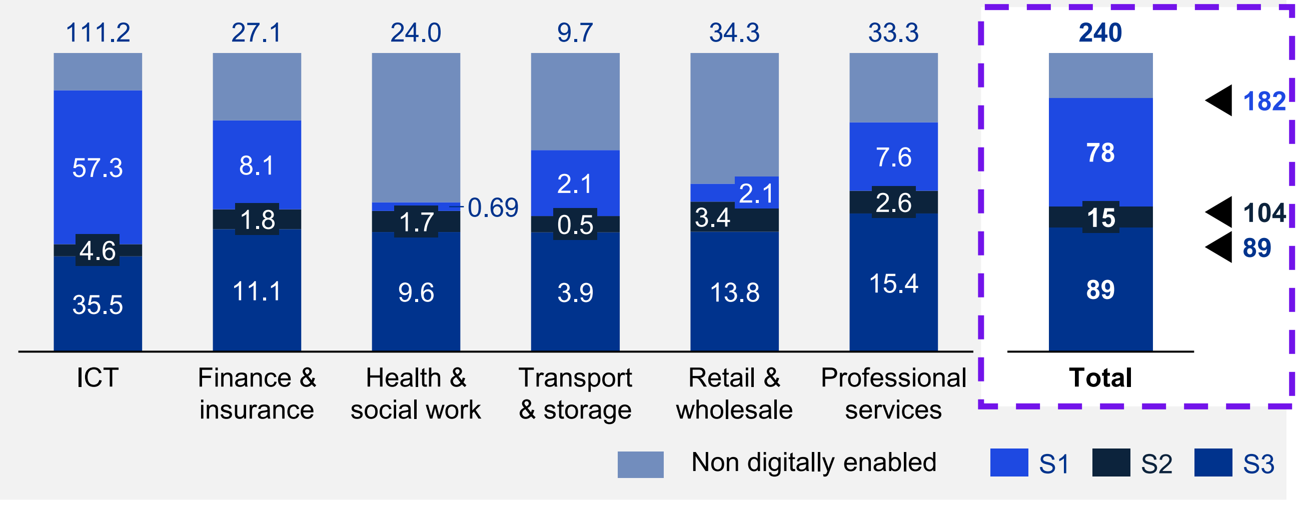
Note: **[1]** The effective ratio is the product of the three prior constraints.
Source: **[a]** CSO.

Sectoral impacts enabled by data centres (7/9)

The availability of domestic data centre infrastructure underpins digital service delivery and economic activity in Ireland.

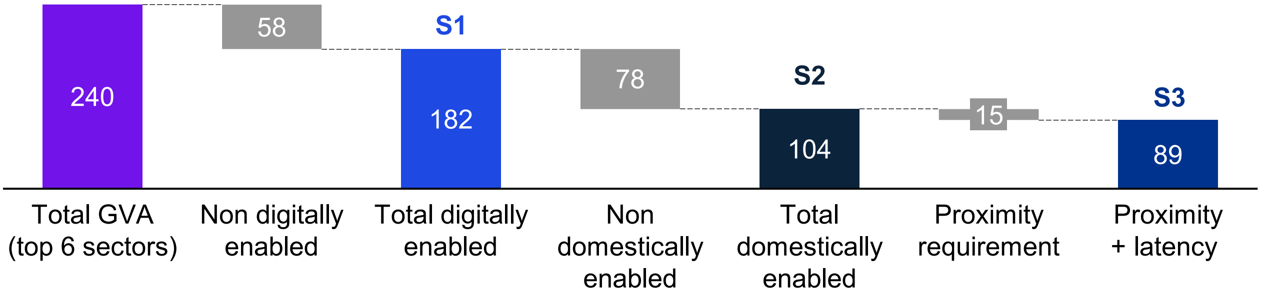
Downstream enabled GVA reliant on data centre infrastructure

€bn (2024)



Total breakdown of GVA for top six sectors most reliant on data centres

€bn (2024)



Data centres are key enablers of Ireland's digital economy. Across the six sectors with the highest data centre dependency, **~€182bn of a total of €240bn in GVA is reliant** on the availability of digital infrastructure provided by data centres.

When filtered by a **proximity constraint** to reflect activities that are **best supported by data centres located in Ireland**, this figure narrows to **~€104bn** – representing operations, as indicated by data centre customers, where domestic capacity provides performance, operational or regulatory advantages.

A further constraint based **on low latency requirements** identifies the most conservative estimate of dependency: **~€89bn of GVA**. These activities depend on domestic, low latency data centre capacity, demonstrating that a **significant share of Ireland's economy depends on the availability, resilience and expansion of domestic data centre infrastructure to meet this digital demand.**

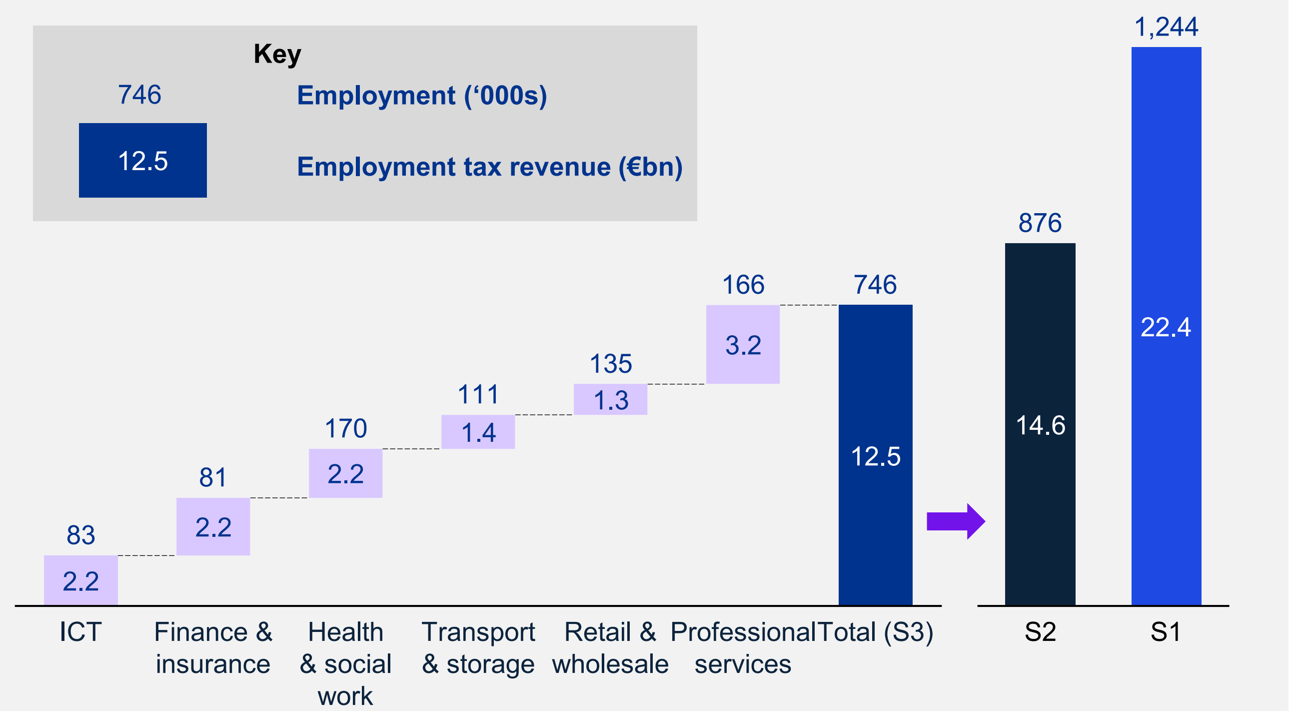
Sustaining and expanding this capacity is therefore essential to maintaining Ireland's digital **competitiveness, continuity of essential services and the country's broader economic resilience.**

Source: **[a]** CSO total sector GVA (2024)

Sectoral impacts enabled by data centres (8/9)

The availability of domestically based data centre infrastructure underpins employment and tax revenues from digitally intensive sectors.

Downstream enabled employment & tax revenue, 2024 [a]
Employment ('000s), Tax (€bn)



Data centres serve as important enablers of value creation in Ireland's digital economy. The figures presented do not reflect jobs *within* the data centre industry itself, instead they represent the employment and employment related tax contributions generated by the six sectors that have the greatest reliance on data centre capacity – to varying degrees across Scenarios 1, 2 and 3.

Using the enabled GVA estimates from each scenario and applying CSO sectoral ratios for employment intensity, we derive the scale of employment and the employment related tax revenues that are supported by the availability of data centre enabled digital infrastructure.

Scenario 3 (most conservative) estimates the employment and employment related tax impacts associated with the proportion of operations that depend on domestic, low latency data centre capacity. Under this scenario:

- **~745,600 jobs –** approximately 27% of total Irish employment in 2024 [b] – across ICT, finance, health, transport, retail and professional services are supported in sectors that derive significant operational and economic value from access to domestically located digital infrastructure (data centres). [b]
- This enabled activity supports an estimated **~€12.5bn** in employment related tax revenues – approximately 24% of Ireland's total employment tax receipts. [b]

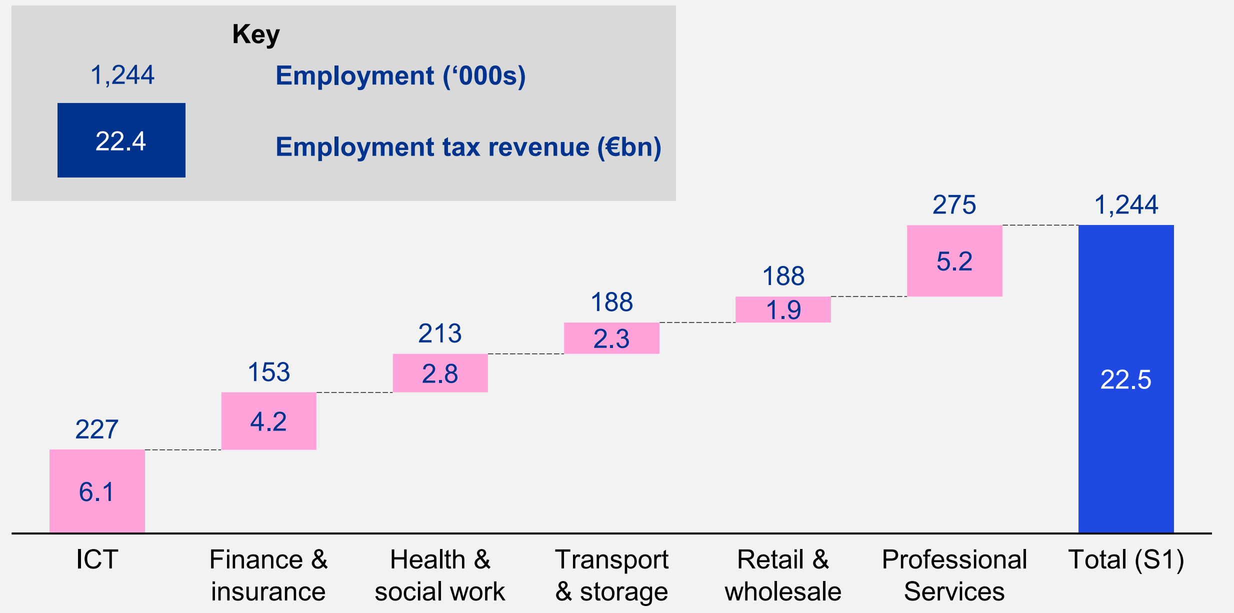
The above chart shows the sector-by-sector build-up under Scenario 3, demonstrating how dependency on domestically located digital infrastructure underpins employment across the economy. For completeness, the associated total impacts for Scenarios 1 and 2 are also shown. Sector-by-sector build-ups for S1 and S2 are outlined on the following page.

Source: **[a]** CSO – Note that employment is inferred from ratios between GVA/output and output/employment. Average sectoral salaries are then input into RoI Income Tax Calculator to determine employment related tax per FTE. **[b]** CSO – Labour Force Survey 2024

Sectoral impacts enabled by data centres (9/9)

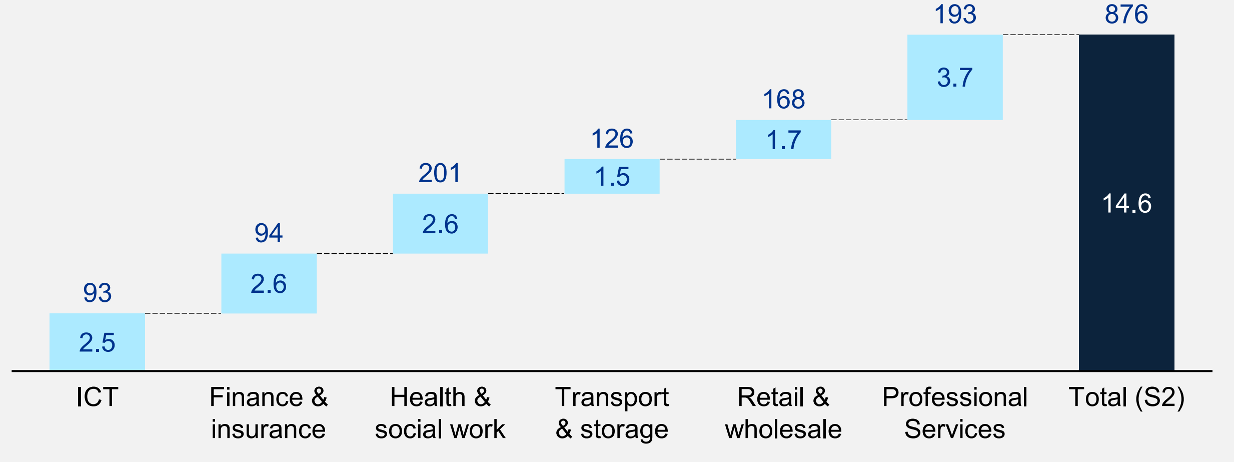
The availability of domestically based data centre infrastructure underpins employment and tax revenues from digitally intensive sectors.

Downstream enabled employment & tax revenue, 2024 [a][b]
Employment ('000s), Tax (€bn) – Scenario 1



Note: Previously reported ICT services employment figures including estimates referenced by the Central Bank are derived using top-down assumptions where employment is inferred as a fixed proportion of total national employment. [b] The employment estimates presented in this report apply CSO published output-to-employment ratios at the sectoral level, reflecting the labour intensity of digitally enabled sectors.

Downstream enabled employment & tax revenue [a]
Employment ('000s), Tax (€bn) – Scenario 2



Source: [a] CSO – Note that employment is inferred from ratios between GVA/output and output/employment. Average sectoral salaries are then input into RoI Income Tax Calculator to determine employment related tax per FTE. **[b]** Central Bank - The Role of the ICT Services Sector in the Irish Economy

3.3

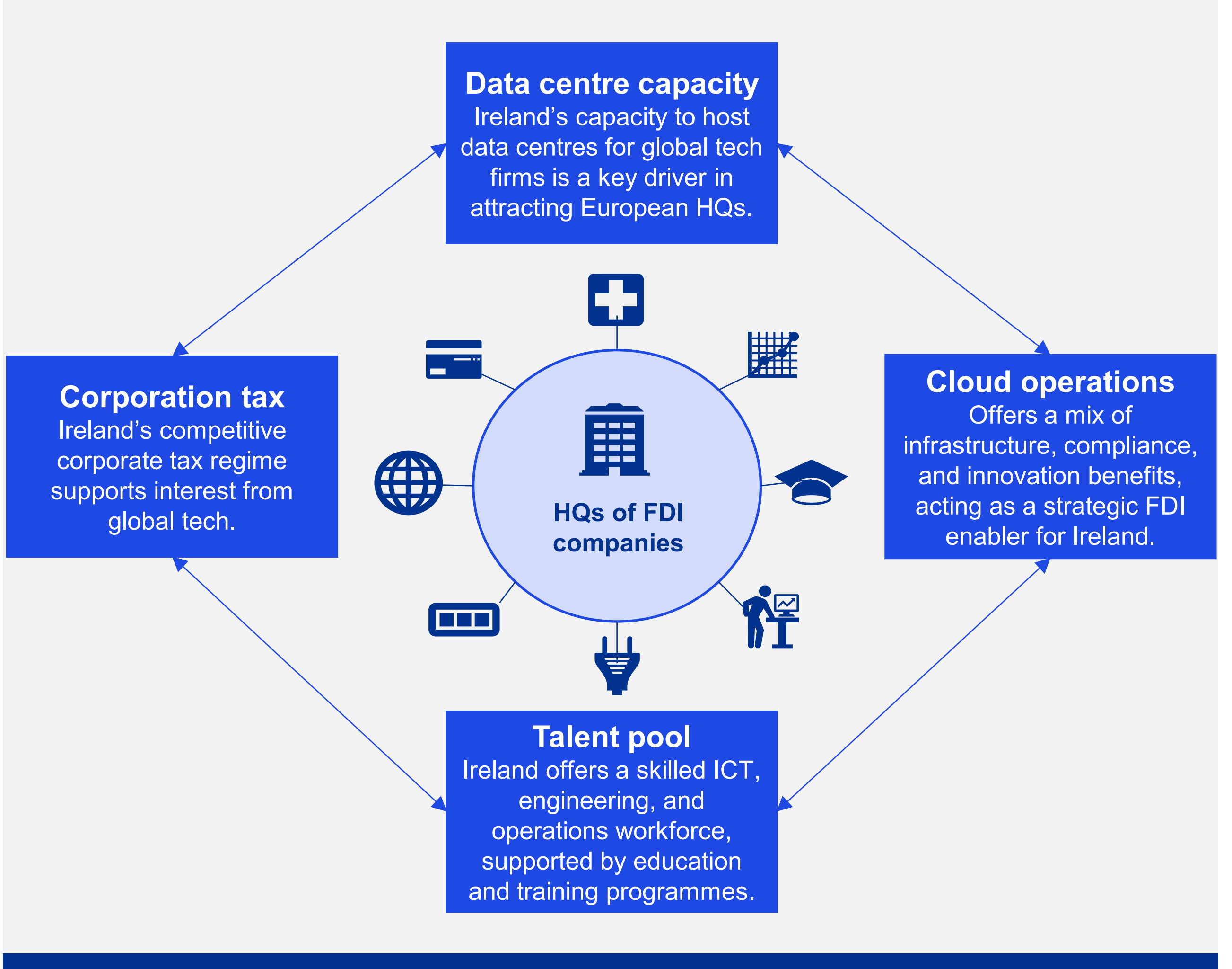
The role of data centres in attracting and retaining FDI

FDI cycle in Ireland

Attracting FDI headquarters in Ireland enables the wider digital economy and supports growth of the data centre sector.

This report distinguishes between (i) FDI in data centre infrastructure and (ii) FDI by technology companies and digitally intensive enterprises that rely on data centre services as a critical enabling input. In aggregate, the economic value associated with the latter is substantially larger.

Key factors supporting FDI in Ireland [1]



- **FDI success:** Over the past decades, Ireland has attracted Big Tech companies HQs like Google, Meta, and Microsoft, creating high-value jobs and supporting wider economic benefits and sectors.
- **Growing Importance of Data Centres:** As AI adoption accelerates globally, access to data centre capacity is becoming a critical factor in Ireland's FDI appeal.
- **Demand Cycle:** Hosting Big Tech HQs supports the attraction of further FDI by technology companies, and drives demand for tech services. This increases demand for data centre capacity which in turn spurs data centre growth.
- **Digital resilience:** Expanding data centre capabilities can strengthen Ireland's digital economy and future relevance for investment.

Note: [1] Ireland offers additional advantages for FDI, including (but not limited to) a cool climate and robust infrastructure that reinforce the discussed pillars.

Source: Combined KPMG consultations: 1) Stakeholders, 2) Survey, 3) KPMG SME network.

Role of data centres in FDI retention

Ireland serves as the EMEA headquarters for many of the world's leading technology firms, delivering significant economic benefits for Ireland.

Ireland's strategic role in global tech

- Ireland has established itself as a **leading European hub for global technology firms** hosting the EMEA headquarters of the world's leading technology firms.
- These headquarters serve as **critical nodes in global operations**, managing regional strategy, engineering, product development, sales and compliance for markets across Europe, the Middle East and Africa.

Why big tech chooses Ireland

The attraction of Ireland for these firms is rooted in a combination of factors (non-exhaustive):
✓ *Highly skilled, English-speaking workforce*
✓ *Strong digital infrastructure – Including the ability to host or access data centre infrastructure in Ireland*
✓ *Competitive and stable corporate tax regime*
✓ *Deep integration with EU markets*

These HQs deliver **significant economic benefits** to Ireland, including high-value jobs and multi-billion euro contributions to GVA and tax revenues**.** Beyond the impacts associated with their operations, HQs **strengthen the broader ecosystem** by driving demand for professional services, R&D, and digital skills, while reinforcing Ireland's global tech leadership.

The role of data centres in supporting retention of FDI HQs in Ireland

- Ireland provides **global connectivity**, benefitting from magnetisable cables (e.g., Hibernia Atlantic, Emerald Express) that ensure fast, low latency data transmission between Europe and North America.
- **Colocation of HQ and data centre operations** deeply embeds Ireland in global digital networks, ensuring long-term retention of these strategic assets and the economic value they generate.

FDI stickiness is the tendency for existing investors to retain and expand their footprint rather than relocate. In tech, co-locating EMEA HQ and data centre capacity is a decisive driver of stickiness as it integrates core functions with the digital infrastructure those functions rely on.

Co-located HQ and data centre capacity creates a sticky investment footprint. That footprint translates into billions in annual economic value for Ireland via high-wage employment, tax receipts and supplier ecosystems.

FDI attraction and retention in Ireland (1/3)

There are advantages for Big Tech companies in locating both their HQ and data centres in Ireland.

From consultation with hyperscale operators and industry bodies, for big tech companies, having their European headquarters (HQ) in Ireland (primarily Dublin) alongside their data centres is **advantageous but not strictly essential.** Below outlines a selection of key benefits from an operations perspective:

Operational efficiency and talent pool:

- HQ proximity allows for coordination between corporate teams, technical operations, and supports tax compliance and allowances. [1].
- Dublin offers a deep pool of multilingual tech talent and is a major hub for cloud expertise, which supports both HQ and data centre functions.

Key consultation insight:
Big tech companies maintain investment in Ireland due to their established data centre presence. Many of their customers choose to locate near cloud infrastructure, further anchoring these operations in Ireland. Ireland's strong STEM skills base further supports big tech operations and sustained investment.

Regulatory and planning alignment:

- Being close to HQ helps companies navigate Ireland's **planning and energy regulations** for data centres (e.g. through access to regulatory expertise, local stakeholders) enabling greater compliance and strategic alignment with Ireland's goals, which have become more complex in recent years due to grid and energy constraints.

Key consultation insight:
Restrictions on new connections, regulatory uncertainty, and administrative burdens in Ireland are making it more challenging to expand or respond to increased demand. These factors, including delays in connection policy implementation and broader EU regulatory frameworks (like the EU's AI Act), are making Ireland and Europe less attractive for future data centre development compared to other regions.

Ecosystem synergy:

- Dublin's clustering effect – where HQs coexist – reinforces Ireland's **reputation as a tech hub**, attracting suppliers, partners, and talent.
- This ecosystem effect supported the introduction of **80% of the world's top tech firms** locating in Ireland.

Key consultation insight:
The presence of big tech companies' HQs has directly benefitted Ireland's talent pool – since big tech companies have set up their HQs in Ireland, the engineering talent ecosystem has experienced major development as a result.

- While big tech firms have flexibility to base their HQs anywhere, Ireland stands out due to its deep pool of skilled talent, robust digital infrastructure, and a well-established tech ecosystem that fosters collaboration and innovation – making it a strategic hub for long-term investment.
- Ireland's ability to host HQs and provide data centre access strengthens its attractiveness.
- Foreign owned companies that operate data centres in Ireland, whether as part of their own infrastructure requirements or as a provider of services to other users, accounted for more than 20,000 high-value jobs in Ireland in 2024, through their combined data centre operations and other core operations (if any) in Ireland.

Note: **[1]** Co-locating HQs and data centres in Ireland can offer tax advantages for tech companies including a unified corporation tax rate, simplified transfer pricing, capital allowances on infrastructure, R&D credits for innovation, and EU-compliant tax certainty. **It should be noted that a detailed discussion on tax compliance and allowances is not provided in this report.**

Source: Combined KPMG consultations: 1) Stakeholders, 2) Survey, 3) KPMG SME network.

FDI attraction and retention in Ireland (2/3)

Ireland's ability to attract and retain future FDI will hinge on key data centre characteristics and supportive policy measures.

Irelands ability to attract and retain FDI by technology companies and digitally dependent enterprises will be influenced by our data centre landscape.

	Key aspects supporting continued and future investment
Anchor role of data centres	• Data centres are seen as anchors for FDI by technology companies or digitally dependent enterprises because they signal long-term commitment and **create spillover benefits** – jobs, infrastructure, and ecosystem development. • Big tech companies **employ thousands directly and indirectly** through data centre and non-data centre-related activities which supports the wider digital ecosystem in Ireland. • From consultation, big tech companies directly support on average **~300 operational jobs** to support data centre operations and can support up to ~**1,500 construction jobs** during facility build outs and expansions – contributing to the development of Ireland's workforce. • Data centres in Ireland, whether as part of their own infrastructure requirements or as a provider of services to other users, accounted for more than 20,000 high-value jobs in Ireland in 2024, through their combined data centre operations and other core operations (if any) in Ireland.
HQ presence as a confidence Signal	• The presence of HQs in Ireland **strengthens investor confidence** as it signals stability, access to talent, and alignment with EU markets. • Data centre presence, while not technically required for HQ operations, is **strategically important for FDI continuity** – supporting the development of Ireland's digital ecosystem and wider economy. • This supports an **increase in R&D capabilities** which further supports a more secure digital economy.
Policy and infrastructure readiness	• Ireland's attractiveness for next-gen FDI (AI, cloud, quantum) will depend on **resolving grid capacity issues** and **accelerating renewable energy deployment**. • Sustainability and digital infrastructure are key to maintaining competitiveness as **demand for digital services** continues to rise globally.

FDI outlook: [a]

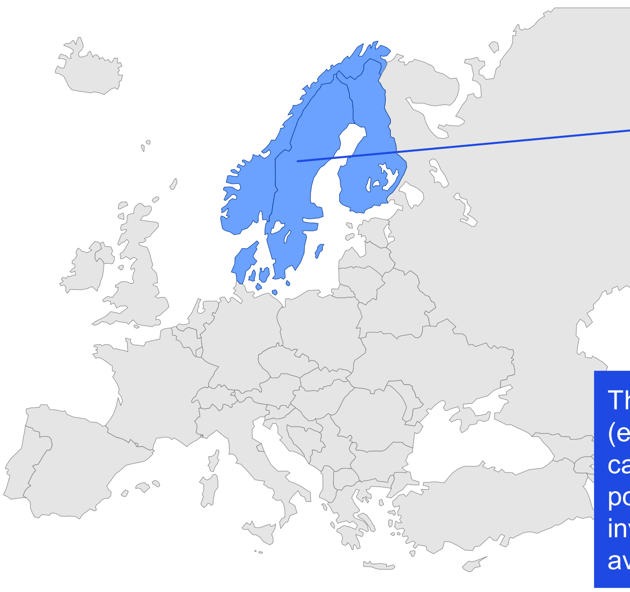
- While some big tech companies have faced constraints and delays in advancing new data centre developments in Ireland, several continue to actively pursue additional capacity through planning, appeals and engagement with the regulatory framework, reflecting underlying demand. [1].
- The presence of big tech companies' HQs **shapes broader investment decisions –** directly through operational capabilities and indirectly by reinforcing Ireland's reputation as a tech hub.
- The uncertainty regarding the access to grid connections in Ireland over the past few years coupled with other reasons such as the scale of increased capacity they require, for geographic diversification/redundancy reasons, access to renewable energy had led big tech companies to consider data centre investments in other locations. While grid and planning constraints have introduced uncertainty and affected the timing and sequencing of some investments, the scale of development pipeline and projected demand indicates that Ireland continues to attract strong interest from foreign owned companies. However, addressing constraints in Ireland remains important to sustaining Ireland's attractiveness for future data centre investment and related FDI.
- **Colocation benefits exist**, especially for tech and engineering companies – for example Meta's HQ is located in Dublin near its data centre.
- If existing tech companies stop investing more broadly in Ireland and new FDI companies locate HQs elsewhere, Ireland risks losing billions in FDI, thousands of jobs (directly and indirectly) in the data centre sector and the wider economy – resulting in **slower digital transformation**, and **diminished attractiveness** for future AI and cloud investments.

Source: **[a]** Combined KPMG consultations: 1) Stakeholders, 2) Survey, 3) KPMG SME network.

FDI attraction and retention in Ireland (3/3)

Big Tech firms are increasing investment across Europe; Ireland's grid and power constraints risk displacing additional data centre-related FDI.

European data centre investments (non-exhaustive) [1][a][b][c][d][e][f]



Nordics

- The uncertainty in recent years around Ireland's data centre connection policy together with other factors such as the scale of increased capacity required, geographic diversification/redundancy, and access to renewable energy have led to developers **looking towards other European countries** as alternatives for their new facilities.
- Countries such as **Denmark, Norway, Sweden, and Finland** in the Nordics are becoming more attractive due to their availability of hydroelectric power and government support.

The upcoming **EU Cloud and AI Development Act** (expected Q1 2026), which aims to triple EU compute capacity within 5 - 7 years, could weaken Ireland's position. As the EU accelerates expansion, investment may shift to other EU countries with available capacity to achieve the Act's objectives.

Developer	Barriers in Ireland	Outcome
Microsoft	Grid constraints	New data centre capacity has increasingly been directed to regions such as the **Nordics**, reflecting relative grid availability.
Google	Planning approval (appealed by Google)	**Data centre expansion rejected** due to grid capacity constraints and insufficient on-site generation. Without this investment Google will face challenges meeting customer demand.

- Big Tech companies (AWS, Microsoft, Google) are increasing data centre investment, particularly in AI and cloud infrastructure. In Ireland, however, the pace and scale of new investment has been constrained by grid capacity limitations and limited availability of new connections, particularly in the GDA.
- In recent years, proposed expansions by hyperscale operators have highlighted the challenges posed by grid capacity and on-site energy requirements, underlining the difficulty of accommodating additional demand within existing constraints.
- These constraints, along with wider considerations associated for example with the scale of increased capacity required, geographic diversification/redundancy, and access to renewable energy have led to data centre developers looking towards other European countries for their new facilities.

Data centres anchor FDI in Ireland; if Big Tech companies stop data centre development, long-term commitments weaken, ecosystem confidence declines, and operations become more mobile across the EU – highlighting the importance for Big Tech to be able to access and develop data centre capacity in Ireland.

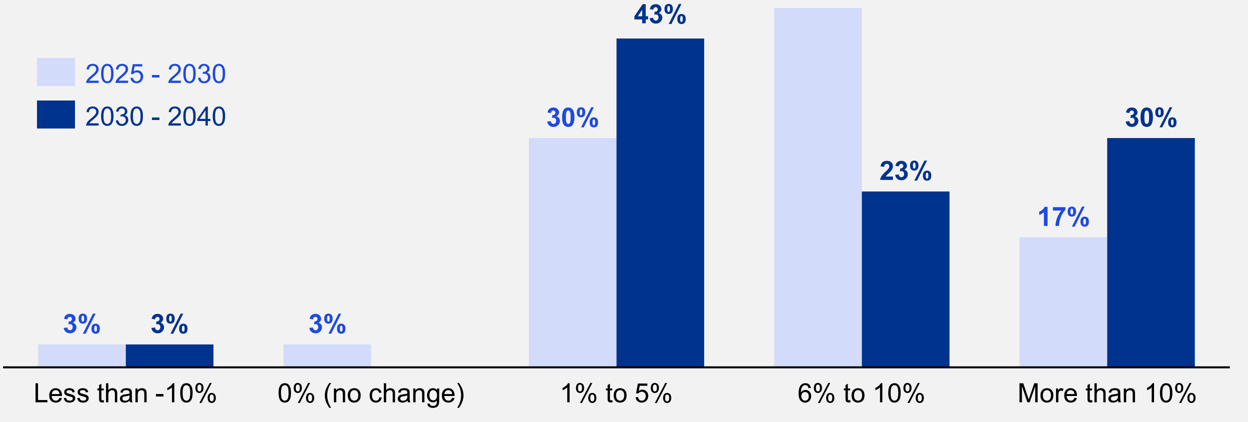
Note: **[1]** The figure above provides an example of data centre investment moving from Ireland to Nordic countries by Big Tech companies with HQs in Ireland due to grid constraints and planning. The example is illustrative and does not capture all European investments.

Source: **[a]** Microsoft and Google announcements **[b]** Reuters **[c]** Data centre dynamics **[d]** Yahoo! Finance **[e]** RTE **[f]** European Commission

Data Centres: Investment location decisions

Irish and foreign owned organisations depend on data centres in Ireland, highlighting their importance in investment location decisions.

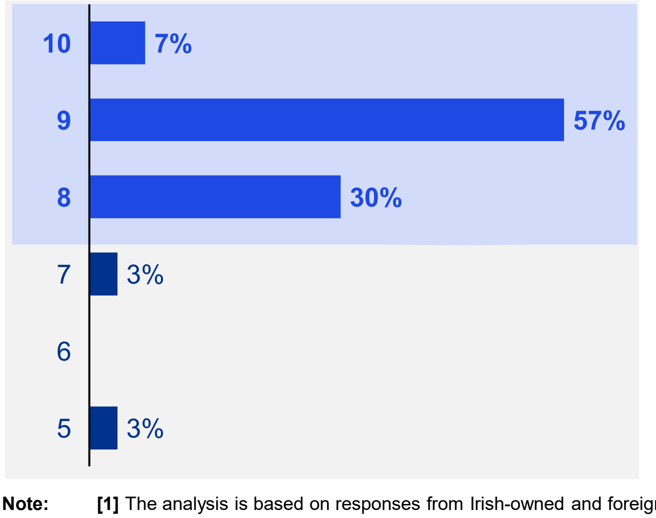
***Q:** Do you anticipate your company's data centre-supported operations to change between **(2025 and 2030)/(2030 and 2040)**? If so, what is the expected annual change in expenditure on digital services during this period (as a percentage)? – RoI [1]*



- Survey results indicate **sustained growth in operations reliant on data centres** and a strong preference for maintaining capacity in Ireland.
- **30%** of respondents expect their **expenditure** on digital and data centre-supported services **to increase by 1-5% per year** between 2025-2030, with a further **47%** anticipating growth **between 6-10% per year.**
- This trend is expected to continue into the next decade, with the majority expecting ongoing expansion through 2030-2040, with **30%** of respondents expecting their expenditure on digital and data centre-supported services to **increase by more than 10% per year**.

Survey insights indicate that both Irish-owned and foreign owned organisations plan to secure additional data centre capacity in Ireland over the next 5-15 years. Access to such capacity is critical for attracting and retaining FDI companies and ensuring Irish-owned firms continue investing locally in Ireland.

***Q:** On a scale of 1 to 10, how important is access to data centres for your decision to be located in RoI and invest further in your RoI operations?*



- **94% (28/30) of surveyed organisations** rated access to data centre as highly important (8+ on a 10-point scale) for locating and investing in RoI. [2].
- Survey responses suggest that **continued investment in data centre capacity in Ireland** is fundamental to sustaining digital growth and attractiveness for future growth.
- **Reliable, low latency infrastructure** not only underpins near-term business continuity but also strengthens Ireland's attractiveness for future investment in high-value, data intensive activities.

Note: **[1]** The analysis is based on responses from Irish-owned and foreign owned organisations that access data centre capacity from third-party operators. Respondents exclude FDI companies that own and operate their own hyperscale facilities. **[2]** For the purposes of this analysis, response scoring 8 and above have been classified as 'highly important'.

Source: **[a]** Data centre supplier and customer surveys.

3.4

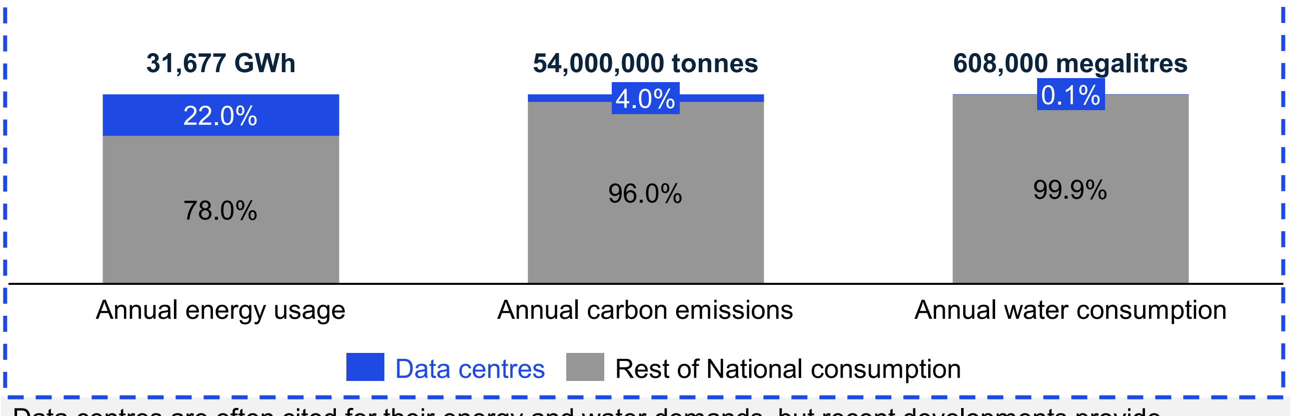
Other benefits and opportunity costs associated with data centres

Costs associated with data centres

Data centres are adopting sustainable measures and technologies to reduce their level of impact on Ireland's resources.

Overview of costs associated with different data centre types (2025) [a][b][c][d]

	Enterprise *1% of total GW capacity*	**Retail colocation** *6% of total GW capacity*	**Small-scale wholesale colocation** *5% of total GW capacity*	**Hyperscale** *88% of total GW capacity*
Total annual energy usage	**70 GWh**	**418 GWh**	**349 GWh**	**6,133 GWh**
Average data centre building size [1]	**7,500 sqft** *(equivalent to 0.1x size of a standard football pitch)*	**26,400 sqft** *(equivalent to 0.4x size of a standard football pitch)*	**85,600 sqft** *(equivalent to 1.1x size of a standard football pitch)*	**305,200 sqft** *(equivalent to 4.1x size of a standard football pitch)*
Annual water consumption	**8 megalitres**	**49 megalitres**	**41 megalitres**	**713 megalitres**
Annual CO_2 emissions	**20,800 tonnes**	**124,500 tonnes**	**104,000 tonnes**	**1,800,000 tonnes**



Data centres are often cited for their energy and water demands, but recent developments provide important context. Modern facilities have improved efficiency, adopted renewable energy, and use of advanced cooling systems. Older data centres are being retrofitted to reduce environmental impact.

- **Water:** Use is ~0.13% of Uisce Éireann's annual supply. Most large data centres now rely on closed-loop systems with minimal ongoing consumption.
- **Electricity:** They account for ~22% of Ireland's usage, though overall non-residential demand aligns with European peers.
- **Carbon emissions:** It is estimated that data centres account for approximately 4% of Ireland's total emissions. [2].
- **Policy context:** As key infrastructure for Ireland's digital economy, operators are working to reduce resource intensity while maintaining reliability.

Note: **[1]** Average size of a football pitch = 74,400 sqft based on UEFA specifications. **[2]** This estimate comes from annual CO2 emissions by data centre type based on capacity, total energy usage, SEAI emissions factors, and data centre utilisation rates – this value is not a publicly reported figure.

Source: **[a]** CSO – Environmental Indicators Ireland 2025, Metered Electricity Consumption 2024 **[b]** KPMG analysis of CSO data **[c]** Government Statement on the Role of Data Centres **[d]** SEAI Carbon emissions factors

Other wider benefits

Data centres in Ireland support data sovereignty, innovation, and investment while being a route to market for renewable energy.

Other wider benefits of data centres [a]

Data sovereignty, resilience and continuity
Ensures critical national and enterprise data remains within Irish/EU jurisdiction, supporting compliance with GDPR, other digital regulation obligations, and continuity of essential services.

Knowledge spillover and cross-sector innovation
The presence of data centres in Ireland also fosters innovation.

- **Enabling sector innovation** in areas such as fintech, medtech, and manufacturing, where cutting edge technologies (e.g., IoT, AI, automation) require ultra-low latency, locally hosted data centre capability.
- There is opportunity for **R&D activity to drive technological advancements** in data centre operations, including performance optimisation, energy storage solutions, and green technologies that reduce energy and water use.
- **Supporting the growth of digital-intensive start-ups** by providing the infrastructure needed for innovation and scaling.

Retaining tech hub status
A robust data centre ecosystem underpins Ireland's position as a leading European digital hub, reinforcing its attractiveness for tech firms and domestic and international start-ups.

- **Example:** Inspeq AI is an AI-driven startup headquartered in Dublin. It supports businesses to comply with evolving AI regulations in Europe, the UK, and the US. [c]

Renewables route to market
Data centres present a significant strategic opportunity for Ireland's renewable energy transition, as their steady, long-term electricity demand can unlock and anchor investment in large-scale renewable energy projects – strengthening energy security and advancing national climate goals. Hyperscale facilities already underpin a material share of Ireland's renewable Corporate Power Purchase Agreement (CPPA) pipeline, demonstrating their role as reliable anchor off-takers that enable developers to finance new wind and solar capacity.

Evidence from publicly announced CPPAs illustrates the scale of renewable investment supported by data centre demand in Ireland. Microsoft has contracted approximately 930MW of onshore wind and solar through CPPAs [b], Meta has secured 276MWp of solar capacity [c], AWS has committed to over 200MW of onshore wind alongside a strategic partnership with Bord na Móna's Eco Energy Park [d], and Google has contracted 58MW of new-to-grid solar capacity [e]. Collectively, these commitments provide clear evidence that data centres are acting as anchor customers for new renewable generation.

Source: [a] Combined KPMG consultations: 1). Stakeholders, 2). Survey, 3). KPMG SME network [b] Microsoft signs 900MW PPAs for Ireland, 28% of nation's target for 2030 - DatacentreDynamics [c] Meta signs two solar PPAs in Ireland – DatacentreDynamics [d] Amazon's first operational wind farm in Ireland delivers clean energy to the grid [e] Google signs 58MW solar PPA in Ireland – DatacentreDynamics

Other wider benefits

Data centres in Ireland support data sovereignty, innovation, and investment while being a route to market for renewable energy.

Other wider benefits of data centres

Sustainability

Data centre operators in Ireland are exploring heat reuse for district heating, creating collaboration with construction and energy firms to design heat recovery systems

- **Example:** Tallaght District Heating Scheme which demonstrates how waste heat from Amazon's nearby data centre can heat public and residential buildings in the area. [a]

Regional benefits

Regional data centre clusters can stimulate local economies, while enhanced global connectivity supports export-led growth and positions Ireland as a gateway for transatlantic data flows.

Data centre services **enhance business efficiency** by enabling high-speed data processing, secure storage, and real-time analytics. They support AI-driven applications, improve interconnectivity across sectors, and facilitate scalable digital infrastructure, helping organisations optimise operations, innovate faster, and respond more effectively to market demands. Importantly, they can also anchor investments for new renewable energy deployment.

Source: **[a]** SEAI Case Study: Tallaght District Heating Scheme

Opportunity costs to data centre investment

While data centres generate economic value, their development involves clear opportunity costs and trade-offs,

Potential opportunity costs and trade-offs with data centre development (non-exhaustive) [a]

	Potential opportunity cost
Financial	• Data centres attract **significant private investment** (over €15bn to date with €8-10bn more planned – according to the bitpower Q4 2024 Market Update). • Investment in infrastructure that supports data centre development also **supports Ireland's digital economy** and contributes to GDP, employment, tax revenues and productivity gains through digitally enabled services. • Grid infrastructure investment required to support large-energy users is currently recovered through regulated network charges.
Energy	• Data centres **currently consume 22% of Ireland's electricity** in 2024 (according to CSO data centre metred electricity consumption data) and are projected to consume more than 30% by 2030. To ensure continued robust energy security and power sector decarbonisation, this data centre expansion will likely require additional dispatchable and renewables generation, as well as grid reinforcement. • Operators are continuing to **invest in renewable energy development** via corporate PPAs and **support grid flexibility** through demand response and energy storage initiatives.
Environmental	• Backup diesel generators and on-site gas generation can **increase emissions** and reduce efficiency compared to grid power. • However, newer facilities are **adopting cleaner technologies**, including waste heat recovery and closed-loop cooling, which can contribute to decarbonisation in heating and industrial processes.
Economic	• Operational data centres typically create **relatively few direct long-term jobs**, which raises questions about whether the same land, energy, or incentives could support sectors with broader employment impacts. • However, data centres also generate **substantial construction employment** (and has helped Irish engineering firms become major European players), **stimulate local supply chains**, and **enable growth and economic activity** across sectors.
Land Use	• Many facilities **repurpose industrial or brownfield land** and can drive infrastructure upgrades that support broader regional development. • Additionally, Ireland is sparsely populated; data centres locate in areas **zoned for industrial development**, limiting their overall impact on wider land use requirements across sectors.

- Data centres power **cloud services, AI, and analytics** – driving efficiency, innovation, and competitiveness across industries.
- They attract **global tech companies**, create jobs, and underpin Ireland's digital economy and transition.
- Enable real-time financial systems, smart manufacturing, and healthcare.
- Without sustained investment, Ireland could **lose its edge** as a leading European tech hub, which could undermine its ability to attract future data centre projects and weaken its overall digital economy.
- Mainland Europe and Nordic countries offer renewable energy, subsea connectivity, and scalable infrastructure opportunities, **making them attractive alternatives**.

Source: **[a]** Combined KPMG consultations: 1). Stakeholders, 2). Survey, 3). KPMG SME network **[b]** BIT Power Market update

Wider social benefits of data centres

Data centres in Ireland adopt sustainable practices across facility types, delivering environmental and societal benefits.

Contributions to wider social benefits by data centre operator type [a]

	Enterprise	Retail Colocation	Small-scale wholesale Colocation	Hyperscale
Renewable development				
On-site generation	★	★	★	★
Demand flexibility measures		★	★	★
Purchase of CPPAs			★	★
Battery storage		★		★
Innovation in green technologies				
Heat reuse / district heating			★	★
Closed-loop water cooling		★	★	★
Air / liquid cooling	★	★	★	★
AI-driven cooling optimisation				★
Passive cooling membranes		★		
Skills and training				
Apprenticeship programmes		★	★	★
Local sponsorship (e.g., sports clubs and communities)	★	★	★	★

- Data centres in Ireland **support renewable energy growth and green tech innovation**.
- Hyperscale and small-scale wholesale colocation are **key purchasers of CPPAs**, directly supporting wind and solar projects and accelerating Ireland's renewable capacity.
- Data centres such as retail and small-scale wholesale colocation, and hyperscale are **investing in on-site energy solutions like battery storage for backup generation**, while waste heat recovery initiatives support district heating systems.
- On average, data centre operators are aiming to achieve **net-zero over the next 10 years** but this is dependent on the availability of renewable generation capacity and renewable gas potential.
- Data centres **support upskilling** by partnering universities through specialised programmes combined with hand-on training, paid-placements and scholarships. For example, Microsoft partners with Collinstown Park Community College and TU Dublin – Blanchardstown to **deliver programmes aligned with its Datacentre Academy**. [b]

Source: **[a]** Combined KPMG consultations: 1). Stakeholders, 2). Survey, 3). KPMG SME network **[b]** Microsoft Datacentre Academy

4.

Post-2030 scenario analysis

Introduction to Chapter 4 (1/2)

Chapter 4 seeks to assess, primarily from an economic viewpoint, the implications of either continuing or ceasing further development of Ireland's data centre landscape beyond 2030.

Chapter 4, Section 1 reviews global, European, and Irish trends (in digital transformation across enterprise and public sectors, data centre market, AI revolution), as well as Ireland's policies and enterprise mix, to support the consideration of the role of data centre development in Ireland beyond 2030 in terms of supporting future economic growth and maintaining Ireland's competitiveness.

Chapter 4, Section 2 sets out 3 scenarios with regards to the future capacity of Irelands data centre landscape [1]:

- *Scenario 1 Baseline:* assumes there is no further development of the data centre landscape between 2030 and 2040 and so data centre capacity will be 1.8 GW in 2040, which is the projected data centre capacity in 2030.
- *Scenario 2 Steady-state growth:* assumes there will be an additional 0.6GW in data centre capacity developed (based on 3% CAGR) over the period 2030 and 2040, bringing total capacity to 2.4 GW.
- *Scenario 3 FLAP*: assumes there will be an additional 2GW in data centre capacity developed (based on 8% CAGR) over the period 2030 and 2040, bringing total GW capacity to 3.8 GW.

The estimated upstream GVA, employment and employment related tax revenue related to construction and operation of additional data centres over the 2030-2040 period are presented per scenario.

Chapter 4, Section 3 aims to estimate foregone upstream and downstream economic impacts in the case that Ireland does not develop the data centre landscape beyond 2030 (i.e. *Scenario 1*), the potential impacts on FDI investment as well as potential wider opportunity costs of not evolving the data centre landscape beyond 2030. The following analysis is presented:

- Estimated foregone upstream GVA, employment, and employment related tax revenue by 2040 relative to 2030.
- Estimated foregone downstream GVA, employment and employment related tax revenue. This estimate assumes that data centre capacity does not expand in line with rising digital demand from sectors requiring domestic hosting, and latency sensitive operations. Using a conservative annual sectoral growth rate of 2% from 2024-2030, the analysis illustrates the potential scale of annual average economic contributions that could be lost under a scenario of constrained data centre capacity growth.

This analysis indicates the scale of the potential annual GVA foregone in 2030 if the installed data centre IT capacity need of sectors that require data centres to be located in Ireland for proximity and latency reasons are not met. The potential implications of not being able to meet domestic, latency sensitive data centre capacity requirements in the future are also set out.

Note: *These estimates represent a comparison between two economic outcomes in 2030 and are not cumulative over the period to 2030, nor intended to be annualised or averaged across years.*

The estimate of foregone GVA / employment / tax revenue presented is for a single year (2030) only. [2].

- The potential implications associated with future data centre capacity constraints, on computer services exports from Ireland.
- Potential wider opportunity costs associated with curtailed data centre development in Ireland.

Note: **[1]** There is no specific consideration of where in Ireland data centre capacity growth will occur. i.e. we are not saying this growth will occur in Greater Dublin Area (GDA). **[2]** The analysis on potential foregone downstream GVA is not indicating that Ireland will not have the data centre capacity required out to 2030 to support the needs of the sectors dependent on them, but rather aims to estimate the scale of potential future annual foregone economic impact in the period beyond 2030 if Ireland does not continue to develop the data centre landscape.

Introduction to Chapter 4 (2/2)

Chapter 4, Section 4 looks to assess how changing the share of installed data centre IT capacity allocation across hyperscale and non-hyperscale data centre types impacts on Upstream GVA, employment and employment related tax. A sensitivity analysis is carried out on Scenario 1, 2 and 3, with the upstream GVA, employment and employment related tax in 2030 and 2040 compared for each scenario for different shares of installed data centre IT capacity allocated to hyperscale and non-hyperscale data centre types.

Chapter 4, Section 5 focuses on the potential carbon impacts associated with data centre development beyond 2030.This analysis was undertaken given the large-energy consumption levels associated with further developing the data centre landscape, in particular for hyperscale sites which pose a key challenge with regards to meeting climate objectives.

In this section, sensitivity analysis on carbon impacts is carried out across Scenarios 1, 2 and 3 in which the proportion of renewable energy access; and the utilisation rate by data centres are varied.

Key takeaways from Chapter 4:

- Ireland's digital economy and public services are becoming increasingly dependent on large-scale, secure and high-performance data centre infrastructure, reflecting wider global and European trends in digitalisation, cloud adoption and data-intensive services. These trends are driving sustained demand for reliable, well-governed data storage and processing capacity in Ireland, alongside other factors such as FDI competitiveness, ecosystem scale, latency requirements and energy availability.
- Three scenarios – Baseline, Steady-State Growth, and FLAP – show that the extent of data centre expansion will shape economic outcomes. Without growth, contributions plateau. With expansion, annual GVA could reach €2.6bn–€5.7bn by 2040, and jobs 20,600–50,100. Ongoing investment is key for increases GVA, jobs, and tax.
- Not expanding the data centre landscape beyond 2030 could mean lost upstream impacts of up to €4.3bn in annual GVA and 40,000 jobs by 2040 relative to 2030, plus estimated foregone downstream impacts of €11.2bn GVA, 94,000 jobs, and €1.6bn in employment tax from 2030. Constrained growth weakens FDI appeal, risks digital activity relocation, potentially impacts computer services exports, and slows digital transformation.
- The mix of hyperscale and non-hyperscale centres moderately affects outcomes. More hyperscale anchors FDI in cloud/AI. A balanced mix supports both FDI and domestic needs.
- However, even with access to large amounts of renewable energy, additional electricity demand from new data centre growth will still require sufficient dispatchable and flexible generation to provide reliable, on demand electricity when wind and solar are insufficient.
- Data centre electricity use is a climate concern. However, with 80% or more renewable penetration, emissions stay contained even as capacity grows. Lower utilisation rates further reduce emissions.
- Ireland's data centre evolution is about developing a world class supply chain, retaining and attracting FDI, digital transformation, and data sovereignty obligations of Ireland's public services and enterprise base. The AI revolution will further boost demand for high-performance, sovereign infrastructure. Policy and investment choices now will shape Ireland's future competitiveness and resilience.

Note: **[1]** There is no specific consideration of where in Ireland data centre capacity growth will occur. i.e we are not saying this growth will occur in Greater Dublin Area (GDA).

4.1

Global and national trends shaping Ireland's data centre landscape

Global and national trends (1/2)

Growing digital dependency (Ireland, Europe, and Global)

- **Global digital dependency is accelerating:** Enterprises and citizens increasingly rely on digital infrastructure for economic activity, public services, and daily life. In Ireland, we estimate that ~34% of national GVA (~€182bn) is enabled by data centre infrastructure, with 17% (~€89bn) critically dependent on domestic, latency sensitive, installed data centre IT capacity.
- **European and global trends:** The EU and global economies are experiencing exponential growth in cloud, AI, and data consumption, driving sustained demand for robust data centre infrastructure. The EU Cloud and AI markets experienced a CAGR of ~21% and ~33% from 2024 to 2025. [a].
- In the EU, the share of households **accessing the internet was 94% in 2024**, up from 80% in 2014. **[b]** This highlights the increasing dependence on data centres across the EU to serve and support every day tasks and recreation.
- In 2024, Ireland exported approximately €483bn in services, with **computer services accounting for the largest share at €279bn (~58%)** – an increase of €45bn from 2023. **[c]** This underscores Ireland's position as a leading ICT exporter, supported by its data centre infrastructure that enables cloud computing, hosting, and cross-border digital services.

Digital transformation of Ireland's public services

- **Ireland's public sector is undergoing rapid digital transformation:** Hospitals, higher education institutions, and government services increasingly depend on secure, high-performance data centres for service delivery, compliance, and innovation.
- Ireland has provided full digital access to public services for businesses since 2020, and continues to make progress for citizen access. Under the **Digital Services Plan 2030**, the targets are *(i) 100% of key public services available online by 2030,* and *(ii) 90% of applicable services consumed digitally by 2030*. **[d]**.

Rising demand for data centre capacity

- **Global and European demand:** Installed data centre IT capacity is projected to grow at 8–11% CAGR in leading European markets (FLAP-D: Frankfurt, London, Amsterdam, Paris, Dublin).
- **Ireland's demand:** Ireland's installed data centre IT capacity grew from 0.1 GW in 2010 to 1.5 GW in 2025, with 1.8 GW projected by 2030. KPMG analysis of Ireland's data centre pipeline indicates significant future demand, with an additional 1.4 GW in the development pipeline beyond approved connections. A recent EirGrid market intelligence exercise indicates demand for data centre capacity in Ireland in the post-2030 period could be in excess of this, with estimates of additional demand of 5.8GW to 2040. [1].
- **Policy focus:** Ireland's objective is not necessarily to meet all data centre demand, but rather to ensure sufficient capacity to maintain competitiveness and maximise economic and wider benefits.

Enhanced focus on data sovereignty

- **Data sovereignty is increasingly critical:** Sectors such as healthcare, finance, and government require data to remain within Irish/EU jurisdiction for compliance, security, and trust. Accessing services that are made available through data centres located in Ireland can support organisations in complying with their data sovereignty and other digital regulatory obligations.
- The **EU's Cloud Sovereignty Framework (October 2025)** is designed to reduce reliance on non-European cloud providers and protect against risks from foreign laws (such as the US CLOUD Act). **[e]** It establishes clear standards to guarantee data autonomy, legal control, and operational independence within Europe. This underscores the strategic importance of data centres located in Ireland, which provide the secure infrastructure needed to meet data sovereignty requirements and support critical EU digital services.

Note: **[1]** Based on findings from a Market Intelligence Exercise undertaken by Eirgrid in 2025 to better understand the scale of potential medium-term demand (out to 2040) from prospective data centre developers/operators. CRU Large-Energy Users Connection Policy. Available at: CRU2025236_Large_Energy_User_connection_policy_decision_paper.pdf

Source: **[a]** KPMG analysis of AI and Cloud market size estimate reports **[b]** Europa.eu **[c]** CSO – International trade in services, 2024. **[d]** DPER – Digital Public Services Plan 2030 **[e]** European Commission (DG Digit), Cloud Sovereignty Framework.

Global and national trends (2/2)

Ireland's enterprise mix: indigenous & Foreign owned firms

- **Ireland's data centre ecosystem supports both indigenous firms and foreign owned firms:** Global tech companies (e.g. Google, Microsoft, Meta) have EMEA HQs in Ireland, and further investment by these companies in Ireland is underpinned by digital infrastructure, fibre connectivity, subsea cables, talent, tax policy, and the ability to locate their data centres in Ireland. Key domestic sectors (ICT, finance, health, transport, retail, professional services) are highly dependent on data centres.

The need for data centres to be located in Ireland: proximity, latency, sovereignty

- **Increased reliance on overseas data centres would undermine FDI and key sectors:** Many organisations prefer data centres to be located in the same country as their core operations for low latency, data sovereignty and regulatory compliance. Without local capacity, Ireland risks losing FDI, jobs, and economic value. Proximity and latency are explained further in Appendix F.

The AI Revolution: opportunity & infrastructure needs

- **AI is driving a new wave of demand:** Ireland is at the start of the AI revolution, with growing requirements for high-performance, low latency, and sovereign data infrastructure to support AI training and inference.
- AI has the potential to **contribute at least €250bn to Ireland's GDP by 2035** – this could increase by a further €60bn depending on how businesses, government, and industry leaders harness AI's capabilities and implement policies that foster responsible innovation. [a]
- To support this potential, **attracting investment (FDI or indigenous) in AI focused data centres is critical**, as they provide the infrastructure needed to support advanced AI workloads and position Ireland as a leading European AI hub for the future and support investment from the new wave of AI focused companies.
- The Government's "**National Digital and AI Strategy: Digital Ireland – Connecting our People, Securing our Future"** – which outlines Ireland's vision to **harness AI and emerging technologies,** aligns with Programme for Government commitments, and recognises the need for secure, scalable digital and compute infrastructure as a foundation for economic growth, competitiveness and public service delivery.
- AI and digital tools are increasingly recognised as critical enablers for infrastructure delivery. By leveraging advanced data analytics and digital modelling, these technologies can streamline project planning, accelerate approvals and improve decision-making across all stages of infrastructure development. AI can play a key role in identifying future infrastructure needs, analysing population and economic activity forecasts and reducing bottlenecks in approval processes. Furthermore, the integration of AI-driven insights supports more efficient resource allocation and long-term planning, ensuring that infrastructure projects are delivered with greater speed, accuracy and resilience. [b].

Key takeaway:

- Ireland's continued development of its data centre landscape is essential – not just to remain a strategic hub, but to sustain FDI, enable digital transformation across enterprise and public services, support indigenous and multinational enterprise, and serve citizens.
- This development will also supports organisations' compliance with data sovereignty obligations and strengthens competitiveness in the era of AI through the development of AI inference data centres.

Source: **[a]** AI Economy in Ireland 2025 – Trinity Centre for Digital Business and Analytics (CDBA) in collaboration with Microsoft Ireland
[b] Department of Public Expenditure Infrastructure Public Service Reform and Digitalisation – Accelerating Infrastructure Report and Action Plan.

KPMG

4.2

Economic impact scenarios for Ireland’s data centre growth (2030–2040)

Overview: Post-2030 scenario framework

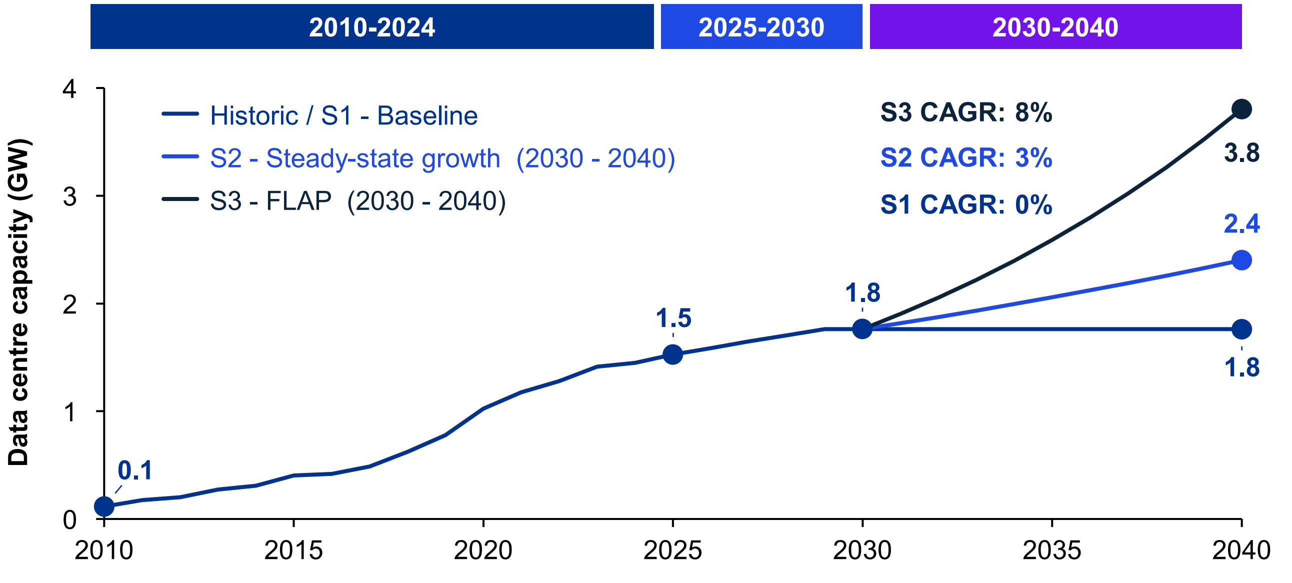
We have developed three scenarios to assess the potential impacts of both halting and advancing data centre development beyond 2030.

Post-2030 scenarios: [a][b][c][d][e][f]

S1. Baseline	• This scenario assumes that, in addition to the existing **2025 installed data centre IT capacity of ~1.5GW**, only projects with secured approved grid connection (~0.3GW) from EirGrid, ESB Networks, and Gas Networks Ireland (GNI) will be built by 2030 and no new data centres will be built between 2030 and 2040: • We assume that by 2030, Ireland's installed data centre IT capacity will reach **~1.8GW.**
S2. Steady-state growth	• This scenario assumes that despite grid constraints, there will be **some data centre development between 2030 and 2040**. • This aligns with projected capacity growth from **2025-2030 (+0.3GW)** at a **3% CAGR**. • We assume that this same growth rate applies between 2030 and 2040. This relates to an additional **0.6GW of installed data centre IT capacity, reaching 2.4GW by 2040**.
S3. FLAP	• This scenario assumes that between 2030 and 2040, installed data centre IT capacity in Ireland will **increase at a faster pace** than is projected for the 2025-2030 growth rate (3% CAGR). • We assume that for between 2030 and 2040, data centre IT capacity in Ireland will grow at the **average FLAP growth rate** that is forecast for beyond 2030 (8% CAGR). • This would result in Ireland's installed data centre IT capacity **reaching 3.8GW by 2040**.

We assume that in each scenario, the base mix of different data centre types will remain broadly the same (i.e. ~88% of the additional installed data centre IT capacity is attributed hyperscale and ~12% for non-hyperscale). However, this assumption has been adjusted in the sensitivity analysis in section 4.5.

Data centre capacity (GW) per scenario in Ireland (2010-2040)

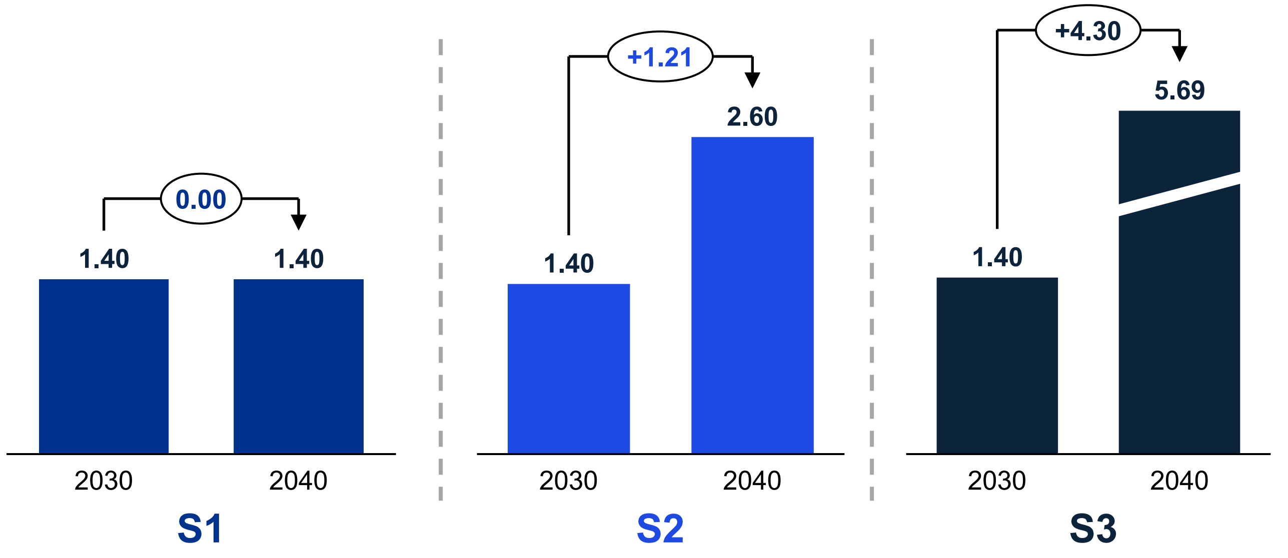


Source: **[a]** KPMG analysis **[b]** KPMG consultations **[c]** ESB Networks DSO connections **[d]** EirGrid TSO connections **[e]** Gas Networks Ireland (GNI) connections **[f]** Industry reports on data centre growth and development for FLAP markets (e.g., Knight Frank, Cushman and Wakefield, JLL, CBRE).

Scenario results: Upstream GVA

Accelerated growth in installed data centre IT capacity to ~3.8 GW could see data centres supporting ~€5.7bn in upstream GVA in 2040.

Estimated GVA impacts of data centre activity, CAPEX and OPEX [1][2]
€bn, 2030-2040



The above Gross Value Added (GVA) estimates illustrate how varying levels of data centre growth contribute to Ireland's economic growth over the 2030-2040 period:

- In the **S1 – Baseline**, installed data centre IT capacity **is expected to reach 1.8GW in 2030 and remain at this level out to 2040.** This will result in **no additional GVA** generated beyond the €1.4bn in 2030.
- Under the **S2 – Steady-state growth**, installed data centre IT capacity is estimated to rise from 1.8GW in 2030 to **2.4GW (at a 3% CAGR) in 2040.** This growth is expected to drive annual GVA from **€1.4bn** to **€2.6bn** in annual GVA over the same period, resulting in a cumulative contribution of approximately **€24.1bn** between 2030 and 2040.
- In the **S3 – FLAP**, based on the forecasted average growth of the mature FLAP (Frankfurt, London, Amsterdam, Paris) markets in Europe post-2030, installed data centre IT capacity is expected to grow **from 1.8GW in 2030** to **3.8GW in 2040 (at an 8% CAGR).** This is estimated to boost annual GVA from €1.4bn in 2030 to **€5.7bn in 2040**, resulting in a cumulative contribution of **€42.6bn** over the same period – highlighting the strong **economic potential** of sustained investment in digital infrastructure.

Expansion of data centre capacity could significantly enhance contribution to economic output, driven by increased capital and operational expenditure and activity in the sector.

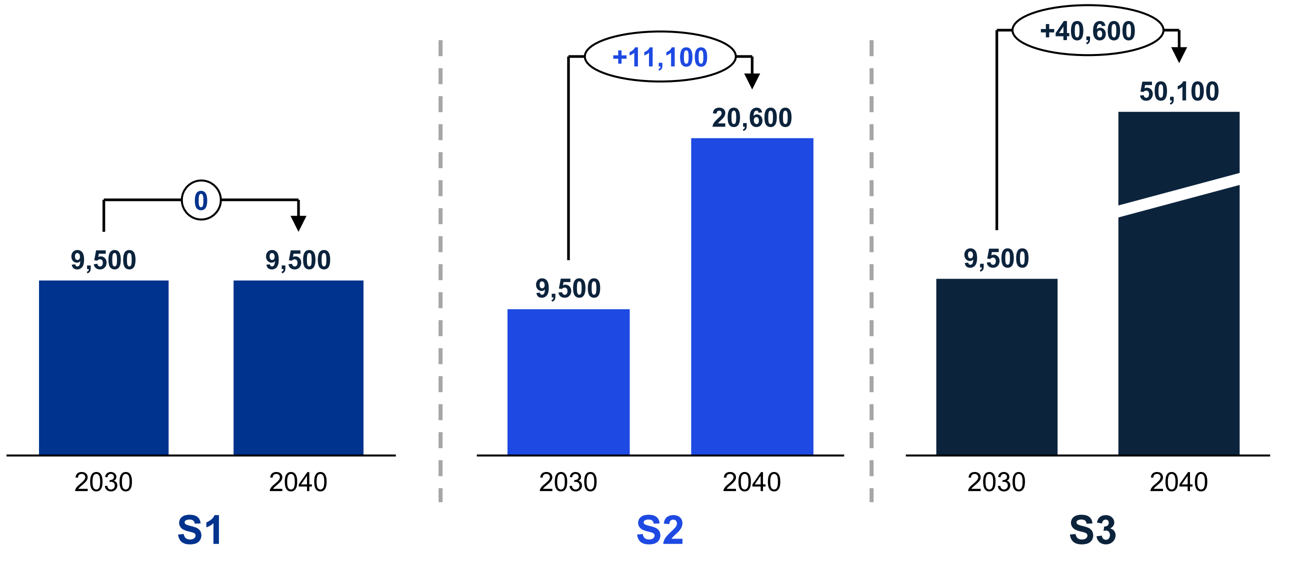
Note: **[1]** More detail on the scenario impacts are provided in Appendix E. **[2]** Results presented are total GVA impacts inclusive of direct, indirect and induced GVA.
Source: CSO total sector GVA (2024), Industry survey, KPMG input-output model.

Scenario results: Upstream employment

Accelerated growth in installed data centre IT capacity to ~3.8 GW could see data centres supporting over 50,000 upstream jobs in 2040.

Estimated employment impacts of data centre activity, CAPEX and OPEX

FTE, 2030-2040



The above employment (FTE) estimates illustrate how varying levels of data centre growth and development pathways could impact the level of employment in Ireland between 2030 and 2040:

- In the **S1 – Baseline**, installed data centre IT capacity **is expected to reach 1.8GW in 2030 and remain at this level out to 2040.** As a result, employment is estimated to remain unchanged at **around 9,500 jobs** across capital and operational activities.
- Under the **S2 – Steady-state growth**, installed data centre IT capacity is estimated rise from 1.8GW in 2030 to **2.4GW (at a 3% CAGR) in 2040.** Employment is estimated to increase from 9,500 in 2030 **to 20,600 jobs** (7,700 from CAPEX and 12,900 from OPEX) by 2040.
- In the **S3 – FLAP**, based on the forecasted average growth of the mature FLAP (Frankfurt, London, Amsterdam, Paris) markets in Europe post-2030, installed data centre IT capacity is expected to grow **from 1.8GW in 2030** to **3.8GW in 2040 (at an 8% CAGR). This is expected to support a significant uplift in employment, rising to 50,100 jobs (29,700 from CAPEX and 20,400 from OPEX).**

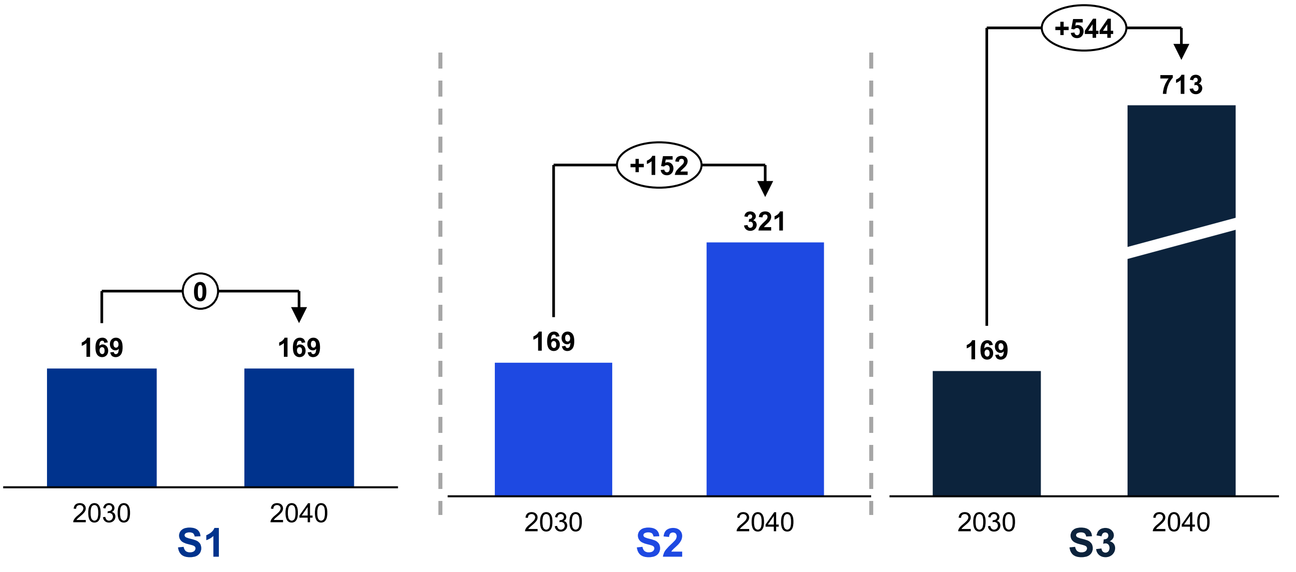
Expansion of data centre capacity could create jobs across data centre construction, operations, and the wider supply chain, as well as additional employment generated throughout the broader economy.

Note: **[1]** More detail on the economic impacts by scenario are provided in Appendix E.
Source: CSO total sector GVA (2024), Industry survey, KPMG input-output model.

Scenario results: employment related tax

Accelerated growth in installed data centre IT capacity to ~3.8 GW could see data centres supporting over €1.2bn in employed related tax revenue in 2040.

Estimated employment tax impacts from data centre activity, CAPEX and OPEX
€m, 2030-2040



The above employment related tax estimates illustrate how varying levels of data centre growth and development pathways could impact the level of employment related tax revenue in Ireland between 2030 and 2040:

- In the **S1 – Baseline**, installed data centre IT capacity **is expected to reach 1.8GW in 2030 and remain at this level out to 2040.** As a result, employment related tax impacts are estimated to remain unchanged at **around €169m from** operational employment.
- Under the **S2 – Steady-state growth**, installed data centre IT capacity is estimated to rise from 1.8GW in 2030 to **2.4GW (at a 3% CAGR) in 2040.** Employment related tax impacts are estimated to increase from €169m in 2030 **to €321m** by 2040 from both construction related and operational employment.
- In the **S3 – FLAP**, based on the forecasted average growth of the mature FLAP (Frankfurt, London, Amsterdam, Paris) markets in Europe post-2030, installed data centre IT capacity is expected to grow **from 1.8GW in 2030** to **3.8GW in 2040 (at an 8% CAGR). This is expected to support a significant uplift in employment related tax revenue, rising to €713bn** in 2040.

Expansion of data centre capacity could generate significant job creation through data centre construction, operation and indirect jobs across the data centre supply chain, supporting employment related tax revenue.

Note: [1] More detail on the economic impacts by scenario are provided in Appendix E.
Source: CSO total sector GVA (2024), Industry survey, KPMG input-output model, Republic of Ireland income tax calculator.

Implementation of Post-2030 scenarios

Each scenario requires different data centre development capacities, with distinct specifications to meet its demands.

Potential approaches to accommodate data centre development under each scenario

	S2 +0.6 GW	S3 +2.0 GW
Renewable energy supply	**Accelerate onshore and offshore wind deployment** (additional RESS/ORESS projects), expand grid-scale battery storage, and support increased CPPAs opportunities to guarantee green energy for new facilities.	**Large-scale** offshore wind integration (Atlantic and Irish Sea), **hydrogen-ready infrastructure**, and significant investment in **renewable generation** to meet higher demand without breaching carbon budgets.
Grid infrastructure and flexibility	**Expand transmission capacity beyond** constrained areas (e.g. Dublin) into regions with available land, **deploy smart grid technologies** in hyperscale sites (e.g. demand response systems).	Major **reinforcement** of the national grid, new interconnectors (e.g., Celtic Interconnector), and **advanced solutions** like on-site generation and large-scale storage to manage peak loads.
Sustainable development	Require **renewable energy additionality** and **energy efficiency** for all new data centre applications.	Mandate **zero- design standards**, integration with **district heating schemes**, and **circular economy** principles for construction and operations.
Regional diversification	Incentivise development in regions with **available grid capacity** (Midlands, West) through planning and infrastructure support.	Establish **regional clusters** linked to renewable generation hubs (e.g., energy parks), supported by dedicated grid capacity and local economic development strategies.
Energy solutions	Require **hydrogen-ready back up systems** and **advanced cooling technologies** for new builds.	**Full transition to zero-emission** backup systems, large-scale hydrogen integration, and advanced energy storage aligned with Ireland's 2050 net-zero targets.

Source: Combined KPMG consultations: 1). Stakeholders, 2). Survey, 3). KPMG SME network

4.3

Potential foregone economic impacts of constrained data centre development

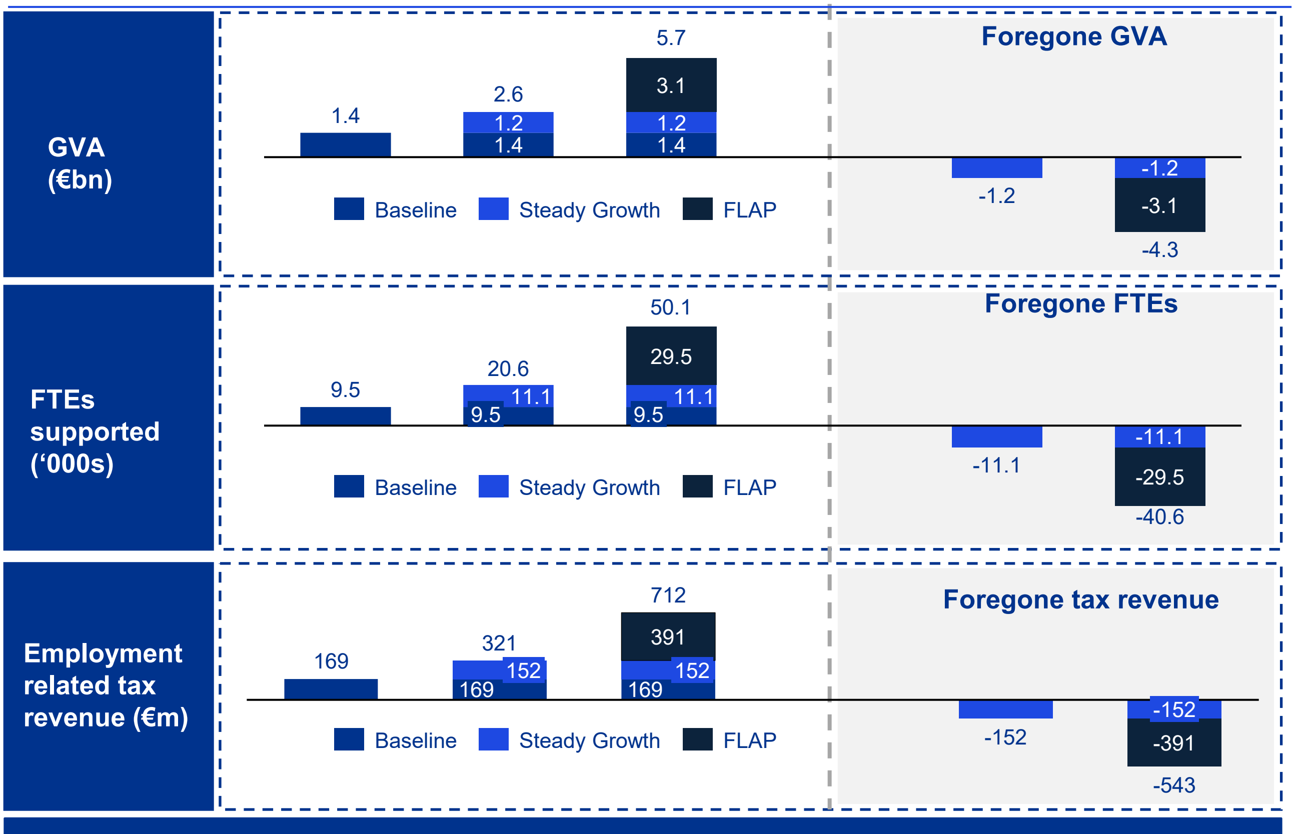
Foregone impacts from constrained data centre development: Upstream

Without continued data centre expansion beyond 2030, Ireland risks foregoing up to €4.3bn in annual GVA and 40,000 jobs by 2040.

Ireland's data centre industry already makes a measurable contribution to national GVA and employment. However, limiting future development would mean forfeiting substantial economic gains. Under the baseline scenario, capacity remains capped at 1.8GW to 2040, with no additional investment or GVA growth beyond the €1.4bn annual contribution projected for 2030. Employment would stay around 9,500 FTEs, and employment related tax revenues at €169m annually. Conversely, scenarios enabling continued capacity growth unlock major economic benefits for Ireland:

- In the Steady-Growth Scenario, capacity expansion to 2.4GW is expected to drive annual GVA to €2.6bn by 2040 – an uplift of €1.2bn relative to the baseline, approximately 20,600 jobs and €321m in annual employment related tax income (an increase of 11,100 FTEs and €152m respectively).
- In the FLAP Scenario, matching growth rates seen in leading European hubs would see capacity reaching 3.8GW, delivering €5.7bn in annual GVA by 2040 – over €4.3bn higher than the no growth scenario and supporting more than 50,000 jobs and €712m in annual employment related tax revenue (an increase of 40,600 FTEs and €391m respectively).

Upstream foregone impacts *(€bn)*



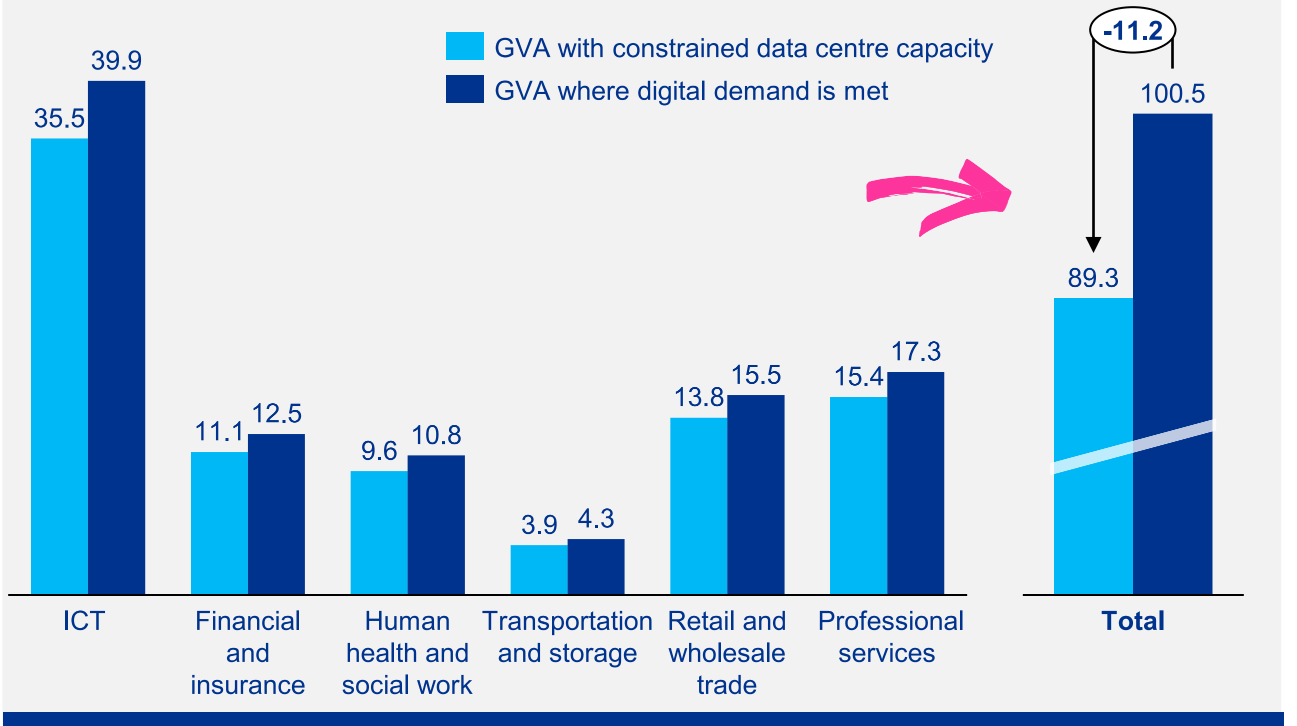
Curtailing data centre expansion carries opportunity costs. First, it would result in foregone GVA and employment directly associated with data centre construction and operations. Beyond this, constrained capacity has broader implications for economic growth and employment in key sectors – as shown on the following pages. In addition, signalling limited infrastructure availability could divert hyperscale and enterprise deployments to competing European markets – eroding Ireland's FDI attractiveness and digital economy positioning and the domestic spillovers that accompany it.

Source: CSO, Industry survey, KPMG input-output mode, RoI tax calculator.

Foregone GVA from constrained data centre development: Downstream

If installed data centre IT capacity fails to scale with rising digital demand, up to €11.2bn in annual GVA could be foregone across key sectors.

Downstream enabled GVA reliant on domestically located, latency sensitive data centres (2030) *(€bn)*



Domestically located, latency sensitive data centre capacity in Ireland is estimated to enable **~€89.2bn** in GVA in 2024 by supporting core operations across six data intensive sectors. If domestic IT capacity continues to expand in line with digital demand, this enabled value could rise to **€100.5bn by 2030 (based on a conservative 2% p.a. annual sector growth rate).**

This analysis assumes a scenario where data centre capacity between 2024 and 2030 does not scale with rising digital requirements that depend on domestically located, latency sensitive infrastructure. Under this assumption, enabled GVA is estimated for these sectors during this period, with up to **€11.2bn in annual GVA potentially foregone in 2030** relative to a scenario where data centre capacity rises in line with digital requirements.

The analysis highlights that if domestically located, latency sensitive data centre capacity **does not expand in line with digital demand**, sectors that depend on this infrastructure could not meet their data centre demand requirements. In the absence of sufficient domestic capacity, operations that require this infrastructure **may be forced to relocate overseas**. This could result in:

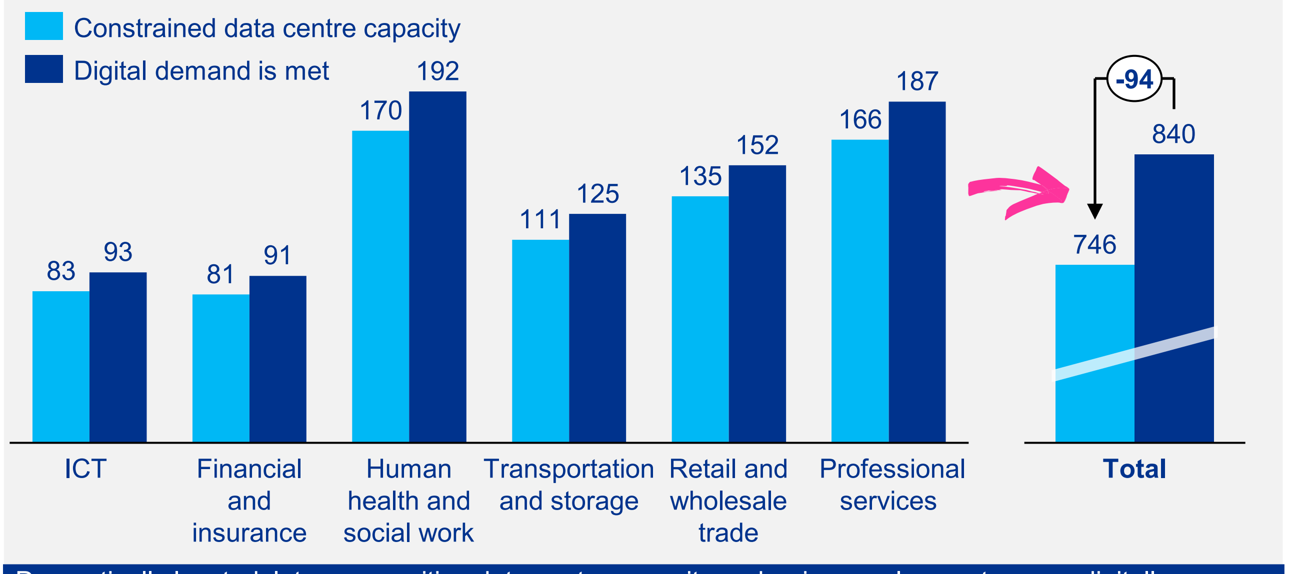
- **Loss of high-value GVA** as operations shift abroad to meet digital demand requirements;
- **Reduced productivity growth** in high-value sectors;
- **Displacement of jobs and investment** tied to digitally intensive sectors; and.
- **Erosion of Ireland's competitiveness** as a digital hub for the EU.

Note: We do not estimate foregone GVA for the 2030-2040 period as the purpose of this analysis is to illustrate the potential scale of economic impact if sufficient data centre capacity is not available. We are not suggesting that Ireland will lack capacity between 2025 and 2030, rather the analysis highlights the potential consequences if there are data centre constraints in the future.

Foregone employment impacts from constrained development: Downstream

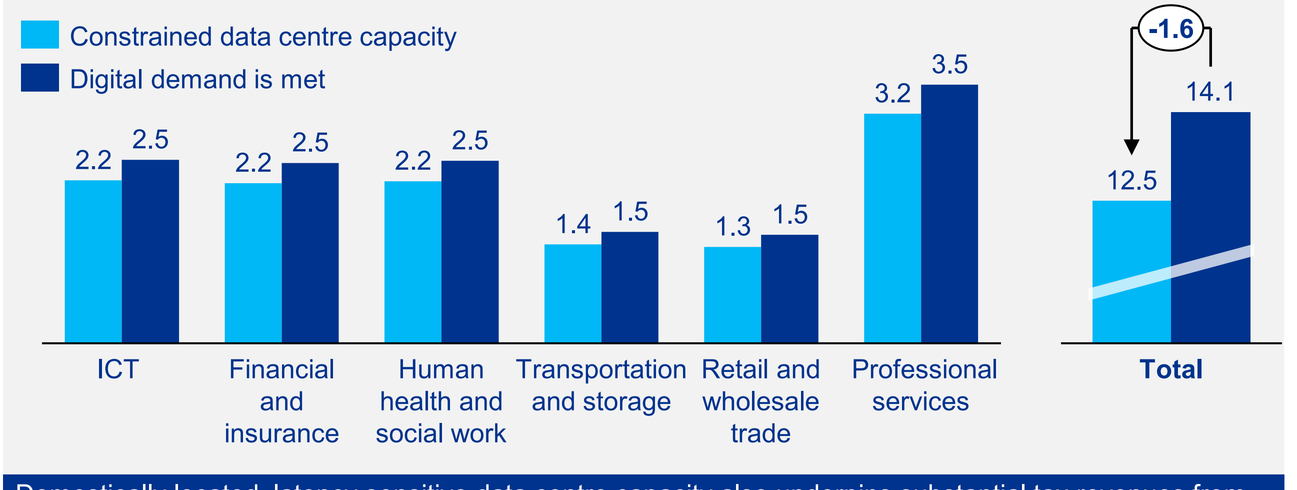
If installed data centre IT capacity fails to scale with rising digital demand, up to 94,000 jobs and €1.6bn in annual employment related tax receipts could be foregone in 2030.

Downstream enabled employment reliant on domestically located, latency sensitive data centres (2030) *(000's)*



Domestically located, latency sensitive data centre capacity underpins employment across digitally intensive sectors. If capacity fails to keep pace with rising digital demand, up to **94,000** jobs could be foregone in 2030 – highlighting the critical role of data centre infrastructure in sustaining high-value employment.

Downstream enabled employment related tax revenue reliant on domestically located, latency sensitive data centres (*€bn)*



Domestically located, latency sensitive data centre capacity also underpins substantial tax revenues from enabled employment. If capacity fails to keep pace with digital demand, up to **€1.6bn** in annual employment related tax receipts could be foregone in 2030 – underscoring the fiscal risk of future infrastructure constraints.

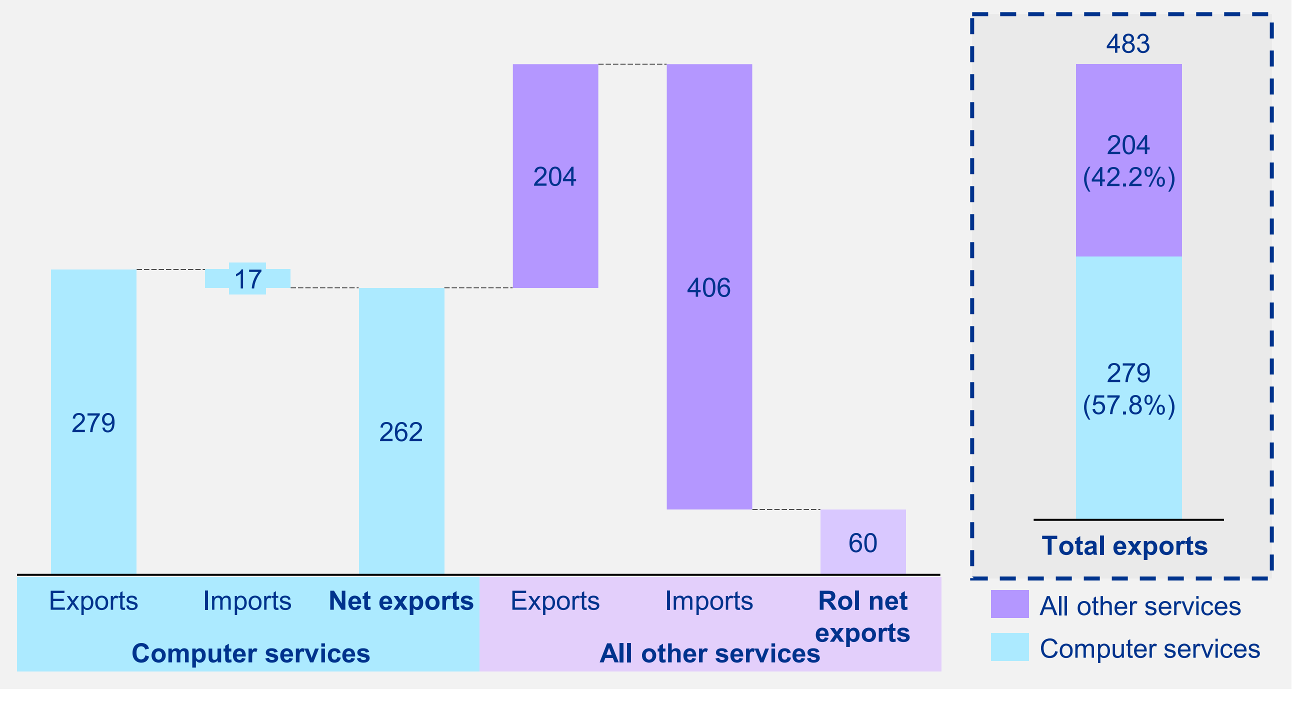
Source: Industry survey, CSO – Note that employment is inferred from ratios between GVA/output and output/employment. Average sectoral salaries are then inferred from GVA and input into RoI Income Tax Calculator to determine employment related tax per FTE.

Spotlight: Ireland's digital exports

Computer services account for 58% of Ireland's services exports. Future data centre capacity constraints could erode FDI inflows and impact Ireland's competitiveness.

Ireland computer services exports and imports – 2024

€bn



Computer services are a key driver of Ireland's export economy, generating **€279bn** in exports in 2024 – **58%** of total services exports. [1]

In 2024, computer services exports reached €279bn [a], while imports accounted for €17bn. Across all other services, exports totalled **€204bn** against €406bn in imports. Without these computer services exports, Ireland would run a trade deficit, underlining its critical role in the economy.

Of Ireland's €279bn in computer services exports, it is estimated that approximately **€262bn** is generated by foreign owned firms, reflecting the dominant role of foreign owned companies in Ireland's digital export sector. [2] The contribution of FDI companies underscores the importance of maintaining Ireland's attractiveness as a global technology hub. Constraints on domestic data centre capacity could therefore have implication for both the continued growth of computer services exports and its broader economic resilience.

Ireland's export strength is underpinned by data centres located in Ireland, enabling cloud services, SaaS and AI workloads that power computer services exports. If data centre investment and capacity do not scale beyond 2030, growth in Ireland's largest export sector could stall.

Ireland's €279bn computer services export market is heavily dependent on data centres, including those based in Ireland. Constrained capacity beyond 2030 risks limiting computer services and wider ICT services export growth, eroding FDI inflows.

Source: [a] https://www.cso.ie/en/releasesandpublications/ep/p-its/internationaltradeinservices2024

Note: [1] Covers software that were not incorporated as part of computer hardware or physical media but separately transmitted by electronic means. The value of additional software licences is also included. [2] Estimates based on CSO Value Chain Analysis (2019).

Implications of future constraints

Constrained data centre capacity in Ireland in future could limit new global tech investment, retention of existing platforms and high-value expansions.

Implications of Ireland failing to scale the DC landscape beyond 2030

01

New global tech investments

Risk: Ireland loses out on the next wave of cloud/AI and platform investments.

- Migration to other EU hubs i.e. Frankfurt, London, Amsterdam, Paris and fast rising secondary markets like Madrid, Berlin and Oslo.
- Reduced pipeline of new flagship FDI projects in cloud, AI and digital platforms as investors see capped data centre capacity as a proxy for limited future scalability.
- Higher cost of capital/risk premium on Irish tech projects where digital infrastructure scarcity is perceived to threaten long-term operations and growth.
- Reputational shift: Ireland risks moving from “digital gateway to Europe” to a constrained, -pressured legacy hub in investors’ location strategies.

Constrained data centre capacity risks new investments in hyperscale and non-hyperscale data centres meaning that Ireland’s share of growing AI investment shrinks as global demand grows.

02

Retention of existing investments

Risk: capacity constraints drive strategic activities and high-value employment elsewhere.

- Platform upgrades and AI workloads may be relocated to jurisdictions with assured long-term data centre and energy capacity, even if some ‘legacy’ operations remain in Ireland.
- Over time, there may be a risk of rebalancing headcount and decision-making power away from Ireland, particularly in high-value engineering, R&D and product functions.
- As data centre investments underpin existing tech operations (analytics, SaaS, customer experience, support, etc), constrained capacity may undermine the ecosystem that allowed firms to scale employment from 2010.

Ireland may lose out on strategic mandates and senior roles, potentially weakening long-term retention and tax base resilience.

03

Expansion and reinvestment

Risk: no room to scale when the next wave of demand arrives.

- Global data centre electricity demand is forecast to more than double by 2030, driven largely by AI. If Ireland does not expand capacity beyond 2030, future AI/cloud growth can only happen elsewhere – Ireland risks losing out.
- Knock on constraint for Ireland’s own digital native SMEs and creative gaming firms who increasingly depend on low latency cloud services.
- Lower spillovers into the wider economy – fewer opportunities for Irish engineering firms, construction, renewable developers and professional services to participate in data centre enabled expansion.

Ireland risks locking itself out of the highest growth segments of the digital economy as AI and immersive content drive a new wave or infrastructure-led reinvestment.

In addition, constrained capacity could also slow or complicate the digital transformation ambitions of Ireland’s public sector as many government services increasingly rely on secure, high-performance domestic digital infrastructure.

Source: IDA Ireland, European Commission, Enterprise Ireland, Science Direct, The Journal, Data Centres Ireland.

Potential wider opportunity costs

Data centres in Ireland support data sovereignty, innovation, and investment while being a route to market for renewable energy.

Wider opportunity costs of curtailed data centre investment in Ireland [a]

Leakage of digital value to overseas hubs
Digital workloads of enterprises in Ireland could increasingly be processed in competing overseas markets such as the Netherlands, Germany or the Nordics. This could result in the erosion of Ireland's share of European cloud and AI value creation, higher costs for firms based in Ireland due to increased latency and cross-border data transfers and a loss of exports from Ireland's ICT services. Maintaining a share of European AI value creation – in terms of where compute is located and services are delivered – positions Ireland as a leader in digital services, supporting economic growth, generating high-value job creation, and attracting FDI.

Reduced resilience and data sovereignty
Constrained domestic data centre capacity could force greater reliance on non-Irish based facilities for data storage and processing. This could result in higher exposure to non-EU jurisdictions, elevated cybersecurity risks and diminished ability to guarantee the continuity of critical digital services – impacting on domestic public services like healthcare.

Slower progress on renewable energy integration
Data centres offer the potential to act as long-term flexible off-takers for renewable generation. Constrained data centre investment in Ireland could result in fewer corporate PPAs signed, less demand-side flexibility to stabilise the grid and lost potential to repurpose data centre waste heat for district heating schemes.

Long-term structural impacts
If digital infrastructure bottlenecks persist, the Irish economy could face compounding constraints: slower GDP growth, reduced tax receipts and weaker resilience to technological shocks. This could lead to a gradual erosion of Ireland's competitiveness as European tech hub with potential spillovers felts across the wider industrial base.

- Constrained data centre growth would not only forgo short-term investment but also has the potential to **weaken Ireland's digital, fiscal and energy systems over the long-term**.
- This represents a strategic **opportunity cost** measured by **lost competitiveness, innovation capacity and economic resilience.**
- Limited development could **reduce market access** for renewable energy projects and green technologies (e.g., heat waste reuse technologies), impacting Ireland's ability to meet mandatory EU emissions targets across sectors.
- If Ireland fails to meet the EU (42%) emissions targets under the **Effort Sharing Regulation (ESR) from domestic transport, buildings, agriculture, small industry, and waste**, it could incur compliance costs of **up to €26bn by 2030**, due to the need to purchase additional credits from EU peers. [b][c].
- These costs could pose a fiscal risk and could **limit funding** from essential public services.
- However, data centres can **support renewable energy projects through CPPAs** and use this clean energy to lower their footprint.

Source: **[a]** KPMG analysis **[b]** European Commission: About Effort Sharing - Climate Action - European Commission **[c]** RTE: Ireland hopes for a discount for missing EU climate goals

4.4

Sensitivity analysis on data centre mix

Sensitivity analysis: Data centre mix

The sensitivity analysis assesses the potential impact of alternative data centre deployment under the different scenarios in the framework.

Sensitivity on data centre type mix (2030-2040)

We evaluate how **changes in the share of total installed data centre IT capacity** across hyperscale and non-hyperscale (e.g. retail colocation) data centre types could impact on the upstream economic impacts from 2030-2040.

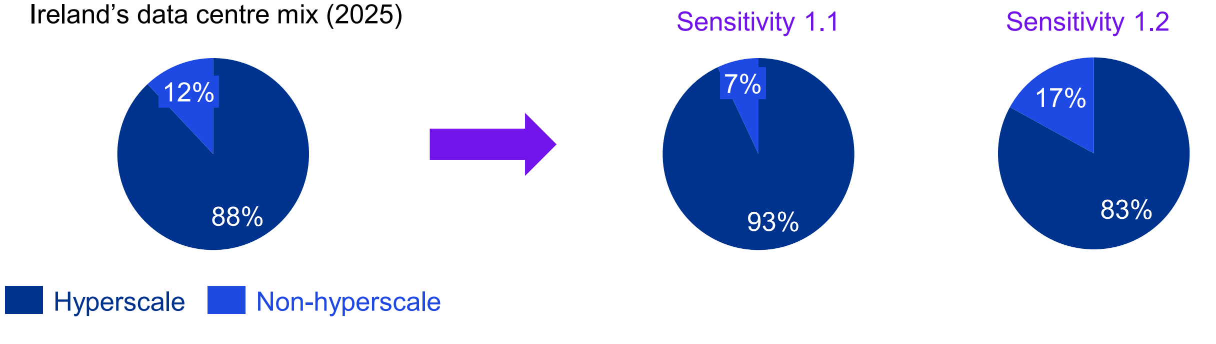
As of 2025, Ireland's data centre mix (in % of total MW capacity) is split as follows:

- **88% Hyperscale** (approximately 1,363MW of installed data centre IT capacity) and;
- **12% Non-hyperscale** (approximately 180MW of installed data centre IT capacity)

For this sensitivity analysis, the hyperscale share of total installed data centre IT capacity (in % of total MW capacity) is expected to ***(i) expand by 5%*** and ***(ii) shrink by 5%*** from Ireland's data centre mix (as of 2025) in the post-2030 period.

We assume that the non-hyperscale share of installed data centre IT capacity will expand or shrink in response to changes in the hyperscale mix relative to the baseline installed data centre IT capacity:

- *Sensitivity 1.1:* **93% (+5%) Hyperscale** and **7% Non-hyperscale (-5%)**
- *Sensitivity 1.2:* **83% (-5%) Hyperscale** and **17% Non-hyperscale (+5%)**

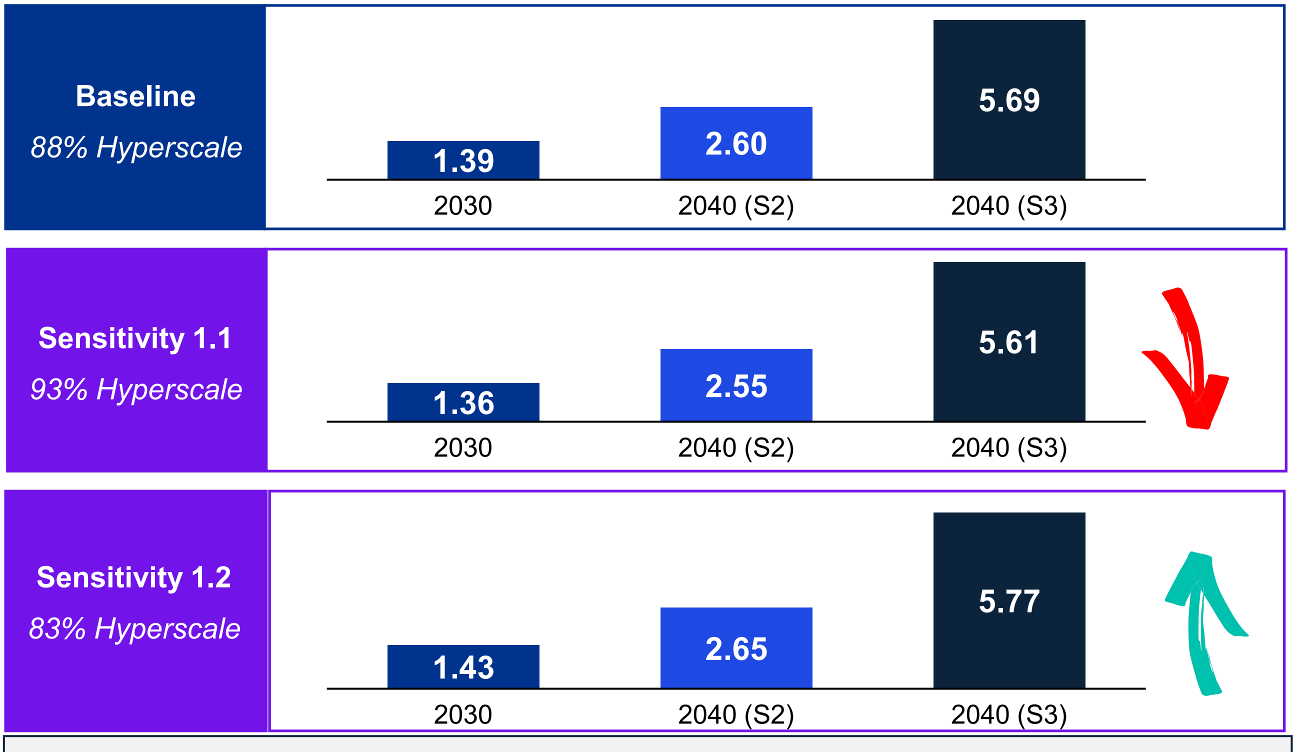


Sensitivity on data centre type mix: GVA

Post-2030 GVA is driven by operational intensity across the hyperscale-non-hyperscale data centre mix.

Scenario analysis: GVA

€bn, 2030-2040



The sensitivity analysis explores how **varying the hyperscale-non-hyperscale mix** affects Ireland's data centre GVA. While differences are modest, they show that industry structure can influence economic impact.

- Under the baseline GVA is projected to reach **€1.39bn by 2030**, rising to €2.60bn under steady-state growth and €5.69bn under the FLAP scenario by 2040.
- With **hyperscale at 93%**, GVA declines slightly relative to the baseline: €1.36bn (-0.03) in 2030, €2.55bn (-0.05) in 2040, and €5.61bn (-0.08bn).
- GVA **declines with higher hyperscale share** due to lower operational spend. Although hyperscale requires more upfront investment (€12.3m / MW vs. €12.1m for colocation), its opex is significantly lower (€1.4m / MW vs. €2.2m), reducing recurring economic activity.
- Reducing the **hyperscale share to 83%** and thereby increasing the proportion of non-hyperscale results in a modest uplift in GVA relative to the baseline.
- Under this sensitivity, GVA reaches €1.43bn (+0.04) in 2030, €2.65bn (+0.05) in the steady-growth scenario and €5.77bn (+0.08) in the FLAP scenario.
- This improvement reflects the higher operational intensity of non-hyperscale facilities, which stimulates more sustained economic activity over time.
- While hyperscale growth drives significant capital investment, the **operational profile of non-hyperscale facilities** delivers a stronger ongoing economic contribution.
- With hyperscale sites making up 88% of Ireland's data centre mix, a reduced share could potentially **weaken FDI, high-value job creation, and digital competitiveness**. Conversely, a higher share could strengthen these aspects, supporting Ireland's broader economy.

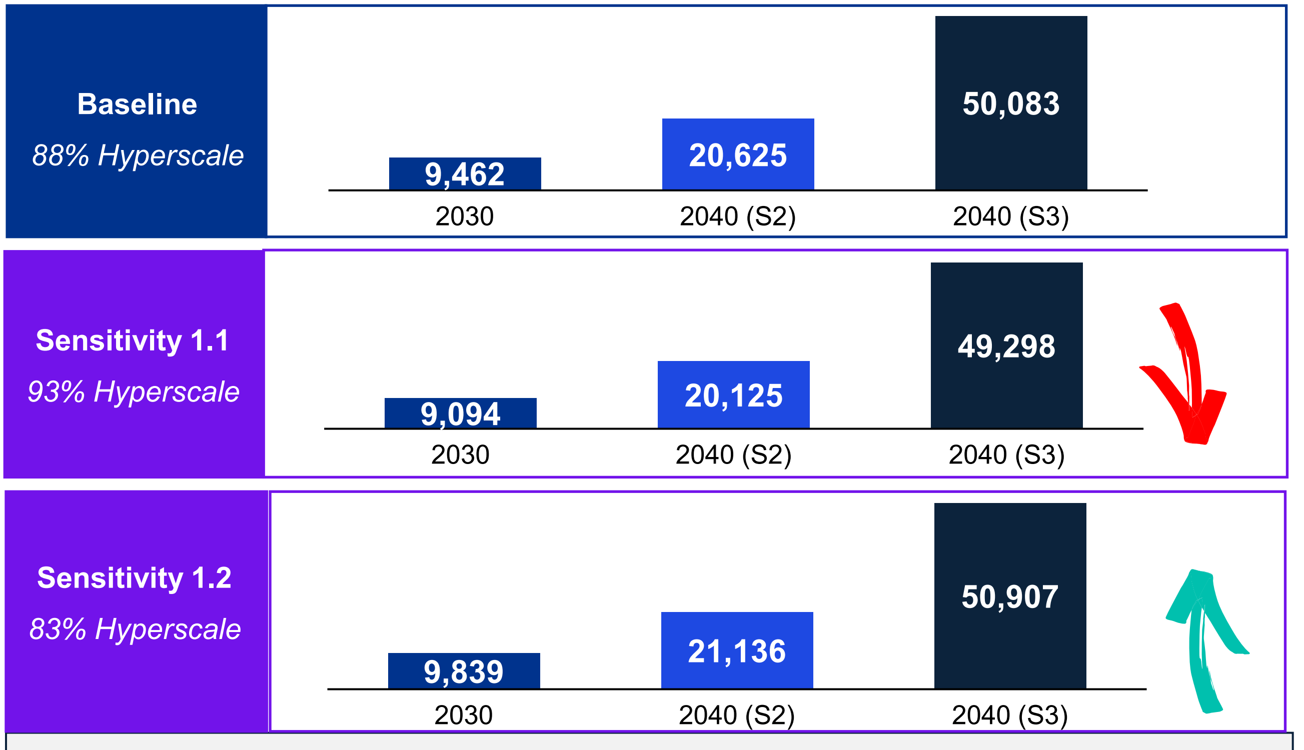
Note: [1] More detail on the scenario impacts are provided in Appendix E.
Source: CSO, Industry survey, KPMG input-output model.

Sensitivity on data centre type mix: Jobs

Post-2030 employment is shaped by the staffing needs across the hyperscale-non-hyperscale mix.

Scenario analysis: Employment

Number of FTE, 2030-2040



The variation in employment impacts across different sensitivity scenarios is primarily driven by the differing **levels of direct employment intensity** associated with hyperscale and non-hyperscale data centres.

- Hyperscale data centres typically require **1.8 full-time equivalent (FTE)** employees per MW of IT load.
- Non-hyperscale data centres are more labour intensive, requiring **4.3 FTEs per MW**.
- The difference in staffing requirements has a direct influence on overall employment outcomes under varying growth scenarios.
- In scenarios where hyperscale facilities account for a higher share of total MW capacity (~93%), the overall employment figures are **slightly lower across all scenarios** (S1 – Baseline, S2 – Steady-state growth, S3 – FLAP) from 2030-2040.
- Under the 93% Hyperscale Sensitivity **employment falls relative to the baseline**: S1: 9,094 (-368), S2: 20,125 (-500), S3: 49,298 (-785)
- This is because hyperscale operations are **more streamlined and require fewer personnel** per unit of MW capacity due to increased automation.
- When the hyperscale share is lower (~83%), the **total employment is slightly higher**, reflecting the greater staffing needs of non-hyperscale facilities.
- Under the 83% Hyperscale Sensitivity **employment increases relative to the baseline**: S1: 9,839 (+377), S2: 21,136 (+511), S3: 50,907 (+824)
- These operations typically involve **more customer-facing services, infrastructure management**, and **operational complexity**, which drive up labour requirements.
- A higher hyperscale share increases specialised technical roles (e.g. cloud and AI architects) but reduces general operational jobs due to automation, while a higher non-hyperscale share does the opposite – more jobs but fewer specialised roles.

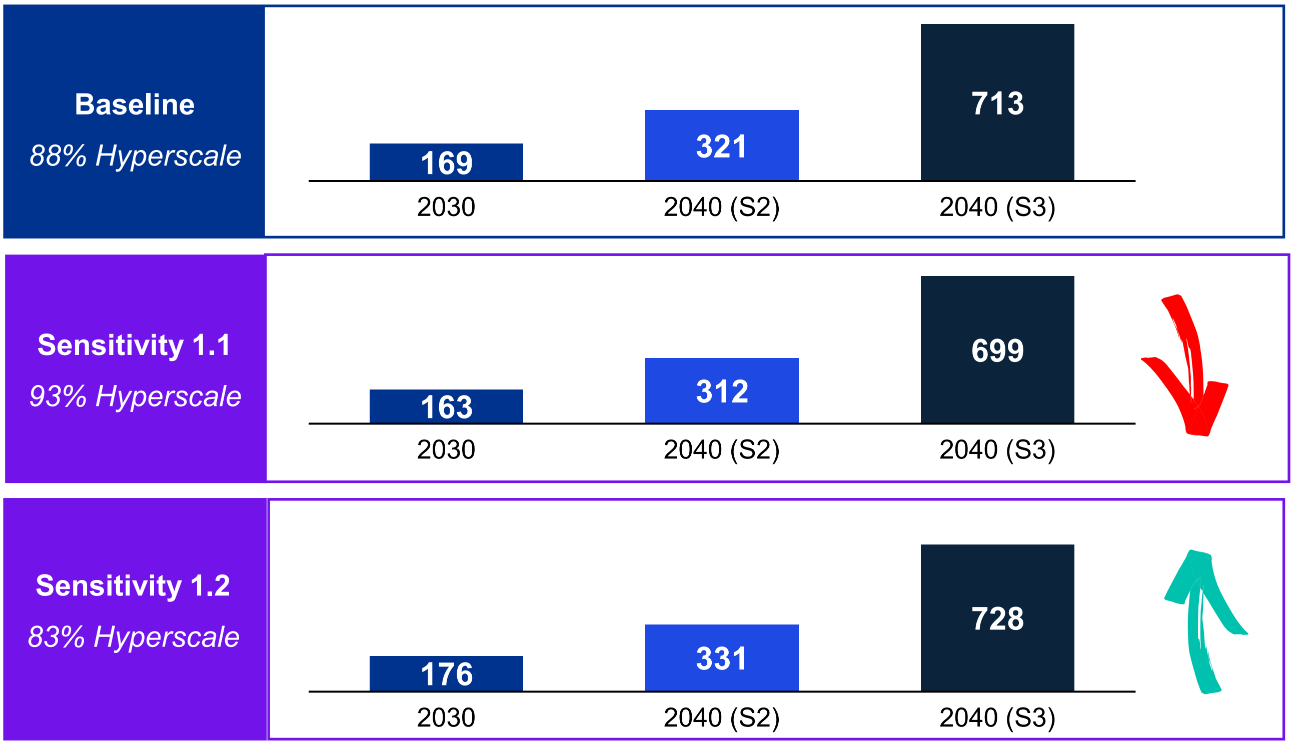
Note: **[1]** More detail on the scenario impacts are provide in Appendix E.
Source: CSO, Industry survey, KPMG input-output model.

Sensitivity on data centre type mix: Tax

Post-2030 tax revenue is driven by total employment across the hyperscale-non-hyperscale mix.

Scenario analysis: Tax revenue (in € millions)

€m, 2030-2040



The variation in tax revenues across different sensitivity scenarios is influenced by the **differing levels of employment** associated with hyperscale and non-hyperscale data centres.

- We assume that **tax per employee remains fixed** and as a result, greater employment results in higher levels of tax revenue.
- As employment falls, the level of tax revenue is decreased.
- The difference in employment outcomes impacts tax revenue under varying growth scenarios.
- In scenarios where hyperscale facilities account for a higher share of total MW capacity (~93%), the overall **tax revenue is lower** across all scenarios from 2030-2040.
- Under the 93% Hyperscale Sensitivity **tax revenue falls relative to the baseline**: S1: €163m (-6), S2: €312m (-9), S3: €699m (-14)
- This is due to hyperscale operations **requiring fewer personnel, resulting in lower overall tax revenue**.
- When the hyperscale share is lower (~83%), the **total tax revenue is slightly higher**, reflecting the greater need for employees at colocation sites.
- Under the 83% Hyperscale Sensitivity **tax revenue increases relative to the baseline**: S1: €176m (+7), S2: €331m (+9), S3: €728m (+15)
- Non-hyperscale operations typically involve more customer-facing services, infrastructure management, and operational complexity, which **drive up labour requirements compared to hyperscale sites.**

Note: [1] More detail on the scenario impacts are provided in 'Detailed Results' section.
Source: CSO, Industry survey, KPMG input-output model.

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4.5

Sensitivity analysis on energy assumptions

Sensitivity analysis: Energy assumptions

The sensitivity analysis assesses the potential impact of alternative energy mixes under the different scenarios in the framework.

Sensitivity on energy assumptions (2030-2040)

Renewable energy mix: We assess how varying levels of access to renewable energy may influence impacts across different installed data centre IT capacity growth scenarios.

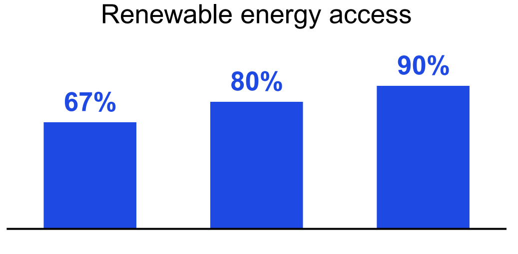
We model three outcomes:

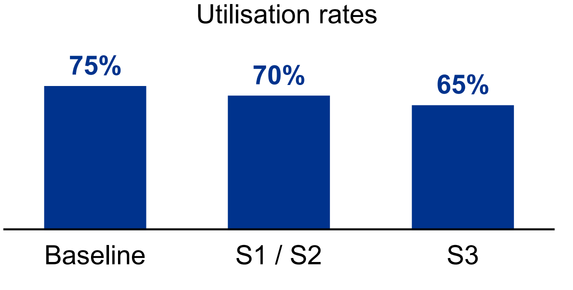
- **67% renewable energy access.**
- **80% renewable energy access –** *in line with Ireland's 2030 renewable energy targets.*
- **90% renewable energy access.**

Data centre utilisation rate: We assess the impact of data centre utilisation rates. A data centre utilisation rate measures how efficiently a data centre's resources (i.e. computing capacity, storage, power) are being used compared to their total available installed data centre IT capacity. While data centres are connected for certain levels of capacity, they do not typically operate at 100% utilisation

We model three rates:

- Baseline: **75% utilisation.**
- S1 / S2: **70% utilisation.**
- S3: **65% utilisation.**



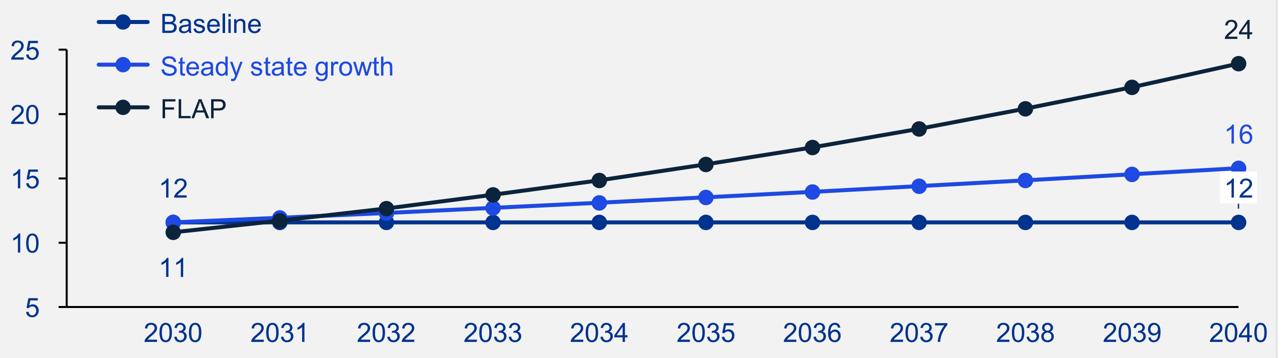


Impacts: Approach and methodology

As installed data centre IT capacity grows under each scenario, electricity related consumption is expected to increase.

Electricity demand under installed data centre IT capacity growth scenarios

TWh, 2030-2040 – Utilisation Scenario 1



These projections illustrate how energy demand evolves under each scenario. This forms the foundation for calculating the associated impacts.

Electricity demand under installed data centre IT capacity growth scenarios (TWh)				
Data centre utilisation		Growth scenario	2030	2040
S1	75%	Baseline	11.6	11.6
	75%	Steady-state	11.6	15.8
	70%	FLAP	10.8	23.9
S2	70%	Baseline	10.8	10.8
	70%	Steady-state	10.8	14.7
	65%	FLAP	10.0	22.2

Linking electricity demand to intensity

This analysis uses the value of intensity of gross electricity supply from **SEAI.** [1] In 2024, the intensity of electricity consumption in Ireland was estimated at **204.3 tCO2/GWh** and assumes **40% renewable generation**. [2] From this, we can derive the intensity per GWh of electricity consumption under different renewable energy scenarios.

Assumed renewable energy	intensity (TCO2/GWh)
40% (2024 generation)	204.3 (2024 intensity)
67% [3]	112.4
80% (National target)	68.1
90%	34.1

impacts (TCo2) = electricity consumption (GWh) x intensity of electricity (TCO2/GWh)

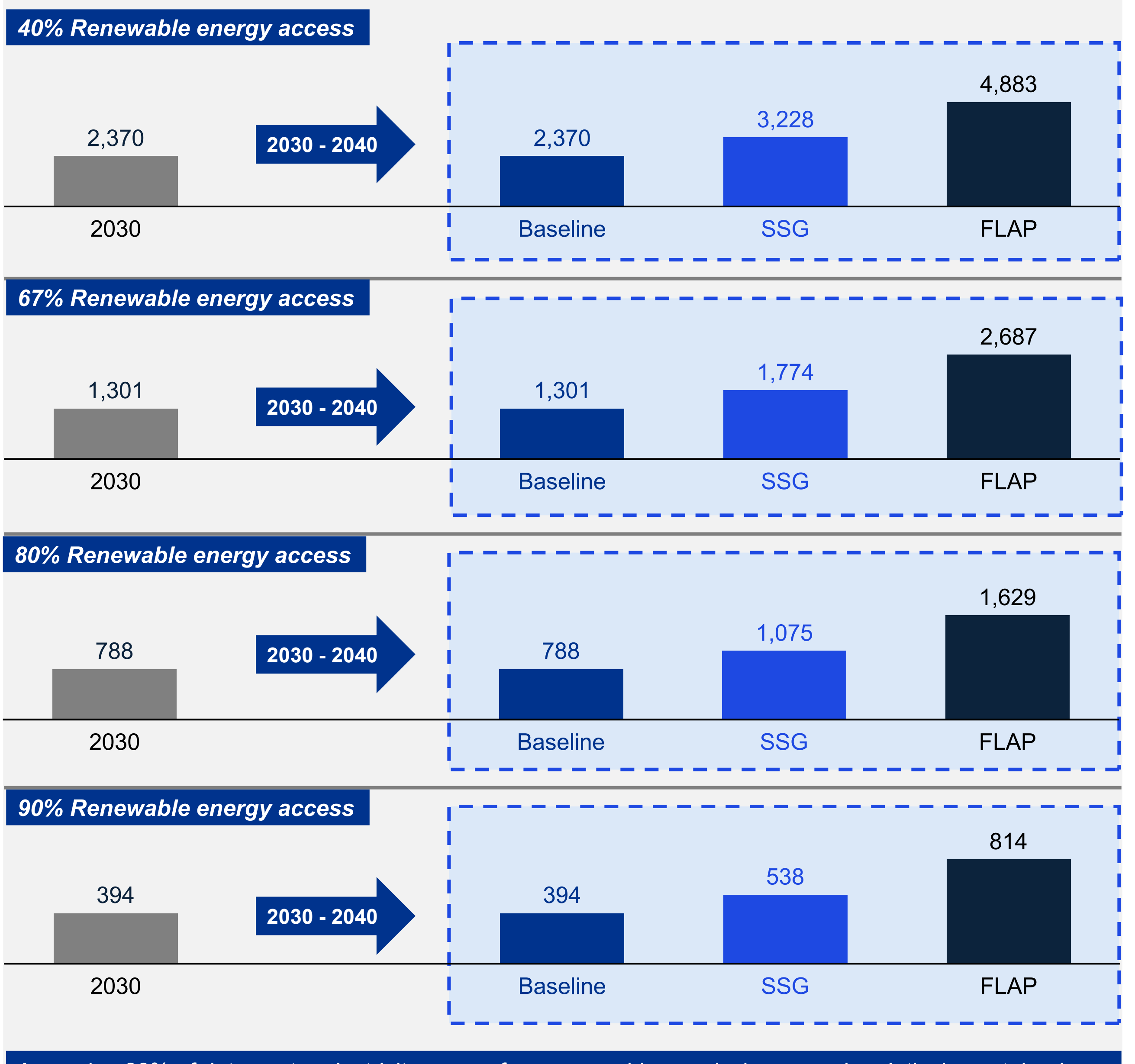
Note: **[1]** To take consideration of potential interconnection, KPMG use the intensity of gross electricity supply from SEAI. CO2 emissions arising from generation outside of Ireland are not included in this factor. **[2]** It is noted that these values are not used as a sensitivity in our analysis. They inform the basis for our sensitivities. **[3]** Stakeholder input indicates Ireland is progressing toward its 80% target but is unlikely to achieve it by 2030; 67% was agreed as a more realistic outcome by 2030.

Impacts: Utilisation S1

Greater renewable energy access from 2030-2040 can enable data centre growth while maintaining emissions below 2030 levels.

Data centre emissions by scenario and sensitivity

tCO_2 (2030, 2040)



Assuming 80% of data centre electricity comes from renewables, emissions remain relatively contained. However, growth scenarios show variation:

- **Baseline Scenario:** 788 TCO_2 by 2040, with stable capacity
- **Steady-State Growth:** 1,075 TCO_2 due to moderate expansion
- **FLAP Scenario:** 1,629 TCO_2 driven by accelerated capacity growth

Varying the renewable energy access will have further impact. **Higher renewable energy access will result in lower emissions across all scenarios.**

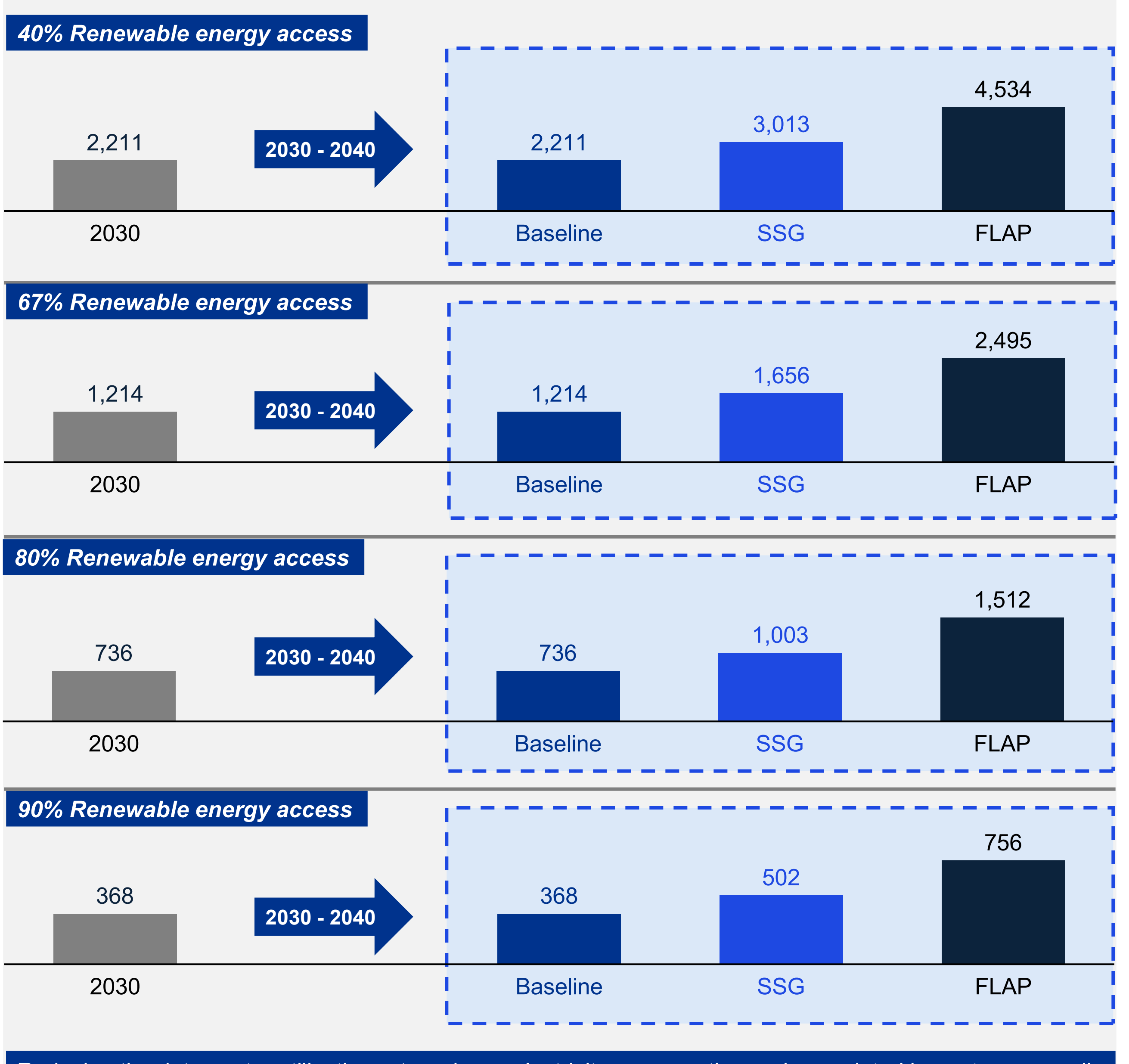
Source: SEAI

Impacts: Utilisation S2

As utilisation declines relative to S1, electricity use and related emissions decline across all growth scenarios.

Data centre emissions by scenario and sensitivity

tCO_2 (2030, 2040)



Reducing the data centre utilisation rate reduces electricity consumption and associated impacts across all three scenarios. Assuming 80% of electricity is generated from renewable energy:

- **Baseline Scenario:** 736 TCO_2 by 2040, with stable capacity
- **Steady-State Growth:** 1,003 TCO_2 due to moderate expansion
- **FLAP Scenario:** 1,512 TCO_2 driven by accelerated capacity growth

Varying the renewable energy access will have further impact. **Higher renewable energy access will result in lower emissions across all scenarios.**

Source: SEAI

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5.

Beyond 2030: Challenges and opportunities for data centre development in Ireland

Introduction to Chapter 5

Chapter 5 outlines challenges and opportunities to further developing the data centre landscape in Ireland beyond 2030.

Drawing on stakeholder consultations, this section sets out the main challenges and potential solutions to developing Ireland's data centre landscape beyond 2030.

It also presents the strategic lessons from international case studies on countries that have faced similar barriers and opportunities to data centre development. The analysis covers Denmark, the Netherlands, Singapore, Spain, Sweden, and the United Kingdom, examining approaches to sustainability, planning, regional diversification, and innovation.

Each case study highlights key takeaways relevant to Ireland's context, offering practical insights for policy and industry leaders

This section closes by presenting key insights from the research and identification and considerations as to strategic opportunities to data centre development in Ireland in the future.

Key takeaways from the chapter

Several barriers could limit future data centre growth.

There are challenges to developing the data centre landscape beyond 2030 that need to be addressed and these include; issues associated with energy and grid; managing environmental and carbon impacts; slow and fragmented planning processes; availability of appropriate talent and skills; public concerns; sectoral needs and geopolitical factors.

Other countries are advancing their data centre policy to address similar challenges faced by Ireland.

International peers are investing in grid upgrades, streamlining planning, and integrating sustainability requirements. Ireland must keep pace to maintain its position as a leading digital hub.

Sustainable and regionally balanced data centre growth is possible.

With the right policies, data centres can support renewable energy, regional economic development, and workforce skills, while minimising environmental impacts. A strategic development of the post-2030 data centre landscape will require a mix of measures, including greater investment in renewable energy access, streamlined approval processes, and regional development beyond the GDA.

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5.1

Identification of key challenges and potential solutions

Challenges and potential solutions (1/4)

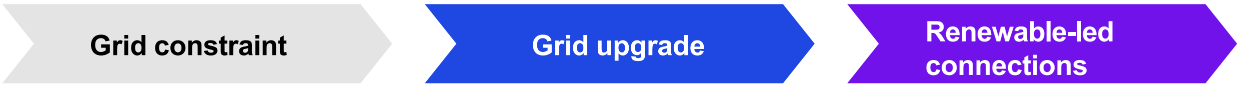
Post-2030 growth presents an opportunity to align data centre demand with large-scale grid and renewable investment, while managing carbon impacts.

Energy and grid

- **The key challenges are:**
  1). Issues with grid constraints.
  2). Availability of sufficient (renewable) energy to power growth in the data centre landscape.

- Ireland's electricity grid, especially in Dublin, faces pressure from rising demand and grid constraints. Beyond 2030, this will **limit the potential for new data centre connections**.
- Ireland needs access to greater levels of renewable energy to support the growth of our digital economy, ensure security of supply more broadly while meeting our climate objectives.
- Without large, creditworthy off-takers, the multi-billion euro investment required for renewable deployment – particularly offshore wind – is unlikely to materialise at pace.
- **Potential solutions to address these challenges are:**

1. **Strategic coordination of grid investment:** Align data centre development, transmission upgrades and regional energy planning to unlock new connections post-2030 and reduce system bottlenecks.
2. **Unlocking renewable investment through long-term offtake:** Data centres provide large, stable and long-term electricity demand that can underpin investment in new renewable generation. Corporate Power Purchase Agreements (CPPAs) play a critical role, providing revenue certainty that supports project finance, accelerates deployment timelines and brings forward large-scale renewable projects, including offshore wind.
3. **Enhancing system flexibility and resilience:** Increased use of battery storage, demand-side response and decentralised energy solutions to support grid stability, reduce peak demand pressures and complement renewable generation.
4. **Supporting renewable integration through dispatchable and flexible capacity**
   - Data centres increasingly invest in on-site and contracted dispatchable capacity (including batteries, backup generation and demand response), which can support system adequacy during peak periods and periods of low renewable output.
   - Dispatchable and flexible capacity can contribute to the peaking and balancing capability required for the power system to accommodate high shares of variable renewable generation at scale.
   - When appropriately governed and coordinated, these assets can complement grid-scale solutions and support Ireland's transition to a renewables-led power system.
5. **There is also an opportunity for increased R&D activity** to drive technological advancements in energy storage solutions, and green and IT technologies that reduce energy usage in data centres and improve efficiency.



Challenges and potential solutions (2/4)

Improved planning and coordination are essential to keep Ireland attractive for data centre investment beyond 2030.

Managing environmental and carbon impacts

- **Key challenge:** A growing data centre capacity increases electricity demand which could give rise to increased carbon emissions.
- **Potential solutions to address this challenge are:**
  1). Increasing the renewables share of energy used by data centres, investing in energy storage, and adopting low carbon technologies (such as hydrogen-ready backup and advanced cooling) can help reduce carbon impacts.
  2). Noting that access to renewable energy sources is key to minimising carbon impacts from data centre operations post-2030. Data centres can, through engagement with CPPAs, support the development of large-scale renewable energy generation in Ireland.
  3). Environmental responsibility – environmental impacts are managed through the use of brownfield or industrial sites, water-efficient closed-loop cooling systems, and setting measurable sustainability targets.
  4). There is also an opportunity for R&D activity to drive technological advancements in energy storage solutions, and green technologies that reduce carbon impacts.

Solar power provides clean, on-site electricity for data centres, reducing reliance on fossil fuels.

Wind energy supplies large-scale renewable power to the grid, supporting sustainable data centre operations.

Investing in battery energy storage systems allows data centres to use more renewable power and support grid stability.

Adopting advanced cooling technologies, such as liquid cooling, improves energy efficiency and lowers emissions from data centre operations.

Data centre planning and approval processes

- **Key challenge:** Slow and fragmented planning and permitting can reduce data centre investor and delay project delivery.
- **Potential solutions to address this challenge are:**

  1). Streamline approvals for high-performance, low carbon data centres – and potentially designating data centres as critical infrastructure – could accelerate development.

  2). Improved coordination – potentially through a national data centre-unit – could help align planning with wider infrastructure and energy system development

Recent policy developments:

- The December 2025 CRU Large-Energy User Connection Policy decision paper [a] provides clearer guidelines for grid connections, which should improve certainty for data centre developers, enabling greater delivery of additional capacity.
- Ireland's Large-Energy User Action Plan (LEAP) [b], introduced in January 2026, can support a more structured, renewables-focused framework for future data centre development, enabling sustainable growth both in the Dublin area and across suitable regions nationwide.
- The Accelerating Infrastructure Report and Action Plan [c] outlines measures to speed up infrastructure delivery and improve coordination among government, grid operators, and industry.

Source: **[a]** CRU **[b]** DETE **[c]** DPER

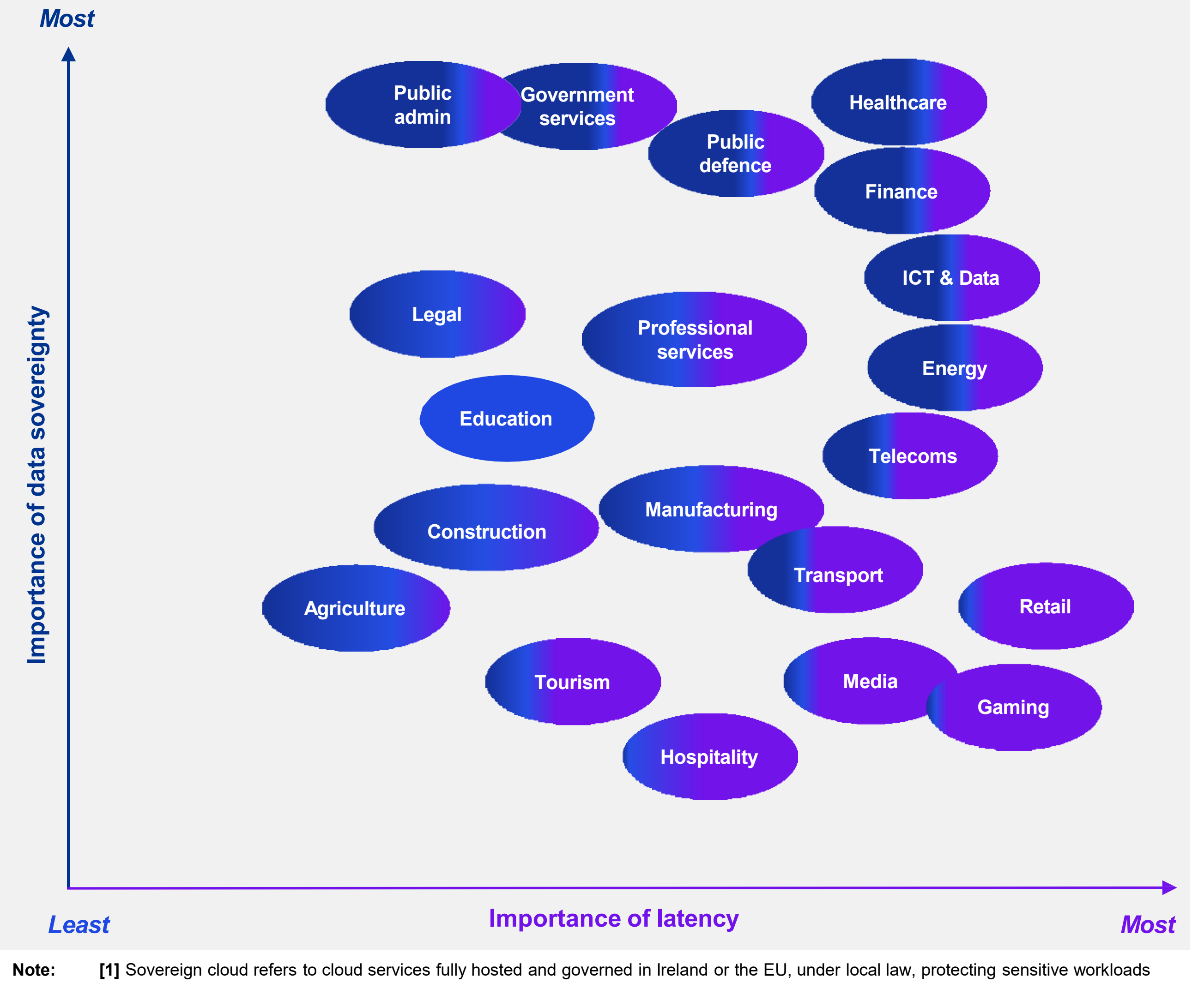
Challenges and potential solutions (3/4)

Future-ready data centres: supporting organisations to meet their latency requirements, data sovereignty and other digital regulation obligations.

Sectoral needs and geopolitical factors

- **Key challenge:** Evolving sector-specific requirements – including latency, resilience, and data sovereignty – continue to shape data centre demand. Geopolitical trends also influence supply chains and digital policy priorities, and there is an emerging focus in developing a sovereign cloud [1] in Europe, driven by geopolitical factors and demand.
- **Potential solutions to address this challenge are:**
1). Ensuring future data centres are adaptable and modular, diversifying technology sourcing, to adapt to evolving sector demands, safeguarding Ireland's future digital readiness.
2). Aligning with EU digital strategies will help maintain Ireland's position as a trusted, secure digital hub.

Importance of data sovereignty [2] and latency across sectors, sub-sectors and strategic functions in the Irish economy (non-exhaustive)



Note: **[1]** Sovereign cloud refers to cloud services fully hosted and governed in Ireland or the EU, under local law, protecting sensitive workloads from foreign access. **[2]** EU data obligations apply whenever an organisation processes EU personal data, provides digital services in the EU, operates regulated or safety-critical workloads, deploys AI systems governed by EU law, or handles data subject to EU sovereignty requirements – regardless of where the organisation itself is located. Data sovereignty is essential for regulated and safety-critical sectors where compliance, resilience and latency require domestic control.

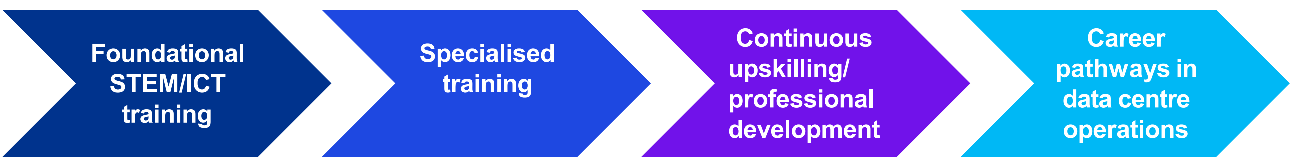
Challenges and potential solutions (4/4)

Empowering Ireland's data centre future: building skills, partnerships, and community value.

Building skills to support future development

- **Key challenge**: Ireland's data centre sector requires a growing number of ICT, engineering, and sustainability professionals. This includes roles in operations, energy management, cybersecurity, and advanced cooling technologies. An adequate supply of appropriate skills and talent is required to support further development of the data centre landscape in Ireland post-2030 – the data centre sector is competition for these types of skills with other sectors of the Irish economy, and at a global level.

- **Potential solutions to address this challenge are:**
  1). Workforce development: National strategies can promote apprenticeships, and micro-credentials to fill ICT and engineering roles. Industry-wide retention incentives, such as shared talent pools and flexible career pathways, can help attract and keep skilled workers.
  2). Academic Industry partnerships: Collaboration between data centres, universities, and education providers ensures that training programs are aligned with industry needs. Establishing Data Centre Skills Academies and advisory boards can help update curricula and provide real-world experience through internships and placements.
  3). Upskilling and lifelong learning: Implementing national upskilling frameworks with online learning platforms and employer-sponsored training supports continuous professional development for emerging technologies such as AI-driven operations and sustainability engineering.



Community engagement to address public concern

- **Key challenge:** Growing public opposition towards data centres is driven by concerns over energy and water use and the absence of visible community benefits such as increased local employment, district heating initiatives or local renewables – which risks delaying data centre projects post-2030.

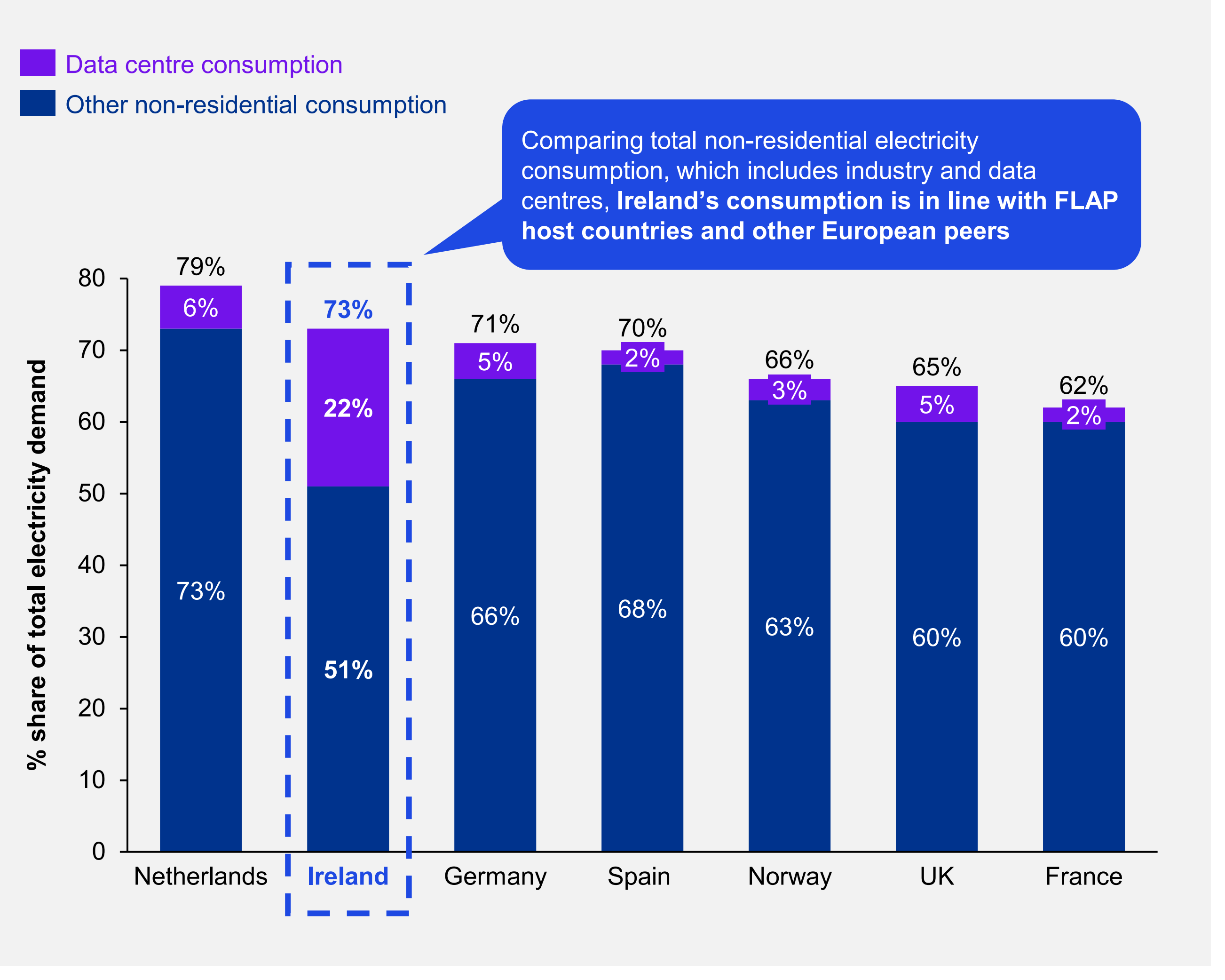
- **Potential solutions to address this challenge are:**
  1). Promote local benefits: Data centres can provide direct value to communities by supporting local jobs, offering training and apprenticeships, and contributing to infrastructure upgrades. Initiatives like the Tallaght District Heating Scheme demonstrate how waste heat from data centres can be used for public benefit.
  2). Transparent reporting on energy and water usage: Transparent reporting on energy and water use helps build trust with local communities.
  3). Community engagement: Early and ongoing engagement with local stakeholders ensures that concerns about land use, noise, and visual impact are addressed, and that community benefits are clearly communicated. Offering opportunities for local participation through training, apprenticeships, and procurement policies further strengthens community support.

Spotlight: Ireland's electricity consumption

Ireland's industrial electricity use is largely driven by data centres – reflecting specialisation in ICT and support for a high-value digital economy.

Non-residential electricity demand share (2024) [a][b]

% share of total electricity demand by each country

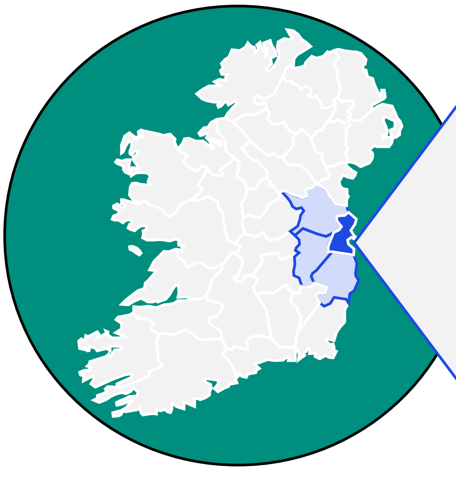


- Unlike countries like the Netherlands, Germany and the UK, **Ireland does not host a large, energy-intensive industrial sector.**
- Germany and other countries consume **more electricity to support their heavy industry sites** like car manufacturing, steel, and chemicals.
- Ireland's data centre electricity consumption enables a wide range of activities that are important to the wider economy and daily lives, while enabling a resilient and high-value digital economy.
- Data centres account for a larger share of Ireland's electricity demand than in other FLAP-D markets and European markets.
- This reflects Ireland's strength and expertise in ICT and digital infrastructure, which underpins a high-value tech ecosystem and supports it digital economy.

Source: **[a]** CSO – data centres metred electricity consumption 2024 **[b]** KPMG analysis.

Spotlight: Data centre concentration in GDA

The GDA hosts 92% of all data centre sites in Ireland, supported by a range of key factors such as robust digital infrastructure and a skilled workforce.



Greater Dublin Area (Dublin, Meath Kildare, Wicklow):
33 data centre sites (92% of total in Ireland)

- **Hyperscale:** Require large land parcels, high-capacity power, and access to renewable energy. The GDA offers space for expansion and cooling, while maintaining proximity to fibre networks for high-speed connectivity.
- **Non-hyperscale:** Colocation and enterprise benefit from being close to Dublin's urban core. It offers connectivity, access to skilled labour, and integration with existing infrastructure, making it suited for latency sensitive services and local demand – although they can operate in other areas if they do not specifically deal with low latency/real time application workloads.

- The geographical mapping of data centres in Ireland shows that **92% (33) of all data centre sites** and **96% (69) of all data centre buildings** are located in the GDA.
- **100% of hyperscale sites (9) and hyperscale buildings (32)** are located in the GDA and 89% (24) of non-hyperscale sites and 93% (37) of non-hyperscale buildings.
- Dublin's concentration of data centres has positioned it **as a strategic European data centre hub**, alongside Frankfurt, London, Amsterdam, and Paris – collectively known as the FLAP-D markets.

Reasons that the GDA has developed this position:

Utility support: Dublin has long supported data centre growth through reliable utilities, supported by proximity to energy structure and coordination with EirGrid for power and cooling.

Robust digital infrastructure: The GDA offer a strong digital backbone with extensive fibre networks and proximity to subsea cables linking Ireland to the UK, Europe, and North America. This connectivity delivers low latency and high bandwidth essential for AI and cloud data centres, making the region attractive for enterprise-grade hosting [1].

Skilled workforce & tech ecosystem: The GDA offers a strong tech talent pool. Big Tech companies like Google, Meta, Microsoft, and AWS maintain HQs and/or regional sites, supporting a robust wider ecosystem for data centre development and innovation.

Data centre clustering effect: Establishment of data centres in the GDA has created a clustering effect, improving network performance and reducing latency for shared customers. Like supply chain hubs in other industries, they attract new builds through operational efficiencies and connectivity advantages, reinforcing their importance for digital infrastructure growth.

Note: **[1]** Secure, scalable hosting that meets enterprise reliability, performance, and compliance needs.
Source: Combined KPMG consultations: 1) Stakeholders, 2) Survey, 3) KPMG SME network.

5.2

International case studies

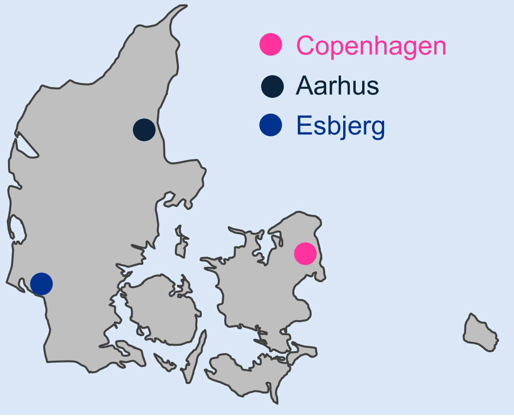
Case study: Denmark

Denmark's sustainable data centres offer Ireland insights on heat reuse, renewable colocation, and grid-aware planning.

Overview of the data centre ecosystem in Denmark

- Denmark is recognised for sustainable data centres, supported by a **highly reliable grid** (99.996% uptime) and power mix where **over 75% of electricity** comes from renewable sources.
- It introduced **Fast Frequency Reserve (FFR)** services, enabling real-time grid support from data centres.
- Facilities like Meta's Odense reuse waste heat to **warm ~7,000 homes**, supported by a government tax removal on excess heat.
- However, to meet rising demands and balance renewables, Denmark is exploring **modular nuclear reactors** for the first time in over 40 years.
- Danish PE fund 92 Capital aims to raise **€350m to support small modular reactors** and advanced nuclear technologies to support data centre development and other large-energy users.

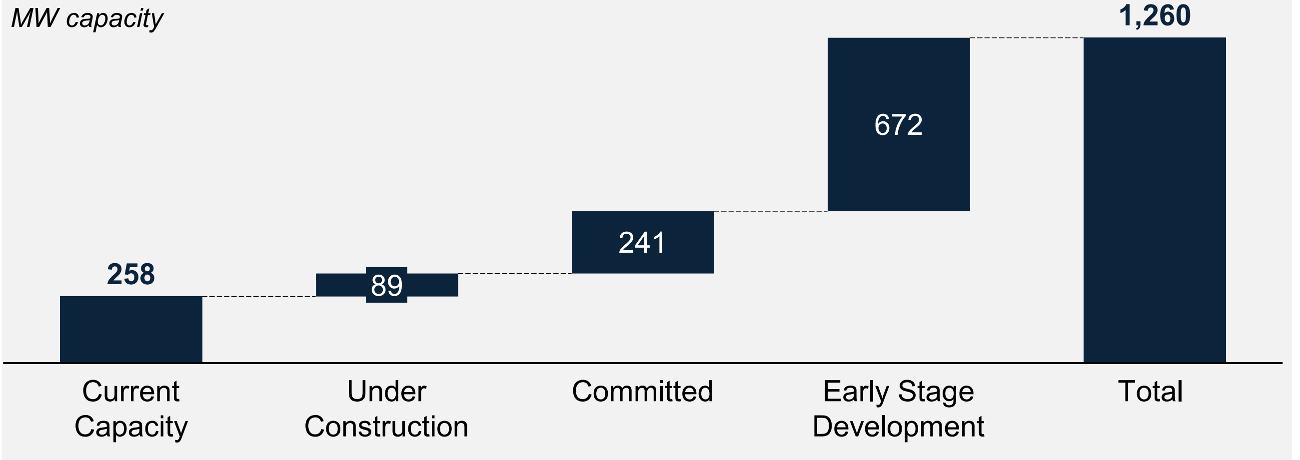
Areas of data centre concentration
(Clusters of data centre sites)



Key takeaways for the Republic of Ireland

Heat reuse systems	Incentivise data centre integration with district heating to enhance energy efficiency and local benefit.
Renewable colocation	Prioritise data centre development near renewable energy sources with private wire or CPPAs.
Grid-aligned planning	Encourage modular builds and flexible grid usage to avoid overloading infrastructure

Denmark data centre capacity and pipeline [1][a]
MW capacity



Note: **[1]** Current IT capacity (2025).
Source: **[a]** DC Byte.

Case study: Netherlands

The Netherlands can offer strategic lessons for Ireland on managing data centre over-concentration and dealing with grid constraints.

Overview of the data centre ecosystem in the Netherlands

- In 2019, Amsterdam paused new data centre projects due to **land** and **power constraints**.
- Though the moratorium ended in 2020, **zoning rules** continue to slow growth, allowing cities in other FLAP markets like Paris and Frankfurt to advance.
- To address this, the Dutch government launched the **Spatial Strategy for Data Centres 2030**, promoting development in **energy-rich regions** like Eemshaven and Rotterdam.
- However, **challenges remain**, including grid congestion, talent shortages, complex regulations, and poor coordination among industry stakeholders.

Areas of data centre concentration

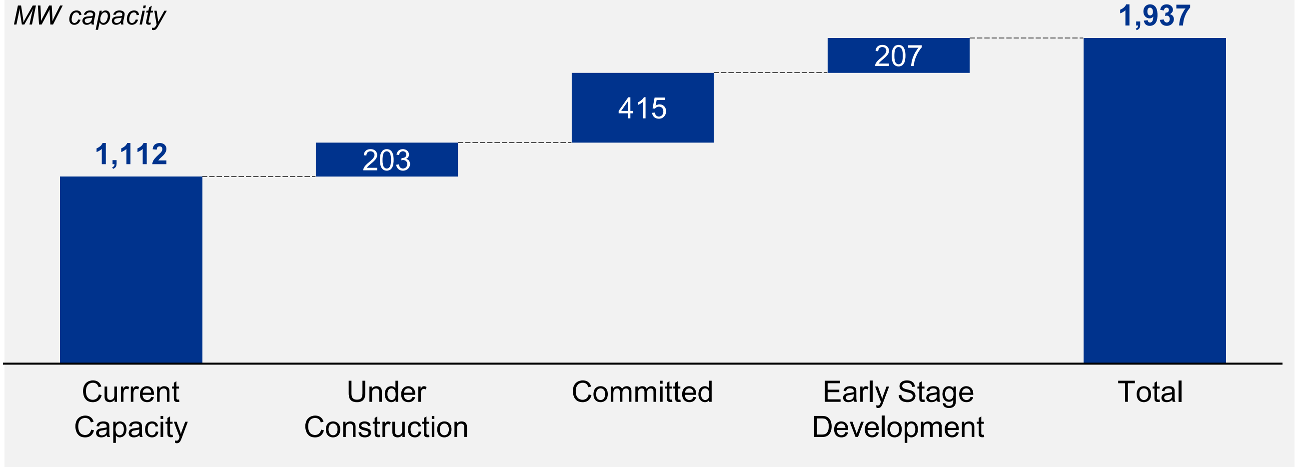
(Clusters of data centre sites)

Key takeaways for the Republic of Ireland

Diversify data centre locations	Encourage regional data centre development in areas with available grid capacity to ease pressure on Dublin and support balanced growth.
Strengthen grid capacity planning	Align data centre planning with national grid development, especially in regions like the Midlands or the West where capacity is underutilised.
Align stakeholders early	Strengthen coordination between local authorities, regulators, and energy providers to support integrated decision-making in a timely manner.

Netherlands data centre capacity and pipeline [1][a]

MW capacity



Note: **[1]** Current IT capacity (2025).
Source: **[a]** DC Byte.

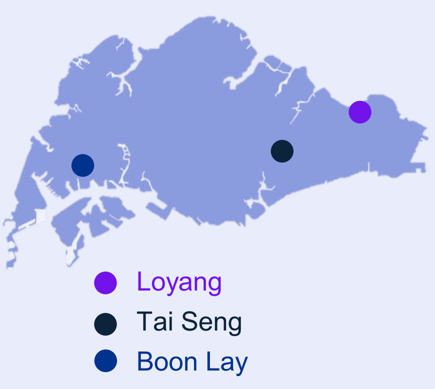
Case study: Singapore

Singapore's moratorium and roadmap allow operators to make their respective cases for additional grid connections.

Overview of the data centre ecosystem in Singapore

- Between 2019 and 2022, Singapore introduced a **data centre moratorium**, pausing all new data centre developments, and tightening colocation supply.
- To manage future growth, it introduced a **Call-for-Application (CFA)** process, requiring data centre proposals to meet strict sustainability and demonstrate clear economic benefits.
- In July 2023, **four operators were awarded 20MW each**.
- However, Singapore now faces **rising competition from Malaysia's Johor region**, which offers more land, energy, and regulatory flexibility.

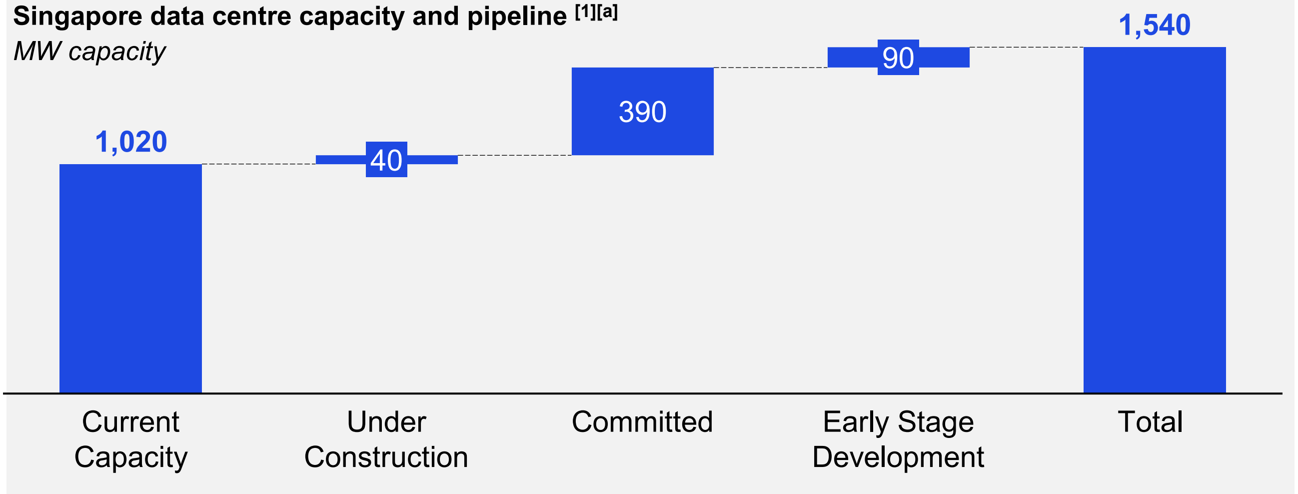
Areas of data centre concentration
(Clusters of data centre sites)



Key takeaways for the Republic of Ireland

Connection strategy	Establish a time-bound data centre connection pause with a clear roadmap for re-entry, to reduce uncertainty for investors and operators.
Capacity allocation	Develop a national digital infrastructure strategy that aligns data centre growth with AI readiness, sovereign cloud, and grid resilience.
Sustainability standards	Link planning approvals to energy efficiency, on-site renewables, and offset targets to drive green innovation.

Singapore data centre capacity and pipeline [1][a]
MW capacity



Note: **[1]** Current IT capacity (2025).
Source: **[a]** DC Byte.

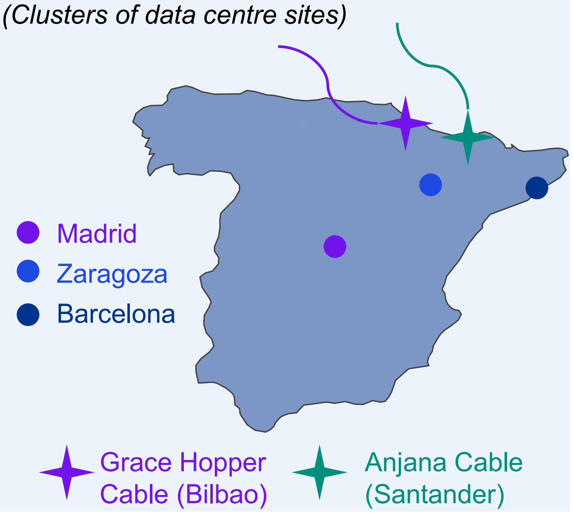
Case study: Spain

Madrid's rise as a hyperscale hub offers Ireland lessons in aligning data centres with renewables and subsea expansion.

Overview of the data centre ecosystem in Spain

- Madrid is emerging as a **hyperscale hub**, with Microsoft, Google, and AWS expanding availability zones.
- Due to land and energy limits in the city, investment is shifting to areas like Alcobendas, the Henares Corridor, and **Aragon – which now leads Spain's hyperscale growth** due to space and renewable energy.
- Aragon faces **water scarcity**, however, with some towns imposing restrictions on water use.
- Spain supports large-scale projects through its **Project of Singular Interest (PSI) framework**, as seen with Meta's Castilla-La Mancha campus.
- Connectivity is also improving via **new subsea cables** like Grace Hopper and landing stations in Bilbao.

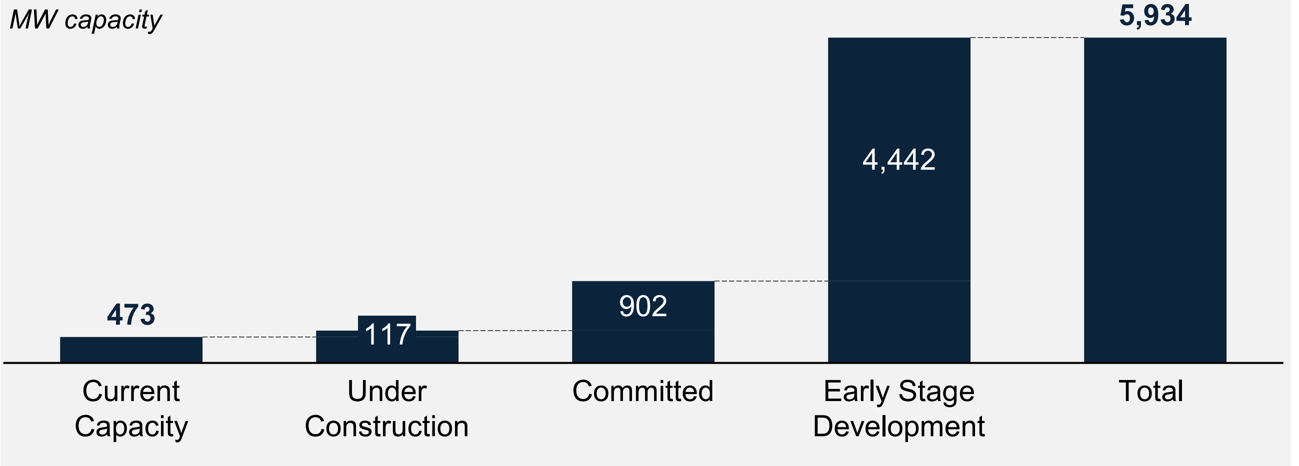
Areas of data centre concentration
(Clusters of data centre sites)



Key takeaways for the Republic of Ireland

Colocation	Co-locate data centres with renewable energy zones to improve grid integration and support sustainable growth.
Cable Infrastructure	Explore alternative subsea cable landing points beyond Dublin, such as in the South-West or North-West, to enhance connectivity and regional resilience.
Grid and sustainability	Upgrade grid infrastructure and integrate clean energy to enable sustainable data centre expansion.

Spain data centre capacity and pipeline [1][a]
MW capacity



Note: **[1]** Current IT capacity (2025).
Source: **[a]** DC Byte.

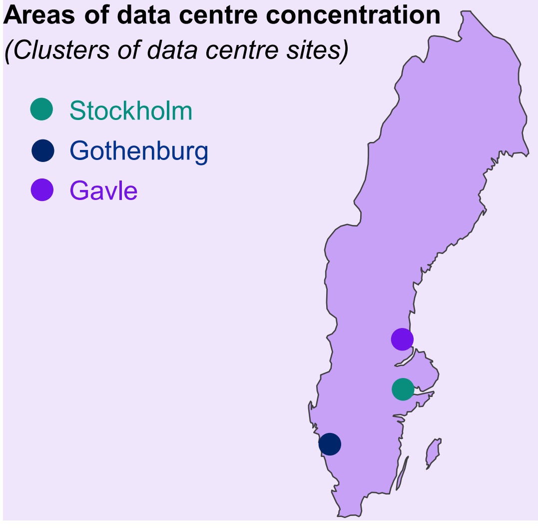
Case study: Sweden

Sweden's approach to latency-tolerant workloads and sustainability offers Ireland lessons in green design, site reuse, and faster build.

Overview of the data centre ecosystem in Sweden

- Sweden is ideal for **latency-tolerant data centre workloads** like AI training and archival storage, due to its near-100% renewable energy and relatively low operational costs.
- Public-private initiatives, such as **RISE ICE testbed in Lulea**, support the development of sustainable technologies including heat reuse and liquid cooling.
- Local authorities support development through repurposed industrial sites like **EcoDataCenter's** Borlange campus, fast approval processes through designated **"free zones",** and streamlined permitting.
- Government agencies like **Business Sweden** assist with site selection and infrastructure coordination.

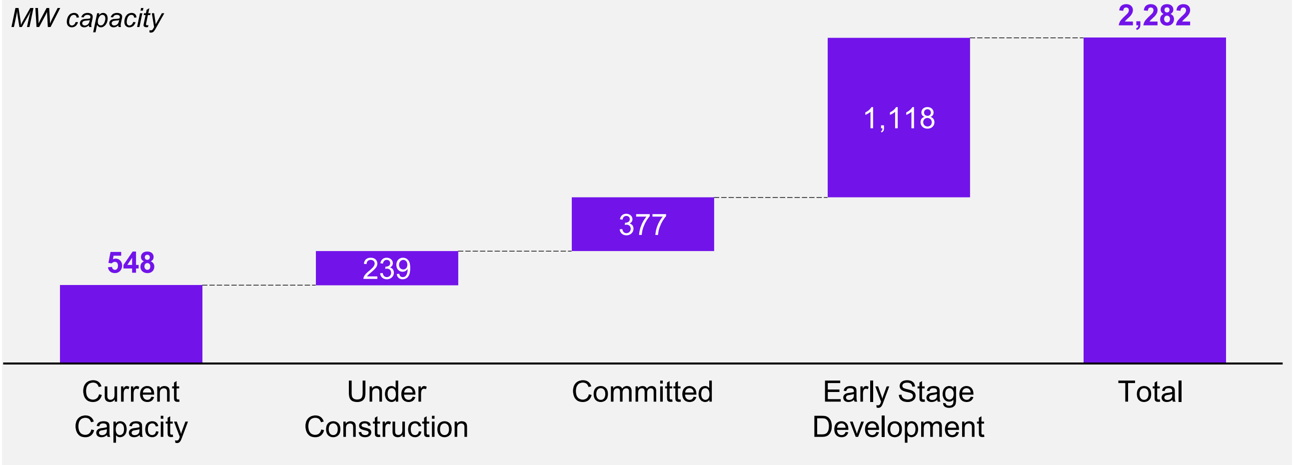
Areas of data centre concentration
(Clusters of data centre sites)



Key takeaways for the Republic of Ireland

Sustainability design	Integrate green energy sourcing, energy-efficient design, and circular economy principles into planning and permitting frameworks.
Industrial site reuse	Encourage and align data centre growth with regional economic strategies and brownfield development.
Fast-track planning	Introduce targeted incentives and fast-track planning pathways for sustainable, strategically located data centres in Ireland.

Sweden data centre capacity and pipeline [1][a]
MW capacity



Note: **[1]** Current IT capacity (2025).
Source: **[a]** DC Byte.

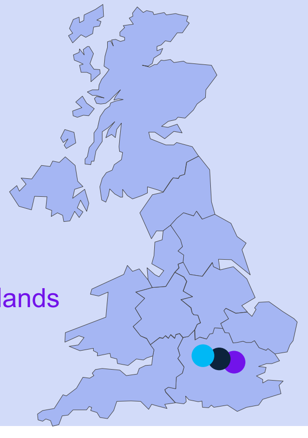
Case study: United Kingdom

The UK classifies data centres as critical infrastructure, offering Ireland a model for planning and advancing its digital economy.

Overview of the data centre ecosystem in the United Kingdom (UK)

- On 12 September 2024, the UK designated data centres as **Critical National Infrastructure (CNI),** enabling faster planning, prioritised grid access, and regional investment.
- While London remains central, operators are **expanding to areas** like Blackpool for access to quicker and greener power.
- This shift supports decentralisation and aligns with emerging technologies like **hollow-core fibre (HCF),** which offers ultra-low latency for AI and cloud infrastructure.
- euNetworks has completed a **new HCF route** linking LON1 to London Stock Exchange.

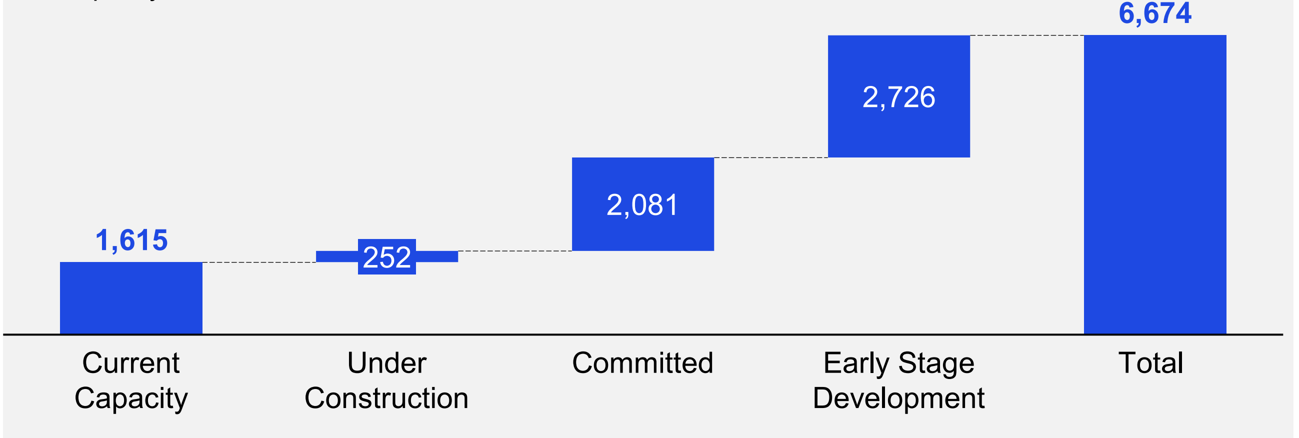
Areas of data centre concentration
(Clusters of data centre sites)



Key takeaways for the Republic of Ireland

Critical infrastructure status	Designate data centres as essential infrastructure to reinforce Ireland's position as a secure and future-ready digital economy.
HCF development and deployment	Position Ireland as a competitive future destination for AI and cloud services compared to other European and global regions.
Data centre decentralisation	Link planning approvals to energy efficiency, on-site renewables, and targets to encourage sustainable innovation.

UK data centre capacity and pipeline [1][a]
MW capacity



Note: **[1]** Current IT capacity (2025).
Source: **[a]** DC Byte.

5.3

Insights from research

Ireland's data centre mix: why both matter

Ireland's competitiveness will require a mix of hyperscale and non-hyperscale developments to maintain relevance as a global hub.

Importance vs. Risk if not provided

Hyperscale vs. non-hyperscale

Importance of hyperscale	Importance of non-hyperscale
• **FDI attraction & retention:** Continued hyperscale investment signals Ireland's competitiveness, attracting new AI-driven firms and retaining existing big tech companies. • **AI leadership:** AI-related hyperscale capacity is critical for Ireland to remain at the forefront of AI adoption and innovation across enterprise and public services. • **ICT export growth:** Sustaining hyperscale infrastructure underpins Ireland's position as a global leader in ICT service exports. • **Cloud enablement:** Hyperscale facilities provide essential cloud services for Ireland's enterprise base and public sector, supporting wider digital transformation. • **Development:** Regional development of hyperscale campuses could stimulate development of technology and infrastructure to support data centre hubs and economic growth beyond the GDA.	• **Domestic sector needs:** Non-hyperscale sites serve sectors requiring proximity to data centres and low latency (e.g. financial services, manufacturing, healthcare). These sectors contribute significantly to Ireland's GVA and employment. • **Public sector resilience:** Government departments, hospitals, and HEIs require local data centres for sovereignty needs, crisis management, and backup capabilities. • **Regional economic growth:** Non-hyperscale facilities can stimulate balanced regional growth by enabling digital infrastructure outside Dublin, supporting local businesses, creating jobs, and reducing geographic concentration risks in the GDA.
Risk of no further hyperscale development	**Risk of no further non-hyperscale development**
• **FDI risk:** Lack of capacity would weaken Ireland's investment signal, risking loss of economic value and future foreign direct investment. • **Sovereignty concerns:** Enterprises and public services would increasingly rely on overseas data centres, raising sovereignty and compliance risks for sensitive public sector workloads and regulated sectors. • **Decline in competitiveness:** Without new hyperscale capacity, Ireland risks falling behind in global digital infrastructure rankings, reducing its attractiveness for AI-driven innovation and cloud based services, and potentially impacting ICT export growth. • **Regional divide:** Lack of hyperscale development diminishes the potential growth of tech companies beyond the GDA, limiting regional growth.	• **Enterprise Impact:** Sectors dependent on proximity and latency may relocate core operations abroad, eroding Ireland's enterprise base and economic value. • **Public sector digital stall:** Capacity constraints could stall digital transformation in government and healthcare sectors. • **Regional digital divide:** Failure to develop non-hyperscale facilities could widen the gap between Dublin and regionally, limiting access to low latency infrastructure for local businesses and public services, and hindering balanced regional economic growth.

Spotlight: Potential regional diversification

Data centre development in Ireland could occur through development in the regions – subject to digital connectivity and access to renewable energy.

Requirements for potential regional diversification of data centres

	Hyperscale	Non-hyperscale
Core latency	Core compute workloads require very low intra-campus latency, typically sub-millisecond, achievable where multiple data centre buildings are co-located on a single site or tightly interconnected campus. Regional locations can support such workloads where campus-scale development and dense fibre interconnection are available.	**Truly** time-critical operations (e.g. high-frequency trading) require microsecond to low-millisecond latency between data centres and benefit from extremely close system coupling.
Edge to Core latency	Edge nodes manage local traffic and caching, reducing latency for everyday applications. However, core data centres remain essential for heavy workloads such as AI training and large-scale compute.	End-user latency is less critical for most enterprise workloads. Regional core data centres can effectively support edge facilities without materially affecting typical business operations.
End-user to data centre latency	End-user performance is often optimised through distributed edge and caching architectures, reducing dependence on proximity of the end-user to the location of where core compute workloads are processed.	Certain sectors (e.g. finance, healthcare, manufacturing) require consistently low end-user latency to support real-time or near-real-time applications, which can be achieved in regional locations with robust fibre connectivity.
Proximity	Physical proximity of organisations to the data centres they operate can be a preference, however, there are a number of factors that influence data centre siting decisions including: connectivity, power availability, resilience and scalability.	Location choice is often influenced by operational access, governance, security and resilience considerations rather than strict technical proximity requirements. Where connectivity and redundancy are strong, proximity constraints are moderate.
Digital infrastructure	Dublin's dominance reflects dense fibre networks, mature interconnection ecosystems and proximity to major subsea cable landing points. Other locations with comparable international connectivity, subsea access and power availability could also support hyperscale development.	A strong national fibre backbone, redundancy and access to reliable power are critical. Where these conditions exist, regional locations can effectively host non-hyperscale facilities.
Regional growth	Regional hyperscale development is feasible where international connectivity, subsea access and campus-scale development conditions are met, supporting geographic diversification and resilience.	Regional locations are well suited to non-hyperscale facilities, supporting diversification, resilience and regional economic development, subject to robust digital and power infrastructure.

Potential opportunities beyond 2030

With targeted policy and infrastructure development, Ireland can strengthen its data centre ecosystem and drive economic and wider benefits.

Data centres play a critical role in Ireland's economy by underpinning digital services, enabling AI adoption, supporting FDI, and sustaining essential public and private-sector operations. As digital intensity continues to rise across all sectors, **maintaining and evolving Ireland's data centre landscape beyond 2030 will be essential to long-term competitiveness, resilience, and economic growth**.

Ireland has faced a strategic choice: without further development, economic contributions will plateau and risks will increase across digitally dependent sectors. By contrast, **a managed expansion of data centre capacity offers significant upside**, supporting GVA, employment, tax revenues, and Ireland's position as a leading European digital hub. A key opportunity lies in **balancing two complementary development pathways**:

- **Managed continuation within the Greater Dublin Area (GDA)**, recognising that certain workloads benefit materially from proximity to Dublin's dense ecosystem of cloud infrastructure, enterprise customers, interconnection services, and specialist talent. These include latency-sensitive services, workloads requiring frequent inter-data-centre communication, and activities that rely on deep operational expertise.
- **Targeted regional diversification**, where new data centre capacity is co-located with renewable energy resources and supported by robust digital connectivity. This can enhance energy security, reduce pressure on the Dublin grid, support regional development, and catalyse the emergence of new, sustainable data centre clusters.

Taken together, **a plan-led, balanced approach** – prioritising high-value use cases in the GDA while enabling regionally diversified, energy-aligned growth – offers Ireland a clear strategic pathway. This approach can support sectors that are dependent on data centres to grow, anchor FDI, enable AI-driven innovation, and ensure Ireland remains competitive in an increasingly digital global economy.

Potential opportunities beyond 2030

With targeted policy and infrastructure development, Ireland can strengthen its data centre ecosystem and drive economic and wider benefits.

To realise this opportunity, **future development must be aligned with climate and energy objectives**. Data centres themselves offer a major strategic opportunity to advance our green energy ambitions, as they enable bankable, long-term offtake routes – such as CPPAs – enabling renewable energy developers to finance projects. Government's LEAP has been set out to steer Ireland's future data centre development to take advantage of this opportunity. However, even with significant investment in renewable energy, additional electricity demand from new data centre growth will still require sufficient dispatchable and flexible generation to provide reliable, on demand electricity when wind and solar are insufficient. In Ireland, this means reliance on fossil fuel sources until such a time that sufficient firm, low-carbon technologies and long-duration storage are developed and deployed at the scale needed to replace fossil-fuel backup generation.

As a result, further data centre expansion will continue to give rise to carbon emissions. The evidence in this study does however indicate that with sufficiently high renewable penetration, further data centre development post-2030 could occur without increasing data centre associated emissions relative to estimated 2030 levels.

Appendix A: Economic impact modelling assumptions

Upstream economic impacts

We use KPMG's input-output model to estimate the upstream economic impacts (construction and operations) of the data centre sector in Ireland.

What is an economic impact assessment?

- Economic impact assessments measure how economic activity is generated across sectors from a specific event, policy, or industry.
- Data centre sector buys from other industries, triggering further spending and employment – known as the **multiplier effect.**
- Growth in installed data centre IT capacity and infrastructure increases supply chain demand, amplifying economic output.

Economic impact modelling framework

- KPMG's economic impact model is built on published CSO input-output tables, project-specific inputs and industry multipliers to estimate sector-wide impacts. This approach reflects standard methodology for assessing economic effects across key channels. In the first instance, upstream impacts are estimated for the period of 2010-2025, and projected for the period of 2025-2030.
- The model applies multipliers to estimate direct, indirect, and induced impacts. Upstream impacts were also estimated across three data centre growth scenarios for the period of 2030-2040 – **Baseline**, **Steady-state growth**, and **FLAP** [1] – to illustrate outcomes under varying assumptions and sensitivities.

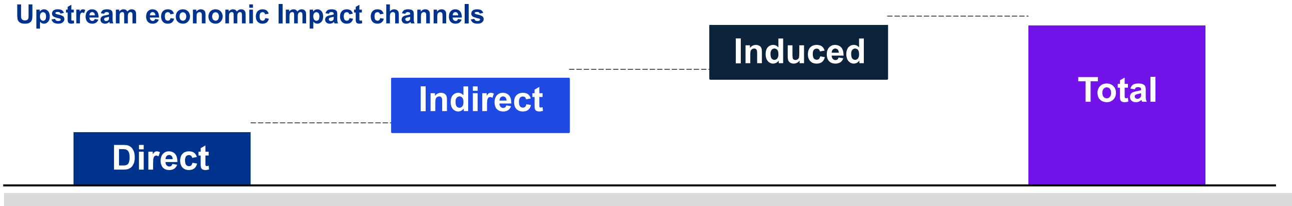
Key modelling inputs:

- **Installed data centre IT capacity**. Includes estimated data centre capacity (2010–2030), and data centre type (hyperscale vs. non-hyperscale).
- **Cost assumptions**. Covers CAPEX per GW (construction vs. retrofitting), OPEX per GW (labour vs. non-labour allocation), and capital apportionment.
- **Employment metrics**. Includes headcount (data centre vs. non-data centre operations), operational employment per MW, and annual training hours.

Metrics reported

- **Gross Value Added (GVA).** The sector's net contribution to the economy, calculated by subtracting intermediate inputs from total output.
- **Employment.** The direct, indirect and induced jobs associated with the construction and operation of data centres in Ireland.
- **Employment related tax**. The estimated payment to the Exchequer, including employee tax, employer tax, PSRI and Universal Social Charge (USC).

Upstream economic Impact channels



Our analysis quantifies three channels that contribute to **total** data centre impact in Ireland:

- **Direct:** Immediate economic impact of data centre construction and operation;
- **Indirect:** Supply chain expenditure from the operation and construction of data centres;
- **Induced:** Employees spend wages in the wider economy, boosting output, jobs, wages and tax revenue.

Note: **[1]** The FLAP market refers to four of the most established and mature data centre hubs in Western Europe-Frankfurt, London, Amsterdam, and Paris.

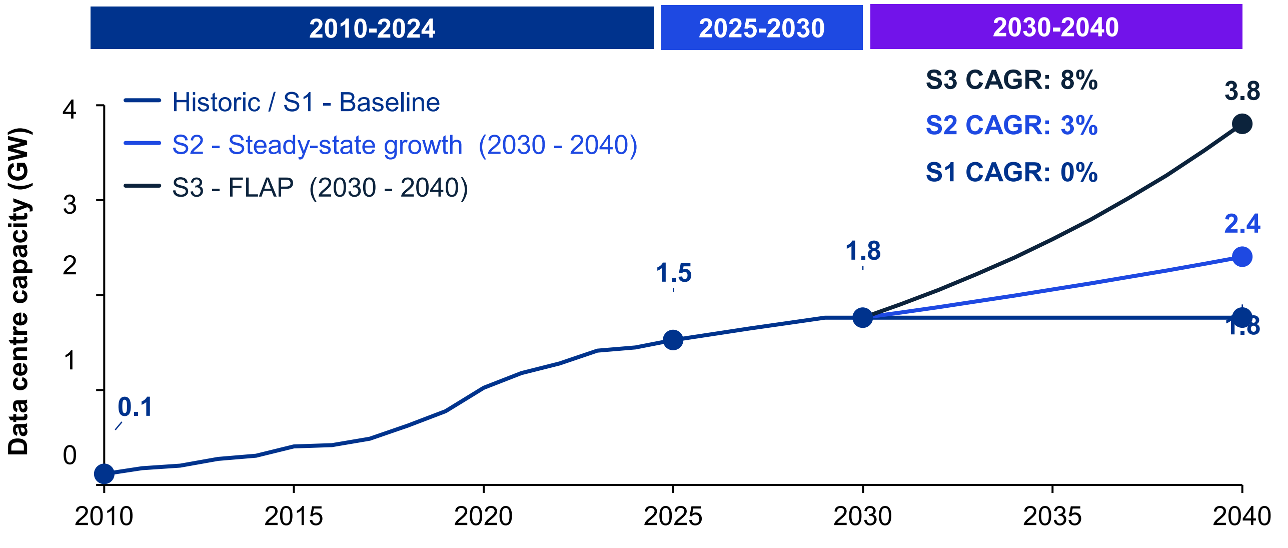
Introduction & overview of modelling periods

This study estimates the economic impacts of data centres over three key periods: 2010-2024, 2025-2030, and 2030-2040.

This appendix provides an overview of the outputs, methodology, and assumptions used to estimate the economic impacts associated with construction and operation of data centres in Ireland.

This study undertakes analysis of Ireland's data centre ecosystem over three distinct timeframes: **2010-2024** (historic), **2025-2030** (near future), and **2030-2040** (Longer-term).

Data centre capacity (GW) per scenario in Ireland (2010-2040)



2010-2024	• KPMG assessed the economic impact of the Republic of Ireland's data centre ecosystem from 2010-2024, highlighting how the sector's contributions have evolved over the past 15 years and its current role in the national economy.
2025-2030	• KPMG models the projected economic impact of Ireland's data centre industry from 2025-2030, based on development pipeline data. • Using Q3 2025 connection data from EirGrid (TSO) and ESB Networks (DSO), capacity is expected to grow by 0.3 GW – from 1.5 GW in 2025 to 1.8 GW in 2030. • The associated economic contributions of this growth are also modelled.
2030-2040	KPMG also models the projected economic impact of Ireland's data centre industry from 2030-2040, using three growth scenarios: • **Baseline:** capacity remains stable at ~1.8GW from 2030, with no further development. • **Steady-state growth:** Some development occurs despite growth constraints, reaching ~2.4GW by 2040. • **FLAP:** Capacity grows in line with average trends across FLAP markets, reaching ~3.8 GW by 2040.

Modelling assumptions (1/2)

The tables outlines key assumptions for modelling the upstream economic impacts associated with construction and operations of data centres.

Projected installed data centre IT capacity (GW), 2025-2030

Item	2025	2026	2027	2028	2029	2030
Data centre IT capacity (GW)	1.5	1.6	1.6	1.7	1.7	1.8

Projected installed data centre IT capacity (GW) for each scenario, 2030-2040

Item	Scenario	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Data centre capacity (GW)	**Baseline**	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	Steady state growth	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.1	2.3	2.3	2.4
	FLAP	1.8	1.9	2.1	2.2	2.4	2.6	2.8	3.1	3.3	3.6	3.8

Costing and employment assumptions

Category	Assumption	Value	Source
CapEx costs	Per MW	• €11m - €13m / MW for hyperscale • €10m - €12.5m / MW for non-hyperscale	• KPMG analysis based on a survey and proprietary dataset
OpEx costs	Per MW	• €1.3m – €1.5m / MW for hyperscale • €2.0m – €2.2m / MW for non-hyperscale	• KPMG analysis based on a survey and proprietary dataset
Commercial rates	€ per MW, per annum	• €60,000 / MW **NOTE:** this does not include the commercial rates from any associated energy parks	• KPMG analysis of valuation office data
Direct employment (Opex)	Jobs (FTE) per MW	• 1.8 FTE / MW for hyperscale • 4.3 FTE / MW for non-hyperscale	• KPMG analysis based on a survey and proprietary dataset
Direct employment (Capex)	Jobs (FTE) per MW	• 55 FTE / MW for hyperscale • 57 FTE / MW for non-hyperscale	• Inferred from KPMG input-output model

Modelling assumptions (2/2)

The table below summarises key assumptions informing the 2010-2024, 2025-2030, and 2030-2040 scenario framework and analysis of upstream economic impacts.

Item	Detailed assumptions and approach
2025 / 2030 installed data centre IT capacity	• Current installed data centre IT capacity is estimated at 1.5 GW in 2025, rising to 1.8 GW by 2030. • Estimates are based on TSO and DSO data from EirGrid and ESB Networks (connected, contracted, and pipeline MVA values as of July 2025). • An 80% conversion factor was applied to MVA values to derive MW/GW installed data centre IT capacity, agreed with KPMG's internal SME network. • Stakeholder engagement also informed the final estimates.
Data centre mix	• The baseline distribution is assumed to remain stable across scenarios: - **88% of additional capacity attributed to hyperscale** facilities - **12% to non-hyperscale** • Sensitivity analysis explores the impact of varying hyperscale and non-hyperscale investment post-2030 (details are provided in Appendix C).
Expected 2040 installed data centre IT capacity	For the post-2030 period, we model three capacity growth scenarios: • **S1 – Baseline**. Assumes no further development beyond the existing pipeline as of Q4 2025. Capacity remains flat at 1.8 GW through 2040. • **S2 – Steady-state growth**. Assumes a compound annual growth rate (CAGR) of ~3%, increasing capacity from 1.8 GW in 2030 to 2.4 GW by 2040. Growth reflects constrained but continued investment in response to market demand. • **S3 – FLAP**. Represents the highest growth scenario, aligned with average rates observed in peer markets – Frankfurt, London, Amsterdam, and Paris. Capacity is projected to reach 3.8 GW by 2040, driven by strong demand and favourable conditions. Scenario S3 reflects an annual growth rate exceeding historic CAGRs, underpinned by sustained market momentum between 2030 and 2040. Scenario S1 assumes no additional capacity beyond 2030. Scenario S2 is based on historic CAGRs.

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Appendix B: Downstream impact modelling assumptions

Sectoral impacts enabled by data centres

We apply the following methodology to estimate the GVA enabled by data centres across three scenarios.

Step by step logic

1. Determine digital dependency

We start with the total 2024 Sectoral GVA and apply the proportion of operations that rely on digital infrastructure or cloud based services;

$GVA_1 = GVA\ x\ p.dig$ **(Scenario 1)** – this represents the digitally enabled base and captures all activity that could in principle depend on digital infrastructure – regardless of data centre location.

2. Identify domestic dependency

We then apply the proximity filter – the share of digital operations that require proximity to their supporting data centres (<=50km)

$GVA_2 = GVA\ x\ p.prox$ **(Scenario 2)** – this subset represents the conservative estimate of operations that are best served by data centres located in Ireland. Proximity acts as the proxy for domestic dependency (if an operation cannot function effectively when its compute is >50km, it cannot practically be hosted outside Ireland).

Any workload that requires a domestically located data centre is, by definition, digitally dependent. Therefore, the proximity requirement is part of the digitally reliant share of GVA, not a separate constraint.

At this point we have conservatively quantified the proportion of GVA that is reliant on **domestic** digital infrastructure/cloud based services – irrespective of whether additional latency constraints apply.

3. Apply latency requirement

Next, we isolate the share of domestic dependent operations that are latency sensitive:

$GVA_3 = GVA_2\ x\ p.lat$ where;

- ***p.lat*** represents the average sectoral proportion of operations requiring low latency. This is derived from survey responses where participants rated the importance of latency on a 1-10 scale. These ratings are mapped to a 10-100% scale, a proxy for the share of operations that would be impaired if hosted beyond immediate network reach
- If all respondents rated latency importance as 10/10, we assume 100% of activity from the previous step is latency sensitive. Conversely, if all rated it 1/10, we assume only 10% of activity is latency sensitive. While the unit of measure differs, this approach provides a robust proxy given the nature of survey questions
- **GVA_3** represents the estimated proportion of GVA that is reliant on **domestically located, latency sensitive data centre capacity**

Sectoral impacts enabled by data centres

Weighting responses by a revenue proxy slightly increases estimated impacts; for conservatism, the report presents unweighted impacts.

This appendix outlines the approach to determine the enabled downstream GVA based on survey responses **weighted by a revenue proxy**. As actual revenue data for respondents was not available, we constructed a proxy using the following steps:

1) **Sector allocation of FTEs** – each respondent provided their total number of FTEs and the sectors in which they operate. To allocate FTEs across sectors, we divided the total FTE count equally among the sectors reported. I.e., a respondent with 1,000 FTEs operating in two sectors is assigned 500 FTEs per sector.
2) **Revenue proxy calculation** – for each sector allocation, we applied CSO ratios for €m of output per FTE employed. This allowed us to infer an estimated level of economic output for each respondent, which serves as a proxy for revenue.
3) **Weighting of responses** – survey responses were then weighted by their respective revenue proxy. This ensures that respondents with a higher inferred economic output have proportionately greater influence in the analysis.

Downstream enabled GVA reliant on data centres – weighted by revenue proxy

€bn

Sector	ICT	Finance & insurance	Health & social work	Transport & storage	Retail & wholesale	Professional services	Total
Sector Rank	**1**	**2**	**3**	**4**	**5**	**6**	**239.6 (45% of national GVA)**
Total sector GVA 2024 (€bn) [a]	**111.2**	**27.0**	**24.0**	**9.7**	**34.3**	**33.3**	**239.6 (45% of national GVA)**
Scenario 1							
Data centre dependency [b]	88%	84%	38%	83%	73%	86%	
Enabled GVA – €bn	**97.3**	**21.0**	**12.0**	**6.5**	**19.3**	**25.6**	**191.2 (36% of national GVA)**
Scenario 2							
Domestically reliant [b]	52%	55%	36%	55%	58%	61%	
Enabled GVA – €bn	**57.5**	**14.9**	**8.5**	**5.3**	**20.0**	**20.4**	**126.6 (23% of national GVA)**
Scenario 3							
Domestically reliant [b]	52%	55%	36%	55%	58%	61%	
Importance of latency [b]	90%	84%	84%	89%	86%	88%	
Effective ratio	46%	46%	30%	49%	50%	54%	
Enabled GVA – €bn	**51.7**	**12.5**	**7.2**	**4.7**	**17.1**	**17.9**	**111.1 (21% of national GVA)**

Source: **[a]** CSO **[b]** Industry survey

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Appendix C: Post-2030 analysis: outputs and assumptions for environmental impacts and sensitivity analysis

Summary of outputs provided

1. Quantitative Benefits: 2010-2024, 2025-2030 periods, and 2030-2040 (scenarios)	
Economic output	Annual direct, indirect, and induced output for 2010–2024 (historic), 2025–2030 (projected to reach 1.8 GW), and 2030–2040 (scenario-based)
Gross Value Added (GVA)	Annual direct, indirect, and induced GVA across the same periods.
Employment (FTE – full-time equivalent)	Annual direct, indirect, and induced jobs across the same periods.
Employment related taxes (e.g., income taxes)	Annual estimated payments to the Exchequer across each scenario
Sector dependency	Detailed analysis for 2025, with high-level commentary across post-2030 scenarios.
2. Qualitative Benefits (2030-2040 – scenario-based)	
Data sovereignty, resilience and continuity	Discussions of each benefit associated with Ireland's data centre sector (as of 2025) and the potential future benefits
Knowledge spillover and cross-sector innovation	
Sustainability (e.g., Waste heat reuse for home heating)	
Retaining Tech hub status	
Foreign Direct Investment (FDI)	
Other benefits (i.e. Regional development, global digital connectivity)	
3. Costs (2025-2030, 2030-2040)	
Energy consumption	Annual consumption (TWh) from 2030–2040 across scenarios.
Water usage	Commentary on expected usage; future developments expected to rely more on closed-loop systems.
Carbon emissions	Expected cardon emission each year based off energy consumption and energy mix.
Grid infrastructure (depending on available information)	Qualitative commentary on grid infrastructure across scenarios, subject to data availability.

Sensitivity assumptions

We conduct two sensitivity analyses to test alternative data centre deployment configurations across scenarios.

Assumptions are informed by desktop research, public data, stakeholder engagement, and internal SME input. The two sensitivities examined are:

1. **Data centre type mix (2030–2040)**
2. **Energy assumptions (2030–2040)**

1. Sensitivity on data centre type mix (2030-2040)

We will evaluate the implications of how changes in the share of total MW capacity affects the hyperscale vs. non-hyperscale (retail, wholesale colocation, enterprise) mix relative to the current data centre distribution:

- Current data centre mix (in % of MW capacity): **88% Hyperscale** and **12% Non-hyperscale**

Under this sensitivity, the hyperscale share of total MW capacity is expected to expand / shrink by **+/-5% from the current mix post-2030**:

- **Sensitivity 1.1 (+5%): 93% Hyperscale** and **8% Non-hyperscale**
- **Sensitivity 1.2 (-5%): 83% Hyperscale** and **17% Non-hyperscale**

2. Sensitivity on energy assumptions (2030-2040)

- *Renewable energy mix:* We will assess how changes in the energy mix – specifically varying levels of renewable energy access for data centres – may influence outcomes. **We will model three outcomes:**
- **67%, 80%, and 90% renewable energy access.**
- *Data centre utilisation rate:* We will assess the impact of data centre rates, **adjusting the baseline 75% utilisation rate to 70% for S1 / S2 and 70% to 65% for S3.**

Scenario assumptions: detailed overview

The following section provides a detailed overview of the assumptions that underpin our sensitivity analysis related to estimated carbon impacts and upstream economic impacts for the post-2030 time frame for each scenario.

The below table outlines the input and cost values associated with the post – 2030 scenario analysis: S1 – Baseline, S2 – Steady-state growth, S3 – FLAP

		2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Inputs and assumptions												
Installed data centre IT capacity	S1	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	S2	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.1	2.3	2.3	2.4
	S3	1.8	1.9	2.1	2.2	2.4	2.6	2.8	3.1	3.3	3.6	3.9
Costs												
Electricity consumption ('000 TWh) [1]	S1	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
	S2	11.6	11.9	12.3	12.7	13.1	13.5	14.0	14.4	14.8	15.3	15.8
	S3	10.8	11.7	12.7	13.7	14.9	16.1	17.4	18.8	20.4	22.1	23.9

Based on the input and cost values, we conducted sensitivity analysis focusing on:
1). Data centre mix
2). Electricity consumption.

Further details are provided in the table below:

Assumptions / Inputs			
Sensitivity analysis was undertaken on **data centre mix (% of total MW capacity)** to estimate differences in economic impact under each scenario – S1, S2, and S3 – across the following metrics: • GVA • Employment • Tax revenue			
Data centre mix (%)	Sensitivity Baseline	• Hyperscale: 88% • Non-hyperscale: 12%	
	Sensitivity 1.1	• Hyperscale: 93% • Non-hyperscale: 7%	
	Sensitivity 1.2	• Hyperscale: 83% • Non-hyperscale: 17%	
Costs			
Sensitivity analysis was undertaken on electricity consumption – varying **1). Renewable energy access** and **2). Data centre utilisation rates** to estimate differences in impacts (in tCO_2) under each scenario – S1, S2, and S3			
		1). Renewable energy access	2). Data centre utilisation
Emissions (tCO_2)	S1	• 67% • 80% • 90%	• Sensitivity 1: 75% • Sensitivity 2: 70%
	S2		• Sensitivity 1: 75% • Sensitivity 2: 70%
	S3		• Sensitivity 1: 70% • Sensitivity 2: 65%

Note: **[1]** Interpretation: 11.6 = 11,600 TWh.

Scenario assumptions: detailed overview

The table outlines assumptions informing the scenario framework for energy consumption and impacts across the 2010–2024, 2025–2030, and 2030–2040 periods.

Item	Detailed assumptions and approach
Expected energy consumption (TWh)	**Formula:** ***Total annual energy consumption = 'Data centre capacity (GW) in respective year' x 'Average utilisation in data centres located in Ireland' x 24 hours/day x 365 days/year*** • **Installed data centre IT capacity:** Annual installed capacity for each scenario. Detailed capacity projections are provided later in the report. • **Average utilisation rate:** Represents the proportion of available computing resources actively used. Calculated as follows: - **S1 and S2 average data centre utilisation rate of 75% and 70%** is calculated from CSO and EirGrid data centre energy consumptions data and historic installed data centre IT capacity. This estimate was calculated by dividing total data centre energy consumption by total energy consumed by data centres if they were 100% utilised (total installed MW capacity x 24 hours/day x 365 days/year). This assumptions was validated through stakeholder feedback and internal SME review. - **For S3**, **a lower average data centre utilisation rate of 65%** has been assigned - reflecting longer ramp-up periods due to larger capacity additions and delayed full utilisation.
Carbon impacts	**Formula:** ***Annual impacts (CO2 eq.) = Electricity consumption (GWh)' x intensity of electricity (Gross electricity supply) (TCO_2/GWh)'*** • **Emission rates (CO_2/MWh)**: This analysis uses the value of intensity of gross electricity supply from **SEAI**. In 2024, the intensity of electricity consumption in Ireland was estimated at **204.3 tCO2/GWh** and assumes **40% renewable generation**. • To take consideration of potential interconnection, KPMG use the intensity of gross electricity supply from SEAI. CO2 emissions arising from generation outside of Ireland are not included in this factor. • **impact estimation**: KPMG estimates impacts by energy type (renewable vs non-renewable) for each scenario, using projected annual data centre capacity from 2030-2040. • **Sensitivity testing**: Variations in energy mix assumptions are tested to assess their impact on emissions across scenarios. This includes adjusting the share of renewable vs non-renewable energy to reflect different grid and policy outcomes.
Assumed energy mix	• All scenarios assume access to a **minimum of 80% renewable energy** for data centre operations. • To test sensitivity to this assumption, a **lower and upper bound of 67% and 90%** renewable energy access is applied in the sensitivity analysis. These energy mix variations are used to assess how changes in renewable penetration affect the economic and environmental impact estimates across scenarios. • Sensitivity was undertaken on the Data centre utilisation rates. We assess the impact of different data centre rates, adjusting the baseline **75% utilisation rate** to **70% for S1 / S2** and **70% to 65% for S3**.

Appendix D: Overview of stakeholder engagement processes

Interview consultation process (1/2)

KPMG interviewed various stakeholders across the data centre supply chain in Ireland to inform key messages discussed in this report.

Overview of the interview consultation process:

- KPMG conducted 10-15 interviews with stakeholders (ranging from 30mins to 1hr), including government bodies, data centre operators, industry groups, customers, suppliers, and academics.
- These discussions provided a comprehensive view of Ireland's data centre landscape in terms of opportunities and challenges, historically, in 2025, and post-2030.
- Below are the guiding questions used by stakeholder type.

Note: *These questions served as guiderails; responses varied by expertise, and additional follow up questions emerged during interviews.*

Government and policy interview questions:

- Please provide a high-level overview of your view of Ireland's data centre ecosystem.
- What role do demand-side flexibility measures (e.g. curtailment, battery storage, peak load shifting) currently play in managing grid constraints for data centres?
- How are emerging trends (e.g. AI workloads, LLM inference, hybrid cloud models. etc.) influencing demand for digital services? What emerging technologies do you see having the biggest impact post-2030?
- What supporting infrastructure is required to sustain the development of data centres post-2030?
- Are there any other wider societal benefits and costs from data centres that we haven't discussed? Do these differ by data centre type?
- In your view are there any other costs and benefits associated with different data centre types in Ireland that we haven't already discussed?
- What role does each data centre type play in supporting the wider economy (high-value jobs, FDI etc) and enabling sectors across the value chain?
- What role have data centres played in supporting sustainability developments (e.g. routes to market for wind farms, solar farms, etc.) in Ireland over the past decade and post-2030?
- Looking out post-2030 are there any other key opportunities and challenges facing the Irish data centre landscape? What actions can be undertaken to overcome these barriers?

Data centre operators and industry bodies interview questions:

- How has demand for data centre services in Ireland evolved over the past decade? How do you expect this to change between 2025-2030 and post-2030?
- What Irish sectors do you feel have the highest dependency on data centres?
- Given grid challenges, how would you prioritise the following criteria for new data centre planning applications (e.g. location, data centre type, data centre size, green energy park/renewable energy developments alongside the data centre, etc.)?
- What are the main barriers you see to data centre development in regional areas? (beyond the Dublin Metro) Does this vary between data centre type?
- Do you believe the current Irish supply chain and labour market can meet the future needs of the data centre sector in terms of construction, operations, and compliance?
- Can you please provide an overview of any new innovations in green technology for data centres?
- How significant do you consider the role of data centres to be in Ireland's digital economy and its attractiveness for FDI?
- What role have data centres played in supporting sustainability developments (e.g. onshore wind farms, solar farms etc) in Ireland over the past decade and to 2030+?
- Looking out post-2030 are there any other key opportunities and challenges facing the Irish data centre landscape? What actions can be undertaken to overcome these barriers?

Interview consultation process (2/2)

KPMG interviewed various stakeholders across the data centre supply chain in Ireland to inform key messages discussed in this report.

Overview of the interview consultation process:

- KPMG conducted 10-15 interviews with stakeholders, including government bodies, data centre operators, industry groups, customers, suppliers, and academics.
- These discussions provided a comprehensive view of Ireland's data centre landscape in terms of opportunities and challenges, historically, in 2025, and post-2030.
- Below are the guiding questions used by stakeholder type.

***Note:** These questions served as guiderails; responses varied by expertise, and additional follow up questions emerged during interviews.*

Customers and suppliers interview questions:

Please give an overview of your company and the sector in which you operate in.

- How many FTEs does your company employ in Ireland?
- How do you manage your IT infrastructure and/or cloud-related activities (e.g. in-house, external, etc.) and please provide an overview of your company's relationships / reliance on data centres?
- On average, what proportion of your current Irish operations are supported by data centres based in Ireland vs. those located outside Ireland?
- What would happen to your business, if a data centre provider located in Ireland became unavailable as your preferred supplier?
- Is your activity in Ireland dependent on or linked to the location of data centres? Is the location of data centre services a determining, strong or weak driver of the location of your activities?
- How do you expect your company's digital-related activity in Ireland to change over the next 5 years? If increasing or decreasing, what annual growth rate do you expect?
- How do you expect your company's digital-related activity outside of Ireland to change over the next 5 years?
- Are there any factors currently limiting your ability to expand your work in the Irish market if your digital needs are not met?
- Has your company made any data centre capital investment or increased your purchase of digital services in the past 2 – 3 years? If yes, please describe.
- What is your outlook on the Irish data centre sector out to 2030 and post-2030? What do you see as the most significant risks and opportunities for your business in relation to meeting your digital needs?

Academics:

- Plausibility of capacity growth trajectories: Are the demand-side assumptions (e.g. AI, cloud, edge computing) realistic?
- How do you see the DC landscape evolving over the next 10-15 years?
- Constraints: Any views on capacity constraints (grid, water, land etc.)
- Multiplier effects: Are our assumptions about indirect and induced impacts in line with academic thinking?
- Labour market effects: How should we think about job creation vs displacement, especially in construction and operations?
- Regional distribution: Are we capturing the spatial economic effects accurately (e.g. Dublin vs Midlands vs West)?
- Climate and energy policy alignment: How do our scenarios align with Ireland's budgets and renewable targets?
- Land use and planning: Are there academic perspectives on how data centres interact with long-term spatial planning?
- Comparative international policy: Are there lessons from other countries that we should be aware of?

Surveys (1/4)

KPMG developed three surveys for data centre operators, developers, suppliers and customers in Ireland to inform our analysis and insights.

Overview of the survey process:

- KPMG developed three surveys: 1). Operators, 2). Customers, 3). Suppliers.
- The survey results provided both a range of qualitative and quantitative insights on aspects such as operations, employment, services provided, sectors, data centre site specific details (MW capacity etc)
- Below are the questionnaires for each survey type.

Survey 1 – Data centre operators:

- What best describes your Irish data centre operations (hyperscale, colocation retail, colocation wholesale, telco, private enterprise etc.)
- How many people (FTE - Full-Time Equivalent) are currently employed through your data centre operations (security, facilities, engineering, IT customer support, contingent workers, etc.)?
- Approximately how many training hours annually are provided to your employees in your data centre operations?
- How many apprentices / interns do you employ annually through your data centre operations?
- If you have additional non-data centre operations in RoI, how many people (FTE) are currently employed through your Ireland-based data centre operations?
- Please estimate the proportion of your Ireland-based data centre operations across the following categories and roles (*A range of options were provided*)
- Please provide a breakdown of all the services provided by your Irish data centre facilities located in RoI by IT workload.
- To assist with our economic modelling, please supply estimates of OPEX, CAPEX and employment (FTE) in your Irish data centre(s) (where applicable to you)
- Considering your current data centre operations, would you be open to exploring opportunities for development outside the Greater Dublin Area (including Meath, Kildare and Wicklow) to Cork, Limerick, Galway etc.?
- If you are not considering development opportunities outside the Greater Dublin Area, please provide information influencing this decision.
- Please estimate the proportion of services delivered by your data centres in RoI to customers in the following locations (Republic of Ireland, Rest of EU, UK, USA, Rest of World).
- Which of the following sustainability and utility stability actions are currently in place or planned across your Irish data centre facilities located in RoI? (*A range of options were provided*)
- Across all of your current data centres in RoI, are you looking at retrofitting any of them to increase their IT workload?
- What is your company's ambition to achieve net-zero or at least -neutral across your Irish data centre operations that are located in RoI? What timeframe are you aiming to achieve this in, and what technologies are you considering utilising to support this transition?
- Select the top five sectors / sub-sectors / strategic functions in RoI that you feel have the highest dependency on data centres?
- In your view what FDI sectors are based in RoI due to its data centre ecosystem and the capacity to support new data centre development?
- How important is proximity to data centres for the FDI sectors identified in part (a)?
- In your opinion, which sectors / sub-sectors / strategic functions of the Irish economy operate independently of the presence or geographic location of data centres?
- Outlook, challenges and opportunities post-2030.
- Any other comments.

Surveys (2/4)

KPMG developed three surveys for data centre operators, developers, suppliers and customers in Ireland to inform our analysis and insights.

Overview of the survey process:

- KPMG developed three surveys: 1). Operators, 2). Customers, 3). Suppliers.
- The survey results provided both a range of qualitative and quantitative insights on aspects such as operations, employment, services provided, sectors, data centre site specific details (MW capacity etc)
- Below are the questionnaires for each survey type.

Survey 2 – Data centre customers:

- In which of the following sectors / sub-sectors / strategic functions does your company primarily operate in RoI? (*A range of options were provided*).
- Please rank (1-5) the top 5 sectors / sub-sectors / strategic functions for each item (this can be outside of the sectors you operate in).
- What share of your organisation's core operations in RoI relies on access to digital infrastructure / cloud based systems?
- Which five functions within your organisation most heavily depend on digital infrastructure / cloud-based systems to support day-to-day operations in RoI? Please rank them in order of reliance. (*A range of options were provided*).
- To what extent does digital infrastructure / cloud based systems support the productivity / efficiency of operations within your organisation in RoI?
- On average, what percentage split of your operations are serviced by the following data centre types in RoI? (estimated) – Hyperscaler, Retail colocator, wholesale colocator, private/enterprise, other (please specify).
- On a scale of 1 to 10, how important are (i) latency and (ii) digital sovereignty to your company's operations in RoI?
- How have data centres in RoI supported your company's operations - both domestically and internationally (e.g. through expanded services)?
- Based on your response to part (b), do you anticipate an increased reliance on data centres located in RoI to support your operations in the following periods: (i) Over the next 5 years (ii) 2030-2040.
- On average what percentage of your company's Irish revenue is generated from operations that are supported by data centres in: (i) RoI (ii) Regions outside RoI (i.e. Rest of EU, the UK, USA).
- Based on the sectors, sub-sectors, or strategic functions identified in Q1a, what proportion of your RoI operations do you estimate require data centres to be located within the following distances? (10-50km), (51-200km), (201-500km), (500km+).
- What are the top three advantages of hosting your operations in data centres in RoI, compared to those situated in other geographies?
- What are the top three disadvantages of hosting your operations in data centres in RoI, compared to those situated in other geographies?
- Please select the top three criteria you consider when deciding to locate your operations in RoI compared to other geographies.
- Do you expect your company's data centre-supported operations to evolve over the next 5 years in (i) RoI and (ii) outside RoI?
- If you anticipate a change in the level of data centre-supported operations, by how much do you expect your revenue to decrease in (i) RoI and (ii) Outside RoI.
- Do you expect your company's data centre-supported operations to evolve over the 2030-2040 period in (i) RoI and (ii) outside RoI?
- If you anticipate a change in the scale of data centre-supported operations, what is your expected impact on annual revenue (as a percentage) in: (i) The Republic of Ireland (RoI) (ii) Outside the Republic of Ireland.

Surveys (3/4)

KPMG developed three surveys for data centre operators, developers, suppliers and customers in Ireland to inform our analysis and insights.

Overview of the survey process:

- KPMG developed three surveys: 1). Operators, 2). Customers, 3). Suppliers.
- The survey results provided both a range of qualitative and quantitative insights on aspects such as operations, employment, services provided, sectors, data centre site specific details (MW capacity etc)
- Below are the questionnaires for each survey type.

Survey 2 – Data centre customers (continued):

- Do you expect your company's data centre-supported operations to evolve over the 2030-2040 period in (i) RoI and (ii) outside RoI?
- If you anticipate a change in the scale of data centre-supported operations, what is your expected impact on annual revenue (as a percentage) in: (i) The Republic of Ireland (RoI) (ii) Outside the Republic of Ireland.
- How are global demand trends for technologies such as AI workloads influencing client demand and therefore, your operational reliance on data centres located in (i) RoI and (ii) outside RoI?
- Building on your response to the previous question, how well positioned is RoI's data centre landscape to support your operations compared to other countries/regions outside of RoI?
- Do you anticipate a shift in your reliance on different data centre types in RoI, for example, increased use of Edge data centres relative to traditional colocation facilities over the following periods: (i) Over the next 5 years. (ii) 2030-2040.
- Which of the following factors, if any, are currently limiting your company's ability to expand services and collaboration with data centres in the RoI – shortage of skilled labour, delays in planning, power supply constraints, grid connection delays (for data centres requiring access), other (please specify).
- How would you describe the outlook for the data centre sector in RoI in the following periods: (i) Over the next 5 years (ii) Between 2030-2040.
- How does the outlook for Ireland's data centre sector compare with other EU countries?
- On a scale of 1 to 10, how important is access to data centres for your decision to be located in RoI and invest further in your RoI operations?

Survey 3 – Data centre suppliers:

- Which of the following best describes your company's primary activities in Republic of Ireland (RoI)? (*A range of options were provided*)
- What percentage of your RoI employees are involved to data centre-related services?
- Has your company hired any new employees in the past 12 months in RoI? If yes, on average, what proportion of FTE time is allocated to data centres related services ?
- What are the most critical technical or operational skills your business relies on when delivering work for data centre clients in RoI? (*A range of options were provided*)
- In the past 2 years, has your company undertaken any training or upskilling initiatives specifically aimed at improving your capacity to serve data centre clients? If yes, please describe the focus of this training.
- Approximately what is your company's total revenue?
- Approximately what percentage of your company's revenue can be directly attributed to clients or projects within the data centre sector?
- If applicable to you, during the construction period of a data centre project, on average what percentage of operations is carried out by sub-contractors?
- What percentage of your data centre-related revenue from operations based in RoI is attributable to customers or markets in the following regions – Republic of Ireland, Rest of EU, UK, USA, Rest of World.

Surveys (4/4)

KPMG developed three surveys for data centre operators, developers, suppliers and customers in Ireland to inform our analysis and insights.

Overview of the survey process:

- KPMG developed three surveys: 1). Operators, 2). Customers, 3). Suppliers.
- The survey results provided both a range of qualitative and quantitative insights on aspects such as operations, employment, services provided, sectors, data centre site specific details (MW capacity etc)
- Below are the questionnaires for each survey type.

Survey 3 – Data centre suppliers (continued):

- How do you anticipate the annual percentage change in your company’s revenue within the data centre sector in RoI during the following timeframes? (i) Over the next 5 years (ii) 2030-2040
- How do you anticipate the annual percentage change in your company’s revenue within the data centre sector outside of RoI during the following timeframes? (i) Over the next 5 years (ii) 2030-2040
- Which of the following factors (if any) are currently limiting your company's ability to expand in the data centre sector in RoI?
- Has your company made any capital investments in the past 3 years specifically to support data centre-related work (e.g. equipment, facilities, R&D)? If Yes, please briefly describe the nature of these investments
- How would you describe the overall outlook for the data centre sector in RoI in the following periods: (i) Over the next 5 years (ii) 2030-2040
- How does the outlook for RoI's data centre sector compare with other EU countries in periods (i) and (ii) from the previous question?
- What do you see as the three most significant opportunities for your business in relation to the data centre sector in RoI?
- What do you see as the three most significant risks for your business in relation to the data centre sector in RoI?

KPMG SME network

KPMG drew on its internal network of SMEs across sectors such as energy, infrastructure, and data centres to provide additional information.

Overview of the consultation process with SME network:

- KPMG engaged its internal subject matter expert (SME) network spanning six key sectors and strategic services: (i) Data Centres, (ii) Energy and Renewables, (iii) Infrastructure, (iv) ICT, (v) Government Services, and (vi) Transport.
- Their input helped in refining the assumptions underpinning our impact modelling and analysis of renewable energy access. In addition, the insights informed messaging throughout the report, including key takeaways presented in Chapters 2 to 5.

KPMG maintained continuous engagement with its internal SME network throughout the project. This collaboration spanned six key thematic areas, each supported by relevant resource:

- **Grid flexibility**
- **Data centre supply chain** (Upstream vs Downstream)
- **Cost input assumptions** for modelling (e.g., CAPEX per MW, OPEX per MW)
- **impacts** (2025–2030 and post-2030)
- **Industry and sector challenges and opportunities**
- **Data centre definitions** and characteristics by type (Hyperscale, Small-scale wholesale colocation, Retail colocation, Enterprise)

SME input was instrumental in:

- Refining initial assumptions and messaging
- Validating new results and findings
- Ensuring alignment of key insights across the report

This ongoing engagement helped strengthen the robustness of our modelling and informed key messages throughout the report.

Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model

Appendix E: Detailed results of upstream economic impacts

Detailed economic impacts 2010-2030 (1/8)

Economic impacts associated with construction and operation of data centres in Ireland.

Total CAPEX and OPEX (2010-2020)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Output (000's)	**657**	**1,745**	**1,192**	**2,351**	**1,498**	**3,059**	**1,894**	**2,695**	**4,533**	**5,255**	**7,881**
Direct	419	1,107	759	1,493	956	1,944	1,211	1,719	2,882	3,343	5,007
Indirect	166	422	300	574	384	752	493	684	1,120	1,304	1,934
Induced	72	216	133	284	158	364	190	293	531	608	940
GVA (000s)	**260**	**721**	**473**	**961**	**583**	**1,243**	**725**	**1,060**	**1,832**	**2,114**	**3,207**
Direct	148	411	270	549	332	710	413	604	1,045	1,206	1,830
Indirect	67	176	121	238	153	310	195	275	460	533	798
Induced	45	133	82	175	97	224	117	180	327	375	579
Jobs	**2,478**	**7,370**	**4,521**	**9,665**	**5,368**	**12,347**	**6,473**	**9,958**	**18,038**	**20,642**	**31,890**
Direct	1,252	3,852	2,283	5,007	2,651	6,350	3,146	4,977	9,238	10,520	16,403
Indirect	661	1,830	1,202	2,442	1,484	3,159	1,845	2,696	4,656	5,374	8,148
Induced	566	1,689	1,035	2,217	1,233	2,839	1,482	2,285	4,144	4,747	7,338
Wages (€m)	**113**	**324**	**205**	**428**	**247**	**548**	**303**	**454**	**804**	**923**	**1,413**
Direct	63	182	114	239	136	305	167	252	448	513	787
Indirect	31	86	57	115	70	149	87	128	220	254	385
Induced	19	56	34	73	41	93	49	75	136	156	241

Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model.

Detailed economic impacts 2010-2030 (2/8)

Economic impacts associated with construction and operation of data centres in Ireland.

Total CAPEX and OPEX (2020-2030)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Output (000s)	**7,881**	**6,105**	**6,510**	**4,946**	**5,891**	**6,741**	**4,671**	**4,793**	**4,918**	**5,047**	**4,065**
Direct	5,007	3,893	4,155	3,172	3,771	4,309	3,006	3,084	3,165	3,248	2,629
Indirect	1,934	1,548	1,663	1,316	1,544	1,744	1,276	1,310	1,344	1,379	1,155
Induced	940	664	693	458	575	688	389	399	409	420	281
GVA (000s)	**3,207**	**2,402**	**2,542**	**1,844**	**2,234**	**2,595**	**1,686**	**1,730**	**1,775**	**1,821**	**1,394**
Direct	1,830	1,370	1,449	1,050	1,273	1,479	959	984	1,010	1,036	792
Indirect	798	623	666	512	607	692	487	500	513	526	429
Induced	579	409	427	282	354	424	239	246	252	259	173
Jobs	**31,890**	**22,466**	**23,488**	**15,514**	**19,472**	**23,331**	**13,130**	**13,474**	**13,826**	**14,188**	**9,462**
Direct	16,403	11,176	11,613	7,239	9,294	11,352	5,794	5,945	6,101	6,260	3,701
Indirect	8,148	6,110	6,468	4,700	5,690	6,606	4,302	4,414	4,529	4,648	3,565
Induced	7,338	5,180	5,407	3,575	4,488	5,373	3,035	3,115	3,196	3,280	2,196
Wages (€m)	**1,413**	**1,022**	**1,076**	**743**	**917**	**1,083**	**652**	**669**	**687**	**705**	**504**
Direct	787	562	592	403	499	593	348	357	366	376	262
Indirect	385	289	306	223	270	313	205	210	215	221	170
Induced	241	170	178	117	148	177	100	102	105	108	72

Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model.

Detailed economic impacts 2010-2030 (3/8)

Economic impacts associated with construction and operation of data centres in Ireland.

Total CAPEX (2010-2020)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Output (000s)	**374**	**1,324**	**695**	**1,681**	**753**	**2,106**	**815**	**1,471**	**3,011**	**3,388**	**5,470**
Direct	236	835	438	1,059	475	1,327	514	927	1,898	2,135	3,447
Indirect	85	303	159	384	172	481	186	336	688	774	1,249
Induced	53	187	98	238	106	298	115	208	426	479	773
GVA (000s)	**163**	**576**	**302**	**731**	**328**	**916**	**355**	**640**	**1,310**	**1,474**	**2,380**
Direct	93	329	173	418	187	524	203	366	749	843	1,361
Indirect	37	132	69	167	75	209	81	146	299	336	543
Induced	33	115	61	146	66	183	71	128	262	295	476
Jobs	**1,799**	**6,375**	**3,345**	**8,091**	**3,625**	**10,135**	**3,924**	**7,081**	**14,491**	**16,308**	**26,326**
Direct	974	3,452	1,812	4,382	1,963	5,489	2,125	3,835	7,848	8,832	14,257
Indirect	412	1,461	767	1,854	831	2,323	899	1,623	3,321	3,737	6,033
Induced	412	1,461	767	1,855	831	2,323	900	1,623	3,322	3,739	6,035
Wages (€m)	**76**	**271**	**142**	**344**	**154**	**430**	**167**	**301**	**615**	**692**	**1,118**
Direct	43	154	81	195	87	244	95	171	350	393	635
Indirect	19	69	36	87	39	110	42	77	157	176	284
Induced	14	48	25	61	27	76	30	53	109	123	198

Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model.

Detailed economic impacts 2010-2030 (4/8)

Economic impacts associated with construction and operation of data centres in Ireland.

Total CAPEX (2020-2030)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Output (000s)	**5,470**	**3,342**	**3,355**	**1,603**	**2,318**	**3,074**	**909**	**932**	**957**	**982**	**-**
Direct	3,447	2,106	2,115	1,010	1,461	1,938	573	588	603	619	-
Indirect	1,249	763	766	366	529	702	208	213	219	224	-
Induced	773	472	474	226	328	435	128	132	135	139	-
GVA (000s)	**2,380**	**1,454**	**1,460**	**697**	**1,008**	**1,338**	**395**	**406**	**416**	**427**	**-**
Direct	1,361	831	835	399	577	765	226	232	238	244	-
Indirect	543	332	333	159	230	305	90	93	95	98	-
Induced	476	291	292	140	202	268	79	81	83	85	-
Jobs	**26,326**	**16,084**	**16,150**	**7,714**	**11,155**	**14,798**	**4,374**	**4,488**	**4,605**	**4,726**	**-**
Direct	14,257	8,710	8,746	4,177	6,041	8,014	2,369	2,431	2,494	2,559	-
Indirect	6,033	3,686	3,701	1,768	2,557	3,391	1,002	1,029	1,055	1,083	-
Induced	6,035	3,687	3,702	1,768	2,557	3,392	1,003	1,029	1,056	1,083	-
Wages (€m)	**1,118**	**683**	**686**	**328**	**474**	**628**	**186**	**191**	**196**	**201**	**-**
Direct	635	388	390	186	269	357	105	108	111	114	-
Indirect	284	174	175	83	121	160	47	48	50	51	-
Induced	198	121	122	58	84	112	33	34	35	36	-

Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model.

Detailed economic impacts 2010-2030 (5/8)

Economic impacts associated with construction and operation of data centres in Ireland.

Total OPEX (2010-2020)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Output (000s)	**284**	**421**	**497**	**670**	**745**	**953**	**1,078**	**1,224**	**1,522**	**1,867**	**2,412**
Direct	183	272	321	433	482	617	697	792	984	1,207	1,560
Indirect	81	120	141	190	212	271	306	348	432	530	685
Induced	20	29	34	46	52	66	75	85	105	129	167
GVA (000s)	**97**	**144**	**170**	**230**	**255**	**327**	**370**	**420**	**522**	**640**	**827**
Direct	55	82	97	131	145	186	210	238	296	364	470
Indirect	30	44	52	71	79	101	114	129	161	197	254
Induced	12	18	21	29	32	41	46	52	65	80	103
Jobs	**680**	**996**	**1,176**	**1,575**	**1,743**	**2,212**	**2,550**	**2,877**	**3,547**	**4,334**	**5,564**
Direct	278	400	472	625	688	861	1,021	1,142	1,390	1,688	2,146
Indirect	249	369	435	588	653	836	946	1,073	1,335	1,637	2,115
Induced	153	227	268	362	402	515	583	661	822	1,008	1,303
Wages (€m)	**37**	**53**	**63**	**84**	**93**	**118**	**136**	**154**	**189**	**231**	**295**
Direct	20	28	33	44	49	61	72	81	98	119	152
Indirect	12	18	21	28	31	40	45	51	64	78	101
Induced	5	7	9	12	13	17	19	22	27	33	43

Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model.

Detailed economic impacts 2010-2030 (6/8)

Economic impacts associated with construction and operation of data centres in Ireland.

Total OPEX (2020-2030)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Output (000s)	**2,412**	**2,764**	**3,155**	**3,344**	**3,573**	**3,666**	**3,762**	**3,861**	**3,962**	**4,065**	**4,065**
Direct	1,560	1,787	2,040	2,162	2,311	2,371	2,433	2,497	2,562	2,629	2,629
Indirect	685	785	896	950	1,015	1,042	1,069	1,097	1,125	1,155	1,155
Induced	167	191	218	231	247	254	260	267	274	281	281
GVA (000s)	**827**	**948**	**1,082**	**1,147**	**1,225**	**1,257**	**1,290**	**1,324**	**1,358**	**1,394**	**1,394**
Direct	470	538	615	651	696	714	733	752	772	792	792
Indirect	254	292	333	353	377	387	397	407	418	429	429
Induced	103	118	134	143	152	156	160	165	169	173	173
Jobs	**5,564**	**6,383**	**7,338**	**7,800**	**8,316**	**8,534**	**8,757**	**8,986**	**9,221**	**9,462**	**9,462**
Direct	2,146	2,466	2,867	3,062	3,253	3,338	3,425	3,515	3,607	3,701	3,701
Indirect	2,115	2,424	2,767	2,932	3,133	3,215	3,299	3,385	3,474	3,565	3,565
Induced	1,303	1,493	1,704	1,806	1,930	1,981	2,033	2,086	2,140	2,196	2,196
Wages (€m)	**295**	**339**	**391**	**416**	**443**	**454**	**466**	**478**	**491**	**504**	**504**
Direct	152	174	203	217	230	236	242	249	255	262	262
Indirect	101	116	132	140	149	153	157	161	166	170	170
Induced	43	49	56	59	63	65	67	69	70	72	72

Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model.

Detailed economic impacts 2010-2030 (7/8)

Estimated employment related tax revenue generated by data centre activity (capex and opex)

Total CAPEX and OPEX (2010-2020)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Employment related tax revenue €m (Capex)											
Employee tax	8.1	28.6	15.0	36.3	16.3	45.5	17.6	31.8	65.1	73.3	118.3
USC	1.5	5.2	2.7	6.6	3.0	8.3	3.2	5.8	11.9	13.4	21.6
PRSI	3.1	11.1	5.8	14.1	6.3	17.6	6.8	12.3	25.2	28.4	45.8
Employer tax	8.4	29.8	15.6	37.8	16.9	47.3	18.3	33.1	67.7	76.2	123.0
Total	**21.1**	**74.7**	**39.2**	**94.9**	**42.5**	**118.8**	**46.0**	**83.0**	**169.9**	**191.2**	**308.6**
Employment related tax revenue €m (Opex)											
Employee tax	5.9	8.6	10.1	13.6	15.0	19.1	22.0	24.8	30.6	37.4	48.0
USC	0.8	1.1	1.4	1.8	2.0	2.6	2.9	3.3	4.1	5.0	6.4
PRSI	1.5	2.2	2.6	3.5	3.8	4.9	5.6	6.3	7.8	9.5	12.2
Employer tax	4.0	5.9	7.0	9.3	10.3	13.1	15.1	17.0	21.0	25.6	32.9
Total	**12.2**	**17.8**	**21.0**	**28.2**	**31.2**	**39.6**	**45.6**	**51.5**	**63.5**	**77.6**	**99.6**

Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model.

Detailed economic impacts 2010-2030 (8/8)

Estimated employment related tax revenue generated by data centre activity (capex and opex)

Total CAPEX and OPEX (2020-2030)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Employment related tax revenue €m (Capex)											
Employee tax	118.3	72.2	72.5	34.6	50.1	66.5	19.6	20.2	20.7	21.2	-
USC	21.6	13.2	13.2	6.3	9.1	12.1	3.6	3.7	3.8	3.9	-
PRSI	45.8	28.0	28.1	13.4	19.4	25.8	7.6	7.8	8.0	8.2	-
Employer tax	123.0	75.1	75.4	36.0	52.1	69.1	20.4	21.0	21.5	22.1	-
Total	**308.6**	**188.6**	**189.3**	**90.4**	**130.8**	**173.5**	**51.3**	**52.6**	**54.0**	**55.4**	**-**
Employment related tax revenue €m (Opex)											
Employee tax	48.0	55.1	63.3	67.3	71.8	73.7	75.6	77.6	79.6	81.7	81.7
USC	6.4	7.4	8.5	9.0	9.6	9.8	10.1	10.4	10.6	10.9	10.9
PRSI	12.2	14.0	16.1	17.1	18.3	18.7	19.2	19.7	20.3	20.8	20.8
Employer tax	32.9	37.7	43.4	46.1	49.2	50.5	51.8	53.1	54.5	56.0	56.0
Total	**99.6**	**114.2**	**131.3**	**139.6**	**148.8**	**152.7**	**156.7**	**160.8**	**165.0**	**169.3**	**169.3**

Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model.

Detailed economic impacts 2030-2040 (1/4)

Economic impacts associated with construction and operation of data centres in Ireland.

Total CAPEX and OPEX (2030-2040) - Baseline

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Output (000s)											
Baseline	4,065	4,065	4,065	4,065	4,065	4,065	4,065	4,065	4,065	4,065	4,065
Steady-state growth	4,065	4,193	4,325	4,462	4,602	4,747	4,897	5,051	5,210	5,374	5,543
Flap	4,065	4,390	4,742	5,121	5,531	5,973	6,451	6,967	7,525	8,126	8,777
GVA (000s)											
Baseline	1,394	1,394	1,394	1,394	1,394	1,394	1,394	1,394	1,394	1,394	1,394
Steady-state growth	1,394	1,966	2,028	2,092	2,158	2,226	2,296	2,368	2,443	2,520	2,599
Flap	1,394	2,847	3,074	3,320	3,586	3,873	4,183	4,517	4,879	5,269	5,691
Jobs											
Baseline	9,462	9,462	9,462	9,462	9,462	9,462	9,462	9,462	9,462	9,462	9,462
Steady-state growth	9,462	15,601	16,093	16,600	17,123	17,662	18,218	18,792	19,384	19,995	20,625
Flap	9,462	25,054	27,058	29,223	31,561	34,086	36,813	39,758	42,938	46,373	50,083
Wages (€m)											
Baseline	504	504	504	504	504	504	504	504	504	504	504
Steady-state growth	504	768	792	817	843	869	897	925	954	984	1,015
Flap	504	1,174	1,268	1,369	1,479	1,597	1,725	1,863	2,012	2,173	2,347

Note: **[1]** Totals reflect the sum of direct, indirect and induced impacts.
Source: [a] Omdia [b] Datacenters.com [c] Data centre operator websites [d] KPMG input-output model.

Detailed economic impacts 2030-2040 (2/4)

Economic impacts associated with construction and operation of data centres in Ireland.

Total CAPEX and OPEX (2030-2040) – Hyperscale +5%

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Output (000s)											
Baseline	3,961	3,961	3,961	3,961	3,961	3,961	3,961	3,961	3,961	3,961	3,961
Steady-state growth	3,961	5,300	5,467	5,639	5,816	6,000	6,189	6,384	6,585	6,792	7,006
Flap	3,961	7,361	7,950	8,586	9,273	10,015	10,816	11,681	12,616	13,625	14,715
GVA (000s)											
Baseline	1,358	1,358	1,358	1,358	1,358	1,358	1,358	1,358	1,358	1,358	1,358
Steady-state growth	1,358	1,929	1,990	2,053	2,117	2,184	2,253	2,324	2,397	2,473	2,550
Flap	1,358	2,808	3,033	3,276	3,538	3,821	4,127	4,457	4,813	5,198	5,614
Jobs											
Baseline	9,094	9,094	9,094	9,094	9,094	9,094	9,094	9,094	9,094	9,094	9,094
Steady-state growth	9,094	15,224	15,703	16,198	16,708	17,234	17,777	18,337	18,915	19,511	20,125
Flap	9,094	24,661	26,634	28,765	31,066	33,552	36,236	39,135	42,265	45,646	49,298
Wages (€m)											
Baseline	482	482	482	482	482	482	482	482	482	482	482
Steady-state growth	482	745	769	793	818	844	870	898	926	955	985
Flap	482	1,151	1,243	1,342	1,450	1,566	1,691	1,826	1,972	2,130	2,300

Note: **[1]** Totals reflect the sum of direct, indirect and induced impacts.
Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model.

Detailed economic impacts 2030-2040 (3/4)

Economic impacts associated with construction and operation of data centres in Ireland.

Total CAPEX and OPEX (2030-2040) – Hyperscale -5%

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Output (000s)											
Baseline	4,172	4,172	4,172	4,172	4,172	4,172	4,172	4,172	4,172	4,172	4,172
Steady-state growth	4,172	5,517	5,691	5,870	6,055	6,246	6,442	6,645	6,855	7,070	7,293
Flap	4,172	7,589	8,196	8,852	9,560	10,325	11,151	12,043	13,007	14,047	15,171
GVA (000s)											
Baseline	1,431	1,431	1,431	1,431	1,431	1,431	1,431	1,431	1,431	1,431	1,431
Steady-state growth	1,431	2,004	2,067	2,132	2,199	2,268	2,340	2,413	2,489	2,568	2,649
Flap	1,431	2,887	3,118	3,367	3,636	3,927	4,242	4,581	4,947	5,343	5,771
Jobs											
Baseline	9,839	9,839	9,839	9,839	9,839	9,839	9,839	9,839	9,839	9,839	9,839
Steady-state growth	9,839	15,989	16,492	17,012	17,548	18,100	18,671	19,259	19,865	20,491	21,136
Flap	9,839	25,466	27,504	29,704	32,080	34,647	37,419	40,412	43,645	47,137	50,907
Wages (€m)											
Baseline	526	526	526	526	526	526	526	526	526	526	526
Steady-state growth	526	791	816	841	868	895	923	952	982	1,013	1,045
Flap	526	1,198	1,294	1,398	1,510	1,630	1,761	1,902	2,054	2,218	2,396

Note: **[1]** Totals reflect the sum of direct, indirect and induced impacts.
Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model.

Detailed economic impacts 2030-2040 (4/4)

Economic impacts associated with construction and operation of data centres in Ireland.

Tax revenue by growth scenario and hyperscale share

€m	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Baseline											
Baseline	169.4	169.4	169.4	169.4	169.4	169.4	169.4	169.4	169.4	169.4	169.4
Steady-state growth	169.4	243.0	250.7	258.6	266.7	275.1	283.8	292.8	302.0	311.5	321.3
Flap	169.4	356.5	385.0	415.8	449.1	485.0	523.8	565.7	611.0	659.8	712.6
Hyperscale +5%											
Baseline	162.8	162.8	162.8	162.8	162.8	162.8	162.8	162.8	162.8	162.8	162.8
Steady-state growth	162.8	236.3	243.7	251.4	259.3	267.5	275.9	284.6	293.6	302.8	312.3
Flap	162.8	349.4	377.4	407.6	440.2	475.4	513.4	554.5	598.9	646.8	698.5
Hyperscale -5%											
Baseline	176.1	176.1	176.1	176.1	176.1	176.1	176.1	176.1	176.1	176.1	176.1
Steady-state growth	176.1	250.1	258.0	266.1	274.5	283.1	292.0	301.2	310.7	320.5	330.6
Flap	176.1	364.1	393.3	424.7	458.7	495.4	535.1	577.9	624.1	674.0	727.9

Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model **[e]** RoI employment tax calculator

Detailed economic impacts (2024)

Economic impacts associated with operation of data centres in Ireland. Hyperscale and non-hyperscale.

	Output	GVA	Jobs	Wages	Employment related tax
Headline (Hyperscale + Non-Hyperscale)					
Direct	2,310.7	696.0	3,253	230.0	58.2
Indirect	1,015.1	376.9	3,133	149.4	56.1
Induced	247.2	152.3	1,930	63.4	34.5
Total	**3,573.0**	**1,225.2**	**8,316**	**442.8**	**148.8**
Hyperscale					
Direct	1,907.8	574.6	2,453	173.5	43.9
Indirect	838.1	311.2	2,587	123.3	46.3
Induced	204.1	125.8	1,594	52.4	28.6
Total	**2,950.0**	**1,011.6**	**6,633**	**349.2**	**118.8**
Non-Hyperscale					
Direct	402.9	121.3	800	56.6	14.3
Indirect	177.0	65.7	546	26.0	9.8
Induced	43.1	26.6	337	11.1	6.0
Total	**623.0**	**213.6**	**1,683**	**93.7**	**30.1**

Source: **[a]** Omdia **[b]** Datacenters.com **[c]** Data centre operator websites **[d]** KPMG input-output model [e] RoI employment tax calculator

Appendix F: Location flexibility of data centres

Location flexibility of data centres

Non-hyperscale data centres require proximity and latency to support critical operations.

1. Factors influencing data centre siting in Ireland

There are a range of factors that influence whether customers require that their data centres needs be met by data centres located in Ireland, or where data centres operators prefer that their data centres locate in Ireland.

1.1 Proximity and latency

Proximity (how close a data centre is) and latency (how fast data travels) influence where both non-hyperscale and hyperscale data centres are located.

Non-hyperscale data centres need to be located in Ireland to meet the following proximity and latency related requirements.

- Physical access (proximity of customer to data centre): data centre customers [1] often need to visit the data centre for equipment installation, audits or servicing. This usually requires a location within 0–30 km for regular visits or up to ~50 km for occasional access.
- System-to-system latency (proximity of data centres to each other): some systems need two or more data centres to be very close together: 0–10 km → under 1 ms latency; 10–30 km → ~1–5 ms latency; up to ~50 km → semi-synchronous. These system to system latencies are required for synchronous databases [2], active-active systems [3], telecom cores [4], small and specialized AI/GPU clusters[5] and real-time analytics.
- User proximity (how close users are to the data centre): Some Irish services only work properly if the data centre is close enough to the end-user to give very fast response times. The distance matters because the further the data has to travel, the slower and less predictable the response becomes. For example:
    - Financial services: the end-user needs to be within 0–30 km of the data centre to achieve a response time of about 1–5 milliseconds, with some steps needing under 1–2 ms. This is because payment and trading systems must respond almost instantly.
    - Telecom systems (5G, mobile calls, voice): the end-user needs to be within 0–50 km of the data centre to achieve a low ms response time because calls and mobile data break if the delay is too long.
    - Emergency services: the end-user needs to be within 0–60 km of the data centre to achieve a predictable low ms response time because life-critical systems must react quickly and reliably.

Note: **[1]** The customer refers to the paying client of the data centre provider, whereas the end-user is the final consumer of the service delivered via the data centre infrastructure. In some instances the customer is the end-user. **[2]** These are databases that must stay perfectly in sync with each other at the same time. When data is written in one database, it must appear in the second database immediately. **[3]** Two or more systems running the same service at the same time, sharing the work. If one system fails, the other keeps running with no interruption. They need fast connections between them, so they stay aligned. **[4]** These are the central brain systems of mobile and phone networks (4G, 5G, voice calls). They handle calls, messages, mobile internet, and switching users between masts. They need very fast, predictable connections to work properly. **[5]** These are groups of powerful computers (using GPUs) working together to process large amounts of data or run AI models. They need fast communication between machines. Only small or specialized AI/GPUs typically run in non-hyperscale data centres.

Location flexibility of data centres

Domestic data centres underpin compliance, resilience, and sovereignty for key sectors.

Edge data centres [1]: these type of non-hyperscale data centres need to sit very close to where data is created and support IoT, robotics, automation and smart cities. Edge data centres work very fast (sub ms latency) because they are close to end-users. They also keep things running locally if the wider network has problems. They support main data centres, not replace them.

Hyperscale data centres – proximity and latency requirements are not factors that require the location of Hyperscale data centres in Ireland

- Customers cannot enter hyperscale buildings; latency-critical processing happens inside the data centre campus at microsecond to low-millisecond speeds.
- Hyperscale workloads are designed to run regionally or globally, not within metro-level distance constraints. When local proximity is needed for latency sensitive workloads, hyperscale providers use edge services.
- Hyperscale data centres can serve Ireland effectively even if located elsewhere in the EU; their location is not determined by being in close proximity to the user.

1.2 Other factors

Non-hyperscale data centres:

- Regulatory, audit & compliance: financial services, health, justice and telecom sectors often require in-person audits by regulators and verification of physical security. This requires non-hyperscale data centres in Ireland where auditors can access the facility.
- Some important parts of Ireland's telecom network – such as voice/IMS systems, equipment that handles phone calls, mobile network controllers, and 5G/edge computing platforms – must be installed physically inside a data centre in Ireland. These systems also need custom cabling and very reliable fibre connections. Because hyperscale data centres do not facilitate this kind of custom installation, these systems have to be placed in non-hyperscale data centres located in Ireland.
- Legacy or specialist systems: some equipment tied to physical processes, older hardware or certified systems cannot move to cloud; they need local, hands-on hosting in non-hyperscale data centres in Ireland.
- Data sovereignty/residency: some public-sector and regulated workloads require all data, metadata, logs and sometimes hardware to stay under Irish/EU law with supervised handling and full lifecycle oversight. This requires non-hyperscale data centres located in Ireland. Hyperscalers offer EU-level controls but not full physical custody.
- Operational resilience: non-hyperscale centres located in Ireland support hands-on recovery, controlled failover across paired Irish sites and rapid local repair.

Note: **[1]** Edge data centres are smaller, geographically distributed facilities that cache, process, and store data closer to where it is generated or consumed – typically near end-users, devices, sensors, or local operations. This reduces latency (the delay in data transfer), enabling faster response times for applications, websites, IoT devices, and cloud services. Edge Data Centres complement larger core data centre facilities (other non-hyperscale data centres or hyperscale data centres) by handling time-sensitive tasks locally, while less urgent data can be sent to the associated (more distant) core data centre- so edge data centres. Edge data centres are non-hyperscale data centres in design, even though they may act as edge extensions for hyperscale data centres

Location flexibility of data centres

Hyperscale data centres locate in Ireland for scale, connectivity, and ecosystem benefits.

Hyperscale data centres:

There are no specific factors that necessitate hyperscale data centres to locate in Ireland as hyperscale data centres can serve customers in Ireland effectively even if located elsewhere in the EU - though, Irish public-sector procurements or risk postures [1] may prefer in-country hosting even if EU-region would suffice legally.

However, from a data centre operator perspective there are many reasons why operators prefer to locate their hyperscale data centres in Ireland:

- **Long-established tech cluster**: Ireland has been home to major global tech players for over two decades. This creates: a mature skills base; deep contractor and supply chain networks and a stable environment for hyperscale operators. This “ecosystem effect” makes Ireland a natural location for cloud regions.
- **Strategic connectivity to Europe and the US**: Ireland hosts major subsea fibre routes, giving hyperscale clouds strong connectivity to EU markets and trans Atlantic links to the US. This strengthens Ireland as a digital gateway.
- **Favourable regulatory and enterprise environment**: Hyperscale providers value Ireland’s: stable regulatory environment; alignment with digital economy growth; English-speaking, EU member status. These factors bolster trust and investment confidence.
- **Climate, land availability & energy pathways**: Ireland offers: cool climate (reduces cooling costs); suitable land for large campuses; grid capacity and opportunities for renewable energy integration [2] . These enable efficient hyperscale operations.
- **Ireland’s EU jurisdiction (important for customers)**: Even though EU data sovereignty requirements (GDPR) does not require data to stay in Ireland, many organisations prefer their data to stay in an EU region because it provides: EU data protection guarantees; a single, stable European legal regime; and high levels of trust. Ireland hosts the European HQ of many tech companies, and these companies can prefer that their data is located within the same country as core operations in order to make data sovereignty obligations simpler- they operate under one set of national (and EU laws) and under one regulator.

Note: **[1]** Risk position in relation to data sovereignty for example. **[2]** Initially Ireland’s energy and grid availability was one of the attracting factors for siting hyperscale data centres in Ireland. It is acknowledged that the current grid and energy security issues Ireland currently faces has impacted on meeting the full scale of hyperscale data centre demand to locate in Ireland. However, with the new Data Centre Connection Policy (published by the Commission for Regulation of Utilities in Dec 2025) and the Government’s Large User Energy Action Plan (LEAP- published in January 2025)), the LEAP and continued investments in grid infrastructure and advancements in Ireland Renewable Energy deployment, Ireland is moving forward to addressing these issues.

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