The Sustainable and Responsible Data Center Ecosystem

Kajaani – Home for the sustainable data

Jari Innanen, Granlund





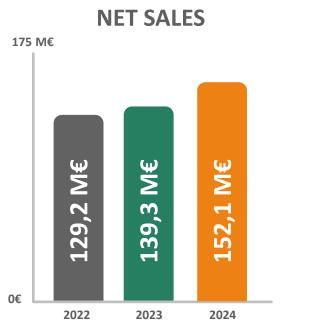


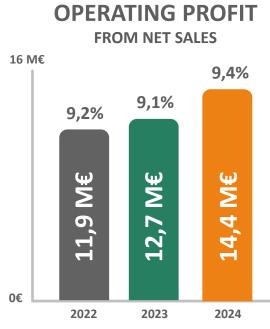
MAJORITY OWNED BY EMPLOYEES, GLOBAL ASSET MANAGER ICG AS PARTNER

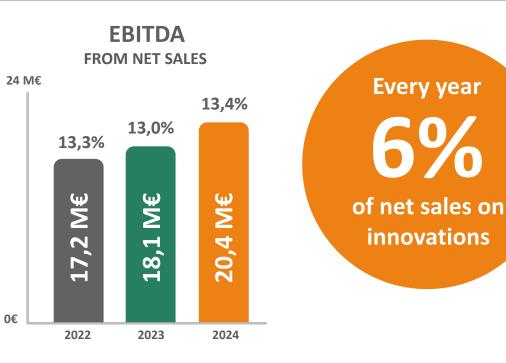


PERSONNEL AT THE END OF THE YEAR

| 2022 | 2023 | 2024 |
|------|------|------|
| 1358 | 1423 | 1545 |







Granlund in Finland, Sweden and abroad Customers and projects in more than **30** countries Headquarters in e Alexan Helsinki, Finland **Our offices Granlund Manager partners**



Independent data center design, commissioning and consultancy services

30

years experience in data center solution design Your partner for the whole project: project management, design, commissioning data center dedicated persons locally in Nordics



Supplier independent



Highly experienced team



Clear focus in customer service



Granlund in Kajaani

- CSC selected Kajaani for their next HPC location ~ 2009
- Design for the Rata building put on hold ~2010
- New plans to Varasto building and new start ~2010
- CSC first hand over ~ 2012
- Herman IT kicking off their project with IBM ~ 2012
- A lot of different interest and concept plans
- Digiplex, ECMWF, etc.
- New HPC generations
- LUMI / EURO HPC project 2018...2022
- Granlund founded office in Kajaani 2020
- 2022 Redeve takes over Renforsinranta business park
- 2020... many conceptual designs which Borealis have been realized
- 2023 XTX starts to prepare their project in Kajaani
- 2024 Borealis kick-off their construction
- New projects are about to come...



The importance of data center industry

The race for data centers is no longer just about technology.

- It's about territory, energy—and power.
- Across the globe—from the USA to the Nordics, Saudi to Japan—governments are securing Already land with near-military urgency.
- Why? Because this isn't simply about building data centers.
- It's about:
 - dominating the digital backbone of the 21st century.
 - energy leverage, infrastructure resilience, and economic sovereignty.
- Land, power, and fiber are the new strategic assets.
- The infrastructure behind AI is becoming as crucial as oil fields once were.

The oil of the last century was buried underground. The oil of this one? It flows through cables, consumes megawatts, and is cooled in hyperscale.



Laura Stadler
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| Investoija | Kunta | Summa (M€) |
|-----------------------------|-------------|------------|
| | | 11515 |
| XTX Markets | 🗾 Kajaani | 1000 🗾 |
| ecogrid.energy | Pori | 1000 |
| Verne | Mäntsälä | 500 |
| Google | Kajaani | 1000 |
| NCC Suomi & Virtanen yhtiöt | Raisio | 1500 |
| Orka Technologies Oy | Mikkeli | 10 |
| Bilt Tek | Kemijärvi | 100 |
| Nebius Group | Mäntsälä | 100 |
| Blockbase | Kemijärvi | 5 |
| Compute Nordic Finland Oy | Mikkeli | 100 |
| Google | Hamina | 1000 |
| XTX Markets | Kajaani | 100 |
| Atnorth | Kouvola | 1500 |
| Microsoft | Vihti | 1900 |
| Atnorth | Espoo | 100 |
| Microsoft | Kirkkonummi | 1000 |
| Microsoft | Espoo | 500 |
| Kiinteistö Oy DC Seinäjoki | Seinäjoki | 100 |

Current investment plans in Finland:

Confirmed investments 10 mrdeur / 1000 mw

Potential investments 30 mrdeur / 3000 mw



Source: EK, teollisuuden investoinnit

Sustainable datacenter

- Construction and operating sustainably
 - Energy efficiency
 - Reducing whole life cycle carbon impacts including material embodied impacts in supply chain
 - Energy re-use
 - All necessary environmental studies for the biodiversity etc.
 - Low water consumption and emissions overall
- Going local
 - working closely with the local community
 - collaborative approach with local organisations to provide tangible benefits to region
 - using exclusively local/Finnish contractors for the construction of the first data center.



Sustainable datacenter:

BIG THEMES just about to come

- Ecological compensation
- Ensure the sustainability in the entire production and supply chain
- Circular Economy and Deconstruction
- Climate Adaptation and Resilience
- Social Sustainability and Health
- Digital Tools for Sustainability Management
- Energy-Positive and Resource-Positive Buildings

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Sustainable Goals:

- Balance economic growth, social inclusion, and environmental protection
- Promote long-term peace and prosperity
- **Create a blueprint for global cooperation and sustainable futures**



KAJAANI RIVER SUSTAINABLE DATA PARK IPR ON AI



Thank you!

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