VSC

FLEMISH SUPERCOMPUTER CENTER

University of Antwerp · VLAAMS SUPERCOMPUTER CENTRUM · Vlaanderen is supercomputing

UAntwerp
Active in High-tech / Digital

▶ Any business activity dealing with large data set processing, simulation and modeling or large computational problems can benefit from the computational power of a supercomputer.

"The hub of the Flemish Supercomputer Center (VSC) at the University of Antwerp provides high-performance computing (HPC) infrastructure and expertise for research and development. In addition, we offer training, support and consultancy to researchers in both the public and private sectors, enabling them to accelerate their projects, generate revenue and save costs in R&D," says Dr. Carl Mensch, HPC consultant at VSC.

"High-performance computing (HPC) is used in a wide variety of fields. This can range from language or image analysis, to climate models, to the properties of molecules in chemical compositions or pharmaceutical products to artificial intelligence.

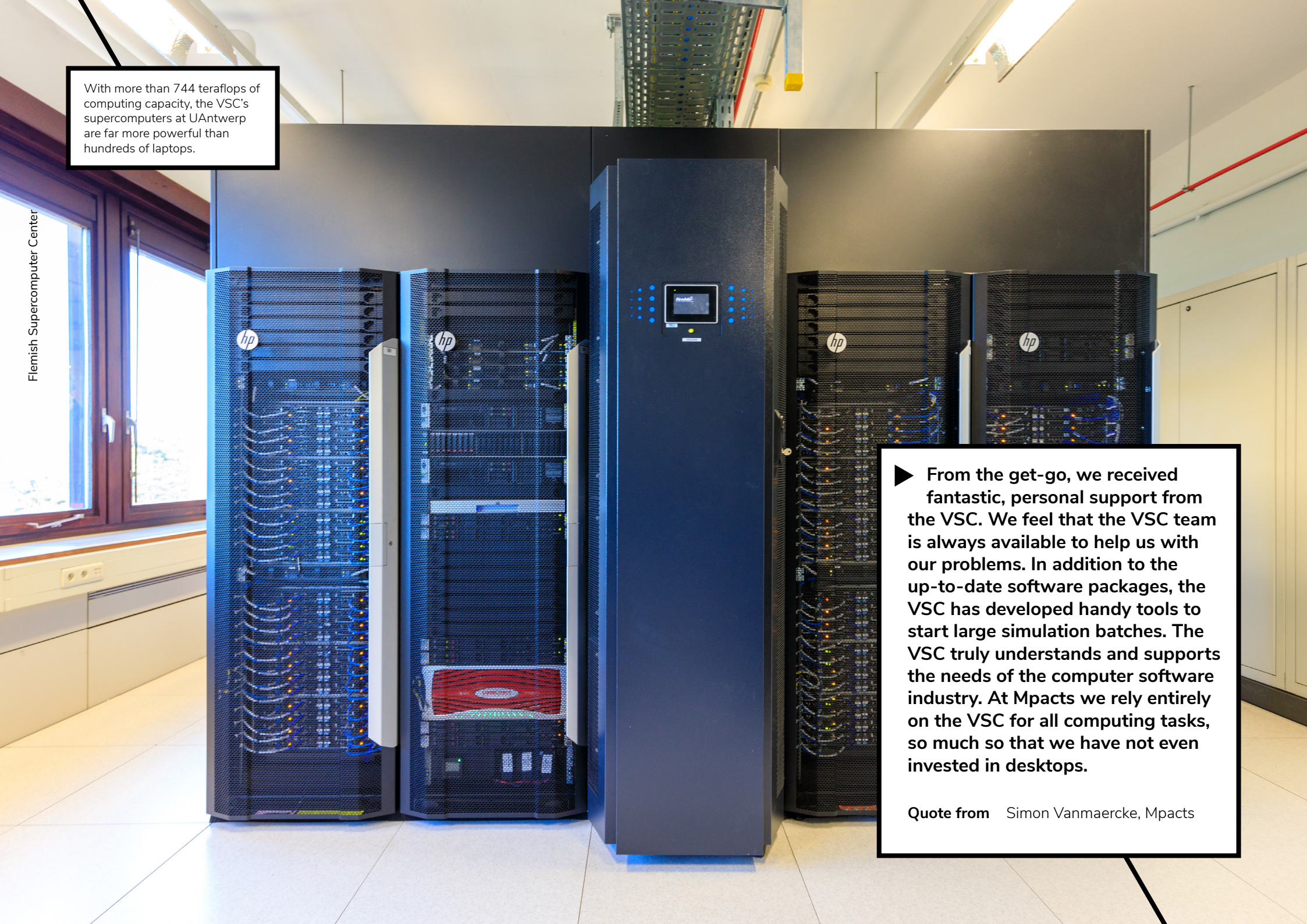
Any business activity dealing with processing large datasets, simulations and modeling or large computational problems sooner or later stands to benefit from the computing power - and also speed - of a supercomputer.

Companies can call upon our services, such as targeted training or advice on optimizing computer codes and applications. In addition, at UAntwerp we have 744 teraflops of computing power available, the equivalent of many hundreds of desktops or laptops, as well as the associated storage capacity.

1 teraflop, that's 1,000,000,000,000 calculations in just 1 second!

As icing on the cake, the VSC is actively involved in various European projects, such as EuroCC and LUMI. As a partner in the *national competence center* in EuroCC, we proactively guide companies to (inter)national funding channels and expertise and also offer support with this. In this way, we provide an answer to the needs of both large and small businesses. In addition, we are also actively involved in the European supercomputer LUMI, where we provide support and resources to Flemish users."

Dr. Carl Mensch is happy to discuss the possibilities to help your company with all services related to complex calculations. Please don't hesitate to get in touch.



With more than 744 teraflops of computing capacity, the VSC's supercomputers at UAntwerp are far more powerful than hundreds of laptops.

Flemish Supercomputer Center

From the get-go, we received fantastic, personal support from the VSC. We feel that the VSC team is always available to help us with our problems. In addition to the up-to-date software packages, the VSC has developed handy tools to start large simulation batches. The VSC truly understands and supports the needs of the computer software industry. At Mpacts we rely entirely on the VSC for all computing tasks, so much so that we have not even invested in desktops.

Quote from Simon Vanmaercke, Mpacts

Collaboration is possible through...

Use of equipment and facilities · Training (tailor-made) · Service contracts (consultancy) and code optimization · European projects · Internships · Research projects

Flemish Supercomputer Center is...

High-performance computing · Data processing · Simulations · Code optimization · CPU · GPU · Expertise · Training · Consultancy

Contact for the VSC-UAntwerp hub

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Research groups and expertise

The VSC hub at UAntwerp offers expertise from various domains, including mathematics, chemistry, physics and computer science. The VSC matches companies that are looking for specific expertise and research groups that offer it.

The Flemish Supercomputer Center (VSC) itself is a partnership between the five Flemish universities and their associations. It aims to contribute to innovation in Flanders by offering services and infrastructure for all RDI *(research, development and innovation)* activities in academia, industry and government.

Unique features of our equipment

The hub of the VSC at the UAntwerp has two supercomputers with a total capacity of more than 744 teraflops. The 368 CPU (AMD and Intel) compute nodes are connected via an ultra-fast InfiniBand network. There are also several powerful GPU nodes with NVIDIA A100 and P100s and AMD MI100s available, a visualization node, a vector node and a node with an Intel Xeon Phi expansion board.

Larger computing capacity can also be called upon in Flanders and Europe via the network of the Flemish Supercomputer Center (VSC).