



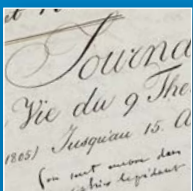
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Christian Seux,
président de BD France

> INTERVIEW <

BD, the vitality of an American firm in great shape

The Grenoble unit of the US firm Becton Dickinson manufactures prefillable syringes. The city is also home to the global headquarters of Pharmaceutical Systems division. We talk to Christian Seux, CEO of BD France, one of the players involved in the running of the Lyonbiopôle competitiveness centre ⁽¹⁾.

Could you give us a brief report on BD's state of health?

Our good results are based as much on our performance as on our contribution to achieving progress in health care. In concrete terms, the growth we are currently enjoying will result in a 13% increase in our R&D budget for 2007. This year BD hired 160 workers at the Pont de Claix unit and we plan to reinforce our research teams next year with a further 120 recruits. This has a significant impact on our suppliers in fields such as precision engineering, plastic manufacture – for moulding our instruments – and even a local supplier specializing in labels. For Becton Dickinson and Company, founded 100 years ago in New Jersey, and for BD France, launched in Pont de Claix in 1958, the news is very good.

How is your participation in the Lyonbiopôle competitiveness centre contributing to business?

The aim of the competitiveness centre (see article on page 3) is not to fund industry directly, but to give research centres the means to tool up in line with the needs of

industry. Engaging in this rationale means creating a virtuous circle, based on trust. Founding a regional competitiveness centre, linking Lyon and Grenoble, is particularly valuable because the skills involved are geographically close, from a global perspective, which facilitates meetings and exchange.

What sort of roots does an international firm such as BD put down in Grenoble?

In Grenoble, more than elsewhere, meetings lead to ideas. The dynamic between firms and academic research is based on impregnation. We are a long way from the idea of researchers working on their own, in isolation. But Grenoble's international image is based on microelectronics and I am convinced we should not focus all our attention on nanotechnology. If you take the MIT or UCLA, for instance, who enjoy global renown, but their success is not based on a single speciality. To broaden the scope of teaching here, we should reason in regional terms, as is already the case with research and industry. Nanotechnology is our flagship activity, but in its wake we must train champions in every field.

⁽¹⁾ See the feature in page 3

> UPDATES <

VaST virtual platforms

The manufacturing industry as a whole uses virtual models to design and optimize its products. The best known example is very probably the simulation of car crashes, with their «dummy» passengers.

Electronics uses virtual prototyping too. VaST, of Grenoble, develops virtual platforms that provide a very faithful representation of system-on-chips, the key components in embedded systems. VaST tools enable the joint development and verification of hard and software, the priority being to reduce time to market. With a head office in Silicon Valley, Australian technology, subsidiaries in Japan and Germany, VaST decided in May to locate its European headquarters in Grenoble, a suitable bridgehead from which to promote its software emulator technology.

ISIS is developing its European distribution network

The top priority for surgeons and operating theatre staff is to optimize surgical interventions while maintaining the highest possible level of safety. In 2002 Isis (Intelligent Surgical Instruments & Systems) started designing and marketing smart systems that enhance surgical precision, drawing on its expertise in robotics applied to brain surgery and tele-medicine. These systems limit the area affected by surgery and reduce its invasive impact. In May 2006 Isis launched SurgilMedia, a new tool that allows surgeons working in a large range of specialities, to view all of a patient's digital data without leaving the operating theatre. The product, which emerged from the convergence of various locally developed skills, complies with European medical standards and can consequently be easily exported.

Kayentis takes a new approach to forms automation

Hewlett-Packard has entrusted direct sales of its forms automation business to a start-up launched in 2004. Kayentis is adapting an existing technique, which involves the electronic capture of hand-written data on paper media, to suit the needs of business in France and abroad. Various organizations, in particular the French post office and several leading players in aviation and pharmaceuticals, have already shown an interest in the Kayentis system, which holds the promise of productivity gains thanks to a secure interface and pre-printed forms. It was when he started trying to adapt the technology used for conventional paper-printing to accommodate input from an electronic pen that Philippe Berna, the CEO of Kayentis, thought of Grenoble, one of the first places to explore such techniques. The launch of an R&D centre at Montbonnot near Grenoble is an essential step in the firm's development as a software publisher.

> SPOTLIGHT <

The determination of Soitec, from Grenoble to Singapore

Soitec, Bernin I and II production unit
© Soitec/Christian Morel

Soitec, the world leader for silicon-on-insulator (SOI) wafers, is keen to consolidate its position. To increase production capacity it has decided to purchase 1,300 square metres of clean room in Grenoble-Isère, previously operated by Memscap and to open a new production facility in Singapore. Above all Soitec is stepping up strate-

gic investments at its Bernin site, outside Grenoble. Ultimately it aims to extend its product range of advanced materials for the electronics industry. Among research priorities the NanoSmart programme, developed in partnership with CEA-Leti, will be spear-heading Soitec's R&D drive.

To find the €170m needed to fund the project over the next five years, NanoSmart is drawing on the resources of Minalogic, the Grenoble competitiveness centre. It also enjoys the direct support of local authorities. On 4 July France's Industrial Innovation Agency (AII) decided to allocate €60m to the project, subject to approval by the European Commission. All attention is now focused on 2010, when the firm will be recruiting about 100 researchers for the Nanosmart project and creating new jobs at Bernin. Soitec thus intends to consolidate its technological lead and anticipate demand for advanced substrates, all set for a promising future in nanoelectronic applications.

Verigy France moves to Grenoble

The American firm Agilent Technologies, a spin-off of Hewlett-Packard and the world's top supplier of instrumentation for electronics and physical chemistry, has sold its semiconductor test solutions business. From now on, Verigy, listed on Nasdaq, will be developing advanced test solutions for the semiconductor industry. Redeployment was guided by a business model, which recommended in particular a reconfiguration of the firm's geographical focus the better to cater for market demands. Verigy France has consequently located its offices in Grenoble, on the Polytech site, bringing it closer to its main customers: STMicroelectronics and the Alliance in Grenoble-Isère. The Verigy offering hinges on two product

lines: the V93000 family for testing system-on-chips (SoC), and the V5000 family for testing flash memory and system-in-packages. The firm's strategy is original in that it develops each product range around a single platform that can be adapted to suit the needs of specific applications. It is no longer essential to design a new production tool for each application. Thanks to the integration of the HP and Agilent technologies, on which the product is based, customers – mainly major semiconductor fabrication facilities – will enjoy greater flexibility for. For Jean-Pierre Jauvion, the Verigy country manager for France, «Verigy's strategy of becoming the leaders for SoC tests is now paying off».

Grenoble-Isère's nano-biotechnology boosting Lyonbiopôle

Lyonbiopôle brings together organizations fighting infectious diseases, still the prime cause of mortality worldwide. Micro and nanotechnology, which operates at the same size as the molecules and proteins that form the building bricks of disease, holds the promise of new ways of identifying and treating pathologies.



© BD France

Between Grenoble-Isère's nanobiotechnology and Lyon's medical know-how, Jean Chabbal (head of the microtechnology for biology and healthcare department at CEA-Leti) sees «mutual gains reflected in a scientific and industrial organization of global standing». From a technical point of view microsystems are just the right size for work in biological research, enabling direct intervention at the scale of molecules, antibodies and DNA. For Christian Seux, CEO of Becton Dickinson France, «epidemiology is the most direct link between medicine and technology».

Complementary know-how

For the last 10 years interaction has been growing between biologists at CEA and Joseph Fourier university and Leti physicists in a drive to dynamize innovation for the development of miniaturized biotechnology systems. The main objective of the Nanobio programme is to achieve technological breakthroughs in molecular biology, in particular to streamline diagnostics. This priority, essential in the treatment of infectious diseases, encouraged the installation of bioMerieux on Grenoble's science park. The arrival of the Lyon-based firm among the research laboratories is a new step towards fostering complementary ties between applications, in medical diagnostics and the delivery of vaccines.

Appropriately, vaccines are a key concern for Becton Dickinson, a world-class firm operating in the Grenoble area.

Lyon-Grenoble axis

The Lyonbiopôle world-class competitiveness centre is stepping up collaboration between private industry and public research, confirming the determination of local authorities to develop partnerships between Rhône-Alpes's two largest cities. Tristan Rousselle is the CEO of Protein'eXpert, a start-up with 30 employees specializing in recombinant proteins, an essential component in next-generation drugs. He is sure small companies have an important part to play in Lyonbiopôle: «Our added value is our innovative approach, but it is of no use if it is not integrated in an industrial process.» Christian Seux, at the head of Becton Dickinson France's 1,200-strong workforce, entirely agrees: «We turn to start-ups to validate emerging ideas, but the technical response must then be translated into a manufacturing process.»

MicroVAX an innovative process backed by an original industrial approach

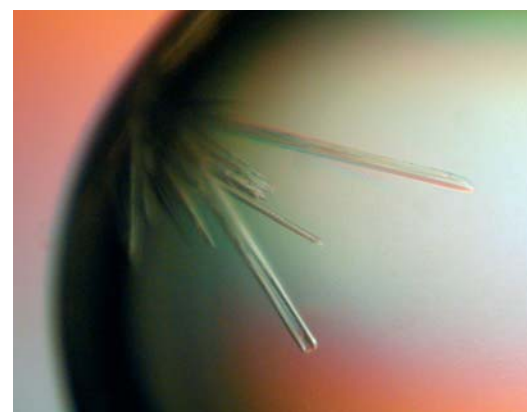
MicroVAX markets a micro-injection system that aims to increase the number of people vaccinated with the same amount of vaccine. It should thus make it easier to halt the progress of an epidemic quickly. Furthermore the procedure should also stimulate the immune system more effectively, enhancing the protection afforded by vaccination. The project, developed by Becton Dickinson in partnership with Sanofi Pasteur and Inserm, is a fine illustration of the bridges that Lyonbiopôle is building between research and industry, between biotechnology and the fight against infectious diseases, between Lyon and Grenoble. MicroVAX has qualified for financial support from the Directorate-General for Enterprise, which reports to the Ministry of Industry.

The Lyonbiopôle association

is responsible for the centre's governance. The board consists of:

- Six major companies – bioMerieux, Sanofi Pasteur, Becton Dickinson, Opi, Protein'eXpert
- Four research and competency centres – CEA, Inserm, CNRS, Fondation Mérieux
- The main local authorities – Rhône Alpes regional council, Greater Lyon urban council, Grenoble urban council – have permanent representatives on the board.

The balanced line-up of representatives reflects the complementary nature of the know-how at work. Scientific excellence and entrepreneurial ability are rooted in a competitive environment.



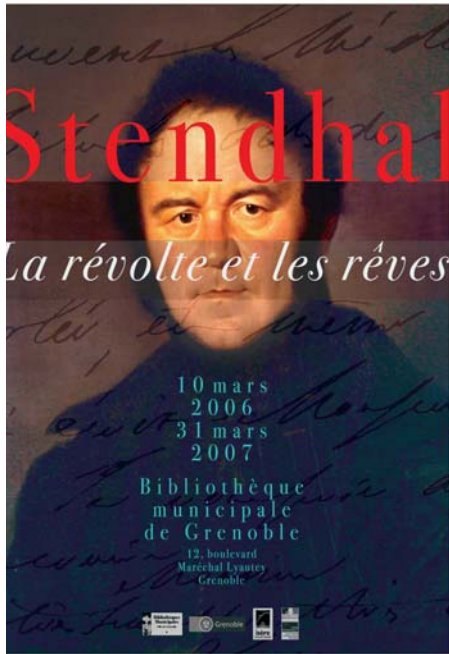
© Protein'eXpert

The competitiveness centre enables research to be finalized by integrating it, from the moment it becomes a project, in a process culminating in international distribution. Projects can only emerge if they have access to new markets.

In the near future Lyonbiopôle may – indeed should – serve as an example to others. As Jean Chabbal puts it: «The Lyon-Grenoble axis is valuable as an example, that can be reproduced elsewhere, in particular for cancer research.»

> TIME OF <

Stendhal of Grenoble

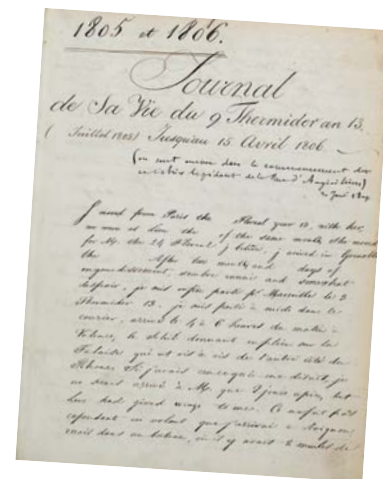


All through his life Stendhal kept an accurate record in his diary of his literary career and personal life. His journal, which ranges from brief notes to more carefully crafted prose provides a remarkable insight into the author and the origins of his work.

In 2006 the City of Grenoble acquired six notebooks covering the period from 1805 to 1814. Containing 570 handwritten pages, the notebooks have joined the part of Stendhal's diary that already belonged to the Grenoble city library. For the first time his entire diary has been reconstituted, the result of joint efforts by the French authorities, at a national and local level, assisted by the enthusiastic support of various clubs. The acquisition will enable researchers to work on hitherto inaccessible notebooks.

The city library's fine collection, which includes more than three-quarters of Stendhal's manuscripts, is an enduring tribute to the novelist in itself. The 35,000 pages held here – novels, essays, short stories, accounts of journeys, letters and notebooks – constitute a unique opportunity to learn more about the life of the writer.

An exhibition entitled «Stendhal, revolt and dreams» is currently on show at the city library. It highlights some of the most remarkable items in the library's collection devoted to Grenoble's most famous child – paintings, engravings, correspondence, first editions and manuscripts – testimony to his impressive work and the period in which he lived. The exhibition will be the first step towards a new museum specifically devoted to Stendhal.



The «Stendhal, revolt and dreams» exhibition will run till 31 March 2007. Free admission, Tuesday to Saturday, 13.00 to 18.00. Bibliothèque municipale de Grenoble. www.bm-grenoble.fr

Grenoble's multilingual library

Grenoble's international library (BMI) loans books and media in seven languages to readers of all ages, with publications in German, English, Arabic, Spanish, French, Italian and Portuguese. For French-speakers it is an opportunity to improve their knowledge of a foreign language and for residents from further afield it is a valuable source of reading matter in their own tongue. As well as offering novels, essays and cartoons, the BMI stocks a range of magazines, CD-Roms for learning languages, records and talking books.

BMI, 6 place de Sfax, Grenoble, just next to the Europole international secondary school. Library open to all publics. To borrow books you must register. Tel: +33 (0)4 38 12 25 41 - www.bm-grenoble.fr/pratiques/bibliotheques/bmi.htm

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