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*Claude Graff,
President of MGE UPS Systems
and of ENERRDIS*

> INTERVIEW <

ENERRDIS : competitvity centre

The Rhône-Alpes Drôme, Isère and Savoie Renewable Energies (ENERRDIS) competitiveness centre was officially approved last June. As Claude Graff explains, it has already been allocated €27m in funding to launch its first projects.

Why set up a centre for renewable energies in Rhône-Alpes?

The industrial, scientific and academic fabric of Rhône-Alpes has a long tradition of interest in renewable energies, drawing on a wide range of skills and enjoying a position of real leadership in the field. In addition cooperation between research, training and industry, with the backing of local authorities, has proved its worth fostering innovation and industrial drive. There was consequently good reason to set up the ENERRDIS competitiveness centre here. The start of a network, under its aegis, bringing together about 100 different players will give a formidable boost to the process of developing and marketing new technologies.

What are the ENERRDIS centre's objectives?

As Rhône-Alpes' only competitiveness centre dedicated to the development of renewable energies ENERRDIS aims to pool the forces of all the players working in this field, in order to speed up R&D for new technologies. It will be concentrating on five programmes: solar energy and construction; hydraulics; biomass; hydrogen and fuel cells; and network management.

The ultimate aim is to optimize use of renewable energy sources in the construction industry and transport, working hand in hand with other "energy" centres elsewhere in France.

How big an operation will ENERRDIS be?

Given the current priority of energy ENERRDIS is necessarily quite large. The five programmes, taken as a consistent whole, already comprise more than 2,500 researchers based at five R&D centres in Rhône-Alpes – Lyon, Bourgoin, Chambéry/Aix-les-Bains, Grenoble, and the Valence area – all of whom are well used to working together and exchanging ideas. This explains why more than 25 projects, worth €27m, have already been started and some 50 others are in the process of being accredited. I should add that as it integrates new firms, which is of course its mission, the centre will acquire greater visibility and power.

The Rhône-Alpes region has real potential in this field. Building on the synergy created by ENERRDIS we can look forward to the prospect of several thousand new jobs between now and 2010. ENERRDIS is here to boost an existing dynamic, organize projects and give them an overall direction.

> UPDATES <

Maxim A semiconductor design centre in Grenoble

Maxim Integrated Products started life in 1983 and is now one of the world's leading linear and mixed integrated-circuit design, development and fabrication firms. Its headquarters are located in Sunnyvale, California, with its main fabs in neighbouring San Jose, Dallas and San Antonio (both in Texas). It has always been company policy to operate several research centres worldwide, so in May 2005 Grenoble seemed a natural choice for a new design centre.

The unit currently employs 10 people, its main activity being the development of power management products. Maxim Integrated Products reported \$1.672bn net revenue for 2005. It employs almost 8,000 people, marketing about 5,000 different analog products, more than any other firm in its sector of activity.

Its product catalogue includes data converters, interface circuits, microprocessor supervisors, operational amplifiers, power supplies, multiplexers, switches, battery chargers, battery management circuits, RF wireless circuits, fiber optic transceivers, sensors, and voltage references.

> SPOTLIGHT <

Minatec Crossroads®

**The international micro and nanotechnology week
will be held in Grenoble from 29 May to 1 June 2006**

For four days the world's micro and nanotechnology experts will be gathering at Minatec, in the build-up to its official opening on Thursday 1 June.

"Minatec is set to become Europe's top micro and nanotechnology centre. To coincide with its official opening, it made sense to organize a scientific and technological congress of international standing, with a series of events on the topic. The idea is to provide the various players working in this field – in training, research and industry – with a forum where they can meet and exchange ideas," says Didier Molko, the head of the Maison des Micro et Nanotechnologies (MNNT). This international convention, originally launched by the members of the Minatec steering committee, will feature a dozen conferences on micro and nanotechnology research and the resulting industrial applications. It will give a full picture of the Minatec centre's potential, ranging from basic research through an exploration of the various technological breakthroughs involved to industrial applications.

Minatec Crossroads® is being organized by the founders of Minatec, CEA and INP Grenoble. It enjoys the support of the Isère Departmental Council, the Ministry of Higher Education and Research, the Rhône-Alpes Region, Grenoble City Council, Grenoble Urban Area Council and AEPI.

Distinguished guests

More than 800 congressists from industry, research and training, as well as the general public, are expected for the international conferences.

Many of the events will be located at the MNNT, which will also be taking care of logistics. With premises covering 5,000 square metres and an auditorium seating 400 people, it has plenty of space to organize the international conferences. Fulfilling its vocation as the Minatec centre's social centre, MNNT aims to play a pivotal role among the various facilities devoted to training, research and transfer, handling international promotion of Minatec and internal coordination. The conference guest list includes a large number of mainstream and specialist journalists, from Rhône-Alpes, the rest of France and further afield, it being essential to disseminate scientific information to professionals and a wider public.

**With space limited
to 800 admissions a day,
it will be necessary
to register beforehand.
A registration form may be found
at www.minatec-crossroads.com,
in addition to full details
of scheduled events.**

MINATEC CROSSROADS

2006

MAY 29TH TO JUNE 1ST, 2006

IN GRENOBLE, FRANCE



Grenoble-Isère, in the heart of new energy technology

With 500 jobs in research, 900 students in higher education and 10,000 jobs in industry, Grenoble-Isère has solid assets enabling it to play a leadership role in new energy technology in France and Europe. The Isère county council is banking on this technology becoming one of the key forces driving the economy in a few years' time.

Micro energy sources for mobile devices

Embedded micro energy sources draw on technological advances in micro and nanotechnology and in electrochemistry, with the emergence of new materials for energy applications. Grenoble-based researchers (CEA-Liten, STMicroelectronics, Lepmi) are using integrated-circuit fabrication techniques to produce fuel cells, drawing on materials originally developed for microelectronics, in particular the use of thin films.

As portable electronic devices shrink, they require increasingly small energy sources. But they also need to deliver better reliability, greater power and improved autonomy to cater for mass consumer markets (mobile phones and laptop computers), the defence sector, health care and security.

Hydrogen and fuel cells

Hydrogen and fuel cells are the priority technology for applications in transport and stationary uses. Grenoble-Isère has all the components necessary to pursue advanced development. Research is being carried out at the CEA Liten laboratory, at the universities, CNRS labs and several firms (particularly Air Liquide and Axane) to develop better fuel cells and improve hydrogen storage techniques. In all 200 people are working in public research in this field, making Grenoble-Isère one of the top centres of fuel-cell research in France.

Photovoltaics

Solar energy allows delocalized production of electrical and thermal energy for use in housing and business premises. The potential market for photovoltaic

panels is consequently huge. Several firms, including Photowatt in Bourgoin-Jallieu (France's top manufacturer of poly-crystalline silicon photovoltaic cells, with 600 jobs), several research laboratories, notably CEA-Liten, and two universities (Université Joseph Fourier and INP Grenoble) form a highly reputed skill pool.

Additional reading

Three factsheets on new energy technology research and applications in Grenoble-Isère are available at:

> www.grenoble-isere.com

> by request from AEPI (details on page 4)

Leading players in ENERRDIS

• Firms

Apollon Solar, Air Liquide, Alcan, Alstom Power, Areva, Axane, CIAT, Clipsol, CNR, Cythelia, Dalkia, ECM, EDF, Gaz de France, Gaz Electricité de Grenoble, Helion, Imerys, Irisbus-Iveco, Lafarge, MGE UPS Systems, Photowatt, RTE, Schneider Electric, Sogreah, Somfy, Staubli, Suez, Ténésole, Thales, Va Tech Bouvier Hydro, Vincent Industrie and Ylec.

• Public training centres and laboratories

CEA, CNRS, CSTB, ENTPE, INP Grenoble, IFP, INES, Insa Lyon, UJF-Grenoble 1, UCB-Lyon 1, Université de Savoie and UPMF-Grenoble 2.

• Local authorities

Bourgoin-Jallieu Town Council, Drôme Departmental Council, Isère Departmental Council, Savoie Departmental Council, Chambéry City Council, Lyon Urban Area Council, Grenoble Urban Area Council, Grenoble City Council, Romans, Valence and Tain l'Hermitage District Council.

• Other organisations and start-ups

Ageden, ALE, Asder, Ceribois, Enerdata, Fibois, Fibra, Hespul, Ineris and RAEE.



> TIME OFF <



Paul Klee, Legend of the Nile, 1937, pastel,
69 x 61 cm
© 2005 by Prolitteris, CH-8033 Zürich

The museum is open:

Every day except Tuesdays,
from 10 to 18.30
5 place de Lavalette
F-38000 Grenoble
Tel. 33 (0) 476 634 444

The Rupf collection at Grenoble art museum

Grenoble's art museum ranks as one of the finest in Europe, on account of its collection of ancient and modern art. In addition to a permanent exhibition dedicated to the history of Western painting from the 13th century to the present day, it regularly organizes temporary exhibitions of outstanding quality. From 25 March to 5 June it will be showing the Rupf collection, on loan from the Bern Kunstmuseum.

Herman Rupf (1880-1962) was a Bern business man. In 1907 he started buying, almost as soon as they were completed, Braque and Picasso's first Cubist paintings. The exhibition, which marks the 50th anniversary of the Magrit foundation and the arrival of the Rupf collection at Bern's art museum, will enable art lovers to appreciate, for the first time, the full extent of this remarkable collection. It comprises many exceptional works, embracing Fauvism with paintings by André Derain and Othon Friesz, a series of woodcuts, also by Derain, Cubism, with works by Pablo Picasso, Fernand Léger, Georges Braque, Juan Gris, as well as a highly representative group of paintings and watercolours by Paul Klee and Wassily Kandinsky.

The exhibition also throws light on the tastes of a private collector who, throughout his life, was friends with many contemporary artists and with Daniel-Henri Khanweiler, one of the most influential art dealers of his epoch. To be enjoyed without restriction.



Record traffic at Grenoble-Isère airport

In December and January 128,500 passengers travelled from or to Grenoble-Isère airport, marking a 235% increase on December 2004 and a 64% gain on January 2005. Even if the vast majority of the ski charter traffic is British in origin, the eastern European market is definitely picking up. What is more, with eight flights a day, compared with only one in 2004, regular traffic has increased eight-fold and the trend seems set to continue.

To receive the report in file form,
please send us your details
(name, first name, company and email address)
by mail, to a.giraudel@grenoble-isere.com,
or by fax to 33 (0) 476 709 719

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AEPI is the Grenoble-Isère Economic Development Agency. It provides companies with all the information and assistance they require to set up business in Grenoble-Isère: economic data, offers of building land, offices and industrial premises, meetings with local decision-makers, help with overall project management, notably funding, available grants, etc. Do not hesitate to contact us.

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