

CLOUD COLOCATION AND ENTERPRISE

Our powerful infrastructure edge



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TELIA - ENTERPRISE AND CLOUD

Enterprise outsourcing to our colocation infrastructure

We provide businesses economies of scale infrastructure, state of art design, fast delivery and increased resilience with our Helsinki Data Center. Workload placement is about relying on your base infrastructure, application workloads or backups to strong networks within a facility able and agile to meet both current and future needs. Colocation cloud or Cloud & Colocation.

The case for enterprises to keep all their data centre infrastructure on-premises is becoming increasingly difficult to justify in terms of return on the investment of an in-house data centre. Clients are unable to justify the risk and costs of retrofitting older facilities to meet realistic reductions in the total cost of ownership.

When enterprises deploy cloud platforms in our world-class networks with extensive interconnectivity, the Telia Helsinki Data Center can improve service delivery and digital assets. We also understand that businesses see the advantage of reducing capital expenditure by switching to an operational expenditure model where greater levels of availability, growth, R&D potential and flexibility create added value.

The Telia Helsinki Data Center provides enterprises with the compliance, sustainable energy and low carbon footprint they need to address increasing boardroom demands for corporate responsibility while adding to brand value.

Telia delivers outstanding operational performance and compliance that provides confidence in meeting and exceeding our service-level agreements. We are supported by an ecosystem that demonstrates Finland's world-renowned ICT and technology heritage. The climate zone of Finland enables leading PUE figures, while Finland's business environment delivers political and legal stability with a government supportive of the data centre sector, driving and leading a world-class digital infrastructure.

1

Low opex, TCO, tax

Competitive network pricing, low corporation tax at 20% (2020), power prices 30–40% less than FLAP markets. Ten-year PPAs.

2

Speed and market reach

Speed to market and reach. Low-risk, stable location and environment. Networks able to reach 800 million people in 50 ms.

3

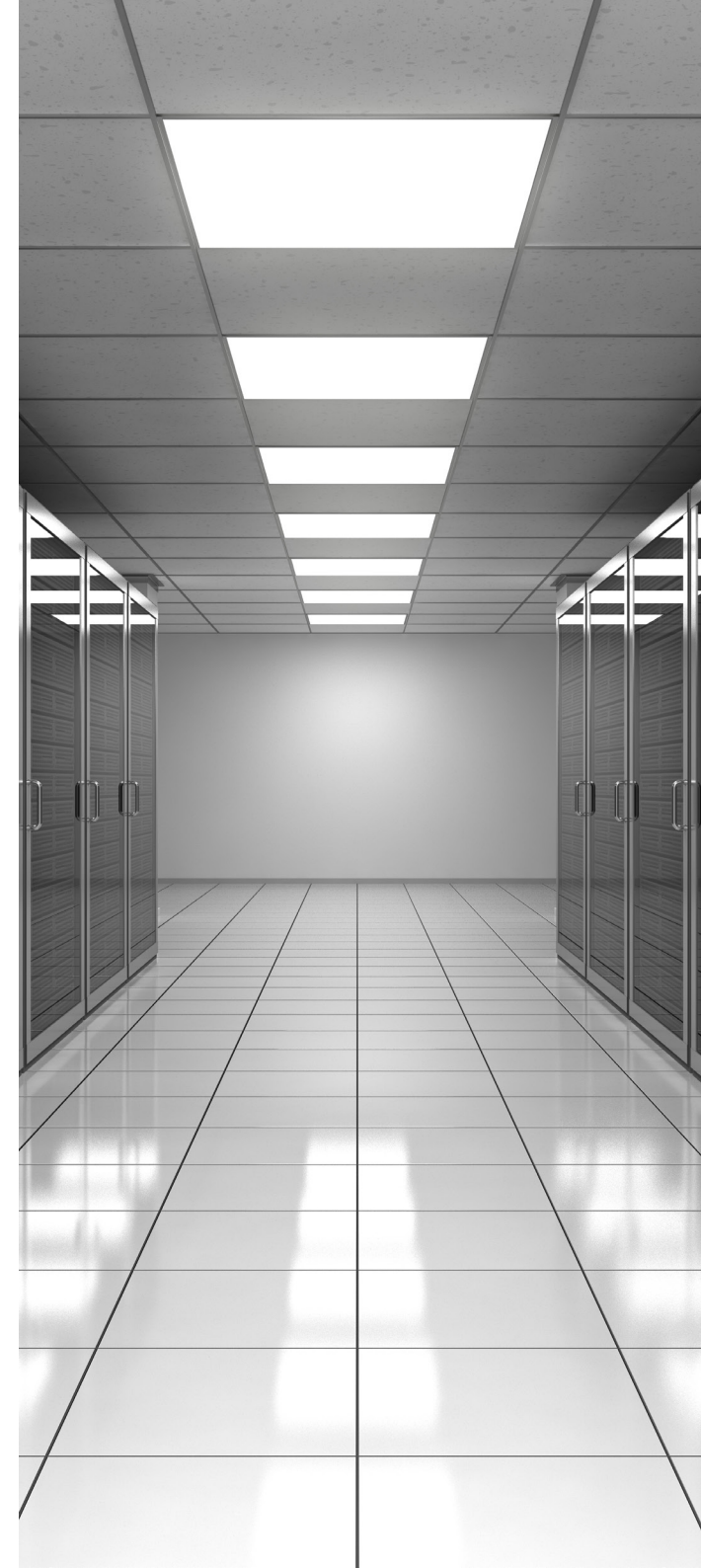
Proven ecosystem

Multi-country data centres. Workforce to deliver and operate. Government and municipal support. Tech and ICT heritage.

4

Sustainable and scalable

Sustainable green power from a world-class power grid and infrastructure. Ability to scale, permit, power, people availability.



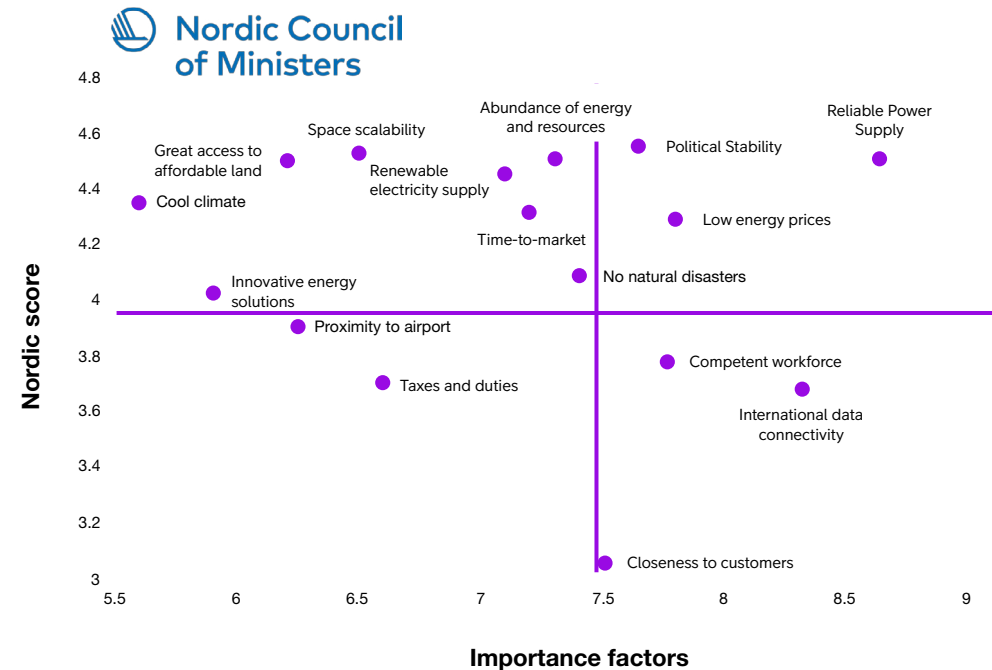
ENTERPRISE AND COLOCATION CASE

Nordic value for colocation and enterprise data centres

The important site selection factors and Nordic region's scores are illustrated in the attached picture from Nordic Council of Ministers report Data Centre Opportunities in the Nordics (report prepared by COWI A/S).

Telia offers the right quadrant in the enterprise and colocation segment. It can also include parts of the other quadrants into a Telia Value Proposition:

- Reach 800 million people in 50 ms via Telia Carrier – the #1 global internet backbone – and the Telia Helsinki Data Center.
- Telia can design, build and operate dedicated new facilities with a tailor-made business model. Telia is willing to take on the roles of site search and selection, land purchase, design and build, and data centre operations. Linking remote client sites to the Telia Helsinki Data Center networks and infrastructure provides a strong market and regional offer.
- Cool climate, less than 20 km from Helsinki Airport
- All Telia companies are 100% hydro-powered
- Skilled workforce and proven operations. Telia successfully operates a number of data centres in Europe in addition to its 95 telecom infrastructure sites and high-technology real estate properties. Finland's world-class education system and ICT heritage provide a pool of highly educated and skilled employees. Finland's education system is ranked among the best in the world (PISA).



Source: COWI, Analysis of Data Centre Investment Opportunities in the Nordic Countries (2018). Telia's Value Proposition for Hyperscalers & Cloud segment includes all the right-hand quadrant values and also majority of left-hand quadrant capabilities.

TELIA HELSINKI DATA CENTER

“One of the greenest open (LEED-certified) data centres in the world...”

“The digital bridge between Europe and Asia”



Finland's largest open data centre



34,340 m² footprint, 15,000 m² of IT white space, up to 5,000 racks, 200,000 server positions



Certifications: ISO 27001, ISO 14001, ISO 9001, ISO 45001, ISO 22301, PCI DSS



The only data centre in Finland with LEED Gold Data Center v4 and CEEA Design and Operate GOLD certification



100% renewable electricity 24-megawatt IT capacity. 30+ years life. 100-megawatt site capacity.



Heat reuse project in progress – waste heat to be recycled into the district heating system (ERE)



Potential ERE heat capacity to warm over 20,000 homes PUE < 1.2 (water cooling) with added heat recovery



2N power distribution with N+1 redundancy. Dual 110 kV grid connection and dedicated 50 MVA main transformers.



Quality - 100% uptime operational record



Carrier-neutral facility

Quality of service capacity
availability with global reach



“WORLD-CLASS DESIGN AND
OPERATIONAL EXCELLENCE”



TELIA HELSINKI DATA CENTER

FROM: Ready now: Pre-installed 12U and 52U racks up to 20 kW with fibre connectivity, PDUs and electronic locking. The Telia Helsinki Data Centre has white space certified by the Finnish Transport and Communications Agency (Traficom). Traficom represents Finland in the International Telecommunications Union (ITU) and the European Telecommunications Standards Institute (ETSI).

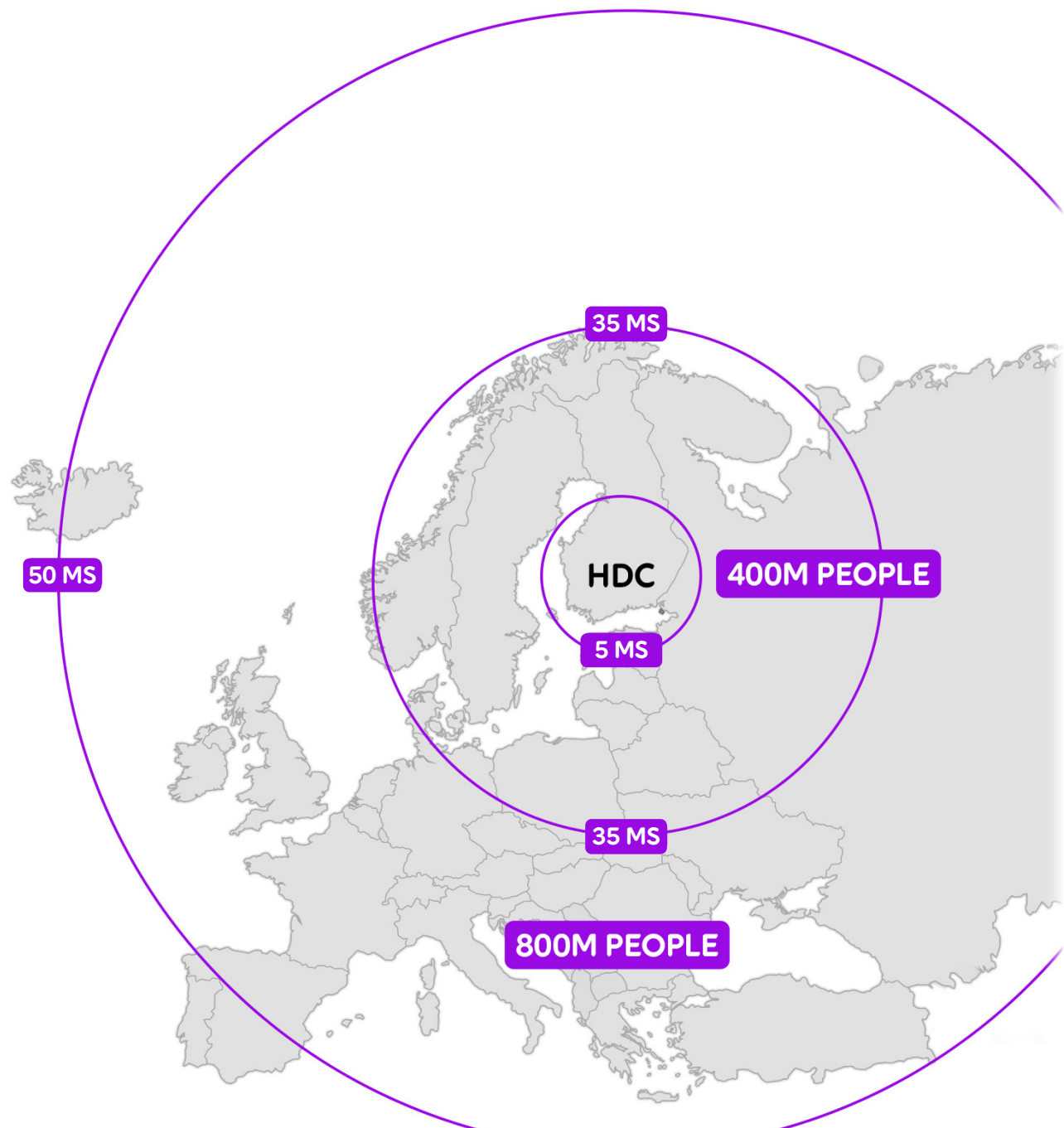
TO: Dedicated client halls - 1 MW - 4 MW outfitted to your requirements, up to two floors with 14 MW.

Data driven driving data

Dedicated interconnect connections: Telia Cloud Connect (Managed Cloud), Megaport, MS Azure, Google Cloud (not routed via Sweden, 5 ms), AWS (Amazon Web Services)
Access to LINX ESPANIX
MSK-IX AMS-IX DE-CIX Net Node

Telia cloud 9 First Finnish IaaS with ISO 27001 security certification. Data is stored and stays in Finland.

Telia Cygate Managed Services Provider (MSP), NaaS, 24/7 monitoring and management.



NORDIC FINLAND TELIA HELSINKI DATA CENTER

HIGH-PERFORMANCE OPERATIONAL
ENVIRONMENT

HIGH-PERFORMANCE DATA CENTRE

HIGH RANKINGS

HIGH RETURNS

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