

# Press release

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## Vattenfall's hydro power runs Finnish supercomputer

**As part of a pan-European initiative one of three leadership-class supercomputers, LUMI, will be located at CSC's data center in Kajaani, Finland. LUMI is one of the fastest supercomputers in the world and will run on 100 percent fossil free hydro power from Vattenfall.**

As of January 1, 2021, Vattenfall will deliver a yearly volume of up to 100 GWh of guarantee of origin-certified hydropower to CSC's data center in Kajaani, Finland. CSC is a Finnish center of expertise in information technology owned by the Finnish state and higher education institutions.

"Vattenfall wants to enable a fossil-free living in one generation. To win this electricity supply agreement shows that we have a product and solutions that well matches the needs of our customers in Finland. CSC has high ambitions to be fossil free and new digital solutions and technology can in a smart way be used to enable that. I will personally also follow the exiting development of the supercomputer", says Magnus Westberg, Head of Production Clients at Vattenfall Business Sales.

In all service development and production, CSC strives to implement Finland's goal of being carbon neutral in 2035 and to promote the implementation of the European Green Growth Program. LUMI will be operational between 2021 and 2026.

"Supercomputers consume a lot of electricity, so the use of hydro power is important to reach climate goals. Besides the advantage of renewable energy we have excess heat from cooling water, thanks to which waste heat can be utilized in Kajaani's district heating network. This reduces both costs and the carbon footprint. LUMI will be one of the world's fastest supercomputers and will serve European research and innovation activities, strengthening the competitiveness of Europe and increasing its scientific potential", says CSC's Managing Director Kimmo Koski.

The theoretical peak performance of LUMI will be over 200 petaflops (2\*10<sup>17</sup> floating point operations per second). This, like the performance of applications on LUMI, is approximately ten times faster than with the Piz Daint supercomputer, which is the fastest in Europe at the moment.

**More information:**

[Vattenfall](#)

[CSC](#)

[The EuroHPC JU](#)

[LUMI supercomputer](#)

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Vattenfall is a leading European energy company, which for more than 100 years has electrified industries, supplied energy to people's homes and modernised our way of living through innovation and cooperation. We now want to make fossil-free living possible within one generation. That's why we are driving the transition to a sustainable energy system through initiatives in renewable production and climate smart energy solutions for our customers. We employ approximately 20,000 people and have operations mainly in Sweden, Germany, the Netherlands, Denmark and the UK. Vattenfall is owned by the Swedish state. For more information:

<https://group.vattenfall.com/>