

Press release

Minalogic-certified EnergeTIC project is a great success

Two major outcomes

- **A 30% to 57% reduction in data center power consumption**
- The creation of **Vesta System**, a Young Innovative Company (YIC)

Grenoble, 12 July 2013 – Minalogic is a global competitive cluster that focuses on the micro- & nano-technologies and software that will notably play a key role in **energy efficiency**. Today it announced the first results of EnergeTIC, a project that goes straight to the heart of this vital global issue.

EnergeTIC develops technologies to optimize Data Center performance

The recently completed EnergeTIC project, certified by Minalogic, has developed technologies to optimize the efficiency of power-hungry data centers.

Data centers operators are currently facing considerable economic and environmental challenges: indeed, a recent report issued by the French Senate¹ predicted a **50% increase in the cost of electricity by 2020**. This is clearly a major issue for all sectors of business that rely heavily on electricity for production. Data centers are one such sector, power being their n°2 cost item. The European Union estimates that the Web economy, boosted by cloud computing, will account for over 5% of European GDP by 2016, and more than €2,000 in France per capita per year. We are clearly looking at a critical economic opportunity!

The concept underlying the project is to take advantage of load variability to align production resources and demand.

The starting point for the project partners was that while data centers are designed to cope with a specified maximum load, the actual load varies greatly over time. The concept implemented in EnergeTIC is to use this load variability to match production resources to demand.

The EnergeTIC system spans **three main areas of innovation**:

- **Measurement and modeling**: measurement data is used as a reference to diagnose the situation, analyze potential for improvement, and ultimately make predictions based on progress targets
- **Prediction**: EnergeTIC is capable of anticipating peak loads and reducing the risk of shortfalls, without degrading quality of service.
- **Optimization**: optimization of real-time performance by adapting IT equipment consumption to application demand.

The project has been implemented in two data centers: Bull's experimental Data Center, and the Eolas Green Data Center in Grenoble.

- The tests showed a **30 to 57% reduction in the data center's power consumption**. These figures are the result of testing in specific contexts and should not be considered in absolute terms. They do however give new insight into the improvements that can be achieved through better use of a data center's available resources.

¹ "Électricité : assumer les coûts et préparer la transition énergétique" (Electricity, bearing the costs and preparing for energy transition) – Survey commission on the real cost of electricity, July 2012. Report available in French at: <http://www.senat.fr/notice-rapport/2011/r11-667-1-notice.html>



- The project also boosted **the local business ecosystem with the creation in 2011 of the YIC Vesta System**. Vesta System's core business is to provide a set of coherent and efficient software solutions to optimize energy systems, from design to management.

Through a collaborative process, led by multidisciplinary teams with the expertise of researchers, academics, manufacturers and operators, EnergeTIC has successfully **committed a whole sector to a dynamic of continuous improvement on a leading-edge issue**.

Press contacts

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About Minalogic

Created in 2005, the Minalogic global competitive cluster in Grenoble is a public/private partnership with more than 200 members dedicated to supporting integration of hardware and embedded software. Minalogic's collaborative projects are focused on developing products and services that capitalize on the potential of better combinations of micro- and nanotechnology and embedded software. The cluster encourages and supports industry research-training collaborations with companies in Europe, Asia and the U.S., while responding to the global high-tech community's need to identify new value-added services that can be integrated into existing products in health care, the environment, mobility, the media, the textile industry and other areas.

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About EnergeTIC



Launched in July 2010, EnergeTIC brought together seven partners: Bull, Business & Decision Eolas, Schneider Electric, UXP, the Grenoble-based G2Elab, G-SCOP and the Joseph Fourier University/LIG.

The project has been certified by Minalogic, and received public funding from the FUI (Single inter-ministerial fund), Isère General Council, Grenoble Alpes Métropole, City of Grenoble.