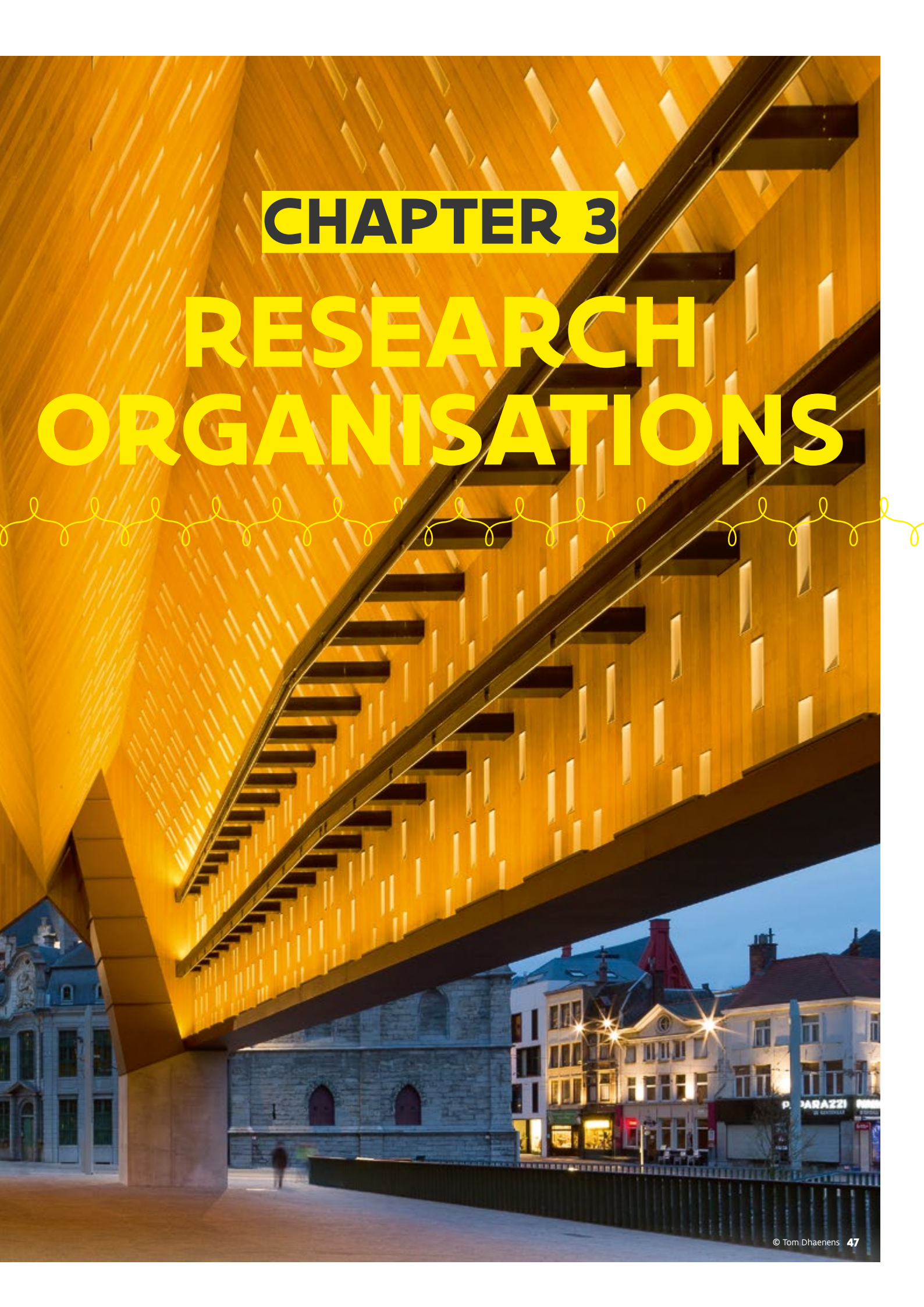


CHAPTER 3

RESEARCH ORGANISATIONS



1

Higher education institutions¹

1.1

University associations

The backbone of the output generated by Flanders' academic and other knowledge actors is shaped by the 5 university associations. These associations each bring together one of the universities with one or more universities of applied sciences and arts. Universities of applied sciences and arts provide higher education and advanced vocational training, and their mission includes research and the provision of other services to society. The bachelor qualification in almost all the disciplines is the highest obtainable at the universities of applied sciences and arts, with the exception of the master in nautical science that can be obtained at the Hogere Zeevaartschool and the master in arts which can be obtained in their schools of arts. The master diplomas (and higher) in all other disciplines remain the preserve of the universities.

The 5 university associations of the Flemish Community are:

- › **AUHAntwerp:** UA and 3 universities of applied sciences and arts in the city of Antwerp
- › **UABrussels:** VUB and 1 university of applied sciences and arts in Brussels
- › **AUGhent:** UGent and 3 universities of applied sciences and arts, in 2 provinces East-Flanders and West-Flanders
- › **AKU Leuven:** KU Leuven and 5 universities of applied sciences and arts spread throughout all of Flanders
- › **AUHLimburg:** UHasselt and 1 university of applied sciences and arts PXL

Universities and universities of applied sciences and arts each have their organisation that promotes dialogue and cooperation amongst them and defends their interests in a concerted way. Universities are united in **VLIR** (Flemish Inter-University Council), while the universities of applied sciences and arts are united in **VLHORA** (Council of Flemish Universities of Applied Sciences and Arts).

ASSOCIATIE KU LEUVEN

ASSOCIATIE KU LEUVEN (AKUL)

Katholieke Universiteit Leuven and the 5 universities of applied sciences and arts: Odisee, LUCA Schools of Arts, Thomas More, UC Leuven Limburg and Vives Hogeschool.
www.associatie.kuleuven.be



ASSOCIATIE UNIVERSITEIT GENT (AUGENT)

Universiteit Gent and the 3 universities of applied sciences and arts: Arteveldehogeschool, Hogeschool Gent (HoGent), Hogeschool West-Vlaanderen (Howest).
www.augent.be



ASSOCIATIE UNIVERSITEIT & HOGESCHOLEN ANTWERPEN (AUHA)

Universiteit Antwerpen and the 3 universities of applied sciences and arts: Artesis Plantijn Hogeschool Antwerpen (AP), Hogere Zeevaartschool and Karel de Grote Hogeschool.
www.auha.be



UNIVERSITAIRE ASSOCIATIE BRUSSEL (UAB)

Vrije Universiteit Brussel and the university of applied sciences and arts: Erasmushogeschool Brussel.
www.universitaireassociatiebrussel.org



ASSOCIATIE UNIVERSITEIT-HOGESCHOOL LIMBURG (AUHL)

Universiteit Hasselt and the university of applied sciences and arts: Hogeschool PXL.
www.auhl.be

¹ For more information, visit www.studyinlanders.be

1.2

Universities and universities of applied sciences and arts

The universities play a major role in (the output of) Flemish R&D. The universities generate almost 90% of all non-private scientific output in Flanders.

The **five universities** of the Flemish Community are:

- › Katholieke Universiteit Leuven (**KU Leuven**);
- › Universiteit Gent (**UGent**);
- › Universiteit Antwerpen (**UA**);
- › Vrije Universiteit Brussel (**VUB**);
- › Universiteit Hasselt (**UHasselt**);

And the **thirteen universities of applied sciences and arts** of the Flemish Community are:

- › Artesis Plantijn Hogeschool (**AP Hogeschool**)
- › Arteveldehogeschool
- › Erasmushogeschool Brussel (**EhB**)
- › Antwerp Maritime Academy (**AMA**)
- › Hogeschool Gent (**HoGent**)
- › Hogeschool PXL (**PXL**)
- › Hogeschool West-Vlaanderen (**Howest**)
- › Odisee co-hogeschool (**Odisee**)
- › Karel de Grote Hogeschool (**KdG**)
- › UC Leuven-Limburg (**UCLL**)
- › VIVES Hogeschool (**VIVES**)
- › Thomas More
- › LUCA School of Arts (**LUCA**)



1.3

Funding

The Flemish Government's department Education and Training grants the following budgets:

- › A **basic allowance for the universities** amounting to 1,076.77 million euro in 2023, of which 285.9 million euro allocated for R&D-related initiatives. Additionally, the universities received 97,3 mio€ **supplementary research funding**, for their demand-driven fundamental and applied research in 2025.
- › The **basic allowance for universities of applied sciences and arts** was in 2025 only 36,5 mio€ for their practice-oriented research and 25,5 mio€ **supplementary research funding**, for their academic and demand-driven fundamental research.
- › support granted on a **competitive** basis;
- › a variety of (project-based) external (private) sources, donations, income from IPR, etc.

1.3.1

Competitive funding

The **Research Foundation Flanders** (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO) and the subsidy **Special Research Fund** (Bijzonder Onderzoeksfonds, BOF) mainly support academic fundamental and basic research. Both have an array of different types of funding to do so. Two complementary programmes are aimed at attracting (Odysseus, FWO) and retaining (Methusalem, BOF) top researchers. FWO support is granted based on competition between the different universities and other research institutes in Flanders, while BOF support is a performance-based research funding system of which the funds are allocated to the Flemish universities only based on fixed competitive parameters.

The agency Flanders Innovation & Entrepreneurship (VLAIO) and the subsidy **Industrial Research Fund** (Industrieel Onderzoeksfonds, IOF) mainly support economic beneficial industrial and applied research. VLAIO support is granted on a competitive basis, to a range of research institutes whereby applications are evaluated on several criteria and the collaboration and benefit with companies is a prerequisite. VLAIO also provides support at academic level for research conducted at the request of companies; for example, through innovation mandates for postdoc's and Baekeland mandates for PhD research in collaboration with a company. VLAIO supports a limited number of large-scale and ambitious spearhead clusters, to develop and implement an ambitious long-term strategy and competitiveness programme for the chosen Flanders strategic domains, in collaboration with companies, knowledge centres and the government (triple helix).

The IOF support is a targeted subsidy for applied and strategic basic research, allocated to the associations of universities and universities of applied sciences and Arts based on fixed valorisation criteria and intra-association competition.

Extra support is provided and aimed at further strengthening academic working conditions and research excellence, e.g. through the research infrastructure programme at FWO. VLAIO supports research infrastructure for the practice-oriented research at the Flemish universities of applied sciences and Arts

The **major budget sources** for 2025 were:

- › FWO (427 million euro), of which 81.97 million euro for strategic basic research including doctoral grants, clinical research 20.09 million euro and 33.34 million euro for research infrastructure;
- › BOF (247.53 million euro);
- › Industrial research funds (IOF) and interface activities (70.187 million euro).

1.3.2

Private funding and income

Higher education institutions also receive support from private partners (to conduct contract research), donations and bequests from private persons or institutes.

Funding sources of commercialising research results, setting up spin-offs, contract research with private and public partners and license income from patents has also increased in recent years.

1.3.3.

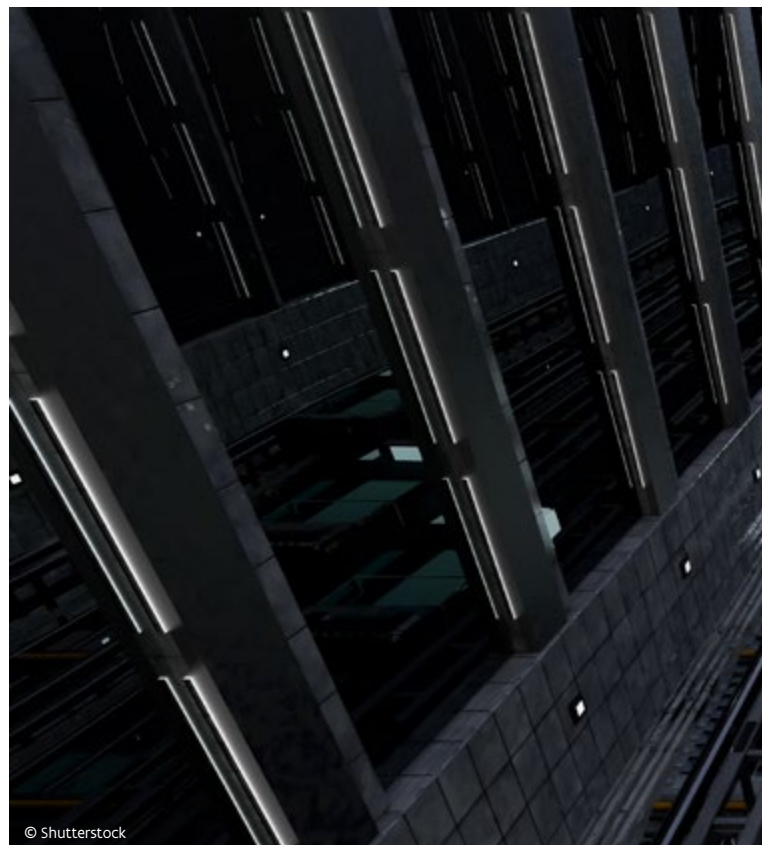
Public funding beyond Flanders

Funding via the Belgian federal authorities, other Flemish public bodies and the EU (mainly through the consecutive Framework programmes for Research and Technological Development (currently Horizon Europe 2021-2027), and to a limited extend from other EU programmes such as ERDF-Interreg.

1.3.4

Tech transfer activities of the associations

See TTO-Flanders – the Five Knowledge and Technology Transfer offices of the five associations of universities and university colleges in Flanders. See further in this chapter.



© Shutterstock

1.3.5

Flanders Research Information Space

FRIS

Researchportal.org

All information on publicly funded research conducted at Flemish research institutions is available through the **Flanders Research Information Space (FRIS)** research portal: www.researchportal.be.

FRIS provides comprehensive data on researchers, research organisations, publications, projects, patents, research infrastructures and datasets.

The FRIS Research Portal offers a unique, transparent view of publicly funded research in Flanders. It serves as a valuable source for reporting, analysis and statistical insights. This enables the government to develop stronger policies and respond more effectively to societal trends. The open data made available through FRIS—retrievable via open web services—is also used by many institutions and companies to enrich their own information systems.

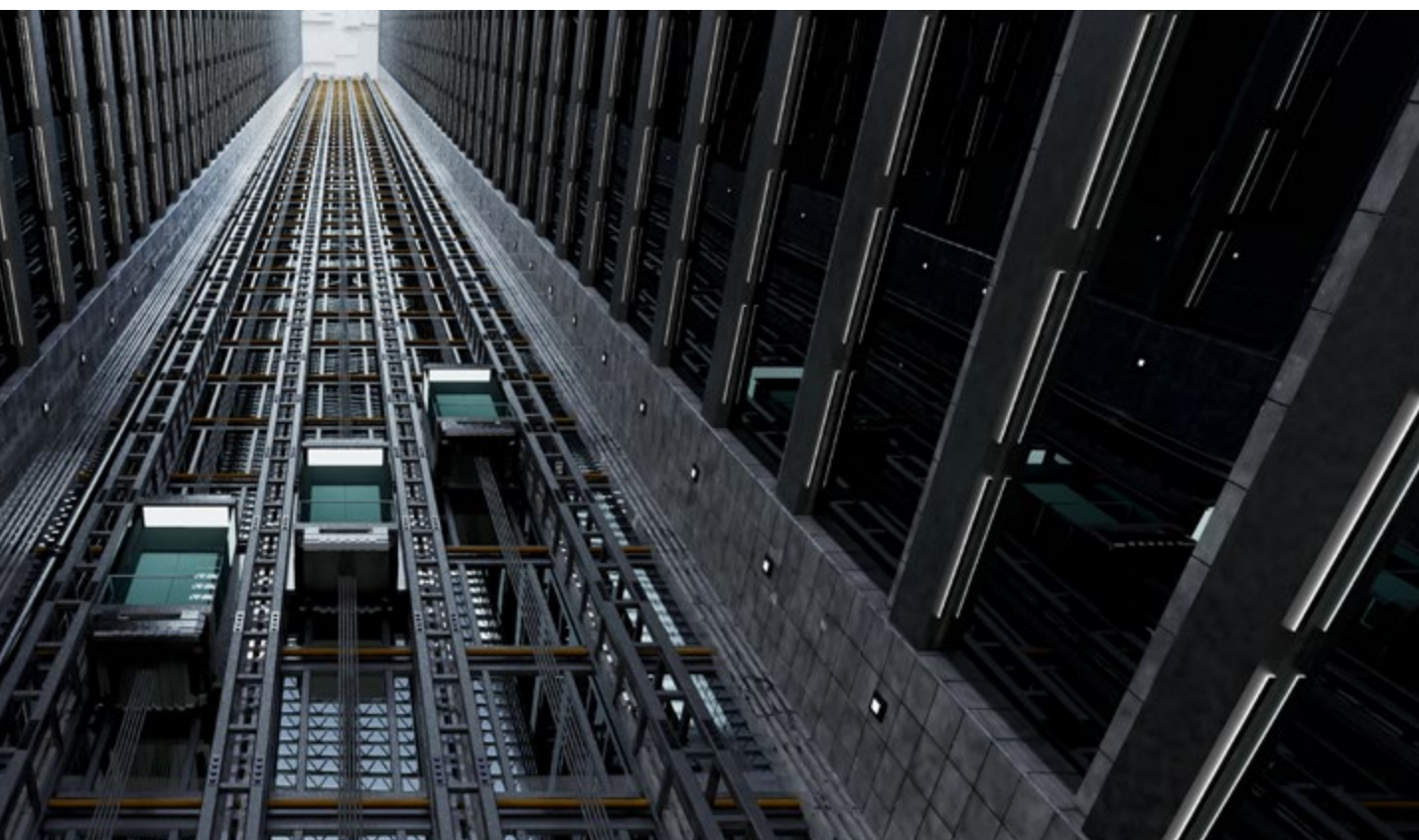
FRIS aims to bring researchers closer together, stimulate interdisciplinary collaboration, enable networking, and shorten the innovation chain by helping users—institutions and companies—to find domain experts.

Thanks to direct integrations with the systems of the participating scientific institutions, the portal always reflects the most up to date information: changes made in a research organisation's database are immediately visible in FRIS.

Information on researchers, research groups, publicly funded projects, publications, patents, research infrastructures and datasets is openly accessible to everyone. FRIS also connects at the European level through its links with **OpenAIRE**, the **European Open Science Cloud (EOSC)** and within the **euroCRIS** community as a frontrunner.

Looking ahead, FRIS is integrating with more referential sources as funders and registries. The goal is to function as a source of truth on the one hand and to simplify the reporting process for researchers by automatically sending relevant data already available in FRIS to funders' reporting tools at the other hand.

At the same time, FRIS is exploring how AI technologies can provide additional services to research institutions, individual researchers and the wider public.



2

Strategic research centres

Flanders aims to be a front-runner in the European knowledge society and economy by continuing to build on and utilize its existing knowledge base and by increasing its innovation potential. Apart from the universities, the leading Flemish research and innovation actors are the **four strategic research centres** (SRC, or 'Strategische Onderzoekscentra' (SOC) in Dutch), sometimes referred to as public research organisations (PRO). Each of the centres is active in a specific research area and they have co-founded several spin-off or start-up companies, often based on breakthrough research.

The Flemish Government concludes with each of these SRC a multi-annual management agreement including key performance indicators, in return for an annual grant. In addition, some SRC receive a grant for the execution of reference tasks on behalf of the Flemish government. The total budget from the Flemish Government for the 4 SRC reached 371,442 million euro in 2025. The amount of public support for imec alone is 157 million in 2025, which makes it the biggest funding from the Flemish Government awarded to any knowledge institute.

FLANDERS MAKE

Industry 5.0

- › Research centre for industrial innovation, driving product and production innovation with direct industrial impact
- › 1,100+ researchers and 200+ companies collaborating in an industry-driven ecosystem delivering implementable solutions
- › Close collaboration with the five Flemish universities and strong integration of academic and industrial research
- › Sector-technology approach across 8 sectors and 8 technology domains, developing reusable building blocks for cross-sector applications
- › Focus on the full value chain, enabling strong synergies, faster implementation and maximum impact for members and partners
- › High-tech research infrastructure for testing and validating products, machines and production systems in realistic industrial environments
- › **€ 134 million revenue in 2025**

www.flandersmake.be



Chip-driven innovation

- › The **world's leading independent nanoelectronics R&D center**
- › Over 6,500 brilliant and curious minds from over 100 nationalities
- › Headquartered in Leuven, Belgium with offices worldwide
- › **€ 1,216 billion revenue in 2025**

www.imec-int.com



Biotechnology

- › Independent research institute doing cutting edge research on molecular mechanisms of life, from microorganisms to plants and human beings
- › 2,050 scientists from 78 countries
- › **Close collaboration** with Flemish universities and businesses **to bridge the gap** between **scientific research** and **entrepreneurship**
- › Achieved major biotech breakthroughs
- › **€ 163.6 million turnover in 2025**

www.vib.be



Cleantech

- › Science-to-technology partner translating scientific insights into innovations, data-driven solutions and policy advice
- › Accelerates the transition to a future-proof, safe and sustainable world
- › 1,400 multidisciplinary employees with strong scientific expertise
- › Focus on circular industry, resilient societies and a healthy living environment
- › Active in circularity, energy, water, climate, health and security
- › International reach with activities in 65+ countries and strong public-private partnerships
- › **€ 310 million annual revenue in 2025**

www.vito.be

2.1

IMEC



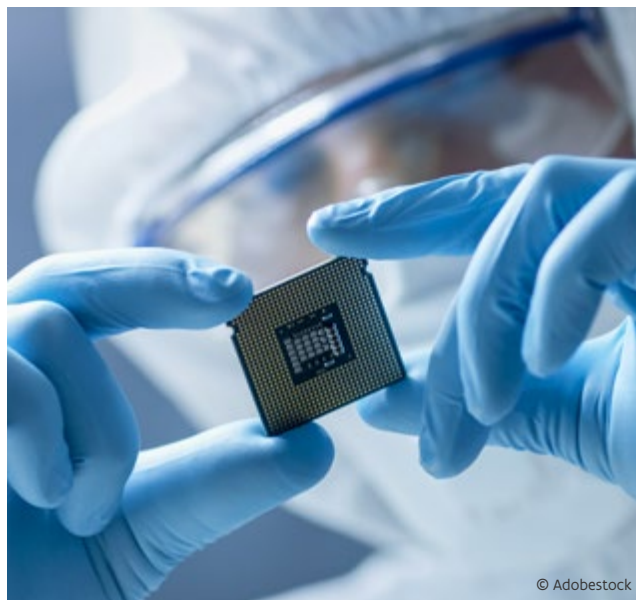
Chip-driven innovation

As the world's trusted leader in chip-driven innovation, imec pioneers, scales and delivers advanced technology solutions. By driving the progress in chip R&D – the foundation of today's digital society – imec builds the hardware for tomorrow's AI-driven era. By making chips smaller, faster, more affordable, and more sustainable, imec enables applications that transform how people live, work, move, learn, and stay healthy. From the chips in your smartphone and laptop to the innovations changing computing, health, automotive, industry, consumer electronics, aerospace and security: imec is building the future.

Imec unites expertise from multiple scientific disciplines and industry partners around imec's globally recognized research environment to develop the systems, architectures, and application technologies that will shape tomorrow. Through its service organisation IC-Link, imec guides companies through every step of the chip journey - from initial concept to full-scale manufacturing - delivering customized solutions tailored to meet the most advanced design and production needs.

Imec employs over 6,500 brilliant and curious minds from over 100 nationalities. It is headquartered in Leuven (Belgium) and has research facilities in Belgium, across Europe, the USA and the GCC region, and representation on three continents. **In 2024, imec's revenue (P&L) totaled 1,03 billion euro, of which 120 million euro from the Flemish Government.**

The imec campus in Leuven (Belgium) consists of 24,400m² of office space, laboratories, training facilities, technical support rooms, and 2 cleanrooms which run a semi-industrial operation (24/7). There is a 300mm cleanroom that focuses on advanced R&D, a 200mm cleanroom for R&D, development-on-demand, prototyping and low volume manufacturing of innovative technology solutions for smart applications including sensors, actuators, MEMS, advanced RF, life sciences technologies, silicon photonics, ...



© Adobestock

Imec has unique laboratories for bioelectronics research, life sciences labs, state-of-the art tools for materials characterization and reliability testing, dedicated labs for sensor and imaging technologies, silicon photonics, ...

2.1.1

Imec's research

Imec's research covers various aspects of nanoelectronics such as advanced semiconductor scaling, silicon photonics, low power sensing and actuating, radar and radio technology, and digital technologies including data science and AI. By bringing the largest semiconductor ecosystem together around unique state-of-the-art R&D infrastructure, imec builds on complementary strengths to ensure fast, scalable and sustainable innovation.

Among its fields of expertise:

- > CMOS and beyond CMOS technologies
- > Integrated photonics
- > Health technologies
- > Sensing and actuation
- > Connectivity
- > Compute system architecture
- > Energy technologies
- > Artificial intelligence

Imec was founded in 1984 as a non-profit organisation led by Prof. Roger Baron Van Overstraeten. It is supervised by a Board of Directors, which includes delegates from industry, Flemish universities and the Flemish Government. Since 1984, imec has been led by Roger Van Overstraeten, Gilbert Declerck (as of June 1999), Luc Van den hove (as of July 2009) and Patrick Vandenameele (as of April 2026).

2.1.2

Imec's venturing initiatives

Imec offers an ecosystem of tailored venturing support to give new start-ups and entrepreneurs a head-start on their road to market. Imec has a long history of launching start-ups and supporting innovative ideas. Imec already launched over 120 spin-offs since its foundation in 1984.

Imec's business accelerator program, imec.istart, offers selected start-ups an initial financial injection (50,000 EUR pre-seed funding), professional coaching and mentoring, access to technology and working facilities, access to its network of partners and investors. Since its launch in 2011, the imec.istart portfolio has over 350 startups and scaleups in diverse fields, ranging from multimedia and logistics to the healthcare sector, to develop into sustainable ventures. In 2023, imec.istart was granted first place in the 'Top University Business Accelerators' ranking by UBI Global. Imec.istart is currently active in Belgium, The Netherlands and Italy.

Imec.ventures is imec's deep tech venture creation and development engine. Its role is to turn breakthrough semiconductor and hardware based technologies into scalable companies, leveraging imec's research, IP, infrastructure, and ecosystem with hands on venture building and access to capital.

Imec.xpand is a venture capital fund initiated by imec, investing in innovative semiconductor and hardware research spinouts and startups. Imec.xpand is an independently managed, game-changing way to enable early-stage nanoelectronics-based innovation powered by imec, the world-leading R&D hub for nanoelectronics and digital technology.

2.1.3

Leveraging expertise to excel

Imec partners with other research leaders in the region to combine and leverage expertise and drive innovation and position our region as a leader in a specific research domain.

Holst Centre, set up in 2005 by imec and TNO (The Netherlands), is an independent research and innovation center, aiming at responding to the global societal challenges of tomorrow. Supported by local, regional and national governments, Holst Centre is located on High Tech Campus Eindhoven, benefiting from, and contributing to, the state-of-the-art on-site facilities. Holst Centre employs more than 200 employees from 28 nations.

EnergyVille was set up by imec, KU Leuven, VITO, and UHasselt to perform research into sustainable energy and intelligent energy systems. EnergyVille employs more than 700 researchers whose work centers around six interdisciplinary domains: photovoltaics, electrical and thermal storage, power control and conversion, electrical and thermal networks, buildings and districts, strategies and markets.

Solliance Solar Research was founded in 2010 as a joint venture between the Dutch TNO, the Belgian imec and ECN (the Energy research Centre of the Netherlands, that became a part of TNO since 2018). Together with the industrial and academic partners Solliance Solar Research plays a leading role in the worldwide research and development of thin-film solar technology.

OnePlanet Research Center is a Dutch innovation center for Food, Health and Agricultural Technology. It was launched in 2019 as a collaboration between imec Radboud University, Wageningen University & Research (WUR) and the academic hospital Radboudumc focusing on the development of sustainable technologies for food, health and agriculture.

2.2 VIB



Biotechnology

VIB is a leading life sciences research institute with an entrepreneurial mindset, bringing together a dynamic, multidisciplinary, and international community of more than 1,900 scientists. Driven by curiosity, its researchers explore the fundamental building blocks of life—from molecules and cells to complex biological systems in humans, animals, plants, and microorganisms. Through close partnerships with Flemish universities and supported by a strong structural funding framework, VIB creates an integrated environment where scientific excellence and collaboration thrive.

At the core of VIB's mission is the belief that groundbreaking innovation starts with fundamental insight. By continuously investing in advanced technologies, data platforms, and AI capabilities, VIB enables its scientists to push the boundaries of knowledge and address some of today's most pressing challenges in health, agriculture, and sustainability.

VIB actively translates scientific discoveries into tangible societal impact. Through its innovation and business activities, new insights evolve into patents, strategic partnerships, and spin-offs that bridge the gap between laboratory research and real-world applications. These efforts lead to novel diagnostics, therapies, and agricultural solutions, while also contributing to economic growth, job creation, and a resilient biotech ecosystem.

Beyond research and innovation, VIB plays an active role in the public debate on biotechnology by developing and sharing science-based information, fostering dialogue, and strengthening trust between science and society.

Over the years, VIB has contributed to major advances across fields such as cancer biology, immunology and inflammation, neuroscience, microbiology, and plant systems biology. The institute also supports a vibrant innovation landscape through its bio-incubators and accelerators, primarily in Ghent and Leuven. In 2025, VIB's total income amounted to 193.08 million euro, of which 49% came from public funding.



2.2.1

VIB's research

VIB consists of 9 thematic research centers with a total of 101 research groups performing pioneering research at the campuses of the partner universities.

- › VIB-KU Leuven Center for Neuroscience
- › VIB-KU Leuven Center for Cancer Biology
- › VIB-KU Leuven Center for Microbiology
- › VIB-UAntwerp Center for Molecular Neurology
- › VIB Center for Inflammation Research
- › VIB-UGent Center for Medical Biotechnology
- › VIB-UGent Center for Plant Systems Biology
- › VIB-VUB Center for Structural Biology
- › VIB.AI: Center for AI & Computational Biology

VIB's strength lies in its ability to combine world-leading expertise with cutting-edge core facilities, enabling research at a scale and level of sophistication that goes beyond individual labs. This integrated approach allows scientists to study life across multiple levels—from organisms and organs to cells, molecules, and atomic structures.

Addressing the complex questions of modern life sciences requires a multidisciplinary and multiscale perspective. VIB fosters this by bringing together diverse talent from different scientific and cultural backgrounds and by encouraging researchers to think beyond traditional boundaries. Curiosity-driven exploration remains the engine of discovery, with each new insight opening the door to further questions and opportunities.

2.2.2

VIB's tech transfer activities

While research forms the basis of scientific knowledge, transferring the research results to the marketplace is of equal importance to VIB. The Innovation & Business team ensures that research results are translated into tangible products and services that find their way to patients and consumers. Financial return from tech transfer activities is reinvested in VIB's basic research programs.

Translating scientific findings into drugs for patients or products for consumers is a long and costly process, requiring skills, expertise and financial means that exceed VIB's resources. To bridge this gap, VIB has established partnerships with several companies. Additionally, VIB's Discovery Sciences team specifically bridges the gap between promising targets to the commercial development of products, de-risking the initial investments of interested industry partners.

To fuel economic growth and accelerate the translation of VIB's research into actual products, investment in the establishment of new start-up companies is of the utmost importance. So far, VIB has been involved in creating over 30 new companies in fields such as therapeutics, diagnostics, agrotech, food, and animal health, employing around 1,000 people.

Biotech companies need appropriate infrastructure to carry out their work. VIB has invested in three bio-incubators in Ghent and Leuven, as well as three bio-accelerators in Ghent. These bio-incubators now house 43 companies with 680 employees. Ghent is also home to three bio-accelerators which allow small companies to accelerate their development into key players. Currently, 12 companies are located in these accelerators.

2.2.3

Investing in cutting-edge technology

Science and technology are inextricably intertwined. The development of new technologies often leads to breakthroughs in scientific research. VIB Technologies, which consists of Tech Watch and Core Facilities, ensures that its scientists have early access to a wide range of state-of-the-art technologies. Staying at the forefront in research also means staying on top of developments on the technology front. Tech Watch team continuously scouts for novel technologies of potential interest to VIB and, when appropriate, mediates early access to these disruptive technologies through partnerships with cutting-edge technology providers.

VIB believes in an integrated approach to the various 'omics' domains. This approach opens perspectives to gain more focused insights into the molecular blueprint of many development and disease processes. However, it requires a techno-scientific expertise that is impossible to create within one research group.

VIB has recognized this trend and made substantial investments in embedding high-tech platforms in the institutional core and service facilities. In consultation with Tech Watch team several leading-edge technology platforms have been implemented. VIB's core and service facilities do not only provide their high-tech equipment and expertise to researchers within the institute; they also reach out to scientists from academia and industry. A recent evaluation by an international expert panel has confirmed the status of VIB's core facilities as 'gold standard' in Europe.

In addition, VIB Technology Training offers comprehensive courses that equip researchers with hands-on experience using a variety of tools and methods, enabling them to overcome any challenge.

The recent introduction of VIB Spatial Catalyst has further enhanced VIB Technologies' offerings. This initiative has made spatial technologies more accessible by pooling expertise from across the institute and providing data analysis and software development support. This holistic approach ensures that researchers have all the resources they need to maximize the benefits of spatial technologies in their work.



© Shutterstock

2.3

VITO



Cleantech

VITO is a leading independent research organisation and science-to-technology partner in the field of cleantech and sustainable development in Flanders. It supports companies, governments and society by translating scientific insights and technological advances into practical innovations, data-driven solutions and evidence-based policy advice.

In a context of rapid technological change, climate pressure and geopolitical challenges, VITO helps shape the transition towards a future-proof, safe and sustainable world. By combining deep scientific expertise with industrial applicability, VITO develops solutions that are scalable, economically viable and strategically relevant. In doing so, it strengthens the competitiveness of companies and supports governments in making informed strategic decisions.

VITO focuses on three key impact domains: circular industry, resilient societies and a healthy living environment. Within these domains, it develops and deploys solutions in areas such as circularity, energy, water, climate, health and security. Its activities range from advanced data and AI-driven insights to the development and validation of new technologies and systems.

With its interdisciplinary approach and extensive laboratory and pilot infrastructure, VITO de-risks innovation and accelerates the transition from research to real-world implementation. The organisation works in close collaboration with industry, governments and research partners, building integrated solutions across entire value chains.

VITO is strongly internationally oriented, with activities in more than 65 countries and collaborations with over 1,700 industrial partners and numerous research organisations worldwide. Through this systemic approach, it contributes to sustainable economic growth and societal resilience.

In addition to supporting established industries, VITO actively fosters innovation through venture acceleration, including technology transfer, spin-offs and support for start-ups. This enables new technologies to reach the market faster and contributes to the development of future-oriented industries.

In 2025, VITO employs around 1,400 people of diverse international backgrounds and generates an annual revenue of approximately €310 million.

2.4

Flanders Make

FLANDERS MAKE

Industry 5.0

Make is the strategic research centre for industrial innovation. Its mission is to strengthen the competitiveness and sustainability of industry by developing and transferring advanced technologies for products, machines and production systems of the future.

The centre brings together industry and academia in a collaborative research ecosystem, working closely with the five Flemish universities and a broad network of industrial partners. Through this model, Flanders Make connects excellent scientific research with concrete industrial needs, ensuring that research results translate into practical innovations with economic impact.

As a strategic research centre, Flanders Make plays a key role in supporting the digital and sustainable transformation of industry. By focusing on industry-driven research and long-term technological capabilities, it helps companies develop smart products, more efficient production systems and resilient industrial processes. Its 2025 revenue was 134 million euro of which 70,45 million euro of the Flemish Government.

2.4.1

Key competences

Flanders Make distinguishes itself through a strong **sector-technology approach** that aligns research activities with concrete industrial needs. Research agendas are defined in close collaboration with industry, combining a **pull-push dynamic**: industrial challenges guide research priorities while emerging technologies create new opportunities for innovation.

The research portfolio is structured across **eight industrial sectors and eight technology domains**. Within this framework, Flanders Make develops reusable technological building blocks that can be flexibly combined to address sector-specific challenges. This modular approach accelerates innovation while enabling efficient knowledge transfer across different industries.

By using a clear technology classification and a focus on the



full value chain, Flanders Make creates strong synergies between research programmes and industrial applications. This integrated approach facilitates faster implementation of new technologies and maximizes impact for member companies and research partners.

2.4.2

Research infrastructure

Flanders Make operates a distributed research infrastructure across several sites in Flanders, providing state-of-the-art laboratories and test environments. These facilities enable researchers and companies to develop, test and validate new technologies under realistic industrial conditions.

The infrastructure supports research in areas such as smart machines, advanced production systems, robotics, sensing technologies and digital engineering. Through pilot environments and demonstrators, companies can evaluate new concepts and reduce technological risks before implementation in industrial settings.

By combining specialised research facilities with strong academic collaboration and industrial involvement, Flanders Make provides a unique platform where scientific excellence and industrial relevance meet, accelerating the development and deployment of next-generation manufacturing technologies.

Today, Flanders Make has more than around 1100 researchers and over 200 company members.

3

Flemish scientific institutes

Within the Flemish Community, there are six scientific institutes, each managed by a department of the Flemish Government. These perform scientific research in a specific policy field. Apart from building up and diffusing the knowledge gained from scientific research, the institutes also provide advice and assistance to policy-makers, as well as services to society as whole. Furthermore, they strive to develop and exchange their knowledge through international contacts or programmes and via cooperation with other (foreign) institutes, e.g. through membership of EU research networks.



The **Agency Botanic Garden Meise** (Agentschap Plantentuin Meise) is a scientific research institute, that operates as a centre of excellence for research into tropical and European botany, with a collection of over 18,000 species of plants and one of the largest herbaria in the world. It has been a part of the Flemish Community, following its de-federalisation in 2014, as an agency of the EWI domain.

ILVO

The **Flanders Research Institute for Agriculture, Fisheries and Food** (Instituut voor Landbouw, Visserij- en Voedingsonderzoek, ILVO) conducts research in four main areas: plant sciences (applied genetics, breeding, crop protection), animal sciences (functional nutrition), technology and food science (food safety) and social sciences; in many cases this research is conducted in collaboration with various international partners.

RESEARCH INSTITUTE NATURE AND FOREST

The **Research Institute for Nature and Forest** (Instituut voor Natuur- en Bosonderzoek, INBO) conducts research on themes such as fauna, flora, biotopes, areas and regions, sustainable land and water use, with a focus on factors such as ecohydrology, acidification, pollution and climate change.



The **Royal Museum of Fine Arts Antwerp** (Koninklijk Museum voor Schone Kunsten Antwerpen, KMSKA) is charged with the care of a unique art collection, composed of mainly Flemish works, complemented with several pieces from other schools.



The **Flanders Heritage Agency** (Agentschap voor Onroerend Erfgoed, AOE) conducts research into the immovable heritage of Flanders (archaeology, monuments, landscapes), focusing on themes such as the restoration of historic gardens, sea wrecks, historic organs, parks, industrial and maritime heritage, etc.



Flanders Hydraulics (Waterbouwkundig Laboratorium), is a centre of expertise for research and advice on hydraulic, nautical, sediment-related and hydrological topics.



4

Other Flemish knowledge institutes

Apart from the aforementioned organisations, there exist a variety of other institutions and organisations in the public domain with activities that primarily focus on (scientific) data collection, research and/or knowledge generation. In most cases, they are mainly or to some extent supported by the Flemish Government. Some of these organisations play a prominent worldwide role in their field of activity.

The largest knowledge institutes include:



The **Flanders Marine Institute**, VLIZ (Vlaams Instituut voor de Zee): is renowned for supporting coastal and marine scientific research. It does so by offering an array of services for which scientists do not have the time or resources, but that are nevertheless essential for the success of scientific research. It operates the Simon Stevin vessel (the Flemish multidisciplinary coast research ship), manages the InnovOcean campus site and the Flanders Marine Data and Information Centre, which is active in international networks such as the IOC of UNESCO. It also houses the European Marine Board and supports the European-level initiatives EMODnet and JPI Oceans. VLIZ has been instrumental in supporting knowledge brokerage for the benefit of the Blue Economy in Flanders, where the new spearhead cluster 'Blue Cluster' is catalysing innovation projects among its industrial membership.



The **Institute for Tropical Medicine**, ITM (Instituut voor Tropische Geneeskunde, ITG): is one of the world's leading institutes for training, research and support of tropical medicine and health care in developing countries, providing (reference) clinical services for the management of tropical diseases. ITM hosts many international reference laboratories and is an expert centre on HIV.



The **Antwerp Zoo Centre for Research and Conservation** (CRC): is the research department of the Royal Zoological Society of Antwerp (RZSA), conducting applied and fundamental hypothesis-driven conservation research in various zoological disciplines (e.g. veterinary sciences). Research takes place in Flanders, in zoos and associated institutions, as well as in Brazil, Cameroon and Congo (bonobo research).

Apart from the aforementioned institutions, the Flemish Government supports an array of different research centres, amongst which Orpheus Institute (artistic research into music) and the Alamire Foundation (interdisciplinary research into and valorization of music).



© Shutterstock

5

Institutes governed by other authorities

5.1

Federal authority

Belgium has **ten federal scientific institutions** (FSI), most of which are located in Brussels. They cover a wide variety of research activities and collections and include museums, libraries, weather and space observatories, as well as research institutes dealing with African culture, geology and public health. Some of these bodies not only perform research in specific fields of expertise, but also have a publicly orientated scientific mission. At the administrative level, they are managed by various policy fields and under the overall responsibility of the federal State Secretary for Science, as part of the Programmatic Public Service for Science Policy (BELSPO).

The federal scientific establishments have a **two-fold mission**: a scientific public service mission on the one hand (the development, maintenance and dissemination of scientific, technical and cultural information and documentation, collection conservation, etc.) and a research mission on the other hand (through research often conducted in partnership with the universities of the Flemish and/ or French Community). As such, these establishments interact with and enhance the scientific potential and outcome generated by the actors in the Flemish STI landscape, particularly the researchers in higher education institutions who are active in the same field of activity. The federal scientific institutes are:

- › the Belgian Institute for Space Aeronomy (BIRA);
- › the National Library of Belgium (KBR);
- › the Royal Belgian Institute of Natural Sciences (KBIN);
- › the Royal Institute for Cultural Heritage (KIK);
- › the Royal Meteorological Institute (KMI);
- › the Royal Museum for Central Africa (KMMA);
- › the Royal Museums of Art and History (KMKG);
- › the Royal Museums of Fine Arts of Belgium (KMSK);
- › the Royal Observatory of Belgium (including the Planetarium) (KSB);
- › the State Archives of Belgium (RA).

In addition to these institutes, there also exist **federal partner institutions and other organisations subsidised by BELSPO** (for example, the University Foundation), whilst some of the federal scientific institutes report to other federal public services. E.g. in the field of health, Sciensano provides research and monitoring services on health-related risks in the broad sense (healthcare, animal health, environment, food safety, medications and vaccines...).

The Federal Government also has responsibility for two other research organisations, being **the National Institute for Radioelements (IRE)**, and the renowned **Belgian Nuclear Research Centre (SCK CEN)**.

sck cen

SCK CEN in Mol (Flanders) has been researching future reactor concepts for many years, including advanced Small Modular Reactors (SMRs).

In 2025, SCK CEN together with a number of international partners signed an agreement to further develop this technology. By 2034, SCK CEN wants to build the first Belgian demonstrator of a lead-cooled Small Modular Reactor: **LEANDREA**. This takes place within the **EAGLES programme**, an international collaboration with Ansaldo Nucleare (Italy), ENEA (Italy) and RATEN (Romania).

These are fourth-generation lead-cooled reactors that are also intended for the commercial market. The aim of the demonstrator is to pave the way for the commercial roll-out of this type of innovative nuclear reactor.

The European Industrial Alliance for Small Modular Reactors was established specifically to accelerate the development of small reactors in Europe.

SMR in a nutshell

- › **Small:** SMRs are super-compact, modular reactors that can produce not only electricity, but also heat and hydrogen.
- › **Modular:** Unlike traditional nuclear reactors, the components are mass-produced in factories and assembled at the chosen site. This also makes them flexible in energy production – in periods with sufficient electricity from wind and solar power, SMRs can be switched to produce hydrogen, for example.
- › **Reactor:** Small and modular, but above all a reactor where energy is produced by nuclear fission. For cooling the SMR demonstrator, SCK CEN chooses a lead-cooled version instead of the traditional water-cooled reactor.

www.sckcen.be

5.2

International institutions, organisations or platforms in the STI field

Apart from institutes related to or managed by the Government of Flanders and the Federal Government, there are also a few other EU or international institutions located in Flanders that collect scientific data or conduct research. Some of these receive funding or support from the Flemish Government.

Examples include:

- › the **EU Joint Research Centre (JRC)** known as the **Institute for Reference Materials and Measurements (IRMM)**, location: Mol (nearby the Flemish VITO and the federal SCK/CEN);
- › The executive offices of the **EU's Joint Technology Initiatives** for Innovative Medicines (IMI), Clean Sky, Electronic Components and Systems for European Leadership (ECSEL) Fuel Cells and Hydrogen (FCH), location: Brussels;
- › **European Cooperation in Science and Technology (COST)**, funding organisation for science and technology research networks, location: Brussels;
- › the **ESA Business and Innovation Centre (ESA BIC)**, location: Mol and Geel;
- › **United Nations University Institute on Comparative Regional Integration Studies (UNU-CRIS)**, location: Bruges;
- › the **European Marine Board (EMB)**, location: Ostend;
- › European Marine Observation and Data Network (EMODnet), location: Ostend;
- › the **Project Office of the Intergovernmental Oceanographic Commission (IOC)** of UNESCO for the International Oceanographic Data and Information Exchange (IODE) programme, location: Ostend;
- › **the Von Karman Institute for fluid dynamics**, which is funded by consortium of 15 countries, location: Sint-Genesius-Rode.

6

Policy research centre

In 2001, the Flemish Government launched a centralised policy research centres programme ('Steunpunten' programma) to provide a scientific basis for policy research.

From 2016 on, a decentralised approach towards policy research centres was elaborated whereby every policy area was made responsible for setting up, funding and following up its own centres.

The policy research centre that is active today with the STI policy area is:

- › **ECOOM**, Expert Centre Research and Development monitoring of the Flemish Community: an interuniversity consortium with participation of all Flemish universities; ECOOM develops a consistent system of R&D and Innovation (RD&I) indicators for the Flemish government. This indicator system has to assist the Flemish government in mapping and monitoring the RD&I efforts in the Flemish region. ECOOM is, inter alia, responsible for the calculation of the official R&D-intensity indicator of Flanders and the mapping of Flanders within global value chains.

ECOOM used to be focused on research and innovation policy, but extended its reach to entrepreneurship and economy with the integration of STORE (Steunpunt Economie en Ondernemen - Policy Research Centre Economy and Entrepreneurship) in 2022.

So ECOOM also conducts policy-relevant scientific research into the consequences of shocks in global value chains and local production networks, the effectiveness and efficiency of economic policy, and the implications of regional, federal and supranational (strategic) industrial policy for the economic outcomes of Flemish firms.

7

Other bodies of public interest in the field of science and innovation

Several other long-standing public institutions of the Flemish Community, which are related to science policy in a more academic context, play a promotional or advisory role. Although they are not directly involved in policy-making, they are part of the broader Flemish STI domain:

- › **Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten** (KVAB, Royal Flemish Academy of Belgium for Arts and Sciences), established in 1772;
- › **Koninklijke Academie voor Geneeskunde van België** (KAGB, Royal Academy of Belgium for Medicine);
- › **Koninklijke Academie voor Nederlands Taal- en Letterkunde** (KANTL, Royal Academy for Dutch Language and Literature), established in 1886;
- › **Stichting Technologie Vlaanderen voor Innovatie en Arbeid** (STV voor Innovatie en Arbeid, the Flanders Foundation for Technology Assessment in Innovation and Work), which is a part of the SERV;
- › **Vlaamse Academische Stem** (VLAST, Flemish Academic Centre for Science and the Arts) is a non-profit organisation supported by both the KVAB and the KANTL;

8

Research infrastructures

The Flemish policy relating to research infrastructure is the responsibility of two entities, namely FWO and the WEWIS Department. WEWIS is the liaison with the relevant minister. It drafts policy and is responsible for regulations. It represents Flanders in the Belgian consultative bodies and expresses the Flemish/Belgian position in international forums. FWO supports fundamental and strategic, basic research in Flanders. The three complementary financing instruments of the FWO for research infrastructure are: the programme for medium-scale research infrastructure (150,000 to 1,000,000 euro); the programme for large-scale research infrastructure (starting from 1,000,000 euro); and the programme for international research infrastructure (IRI).

An overview of the large-scale research infrastructure and the Flemish participation in International and European research infrastructures can be found online in our Research information Space (FRIS) (www.researchportal.be), or you can download our latest publication² 'Large scale research infrastructures in Flanders. Flemish participation in international research infrastructures (2025)'.

At present, Flanders participates in 28 European or International research infrastructures.

The European Infrastructure for Plant Phenotyping- EMPHASIS is planned to become an ERIC (European Research Infrastructure Consortium), by the end of 2026. Flanders will become host of the first European research infrastructure within Belgium. Flanders Institute for Biotechnology (VIB) will act as host institution.



² Download publication via www.ewi-vlaanderen.be/publications.

9

Cooperation and outreach to businesses

9.1

Cooperation among knowledge actors within Flanders

The various Flemish R&D&I performers cooperate increasingly among each other. In some cases, this takes place through formal institutes or cooperation agreements. There is numerous cooperation through and with strategic research centres like VIB or imec, from the level of individual research groups up to the level of the university as a whole. Two examples of the latter are:

- › **Energyville vzw**: association of KU Leuven, VITO, imec and UHasselt in the field of sustainable energy and intelligent energy systems. It provides expertise to industry and public authorities on energy-efficient buildings and intelligent networks for a sustainable urban environment. This includes, for example, smart grids and advanced district heating and cooling.
- › **REGMED**: this basic research initiative is a collaborative venture between imec, VIB and KU Leuven. It aims to unravel the neuronal circuitry of the human brain through research that combines nano- electronics and neurobiology.

Cooperation may also take place on a project basis and include federal or international institutes that are located in Belgium. For example, ILVO cooperates with UGent and Scienscano. Imec and VITO have formed a consortium with private partners for the production of green hydrogen (Hyve). The InnovOcean site in Ostend is home to an array of actors in the field of marine issues: the province of West-Flanders, VLIZ (Flanders), IODE (UNESCO/ IOC Project Office), the secretariats from the European Marine Board (EMB) and from the European Marine Observation and Data network (EMODnet). The EC's JRC IRMM in Mol cooperates in Belgium with, among other, VITO, imec, KU Leuven, VLIZ and UGent.

9.2

Technology transfer

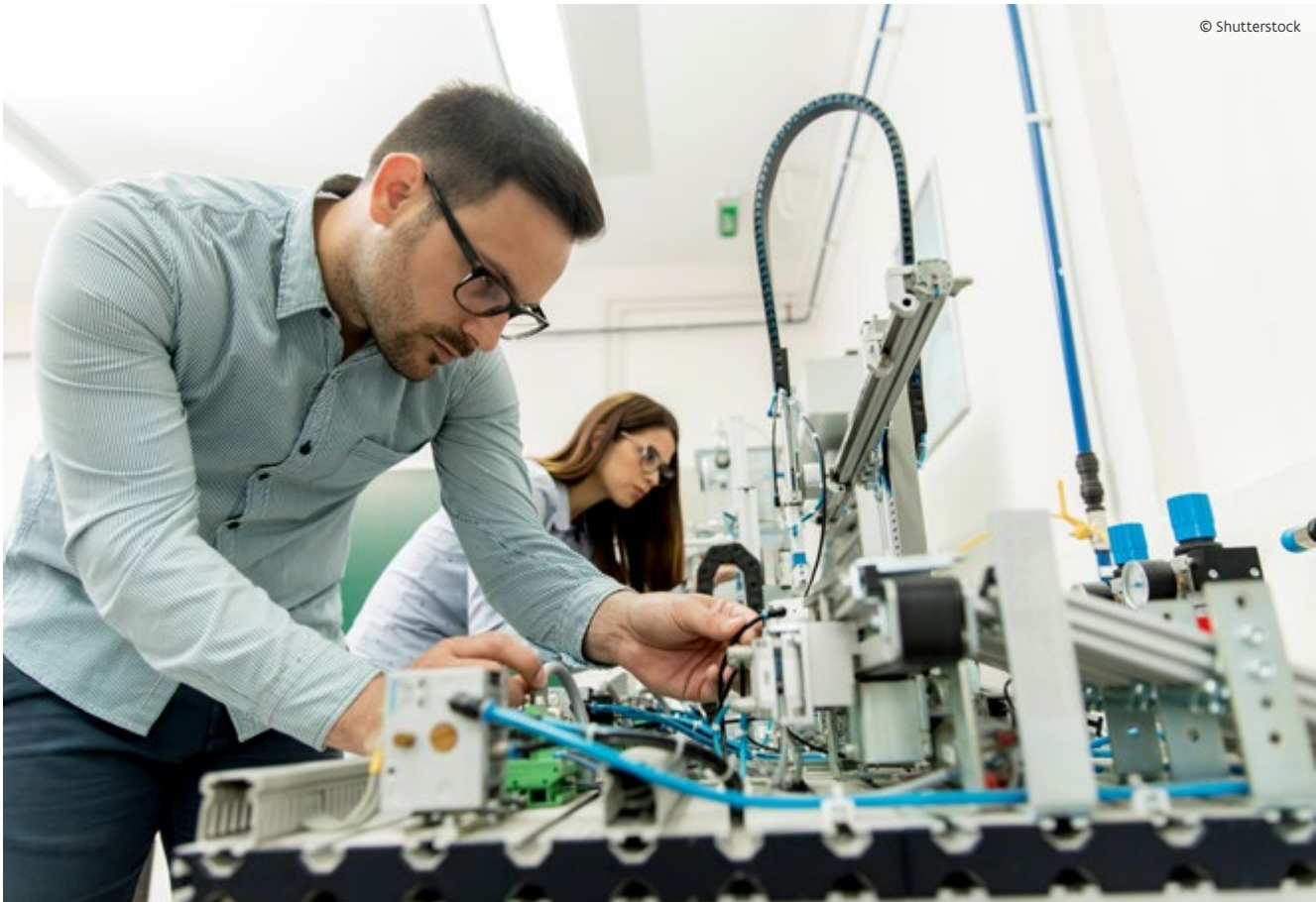
Networking with the knowledge institutions of Flanders in the field of innovation takes place through the business developers of the **Knowledge & Technology Transfer Offices** of the five university associations (TTO-Flanders), the similar services of the strategic research centres such as imec Istart, VIB TTO and the knowledge diffusion liaison officers of the universities of applied sciences and arts.

The Tech Transfer Offices of the five Flemish universities are well developed and operate independently with a focus on the valorisation of the expertise within their own university association via spin-off creation (411 spin-offs in the period 2000-2023) and active collaboration with companies for economic and economic-societal benefit. Researchers are supported by a wide range of experts on Intellectual Property Rights, research and license contracts, business development and spin-offs creation, marketing and communication etc., in translating their findings into tangible products and services that find their way to society. Financial return from these tech transfer activities is reinvested in the innovative research teams and further research.

In order to lower the barrier for external potential partners they promote themselves as a group under the name TTO Flanders on events, innovation fairs, in publications and they have a **common website** TTO Flanders³, which offers a unique portal to the knowledge and technology of the five Flemish universities and thirteen universities of applied sciences and arts and aims to:

- › be a unique point of contact for industry and other companies looking for research expertise and licensing opportunities
- › maximise the valorisation of the available university knowledge and technology for the benefit of the economy and society
- › further improve the collaboration between the KTTOs of the Flemish universities
- › strengthen the performance of the KTTOs by developing common means and sharing best practices
- › become a player on the European and international innovation

³ www.ttoflanders.be/en



© Shutterstock

To develop strategic alliances with companies, each Flemish university has created dedicated expertise centres. Within the universities, each expertise centre is coordinated by at least one business developer who has a liaison role in the process of the valorisation of knowledge, between on the one hand the researchers and their findings and the other hand the companies and the market needs. The business developers have an overview of the expertise within their specific domain and can refer efficiently within the university and the market.

On the TTO-Flanders website, the expertise and the business developers are clustered in the following expertise domains⁴ (and one residual category).

- > Nutrition & Agriculture;
- > Healthcare;
- > Materials & Chemistry;
- > ICT & Electronics;
- > Cleantech & Energy;
- > Engineering;
- > Others.

The universities of applied sciences and arts have clustered their Knowledge in nine expertise domains, see website⁵. Contact the liaison officers directly⁶ or do a search for your specific expertise⁷ need.

- > Art & Culture
- > Education
- > Work & Economy
- > Health
- > Equal Opportunities
- > Space and infrastructure
- > Climate, Environment, Clean Energy
- > Mobility
- > Food & Water

⁴ www.ttoflanders.be/en/expertise

⁵ www.vlaamsehogescholenraad.be/nl/onderzoeksthemas

⁶ www.vlaamsehogescholenraad.be/nl/blikopener/wie-kan-ik-contacteren

⁷ www.vlaamsehogescholenraad.be/nl/expertisezoeker

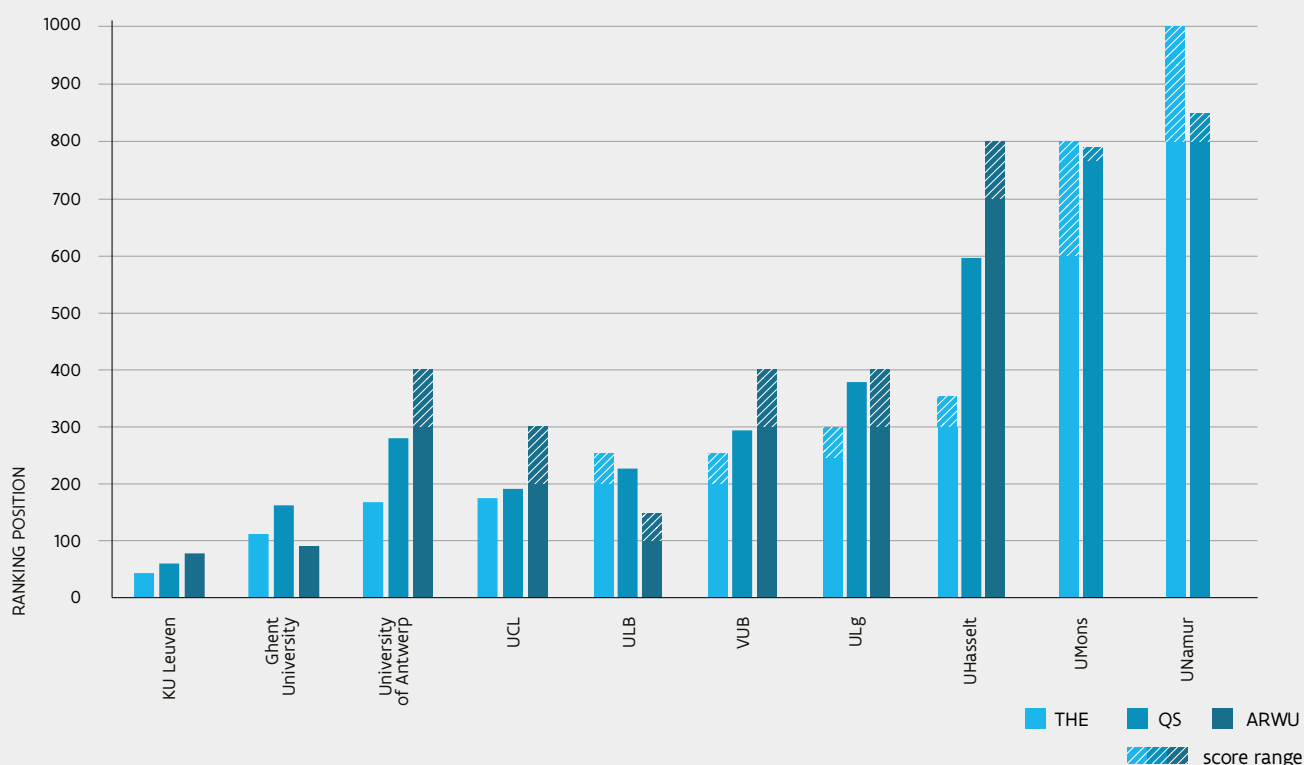
10

Performance from institutions benchmarked internationally

Several international rankings exist in which academic or knowledge institutes are listed, that can provide an indication of their relative strength in an international perspective. The presence of universities from the Flemish Community in the major worldwide rankings are as follows:

Ranking position of the Belgian universities 2024-2025

Figure 9



Source: THE (2026): Times Higher Education (THE) www.timeshighereducation.com/world-university-rankings/latest/world-ranking
 QS (2026): QS World University Rankings 2026 www.topuniversities.com/world-university-rankings?countries=be
 ARWU (2025): ShanghaiRanking's Academic Ranking of World Universities: www.shanghairanking.com/rankings/arwu/2025

All the Flemish universities score very high on these three different rankings and belong almost for each ranking to the top 3% worldwide. The Catholic University of Leuven and the Ghent University even rank in the top 1% for all these three rankings.

Each ranking uses different criteria with different weights in their calculation of the ranking position. We give the main elements for these three well known rankings.

The Times Higher Education (THE) World University Rankings 2025 is an international “league table” ranking that uses 13 metrics clustered in following 5 indicators teaching, research, citations, industry incomes and international outlook.

The Academic Ranking of World Universities (ARWU) 2024, the so-called “Shanghai Ranking”, scores the 1,000 universities worldwide that have the best results on indicators that are mainly focusing on research (Highly cited researchers in Web of Science, articles in Nature and Science, articles in two citation indexes of Web of Science and results on the indicators per researchers) and prestige (Alumni and staf with awards). Since 2019 all Flemish universities are part of this ranking.

The Quacquarelli Symonds (QS) World University Ranking 2025 scores universities worldwide on the indicators Academic reputation, Employer reputation, Faculty/student ratio, Citations per faculty, International faculty ratio and International student ratio.

Next to these three well known rankings, the European Commission asked to develop another type of ranking. Since 2014 the **online ranking tool U-Multirank** has been active. The U-Multirank is different from the other rankings because it scores the universities in groups from A “very good” to E “weak”. This meets a frequently recurring criticism of rankings, namely that the allocation of ranking positions makes performance differences between universities appear larger than they really are. Through the online tool national-policies.eacea.ec.europa.eu/eheso/benchmarking-tool-for-higher-education-institutions – the European Higher Education Sector Observatory (EHESO), which has integrated U-Multirank since December 2023 – it is possible to compare universities based on the criteria of your own choice. The 35 different criteria are grouped into 5 dimensions: Teaching & learning, Research, Knowledge Transfer, International Orientation and Regional Engagement.



© Florin Cnejevici