Ireland's Data Hosting Industry

2019 Q1 Report

"An Industry of Substance"

Host In Ireland

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2019 Q1 Update

May 2019

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Foreword

The data centre industry is off to a strong start in 2019 according to our latest Quarterly Report and recent announcements.

Inward investment from the data centre industry since 2009 is now expected to top €10bn by 2022 with annual investment holding firm at €1.3bn.

These are unprecedented levels of investment. To put the level of spending into context, the level of investment into data centres in Ireland is the equivalent of building the proposed Metro (€3bn) and Dart Underground (€4bn) with €3bn in change.

We know that 55% of spend in the sector was on equipment including generators and other large items of equipment such as air conditioning units, according to Mitchell McDermott. A further 20% was spent on civil, structural and architectural services, 15% was spent on mechanical, electrical and plumbing services and 10% on preliminary construction costs.

The enormity of this investment has been transformational for Ireland over the past 10 years. Over a similar period the ICT sector in Ireland has seen direct and indirect employment increase to more than 100,000 jobs. Our ability to provide the data infrastructure required by some of the largest companies in the world has meant that computer service related exports now top €69.3bn making it the largest export sector in the economy beating pharmaceuticals and the agrifood sector.

The cumulative effect continues when you account for the proximity factor of startups that spin out from the major ICT companies due to skill transfers that go on to attract venture capital funding and subsequently provide more high paying jobs for the Irish economy.

This is made possible from Ireland's positioning as Europe's "Data Isle" and our ability to continue to provide optimum hosting conditions for the world's largest ICT companies.

As Ireland's reputation grows as a centre for data centre excellence we can expect the strength of our digital exports to continue to grow alongside that of data centre services itself.

The ability to send, receive and store vast amounts of information as quickly and efficiently as possible is key to Ireland retaining its competitive advantage in the tech industry. The demand for data globally only continues to grow and investment will continue so far as that trend lasts.

Last quarter it was revealed that Dublin is now the largest market for data centres accounting for 25% of the European marketplace. This quarterly update highlights that Ireland will continue to see direct investment grow in the data centre sector which indirectly supports growth in the overall ICT sector unpinning more than 105,000 jobs.

In support of this growth we need sustainable solutions and we were delighted to see the Irish Government increase its renewable energy target to 70% in line with the recent renewable energy campaign of which Host In Ireland were apart of.

The data centre industry remains a strong renewable first advocate. There have been several good news announcements with respect to renewable energy this quarter. They include a €1.5bn investment from Statkraft to construct a series of windfarms around Ireland. However, the most significant is Amazon's decision to invest almost €200m in the construction of a windfarm off Donegal without subsidies, the first of its kind in Ireland.

The announcement sets an important precedent and highlights how serious Hyperscales are in pursuing renewable first policies.

We look forward to the second quarter with more positive announcements to come.

Garry Connolly
President & Founder - Host in Ireland

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Data Market Developments in Q1 2019

Growth of the data hosting sector continued in 2018, with investment totalling €1 billion through the year. Each incumbent operator completed a new facility or received planning permission for future developments. New entrants to the Irish market also progressed plans through planning.

There are fifty-three data centres in Ireland, with 600 MW of grid-connected power capacity. The Dublin Metro area remains the focus.

While Hyperscale remains the dominant datacentre type, with 72% of capacity, the colocation wholesale market has grown from almost zero to 13% in the past 3 years.
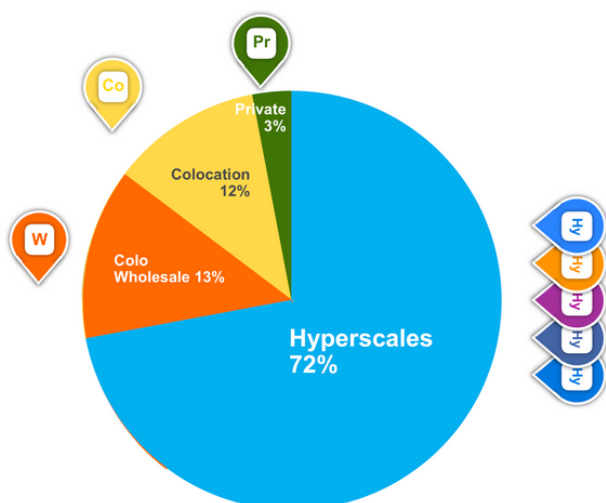

Figure 1 - Relative scale of digital hosting types in Ireland in 2019.

Hyperscale Data Centres

Facebook opened its facility in Clonee and announced further investment. **Google** announced plans for expansion in Dublin. **Microsoft** ramped up construction in Grange Castle. **Amazon Web Services** built new facilities in Clonshaugh and Tallaght and received planning approval for additional sites.

Colocation Wholesale

The trend in wholesale (or build-to-suit or single client data centres) continues. These facilities are in the 15 to 25 MW scale range.

CyrusOne announced a new campus in Grange Castle. Crag Digital (**Echelon**) received planning for a new development in Clondalkin. Their proposed Arklow facility is also at planning application stage, with a decision due in Q1 2019. The **Citywest Limited** proposed facility received planning permission in December. A new 16 MW facility entered the planning process in Clonshaugh in Q1.

Private Data Centres

This sector accounts for smaller facilities providing connectivity and technical internet services including domain registration. It can also include high performance computing and other dedicated facilities.

Colocation Data Centres

Digital Realty completed a second facility at Profile Park. **Interxion** completed its fourth Dublin facility at Grange Castle. **Equinix** received planning for its fifth Dublin Facility.

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Masterplans — Estimated — **235 MW**

Planning Applications — Currently in the Planning Process — **140 MW**

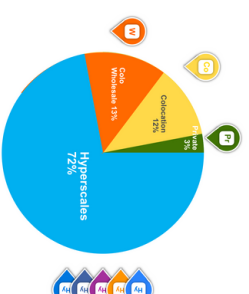**Planning Permission** — Approved — **446 MW**

Construction — Projects currently in Development — **172 MW**

Data Centre Capacity — Operational in 2019 Q1 — **600 MW** — Includes 20 MW Private

Metro Dublin Area

County Meath — Clone — Local Authority: Meath County Council — **2 Facilities**
- Operational 2019 Q1: 56 MW
- Construction: 20 MW
- Planning Permission: 36 MW
- Planning Application: 0 MW
- Masterplans: 56 MW

Dublin South West — Grange Castle / Profile Park / Dublin 22 — Local Authority: SDCC — **14 Facilities**
- Operational 2019 Q1: 214 MW
- Construction: 66 MW
- Planning Permission: 122 MW
- Planning Application: 60 MW
- Masterplans: 10 MW

Dublin South — Citywest / PenWest / Dublin 24 — Local Authority: SDCC — **9 Facilities**
- Operational 2019 Q1: 108 MW
- Construction: 30 MW
- Planning Permission: 96 MW
- Planning Application: 0 MW
- Masterplans: 0 MW

Dublin North West — Blanchardstown / Ballycoolin / Dublin 15 — Local Authority: Fingal County Council — **12 Facilities**
- Operational 2019 Q1: 107 MW
- Construction: 16 MW
- Planning Permission: 148 MW
- Planning Application: 0 MW
- Masterplans: 38 MW

Dublin North East — Clonshaugh / Dublin 17 — Local Authority: Dublin City Council — **11 Facilities**
- Operational 2019 Q1: 117 MW
- Construction: 25 MW
- Planning Permission: 25 MW
- Planning Application: 16 MW
- Masterplans: 0 MW

Map Legend: Hyperscale · Co-Location · Colocation Wholesale · Private Data centres · Edge Data centres

Map shows operational and known planned facilities. Outside in blue refer to operational facilities.

Map data ©2019 Google Terms

Ireland Hosts Commercial Data Centres of all Sizes
Fifty-Three operational data centres in Ireland by end Q1 2019 — **53**

- <1 MW: 10
- 1 MW to 10 MW: 18
- 10 MW to 20 MW: 14
- 20 MW to 40 MW: 11

Digital Hosting Q1 2019 Update

Data Centre Types
Operator business model

- Hyperscales 72%
- Colocation 12%
- Colo Wholesale 15%
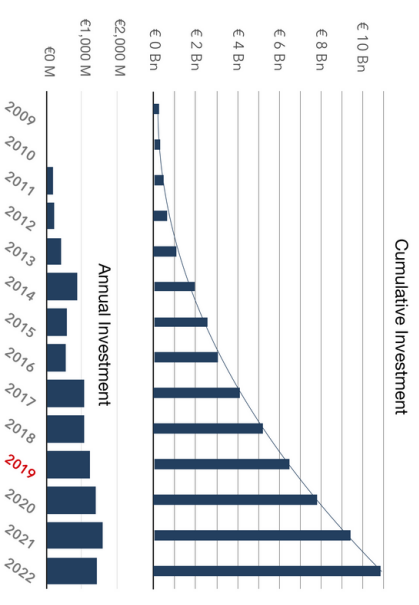- Private 3%

There were fifty-three data centre facilities in operation in Ireland in Q1, 2019. Hyperscales continued to dominate in terms of scale, with 72% of the MW capacity. Colocation wholesale trend continues.
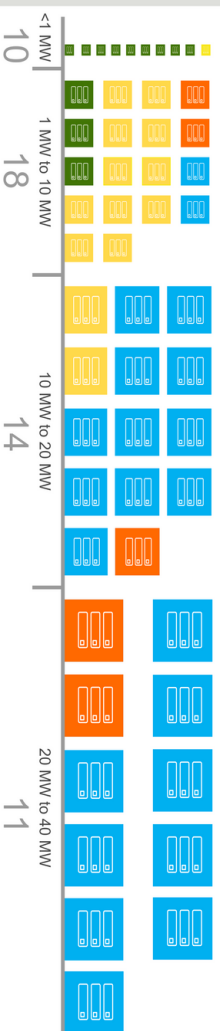
Construction Investment 2009 - 2022
Cumulative and Annual investment in data centre facilities

Cumulative Investment — Annual Investment (2009–2022)

Highlights entering 2019 — The Big Picture

16 Newly Opened Data Facilities — 16 new data halls completed since mid 2017

29 Facilities in Development — Under Construction or with approved planning

€1.3 Billion Investment — Average annual investment expected for 2019-2022

580 MW Cloud & Managed Services — Colocation, Wholesale, and Hyperscale Capacity

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About Host in Ireland

Host in Ireland is a leading global initiative aimed at highlighting the benefits of hosting digital assets in Ireland and raising awareness of Irish companies that are designing, building, maintaining and operating data centres globally.

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