

The micro technology cluster in brief

406 identified micro technology businesses of which
47 belong to a group and 399 are SME's
12,000 employees
680 researchers
7 specialized organisations
1,100 qualifications per year from CAP to engineer

113 members of which 78 business in 36 months:

- 77 certified projects
- 150 agents involved in sixty businesses
- 8 projects retained by the Unique Interministerial Fund
- + € 55 million, total amount of the basis of the project

Strategy 2009 - 2012

Technological axes:

- Micro fabrication and micro manipulation
- Microinjection and micro casting
- Microsystems
- Surface treatments
- Nano materials

Market axes

- Biomedical
- Transport and energy
- Measures and checks
- Luxury



The micro technology cluster: Innovation for life

*From optimised treatment of tumours using focussed ultrasound to micro-systems used for the diagnosis of infections, intelligent transfusers to optical probes for the diagnosis of skin cancer, new implantable and programmable valves to innovative methods of caring for diabetes, **the micro technology cluster promotes projects which will not only progress science but also give additional comfort to the patient.***

A dynamic for access to the medical devices market

The micro technology cluster has made the biomedical theme their top priority for action. As well as researchers in the medical domain and practitioners at the University Hospital Centre of Besançon, 8 industrial enterprises are strongly involved at the heart of the committee.

The construction of a network of competences is in motion:

- Thanks to the works of the committee, thirty enterprises have already been able to evaluate their capacity to position themselves on the medical devices market.
- A function charter for the implementation of a network of competences of businesses for the market is currently being elaborated.

Objective 2009:

Constitution of a network of laboratories and businesses capable of offering a global service on the medical market.

Biomedical innovation in action

Mobilisation of almost 50 French and European businesses and laboratories

ULTRASUR, sources of ultrasound focussed on treating tumours

IMASONIC, C&K, FEMTO, UTINAM (University of Franche-Comté).

Valvelec a new type of valve which can be implanted in the human body to treat hydrocephalus

Sophysa, CEA Liten.

Medicalip, a rapid and easy diagnosis at the bed of newborn babies to detect the cytomegalo virus

Stalice Sante, Alcis, FEMTO ST, CHU Besançon, CHU Dijon, INSERM, ARDEMME.

ContruTime secures the ultimate pre- transfusional check at the patient's bedside...

FEMTO ST, CHU Besançon, Etablissement Français du Sang.

Brain TEP, new tomography by emitting high performance positrons (TEP) dedicated to functional exploration of the brain.

CHU Besançon, University of Franche-Comté.

Trod to treat prostate cancer

Trod medical, Stalice Sante, Alcis, ENSMM Laboratoire d'automatique, Stockert, Hôpital Erasme (Belgium), Long Island Jewish Medical Centre (USA).

Monitorize

ATOM, Alcis, Stalice Sante, A2E, Carbuos Metallicos (Barcelona), CIC IT Besançon, I2M Design, Health Device Investigation.

Mecaskin

LIBC, Avelana, Bio exigence, Stalice Sante, Etablissement français du Sang, CHU Besançon, FEMTO ST.

MediSens Tech

LASMEA (CNRS Clermont Ferrand) FEMTO ST, LGMT Toulouse, pneumological service CHU Clermont Ferrand.

ZML improves surface treatment for the fabrication of prosthetics

Medicoat, LERMPS, ZIMMER, Institut Pierre Vernier.

Glasbox + Bioexigence

INSERM, Stalice Sante, Smartec (Switzerland).

Scout M: 10 businesses already coached to get into the medical market

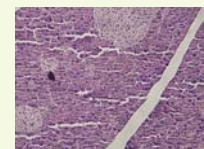
Transversal project supported by the micro technology cluster.

News

■ MAILPAN a new method of treating diabetes

Biovalley, the MAILPAN project (Macroencapsulation of pancreatic blocks) plans to lock up the cells that produce insulin in a permeable diffusion chamber, allowing the passage of nutrients and the production of insulin, but which constitute an efficient barrier to avoid the entry of antibodies and immunitary cells which aim to destroy the porcine blocks. MAILPAN proposes the development of an encapsulation module which will present the optimal conditions for diffusion thanks to an adequate choice of membrane. This function of this module will be to respond to biological constraints linked to rejection and vascularisation. Validated on small animals in the laboratory and on pigs, the module will be conceived following the tested techniques for mastering conception to optimise the result and the passage of clinical use on humans, and subsequently the CE tag.

Carriers: STATICE SANTE, ALCIS, l'Institut Charles Sadron (Starsbourg), le CTTM (Le Mans), le Centre européen d'étude du diabète et l'IVS (Paris).



■ IPSORTE : Easily measures the consequences of diabetes

The project

consists of developing a simple diagnostic tool which allows town practitioners to detect arteriopathy early in patients who present a cardiovascular risk, which is often the case for diabetic patients. IPSORTE aims to facilitate early detection and the realisation of the index of systolic pressure of the toe, this being complementary and precessional of the ISP of the ankle.

The doctors which would potentially be affected by this tool would be diabetologists. GP's, cardiologists, vascular doctors and surgeons.

Carriers: FEMTO-ST, CHU Besançon, STATICE SANTE, ALCIS

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