

TEMIS news

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BESANÇON - FRANCHE-COMTÉ - FRANCE



High-speed innovation

It may seem strange to mention microtechniques and the TGV in the same sentence, bringing together tiny size and high-speed trains. And yet, microtechniques also serve the cause of high-speed travel. The innovative projects developed in the Microtechniques competitiveness cluster are responsible in part for the improvements made to new-generation TGV engines.

At a time when the eastern branch of the Rhine-Rhone high-speed line is being put into service, we are particularly anxious to celebrate the opening of the new link, which is the first in France to offer a direct route between regions, and so much more.

10 minutes away from the TGV station, the TEMIS technology park is served by new connections that bring it even closer to major European cities, particularly in Germany.

While microtechniques are valuable for transport systems and have a promising future in rail travel, the high-speed line will also be important for the companies based in and around Besançon, as they will now be half-way between Frankfurt and Marseille, 20 minutes away from Belfort and 30 minutes away from Dijon. High-speed transport opens new vistas.

I would like to wish you all a very Happy Christmas and a New Year with many successful projects.

Jean-Louis FOUSSERET,
Mayor of Besançon
President of TEMIS
and Grand Besançon

Editorial



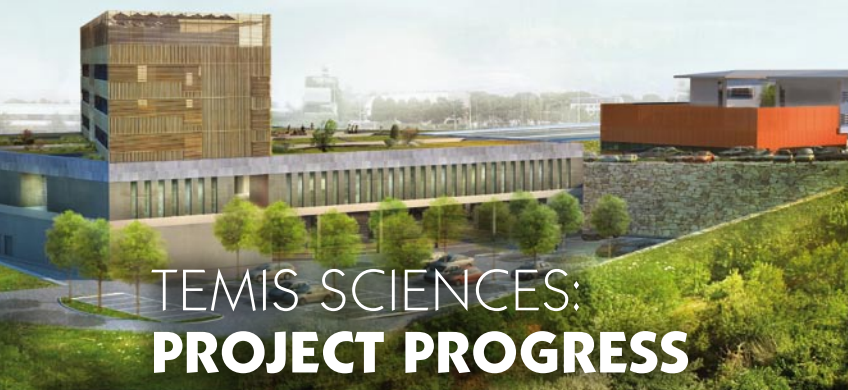
High-speed data
centre in 2012



INPI trophy: FEMTO-ST
stands out



TEMIS
BESANÇON
TECHNOPOLE MICROTECHNIQUE & SCIENTIFIQUE



TEMIS SCIENCES: PROJECT PROGRESS

Gruppe 6 sketch of the Research building from the rue des Montboucons

As part of the TEMIS Sciences project of the Regional Council of Franche-Comté, an 8000 square metre research building will be constructed by 2014 and the current clean room will be extended by 850 square metres, doubling the area devoted to micromanufacturing work in an extremely clean environment.

The purpose of the project is to bring together all the teams from Besançon and the technological resources of the FEMTO-ST Institute in the same facility in TEMIS, at the same time improving the quality of the technical environment.

The project study phase was finalised in 2011, with the submission of a final construction programme, an inquiry process and the selection of contractors for the work.

The works phase ought to start in early 2012 and the handover of the clean-room extension is scheduled for the third quarter of 2013, followed by that of the **research building** in the first quarter of 2014. Designed in two distinct volumes, the research building will have a square base with two ground levels topped by a four-level diagonal building for offices.

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UTINAM GETS TO THE BOTTOM OF THINGS

The technical chemistry platform of the UTINAM Institute of the University of Franche-Comté has recently acquired an infrared spectrometer that will enable it to obtain molecular data about materials.

The platform will be useful for pure and applied research, and will offer technical support for the three teams. Thus, businesses can turn to UTINAM to develop their R&D efforts in surface treatment.

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INPI INNOVATION TROPHY FEMTO-ST NATIONAL WINNER

In 2011, INPI celebrated its 60th anniversary and the 20th anniversary of Innovation Trophies. On that occasion, the Institute decided to select the most talented of the 46 winners of the two decades. The panel selected 5 small and medium enterprises and 1 laboratory for their exemplary innovation strategy.

Laboratory: FEMTO-ST stands out.

On 5 December, the Institute won the national INPI trophy that recognises the scientific quality of its research and its exploitation policy with a strong SME focus, based on a true culture of patent development.



A reward for the culture of innovation, from fundamental research to industrial partnerships

Ever since its founding in 2004, FEMTO-ST, which now employs over 500 staff, has been implementing a proactive exploitation policy in partnership with SMEs and large manufacturing corporations alike. Its laboratories shared with businesses, research agreements (250 since creation, 50% with SMEs, 80% with partners outside the region) and patent applications appear to be behind its success.

The exploitation of the work carried out has led to the building up of a portfolio with **44 patents**, some of which are extended to Europe, the USA and Japan.

FEMTO-ST has also contributed to regional economic development by fostering the emergence of high-technology businesses that exploit the patented innovations.

That has led to the effective founding of **8 start-ups and 3 projects currently in the incubator.**

National winner, selected unanimously by the panel

The Institute was selected unanimously by the panel from 16 finalists for the INPI regional innovation trophies in the Research Centres category.

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NEW PROJECTS IN THE INCUBATOR

The Accreditation Committee of the incubator met on 29 November and suggested the admission of seven new projects in the incubator, and pre-incubation support for seven other projects. That happy situation is the reflection of the continuation of an entrepreneurial dynamic that is the source of optimism, in spite of the economic doom and gloom. It must be noted that the Crystal Design Technology project is one of the three projects that has recently been selected out of sixty applications from around the world, in the final phase of the 2011 prize for young creator engineers of the Norbert Ségard foundation. The results of the selection are expected on 17 January 2012.

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ERDIL MAKES THE DREAMS OF CUSTOMER RELATIONS MANAGERS COME TRUE!

Since it was founded in 2007, ERDIL has analysed millions of words and messages... Its linguistics-based software automates the reading of customer's letters and the listening of their telephone messages to speed up processing and prioritising. Large corporations have lost no time understanding the value of ERDIL CRM Analytics. As Séverine Vienney, CEO of the company and holder of a PhD in Linguistics, explains, that is certainly because *«our linguists describe natural language, and that is primarily what makes us stand apart from competitors»*. After Leroy Merlin, Orange France Telecom and SFR, ERDIL entered into agreements with new key accounts in the areas of automobiles, banking, tourism and trade. Today, the company has 9 employees, and was rewarded at the national SFR Young Talent Start-Up 2012 competition. Out of the 120 contestants, ERDIL was among the 10 innovative companies bearing ground-breaking projects and solutions for the telephone operator.



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PRODEUS ENTERS THE COMPANY HOTEL

Prodeus, which came into the nursery on 4 April 2011, is specialised in machining microtechniques parts. Bruno Morel, former manager of the machining workshop at Cryla, is the Managing Director. He has one employee, Laurent Chapuis. Principally focussed on medical engineering applications, Prodeus is now also looking to develop business in the watchmaking and aeronautics markets.

Specialised in machining very small components (diameter 2 -10 mm), PRODEUS has two Realmecca RM3 7 machines that can machine pieces up to 30 mm. It intends to invest in a third machine by the end of the year, and also plans to take on a new employee.

In addition to its role as a mere supplier, Prodeus equally wishes to carry out designing and pilot runs. *«Very often, we offer an overall service. If the products are advanced and complicated to machine, we see if they cannot be simplified. We then develop the project with the customer and make prototypes and perform pilot runs»*, explains Bruno Morel.

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EUCLYDE/NEO TELECOMS JOINT VENTURE

A HIGH-SPEED DATA CENTRE WILL BE OPERATIONAL IN 2012

Euclide Data Center and Neo Telecoms have come together to create a neutral, independent, multi-operator **extra high-speed data centre** in Besançon. Installed closed to the Jean Minjot hospital, NEOCLYDE will be up and running in April 2012.

Euclide Data Center already manages 4000 square metres of IT centres in France, particularly in the regions. Neo Telecom is the second largest international IP transit operator, with a network spanning 11 countries. Together, the two companies expect the data centre in Besançon to address the maximum security needs for the data collected by companies.

The centre will offer a specialised range of services:

- Advanced data backup and restoration service,
- Cloud computing,
- Computation farms for scientific, medical, design and multimedia applications
- Long-term data archival,
- Information management services
- Supervision (on a 24/7 basis, with assistance)

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in brief

Pôle des microtechniques

Innovative advance

The MEDICALIP and DIONYSOS projects have now come to fruition and are delivering results.

■ **MEDICALIP** was aimed at allowing early cytomegalovirus screening in newborn babies.

Cytomegalovirus is one of the most common causes of congenital infections in newborns and can later lead to neurosensory complications (deafness, sight defects, etc.). While 0.5% to 2% of babies are CMV carriers at birth, 9 out of 10 are healthy carriers. The project has made it possible to develop a user-friendly device with an embedded microsystem for identifying and tracking carriers and preventing contamination. A prototype has been made and a patent has been registered.

■ **DIONYSOS** has allowed the completion of studies involving microelectronics components of the future. During three years

of research, the project, which has been renamed WOW (wafer-on-wafer), has consisted in assembling wafers of crystals with piezo-electric properties, and then making them finer and developing a new material with properties that result from a valuable combination of the qualities of the initial wafers. The combination has led to **new materials with novel properties that can find applications in the areas of radio-frequency communication, optics and MEMS.**



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Bridges to innovation



When it comes to building the future, curiosity is not a trait to be repressed. Quite the contrary! That is why the TEMIS technology park and the Management Boutique of Franche-Comté invited some hundred students from all the institutions of the area to take part in an innovation day on 17 November 2011.

The event was part of the national programme for innovation supported by RETIS for three years and provided greater visibility of the dynamics for innovation in the regions, by introducing its main players to the future and potential creators of innovative activities.

14 teams of students from all study programmes, the University, UTBM,

ENSMM and the high schools of Franche-Comté put their grey cells into action. The challenge: to build a bridge. A special bridge that would withstand a load equivalent to the weight of a ream of paper. To build the bridge, each team had to collect clues and tools from the parties involved in innovation. A convivial treasure hunt to learn more about innovation and the organisations that are behind it.



No. 1 in innovation

On the cover of its October issue, L'Entreprise published its 25th league table

of cities, which this year focussed on cities that support innovation, and studied the advantages of 113 towns and cities with a population of over 70,000. Besançon was the winning city of 100 to 200,000 inhabitants in the Innovation category.

New premises in TEMIS

In November, the Lazard group started the NOVATECH PLAZA programme, to eventually offer 5,200 square metres of low-energy business premises to let or for sale. The first constructions will be handed over in October 2012.

Welcome

Olivier BEAUNAY was recently appointed to the Scientific Cooperation Foundation of the Research & Higher Education Centre (PRES) of Burgundy and Franche-Comté. His international experience, both in the private and public sectors, is an undisputed advantage for the development of relations between universities and businesses.



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