



Exaion, an EDF Group subsidiary, inaugurates in Sherbrooke, Canada, the world's first eco-responsible and decentralized data center for quantum hybridization

Exaion, an EDF Group subsidiary specializing in the development and operation of eco-responsible digital services platforms¹, announces the opening of its data center in Sherbrooke, Canada. Located at the heart of the Humano District project², to which it will provide heating and domestic hot water, this data center, named Bellevue, is a world first: an eco-responsible and decentralized infrastructure specifically designed for quantum hybridization³.

Bellevue stands out for its choice of over 99% renewable energy supply⁴, the integration of innovative cooling technologies combining air and immersion methods, and the valorization of waste heat. These methods allow for the recovery of 100% of the heat emitted by the servers to provide heating and hot water to the entire real estate complex.

The Bellevue data center houses cutting-edge equipment, including PINQ²'s high-performance computing infrastructure dedicated to collaboration between academia and industry as well as companies' digital innovation projects, the first quantum computer installed by Quandela in North America, and Numana's first quantum key distribution test bench for cryptography development in Canada. These facilities make Bellevue a pioneering infrastructure in North America, fully aligned with the activities of DistriQ, Sherbrooke's Quantum Innovation Zone.

Bellevue also serves as a model for data security and benefits from multiple levels of protection. A perimeter defense system including anti-intrusion security solutions, video surveillance, and reinforced authentication has been established to combat unauthorized access.

This installation highlights Exaion's expertise in data center design, construction, and operation, its commitment to developing innovative and environmentally friendly solutions, and its ability to meet the most demanding needs of local businesses in blockchain, Artificial Intelligence, digital twins, quantum, and digital simulation.

Fatih Balyeli, CEO and co-founder of Exaion, stated: "We are very proud to inaugurate this data center in Sherbrooke, a project that marks a turning point in the industry thanks to its eco-responsible and decentralized approach. This project perfectly embodies Exaion's vision: to combine technological innovation and environmental compliance to meet the digital challenges of tomorrow. With Bellevue, we demonstrate our ability to go beyond current standards, offering cutting-edge solutions for the most advanced use cases."

Matthieu Cardinal, Vice President of Development at Services Immobiliers First and promoter of the Humano District real estate project, stated: "It is with great pride and a sense of accomplishment that Humano District welcomes Exaion's Bellevue computing center, realized in close collaboration with its partners Université de Sherbrooke, DistriQ Innovation Zone, and Énergère, in an emblematic building of Sherbrooke, La Maison Générale des Petites Sœurs

¹ In France, Exaion's activities emitted 38 grams of CO₂ per kWh in 2023, which is about 10 to 20 times less than the average of North American and Asian suppliers.

² Humano District is a rental condo project in Sherbrooke that combines sustainability and modernity, located near the Mont-Bellevue Park. For more information: www.humanodistrict.ca/en/

³ Quantum computing utilizes the principles of quantum mechanics to perform calculations much more rapidly than classical computers.

⁴ In Quebec, close to 100% of the electricity Hydro-Québec distributes to its customers is generated from renewable resources, which means there are few or no greenhouse gas (GHG) emissions. For more information: <https://www.hydroquebec.com/a-propos/notre-energie.html>

de la Sainte-Famille. This innovative computing center, located in the heart of Sherbrooke's innovation zone Quantum sector, will be the preferred eco-responsible heat source for heating Humano District."

Éric Capelle, CEO of PINQ², stated: "We are proud of our partnership with Exaion, a leader in hybrid quantum solutions. This partnership will allow us to further support Quebec companies in their innovation and digital transformation projects. Our collaboration materializes through a data center powered by renewable energies, decentralized and specially designed for quantum hybridization. It highlights Quebec's expertise and appeal in this cutting-edge field. Moreover, our shared eco-responsible values positively enrich our collaboration."

Niccolo Somaschi, co-founder & CEO of Quandela, stated: "Through this French-Canadian partnership, we are pleased to deploy the first European quantum computer within the Bellevue data center in Sherbrooke. We are fully committed to creating this ecosystem of partners to support industries and organizations in their quantum transformation."

Yves A. Sicard, Vice President of Innovation Zones and Networks at Investissement Québec, stated: "We are pleased that Exaion, a global leader in eco-responsible data center management, is establishing itself in our DistriQ quantum innovation zone to demonstrate that the adoption of disruptive technologies can be combined with eco-responsible practices to support the growth of an innovative, inclusive, open, and sustainable economy."

Professor Pierre Cossette, Rector of Université de Sherbrooke, stated: "Exaion's arrival in our innovation ecosystem is excellent news for Université de Sherbrooke. The DistriQ innovation zone, in collaboration with PINQ², thus benefits from new eco-responsible infrastructures and expertise in high-performance and quantum hybrid computing, while generating new real-world learning opportunities at all study levels. UdeS's leadership in sustainable development will be leveraged in collaboration with Exaion to study the integration of server energy recovery systems in computing centers, which represents a significant challenge for our society."

Bellevue Data Center in Key Figures

4,000 square feet of available space in the data center

780 kW of total power available in the data center

100% of waste heat recovered and reinjected into the local loop

Tier II: Technological approach chosen according to the Uptime Institute's criteria

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About Exaion

Exaion, a subsidiary of the EDF Group, was co-founded in 2020 by Fatih Balyeli and Laurent Bernou-Mazars, who became respectively its CEO and CTO. Aligned with the Group's raison d'être, Exaion supports industries in their digital transformation with a responsible and sustainable approach: upgrading old supercomputers, using largely decarbonized electricity⁵, and recovering waste heat. Its mission revolves around data: accelerating its processing, ensuring its security, and facilitating access and control for users. Its experts develop efficient, innovative, and sovereign solutions and services. Exaion Inc., its subsidiary based in Montreal, Canada, serves the needs of North American stakeholders. For further information: exaion.edf.fr/en

⁵ In France, the electricity produced by EDF in 2022 was over 96% CO₂ emission-free, thanks to nuclear power and renewable energies. Scope: EDF SA / Source: EDF, <https://www.edf.fr/en/the-edf-group/producing-a-climate-friendly-energy>

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