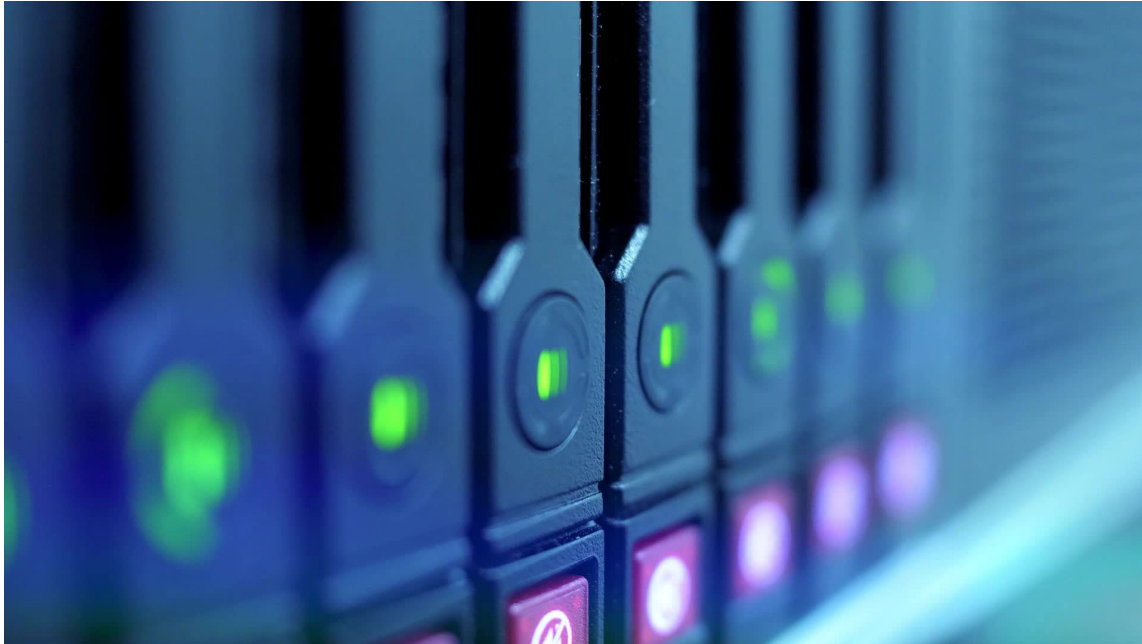

Data Centers in Romania – a developer's perspective



PORTLAND TRUST

Portland Trust has been based in Prague and operating in Central Europe since 1998. Portland Trust has offices in Prague and Bucharest and has had a joint venture with ARES Management Corporation (previously AREA) since 1999

Track Record

- Business Centers & Office Parks in Czech Republic and Romania
- Industrial and Logistics Parks in Czech Republic and Romania
- Regional Shopping Mall in Czech Republic
- First large-scale solar projects in Romania
- Data Center projects in Czech Republic and Romania

Key Figures

- >25 years experience
- 2 countries, 30 people
- >800.000 square meters developed
- overseen transactions of over 2 bln EUR in 3 markets (Cz, Ro, Sk)

PORTLAND TRUST
S.R.O.

Developing
Award Winning Properties
for 20 Years



PORTLAND TRUST

FIGURES | EUROPE DATA CENTRES | Q1 2024

Europe Data Centres

FIGURE 1: Projected European market new supply and take-up 2024 versus 2023

Year	FLAPD New Supply	FLAPD Take-up	Secondary Market New Supply	Secondary Market Take-up
2024F	387MW	440MW	273MW	274MW
2023	467MW	511MW	94MW	93MW

Source: CBRE Research. Q1 2024; Secondary market category includes Berlin, Brussels, Madrid, Milan, Munich, Oslo, Stockholm, Warsaw, Vienna, and Zurich.



Note: Arrows indicate change from same quarter in previous year. For take-up, the figure represents a comparison of Q1 2024 versus Q4 2023.

Take-up to outstrip new supply in FLAPD for third consecutive year

In Q1, take-up (111MW) exceeded the new supply (108MW) delivered by providers across Frankfurt, London, Amsterdam, Paris and Dublin (FLAPD).

A supply-demand imbalance across FLAPD, the five largest markets in Europe, is projected for 2024.

This year, there are 440MW of take-up and 387MW of new supply expected in FLAPD.

The ongoing data centre space shortfall reflects the persistently strong demand from hyperscalers for data centre capacity in Europe.

The imbalance also highlights the difficulties faced by providers when trying to secure the necessary land, power, and planning to build data centres. Large American technology companies need capacity to ensure their needs are met in future and to keep precious supply away from their competitors.

Five 100MW+ European secondary markets expected by year-end

Demand for wholesale capacity from hyperscalers and local regulation are two factors leading to double-digit supply growth of Europe's secondary markets.

Cloud service providers are increasingly looking to deliver services to local markets from in-country, as opposed to in-region, and this is leading to growth of markets beyond FLAPD.

Enterprises are looking to outsource their equipment to trusted third parties as well.

As a result, CBRE expects double-digit supply growth in eight of the 10 secondary European markets tracked, such as Milan and Berlin, this year. Five of those markets, including Milan and Madrid, are expected to have more than 100MW of supply by year-end, compared to just two at the end of 2022. CBRE reports on 15 European markets quarterly or semi-annually.

Bucharest Data Centre Market



Bucharest is the capital of Romania. The city is the location of the largest leased data centre cluster in Romania. It is a fragmented market focused on the retail segment only.

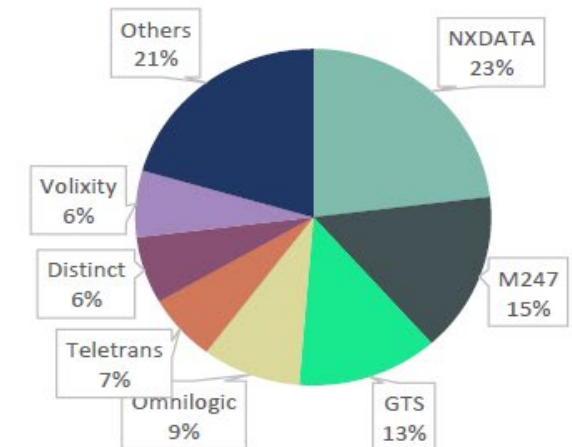
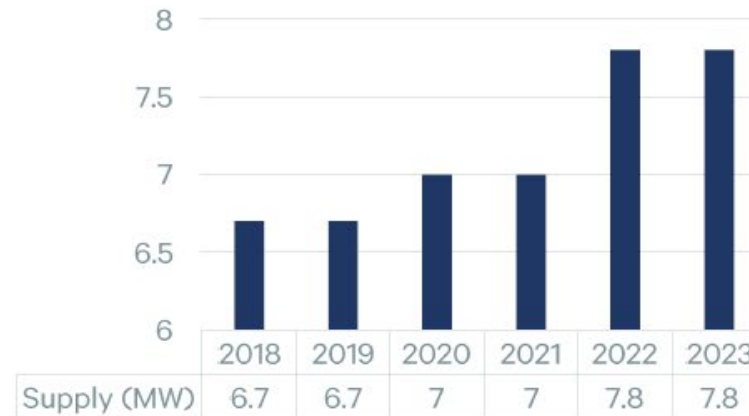


Data centre landscape

Bucharest is retail (enterprise) colocation market with no wholesale capacity. The average data centre size is small, just over 0.5MW. The first wholesale campus is under development 200km west of Bucharest at Craiova run by ClusterPower. It is to have up to 4,500 racks of capacity when fully completed.

Market dynamics

The Bucharest market is relatively fragmented with 12 local data centre providers. Most facilities are relatively small, with the largest being around 1.2MW. The largest provider is NXTRA with two data centres in the city, specialising in connectivity - it has become the key network hub in Romania. Operator / hyperscale demand at this time remains low with uncertainty around future deployments. With a digitalising economy growth is anticipated in the future.



Prague Data Centre Market



Prague is the capital city of the Czech Republic and is the largest data centre cluster in the country. The Prague market has a total of 44MW of supply but remains a fragmented market.



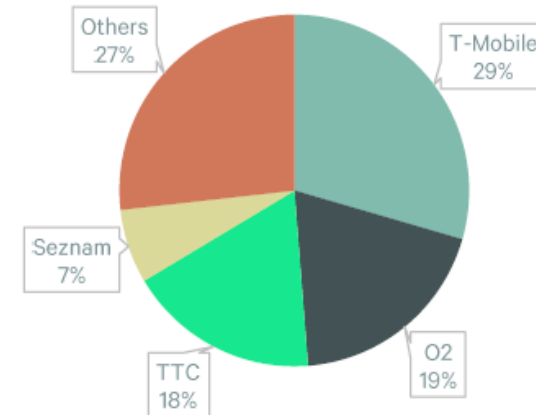
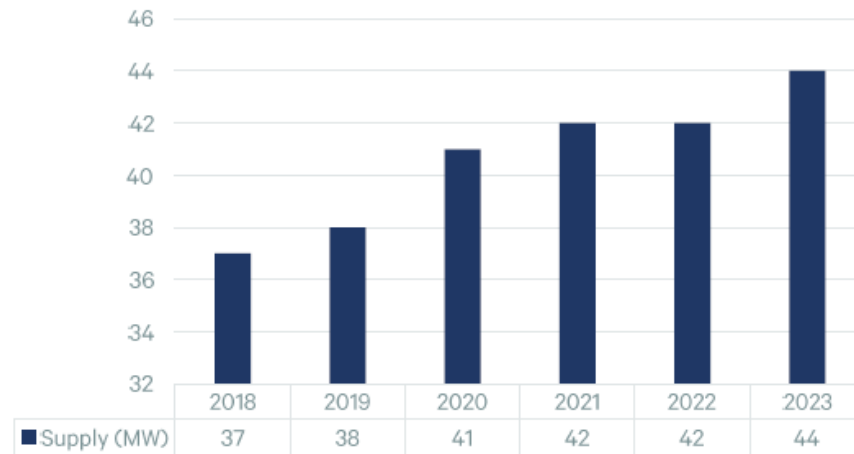
Data centre landscape

Despite being one of the largest CEE markets (behind Warsaw) Prague has seen relatively little new development. Much capacity is low density hosting stock, with the exception of TTC Teleport. In 2023 Microsoft were reported as having rejected Prague as a data centre location due to the difficulties of permitting, this may come back in the future, but uncertainty remains. Interconnects are deployed in Vienna or Frankfurt rather than Prague.

Market dynamics

Prague remains a relatively fragmented leased data centre market with 22 data centres from 12 providers. The largest providers are T-Mobile (13MW) and O2 (8.5MW). The largest individual carrier neutral provider is TTC Teleport with 6MW of power at its main facility. At this time we are not aware of any other large project proceeding in the market.

There has been limited expansion, most recently by hosting provider Sezam.cz.





Florin Furdui
Country Manager - Portland Trust Romania

furdui@portlandtrust.ro

0722275967