

ANNUAL REPORT 2017

INNOVATION

Research

Improvement

VICE-RECTORATE INNOVATION & INDUSTRY RELATIONS

VRIJE UNIVERSITEIT BRUSSEL

- CONNECTING SCIENCE AND SOCIETY -



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

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FACTS & FIGURES 2017



4 CAMPUSES

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

8 FACULTIES

3,282  EMPLOYEES

16,094  STUDENTS

3,671  EMPLOYEES UZ BRUSSEL

1,677  DOCTORANDI
IN 3  DOCTORAL SCHOOLS



110 mio EURO
RESEARCH BUDGET



193 RESEARCH GROUPS
INCLUDING 35 JOINT
VUB-UGENT AND 12 VUB-ULB



12.3 mio EURO
REVENUE FROM CONTRACT RESEARCH WITH
INDUSTRY AND VALORISATION OF RESEARCH

2,208  ACADEMIC
AND SCIENTIFIC PERSONNEL

"VUB TechTransfer serves as facilitator for entrepreneurial researchers. Society indeed benefits from researchers who turn theory into innovative ideas that are transferred to existing companies, profit and non-profit, or to VUB spin-offs. Our aim is to strive for a better society, with attention for inclusion and socially responsible growth in which inequality will decrease and innovation does not come at the expense of resources."

Caroline Pauwels, Rector



RESEARCHERS AT THE ROOT OF VALORIZATION

In this third edition of the Annual Report of the Vicerectorate Innovation & Industry Relations we especially would like to honour our researchers, who are crucial. Excellent, future-driven research in biomedical, engineering or human sciences lies at the root of valorization, as well as an entrepreneurial spirit and passion. As operational team of the Vicerectorate, VUB TechTransfer is proud to support the research community by providing them the necessary tools, information and guidance in order to facilitate the implementation of knowledge and technology into society. Together with VUB Foundation, the philanthropic fundraising team, and Crosstalks, the interdisciplinary networking platform, VUB TechTransfer continues to strive towards connecting the university's research-expertise with industry-society.

In support of strategic and applied research, VUB TechTransfer accompanies and coaches project applications for funding in Flanders, Brussels and Europe. In 2017 an increase in financing was obtained in all 3 channels resulting in more societal impact of VUB's know how. In 2017 the total patent portfolio included 127 active patent families, of which about one fourth owned exclusively by VUB. 3 new spin-off companies were founded. From contract research with industry and valorization of research VUB received 12.3 mio Euro which can be reinvested in the university's excellent research.

Through philanthropic fundraising VUB was able to invest in specific projects or new infrastructure. To strengthen the ties between Academia and Society each year new "VUB Fellows" are honoured, representing a network of top-level business people, visionary decision makers and socially relevant personalities. In 2017, 29 new Fellows were introduced. Through the Crosstalks network stakeholders from all societal layers and disciplines gather and contribute to a sustainable vision.

This introduction gave you a glimpse of the figures and accomplishments in this Annual Report 2017. We hope you are triggered to continue reading and discover much more.

"Excellent, future-driven research in biomedical, engineering or human sciences lies at the root of valorization, as well as an entrepreneurial spirit and passion."

Sonja Haesen,
Director VUB TechTransfer



Hugo Thienpont,
Vice-rector Innovation &
Industry Relations



B-PHOT - Photonics and Light Technologies



BruBotics - Human Robotic Technology



CHIS - Chemical Engineering



ETRO - Crossing Boundaries with Visionary Electronics & ICT



FOBI - 4R-ART - Follicle biology



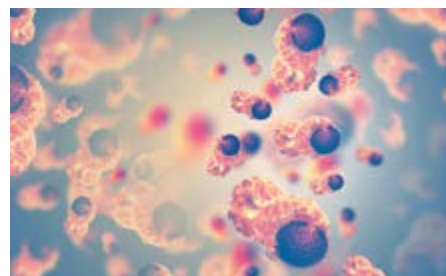
GeneCure - Gene Therapy



IMDO - Industrial Microbiology, Food Biotechnology



IVTD - *In vitro* Toxicology & Dermato-Cosmetology



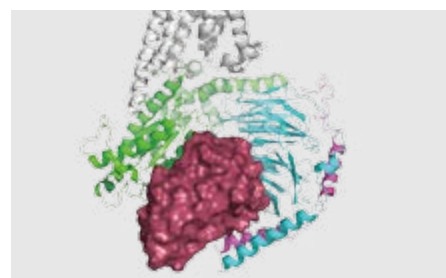
M2Target - Macrophage-targeted Cancer Theranostics



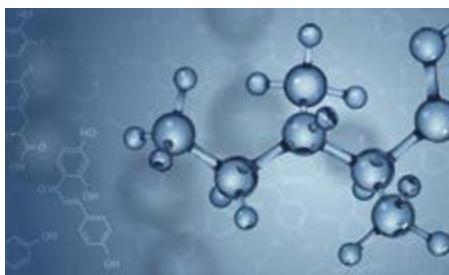
MOBI - Urban Mobility, Sustainable Logistics, Electric & Hybrid Vehicles, Energy Storage Systems, Life Cycle Assessment



PREDICT - A Generic Toolbox for the Reliable Prediction of Lifetime and Ageing in Electrochemical Systems



SBB - Structural biology research: X-ray Crystallography, Protein-Protein Interactions, Drug Discovery



ORGC - Organic Chemistry



AI - Artificial Intelligence

14 research groups received Industrial Research Funding in 2017

GOVERNMENT FUNDING FOR STRATEGIC & APPLIED RESEARCH

In recent years valorization of research became increasingly important and consequently the Flemish and Brussels' governments as well as the European Commission invested more in applied and strategic research, often projects in collaboration with the industry. A lot of attention is also paid to the output of universities (number of cooperations, patents, spin-offs, ...) since this represents an important indicator of the regional innovation degree and reinforces the economic situation of a region. In 2017 the VUB received **€ 47.2 mio** of governmental funding for strategic and applied research.

VUB TechTransfer gives assistance and support to researchers for:

- Projects financed by the Industrial Research Fund (IOF) of the VUB (Flemish government funding)
- Flanders VLAIO & FWO calls: Strategic Basic Research, Applied Biomedical Research, VIS (innovation stimulation), Baekeland mandates, Innovation mandates, O&O projects with industry
- Brussels Innovation and Impuls financing for applied research through Innoviris: Co-create, Bridge (strategic platforms), Launch, Doctiris, Team Up, Connect, Living Labs Brussels Retrofit
- Projects with SOC's and light structures (e.g ICON)
- EU-projects with economic purpose
- Financing for applied projects with valorization potential by other (international) organizations or administrations

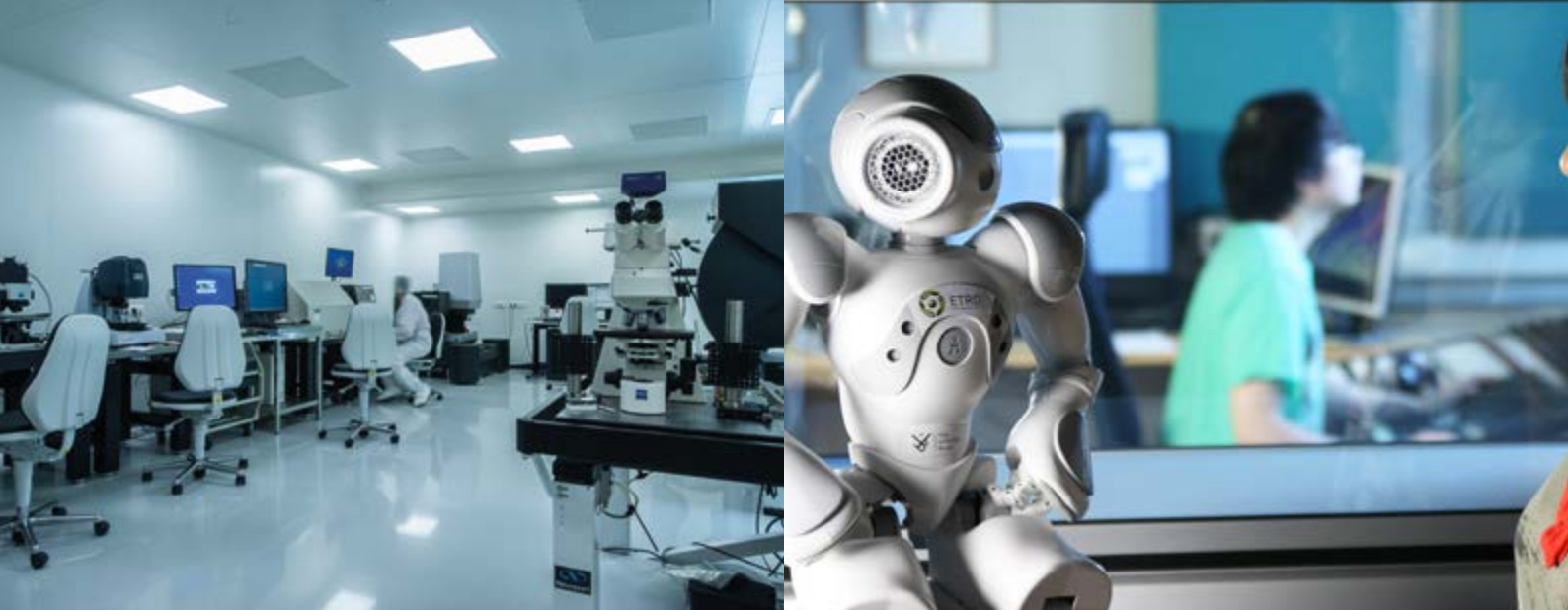
INDUSTRIAL RESEARCH FUND

VUB TechTransfer supports projects financed by the Industrial Research Fund (IOF). Since 2004 Flemish universities receive this government funding according to their valorization 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 GEARs. 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. Short-term Proof of Concept (PoC) projects are also financed.

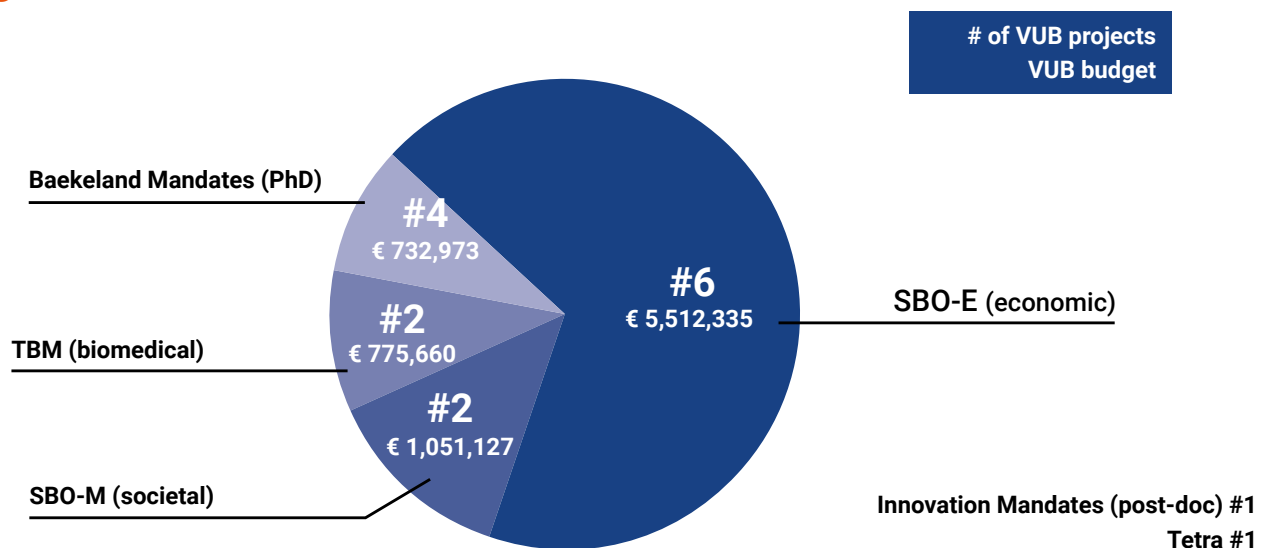
Industrial Research Fund in 2017:

- 14 research groups received funding
- 2 new programs were selected for financing starting in 2018 within the:
 - Software Languages Lab
 - Acoustics and Vibration Research Group
- 4 new Proof of Concept projects selected, starting in 2018





In 2017 VUB received € 8.07 mio strategic basic research funding from VLAIO and FWO.



SBO ECONOMIC

3 approved as coordinator

- **EX04WORK:** Wearable Robotic Upper Body Exoskeleton for Workers – Dirk Lefebber
- **MATATUM:** Validation and Druggability Development of Macrophage-specific Targets in the Tumor Microenvironment – Jo Van Ginderachter
- **PREDICTCOR:** Knowledge and Technology Platform for Prediction of Durability and Lifetime of Organic Coated Metals under Long-term Environmental Corrosion – Herman Terryn

3 approved as partner:

- **CATCO2RE:** Catalytic CO2 Reduction to Solar Fuels and Chemicals – Joeri Denayer
- **Data-driven Logistics** – Tias Guns
- **Crossing the Barrier:** Bringing the Biologics Revolution to the Brain – Ilse Smolders

SBO SOCIETAL

2 approved as partner

- **SPECTRE :** Smart City Privacy: Enhancing Collaborative Transparency in the Regulatory Ecosystem – Jo Pierson, Ann Doods, Caroline Buts
- **ProEMC2:** Promoting Early Multilingualism in Childhood and Childcare – Esli Struys

TBM - APPLIED BIOMEDICAL

- **iVision:** Game Based Therapy for Children with Cerebral Visual Impairment - Bart Jansen
- **Cognitive Behavioural Therapy for Insomnia in Patients with Chronic Spinal Pain:** a Multicenter Randomized Controlled Trial - Jo Nijs



FLANDERS PROJECT FUNDING

The Vrije Universiteit Brussel achieved first-rate results in obtaining funding for strategic basic research from the Research Foundation - Flanders (FWO) and 'Agentschap Innoveren en Ondernemen' (VLAIO) with a total budget of **€ 8.07 mio**. Below you can find specific information on the different funding channels and at the left some more details on the granted projects.

Flanders Innovation & Entrepreneurship - VLAIO

Tetra projects are specifically destined to university colleges or educational programmes integrated in the university. 1 of the 2 applications with VUB as partner was approved in 2017. Baekeland and Innovation mandates are doctoral and post-doctoral mandates in collaboration with industry. Since 2015 VUB TechTransfer has made extra efforts to promote these financing channels and to support applications, which pays off. 4 Baekeland mandates were accepted in 2017 as well as 1 Innovation mandate.

Research Foundation - Flanders – FWO

The Applied Biomedical programme (TBM) aims at further developing new therapies, diagnostics and preventive methods, that due to a lack of interest from industry would not make it to the patient. Since 2016 VUB TechTransfer organizes info sessions on the Health Campus. In 2017 this resulted in 9 applications of which 2 were acknowledged.

The Strategic Basic Research programme of Flanders (SBO) supports innovative research projects with economic (SBO-E) or societal potential (SBO-M). End users as well as research centers are involved. This programme focuses on innovative research which, if scientifically successful, will create prospects for economic or societal applications (e.g. a new generation of products, processes and/or services).

In 2017 VUB exceeded the average success rate for SBO-E as well as SBO-M project applications. 6 projects with economic purpose were approved representing € 5.5 mio or 21.6% of the total SBO-E budget. And 2 societal projects were accepted for € 1 mio or 8% of the total SBO-M budget.

Strategic Research Centers (SOCs)

SOCs have been created as a result of excellent scientific research in broad domains such as micro- and nanoelectronics, biotechnology and broadband technology. They build bridges between fundamental and applied research and are important for Flanders' economy.

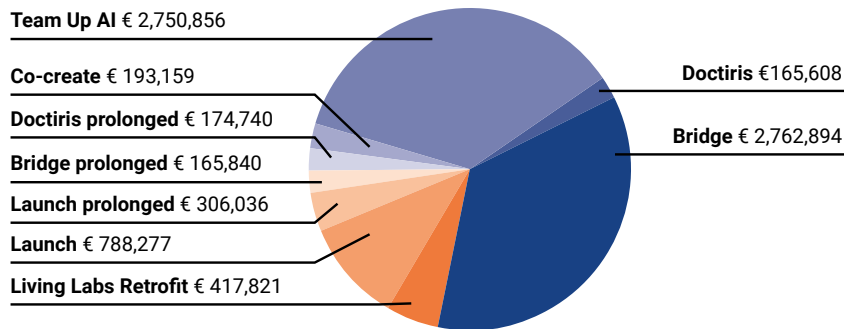
VUB participates in these SOC's: imec, VITO, VIB and Flanders Make.

BRUSSELS PROJECT FUNDING

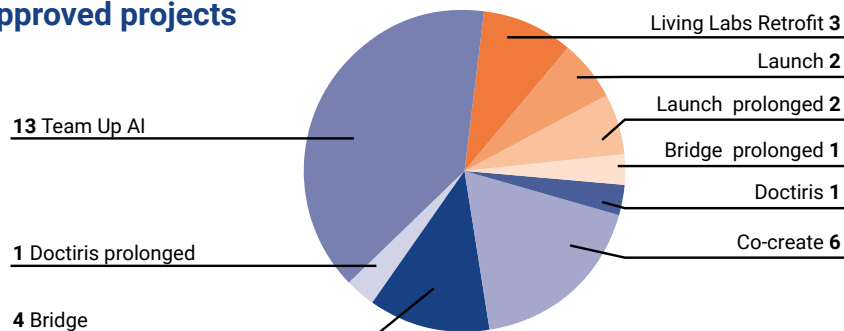
VUB TechTransfer supports research groups in finding industrial partners, writing proposals, preparing for jury defenses, drawing up legal contracts, and much more. In 2017 strategic funding from the Brussels Capital Region granted by Innoviris to VUB amounted to a total budget of € 7,725,231.

Approved & prolonged projects Innoviris 2017

Budget



approved projects



icity.brussels is a technology hub focused on research, development, innovation and valorization. They help Brussels emerge as the ICT Heart of Europe.

Funded by the ERDF and Innoviris and as a joint initiative of ULB, VUB and SIRRIS, icity.brussels is entirely devoted to strengthening Research and Innovation in Information and Communication Technologies (ICT) in Brussels. It has already launched R&D ICT projects in several key domains like education, e-Health, mobility, Internet of Things or 5G.

The funding received by VUB TechTransfer in 2017 was used to write a research project containing an academic as well as business development aspect to reinforce the icity.brussels team.

Doctiris

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

1 project was accepted:

- *Discovery, Design and Synthesis of G protein Peptidomimetics* - Morganne Mannes / promotor Steven Ballet

1 project was renewed:

- *A Tierless Reactive Cloud-oriented Middleware to Enhance the Quality of Internet Based Fleet-Management Applications* – Florian Myter / promotor Wolfgang De Meuter

Launch

Launch aims to stimulate the starting up of new companies in the Brussels Region.

4 projects were submitted and 2 approved:

- *CAPS for Life: Current-assisted Photonic Samplers for Fluorescence Lifetime Measurements in Life Sciences* – Hans Ingelbert / promotor Maarten Kuijk
- *FDQS Fast Deployable Quality Spaces* – Aushim Koumar / promotor Tine Tysmans and Niels De Temmerman

2 projects were prolonged:

- *The Anckle Mimicking Prosthetic (AMP) Foot Project* – Pierre Cherelle
- *OASIS: Opinion Advice and Study Bureau through Internet Surveys* – Joeri Minne

Bridge

Bridge funding mainly targets academic research projects implemented through strategic platforms of minimum 2 research units of Brussels' universities and/or university colleges. Particular attention is paid to opportunities for industrial applications for Brussels' enterprises. In 2017 Bridge focused on personalized and integrated healthcare.

2 projects were approved featuring VUB as coordinator:

- *IGenCare: Integrated Personalised Medical Genomics Care Solution for Patients with Rare Genetic Diseases* - Maryse Bonduelle/ Sonia Van Dooren
- *MOC-UP: Multi-factorial Decision Support in Oncological Practice: beyond Black-box Systems* - Jef Vandemeulebroucke

2 projects were approved with VUB as partner:

- *CARE-TEST HealthCARE Relationship and diagnostic self-TEST in Brussels-capital region* - Dirk Devroey
- *DIATYPE Personalized Medicine in Diabetes: towards an Etiology Based Diagnosis and Better Patient Care* - Luc Bouwens/ Harry Heimberg

Team Up

The objective of Team Up is to foster collaboration between academia and industry in the Brussels-Capital Region. This yearly program involves an active participation of both academic units and industrial teams with an aim of strengthening knowledge, transferring IP from academic research to the industry and turning it into prototypes that lead to new business opportunities. Thanks to Team Up, companies will acquire the knowledge they miss, integrate state-of-the-art and academics will find real-world use cases to apply their findings.

This first edition of Team Up in 2017 had 'Artificial Intelligence' as focus area. A complementary funding Connect could be applied to cover part of the costs when writing a full proposal.

The Team Up call turned out to be a great success for VUB. Of the 22 expressions of interest, 15 full proposals were sent in, mostly supported by a Connect funding, which resulted in 13 approved projects. Confronted with the success of the call, Innoviris decided to finance 7 projects in 2017. The other 6 were transferred to 2018.

Projects approved in 2017:

- *Driving Collective Data Governance through Smart Engagement Platforms* - Ann Nowé
- *IntiMals* - Coen De Roover
- *Preference Learning for Sustainable Freight Transport Planning* - Cathy Macharis/Tias Guns
- *Advanced Analytics for Data Driven Human Resources Management* - Wouter Verbeke
- *Smart Decision Support for Risk Estimation of Invoice Factoring* - Tias Guns
- *EV Charging Optimiser* - Ann Nowé
- *CAUSAFIN ProjectX* - Hichem Sahli

Co-create

Through this call Innoviris supports research and development for urban resilience. Research institutions, non-profit associations and companies in Brussels are experimenting and working with Brussels citizens to find innovative solutions for the societal challenges they face. Of the 7 proposals, the project 'Buurtzorgwinkel', coordinated by prof. Dominique Verté was approved.

Living Labs Brussels Retrofit

The objective of this call is to encourage renovation in the housing sector, by implementing experimentation and innovation projects that combine the forces of players in the construction sector and research entities. Innovative techniques and processes are applied to real renovation projects. These techniques and processes, tested and improved via the Living Labs projects, can subsequently be applied at a larger scale, with the aim of offering affordable solutions for renovations in the Brussels-Capital Region.

3 projects were approved:

- *Retrofit: Durable Renovation Strategies for the Post-war Heritage in Brussels: the VUB Student Homes* by Willy Van Der Meeren as Living Lab - Ine Wouters
- *Retrofit: Reno-Lab-C Renovations with Social, Ecological and Economic Added Value through Collective Approach in the Brussels Region.* - Dominique Verté
- *Retrofit: Prio-Climat : Optimisation of Ventilation Strategies for Renovation to Improve the Interior Climate* - Ignace Glorieux/ Joeri Minnen

EU FUNDING SUPPORT BY VUB TECHTRANSFER

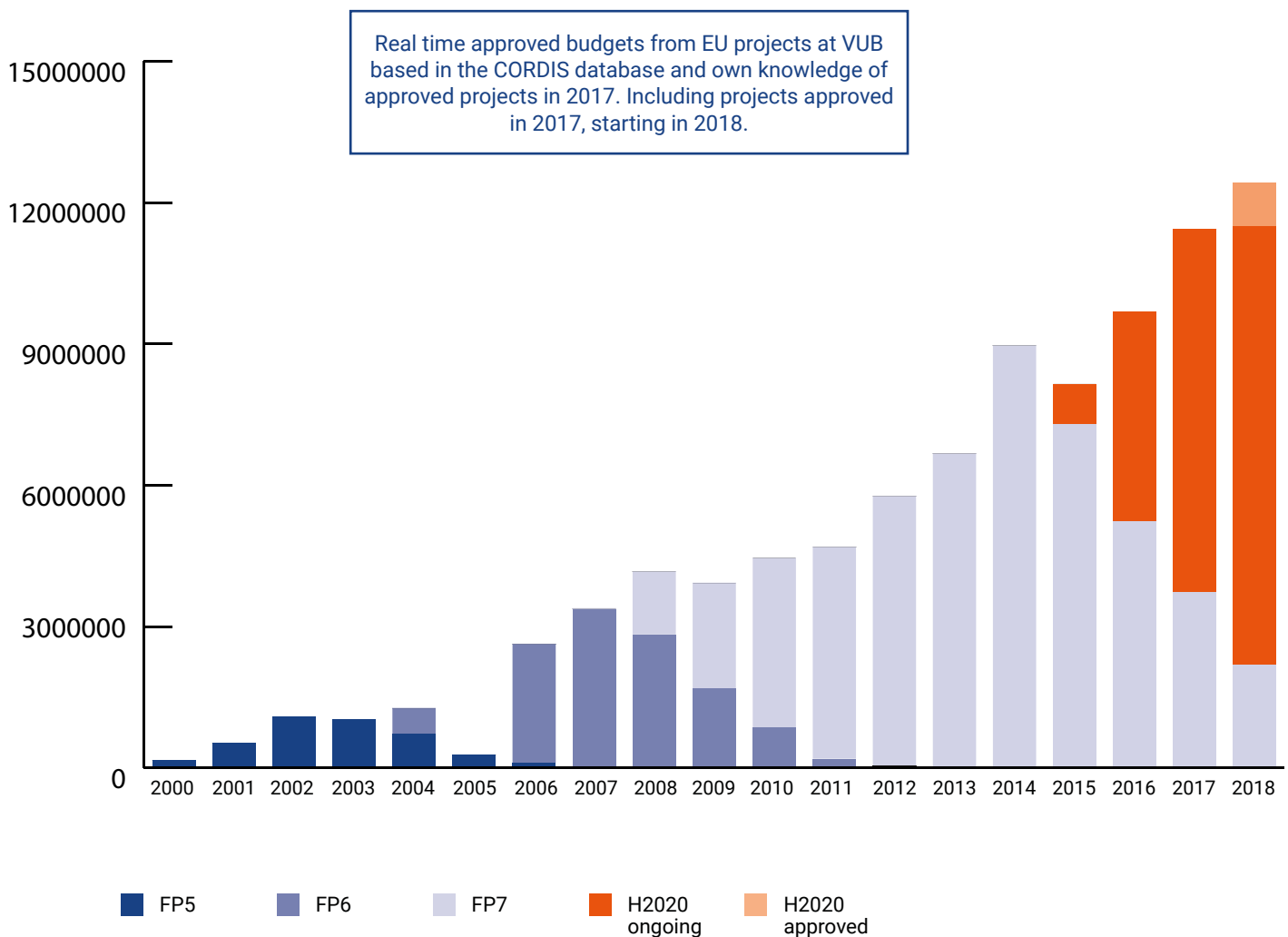
The mission of VUB TechTransfer concerning EU-research is to develop a unique support for the VUB research groups, resulting in an increase in strategic value, the number of submitted proposals and approved projects. In 2015 a new concept to support VUB research groups in applying for EU-funding was 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 increase in EU funding with a rate of 1 million euro per year is also achieved in 2017. Our researchers were very active in 2017 with 188 submitted proposals against 111 proposals in 2016. **28 proposals were approved, which corresponds to a success rate of nearly 15%.**

In 2017 we also welcomed Anneke Geyzen who joined the EU-TechTransfer team.

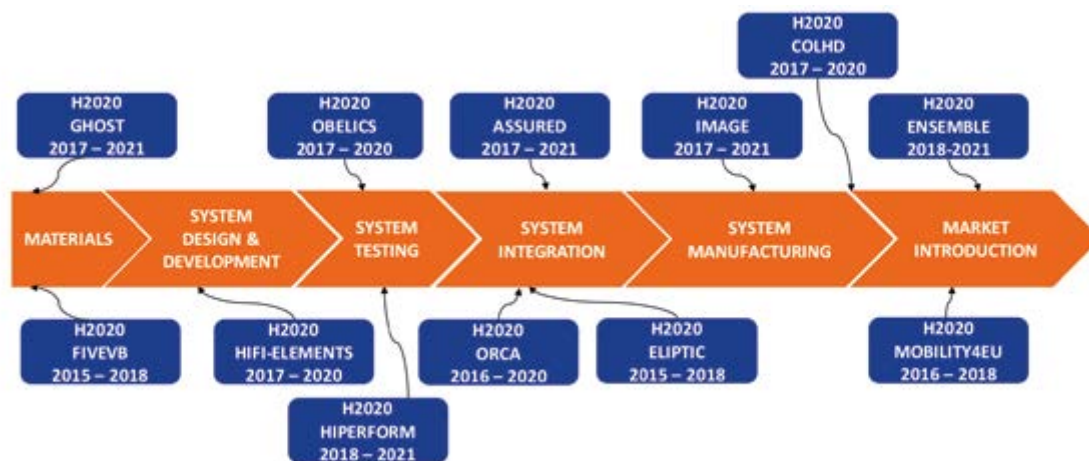
Income (€)



SUCCESS STORIES OF VUB-RESEARCH GROUPS IN EU FUNDING

MOBI BATTERY INNOVATION CENTRE

The MOBI Battery Innovation Centre, managed by Prof. dr. ir. Noshin Omar, has recently covered the full R&D value chain for electrical driving, from materials and battery electrodes/electrolyte development, over battery system design, construction, testing, validation and manufacturing, up to market introduction. MOBI or the Logistics and Automotive Technology Research group is headed by Prof. Dr. Cathy Macharis and Prof. Dr. Joeri Van Mierlo. Besides the coverage of the full value chain, MOBI is strategically investing time and resources on the one hand to strongly boost market introduction, uptake and replication through different international projects/proposals and partnerships and on the other hand in the next generation battery materials and manufacturing with implementation in the market foreseen towards 2030.



LSTS - LAW, SCIENCE, TECHNOLOGY AND SOCIETY

LSTS, headed by Prof. Dr. Paul De Hert and Prof. Dr. Serge Gutwirth, is the internationally renowned Law, Science, Technology and Society Research Group at VUB's Faculty of Law and Criminology. The LSTS, together with its partners and sub-groups – such as Privacy Salon, Brussels Privacy Hub and Brussels Laboratory for Data Protection & Privacy Impact Assessments (d.pia.lab) – is successfully boosting its activities at European level with 20 (co-)funded projects ongoing in Horizon 2020 and other programmes such as ERANET, JUSTICE and REC. The research is focused on all aspects of privacy and data protection at the interface of law, science, technology and society. The targeted application fields are currently cyber-security, smart environments (e.g. smart borders), law enforcements, energy, eHealth, ICT and GDPR.





REVENUE FROM VALORIZATION AND CONTRACT RESEARCH WITH INDUSTRY

Through contract research and licensing of technologies with industry and other third parties (profit/non profit), the university can develop and maintain long-term cooperations and implement its knowledge in society. Since 2008 the revenue from these kinds of collaborations has been steadily growing, with or without governmental financial support. In 2017 the VUB received **€ 12.3 mio** from valorization of research. These funds can be reinvested in the university's excellent research.

LEGAL ADVICE FOR TECH TRANSFER & 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.

INTELLECTUAL PROPERTY (IP) MANAGEMENT & LICENSING

The commercial application of promising VUB technologies. VUB TechTransfer facilitates it. That is how economic activity is attracted and initiated in Brussels and the Flanders Region and how relations are built with industry. And how tangible impact is given to VUB R&I: by transferring results to industry, government and society.

An important way to valorize is the licensing of intellectual property rights (patents and patent applications, software, confidential know-how, design rights, trademarks, etc.) to existing companies or university spin-offs. A privileged relationship between a lab and a spin-off company is beneficial to the growth of the company, in particular in its early development stages.

VUB technologies available for licensing or for R&D partnerships are communicated through bilateral contacts with industry, networking and matchmaking events, the VUB TechTransfer website and newsletter, conferences such as Knowledge for Growth, and other specific channels. In 2017, 40 inventions were disclosed. 22 priority patent applications were filed. The total portfolio included **127 active patent families**, of which about one fourth owned exclusively by VUB. 75 % of VUB's patent portfolio is co-owned by third parties such as VIB, imec or other research institutes and companies, illustrating the substantial amount of R&D collaboration with third parties.

Licensing of research results generates income for the university and creates structural collaborations with companies.

VUB ranks high in Reuters' Most Innovative Universities TOP 100

VUB ranks number 47 in Europe's Most Innovative Universities TOP 100 by Reuters. As third Flemish university in the ranking, VUB moves one place forward compared to last year. At first glance this seems a small step, but it definitely confirms that VUB's valorization strategy works. In this ranking not only the number of patents is taken into account but also their 'value'. Considering the size of the university, this is a very good result. The list for this year also shows how small countries like Belgium are very well represented in the world of innovation.

"With determination and steadiness, we will further increase the innovative strength of the VUB step by step. This way we can ensure that the income is reinvested in excellent researchers, open innovation and industrial cooperation."

- Hugo Thienpont, Vicerector Innovation & Industry Relations -



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 **2017 VUB's spin-off portfolio** contained **32 active companies** based on research in various fields: engineering, life sciences, economics, ICT, sports, etc. 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 maximize 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.

Qbic II launched

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. **Beginning of 2017 Qbic launched a second venture capital fund 'Qbic II' to successfully continue investing in university spin-offs.** The VUB, UGhent and UAntwerp associations were joined by VITO. Shareholders of Qbic confirmed their confidence by stepping into the new fund. Moreover new private and public financers came on board. The Qbic team was reinforced with 2 new experienced managing partners. With in aggregate € 90 million (Qbic I and Qbic II) under management, Qbic is one of the largest inter-university spin-off funds in Europe. In **2017** Qbic participated in a capital increase in VUB chromatography spin-off **PharmaFluidics**.

New spin-offs in 2017:



Engineering & Operating Offshore Testing

24SEA offers testing services and develops dedicated short and long-term structural health monitoring systems for offshore structures. Data analysis is the core expertise at 24SEA. Our team has over 10 years of experience in structural dynamics, signal processing, system identification and structural health monitoring using data mining techniques.



Brings Crisis Simulation to Life

ISEE Support supports your organization in the training of knowledge, skills and attitudes in managing incidents, crises and disasters in health care. Among other things, use is made of the ISEE Hospital simulator.



New Antibiotics for the Clinic

Aelin Therapeutics is founded by VIB and its partner universities KU Leuven, VUB and UGent. Their final purpose is to create a completely new class of antibiotics and first-in-class therapeutics against high-value undruggable human targets. The technology, branded Pept-ins™, harnesses the power of protein aggregation to specifically induce functional knockdown of a target protein. The company will use the proceeds of the 27 M€ Series A financing, to bring a first Pept-in product to the clinic.



VUB spin-off highlights in 2017

- **PharmaFluidics gets top investors on board**

The biotech investors Rudi Mariën en Annie Vereecken invest money in VUB spin-off PharmaFluidics, following a capital round of more than €7 million. (Source: De Tijd)

- **Iconiq invests in Collibra**

The legendary investment company Iconiq (founders of Facebook and Twitter) takes the lead in a new capital round of €40 million at VUB spin-off Collibra. (Source: De Tijd)

- **Collibra biggest Belgian growth company in 2017**

This is the third year in row that Belgian growth companies succeed in collecting more than 300 mio Euro. Especially start-ups in big data are in demand. The largest capital round of 2017 was destined to VUB spin-off Collibra. Beginning of this year Collibra, a leader in data governance software for business users, closed \$50 million (47 mio Euro) in Series C financing led by San Francisco-based ICONIQ Capital with participation from investment firm Battery Ventures. (Source: De Tijd)

- **Ablynx: nanobodies might save your life**

Ablynx announces positive topline results from the Phase III Hercules Study of Caplacizumab for the treatment of acquired TTP (thrombotic thrombocytopenic purpura), a rare but lethal disease. (Source: de Tijd, De Standaard, Flanders Bio)

- **eTherRNA receives € 1 million from VLAIO for cancer research**

eTherRNA Immunotherapies, a clinical-stage company and VUB spin-off, announces it has been awarded a € 1 million industrial R&D Projects Grant by Flanders Innovation & Entrepreneurship (VLAIO). (Source: De Tijd)

- **Confo Therapeutics announces research collaboration with Lundbeck**

VUB spin-off Confo Therapeutics has made its first deal with a Danish pharmaceutical company Lundbeck. They agreed to collaborate on the research of two molecules against neurological disorders. (Source: De Tijd)

- **Collibra's CEO Felix Van de Maele is ICT Personality of the Year**

VUB spin-off Collibra's CEO Felix Van de Maele of the Belgian big data specialist Collibra has been elected as 'ICT Personality of the Year' during the Data News Awards in Brussels. The ICT Personality of the Year was chosen from a longlist of thirty leading figures in the Belgian ICT space. (Sources: startups.be, Knack Datanews)

- **AgroSavfe extends its Series B financing round to €11 million**

The funds will be used to accelerate the development of the Company's novel Agrobodies® as a new generation of biopesticides and to roll out the international registration process. (Source: AgroSavfe)

- **PharmaFluidics raises 2.7 million euro to commercialize novel micro-chip device for Biomarker, Diagnostics and Drug development applications**

(Sources: De Standaard, Het Nieuwsblad, Computable, Kanaal-Z)

- **Collibra Closes \$50 Million Series C Financing with ICONIQ Capital, Battery Ventures**

(Sources: Trends, de Tijd, Kanaal Z)

RESEARCH PARK & INCUBATORS

Companies committed to supporting research and collaboration with the VUB can find space, appropriate facilities or infrastructure in the research park or one of the incubation centers.

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 research park with Agentschap Innoveren en Ondernemen (VLAIO) as driving force.

In 2017 VUB TechTransfer actively supported the launch of a new project '**Green Energy Park Zellik**', together with UZ Brussel, several VUB research groups and FLUX50. This CO2 neutral smart grid will include solar and wind energy and will serve as a test-ground for innovative energy systems and electric mobility. www.researchparkzellik.be

Situated near the Brussels Humanities, Sciences & Engineering Campus, **ICAB Business and Technology Incubator** offers an ideal work environment for innovative start-ups in the ICT and engineering sectors. 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 Researchpark Zellik not far from the university Health Campus and the UZ Brussel. www.iicb.be

Usquare.brussels - Bringing people, city and knowledge together

In 2017 VUB plans matured to start up a new **incubator Usquare**. This project combines the ambitions of VUB, ULB and the Brussels-Capital Region. The 2 universities want to become more integrated in the city and develop a new expertise center of international importance. The Brussels-Capital Region wants to meet the needs of its inhabitants in terms of housing, facilities and quality of life, and aims to reinforce its status as Belgium's largest student city and leading university hub in Europe.

ENTREPRENEURSHIP EDUCATION

BOOST YOUR ENTREPRENEURSHIP AND BUILD YOUR OWN BUSINESS



VUB TechTransfer wishes to raise more awareness of (technological) entrepreneurship among master and doctoral students, researchers and young professionals and organizes 2 evening courses:

- Since 1995 the **Starter Seminars** 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 and 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 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. In 2017 PharmaFluidics and Double Pass shared their start-up experience.

Marc Goldchstein, Officer Entrepreneurship Education at VUB TechTransfer, is the main lecturer and content coordinator. Expert-speakers from VUB or the business world are also involved. Since 1995 VUB TechTransfer has reached more than 1000 participants interested in (technology) entrepreneurship. In 2017, a top number of 158 participants subscribed. The VUB TechTransfer Entrepreneurship community on LinkedIn offers up-to-date posts on entrepreneurship issues and provides follow-up after the seminars have finished.

TECHTRANSFER COMMUNICATION & EVENTS

VUB TechTransfer's mission is 'the valorization of research results with the purpose to deliver an innovative contribution to society.' The financial return can be reinvested in excellent research at the university. To achieve this our researchers are crucial. The 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 view and other brochures, taking into account the VUB's corporate identity. For communication through press releases, VUB Today, HENRI,... the unit appeals to VUB corporate 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.

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 identity and communication tools such as a website and email. TTO Flanders participates at Knowledge for Growth and other fairs. In 2017 VUB coordinated the yearly interuniversity IOF-TTO event destined to tech transfer staff as well as business developers and mandatories from the research groups which receive financing of the Industrial Research Fund.

Some of the realizations in 2017:



'Finding the research partner for your business'

New brochure destined to corporate world.



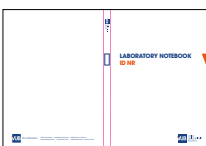
Coordination interuniversity IOF-TTO event: 'Data and software: how open is the future?'

Each year the 5 Flemish universities organise 2 internal interuniversity events to discuss and tackle actual topics.



Biotech fair Knowledge for Growth 2017

At the TTO Flanders booth VUB showcased Camel-IDS, who develop a new generation of targeted cancer therapies based on the unique characteristics of the Camelid immune system.



New edition VUB Lab Notebooks

Record keeping of research is essential to defend intellectual property rights. VUB TechTransfer provides free laboratory notebooks to interested researchers.



VUB TechTransfer News

Inform on project calls, matchmaking events, innovative research @VUB and much more.

- 43 newsletters, 5 newsflashes
- about 3200 receivers, open ratio of 25%
- link to 250 news and 81 calendar items posted on vubtechtransfer.be
- 34 links to articles in the press highlighting strategic research or VUB spin-offs

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 VUB Foundation was created, a strategic component of the VUB that is responsible for all philanthropic fundraising. The VUB fundraising team is part of the Vicerectorate Innovation & Industry Relations and is the central coordination point of the university for all fundraising, such as gifts, sponsoring, funds by name and legacies.

Chairs are an excellent means to financially support education, research and innovation and to develop a long-term relationship with companies. End 2017 VUB counted 33 active chairs among which three newly created: Fundamental Rights and the Digital Transformation Chair in partnership with Microsoft, Human Resources Data Analytics Chair in cooperation with Acerta and the Chair Fatima Mernissi with support of the Flemish Minister of Culture, Media, Youth and Brussels.

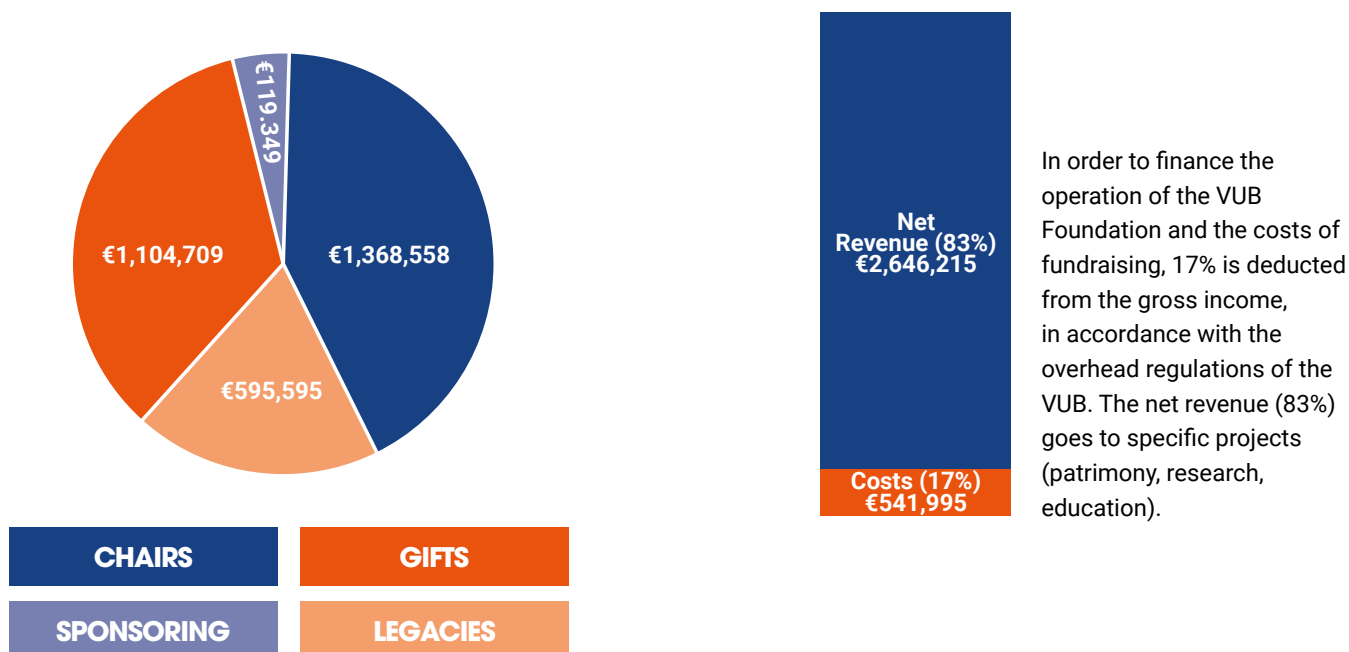
In 2017 the VUB Foundation started raising funds for three new projects: **FabLab 2.0** (Faculty of Engineering), a bigger and improved Fabrication Lab at the new Usquare Site in Etterbeek for engineers and all makers in Brussels to shape their ideas; **Arabic language classes for children** (International Relations & Mobility Office), offered to children between the age of 6-15, embedded in a pedagogic and neutral school environment, academically supported and taught by highly educated teachers; **VUB Children's University** (Research & Data Management), a project to encourage young children from schools in Brussels to choose a career in science and/or technology by organising fun and interesting science workshops at the university and in the classrooms.

At the end of 2017 a group of enthusiastic VUB Students called 6000 VUB alumni during the annual **Telethon**. The alumni were informed about one of the three projects and when interested asked for their financial support.

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 research, projects or educational purposes that are close to their heart. In 2017 two legacies were donated for cancer-diabetic research at the VUB.

THE NUMBERS

In 2017 the VUB Foundation had a total income of **€3,188,211**.



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 2017, 29 new Fellows were introduced. In total, VUB has now 86 outstanding Fellows and 39 Honorary Fellows who have agreed to continue their commitment.



"Since the VUB initiated its Fellowship programme with five Solvay Fellows in 2012, the VUB Fellowship has not only had a significant impact, it definitely has changed our university. Our Fellows have improved the quality of our research and our education, the employability of our graduates and our overall capacity for innovation and competitiveness."

Hugo Thienpont, Vice-rector Innovation & Industry Relations



VUB CROSSTALKS

A UNIQUE KIND OF ACADEMIC AND CORPORATE NETWORKING



Launch Academic Chair Fatima Mernissi

Festive launch of the Academic Chair devoted to the Moroccan sociologist Fatima Mernissi

Moroccan sociologist Fatima Mernissi (1940–2015) laid the groundwork for the development of feminism in the Muslim world. She explored the tension between power, gender and Islam and built bridges between academia and society, which is exactly the objective of the Fatima Mernissi Chair, that kicked off in 2017 with a lecture by Iman Lechkar, titled 'The Brussels Mix: Violence, Islam and Gender'.

The chair creates a framework for an open dialogue with opinion formers, civil society organizations, artists and activists on topics such as power, gender and Islam.

After the launch on 26 January 2017, a series of lectures with innovative visions and critical voices started as a springboard to a constructive society in Brussels.

Date: 26/01/2017
@ Kaaistudio's

Contributors:

- Yamila Idrissi (member of Parliament)
- Saïda Sakali (King Baudouin Foundation)

The Fatima Mernissi Chair is an initiative of RHEA - the Centre of Expertise Gender, Diversity and Intersectionality (VUB). The public events are created in collaboration with Crosstalks.



Understanding Heritage

A salon on alternative and provocative ways of thinking about heritage

How does uncertainty about the deep future and the transformation of values affect heritage practice? How do institutions and people decide what to discard and what to keep in times of mass production and consumption.

Rodney Harrison, a key researcher in contemporary heritage studies was invited by Crosstalks for a salon with Lionel De Vlieger (Rotor) and the artist-activist Anna Rispoli and for an academic lecture in collaboration with the VUB Department of history, archaeology and arts, philosophy and ethics (HARP), within the context of the Casterman-Hamers Chair.

Date: 13/02/2017
@ BOZAR

14/02/2017
@VUB

Contributors:

- Rodney Harrison (University College London)
- Marc Jacobs (VUB & FARO)
- Lionel De Vlieger (Rotor)
- Anna Rispoli (artist) (Hiros)



The End of Death

An evening with different perspectives and discussions on rejuvenation biotechnology

Aubrey de Grey is a biomedical gerontologist. His research interests encompass the characterisation of the accumulating and eventually pathogenic side-effects of metabolism ('damage') that constitute mammalian aging and the design of interventions to repair and/or obviate that damage. He has developed a possibly comprehensive plan for such repair, termed Strategies for Engineered Negligible Senescence (SENS). A key aspect of SENS is that it can potentially extend healthy lifespan without limit.

Organized in collaboration with BOZAR Agora and within the context of the project Equal Access to Health and Medical Care.

Date: 23/04/2017
@ BOZAR

Contributors:

- Aubrey de Grey (SENS Research Foundation)
- Jorge Leon (artist and film maker)
- Claudia Spits (VUB)
- Julian Cockbain (Bioethics Institute Ghent)



Living Library - Difference Day

Speak freely and listen respectfully because different opinions matter

On 1993 the United Nations General Assembly declared May 3rd to be World Press Freedom Day. This event is intended in particular to remind governments of their duty to respect and uphold the right to freedom of expression. The latter reflects the democratic vitality and pluralism of a society. Difference Day honours the persons and organizations who make a difference. In 2017 Difference Day started with a Living Library, an inspiring format in which secondary school kids talked to professionals on fake news.

Date: 03/05/2017
@BOZAR

Contributors:

- Marijn Sillis (StampMedia)
- Gie Goris (MO*)
- Gustaaf Cornelis (VUB)
- Karl Van den Broeck (Apache/BOZAR Agora)
- Katrijn Devlaminck (De Moeial)
- Stavros Kelepouris (Knack)
- Keltoum Belorf (DeWereldMorgen)
- Günther Brants (newsmonkey)
- Marleen Teugels (Amazone)
- Tinneke Beeckman (philosopher, auteur, columnist)
- Wies De Graeve (Amnesty International)



Entr'Acte with Pieter Ballon

In 2017, Pieter Ballon was honored with the yearly VUB R&D social valorisation prize for the strong social impact of his research

VUB-researcher Pieter Ballon was awarded for his ongoing research on Smart Cities and his collaborations with industry, media and policymakers. To celebrate this event, Crosstalks organized an interdisciplinary and festive Entr'Acte in which Prof. Pieter Ballon invited five guests whose work had inspired him in one way or another. Entr'Acte is an alternation of conversations, images and music.

Date: 18/10/2017
@ La Tricoterie

Contributors:

- Karin Vanderkerken (vicerektor research VUB)
- Maarten Koningsberger (baritone)
- Luc Haekens (Woestijnvis)
- Karin Heremans (director Antwerp Atheneum)
- Andrew Odlyzko (mathematician)
- Adri Duivesteijn (Dutch politician)



Redelijk Eigenzinnig

Reason and Engage. Critical Reflections on Humanity and Society

Edition 2017-2018 explored the scopes and impact of new technologies. During the public events, experts from different disciplines shared findings and opinions on a chosen theme. Reason & Engage brings together academics, researchers, professionals and active citizens to stimulate critical reflection on some of the most urgent and challenging issues of our times. The lectures take place at various locations in Brussels and organized in collaboration with Crosstalks

Dates:

- 12/10/2017: Peter-Paul Verbeek: Smart Cities and Citizens, a Question of Technology?
- 17/10/2017: Mireille Hildebrandt: Democracy (as a successful misunderstanding) in an algorithmic world
- 7/11/2017: Meet the artists: Human-Machine Interactions
- 7/11/2017: Sophie Wennerscheid: The science & fiction of human-robot relationships

CROSSTALKS.NET

Launched by the VUB in 2003, Crosstalks wants to create a new dynamic of knowledge exchange through thematic encounters; beyond specific disciplines and with the active participation of key players from all levels of society. An open and collaborative approach is crucial in every initiative, ranging from small scale professional workshops to big public events.

VUB TECHTRANSFER, FOUNDATION & CROSSTALKS TEAM 2018

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