

# Grenoble Isère Report



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## A centre of excellence in northern Isère

Hexcel Fabrics (600 employees, €124m revenue) is a subsidiary of US-based Hexcel (4,200 workers for €850m worldwide). It is the world leader in structured composite materials – glass, carbon and resin-based fabrics used for boat sails, bullet-proof vests and aeronautics applications. It has just invested €6.7m in a new plant in the north of Isère.



**Why did you locate the new plant in Isère?**

We've been operating in Isère for more than 70 years, with expertise in weaving carbon fibres reaching back to the 1950s. We have substantial industrial capacity here, with two production facilities and 420 workers. As we needed to expand and modernize our facilities, we decided to specialize them. We have transferred carbon-fibre weaving previously based in the outskirts of Lyon to the new unit, as well as our new multiaxial technology, which was previously based in neighbouring Ain. What is more, our global research

laboratory for the Reinforcements division is also located in the Isère.

**Which markets will you be targeting?**

One of the new technologies we have developed is a composite woven mainly designed for aeronautics applications, notably as cladding for the future Airbus A380. The bigger the aircraft, the higher the proportion of composite materials. The market, which is growing fast, is a key component in our strategy. Geographically speaking we are serving markets in Europe but also part of Asia and some US customers.

**What has this part of Isère to offer?**

The north of Isère has a long tradition of glass-fibre weaving so there is a good skills pool. Most of the people who have moved to our new unit are pleased with their new home. And we are only 10 minutes away from a major road, rail and air communications network...

## UPDATES

**Elicityl,**

a spin-off from a CNRS science laboratory in Grenoble has started marketing innovative products for use in agriculture, which could replace their genetically modified equivalent to good advantage. The products are based on the discovery of elicitors, molecules belonging to the sugar family (oligosaccharides). Sprayed on plants they enable them to acquire new properties quite naturally and for a limited period of time. It is for instance possible to stimulate defences against diseases carried by parasites or protect against frost. Elicityl started by developing a new all-natural anti-freeze for vines. Initially it will be targeting large vineyards and winegrowers' cooperatives. The launch of a consumer oriented range, is scheduled for 2005.

**Jem Europe,**

a subsidiary of Jem the Japanese circuit board design and repair specialist, is closing its unit in Scotland and moving to Montbonnot, just outside Grenoble. The new European head office will build up to a staff of 20 over the next three years, including experts from Japan and the US.

## SPOTLIGHT

## Bioprofile stepping up development of pyrocarbon implants

Pyrocarbon, a material identified by nuclear research, has already proved its worth in heart valves. Bioprofile, a young Grenoble startup (incorporated in 1999) is demonstrating that pyrocarbon is ideal for making high-performance prostheses too. It is almost totally wear-proof and nearly as elastic as bone itself. Bioprofile capitalized on research carried out at CEA Grenoble and on the corresponding patents. In partnership with Grenoble hospital it started by developing an implant for the scaphoid, a small but very vulnerable bone in the wrist. The test was a success. Almost 1,000 patients in a dozen countries have recovered wrist mobility thanks to the implant. Bioprofile (staff of 14, with €850,000 revenue forecast for 2003) has no competitors for this product. It then found investors to prepare the launch of a comprehensive range of implants for repairing the upper limbs and joints from the thumb to elbow. In March Banexi injected a further



€2.2m to enlarge the scope of development. Cécile Réal, Bioprofile's CEO explains: "We now want to develop pyrocarbon implants for the hip, knee and spinal column." The next step is to port know-how to a new factory, on the Polytech estate, taking over production currently located at CEA.

### Polytech, from nano to bio-tech

The prime asset of Grenoble's new technology centre is that it is right in the middle of the Science Park, alongside CEA facilities and Minatéc, Europe's top centre for micro and nanotechnology. Bioprofile is the second company to locate there, following in the footsteps of bioMérieux.



## Air Liquide invests €5m near Grenoble

The world's leading distributor of industrial gas has just invested €5m in the Grenoble area, with a new ultramodern production unit for its Air Liquide Electronic Systems (Ales) subsidiary which distributes ultra-pure fluids to the microelectronics sector. Ales (180 workers for approximately €45m revenue) came into existence when two local firms merged in 1999.

It is the European market leader in its segment, supplying STMicroelectronics, Motorola, Hitachi, Philips, IBM, Texas Instruments, etc.

It is no coincidence that Air Liquide chose this particular location. It is only fifteen minutes from Crolles, "capital" of the Grenoble-Isère Silicon Valley, where STMicroelectronics, Motorola and Philips are preparing future generations of chips. Looking further afield Ales has excellent prospects of achieving solid growth in Asia and the US.

# Grenoble university extends its international reach

**Already well known for its international student community, Grenoble's university cluster wishes to benefit from the changeover to the new EU Bachelor's-Master's-Doctorate degree system to develop even closer links with its international partners. Capitalizing on a long tradition of ties with industry, the four universities (UJF, UPMF, Université Stendhal and INPG) are also enhancing the vocational content of their courses in line with recruiters' requirements. Their prime asset is the blend of cultures and disciplines. So let's take a closer look at tomorrow's border-hopping education programmes.**



Grenoble owes its spectacular scientific development to the quality and diversity of exchanges between research, academia and industry. Minatec, one of the world's largest micro and nanotechnology research centres, stems from a coalition between these three communities, helped by solid local authority support. Grenoble's National Polytechnical Institute (INPG) and Université Joseph Fourier (UJF - science, technology, medicine), assisted by various high-profile partners, are already anticipating demand for tomorrow's skills. They are launching a series of courses focusing on next-generation technology – from nano-chip design to biotechnology. In many cases these are the first courses in their particular field worldwide.

But Grenoble-Isère also excels in other subjects, notably social science and economics. Université Pierre Mendès-France (UPMF) placed second, just behind Paris, in *Le Nouvel Observateur's* annual rankings for international openings (in the social sciences). It also stands out for its humanist approach to economics. The movement has attracted a following in California and Saint Petersburg, where every year 120 economics students prepare for bachelor's and master's degrees, taught exclusively in French, thanks to a partnership with Paris-Dauphine University. Over the last 10 years UPMF's postgraduate course

on development projects has paved the way for close links with universities in Africa, in particular Rabat, Constantine, Ouagadougou and Dakar. The switch to the EU degree system will make it easier to take these special relationships even further.

Université Stendhal (languages and arts) is also giving priority to stepping up vocational content and international activity. Its most striking feature is the very broad spectrum of subjects it teaches. As a result it rubs shoulders with disciplines as diverse as cognitive science and robotics, not to mention working with high-tech firms in the area such as the Xerox European research centre. Among others Université Stendhal offers course in the design of translation tools or automated language-learning systems, working closely with local research facilities, laboratories and firms. But it is also exploring the problems of inter-cultural communication and the dissemination of culture in an international context. Its plans for a master's degree in European theatre are already arousing widespread interest. As the EU system comes onstream, facilitating exchanges and double diplomas, Université Stendhal aims to bridge the gap between the various courses and evolve towards bespoke education packages. Students will thus be able to switch more readily between specialities without losing the knowledge already acquired.

The challenge is to train students who are more readily operational on entering the job market.

## The stakes:

- **UJF, INPG, CEA Grenoble and CNRS plan to open a European School of Nanoscience (ESSONN) in 2004.**

It will host 40 researchers and corporate executives, training them in the technologies of the infinitely small. Also in 2004, INPG will be launching a programme for international nanotechnology engineers, with EPFL, in Lausanne, and Politecnico di Torino. In 2005 the Inter-university Microelectronics Centre (CIME) will move into 700 sq m of clean room space at Minatec, putting France's largest micro and nanotechnology training french platforms at the disposal of Grenoble universities.

- **Université Stendhal is introducing a new master's degree for specialists in multilingual communication.**

It targets students with a social science background and top-grade language skills who want to work in international organizations, such as NGOs. Just the job for trilingual law graduates, for instance.

## WIDE ANGLE

## Thomas Schütte at Musée de Grenoble

Thomas Schütte is seen internationally as one of the most gifted artists of his generation. German in origin he has not often shown his work in France, but Grenoble's art museum is catching up lost time with a vast exhibition illustrating his diversity and creative energy. With about 130 works, including a gallery of giant heads, new architectural mockups, and striking but disturbing female nudes in bronze and terracotta, Schütte gives us a committed, sometimes grating picture of our consumer society.

## Transport and quality of life

The Isère Departmental Council has launched a new concept, the "road metro", to bust rush-hour congestion on roads into Grenoble. This involves express bus routes, running at frequent intervals, to facilitate travel from home to workplace. The first route of this type started operation last year, linking key centres of activity in the urban area along an east-west axis 30 kilometres long. The buses are packed. A second route has started serving the southern part of the city. Looking further ahead there are plans for an intercity tram service running down the valley towards Lyon.

## An international media library

Grenoble's international secondary school, for pupils from 12 to 18, dispenses teaching in Arabic, English, German, Italian, Portuguese, Spanish and French *naturellement*. A few weeks ago a new international city library opened in the school, offering borrowers a choice of 12,000 books, learning programmes, DVDs, documentaries and magazines, in all seven languages. What is unusual about the library is that it doubles up as the school's information centre, serving about 1,000 pupils. From 17.00, when the kids go home, to 20.00 it operates as a public media library open to all comers. In a city with some 40 linguistic communities the library should prove a valuable asset for teaching languages, promoting cultural exchanges and helping integration in a cosmopolitan environment. It also reflects a wider approach. International schooling is entirely free of charge in Grenoble, educating a mix of French and foreign pupils.



## Property prices still reasonable

A recent survey reports that the average monthly rent for a comfortable, well placed flat (100 sq m) is €914. And for that you have a view of the mountains too. Similar accommodation in Geneva would cost €3,120 a month, €2,920 in Paris, €3,160 in Milan, about €1,860 in Munich and Frankfurt, €2,540 in Dublin... and just €5,695 in London. In the outskirts of Grenoble you can find houses (140 sq m) to rent for €1,370 a month. Something similar would cost more like €3,600 near Geneva and twice as much in the London area.

A recent comparison of leading French cities revealed that Grenoble is still competitive despite the steady rise in house prices over recent years. Homes sell at about €1,300 per square metre, putting it on a par with Chambéry, just above Rennes, Marseille and Strasbourg, but well behind Paris (closer to €3,000 per sq m).



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