







VUB TechTransfer serves as the multidisciplinary operational team within the **Vice-Rectorate Innovation & Industry Relations.** We are responsible for facilitating the **transfer and exchange of knowledge and technology.** Alongside the **VUB Foundation**, which leads philanthropic fundraising, and **Crosstalks**, VUB's platform for transdisciplinary dialogue, we form the core of the Vice-Rectorate.

OUR MISSION:

TO CREATE A POSITIVE IMPACT BY BRIDGING VUB'S INNOVATIVE RESEARCH WITH INDUSTRY AND SOCIETY

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FACTS & FIGURES 2024



- **VUB Main Campus**
- VUB Health Campus
- VUB Photonics Campus Gooik
- **VUB** Usquare Campus
- Campus Coovi Anderlecht
- Campus Volt Diest
- Campus Leuven

8 FACULTIES

4,061 †††† EMPLOYEES

24.19 **STUDENTS** 4,775 EMPLOYEES UZ BRUSSEI



EUR 156.5 M RESEARCH BUDGET **TOTAL VUB**

REVENUE FROM CONTRACT RESEARCH WITH INDUSTRY AND VALORISATION OF RESEARCH

RESEARCH GROUPS INCLUDING 15 JOINT INT'L, 22 VUB-UGENT AND 12 VUB-ULB



PATENT FAMILIES

SPIN-OFF COMPANIES

INDUSTRIAL RESEARCH FUND

SUPPORTING 21 OR GROUPS OF EXCELLENCE IN APPLIED RESEARCH



EUR 6.84 M **INCOME FOUNDATION**





i Amidst global challenges, VUB remains committed to excellence in research and valorisation, fostering sustainable growth, promoting equality, watching over well-being, always keeping the UNis sustainable development goals in mind.î

Peter Schelkens, Vice-rector Innovation & Industry Relations

DRIVING INNOVATION AND IMPACT: A YEAR OF GROWTH AND EXCELLENCE

The start of the new academic year 2024-25 marked an important transition, with Prof. Peter Schelkens appointed as the new Vicerector for Innovation & Industry Relations. Prof. Schelkens brings a wealth of experience and a forward-thinking vision that promises to strengthen the university's ties with industry and enhance our innovation ecosystem. His predecessor, Prof. Hugo Thienpont, has now fully dedicated himself to the development of the Brussels Photonics campus in Gooik. We sincerely thank him for his years of unwavering dedication and passion in driving the valorization of innovative research at our university.

The year 2024 has proven to be highly successful for researchers engaged in innovation and valorization projects. Despite challenging economic conditions, funding from bilateral collaborations exceeded that of 2023, and the exceptional results of 2022 were even surpassed for applied research projects in Flanders and Brussels. European applied research projects also performed exceptionally well, with no signs of slowing down. Notably, VUB ranks among the top 20 universities in Horizon Europe funding, securing more funding on average per researcher than other Flemish universities.

Collaboration with the private sector remained strong, which resulted in a revenue of approximately €15.4 million in 2024. Also in terms of intellectual property, the VUB ranks highly. The university's total patent portfolio now includes 223 active patent families. Since 2018, the number of active patent families has grown by 60%, reinforcing the foundation for industry collaborations, licensing opportunities, and spin-off creation. This is an impressive achievement for a small-sized university like VUB, underscoring its strong innovation capacity relative to its scale.

A full reorganization of VUB Foundation - the philanthropic fundraising team - led by a new coordinator, resulted in a remarkable increase in revenue in 2024. Furthermore, several new academic chairs were established in 2024, significantly contributing to these outstanding results.

The Vice-rectorate Innovation & Industry Relations remains committed to its mission: translating research into societal impact to drive economic and social progress, both regionally and across Europe. This reinforces VUB's position as an innovation-driven university, as demonstrated by its outstanding performance in competitive funding channels. Under the leadership of Prof. Peter Schelkens as the new Vice-rector, VUB is further strengthening its commitment to translating cutting-edge research into real-world impact. His appointment underscores the university's strategic focus on fostering meaningful collaboration with industry, ensuring that research efforts are aligned with societal challenges and the evolving needs of the industrial landscape.

We now invite you to explore this annual report 2024 and discover the remarkable achievements and progress we have made over the past year!



Sonja Haesen, Director VUB TechTransfer

GROUPS OF EXCELLENCE IN APPLIED RESEARCH (GEARS)

ADVANCED GEARs:







Electromobility

Nanotools

CONSOLIDATOR GEARs:



Artificial Intelligence



Liver research



Sustainable Material **Technologies**



Tech4Health



Accoustics & Vibration



INTEGRAL -**Immunotherapy**



Law for Cybersecurity and Health



Gene Therapy



Algorithmic Systems



House of Sustainable **Transitions**



Human-centered **Robotics**

STARTER GEARs:



Peptidomimetic **TheranOstics**



Industrial Food Biotechnology



Software Systems



Advance Imaging



Microfluidics



Al in Neurology



Sustainable Chemistry

GOVERNMENT FUNDING FOR STRATEGIC & APPLIED RESEARCH

FROM FLANDERS, BRUSSELS, EUROPE

The strategic and applied research produced by universities, whether or not in collaboration with companies, impacts regional innovation and strengthens the economic landscape. Additionally, it generates revenue for the university, which can be reinvested in further research. In 2024 **governmental funding for approved strategic and applied research projects** at VUB amounted to €51.7 **million** which is about 40% higher than the year before, an excellent result.

VUB TechTransfer offers assistance and support to researchers for:

- Projects financed by the Industrial Research Fund of the UAB (Flemish government funding)
- Flanders VLAIO & FWO calls
- · Brussels-Capital Region funding through Innoviris
- Projects with SOCs and spearhead clusters
- · Innovation driven EU projects
- Financing for applied projects with valorization potential by other (international) organisations or administrations

VUB INDUSTRIAL RESEARCH FUND FOR RESEARCH GROUPS THAT EXCEL IN STRATEGIC AND APPLIED RESEARCH

VUB TechTransfer supports projects financed by the **Industrial Research Fund (IOF – Industrieel OnderzoeksFonds)**. Since 2004 associations receive this **Flemish 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, number of PhD's obtained 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**. They have to elaborate a long-term strategic research strategy, demonstrate leadership, and develop new application-oriented inventions with economic potential.

The amount allocated under the IOF to the University Association Brussels (UAB) amounted to €6,443,838 in 2024.

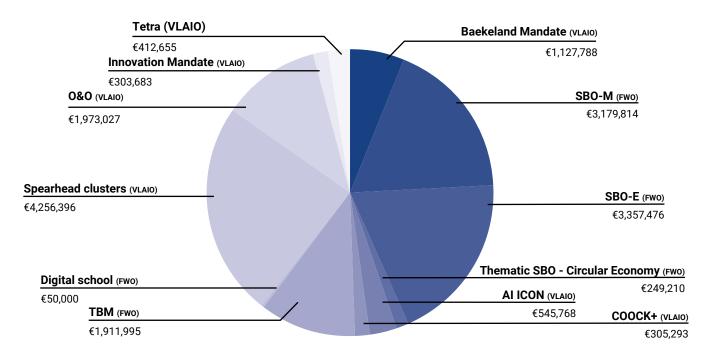
A total of 21 GEAR groups receive funding from the Industrial Research Fund. The overview can be found on the left-hand page.



FLANDERS PROJECT FUNDING

2024: VUB received € 17,670,105 funding from FWO (Fonds Wetenschappelijk Onderzoek) and VLAIO (Agentschap Innoveren & Ondernemen) for strategic basic and applied research

Total budget € 17,670,105



Research Foundation - Flanders (FWO)

The **Strategic Basic Research programme (SBO)** concerns innovative research that offers prospects for later economic or social applications. In 2024 this resulted in:

- · SBO-E (economic finality): 2 approved projects:
 - MycoMatters: developing next-generation sustainable mycelium-based materials Eveline Peeters, Niko Van den Brande,
 Lars De Laet, Elise Vanden Elsacker
 - Fatigue and roughness Optimisation to tRigger susTainable advanced Additive Manufacturing applications Dieter De Baere,
 Ann Nowé, Danny Van Hemelrijck, Lincy Pyl, Iris De Graeve
- SBO-M (societal finality): 3 approved projects
 - SWYPPE- Sexual Well-being of Young People in times of widespread Pornography usE Gily Coene
 - CONNECT- Flanders' project to understand and improve social connection in serious illness, dying, and bereavement Lieve Van den Block, Joachim Cohen, Liesbeth De Donder
 - ENGINE Tackling the EthNic Gap IN higher Education Ilke Adam, Els Consuegra
- · SBO Circular economy:1 approved project
 - Efficient fermentative isobutyric acid production integrated with advanced adsorptive separation Denayer Joeri

The **Applied Biomedical Research programme (TBM)** wants to contribute to the long-term implementation of new therapies, diagnostics and prevention methods for which there is not sufficient interest from industry. VUB TechTransfer intensively supports these project applications to increase the chances of success. 2 projects were approved in 2024.

- Intrathecal pump refills at home or at the hospital: a randomised multicenter cross-over trial Maarten Moens, Lisa Goudman,
 Koen Putman
- Targeting muscle strength loss due to hospitalization in older adults by blood-flow restriction combined with an EMG driven serious game - Eva Swinnen, Bart Jansen, Siddharta Lieten

Flanders Innovation & Entrepreneurship (VLAIO)

VLAIO stimulates innovation in companies, which is essential for economic growth in Flanders. Collaboration with the academic world plays a crucial role in this process, with a strong focus on addressing the needs of businesses.

Baekeland mandates

With Baekeland mandates, aimed at a doctorate, VLAIO wants to support research that has an economic finality and offers added value for the company involved. In 2024, 2 Baekeland mandates were approved.

- Novel Actuation System for Active Gas Pulsation Control in the Discharge Piping of Positive Displacement Bjorn Verrelst, candidate
 Adrien Leopold J Deraes
- ProstAl Bart Jansen, Jef Vandemeulebroucke, candidate Fanny D'Hondt
- ENCODED Steven Ballet , candidate Maëva Mercier

Innovation mandates

An Innovation mandate is specifically intended to allow postdoctoral researchers to carry out a project in close collaboration with the business world, either with an existing company or with a view to establish a new company. In 2024, 1 mandate was granted.

Liquid-state surface fermentation of mycelium mats for the production of a sustainable leather-like mycelium material - Eveline Peeters

COOCK+ projects

"Collective Research & Development and Collective Knowledge Dissemination/Transfer (COOCK)" projects, introduced in 2018, target groups of companies, with the aim of valorising (basic) research results by accelerating the introduction of technology and/or knowledge. In 2023, this call was changed to COOCK+, which attempted to increase accessibility and transparency and reduce the risk. In 2024, 1 project was approved.

BUGATTI: Embedded Security Testing and Automation - Coen De Roover, Jens Nicolay

AI-ICON projects

Al-ICON projects bridge the gap between research results in the field of Artificial Intelligence and their applications in Flemish industry. In 2024, 1 project was approved.

· Al-NIMO: Al-supported image enhancement, analysis and quality control pipeline for (pre)clinical imaging - Jef Vandemeulebroucke

Digital school

In 2024, 1 project involving VUB was approved.

DigCompEduMa - Jo Tondeur

Tetra projects

TETRA is a programme for practice-oriented research. In 2024, 1 Tetra project was approved.

CombineloT - Combining Recent loT Technologies - An Braeken, Kris Steenhaut

Financing from Spearhead Clusters

Spearhead Clusters facilitate a network of companies active in a specific domain, and develop an ambitious long-term strategy and competitiveness program for Flanders' strategic domains, in collaboration with knowledge centers and the government. The focus of the Flemish cluster policy lies on a limited number of large-scale and ambitious Spearhead Clusters: Catalisti (sustainable chemistry and synthetics), SIM (materials, circular economy), FLUX50 (green energy, mobility), VIL (logistics and transport), Flanders Food (agrofood), Blue Cluster (wind energy, aquaculture) and the most recent one MEDVIA (healthcare innovation).

4 Cluster projects were approved for VUB in 2024:

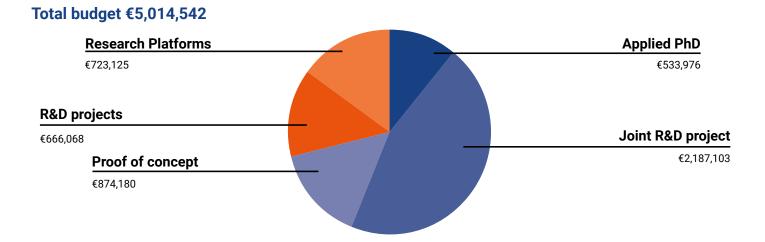
- · Catalisti: Sensor platform for online monitoring Wim De Malsche
- De Blauwe Cluster: Supersized 5.0 Jan Helsen, Christof Devriendt
- · Flanders Food: TRADICER Luc De Vuyst, Fritz Heinrich
- · Moonshot: Allylic Oxidation of Hydrocarbons on Anodes (ALOHA) Tom Hauffman

Strategic Research Centers (SOCs)

SOCs have been created as a result of excellent scientific research in broad domains such as nanoelectronics and digital technologies (imec), biotechnology (VIB), cleantech and sustainable development (VITO) and the manufacturing industry (Flanders Make). They build bridges between fundamental and applied research and are important for Flanders' economy. VUB participates in these Strategic Research Centers.

BRUSSELS PROJECT FUNDING

For 2024, VUB received funding for 9 projects from Innoviris for a budget of €5,014,542.



Innoviris aims to stimulate and support scientific research and technological innovation that contributes to the economic, social, and sustainable development of the Brussels Region.

Applied PhD

The Applied PhD programme funds doctoral mandates, which are carried out in collaboration with an industrial partner or a public institution in Brussels. In 2024, 2 projects with a social sciences and humanities perspective were selected for funding.

- Beastly Traces and Shared Spaces: encountering humananimal communities in the Sonian Forest Marc De Bie, candidate Pieter Rodts
 - City-scale combined sewer overflow prediction model for real-time forecasts and climate change impact analysis Lesley De Cruz, candidate Elise Verstraeten

POC

The proof of concept (POC) programme funds the demonstration of the feasibility and economic viability of an innovative technology, method or idea derived from prior scientific research. This call is open throughout the year. In 2024, 2 projects were submitted and approved.

- The SUNBEAM, a new medical device to integrate sperm selection and in vitro fertilization (IVF) Wim De Malsche, Herman Tournaye
- Allosteric immunotherapy: novel drugs inspired by Nature (ALLOSTERIS) Jan Steyaert

Joint R&D project

The goal of the Joint R&D project call is to encourage collaboration between academics and entrepreneurs in the Brussels-Capital Region. In 2023, the call was launched with as theme "Healthcare innovation for vulnerable patients". 3 VUB projects were approved in 2024.

- Translating Alzheimer's molecular biology of cognitive decline to improve diagnostics and therapeutics Sebastiaan Engelborghs
- Towards Data Driven Precision Medicine in Chronic Obstructive Pulmonary Disease Nikos Deligiannis, Hichem Sahli
- Freezing of Reliable Oocytes after Screening with AI for women awaiting Cancer Treatment Ann Dooms, Tan Lu

Research platforms

This programme mainly focuses on research projects carried out through academic collaborations. In addition, letters of intent from Brussels entities should be added to demonstrate interest in the proposal from stakeholders. This call was launched in May 2023 (after an absence in 2022) with the theme 'Towards sustainable digitisation'. 1 project was withheld for funding.

Sufficiency & Data Minimization (SDM) - Geoffrey Aerts, An Braeken, Kris Steenhaut

R&D projects

With this action Innoviris finances industrial research projects. The results can be used to fine-tune a product, process or service. In 2024, 1 project was approved.

Fundamental Understanding and improvement of sulfide based ASSB - Annick Hubin, Mesfin Haile Mamme

EU FUNDING SUPPORT FOR PROJECTS WITH ECONOMIC AND SOCIAL PURPOSE

The European Research & Innovation Support or ERIS team of VUB TechTransfer focuses on European programmes and calls in innovative research. The ERIS team stimulates researchers to apply for funding, and intensely supports them throughout the preaward trajectory, including assistance with consortium agreements, through their i-ISO concept (see figure below).

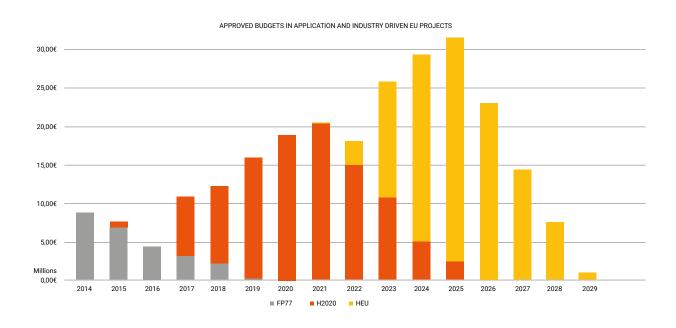


In HORIZON EUROPE, launched in 2021, ERIS-TechTransfer provides comprehensive support to VUB researchers applying for funding within Pillar II programmes, including the 6 Clusters and Joint Research Centre, as well as Pillar III programmes, covering the European Innovation Council (EIC), European Innovation Ecosystems (EIE), and the European Institute of Innovation and Technology (EIT). ERIS also supports applications under the 'Widening Participation and Spreading Excellence' programme, facilitating collaboration with institutions from countries with historically lower success rates in EU programmes (so-called widening countries). In addition to HORIZON EUROPE, ERIS also oversees a range of other initiatives, including INTERREG, DIGITAL EUROPE, CREATIVE EUROPE, specific DG initiatives and calls, European Science Foundation (ESF), CORNET, CERV programme and all ERANET and JPI networks in which Innoviris or VLAIO participate.

In 2024, ERIS-TechTransfer achieved impressive results with 43 approved projects, securing a total budget of nearly €29 million.

VUB stays now in the top 20 universities in terms of Horizon Europe funding and acquires on average more resources per researcher than the other Flemish universities.

The **figure below** shows the growth in EU funding for strategic and applied research to VUB. The figure is constructed by including all budgets of approved projects, spread over their duration.



SUCCESS CASES 2024

SUCCESSFUL EU INNOVATION DRIVEN PROJECTS

SOCIAL SCIENCES & HUMANITIES

Prof. Jill Surmont, affiliated with the VUB's Multidisciplinary Institute for Teacher Education (MILO), coordinates the Horizon Europe-funded consortium PLURIDENTITIES, short for "Protecting and Stimulating Plurilingual Identities in Learners in Europe via Inclusive Policies and Classroom Practices."

PLURIDENTITIES aims to protect and promote Europe's linguistic capital, which faces challenges from the dominance of English as a lingua franca, the frequent exclusion of heritage languages in educational contexts, and the growing influence of new technologies such as ChatGPT. To tackle these challenges, the consortium brings together experts in linguistics, teacher education, and political science from six partner institutions in five different countries: Belgium, Aruba, Sweden, Spain and the Netherlands.

VUB is coordinator in this project | VUB budget: € 1,070,024



SCIENCE & ENGINEERING

Prof. dr. Omar Hegazy, head of the EPOWERS Research Group at VUB, ETEC/MOBI Research Centre, is leading the European-funded international consortium InnoBMS. This consortium aims to develop and demonstrate a cutting-edge battery management system (BMS) solution that maximizes battery use and performance for the user without negatively affecting battery lifespan. All this while continuously maintaining safety. InnoBMS consortium unites 13 international partners, combining the complementary expertise of renowned academic institutions and industry leaders. Leveraging this unique blend of knowledge and skills, the consortium will advance innovative solutions toward real-world applications, achieving Technology Readiness Level 6 (TRL). The project will showcase the solution's capabilities in passenger cars and light-duty vehicles.

VUB is coordinator | VUB budget: € 761,638

LIFE SCIENCES

Prof. Mathieu Vinken, from the VUB Department of Pharmaceutical and Pharmacological Sciences, participates in the European-funded consortium VICT3R. This consortium pioneers the use of Virtual Control Groups (VCGs) to minimize animal testing in toxicology research, marking a significant step forward in ethical and innovative drug and chemical safety evaluation. The VUB leads the consortium's training activities, aimed at familiarizing consortium members, external stakeholders, and regulators with the VCG concept, placing particular emphasis on educating the next generation of young researchers. VICT3R brings together 33 partner organizations across academia

and industry under the European Innovative Health Initiative (IHI).

VUB is partner | VUB budget: € 637,250

LIFE SCIENCES

The **EUTOPIA_HEALTH** consortium aims to establish a novel framework for integrated academic management in health-related sciences, driving significant institutional transformation across the European research landscape. The initiative specifically targets three widening countries, Romania, Slovenia, and Portugal, which historically experience challenges in health-related research, aiming to address disparities in funding and publications and enhance academic excellence and innovation. Within this context, the ERIS team of VUB TechTransfer contributes

to Work Package 3 by training researchers from these widening countries in EU funding, guiding them towards EU proposal submissions, and developing webinars and workshops on securing European funding opportunities.

VUB is partner | VUB budget: € 409,375

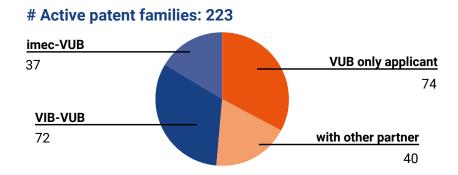


INTELLECTUAL PROPERTY RIGHTS (IPR) MANAGEMENT & LICENSING

VUB TechTransfer plays a key role in licensing research outcomes, generating revenue for the university, fostering long-term collaborations with companies, and delivering tangible impact for VUB's research and innovation. At the core of this licensing process is a robust portfolio of intellectual property, including patents and patent applications, software, confidential know-how, design rights, trademarks, and more. In the case of a VUB spin-off company, a close relationship with a research lab is crucial for the company's growth, especially during its early stages.

Technologies available for licensing or R&D partnerships at VUB are promoted through bilateral industry contacts, networking and matchmaking events, the VUB TechTransfer website, monthly external newsletters, LinkedIn, conferences such as Knowledge for Growth, and other specialized channels.

In 2024, the results were again impressive: **46 inventions** were disclosed, and **19 new patent applications** were filed with VUB as a (co-)applicant. The total VUB portfolio included 223 active patent families, of which 74 are exclusively owned by VUB. Additionally, 72 active patent families are co-owned with VIB, 37 with imec, and 40 with other research institutions and companies, highlighting the significant amount of R&D collaboration with external partners. Notably, there has been a 60% increase in the number of active patent families since 2018.



REVENUE FROM VALORISATION AND CONTRACT RESEARCH WITH INDUSTRY

Through contract research and technology licensing with industry and other partners (both for-profit and non-profit), the university fosters long-term collaborations and translates its expertise into societal impact. In some cases, contract research is partially supported by government funding. In 2024, total revenue from private sector collaborations (including licensing) reached approximately €15.4 million.

These funds can be reinvested into university research, further strengthening innovation. It is important to note that this amount does not include all revenue generated from VUB research in partnership with spearhead clusters and strategic research centers.

EUTOPIA

In 2024, VUB TechTransfer continued to play a leading role in shaping the future of European higher education and innovation through its active involvement in the EUTOPIA Alliance — a network of ten pioneering universities committed to building a new model of university collaboration across borders. EUTOPIA connects institutions from Cluj-Napoca, Brussels, Cergy, Venice, Dresden, Gothenburg, Ljubljana, Lisbon, Barcelona, and Warwick, with a shared vision of openness, inclusion, and societal impact.

Following the successful completion of the EUTOPIA-TRAIN project in 2023, VUB TechTransfer has remained at the forefront through its key contributions to EUTOPIA More. In 2024, two major EUTOPIA Weeks took place in Cluj-Napoca and Cergy, where VUB capitalized on opportunities to deepen strategic ties with alliance partners and explore new pathways for collaboration.

A standout achievement this year was the VUB-hosted Network Studio on *Urban Mobility*, organized in partnership with the UK Embassy. This trilateral initiative brought together experts from VUB, TU Dresden, and the University of Warwick, and laid the groundwork for joint project proposals under EU and regional funding programs. Building on this success, preparations are underway for a follow-up Network Studio in Warwick in 2025, focusing on *Sustainability*.

The EUTOPIA Health project successfully completed its first year with all deliverables achieved on time. Within this initiative, the ERIS team from the VUB Tech Transfer office took the co-lead in Work Package 3, which aims to boost Horizon Europe participation among Widening countries. Thanks to the deployment of VUB's proven i-ISO methodology, the team already secured one successful EU project in 2024. Finally, in a cross-university effort to embed innovation more deeply into academic culture, the Connected Community on Entrepreneurship — with strong VUB involvement — delivered a whitepaper titled *Fostering a Culture of Entrepreneurship within the EUTOPIA Alliance*. Presented to the EUTOPIA Board, it provides actionable recommendations to further energize entrepreneurial thinking and collaboration across the alliance.

FROM LAB TO IMPACT

StartLab.Brussels, funded since 2018 by VUB's General Strategic Plan 2030, is an incubator for student entrepreneurs from VUB and ULB. Located in Etterbeek, StartLab.Brussels aims to foster young entrepreneurs who seek to create a positive societal impact. In 2024, VUB TechTransfer hired a Program Manager to develop the specialized 'Startlab for Researchers' trajectory.



Many academic researchers dream of turning their ideas into something that makes a real difference. They want their innovations to find their place in the market and create meaningful impact but often feel unsure about where to begin. That is where **StartLab.Brussels with their new program for**

Researchers comes in: a launchpad to transform research into market-driven solutions. This program takes researchers beyond the lab, opening doors to new opportunities and connecting them with a vibrant community of young entrepreneurs at Startlab.Brussels and across Brussels.

Unlike Startlab.Brussels' program for students and young entrepreneurs, the program for Researchers is specifically designed for academics. Researchers often start with an innovative technology or invention but may not yet know its market potential. This program helps them identify practical applications, embrace a market-driven approach, and protect the intellectual property of their invention. The transition to entrepreneurship can feel overwhelming. It means stepping into a world full of new challenges: developing a market strategy, pitching ideas, gathering customer feedback, and more. But this program makes that journey exciting and achievable, providing clear guidance and practical tools during every phase.

Startlab.Brussels is about turning innovative ideas into impactful projects that connect with the market, one step at a time, with plenty of support along the way. The program guides researchers through 3 tracks, from developing an idea to launching a company or spin-off, and includes coaching sessions, masterclasses, networking events, a coworking space and guiding and support from an experts' squad.

UNIVERSITY SPIN-OFFS

By establishing spin-off companies, VUB can translate research results into social and economic value while generating returns for the university and its research groups. VUB TechTransfer plays a key role in identifying, supporting, and assessing spin-off projects. To enhance start-up success, the focus extends beyond innovative technology to include market strategy, value proposition, and building a complementary team.

In 2024, 2 spin-off companies were launched with the VUB as partner: Skinetix together with imec and 4Tissue together with UGhent. The total number of active VUB spin-offs is now 47.

New spin-offs in 2024:



Skinetix imec/VUB spin-off

Revolutionizing Sports Performance and Injury Prevention

What if sportswear could do more than just fit well? What if it could analyze your muscles in real time? Skinetix, an imec/VUB spin-off, is redefining athletic performance and rehabilitation with smart sportswear embedded with EMG sensors. These sensors track muscle activity and movement quality, feeding data into an Al-driven platform that helps optimize training, prevent injuries, and speed up recovery.

As part of their PhDs and postdoctorate, Skinetix co-founders Joris De Winter (CEO) and Kevin Langlois (CTO), together with imec and VUB, developed a patented way to measure muscle activity and performance in detail and bring them together in a scientifically based model for personalized biodynamic data. This data is not collected in a lab, but directly on the playing field. To that end, Skinetix designed sportswear with integrated electromyogram (EMG) sensors. These sensors capture the electrical impulses that our brain sends to the muscles during a specific movement. All of these sensors are seamlessly integrated into the sportswear.

<u> https://skinetix.ai/</u>



4Tissue UGhent/VUB spin-off Shaping the Future of Regenerative Medicine

4Tissue is a biotech company at the forefront of regenerative medicine, utilizing advanced bio-interactive hydrogels to transition from cells to tissue engineering. Founded through a collaboration between Prof. Phillip Blondeel, a global leader in plastic and reconstructive surgery, and Prof. Dr. Sandra Van Vlierberghe, an expert in polymer chemistry, 4Tissue is a spin-off from Ghent University (UGent), Ghent University Hospital (UZGent), and the Vrije Universiteit Brussel (VUB).

The company develops natural and minimally invasive treatments for tissue reconstruction and regeneration. By harnessing cuttingedge science and a multidisciplinary team of experts, 4Tissue aims to shape the future of regenerative medicine and improve patient outcomes worldwide.

www.4tissue.com



TECHTRANSFER COMMUNICATION & EVENTS

The VUB TechTransfer communication team connects the dots between groundbreaking research and the world beyond. We ensure clear and impactful communication - both within and outside the university - while (co-)organizing events that boost visibility and create valuable networking opportunities. Our key audiences? Researchers, businesses, and society at large.

Together with our communication colleagues from the Tech Transfer Offices of the other Flemish universities, we also handle communications and events within the **TTO Flanders** platform, a joint initiative that serves as a central point of contact for anyone looking for particular knowledge or technologies.

Several websites continued to be actively maintained. The website **vubtechtransfer.be** serves as a central hub for researchers and companies, offering up-to-date information on innovative research, events, and related news. We ensured regular content updates to keep the platform current and relevant. On the **main VUB website**, the innovation pages were updated to reflect the appointment of the new Vice-Rector, Peter Schelkens. We also maintain **two internal communication sites** used for confidential updates via the WeAreVUB staff intranet portal. The **TTO Flanders website**, the central portal for the tech transfer offices of the five Flemish universities, continues to feature relevant news and events. This site was fully redesigned in 2023 and it was evaluated in 2024.

Several events took place in 2024, including our regular activities such as **Knowledge for Growth** in cooperation with our colleagues from TTO Flanders (the TTO's of the 5 Flemish universities). We participated with a booth as well as a live pitch session in which 10 researchers (2 from each university) presented their biotech projects. At the TTO Flanders booth, visitors could get information about TTO Flanders and the associated biotech research at the 5 Flemish universities, and the link was also made to the pitchers. TTO Flanders was also requested for a booth and delivery of speakers at the **opening event of the EU presidency**.

To inform our VUB researchers on project calls (Innoviris, VLAIO, FWO,) **4 info sessions** were organized in 2024. Support was also given to the **VUB ZAP Newcomer Event,** an event in collaboration with various departments where newly arrived professors get to know the university and its services.

In print we have issued the **Annual Report 2023** and contributed to the **Facts & Figures of the VUB** with a general as well as a detailed part on Innovation & Industry Relations. To support the Medvia Touchpoints event organised at the VUB Health Campus on October 17, a special brochure was developed to highlight GEARs and core facilities in 'medtech & health': **Finding your healthtech research partner at VUB and UZ Brussel**.





FTI Brussel, part of Flanders Technology & Innovation

To enhance our external communication on innovative research, we have significantly focused on **LinkedIn**, where we share weekly updates on collaborations, innovations, licenses, events, approved EU projects and more. This policy is paying off, as we have more than 1,800 followers, almost 30% more than the year before. We also distribute a **monthly newsletter aimed at business stakeholders**. **Internally**, and we continued to send out our **weekly TT News** with information on project calls and interesting topics and events for VUB researchers.

The Communication & Events cell was responsible for the overall coordination, production and communication of the FTI Brussels subfestival, part of Flanders Technology & Innovation (FTI), a one week festival in March 2024 in 6 cities. Several events were organized by the university across six locations in and around Brussels, focusing on six key innovation domains: Al & Robotics, Photonics, Life Sciences & Biotech, Energy, E-Mobility, and Sustainability. Targeting diverse audiences - including businesses, the general public, and STEM-oriented youth - the festival centered around Al & Robotics, leveraging VUB's expertise.

Highlights included a student hackathon and B2B summit(FARI), open days with demos at the Photonics Innovation Center (B-PHOT), a visit to the Green Energy Park and an afterwork with pitches (Crosstalks). To showcase the VUB's main campus and innovative research, a route along no fewer than 9 labs was organised by VUB TechTransfer with workshops on science and technology, aimed at schools and young people as well as the general public. A VRT-VUB breakfast session on AI and video with key ministers added value shortly before the festival launch. Strong efforts were made to ensure ministerial presence at various events.

A lot of exposure was created to promote the FTI Brussel festival. Besides the existing VUB TechTransfer communication channels, which were of course fully deployed, a host of other communication channels were also installed. A **dedicated 'FTI Brussel' website**,

in line with the FTI branding, was swiftly developed to showcase the program, with a strong emphasis on impactful stories of innovative research. At FTI's request, a **new LinkedIn account for FTI BrusseI** was also launched. In collaboration with VUB MarCom, a **targeted social media advertising campaign** was rolled out via VUB's channels. **Additional campaigns** were deployed across various external platforms, including Bruzz, Knack, and Trends. Several existing videos produced with Kanaal Z were updated, and new ones were created. Following the festival, a retrospective page was added featuring a full report, photos, and an aftermovie.



Since the launch of the new **Bio Incubator Brussel (BIB)** in 2024, housed in the renovated red Willy Vandermeeren building on the main campus, a dedicated **webpage with a photo report** was published and a **promotional campaign** kicked off, all leading up to the **official opening in March 2025**, organized by VUB TechTransfer's Communication & Event team.

VUBTECHTRANSFER.BE

TTOFLANDERS.BE

FTIBRUSSEL.BE

VUB FOUNDATION

VUB. EVERY DONATION RETURNS.

The VUB Foundation raises philanthropic funds from companies, organisations, institutions and individuals within the framework of of the Vicerectorate of Innovation & Industry Relations. The VUB Foundation coordinates all fundraising, such as gifts, sponsoring, chairs, funds by name and legacies at the VUB under the supervision of the Innovation and Valorisation Board.

For each philanthropic donation, there is a societal return. This is the conviction whereon the policy of the VUB Foundation is based. Each contribution supports education, research, innovation or the heritage of the VUB. The knowledge and insights that arise from these contributions, eventually flow back into our society.

Chairs are an excellent means to financially support education, research and innovation and to develop a long-term relationship with companies. In 2024, VUB counted 24 active chairs among which 9 newly created: Chair Traces of Resistance, Chair Circular port monitorig in Flanders, Masterclasses in Ostend, Chair Agile and Futureproof Infrastructure for Transport (A-FIT), Chair of Entrepreneurial Learning, HELIOS Foundation – STEAM chair, HELIOS Foundation SWIFFT chair, the Primary Care Academy chair 2.0 and the Rehabilitation physiotherapy chair.

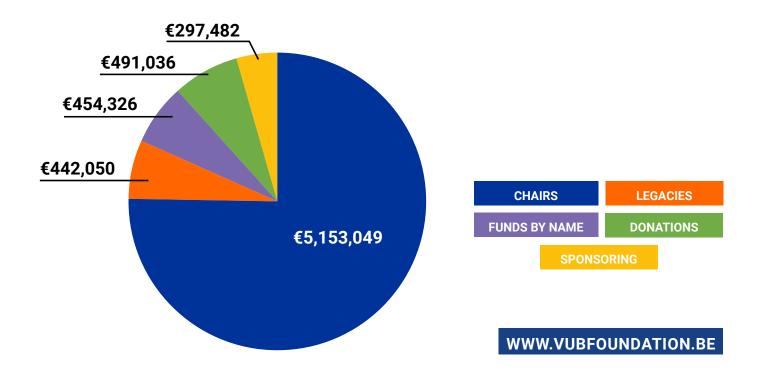
The VUB Foundation launched several fundraising initiatives last year, mainly focusing on fundraising for our funds by sending out 7 direct mailings. The direct mailings have a positive influence on the amount of people that choose to donate to VUB: 8424 donors. VUB has 13 funds by name, of which several booked remarkable successes. The **VUB Yamina Krossa Fund** and the **VUB-UZB Paul De Knop Fund** provided essential financial aid for groundbreaking cancer research in immunotherapy. And the **Caroline Pauwels Relief Fund** supports national an international students with an urgent (financial) need.



Founder Yamina Krossa (left) with professor Damya Laoui and donor Ginette Barrie (right) at the donor event of the VUB Yamina Krossa Fund

THE NUMBERS

In 2024, the VUB Foundation had a total income of €6,837,942 including overhead.



THE FELLOWSHIP PROGRAM

CONNECTING ACADEMIA AND SOCIETY

With its network of 81 fellows and 187 honorary fellows, the Vrije Universiteit Brussel strengthens the connection between academia and society. VUB fellows are experts and leaders from a wide range of fields who voluntarily contribute their time and knowledge to the university and the UZ Brussel. Through their involvement in advisory boards, guest lectures, supervision of master's theses, and by offering internships in their organizations, they help enrich education, research, innovation, valorization and policy. Their engage-

VUB fellows of 2024 at the fellowship ceremony in MIX Brussels

ment supports VUB in growing as an open and socially engaged institution.

On May 30, 28 new fellows were festively inaugurated at MIX Brussels, with a keynote by investigative journalist Hind Fraihi and a video message from national drug commissioner Ine Van Wymersch.

WWW.VUB.BE/FELLOWSHIP







BIO INCUBATOR BRUSSELS (BIB)

In 2024, VIB and VUB launched the Bio Incubator Brussels (BIB) on the green VUB Main Campus in Etterbeek, an innovative hub where science, technology, and entrepreneurship converge to drive biotech innovation. The initiative offers state-of-the-art lab and office spaces for biotech, pharma, and health tech start-ups, fostering collaboration through shared facilities, mentoring, and access to academic and industry networks.

The bio-incubator came about at the initiative and with the financial support of the VIB-VUB Centre for Structural Biology. This research centre, headed by Jan Steyaert and Han Remaut, already has several successful biotech spin-offs on its assets (Ablynx, Biotalys, Confotherapeutics).

"With the new bio-incubator, we want to facilitate the creation of new start-up companies and strengthen the link between our lab and our spin-offs."

- Jan Steyaert, Scientific Director VIB-VUB Centre for Structural Biology

As Business Incubator Manager at VUB TechTransfer, David Moreels has as mission to oversee the day-to-day operations of the incubator, ensuring efficient use of resources and maintaining high standards of service for all participants, as well as to provide strategic guidance and resources to startups.

BIB is located in the iconic red Willy Van Der Meeren building, a repurposed modernist structure that now houses several high-tech facilities, reinforcing the campus's role as a center for scientific innovation and circular reuse.

FACILITIES



6 lab modules



70-200 m²/module



7 office modules



38-50 m²/module



RESEARCH PARK & INCUBATORS 2024

VUB -VIB BIO INCUBATOR BRUSSELS

- · on VUB main campus
- · with partner VIB (Vlaams Instituut voor Biotechnologie)
- · focus on biotech
- in 2022 launch renovation of Willy Van der Meeren units
- operational since 2024
- · move-in-ready lab and office spaces
- · shared (lab) kitchen
- · embedded in research ecosystem

www.vubtechtransfer.be/bio-incubator-brussels-bib





VUB BUSINESS & TECHNOLOGY INCUBATOR - ICAB NV

- · near VUB main campus
- · focus on technology & engineering
- · high occupancy rate

www.icabrussel.be

GREEN ENERGY PARK PROJECT

- · created in 2019
- · located at Researchpark Zellik
- · large-scale living lab
- · 2021: launch Smart Village Lab

www.greenenergypark.be



INCUBATOR FOR YOUNG ENTREPRENEURS - STARTLAB.BRUSSELS

- · at Usquare near VUB main campus
- initialised by VUB and ULB
- Special program 'For researchers' started in 2024 startlab.brussels

RESEARCHPARK ZELLIK

- · near UZ Brussel
- further development of collaboration with companies
- houses the Nexus Datacenter, the first "sustainable by design" CO₂-neutral data centre in Belgium

www.zone-researchpark.be

VUB CROSSTALKS

OPEN AND CONSTRUCTIVE KNOWLEDGE EXCHANGE

Crosstalks is a transdisciplinary platform that fosters open and constructive dialogue between academic and corporate researchers, entrepreneurs, artists, designers, policymakers, and citizens. Since 2003, it has built a strong reputation at the intersection of science, art and society through public events and collaborative, long-term projects.

Guided by the principles of freedom, equality and connectedness, Crosstalks creates space for unexpected encounters, often beyond academic settings, that explore complex societal challenges through bottom-up collaboration. In close synergy with VUB TechTransfer and in partnership with cultural institutions, public organizations and international networks, the platform helps make academic knowledge more accessible and relevant. Its programs are inclusive by design, with diverse voices shaping the content and a strong focus on accessibility through pay-what-you-can ticketing and by recording and subtitling events to ensure they remain available and open to a wide audience.

PROJECTS 2024

WWW.CROSSTALKS.NET

Towards a Ruined Theater was a transdisciplinary exhibition and public program exploring growth, decay and sustainability through the lens of mycelium. Hosted at PILAR from 25 April to May 22, the project brought together artistic, scientific and philosophical perspectives in an immersive installation by architect Sébastien Tripod, graphic and floral designer Deborah Robbiano and choreographer-researcher Sara Manente. The installation imagined a theater as a living, decaying system and was enriched by contributions from the VUB's Microbiology Research Group (MICR), showcasing innovations such as self-healing concrete and mycelium-based leather. The accompanying program included a concert inspired by medieval music and natural erosion (Repetition/Erosion) and a public lecture (The Performance of Funga) by renowned mycologist Giuliana Furci, followed by a conversation on fungi, ecology and performance.

The project engaged students, researchers and the wider public interested in sustainable materials and ecological thinking, and attracted over 350 visitors in total. It was made possible through the support of the Chair Casterman-Hamers: History and Philosophy of Sciences, PILAR and Kaaitheater.



Critical Thinking within Islam is a lecture series initiated by VUB Crosstalks

and Moussem in 2021, exploring the rich intellectual tradition of debate, dissent and philosophical inquiry within Islamic thought. The series highlights the legacy of thinkers such as Al Farabi, Averroës and Avicenna, and has been part of the first-year philosophy curriculum at VUB since 2023contributing to more inclusive, non-Western perspectives in higher education. In 2024, Moroccan sociologist and feminist Soumaya Naamane Guessous was invited to speak at Espace Magh on historical and contemporary perceptions of femininity and sexuality in Islam. The lecture was followed by a conversation with scholar Maryam Kolly (UCLouvain Saint-Louis). The event was organized in partnership with EtHu VUB, the Secular Studies Association Brussels, the Fatima Mernissi Chair and Espace Magh, with financial support from the VUB Global Minds program. It drew 203 in-person attendees and reached additional 194 viewers online through its recorded video.

Frames of Resistance is a film screening series launched in 2024 by VUB Crosstalks, the Fatima Mernissi Chair, the VUB Palestine Solidarity Network, United Screens for Palestine and Cinema RITCS. The series highlights the work of **Arab filmmakers**, with a particular focus on gendered perspectives. In response to the ongoing war in Gaza and Lebanon, the program amplifies voices that shed light on Israeli colonization, violence and the resilience of Palestinian communities. The films span different genres and cultural contexts, offering a nuanced alternative to dominant Western narratives. Each screening is accompanied by talks with filmmakers, scholars and activists who explore the social and political power of cinema.

The first event on 3 December 2024 at Cinema RITCS was dedicated to **the work of Jocelyne Saab**. The venue was fully booked (123 seats), with additional seats added to meet the demand. The audience was diverse and predominantly student-based, confirming the relevance of the series.



WANT TO REACH OUT TO US? OUR TEAM IS READY TO ASSIST YOU!

You can find all our team members and their contact information on our Staff Page:

www.vubtechtransfer.be/about-us/staff

Alternatively, you can send a general email to techtransfer@vub.be

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