



NEXTMED

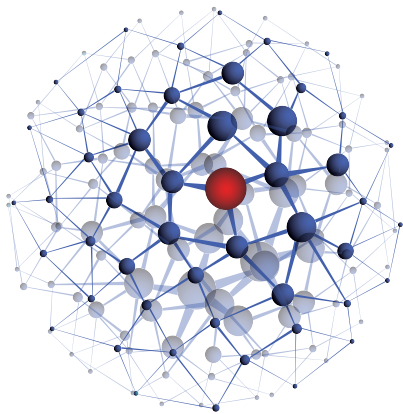
CITY AND EUROMETROPOLIS OF STRASBOURG

PRESS PACK



Strasbourg
the **eu**roptimist

*Nextmed is an international benchmark
for improving health care and
enhancing medical skills.*



nextmed



IN CENTRAL STRASBOURG, A SUCCESSFUL BLEND OF INNOVATION, HERITAGE AND MODERNITY

The Nextmed campus covers a vast area of 30 ha within the historical grounds of the city's civil hospital, just a short hop from the Cathedral and with its own tram station. The campus constitutes a whole new district in itself, reflecting its economic, scientific and environmental ambitions within a historical setting underlining the city's heritage and urban culture.

Nextmed is dedicated to frontline medical technologies and sets out to provide an umbrella for the people, organisations and companies working towards fast-to-market development of innovative medical devices and a reliable, ongoing pipeline for new products.

Work on the campus began in 2009, driven by the City and Eurometropolis of Strasbourg, working alongside the Alsace BioValley competitive cluster, Strasbourg's Teaching Hospitals, the University of Strasbourg and the Institute of Minimally-Invasive Image-Guided Surgery (IHU Strasbourg), specialising in hybrid surgery.

Nextmed is fully in line with the Eurometropolis' vision, with its international outlook and humanist aspirations, within a region recognised for its expertise in healthcare, a reputation underpinned by the 4 Nobel prizewinners currently working in Strasbourg.

The campus features buildings of decidedly modern architecture, sitting comfortably next to heritage buildings dating back to the 14th century and offers researchers, manufacturers and clinicians an outstanding work environment. It is also a setting where a large number of patients experience an enhanced quality of life.

Over €1 billion of public and private funding have so far been invested in the site's buildings, facilities and R&D projects since 2009.





THE NEXTMED CAMPUS: A EUROMETROPOLIS FLAGSHIP PROJECT

The overriding objective of Netmed is reducing time-to-market. The real-estate part of the campus is simply the starting point – the real added value lies in the support given to companies, irrespective of their size. The internationally-renowned competitive cluster, Alsace BioValley, and the Satt-Conectus accelerated technology transfer initiative, play a leading role in helping companies bring their products to market, find licensing partners and raise funds. Support is vital for ensuring project suitability within an ecosystem encouraging business development, and for this, financing and support need to be consistent. No stone is left unturned to help local companies open up to the healthcare market. Nextmed business solutions comprise 3 sections:

Setting up in the European MedTech capital:

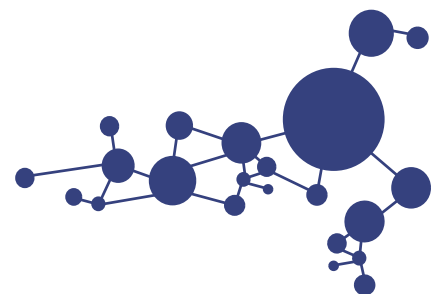
- 30,000 m² being built for healthcare businesses, including 7000 m² of rehabilitated space within historical buildings,
- 3 city-centre business incubators, already operational,
- An Innovation Park for healthcare businesses, just a 20-minute tram-ride from Strasbourg city centre.

Networking with an outstanding MedTech environment:

- Alsace BioValley, a world-class competitiveness cluster, specialising in healthcare innovation, Events highlighting emerging innovation in MedTech (including the European Hacking Health Camp, Digital Challenge in healthcare, MedFIT business conference and Biofit,
- IEEE Congress, MedTech workshop),
- Recognised by the State-sponsored FrenchTech initiative: HealthTech network, with its national secretary, Guillaume Facchi, the Head of Operations for Alsace BioValley.

Development driven by dedicated support systems:

- A MedTech Business Centre offering a wide range of expertise and assistance (including legal, regulatory, financial, marketing, HR, R&D, manufacturing and prototyping services),
- « Digital healthcare challenge »,
- Cluster call-for-projects,
- Assistance with fundraising,
- Mentoring.





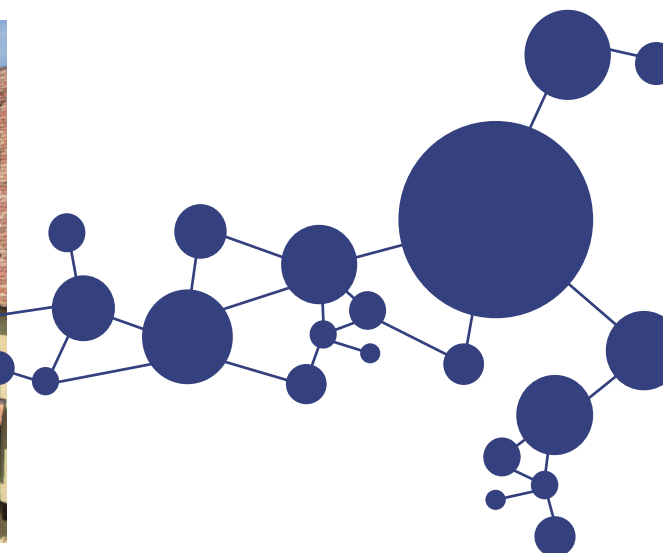
NEXTMED: AN INTERNATIONAL BENCHMARK FOR MARKET ROLLOUT IN MEDICAL AND SURGICAL DEVICES AND TECHNOLOGIES.

The Nextmed campus, located within the Strasbourg Teaching Hospital complex, provides an umbrella for all those involved in developing medical and surgical devices, including surgeons, researchers, engineers and manufacturers.

The medical technologies campus started up in 2012 and came about through worldwide scientific, medical and technological cooperation in healthcare.

Nextmed's ambition is to create an outstanding ecosystem within the medical devices market to help enhance patient quality of life, while boosting the Eurometropolis' business attractiveness. Scientific and medical excellence, illustrated by the 4 Nobel prizewinners currently working in Strasbourg, the Institut Hospitalo-Universitaire (Institute of Image-Guided Surgery), run by Professor Marescaux and the New Civil Hospital, show how important it is to build on the knowledge economy and the strength of this sector as a growth driver for the economy. The campus is able to leverage its cross-border and international reputation to bring together topline expertise in research, health care and training, within a campus with major attractions as much for international groups as for start-ups. The specialisation in medical technologies, in addition to the presence of major companies such as Medtronic, GE, Storz and Siemens, sets Strasbourg apart from other European centres of medical excellence and illustrates its forward-looking conception of the future. Some 1000 new jobs have been created and over 30 start-ups have begun business so far on the campus. This strong performance has been recognised by the FrenchTech mission, which awarded it the highly-regarded eponymous label in the medical-technologies section.

The campus is home to a large number of laboratories and care and training centres, which have brought in thousands of specialists and other talents, all in healthcare. These talents, whether working in one of the 16 labEX laboratories of excellence in Strasbourg, at the medical faculty as students (the University of Strasbourg is the leading university outside Paris in terms of scientific papers), or in major industrial groups and start-ups such as Insimo (Ernst & Young prize) and Defymed (successful fundraising), are all striving to create the medicine of the future.

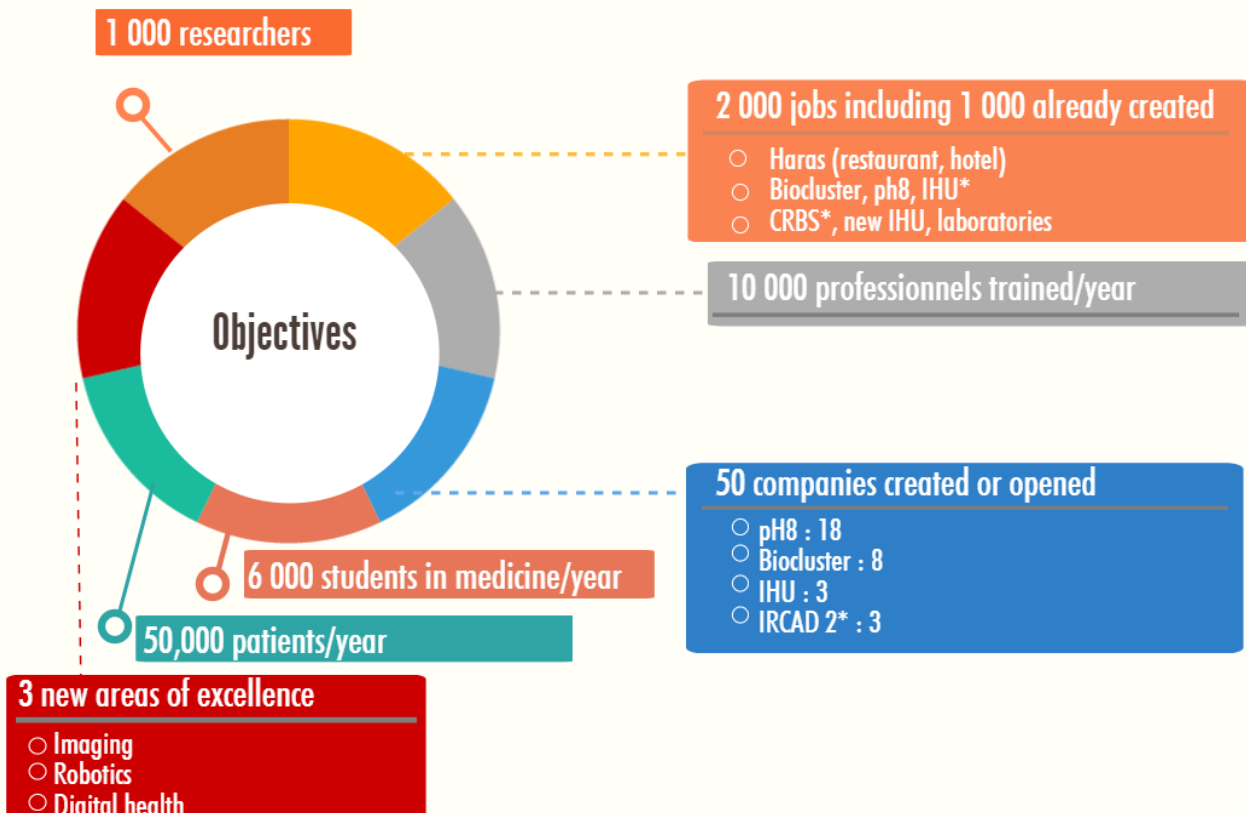


THE MEDTECH MARKET

Nextmed is driven by several market opportunities:

- The favourable dynamic within the medical technologies market (estimated at €200 billion, with average yearly growth of 8%), especially in minimally-invasive surgery and implantology,
- International recognition of the expertise of the teaching-hospital staff,
- Certification and funding for teaching-hospital projects, as part of the State-run Investing for the Future programme,
- The Eurometropolis' acquisition of land within the Strasbourg Teaching Hospitals in January 2016,
- The proximity of the German market, including Bade-Wurtemberg, the most active region in Europe for medical technologies (in terms of revenue and the number of businesses).

The objectives of Nextmed



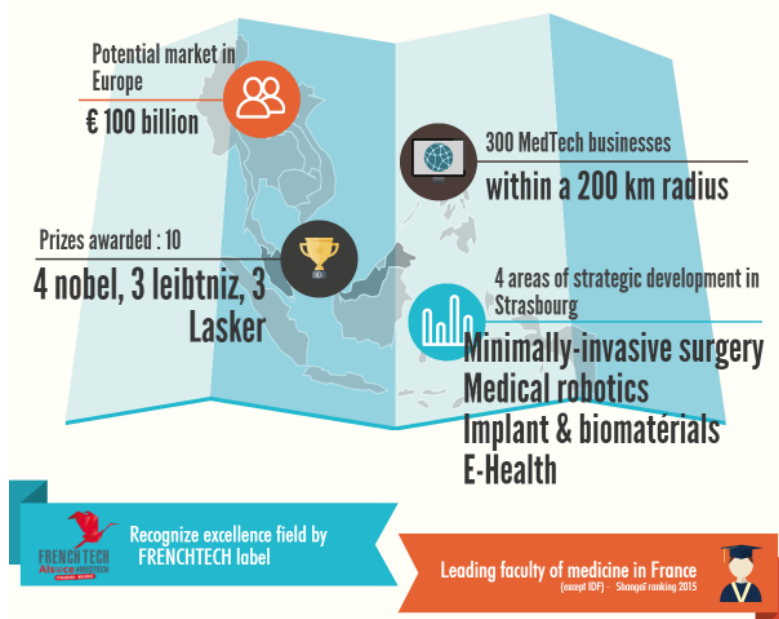
DID YOU KNOW ?

Storz, Siemens, Intuitive Surgical, General Electric Healthcare, Medtronic, Maquet – major companies in the industry – all have operations on the Nextmed campus in Strasbourg, and, with all the start-ups, training centres, sponsoring and R&D groups, work closely with healthcare professionals.





STRASBOURG CAPITAL OF MEDTECH



AN OUTSTANDING CITY-CENTRE LOCATION

Since the new civil hospital was built in 2008, the adjoining land has been in a constant state of development. The areas previously occupied by the old hospital have given way to new co-working facilities, renovations and specialist laboratories.

1794: The Strasbourg Faculty of Medicine: where history meets high-technology

Strasbourg's medical faculty, with its 5130 students, is one of the main parts of the University of Strasbourg and is bound to the Strasbourg Teaching Hospitals (HUS) by formal agreements. Many of the most famous names in world medicine have been through its doors, including 5 Nobel prizewinners in physiology and medicine: Alphonse Laveran, Albrecht Kossel, Paul Ehrlich, Otto Loewi and Otto Fritz Meyerhof. 83,500 m² are given over to teaching, which includes 297 different modules. Some 200 foreign students are able to benefit every year from partnerships all over the world to study within the faculty.

1888: the Faculty of Dental Surgery and the Strasbourg Dental Healthcare Centre: the first of their kind in the world



DID YOU KNOW ?

Strasbourg's dental surgery faculty features one of the only implantology and computer-assisted-design (CAD) laboratory training-centre in Europe. The facility allows students to study and work on new learning techniques in surgical implantology and in the design and machining of dental prostheses. Funds for the facility came about through public/private-sector partnerships featuring corporate sponsorship.

Dr Ernst Jessen was the forerunner of dental teaching in Strasbourg, through a private dental institute where he was working, in September 1888. His teaching stressed the importance of oral hygiene, which he suggested should be taught at a very early age, and also the need to regularly examine and treat children's teeth. Dr. Jessen actively campaigned for a dental-teaching clinic, which eventually opened in 1902, the first of its kind in the world, as part of Strasbourg's medical faculty. The Centre de Recherches Odontologiques (centre for dental research) opened in 1970, alongside a dental patient care centre.

In 2015, following 9 years of construction work and a budget of some €25 million for the infrastructures and technical facilities, the new, totally renovated faculty of dental surgery and the Centre for oral health medicine and surgery opened their doors to the general public. The new centre, with 8500 m², was over 4 times bigger than the previous one and every year it records some 95,000 patient visits for its 97 dedicated dental chairs.

1994: IRCAD: the worldwide benchmark for minimally-invasive surgery

The IRCAD Research Institute against Cancers of the Digestive System has its headquarters on the Nextmed campus. The Institute is a centre for research and training in innovation-led techniques in minimally-invasive surgery. 5200 surgeons from 112 countries come to Strasbourg every year to take part in training sessions, supervised by a consortium of 800 international experts, all opinion leaders in their specialties. IRCAD has built on its success to open 2 sister institutes – in Taiwan in 2008 and in the state of São Paulo in Brazil in 2011. A third extension is due to open in Rio de Janeiro in June 2017.

IRCAD's WeBSurg, an online university dedicated to minimally-invasive surgery, was created to enable surgeons worldwide to keep up with advances in minimally-invasive surgery. The website is available in 7 languages and has become the number-one online training facility in its specialty, with some 350,000 members.

IRCAD's research initiatives have always been innovation-led and over the last few years, the Institute has put its weight behind the transfer of technology. The Visible Patient startup, for example, which grew from research carried out within IRCAD and which now employs 18 people, successfully raised €4 million in its first fundraising round.

A number of surgical firsts illustrate IRCAD's leading role in promoting innovation in surgery, including the first transatlantic surgical operation, performed on a patient in Strasbourg by a surgeon in New York (Nature 2001); the first surgical procedure assisted by augmented reality (JAMA 2014), the first scarless surgery performed through natural orifices (JAMA SURG 2007); the first scarless surgical procedure for rectal cancer (JAMA SURG 2012); the first preoperative detection of an anatomical anomaly using 3-D virtual reality (New England J Med 2012).



Constantly looking for a better training of future doctors and health professionals, UNISMES works in cooperation with diverse structures (IRCAD, Ludus etc.) in order to develop and/or evaluate new educational methods.

2008: the construction of the New Civil Hospital (NCH)

Strasbourg's New Civil Hospital (NCH – Nouvel Hôpital Civil) comprises 2 buildings with a total surface area of 90,000 m². It was opened on 31 March 2008 and has 715 beds. The central operating block includes 15 operating theatres and 13 outpatient surgery rooms.

The hospital is built over 8 floors and has facilities for helicopters for use in emergency situations. The NCH contains the pneumology, cardiology, cardiovascular and thoracic surgery, internal medicine, liver and digestive surgery, nephrology, post-operative and intensive care, urology, ophthalmology and dialysis wards, in addition to an accident and emergency unit. Its facilities include a Da Vinci medical robot.

The new hospital's imaging facilities include 3 scanners, 2 MRIs, 6 interventional radiology rooms and 2 gamma cameras. It has for many years been ranked fourth-best hospital in France by leading French magazine Le Point.

2012: Carnot-MICA Institute: specialists in medical materials

The MICA Carnot Institute is a leading player in innovative materials with a comprehensive offering to meet manufacturers' needs in terms of functionalities, processes and uses, through incremental innovation and technological breakthrough. This Carnot Institute membership features the University of Strasbourg, INSERM, the Strasbourg Teaching Hospitals, CNRS, the University of Upper Alsace and the Institut Saint Louis and features 8 research units and 7 Technological Resource Centres, covering the whole of the value chain, from design to life-cycle analysis, including environmental impact.



DID YOU KNOW ?

The NCH's interventional radiology facility is the first in Europe and one of the only ones in the world. Interventional imaging is a recently-developed specialty whereby interventional radiologists perform image-guided surgical procedures, usually using x-rays, ultrasound, fluoroscopy or backscatter x-rays and also, in Strasbourg, MRI.



2012: pH8: opening of the first incubator on the campus

The pH8 incubator is housed in a neoclassical-style, city-centre building, which previously belonged to the Ecole Nationale d'Administration. It was constructed in 1866 and is located right opposite the entrance to the civil hospital. It was bought by the Eurometropolis and renovated at a total cost of €250,000. The incubator currently has 75 people in 9 companies working in it, all in medical or digital technologies. The fully-equipped offices vary in size from 9 m² to 25 m², a modular design suitable for businesses of all sizes and which is tailored to their growth potential. The building is served by the nearby tram system.

With an occupancy rate of 95%, pH8 has proved to be a considerable success and is now being extended to include an extra 900 m² to house additional businesses and also cater for the growing needs of the current occupiers.

PH8 SUCCESS STORIES



mondocteur.fr

ADAPTHERAPY
Precision Medicine



evomed

Hakisa.com

Rondol

HORIZONS QUALITÉ

facilien

2013: renovation of the Strasbourg Haras, the former Royal stud farm

In 2009, the City of Strasbourg signed a 52-year lease handing over the renovation and running of the Haras (the former Royal stud) to IRCAD. Work began on restoring the site in 2010, under the aegis of the French Ministry of Culture, and under the control of the Regional Directorate of Cultural Affairs, the French architectural review board (Architecte des Bâtiments de France) and the Regional Registrar for Historical Monuments.

The new centre opened in 2013 and the Haras now houses a brasserie restaurant, a 4-star hotel and the Biocluster incubator for innovation-led healthcare businesses.



DID YOU KNOW?

The Brasserie des Haras ran out the winner of both the Europe and World categories of the Restaurant & Bar Design Awards 2014. Located within Strasbourg's former Royal stud farm and supervised by 3-star chef Marc Haerberlin, the restaurant beat 850 other establishments to win first the "Best restaurant in Europe" and then the "Best restaurant in the World" awards.



DID YOU KNOW ?

The IRCAD hosts Europe's biggest training centre in robot-assisted surgery (7 Da Vinci Surgical Systems). Moreover, another platform enables the training of all sales force and marketing teams of the Medtronic company, which transferred its European headquarters from Paris to Strasbourg.

2013: ICube: Imaging and Robotics Laboratory

ICube is a top-ranked biomedical engineering laboratory and represents a major driving-force in research, with some 580 people working in 14 research units around Strasbourg. While its overall expertise resides in imaging, ICube's main fields of application are engineering for health, the environment and sustainable development. It is also an internationally-renowned laboratory for medical robotics.

2013: UNISIMES - the European unit for simulation in healthcare: learning through HD simulation and role-play

UNISIMES (UNITé de SIMulation Européenne en Santé - European unit for simulation in healthcare) is part of the Strasbourg medical faculty. It sets out to contribute to the education of medical students in all areas of healthcare, through the use of simulation. HD simulation means that specific situations can be recreated, in perfect safety. The syllabus also includes role-plays and serious games to help accustom students to clinical situations of all types.

As part of UNISIMES' ongoing mission to provide the best training for future doctors and healthcare professionals, it works closely with other organisations, such as IRCAD and Ludus, to come up with and assess new teaching tools.



DID YOU KNOW ?

The multiple-award-winning startup Axilum Robotics is a spin-off of the ICube laboratory, and was started by scientists working in the "Automation, Vision and Robotics" research group. Axilum Robotics SAS was created on 7 April 2011 by a multidisciplinary team comprising researchers, PhDs in medical robotics and a medical doctor and graduate of HEC business school. The company's first product is a robot for Transcranial Magnetic Stimulation (TMS), for use by healthcare professionals and researchers.

2014: the Haras Biocluster: high-end incubator in the old Haras Royal stud farm

The Biocluster is housed in the old Haras Royal stud farm. It opened in January 2014, in a magnificent setting covering 800 m² over 3 levels, funding for which was provided by the local authorities. The cluster is intended for innovation-led start-ups in the field of medical instrumentation and its mission is to drive the transfer of innovative technologies developed within the IRCAD Research Institute against Cancers of the Digestive System and the Institute of Image-Guided Minimally-Invasive Surgery (IHU Strasbourg) to show that patient care should not be considered as an extra cost, but instead as a driver for the economic development of a region or country. Biocluster currently hosts 5 start-ups, including Visible Patient, with its 18 highly-qualified employees.

2016: opening of the Institut Hospitalo-Universitaire (IHU - the University Hospital Institute): Image-Guided Surgery

The Institute of Image-Guided Surgery is a centre for the promotion of biomedical innovation. Its 12,000 m² offer patient facilities that are to be found nowhere else in the world.

The new building features 9 hybrid operating rooms combining technologies for laparoscopic, endoluminal and percutaneous surgery. An experimental platform provides the facilities for testing the efficacy and safety of new medical devices.

The Institute's ambition is far-reaching and sets out to bring augmented surgery into mainstream use, offering surgeons an augmented vision, combined with enhanced intelligence.

IHU Strasbourg is one of the 6 centres of excellence in medicine recognised within the State-run Investing in the Future programme. An interim assessment by an international jury underlined the excellence of the governance and the scientific program, following which President François Hollande announced that funding would be extended beyond the initial 10-year period.

In accordance with the requirements underpinning the Institute's operations, IHU Strasbourg is obligated to create new "disciplines", for which several degree courses have been developed in conjunction with the University of Strasbourg, leading to the creation of a new hybrid medical specialty combining conventional minimally-invasive surgery, flexible interventional endoscopy and interventional radiology.

In addition, a training course based on Stanford's Bio Design program has been set up for junior surgeons, engineers and managers in order to inject an entrepreneurial spirit into the medical curriculum.

DID YOU KNOW?



IHU enjoys a robust partnership with Siemens Healthineers, whose biggest investment in France thus far has been in the operating rooms of the new Institute. The transfer of imaging systems within operating rooms is a new concept for Siemens Healthineers and one of its strategic priorities for the 10 next years. A special 4-day seminar was held last spring, involving IRCAD/IHU and some 250 Siemens Healthineers engineers from all over the world, to consider the future of the company.

7 references World

7 references Europe

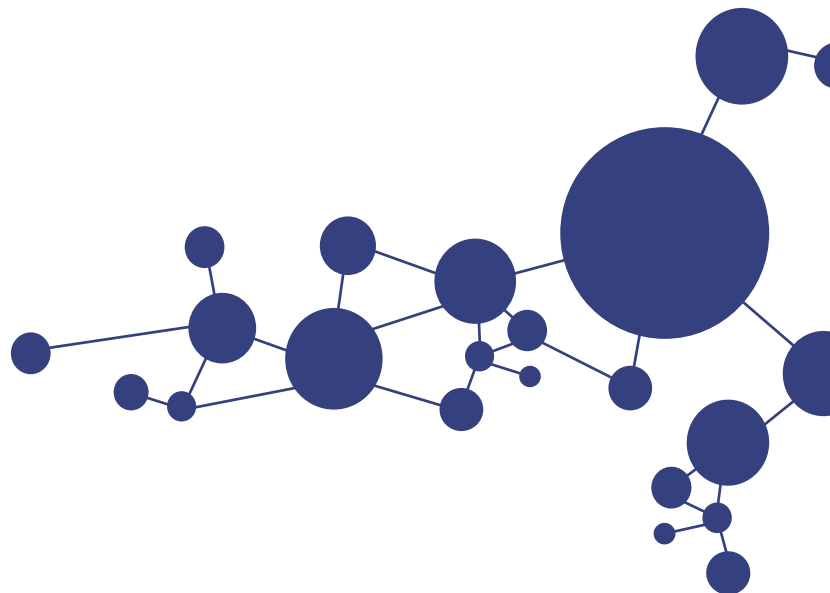
10 references France

- Label FrenchTech MedTech section
 - Trinationnal cluster Alsace Biovalley
 - 4th best hospital in French
 - 1st university for scientist publication
 - Conectus 1st SATT created in French (collaborative research & technology transfer)
 - Quality-label IdEx in 2016 (best rate in France)
 - 11 LabEx in Healthcare
 - 5 biotechnologies infrastructures
 - Condor Project, one of major numeric challenge
 - Platform of pédiatrics online
- European Campus
 - Main European laboratory AlloMap
 - Factory school EASE
 - Only one place of innovation integrated in the heart of a big city
 - Hacking Health Europe
 - CEED – European center of diabetes research
 - Training center for implantology in the dental surgery university
- IRCAD (France, Brésil, Taïwan)
 - IHU - Institute of image-guided surgery
 - Scientist environment : 4 nobel prizes in activity
 - IGBMC : most powerful microscope of world
 - A unique concentration of major companies : Medtronics, Siemens, General Electric, Storz...
 - GE R&D center in radioprotection
 - FEERIX Platform

2017: The Strasbourg Biomedical Research Centre – a unique unit for translational research in biomedicine

INSERM, the Teaching Hospitals and University of Strasbourg will be bringing their research teams together in this new unit in the Nextmed campus specially designed for translational research, to focus on 4 themes:

- Biomaterials,
- Infection-inflammation,
- Neurosciences,
- Medical genetics.



The Alsace Institute of Medical Genetics, also to be found in the Biomedical Research Centre, will exemplify this clinical/ biological crossover through a symbiosis between clinical and scientific practice. Dedicated premises for translational research in biomedicine will offer several advantages:

- Laboratories' ability to adapt for the renewal of certain research contracts and to scientific developments,
- The pooling of facilities,
- Encouraging the exchange of information between researchers within the building and the campus itself, by setting up an attractiveness unit on Nextmed.

For the campus, this project is also the first step of an overall redevelopment, the aim of which is to improve the way the campus functions and to increase awareness of the campus within the city itself. The site occupies a pivotal position between the New Civil Hospital (one of the main units of the Strasbourg Teaching Hospitals), the microbiology institutes and the teaching buildings and provides a focal point for encouraging exchanges and synergy between teaching and research staff.

The Biomedical Research Centre will also help boost the attractiveness and reputation of Alsace both across its borders and internationally.



Crédit photo : Groupe 6



NEXTMED IN THE EUROMETROPOLIS

The Technoparc: a unique research and development facility in central Strasbourg.

The future Technoparc is located south-east of the Civil Hospital and is a key component of the Nextmed project.

The site is in the city centre, just a short walk away from the cathedral, in a 1.5 ha site bought from the Strasbourg Teaching Hospitals by the Eurometropolis in February 2016, following deliberations in December 2015. The decision to provide a facility for patients and healthcare professionals alike in central Strasbourg is a significant signal of intent by the City and Eurometropolis.

The redevelopment of the site also provides the dynamic for opening it up to the city and providing a gateway to the hospital campus of the future, with some remarkable buildings from the city's historical heritage standing next to new, high-quality public spaces within an area contributing to environmental excellence.

An ambitious project, fostering synergy between healthcare stakeholders

The Technoparc will be the main area for hosting medical technologies and related businesses within the campus.

The main thrusts of the programme are as follows:

- The provision of facilities for businesses linked to the hospital, working in medical and digital-related healthcare, with a maximum capacity of around 30,000 m²,
- The provision of facilities for businesses of all sizes, with rental costs starting at €120/m²/yr of usable floor space, excluding charges,
- A reversible program which can be tailored to variations in demand, featuring office space and laboratories, with a modular design to keep up with changing requirements.



The overall aim is to create the conditions for comprehensive collaboration and synergies between businesses and medical institutions, both within the Technoparc and in the Nextmed campus as a whole.

The new buildings will be split into 3 separate parts:

- Conversion of the ENT building and extension: 8500 m² of floor space ;
- Conversion of the pavillon Blum (keeping the lecture theatre): 500 m² of floor space ;
- New facilities: 20,200 m² of floor space.

Participatory governance, for a shared objective

For the purposes of this operation, the Eurometropolis opted to introduce a 15-year real-estate development concession, following competitive tendering. The proposed process is particularly innovative as, in the wake of related legislative developments in early 2016, it is the first time that a broad range of briefs is being given to the appointed company and these include the development of external spaces, the conversion of the ENT and BLUM buildings and the lease management of the properties.

This process also differs from usual procedures in that the 2 buildings will not be sold to the appointed company, but will be kept by the Eurometropolis of Strasbourg, which will therefore continue to be involved in the project governance and will be able to supervise the quality of the architecture, the type of company allowed to set up on the campus and the rents to be applied.



The Nextmed campus covers the whole of the Civil Hospital site and as such, there are many different public and private-sector building owners and project leaders, such as NCH, IRCAD, IHU and Biocluster.

The cornerstone of this organisation is a participatory and virtuous governance shared between all the stakeholders contributing to the implementation of the projects, when they are not themselves the project owners. The Technoparc is a full part of this collaborative process with our partners.

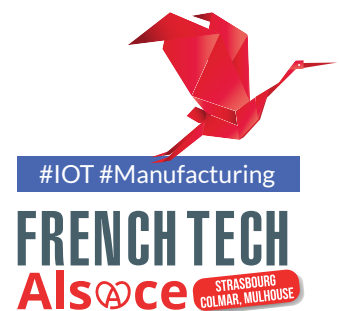
This feature is the main strength of the Nextmed project and has been recognised at national level. It will help make Strasbourg one of the 5 main cities in Europe for the number of companies specialising in medical technologies.



DID YOU KNOW ?



Guillaume Facchi, head of operations for the Alsace BioValley healthcare competitiveness cluster was appointed national secretary for the French Tech #HealthTech network on 22nd November. He will be responsible for coordinating and structuring the healthcare network nationally over the next 2 years.

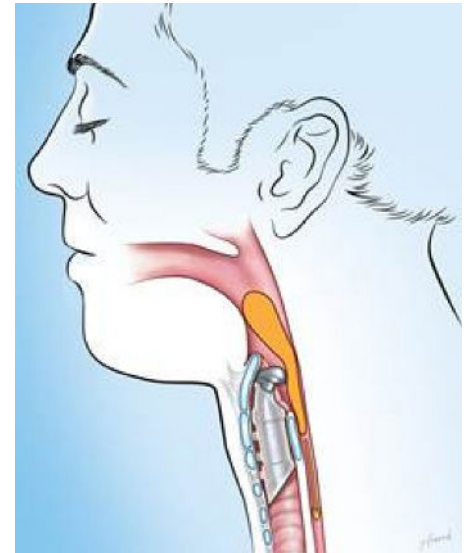
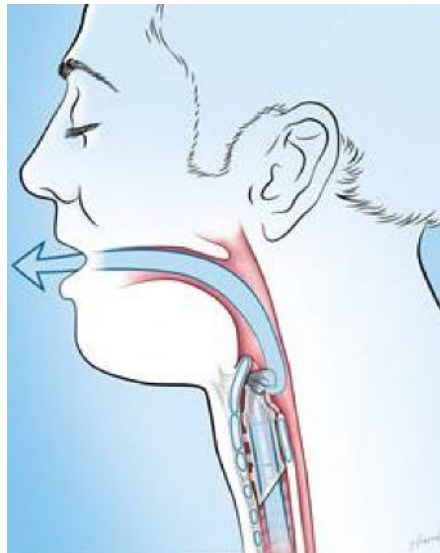
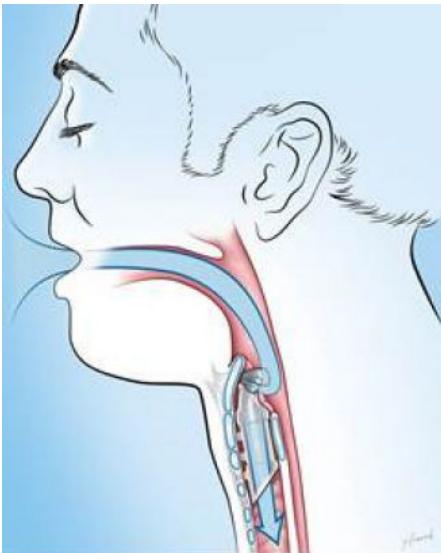


OUR START-UPS ARE FLYING HIGH!

Breakthrough medical-device company PROTiP Medical has its offices in pH8, by the entrance to the campus. The company was created in 2004 and is a specialist developer of intelligent biomaterials and of implants for patients suffering from diseases affecting the larynx, through research partnerships with leading laboratories in Europe and the USA. PROTiP Medical was behind the first implantation of an artificial larynx in a human patient, a procedure performed in 2012 by surgeons from the Strasbourg Teaching Hospitals.

The operation was successfully repeated in summer 2013, thereby validating the implant procedure for the ENTegral® device. The company has been certified by FCPI, the French innovation investment fund, and has received funding from BPIFrance, the French bank for investment and innovation, and also from région Alsace. PROTiP Medical now has some 15 employees in France, Belgium and Germany.

**PROTiP: THE
WORLD'S FIRST
ARTIFICIAL LARYNX
pH8**



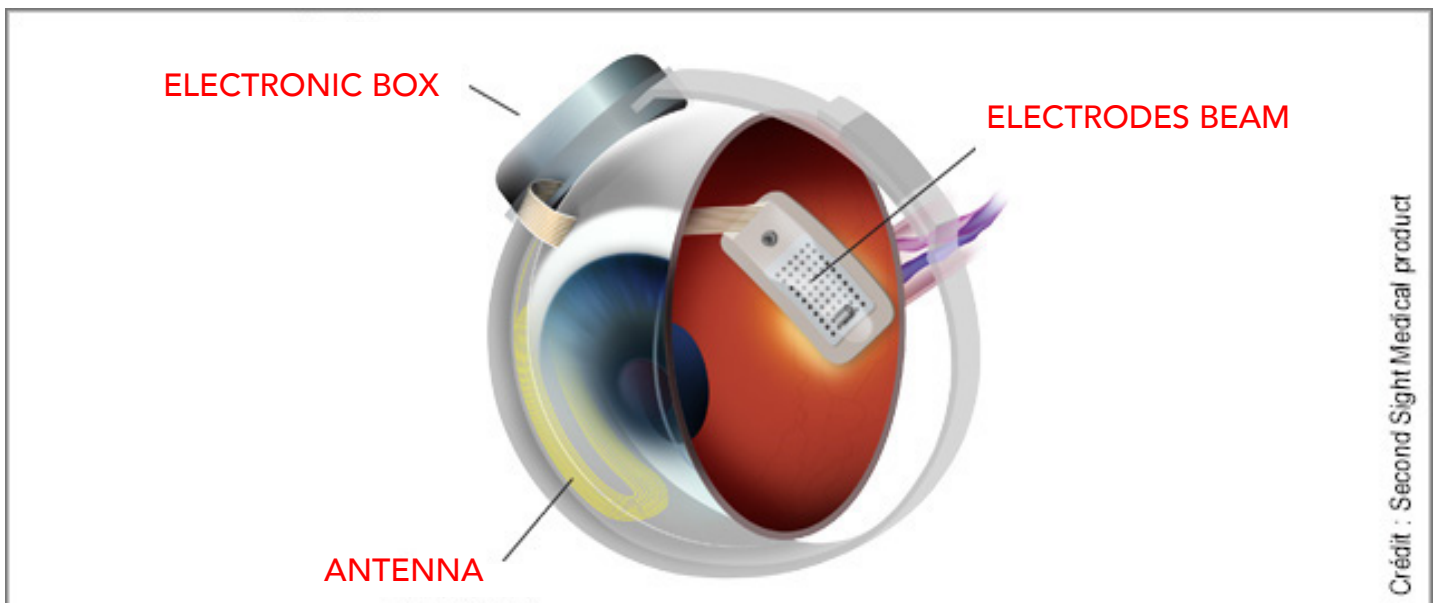
The implant was performed in conjunction with the CARGO rare ophthalmic genetics disease referral centre and the ophthalmology department of the Strasbourg Teaching Hospitals in March 2015.

The Argus II® Retinal Prosthesis System, also known as the bionic eye, or the artificial retina, has been developed by Second Sight, worldwide leader in visual prostheses for blind people, and is the result of some 20 years of research and development performed to restore sight to blind people.

It is the first and only implant available for partially restoring sight in people suffering from certain forms of retinal degeneration. The company has received market approval for Europe and the United States and the device is currently being used by over a hundred patients worldwide. Clinical experience now amounts to over 7 years since these breakthrough implants were first fitted.

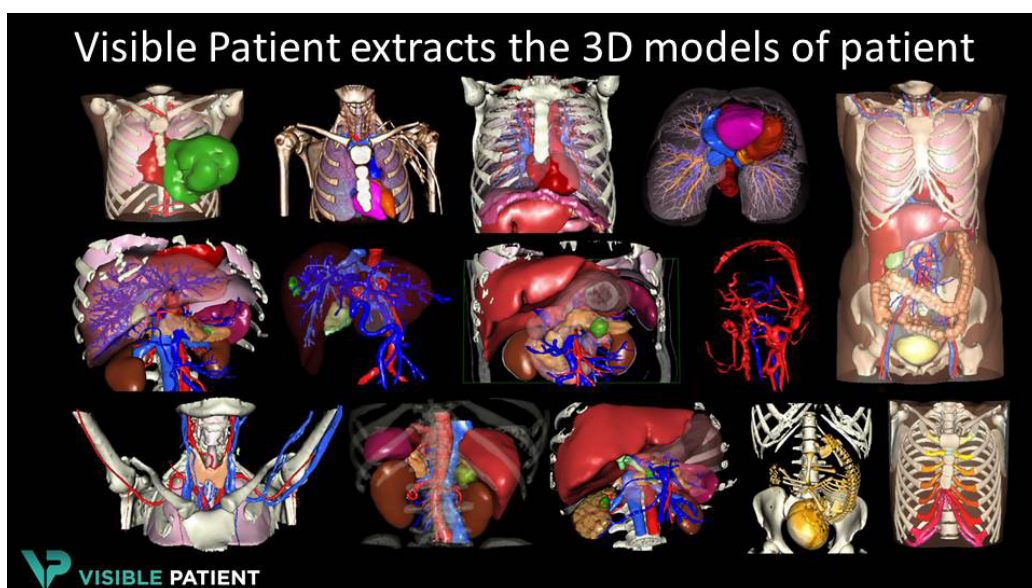
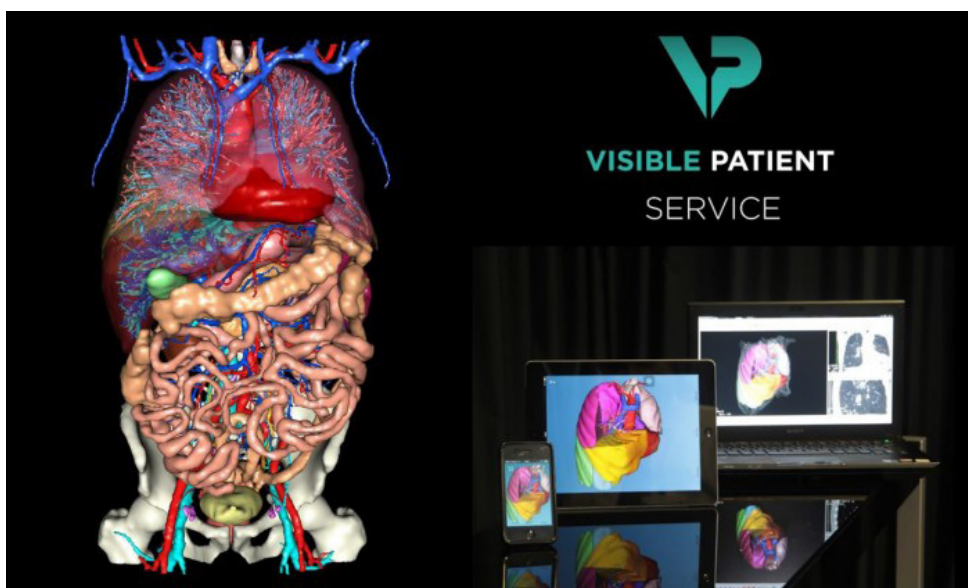
The cost of the procedure (€97,000 per patient) is financed by the French Ministry of Health, under its medical innovation scheme.

**THE WORLD'S FIRST
BIONIC EYE IMPLANT
– STRASBOURG
TEACHING HOSPITALS**



Visible Patient develops computer-assisted solutions for image-guided surgery. The aim is to enhance precision and safety in surgical procedures, by providing a virtual transparency of the patient. Visible Patient has developed an innovative, user-friendly online service for physicians who need a patient specific 3-D model to efficiently plan therapy or surgery. Visible Patient obtained FDA approval in 2015, which paved the way for the company to market its technology worldwide.

VISIBLE PATIENT
– IMAGE-GUIDED
SURGERY – HARAS
BIOCLUSTER



Axilum Robotics was created in 2011, and is a spin-off company from the medical robotics research group of Strasbourg's ICube laboratory.

Based on an ICube proof of concept, the company has developed and marketed the first robot specifically designed for helping researchers and physicians in Transcranial Magnetic Stimulation (TMS).

TMS is a technique for non-invasive neurostimulation for use in treating, for example, drug-resistant psychiatric and neurological diseases.

The company's robot is the first to have been developed for this application and is in use in France, Brazil, Denmark, Spain and the USA.



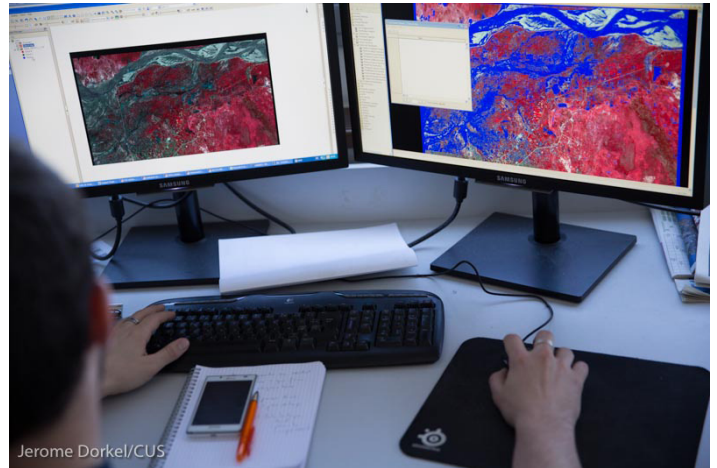
AXILUM ROBOTICS – ICUBE LABORATORY

GENERAL ELECTRICS DOSEWATCH – pH8

DoseWatch is dose-management software allowing healthcare professionals to gather data, track dosimetry and generate reports directly from imaging systems.

The software enables radiologists to administer the appropriate dose, and generates dose images of diagnostic quality. Cumulative dose-tracking prevents excessive patient exposure in real-time.





MICHEL DE MATHELIN, VICE-PRESIDENT OF STRASBOURG UNIVERSITY & DIRECTOR OF THE ICUBE LABORATORY

« Strasbourg has all the key features needed for businesses in biomedical engineering.

- The presence of a French university with an outstanding research and teaching track-record in the area.
- The possibility of hiring talents and driving research projects in the heart of the Upper Rhine region, which contains many of the major German and Swiss companies in the sector.
- A direct link with a leading teaching hospital and a competitive cluster, Alsace BioValley, for help in setting up research and development projects.

The advantage that Nextmed has over its competitors in France is the closeness and synergy it enjoys with researchers, clinicians, innovative businesses and outstanding technical facilities.

The site is unique for the opportunities it offers for translational research and for developing medical devices.

Nextmed is a key part of ICube strategy, which will see it occupying a significant place on the campus to drive our partnerships with industry, increase our international reputation and attract new public and private-sector partnerships. »



SÉVERINE SIGRIST, PRESIDENT OF THE ALSACE BIOVALLEY COMPETITIVENESS CLUSTER AND CEO OF THE DEFYMED STARTUP:

« The Nextmed project was devised in the Alsace BioValley competitiveness cluster, with the idea of harnessing the sources of Techmed excellence within the Strasbourg Teaching Hospitals and bringing them together within a single site for conceiving, developing, testing and prototyping the healthcare technologies which would make up the medicine of the future.

It is no coincidence that the project started here in Strasbourg, for Alsace can boast a far higher concentration of scientific and manufacturing excellence in health care than in any other part of the country, especially with regard to the State-run Investing for the Future programme. The city is home to many world-class facilities in health care.

The Strasbourg Teaching Hospital, for example, rated the 4th best hospital in France[1], contains the privately-run IRCAD[2] centre, which trains some 6000 surgeons from countries throughout the world in cutting-edge minimally-invasive surgical techniques. IRCAD has since been joined by its younger brother, the IHU[3], which is dedicated to image-guided surgery, and ICube, a major centre of academic knowledge, with some 450 researchers in imaging and medical robotics.

It therefore made perfect sense for Alsace BioValley to bring everyone together to develop a campus specifically aimed at healthcare technologies, within a unique city-centre site and the exceptional environment of the Franco-German-Swiss BioValley*.

This trilateral region offers an unrivalled Healthcare ecosystem, with over 600 specialist companies within 200 km of each other, surrounded by an outstanding academic pool of talents (which includes 7 Nobel prizewinners), exceptional scientific infrastructures, often the only ones of their kind in Europe, not forgetting top-ranking hospitals and universities.

Alsace BioValley has its role to play in this environment, encouraging the development of healthcare technologies. Project leaders, manufacturers and researchers can count on its support for helping them in innovation-led initiatives or accelerating their growth. With its 155 members active in health care, it offers a remarkable network for helping those seeking to achieve a genuine development dynamic. While Alsace BioValley offers services for supporting innovation in business, the Nextmed campus is one of its strategic priorities. 2 dedicated project managers are working on growing, coordinating and structuring the future of the Campus. They are building up a range of services which fit in perfectly with the specific requirements of the businesses which are or will be working on the Campus.

Read more →

To help position Nextmed within an environment on the cutting-edge of progress, Alsace BioValley is playing an active role in a series of events designed to help drive the emergence of innovation in techmeds (including the European Hacking Health Camp, digital challenges in healthcare and the MedFIT business convention) and French initiatives such as French Tech, la Nouvelle France Industrielle and l'Industrie du Futur. Underscoring this process, Guillaume Facchi, Head of Operations for the Alsace BioValley healthcare competitiveness cluster, has been appointed national secretary for the French Tech #HealthTech network

Our ambition is clear and is to make Nextmed "a town within the city", to provide it with all the resources it needs to host the best talents in healthcare innovation and to interact with the whole of the vibrant ecosystem, ready at hand. »

¹ "Le Point" study, 2015

² IRCAD, Research Institute against Cancers of the Digestive System

³ IHU, Institut Hospitalo-Universitaire - Teaching Hospital Institute



PIERRE-JEAN BENSOUSSAN – CHIEF OPERATING OFFICER OF THE **INSIMO** STARTUP

« The Eurometropolis of Strasbourg's project for developing the local economy through healthcare is a coherent initiative with a clear ambition. We can sense that the project has solid foundations and that ambitious entrepreneurs will receive long-term backing and support. The starting-point of a network of multidisciplinary skills based on healthcare is a source of considerable hope for forging the type of collaboration required for bringing healthcare projects to fruition. I would add that there are several excellent local examples which show us the way and help us believe that genuinely ambitious growth is well within the reach of our projects.

The campus stakeholders and local authorities are the human interface and it is vital for us to be able to quickly find out who the right people are, create a bond of trust and have easy access to decision-makers. I found this to be particularly intuitive and efficient in Strasbourg. The campus helps us to build up a local profile and also us to showcase our successes, which is always good for staff morale. For our premises, interconnections meant we were able to benefit indirectly from the Biocluster to have space made available for us in IRCAD2.



MICHEL BERG – CEO OF THE **AXILUM** ROBOTICS STARTUP

« In medical robotics, Strasbourg and its region are home to cutting-edge laboratories such as ICube, a dynamic SATT (organisation for technology transfer acceleration) with the resources for investing in projects likely to reach the industrialisation stage, high-level manufacturing skills, an IHU (University Hospital Institute) and a competitiveness cluster efficiently performing its role as coordinator. Together, these different components are the building blocks for developing a successful medical and surgical robotics sector in Strasbourg.

Our project was certified by Alsace BioValley and selected for funding by the FUI (single inter-ministry fund). Strasbourg and its Region were instrumental in helping us through these initial stages, which were key to getting the project off the ground. The cluster also provides assistance on a regular basis to help us raise our profile. Axilum Robotics must continue to innovate and to invest and funding for our development projects is therefore vital. The presence of regional funds, capable of providing long-term support, is crucial.

Training in robotic procedures is a powerful tool for convincing healthcare professionals of the benefits of robotisation, both with regard to the quality of the procedures and to the management of medical resources. We hope to grow this business in Strasbourg and the Nextmed project, which will bring innovation and care into close proximity, is a major opportunity for achieving this ambition. »

Access to the local entrepreneur, political and investor network is also facilitated by the various networking events that are regularly held to encourage the emergence of a campus identity outside our IRCAD/IHU bubble, and therefore to pool more of those little initiatives which are one of the main results of the group effect.

Strasbourg is paving the way in a highly competitive sector and can offer several advantages, including:

- accessible and innovation-sensitive local medical expertise in our sector
- potential customers in the MedTech sector
- high-quality training for our specialties in the universities and engineering schools (especially in information and communications technologies in healthcare)

In time, we would like to be able to have premises in the Technoparc and to remain in close proximity to both the hospital environment and the city centre. A major advantage, both commercially and for attracting new talent, is the emergence of an internationally-recognised brand image. Nextmed, for me, is its energy, its encouragement in driving initiatives, its philosophy of acting together and helping each other -- in a nutshell, a campus mindset. »

MATTHIEU KERN, CEO OF THE PHYSIOCHECK STARTUP

« The original idea for our product came from pharmacists and was first announced at the Hacking Health 2015 to other professionals such as developers, marketers, designers and entrepreneurs, whose background gave them a different way of seeing the project. This meant we were able to move forward quickly on different points, such as deciding on whether the project was feasible, by bringing together a multidisciplinary team over a weekend in Strasbourg. So from this original idea, there emerged a proof of concept approved by a panel of professionals, and which, among other prizes, also won an award given by the Doctissimo website. This experience allowed us to clarify a number of issues, prioritise the next steps and, above all, form the PhysioCheck team, comprising 3 associates, each with different area of expertise, in technology, medical marketing and finance.

The most important thing to come out of this initial stage was the credibility of our project and our team, which facilitated contacts both in the business and medical communities and also opened the way for us to join the Alsace BioValley competitive cluster and to have premises in the pH8 incubator on the Nextmed campus.



It also made it easier to hire people from different fields of expertise, while the publicity surrounding Hacking Health gave greater prominence to our name, especially in and around Alsace, and also in the trade press, such as the APIEP, a journal for pharmacy students.

We have been given considerable help by experts on the campus as to the feasibility of different points of the project, initially regarding medical issues and subsequently for the prototyping of our analysis device. Alsace BioValley gives us help finding public and private-sector funding by introducing us to the relevant organisations and also regularly invites us to take part in healthcare-related competitions, conferences and trade fairs.

We are now seeking to grow various aspects of PhysioCheck's structure – increasing our technical, and marketing expertise, widening our knowledge of the healthcare regulatory framework, building up our human and financial resources, creating partnerships with major healthcare stakeholders, which will also help us raise our profile, and hopefully take advantage of the expansion of the campus to find larger premises. We then intend to seek to market our product internationally, to break into a far bigger market. »



**SÉBASTIEN VILLARS, SITE DIRECTOR,
GENERAL ELECTRIC HEALTHCARE
STRASBOURG**

« Strasbourg has helped our organisation grow by providing crucial resources, such as engineers trained in software development or medical technologies, along with an ecosystem encouraging medical innovation and a testing ground within the teaching hospital. We have always been able to find locally the talents needed for a job and have also seen some of our engineers themselves join new start-ups.

The local university system has given us the opportunity to form profitable partnerships with, for example, the Télécom/Physique engineering faculty and with the University of Sciences and Healthcare (radiation physics and mathematics). We are also ideally located within the pH8 incubator on the Nextmed campus, which makes it much simpler to connect with other companies and brings us closer to potential customers, while showing future customers that we are in close touch with healthcare reality. »



MESSAGES FROM OUR PARTNERS:

« The launch of the future Technoparc is a key stage in the consolidation of the Eurometropolis' leadership in the medical technologies sector. This economic development project for improving healthcare is a strong, partnership-based ambition led by the local authority, the Strasbourg Teaching Hospitals, the University and the associated public and private-sector partners. Over 1000 new jobs will be created in the sector over the next few years. »



ROBERT HERRMANN
PRESIDENT OF THE EUROMETROPOLIS OF STRASBOURG

« As the groundbreaking Technoparc project in the Nextmed medical technology campus is now firmly underway, I would like to stress the City of Strasbourg's long and special involvement in healthcare, which mirrors that of the city's Teaching Hospital, the fourth-ranked such hospital in France and a major centre of excellence and research. The future Technoparc, with its ideal city-centre location, in immediate proximity to public and private research laboratories and to the best professionals, illustrates the vibrancy of the ecosystem which has grown up within the civil hospital. This has given rise to a genuine strategy, unique among the major cities of France, aimed at the healthcare of the future. »



ROLAND RIES
MAYOR OF STRASBOURG
PRESIDENT OF THE SUPERVISORY BOARD OF THE
HÔPITAUX UNIVERSITAIRES DE STRASBOURG

« Nextmed is seeking to be the international benchmark for medical technologies and the enhancement of healthcare. The campus offers an umbrella for industry and all stakeholders in healthcare, research and training to develop the technologies of the future. The Technoparc opens up new opportunities, with 30,000 m² for accommodating businesses looking to set up within this ecosystem and for the start-ups which will be created within it. »



CATHERINE TRAUTMANN
VICE PRESIDENT OF THE EUROMETROPOLIS OF STRASBOURG
IN CHARGE OF ECONOMIC DEVELOPMENT

« The Nextmed project provides the opportunity for innovation-led businesses in the healthcare sector to set up in the immediate vicinity of the hospital, thereby underpinning the geographical and physical importance of Strasbourg's Teaching Hospital within the city and its excellence in the development of medical technologies and new therapies. As a meeting point between manufacturers and practitioners, researchers, engineers and other healthcare professionals involved in business projects, this medical technologies campus provides an ideal fit with the teaching, fundamental research, care and research and development, which are the missions of the teaching hospitals. »



CHRISTOPHE GAUTIER
GENERAL MANAGER,
STRASBOURG TEACHING HOSPITALS

« Today ICube is supporting the Nextmed project - which is the future medtech campus and a clinical ecosystem based on the development of medical devices - together with the Eurometropolis of Strasbourg. ICube's aim is also to reinforce its expertise in medical robotic, connected items for the health, big data and materials designed for the energy, while taking advantage of the emerging collaborations between IT, digital technology, devices and mechanics. »



MICHEL DE MATHELIN
VICE-PRESIDENT OF THE UNIVERSITY OF STRASBOURG

« The IRCAD-IHU concept goes a step beyond excellence in innovation-led research, education and high-level care related to minimally-invasive surgery. Over the past few years, one of our priorities has been to make the techniques developed at the Institute widely available through training and the transfer of technologies. The Nextmed campus is a key part of this development strategy, attracting not only major manufacturers, but also medical-device SMEs and start-ups. IRCAD and the IHU will be at the core of a biocluster devoted to economic development and therapeutic innovations, which could not exist without Nextmed. »



PROFESSOR JACQUES MARESCAUX
PRESIDENT OF IRCAD
GENERAL MANAGER OF THE INSTITUTE
OF IMAGE-GUIDED SURGERY

« Over the last 25 years the Lower Rhine Council has strongly supported efforts to promote the attractiveness and influence of academic and research activities in Strasbourg, while encouraging the diffusion of technology to companies throughout the whole territory.

Since 2009 the Lower Rhine Council has invested nearly € 70 million to build and renovate university and research buildings, to acquire modern scientific equipment, to improve the standard of accommodation and catering for students, and to attract world-class researchers in Strasbourg.

The Lower Rhine Council, which has already helped to finance the University Hospital Institute, the Research Institute against Cancer of the Digestive System 2 and the Haras Biocluster, continues its financial support for the development of the project Nextmed on the site of the former Civil Hospital of Strasbourg, for which it contributes up to 1.5 M€

In contributing to the coordination of multidisciplinary actors recognized in the domains of healthcare, research and training, I am sure that the project Nextmed will allow Strasbourg and Alsace to position themselves as a center of excellence constituting an optimal context for the development of the medical and surgical technologies of the future... »



FRÉDÉRIC BIERRY
PRESIDENT OF THE LOWER RHINE COUNCIL

The Nextmed Team

Nicolas Pellerin
Nextmed Director

nicolas.pellerin@strasbourg.eu
+33 (0) 3 68 98 62 00



Anais Schambil
Marketing & Communication

anais.schambil@strasbourg.eu
+33 (0) 3 68 98 64 50



Nicolas Bonin
Urban Project Manager

nicolas.bonin@strasbourg.eu
+33 (0) 3 68 98 61 77



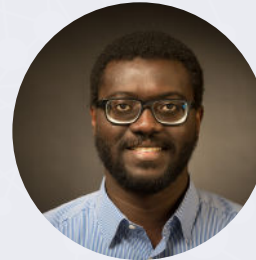
Guillaume Facchi
Operations Director
Alsace BioValley

guillaume.facchi@alsace-biovalley.com
+33 (0) 3 90 40 30 03



Mouhamadou B. Diop
Nextmed Campus Business Director
Alsace BioValley

mouhamadou.diop@alsace-biovalley.com
+33 (0) 3 90 40 57 39



In partnership with:

