Customer story
University of Coimbra

Unlocking the power of people

Simulation and computation enabled by HPC are recognised globally as the 'third pillar' of modern research. The University of Coimbra needed an HPC system to remain at the forefront of scientific and technological innovation. They chose to work with Fujitsu to allow them to do more, faster and with less energy consumption.

About the customer

Coimbra is the oldest university in Portugal and one of the oldest in the world, founded in 1290. Since 2013 it has been on the UNESCO World Heritage List. The University preserves its heritage, but is also on the front line of innovative academic research. For instance, The Laboratory for Advanced Computing at was founded to provide high performance computing (HPC) resources & services to enable computationally-intensive research within the University.

Industry: Education | Location: Portugal | People: 10,000+ employees | Web: www.uc.pt/en

Challenge

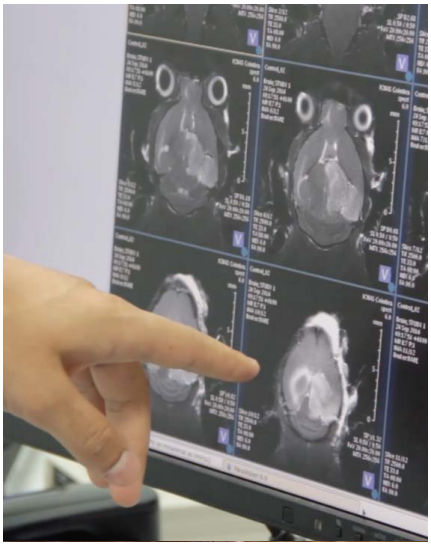
The University of Coimbra needed an HPC system to support its innovative research.

Solution

- Fujitsu HPC PRIMERGY CX servers

"Working with Fujitsu enables us to be continuously updated with state of the art technology."

Luís Simões da Silva, Vice Chancellor, University of Coimbra



1st

1st Position in providing patents by a Portuguese University

Applying energy more effectively

The University of Coimbra is one of the oldest in the world, steeped in tradition it also seeks to provide world class technological facilities for research that genuinely benefits society.

As Luís Simões da Silva, Vice Chancellor of the University of Coimbra explains: "It is a very challenging job to keep a 730 year old institution as a leading university globally. We try to match the needs of industry and business with the knowledge and research that we can provide and turn into value for our region of Portugal and the wider world. last year, Coimbra was the University with the most patents filed in the country. But we needed better high performance computing to keep working on the problems the world needs solving."

Without a state of the art HPC IT estate the University lacked the power perform detailed simulations of non-linear complex systems like the spread of forest fires, or the mapping of the human genome. When looking to transform its IT estate, the University's goals were clear: delivering the highest possible performance within the available budget and with the lowest possible energy consumption.

Unlocking the power of people

Fujitsu's HPC solution delivered through PRIMERGY CX servers, and in cooperation with partners Mellanox and DDN, enables UC to keep pace with the demands of its world class academics and researchers. Luís Simões da Silva says: "Fujitsu is a key partner in this endeavour as we cannot provide high performance computing to people unless we have a technological partner that helps us. They ensure we are always at the forefront of technology."

Pedro Alberto, Professor of Physics explains the difference this makes to his department's work, saying: "The Fujitsu solution is based on PRIMERGY servers. We have augmented power and augmented reality and storage so it is enabling our community to do more, and to be able to pursue projects that they couldn't do before, especially those related to big data The supercomputer power we get, delivered by Fujitsu, provides the opportunity for even more academics to work on a greater number of projects, at faster speeds. They gave us more power, less cost; more performance in less space; and more efficiency with less waste."

Driving smarter decisions

Pedro Alberto goes on to explain how the new HPC solution is making a tangible difference to the University's work: "Fujitsu understand that HPC servers are tools that allow us to do amazing things. One of the examples of a project we are working on is processing medical data. Our people are working on imageology analysis, scans and RMN scans. By doing this they can diagnose diseases of the brain. This involves working with other 200 terabytes of data. We couldn't do this without Fujitsu."

Luís Simões da Silva adds "Working with Fujitsu enables us to be continuously updated with state of the art technology. At the same time we can give feedback to Fujitsu on the experience of using it and the practical difficulties of making it work. We have a long term relationship with Fujitsu and I think this is a win-win situation."

Fujitsu and The University Of Coimbra will continue to work together, ensuring the University remains a world leader in the field of computational research, helping to solve some of the world's most important challenges.

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marketing.pt@ts.fujitsu.com
Tel: 800104040

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