





VUB TECHTRANSFER: BRIDGE BETWEEN THE UNIVERSITY'S RESEARCH-EXPERTISE AND INDUSTRY-SOCIETY

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REINFORCING COOPERATION WITH INDUSTRY AND BUSINESS

At the start of the academic year 2015-2016: creation of a vice-rectorate Innovation & Industry Relations at VUB with the multidisciplinary VUB TechTransfer as operational support team.

FIGURES 2016



4 CAMPUSES

- Brussels Humanities, Sciences
 & Engineering Campus
- Brussels Health Campus
- Brussels Technology Campus
- Brussels Photonics Campus

8 FACULTIES

3.257 EMPLOYEES

15.865 STUDENTS

3.671 EMPLOYEES UZ BRUSSEL

1.448

2.163 ACADEMIC AND SCIENTIFIC PERSONNEL

180 S
RESEARCH GROUPS
INCLUDING 35 JOINT
VUB-UGENT AND 12 VUB-ULB

€ 11.8 mio
REVENUE FROM CONTRACT RESEARCH WITH
INDUSTRY AND VALORISATION OF RESEARCH

"Besides -rightly- pursuing economic impact and valorization, a university should also be a promoter of social and societal interests and well-being, and think about the long term."

Caroline Pauwels, Rector



TANGIBLE CONTRIBUTIONS TOWARDS 'CONNECTING SCIENCE AND SOCIETY' IN 2016

Situated in Brussels, capital of Europe and international decision center, the Vrije Universiteit Brussel offers high level education and independant research, fundamental as well as applied. The third mission of the university however, is the implementation of its knowledge and research results in society. This means valorising academic research for economic as well as societal purposes. In 1998 VUB was one of the first Flemish universities to start up a valorisation policy, which today remains one of the priorities of the university. The installment of a separate vice-rectorate Innovation and Industry Relations under the academic supervision of vice-rector Hugo Thienpont, has proven in 2016 to be a reinforcing factor in developing the relationship with the business world and society in general.

VUB TechTransfer, the multidisciplinary operational team of the vice-rectorate, supports the research community of VUB, UZ Brussel and EhB by taking care of patent management, licensing of VUB technologies, creation of spin-offs and setting up collaborations with industry. On the other hand companies need to contact only one address when looking for consultancy and testing facilities, research collaboration, licensing opportunities or accommodation at the researchpark or incubators. Together with its strategic partners Crosstalks, the VUB academic and corporate exchange platform, and VUB Foundation, responsible for all philanthropic fundraising, VUB TechTransfer strives towards making tangible contributions to connect science and society.

To stimulate valorisation of academic research, and thus reinforce regional innovation and economic growth, governmental financing of strategic and applied research has increased enormously during the last decade. More and more importance was attached to bring research results to the next level with focus on applications. In 2016 VUB's research groups received € 41 mio of governmental funding for applied and strategic research. The income from contract research and valorisation of research amounted to € 11,8 mio. VUB's patent portfolio included 123 active patent families. 3 new VUB spin-offs were created.

We invite you to discover more accomplishments in this VUB Innovate Annual Report and to take a look behind the scenes on how topnotch researchers at VUB have contributed to industry and society in 2016.

Sonja Haesen, Director VUB TechTransfer, VUB





"The university is pre-eminently the place where cross-pollination between different disciplines leads to disruptive ideas and innovation, essential to stimulate economic growth."

Hugo Thienpont, Vice-rector Innovation & Industry Relations

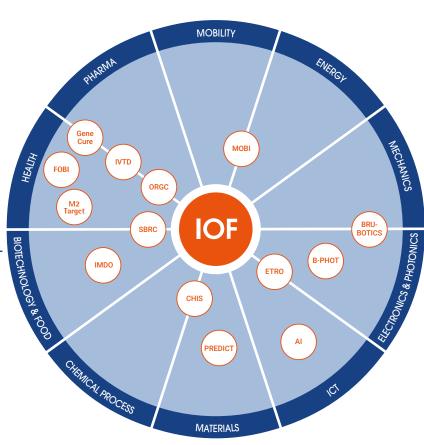


IOF-Industrial Research Fund

Flemish government funding for outstanding application driven research to topnotch VUB labs.

In 2016:

- 12 research groups received funding
- 2 new projects selected, starting in 2017: Organic Chemistry and Artificial Intelligence
- budget Electronics and Informatics group extended
- 7 new Proof-of-Concept projects selected, starting in 2017



FUNDING STRATEGIC & APPLIED RESEARCH

The latest years more and more funding has been made available by the Flemish and Brussels' governments for applied and strategic research, whether or not in collaboration with the industry. Since 2007 the global budget for VUB has been steadily growing. The means of the federal government have dropped during the years but are compensated by an increase in budget for the university's Industrial Research Fund (IOF) and VUB-groups selected for EU-programmes. In 2016 the VUB received € 41 mio of governmental funding.

VUB TechTransfer gives assistance and support to researchers for:

- Projects financed by the Industrial Research Fund (IOF)
- Flanders VLAIO & FWO calls: Strategic Basic Research, Applied Biomedical Research, VIS (innovation stimulation), Baekeland mandates, Innovation mandates, 0&O projects with industry
- Brussels Innovation and Impuls financing for applied research: Co-create (Impuls programmes), Bridge (strategic platforms), Launch (Spin-off in Brussels), Doctiris, Connect (International collaboration)
- · Projects with SOC's and light structures (e.g ICON)
- · EU-projects with economic purpose

ETRO

IVTD

FOBI - 4R-ART Follicle biology

GeneCure Gene therapy

· Other (international) organisations or administrations: financing for applied projects with valorisation potential

INDUSTRIAL RESEARCH FUND

VUB TechTransfer supports projects financed by the Industrial Research Fund (IOF). Since 2004 Flemish universities receive this government funding according to their valorisation output performance: contracts with industry, the number of patents and spin-offs, share in the European Framework Programme for R&D and publications and citations. The VUB invests IOF funding in knowledge centers that exceed the average scale of a standard university's research unit, the 'Groups of Excellence in Applied Research' or GEAR's.. The funding supports them in carrying out outstanding strategic research and developing new application-oriented inventions with economic potential. The first priority of the IOF funding is the further establishment of a portfolio of potentially applicable and transferable know-how with economic and societal value. It also finances short-term proof-of-concept projects.

12 research groups or research consortia received IOF funding in 2016:

B-PHOT Photonics and light technologies **M2Target** Macrophage-targeted cancer

BruBotics Human Robotic Technology Theranostics

CHIS Chemical engineering MOBI Urban mobility, sustainable logistics,

electric & hybrid vehicles, energy storage

Crossing boundaries with visionary systems, life cycle assessment electronics & ICT

PREDICT A generic toolbox for the reliable

prediction of lifetime and ageing in

electrochemical systems

IMDO Industrial microbiology, food biotechnology SBRC Structural Biology Research

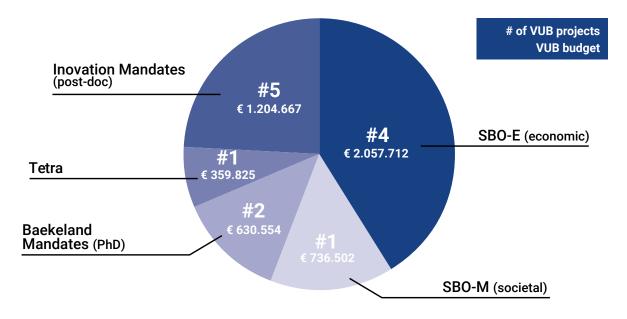
X-ray crystalography, protein-protein

interactions, drug discovery

In vitro toxicology & dermato-cosmetology



Strategic Basic Research funding by VLAIO and FWO



FWO projects acknowledged in 2016:

- Diamond: Diversity and information media: new tools for a multifaced public debate Communication Sciences
- **D3-CPS:** Distibuted Software Technologies for Developing & Managing dependable Cyber-physical systems Software Languages
- **GlycoDelete:** Evaluation of a novel glyco-engineering technology as a platform for the design and production of next generation biologicals Translational Imaging / Clinical Sciences
- Complexys.com: Nanobodies as allosteric modulators of transient protein complexes to innovate therapy and drug discovery - Structural Biology
- **REVICO**: Revisiting Cocoa: Exploiting the full potential of cocoa raw materials through novel processing Industrial Microbiology



FLANDERS PROJECT FUNDING

The Strategic Basic Research programme of Flanders supports innovative research projects with economic or societal potential. End users as well as research centers are involved.

VLAIO - Flanders Innovation & Entrepreneurship

VLAIO (Agentschap Innoveren en Ondernemen) approved 1 Tetra project out of 2 for VUB in 2016. These projects are specifically destined to university colleges or educational programmes integrated in the university and aim to apply knowledge within the application domain of a number of companies or a sector. Usually in the form of case studies or the 'development' of a prototype. Baekeland- and Innovation mandates are doctoral and post-doctoral mandates in collaboration with industry. Since 2015 VUB TechTransfer has made a lot of effort to promote these financing channels and gives thorough support to candidates. In 2016 2 or 50% of VUB's Baekeland applications were accepted, in line with the normal average. The Innovation mandates acceptance rate was very high though, with 5 out of 6 approvals.

Research Foundation - Flanders - FWO

In former years VUB did very well in receiving funding from FWO (Fonds Wetenschappelijk Onderzoek) for biomedical and strategic basic research with ongoing projects in 2016. New approvals in 2016 included 1 societal and 4 economic strategic basic research projects.

Strategic Research Centers (SOC's)

have been created as a result of excellent scientific research in broad domains such as micro- and nano-electronics, biotechnology and broadband technology. They build bridges between fundamental and applied research and are important for Flanders' economy. VUB participates in these SOC's: imec, VITO, VIB and Flanders Make. In 2016 iMinds was integrated into imec, thus creating a research centre for the digital economy, where research groups in nano-electronics, software and ICT focus on solutions in health care, smart cities and mobility, logistics and Industry 4.0, and energy.



BRUSSELS PROJECT FUNDING

Funding from the Brussels Capital Region through Innoviris

VUB TechTranfser supports research groups in finding industrial partners, writing out proposals, preparing for jury defenses, drawing up legal contracts, and much more.

Doctiris

Doctiris projects have the purpose to encourage partnerships between the Brussels Region's academic and industrial actors through doctoral projects.

Launch

The project financed in 2015 to develop and valorise Cellsine, a new in vitro screening technique based on electrochemical impedance spectroscopy, led to the creation of a VUB spin-off in 2016.

Bridae

Bridge funding mainly targets academic research projects implemented via strategic platforms in which particular attention is paid to opportunities for industrial applications for Brussels enterprises. The Expression of Interest: 'SmartEEH - Smart Embedded Energy Harvesters Enabling the Next Generation of Smart City Applications' was evaluated positively, with VUB as promotor involving several research groups and collaboration with ULB, UCL and Sirris.

VUB TechTransfer also takes care of follow-up of other projects such as Bridge Secure IT, Co-create, ICT and Health platforms.

In 2016 two new projects were approved:

- "NovelTOF Novel Pixel concepts for pulsed Time-Of-Flight"
- "Architects' houses in Brussels

 strategies for valorization"

One project on 'Embedded and integrated AI systems for CFD modelling' of the VUB department of Computer Science and in collaboration with industrial partner Numeca was renewed.

Doctiris project reinforces company's position:

"Talent Development Framework: European standards for talent development systems of professional football clubs", an industrial PhD in collaboration with VUB spin-off Double PASS.

The outcome of the PhD was a new Talent Development Framework with 74 European standards influencing the productivity of a talent development system of a professional football club. This has led to the development of new business segments regarding international ruling bodies (licensing).

The Doctiris project strengthens the position of VUB spin-off Double PASS in the football market as innovator, reliable and neutral partner in talent development.



EU FUNDING SUPPORT BY VUB TECHTRANSFER

The mission of VUB TechTransfer concerning EU-research is to develop a unique support for the VUB research groups, resulting in an increase in strategic value, the number of submitted proposals and approved projects. In 2015 a new concept to support VUB research groups in applying for EU-funding was developed and launched. **i-ISO is the acronym of:**

- · Identifying (Identificeren) of EU-funding programmes and their calls.
- Informing (Informeren) the VUB research groups about the programmes and calls.
- **Stimulating** (Stimuleren) through a dedicated approach to reduce barriers for application for funding. An EU-roadmap is developed and implemented in VUB. An additional stimulation is given through funding at pre and post-proposal level.
- · Intensive support (Ondersteunen) in preparing proposals at programme, call and proposal level.

The impact of i-ISO is already visible. The VUB's EU funding has increased with a yearly average of € 1 mio. Before the introduction of i-ISO the yearly average growth fluctuated around 650 k€. VUB is performing well in H2020. In a recently published ranking for 2014-2016 VUB is positioned number 110 out of more than 15.000 beneficiaries in H2020 with respect to the amount of EC contribution.

In 2016 a total of 111 strategic project propositions with economic or societal purpose were submitted by VUB. 17 projects were approved, representing a total budget of € 7.1 mio. Of the approved projects 8 received dedicated support (35 in total).

Another concrete result of the i-ISO concept is the increase in Innoviris CONNECT grants in preparation of an EU project proposal with 15 approved CONNECT grants of the 16 proposals, due to intensive support. Moreover the H2020 'Marie SKŁODOWSKA-CURIE Individual Fellowships' programme income raised drastically with 4 out of 11 projects approved, representing 3 fellowships more than former years. For H2020 'Marie SKŁODOWSKA-CURIE Innovative Training Networks' 35 proposals were submitted, of which 18 received dedicated support. An unmet result was obtained with 4 proposals approved for funding, covering €1.5 mio but also important in total 9 proposals received a score above 90%.

REVENUE FROM VALORISATION AND CONTRACT RESEARCH WITH INDUSTRY

Since 2008 the VUB has known a steady growth of revenue from contract research with companies (profit/non profit), with or without governmental financial support, and valorisation of research. In 2016 this income amounted to € 11.8 mio.

Legal advice for techtransfer & contract management

The legal cell of VUB TechTransfer provides legal assistance to the VUB research community in all sorts of tech transfer issues, draws up contracts and answers questions regarding contracts. Contracts are only signed by the rector after legal review. The Contract Management employees assist with the administrative follow-up of contracts, funding applications and ID datasheets (draft, signature by rector, administration).







INTELLECTUAL PROPERTY (IP) MANAGEMENT & LICENSING

Valorisation of research can occur in many different ways: through partnerships with industry and/or companies, through licensing of intellectual property rights (patents and patent applications, software, confidential know-how, design rights, trademarks, etc.), the launch of spin-off companies and consultancy...

43 inventions were reported in 2016 for evaluation of their potential and 25 new patents were filed. VUB's total portfolio included 123 active patent families: 25 exclusive VUB, 37 with VIB, 32 with imec and 1 with iMinds, that merged with imec in September 2016.

Licensing of research results can generate income for the university and creates structural collaborations with companies. In 2016 € 1.306.536 was generated. 3 new exclusive licensing deals were closed with VUB spin-offs Lumency, Zebra Academy and Cellsine. A privileged relationship between a lab and a spin-off company is beneficial to the growth of the company, and certainly in its early stages.

VUB technologies available for licensing or for R&D partnerships are communicated through bilateral contacts with industry, networking and matching events, the VUB TechTransfer website and newsletter, conferences such as Knowledge for Growth, Copy Talks and other specific channels.

Licensing opportunities in 2016, mostly patented, vary from in vitro liver toxicity screening or drug screening in diabetes over diffuse light spectroscopy for quality control of liquids and food authentication, alternative torsion springs, an integrated lighting/ventilation system for operation rooms, to Q-switched CO2 lasers and fuel cells.

Reuters Top 100: VUB ranks in Europe's Most Innovative Universities

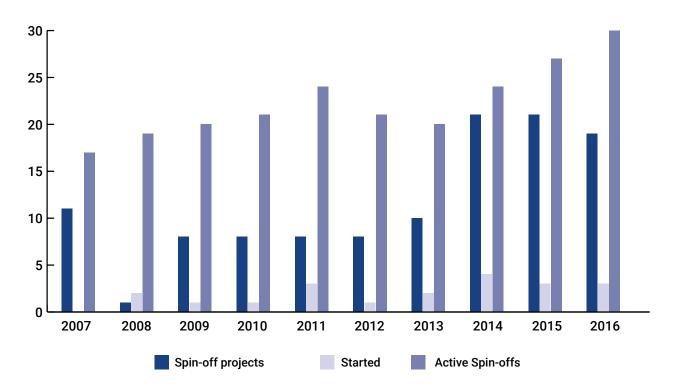
The prestigious Reuters ranking recognizes European universities for their outstanding commitment to research, innovation and the protection of ideas, as well as the commercialization of those discoveries. VUB is very proud to have been selected as #48 out of 800 institutes, moving 2 places forward. This is a great achievement for a small-scale university. Using data from Clarivate Analytics, this ranking analyzes scientific literature and patent data across 10 criteria from 2010 to 2015 to determine which European universities are the most innovative. (Source: Reuters News)



UNIVERSITY SPIN-OFFS

University spin-offs are companies whose main activities are based on the formal transfer of research results originating from the university or university college. This transfer can take different forms, e.g. through a license agreement or share capital participation, depending on the specific case. In 2016 VUB had a portfolio of 30 active spin-offs based on research in various fields: engineering, life sciences, economics, ICT, sports ... In this context, VUB also cooperates with strategic research centers such as VIB, imec, Flanders Make and VITO. VUB TechTransfer plays a crucial role in identifying, developing and evaluating VUB spin-off projects. To maximise the survival of a start-up a lot of attention is paid to other factors than the innovative technology, such as market strategy, value proposition and a complementary team.

The Qbic Fund is a multi-sector fund supporting spin-off companies of the Ghent, Brussels, Antwerp and Liège university associations and of VITO. The investment approach is based on early in-depth and independent review and analysis followed by hands on involvement and support. In 2016 the investment period of Qbic I came to an end. The companies in portfolio (among which 4 VUB spin-offs) can still receive follow-up financing. The project has been prolonged however in a new inter university fund Qbic II to finance new spin-off initiatives.



The last 10 years more and more importance has been attached to a strong university spin-off strategy, resulting in a steady growth in the number of active university spin-offs.

In 2016 VUB created 3 new spin-off companies:

Lumency

Research within the Industrial Engineering Sciences research group (INDI) of the VUB over the years led to extensive expertise in the area of acoustic sensor array. This know-how is used to develop services and products for smart sensor and smart actuator applications. Two main application domains related to environmental sensing and smart buildings are envisioned with emphasis on indoor and outdoor monitoring of sound, light and air quality parameters. Examples of applications are smart lighting solutions for indoor parkings, street lighting and buildings.



E ZEBRACADEMY

Speed & Competence through next generation telemedicine
Zebra Academy streamlines urgent patient care by integrating
pre-hospital and in-hospital procedures. By bringing the
medical expert virtually in the ambulance, it is possible to win
crucial minutes that will make the difference in outcome for
patients while the ambulance staff cares for them. Critical data
such as vital parameters, symptoms, ... can already be gathered
and shared with specialized hospital staff through the Zebra
Web Platform in order to be ready for the arrival of the patient.
Strokes represent a life-threatening condition which has a huge
socio-economic impact. Research concludes that efficient
patient triage and effective pre-hospital procedures lead to a
more positive outcome for patients.

The **Pressub Technology** ("Prehospital TeleStroke Study at the Universitair Ziekenhuis Brussel") has been developed by the **Center for Neurosciences** of the Vrije Universiteit Brussel and UZ Brussel, also in collaboration with the VUB department of Electronics and Informatics (ETRO) to improve outcome for stroke patients by redesigning acute stroke care using a wireless telemedicine platform.



© CellSine

High content electrochemical screening

CellSine offers devices and data analysis software for biochemical and drug development studies. By using advanced electrochemical impedance spectroscopy (EIS) technology it delivers a fast and easy way to study a wide variety of biochemical and microbiological phenomena. CellSine's EIS technology makes it possible to continuously monitor events, ranging from cellular behavior to biomolecular interactions. This technology is combined with specialized data analysis software that allows users to extract a maximum amount of information for a minimum amount of effort.

The key technologies of CellSine were developed within the VUB research group **Electrochemical and Surface Engineering** (SURF) and KULeuven **Animal Physiology and Neurobiology** Section.



VUB spin-off highlights in 2016:

- Collibra Closes \$50 Million Series C Financing with ICONIQ Capital, Battery Ventures. Collibra, a leader in data governance software for business users, announced it has closed \$50 million in Series C financing led by San Francisco-based ICONIQ Capital with participation from investment firm Battery Ventures. Existing investors Index Ventures, Dawn Capital and Newion Investments also participated in the Series C round. This latest investment will help Collibra continue to fuel its rapid growth and industry leadership as a premier provider of data governance solutions. The Brussels- and New York-based company started out at the Vrije Universiteit Brussel (VUB) and has gone on to witness prolific growth since it was founded in 2008. To date, Collibra has secured more than \$75 million in venture funding. Organizations are increasingly adopting data governance as a "system of record" to help them exercise control over processes and methods employed by data users to improve data quality. The Collibra integrated data governance platform helps hundreds of organizations across the globe in industries including financial services, retail, healthcare, education, technology, government and others find, understand, and trust the data they need to be truly data-driven enterprises and to gain competitive advantage. (Sources: Kanaal Z, Trends, De Tijd)
- Collibra, Deloitte Technology Fast 50 winner in the Software category. (Source: De Standaard)
- Collibra, a leader in data governance software solutions for business users, winner in the Data Governance category in the third annual Data Management Review Awards. The Data Management Review Awards were created to recognize excellence across the many technology categories within the financial data management arena. (Source: Data Management Review)
- Ablynx announced a second extension of its research collaboration with a subsidiary of Merck & Co.,Inc., Kenilworth, NJ, USA, known as MSD outside the United States and Canada, to develop and commercialise Nanobody® candidates directed towards an undisclosed voltage gated ion channel. The extension agreement will trigger a €1 million milestone payment to Ablynx, and Merck will extend their funding of the research collaboration at Ablynx to September 2018. (Source: Flanders Bio)
- Ablynx announces positive topline results. Ablynx recently announced that it had received positive topline results for their study on patients with moderately to severely active rheumatoid arthritis (RA) who are intolerant to methotrexate or for whom continued methotrexate treatment is inappropriate. (Source: De Tijd)
- · Ablynx to receive an 8 million milestone as Boehringer starts a phase I study with an anti-CX3CR1 nano body (Source: Flanders Bio)
- eTheRNA secures 24 million euro to develop its TriMix mRNA-based immunotherapy. eTheRNA immunotherapies, a spin-off from the Brussels University 'Vrije Universiteit Brussel' (VUB), secured EUR 24 million in a Series A investment round with venture capital enabling the company to continue the development of its proprietary TriMix mRNA-based immunotherapies for melanoma, breast cancer and infectious diseases. (Source: de Tijd)
- Confo Therapeutics secures €6.7 million in first financing round. Investment will support first-in-class development programs for pathway selective drugs targeting GPCRs. Confo Therapeutics, an emerging drug discovery company, announced the completion of its first financing round at €6.7 million. Incorporated in June 2015 by VIB and lead investor Capricorn Venture Partners, Confo Therapeutics received its initial financing from the Capricorn Health-Tech Fund, Qbic and SOFI. MINTS (University of Michigan), Participatie Maatschappij Vlaanderen NV (PMV), V-Bio Ventures (V-Bio) and VIB have joined the initial investors syndicate. Confo Therapeutics is a drug discovery company building a pipeline of development programs targeting G protein-coupled receptors (GPCRs) that are currently considered undruggable. GPCRs are attractive drug targets in the treatment of a wide range of disease conditions with high unmet need. CONFO® technology allows medically relevant GPCRs to be stabilized in their active signaling state, revealing new binding pockets accessible for drug discovery. (Source: Confo Therapeutics, V-Bio Ventures)
- At the eve of their 20th anniversary ElSyCa achieved a management buy out. Venture capital investors Brussels I3Fund en ARK-Angel Fund, who played crucial roles in the company's history, transferred the control to the management team.
 (Sources: Elsyca News, Computable, made in Vlaams-Brabant)

RESEARCH PARK & INCUBATORS

Companies committed to supporting research and collaboration with the VUB can rely on appropriate facilities and infrastructure in our research or one of the incubation centers in Flanders and Brussels.

ICAB Business and Technology Incubator (ICAB) offers an ideal work environment for innovative start-ups in the ICT and engineering sectors. ICAB is situated near the VUB campus at Etterbeek, on the Arsenaal site.

www.icabrussel.be

The Innovation & Incubation Center Brussels (IICB) offers high quality services to starting and young enterprises to enter the market of high-tech products or services and is situated in the research park Zellik not far from the university medical campus and UZ Brussel. **www.iicb.be**

The Researchpark Zellik is an area near the Brussels Ring purchased by the Flemish Government in 1983 to attract high-tech or research-based companies. VUB was involved from the beginning to monitor the research character of the companies that applied for establishment. End of 2015 Flanders decided to give new impulses to this researchpark with Agentschap Innoveren en Ondernemen (VLAIO) as driving force, Quares as parkmanager, the community of Asse taking care of infrastructure and VUB as scientific and technological gatekeeper. Besides a new structure for management of the researchpark, a non-profit organisation was installed to connect the companies and stimulate communication and collaboration between them. Implementation started in 2016. www.researchparkzellik.be

ENTREPRENEURSHIP EDUCATION

BOOST YOUR ENTREPRENEURSHIP AND LAUNCH YOUR OWN BUSINESS

VUB TechTransfer wishes to raise more awareness of (technological) entrepreneurship among master students, PhD, researchers and young professionals and therefor organizes a number of evening courses.

Since 1995 VUB TechTransfer organizes the Starter Seminars that provide a short but intensive course on the fundamentals of entrepreneurship and business. A variety of topics is covered such as developing a business plan, finance, marketing, the complex issues surrounding patenting. In 2014 the Advanced Starter Seminars were introduced, a follow-up course where business aspects and starting up a company are treated more in-depth. The session on the 'Socialization of Entrepreneurship' organized with Crosstalks in 2015, was integrated in the course. A special session on 'Crowdfunding' took place in 2016. Participants also get the opportunity to pitch their project in front of an audience of fellow future entrepreneurs and professionals. The seminars are preceded by a Launch Event, which is open to anyone interested in (technological) entrepreneurship and tech transfer and includes testimonials of VUB entrepreneurs.

Marc Goldchstein from Business Technology and Operations (BUTO) and Tech Transfer Officer Entrepreneurship Education is the main lecturer and content coordinator. For several seminars expert-speakers from VUB or the business world are involved. Since 1995 VUB TechTransfer has reached more than 1000 participants interested in (technology) entrepreneurship. In 2016, 85 participants joined both series. The VUB TechTransfer Entrepreneurship community on LinkedIn offers up-to-date posts on entrepreneurship issues, workshops, ... and provides follow-up after the seminars have finished.



"Some good advice to future entrepreneurs: Think of the business plan from the start, pay special attention to your Intellectual property policy as well as your short and long term strategy. Developing novel technology takes a long time. Involve non-academic people and make sure to make agreements in advance."

Wim De Malsche, Co-founder PharmaFluidics (°2010)

Bio-engineer, PhD, since 2015 Associate Professor at VUB heading a Strategic Research Program in the Microfluidics area, received €1.5 mio ERC grant in 2016

Participated at Starter Seminars in 2009 and testifies at Launch Event as co-founder of PharmaFluidics. PharmaFluidics offers silicon microtechnology solutions to bring liquid chromatography to a next level of efficiency. Separation devices with unprecedented resolution are presented in a format that enables extreme user-friendliness and robustness.

TECHTRANSFER COMMUNICATION & EVENTS

The VUB TechTransfer Communication & Events unit takes care of raising awareness within the VUB research community concerning all aspects of valorization as well as promoting the university's knowledge and expertise to the outside world.

The communication tools include a website, an electronic newsletter 'VUB TechTransfer News', promotion material, print and download versions of research overview and other brochures, all with respect to the corporate identity. For communication through press releases, VUB Today, HENRI,... the unit appeals to VUB Marcom. External partners and communication channels are also called upon to promote licensing opportunities and project calls. Events are (co-)organized on the campus as well as other locations. The unit also takes care of the organization of the VUB (Advanced) Starter Seminars and supported the communication of VUB Foundation untill September 2016.

In 2016 a new corporate identity was introduced by Marcom. VUB TechTransfer had its website, newsletter, promotion material and other communication tools restyled accordingly. Because of the creation of the new Vice-rectorate Innovate in 2015-2016, an Annual Report 2015 was published to inform stakeholders of the activities of VUB TechTransfer, Crosstalks and VUB Foundation.

VUB TechTransfer is member of TTO Flanders, a unique portal of the knowledge and technology offices of the 5 Flemish universities. The joint communication cell takes care of TTO Flanders' corporate identitity and communication tools such as a website and email. A booth is organised each year at Knowledge for Growth and other fairs as well as an internal networking event (TTO Flanders annual report on demand).

Some examples to illustrate the activities of VUB TechTransfer Communication & Events:

- VUB TechTransfer News: in 2016 40 newsletters and 3 newsflashes were sent to a target group of about 4000 receivers, including the VUB research community. 349 news items and 93 events were posted on the TechTransfer website. Additional direct email was sent to specific researchers for certain calls or events.
- · Print and download publications:
 - Actualization of VUB TechTransfer brochure 'For companies'
 - Brochures Industrial Research Fund: actualization BruWind, BruBotics, ETRO, M2Target, CHIS
 - Spin-off brochures: Camel-IDS, eTheRNA
 - Realisations for VUB Foundation: 'Fonds op naam', brochures for 'Building the future' event
 - Input Infographics VUB Innovate for HENRI n°5
- · Promotion material:
 - New banners VUB Innovate and VUB TechTransfer
- Participation / (co-)organization events and fairs:
 - March 8 Booth TTO Flanders at VLIR-event in Flemish Parliament
 - April 27: invitation BruBotics Launch
 - May 26 Booth TTO Flanders at Knowledge for Growth, ICC Gent where VUB put the genomics laboratory BRIGHTcore in the spotlight. All life sciences licensing opportunities were updated.
 - June 21 WTCB-Innoviris innovation meeting 'Geothermics' BIM, Brussels
 - October 13 Innovation Fair, C-Mine Genk: booth at the 'Make Industry island' showcasing VUB research groups MOBI, B-PHOT and BRUBOTICS.
 - Organization VUB (Advanced) Starter Seminars and Launch Event





THE FELLOWSHIP PROGRAMME

ACADEMIA MEETS SOCIETY

Through the VUB Fellowship programme academics, society and business meet to discuss joint challenges, exchange experiences and share good practices. "Fellow VUB" is the highest grade of membership for our Alma Mater, a title bestowed upon unique personalities: top-level business people, visionary decision makers and socially relevant personalities. In 2016, 29 new Fellows were introduced. In total, VUB has now 86 outstanding Fellows and 39 Honorary Fellows who have agreed to continue their commitment.





In times in which co-creation, sharing and connectivity are key, universities must open up and break down the walls between science and society. Because those walls block the exchanging of ideas. So, VUB must be open, multidisciplinary and embedded in society. For therein lies the future. And that is exactly what our VUB Fellowship initiative is about.

Caroline Pauwels, rector VUB



VUB FOUNDATION

VUB. EVERY DONATION RETURNS.

The VUB is always keeping an eye on the future. VUB stands for innovation in education and scientific research. In 2012 the VUB Foundation was created, a strategic component of the VUB that is responsible for all philanthropic fundraising. The VUB fundraising team is part of VUB Tech Transfer and is the central coordination point of the university for all fundraising, such as gifts, sponsoring and legacies.

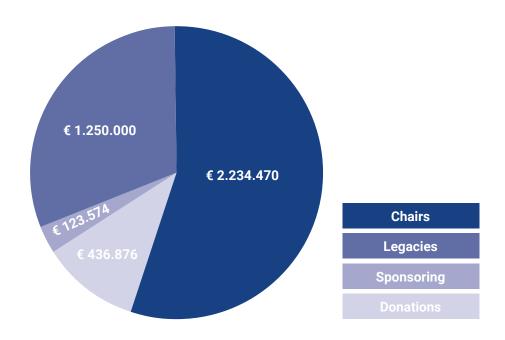
CHAIRS are an excellent means to financially support education and research and to develop a long-term relationship with companies. End 2016 VUB counted 33 active chairs among which three newly created: the Chair Thermo-Mechanical Innovation for Fluid Machinery in partnership with Atlas Copco Airpower NV, the Value-centric analytics for sustainable risk management Chair in cooperation with Argenta Spaarbank NV and the chair Joyn on smart cities with partners CityLife Belgium NV and Thanksys NV.

In the framework of the VUB2020 campaign a crowdfunding campaign was organized for the renovation of the swimming pool. In total € 1.033.002 was raised by approximately 1100 Alumni and corporate partners of the VUB.

With their **LEGACY** people can have an important impact on the society of today and tomorrow. By including the VUB in their testimony people assure that their money is used for the research, project or educational purposes that lay close to their hart. In 2016 a legacy of € 1.250.000 was donated for cancer research at the VUB.

THE NUMBERS:

In 2016 the VUB Foundation had a total income of € 4.044.920.



Net Revenue (83%) € 3.357.283,6 Costs (17%) € 687.636,4

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Crosstalks highlights

In 2016 more than 30 reflection moments, worskhops and public events (co-)organized by Crosstalks took place with the following highlights:

- March 2016: Special preview screening of Awra Amba, Rethink a Beautiful World, an interactive non-linear documentary
 - Film screening in collaboration with Cinema RITCS during the VUB gender week. Aftertalk with the directors of the film Paulina Tervo and Serdar Ferit, with Robel Admassu (Ethiopian Embassy) and Els Leye (RHEA).
- April 2016: Entr'acte with Cathy Macharis and Joeri Van Mierlo
 - The yearly VUB **R&D** social valorization prize was awarded to the researchers Cathy Macharis and Joeri Van Mierlo for their ongoing research on sustainable mobility and collaborations with industry and policymakers. With Wannes Cappelle, Koen Geens, Lieve Blancquaert, Joeri de Ridder en Griet Op de Beeck.
- May 2016: Lecture with sustainable designer and innovative forerunner John Thackara
 - In the aftermath of the annual Ecopolis festival John Thackara gave a lecture at the human-centered design company Namahn, within the context of **the Casterman-Hamers Chair**.
- May 2016: Difference Day debate 'Looking for Trouble'
 Crosstalks is a structural content partner since the first
 Difference Day on May 3, 2015. In 2016 the Crosstalks
 debate on freedom of speech was titled 'Looking for
 Trouble' and included Jimmy Kets, Ibrahim Mohamoud
 (Cage, UK), Marcela Pizarro (Al Jazeera) & Lorna
 Stephenson (The Bristol Cable, UK).
- November 2016: Workshop 'How contagious is obesitas?'
 Workshop #5 of the project Equal Access to Health and Medical care with stakeholders ranging from legislators andregulators to the industry, citizens and interest groups.
 Speakers: Jo Goossens (shiftN), Ilja Arts (Maastricht Centre for Systems Biology) & Dirk Avonts (UGent).

- November 2016: 'Tout Autre Economie' workshop during 'Hartslag'
 - Activist and bottom-up driven workshop on innovation in economic and sustainable entrepreneurship with Violaine Wathelet (SAW-B), Hugo Wanner (Fairfin), Kathleen De Ruyter (Buurtpensioen) & Florence Vanwerts (Financité).
- November 2016: Kick off: Duurzame Dinsdagen Inspiring seminars on sustainability with students, researchers, legislators, NGO's and representatives from the corporate world. With the collaboration of more than 30 VUB researchers and Michael Browne (University of Gothenburg), Steve Sel (VIL), Thomas Odeurs (Citydepot) Hans Robben (Bpost Bringr), Oscar Determan (De Buren Afhaalcentrum), Marianne Thys (Brussel Mobiliteit), Karel Debeuf (Transitiecoach at Vlaamse Overheid), Jonathan Lambregs (BBL), Els Brouwers (Essenscia) etc.
- December 2016: closing session of VUB Tech Transfer's (advanced) starter seminars

This Crosstalks session focused on crowdfunding as an emerging alternative way of financing start-ups. With Marije Lutgendorff (CrowdfundingHub), Laurent Hublet (Entrepreneur in policy making, pushing Digital Belgium - Belgian Federal Government), Zeno Bonduelle & Peter De Decker (MyMicroInvest), Sofie Van Gijsel (Bolero Crowdfunding), Sébastien Morvan (Brussels Beer Project) & Peter Staveloz (iReachm).





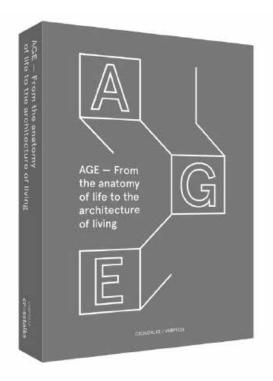
CROSSTALKS

THE ACADEMIC AND CORPORATE EXCHANGE PLATFORM IN SEARCH OF A FUTURE OF PROSPERITY AND FREEDOM

VUB CROSSTALKS is the academic, cultural and corporate networking platform launched by Vrije Universiteit Brussel in 2003.

There are no shortcuts to sharing knowledge, stimulating creativity and innovation in search of sustainability. A cross-disciplinary approach is key to face the global imperatives for innovation, keeping one eye on the quality of our cultural, social and individual life and another on the economic sustainability.

Working across disciplines and sectors, Crosstalks creates a novel dynamic of knowledge exchange through thematic encounters. Crucial in each initiative is a disruptive and open approach, whether it is for the small-scale professional workshops or the larger public events and publications.



In 2016 Crosstalks published its sixth book, titled AGE - From the Anatomy of Life to the Architecture of Living. Age is a roundup of the project 'Active and Healthy Aging' and the onset of the most recent project 'Equal Access to Health and Medical Care'. Both projects are financed by AstraZeneca Foundation, Pfizer, GSK and Johnson & Johnson and developed with the support of the major stakeholders in Belgian health care. With this book Crosstalks wants to contribute to escape routes out of a society driven by competition and profit and divided by class, income, race, sex, education and age. The result is a mix of empirical studies, academic research, reflections, projects, a rallying cry against ageism, and even Three Rules for Aging Disgracefully.

For more info: crosstalks.vub.ac.be/age

CROSSTALKS.VUB.AC.BE



VUB TECHTRANSFER, FOUNDATION & CROSSTALKS TEAM 2017

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