

STI IN FLANDERS

SCIENCE, TECHNOLOGY
& INNOVATION



Flanders
State of the Art



BRIEF OVERVIEW 2024

DEPARTMENT OF
ECONOMY
SCIENCE &
INNOVATION

STI IN FLANDERS

SCIENCE, TECHNOLOGY & INNOVATION BRIEF OVERVIEW



"My government has set itself the ambition to become one of the top 5 innovative knowledge regions in Europe. This publication provides an impressive overview of the innovation landscape that the Flemish Government has established since its acquired competence over science and innovation. It shows that Flanders is one of the European hot spots to invest in for those companies seeking added value through innovation."

Jan Jambon

Minister-president of the Government of Flanders and Flemish Minister for Foreign Affairs, Culture, ICT and Facility Management



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Johan Hanssens, Secretary-General

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Concept & creation

The Oval Office

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“To further boost our innovation ecosystem, a close cooperation between government, knowledge institutes, businesses and citizens is required. In my policy note 2019-2024, I have set out to adopt the new innovation model which is known as the quadruple helix model which ties together the aforementioned actors.

This publication lists the main initiatives and actors through which we connect with the four helixes. It presents an in-depth overview of the results of Flemish policy on science, technology and innovation. It is clear Flanders possesses all the means to get the most out of the quadruple helix.”

Jo Brouns

Flemish Minister for Economy, Innovation, Work, Social Economy and Agriculture



“Flanders is home to a rich STI landscape housing top institutions and organisations. This is a result of the Flemish policy on science and innovation, that has taken shape over the past 40 years. This brochure offers a quick glance at our extraordinary landscape through the four elements of the quadruple helix (government actors, knowledge institutions, business and civil society), which our government has set out as its new policy model.”

Johan Hanssens

Secretary-General, Department of Economy, Science and Innovation, Flemish Government

TABLE OF CONTENTS

RESEARCH AND INNOVATION IN A QUADRUPLE HELIX MODEL	4	2024 IS A PIVOTAL YEAR FOR FLANDERS	20
WELCOME TO FLANDERS	7	FLANDERS ON THE INTERNATIONAL STAGE	28
I. GOVERNMENT ACTORS	8	R&D INTENSITY	32
II. KNOWLEDGE INSTITUTIONS	10	MAIN R&D ACTORS	36
III. BUSINESS	16		
IV. CIVIL SOCIETY	18		

RESEARCH AND INNOVATION IN A QUADRUPLE HELIX MODEL

The societal challenges that humankind faces, have grown more and more urgent in recent decades. At the same time, the ever-increasing pace of technological change and broad-based innovation hold the promise of global society rising to the occasion.

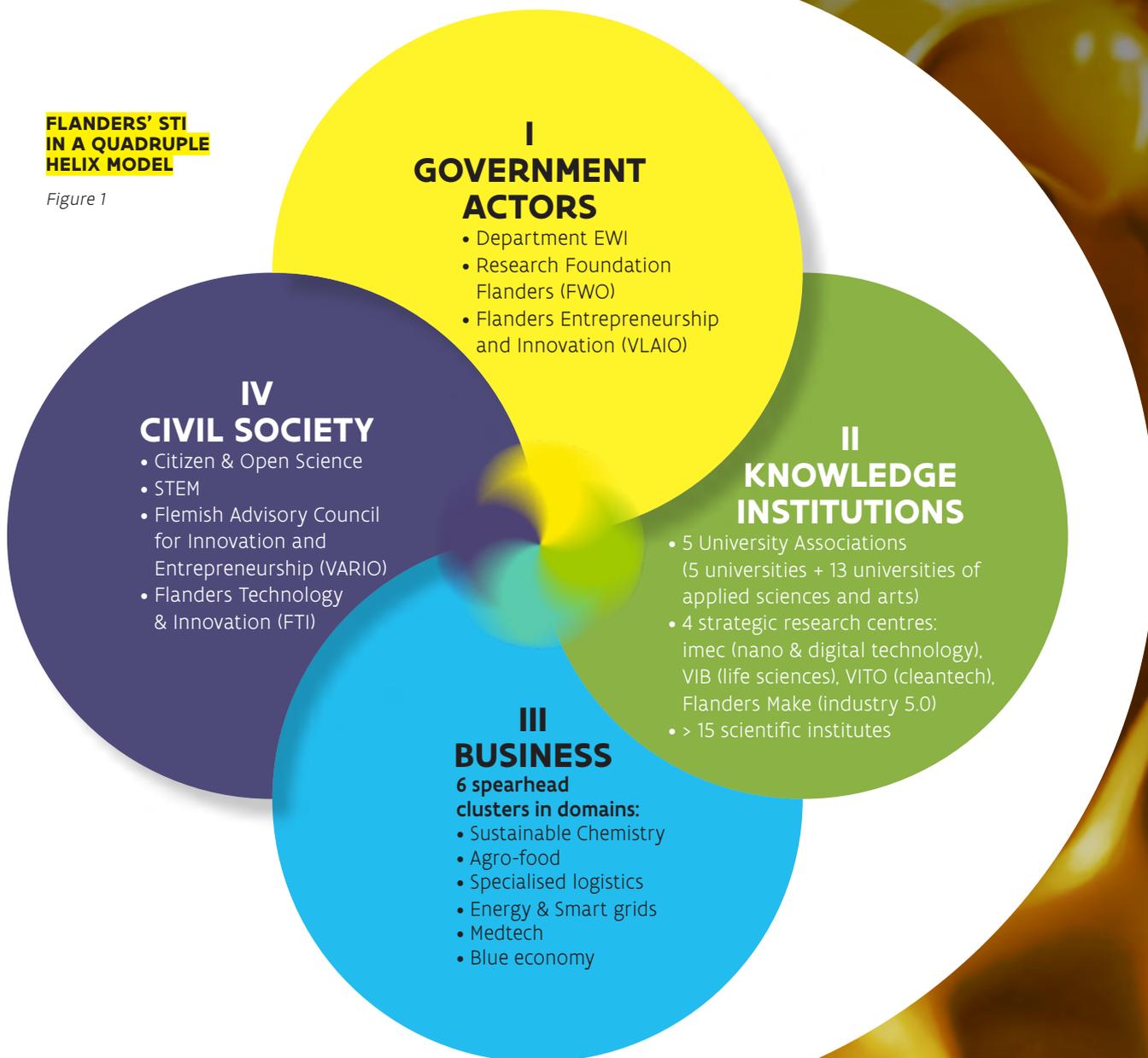
In order to overcome societal challenges, governments all over the world support the advancement of science, technology and innovation. Within Flanders, the EWI Policy Domain (Economie, Wetenschap en Innovatie / Economy, Science and Innovation) uses its Science, Technology and Innovation (STI) policy **to nurture and stimulate research and innovation in the region.**

However, the STI policy does not work in isolation. The Flemish Government has joined forces with knowledge institutions, business organisations and civil society to form a **quadruple helix** to develop initiatives, set policy targets and maintain important long-term efforts in the field of R&D and innovation.

This brochure looks at each of the elements of the quadruple helix in turn to give a glimpse of the STI-landscape in Flanders. For a more detailed overview, download the full STI in Flanders publication from www.ewi-vlaanderen.be/publications.

FLANDERS' STI IN A QUADRUPLE HELIX MODEL

Figure 1



FLANDERS IN THE HEART OF EUROPE

Figure 2



FLANDERS IN FIGURES

- **58%** of Belgium's total population lives in Flanders (6.6 million inhabitants)
- Flanders covers **44%** of Belgium's surface area
- Flanders generates **59%** of the Belgian GDP
- R&D expenditure in Flanders is almost **€10.82 BILLION** (3.65% of Flemish GDP (2021)), which is 63% of Belgium's total R&D expenditure in 2021
- **1ST IN EUROPE** for the proportion of enterprises with innovation activities (2021 Eurostat Community Survey, published in 2022)
- **1ST IN EUROPE** for university business accelerators, top 5 worldwide (UBI Global, World Top 10 University Business Accelerators, 2019)
- **BRUSSELS** is the capital of Flanders and Belgium, the capital of the European Union and serves as the headquarters of NATO
- **3RD IN EUROPE** for innovative SMEs collaborating with others and **2ND IN EUROPE** for R&D expenditure in business (2022 European Innovation Scoreboard)
- **3RD BEST INNOVATIVE SYSTEM** in the world (2020 ZEW innovationsindikator)
- **3RD MOST INNOVATIVE ECONOMY** in the world (ZEW/ISI/BDI innovationsindikator 2020)
- The European Commission ranked Flanders as an **INNOVATION LEADER** (Regional Innovation Scoreboard 2023)
- KU Leuven ranks **1ST** on the list of the **MOST INNOVATIVE UNIVERSITIES IN EUROPE** and is the **7TH MOST INNOVATIVE UNIVERSITY** in the world (Reuters Ranking, 2019)
- **3 BIOTECH INCUBATORS** from Flanders are **IN THE EUROPEAN TOP 20** (Labiotech.eu, 2019)
- Flanders R&D-intensity has further **INCREASED TO 3.65%**, leaving only Sweden ahead in the European Member States rankings.



WELCOME TO FLANDERS

From a geographical and governmental viewpoint, Flanders has a unique position in the world.

FLANDERS IN EUROPE

As Belgium's northern region, Flanders shares land borders with France, Germany, Luxembourg and the Netherlands, with the United Kingdom located on the other side of the North Sea. The region is in the middle of the Blue Banana, an area responsible for a substantial part of the economic added value within the European Union (EU).

FLANDERS IN BELGIUM

Belgium is governed by a unique form of federalism. With its three Regions (the Flemish Region, the Brussels-Capital Region, and the Walloon Region) and three language Communities (the Flemish Community, the French Community and the German-speaking Community), it can be complicated to understand at first glance.

The system works by each Region and Community having their own separately elected parliament, government, administration, legislation, advisory bodies, etc. which have exclusive powers and competencies in various areas both inside and outside Belgium. It is important to note that there are no hierarchical relationships between the Federal level, the Regions and the Communities.

The Flemish Region and the Flemish Community have been combined into a single Flemish Government and Parliament that handles all matters in Flanders and for the Flemish Community in Brussels.

SCIENCE, RESEARCH AND INNOVATION IN FLANDERS: INNOVATION LEADER

In Belgium, 81% of the total public R&D&I support is managed by the Communities and Regions. Flanders counts for 57% of all Belgian public R&D support. In Flanders, this means that €4.273 billion is aimed at higher education, scientific research and innovation, out of Flanders' total budget of €61.6 billion in 2023. The European Commission ranked Flanders in the Regional Innovation Scoreboard 2023 as an "innovation leader".

Flanders deploys a number of different activities and policy instruments in the field of science, research and innovation. These measures include:

- **Direct support for R&D&I**
Subsidies or other support channels for cutting-edge and applied research; business-oriented support; collective research opportunities; and the promotion and popularisation of STI in education, society and business.
- **Research related to the community**
Broad innovation and scientific research policies; research at higher education institutions, public research institutions (PROs), scientific institutes and policy research centres; research and innovation infrastructure; science parks, technology parks and incubators; and policy research.
- **Access to finance**
Financial support for start-ups and spin-offs including seed capital, risk capital, loans and business angel assistance.





GOVERNMENT ACTORS

Government plays a strong role within Flanders' quadruple helix in supporting and stimulating science and technology.

GOVERNMENT STI POLICY

INNOVATING OUR WAY OUT OF THE CRISIS

The corona crisis has shaken the world's economy, causing major social and financial consequences in countries around the world, including Flanders. The Flemish Government is taking this moment of upheaval to focus on resilient, innovative, and productive investments that will act as a catalyst as the Region transitions towards being a digital, sustainable, and circular economy. This is supported by the Flemish Government recovery plan which is investing over €4.3 billion in the region, including more than €500 million within the economy, science and innovation domain during 2021-2026.

GOVERNMENT STI ACTORS

The **EWI Department** is responsible for preparing, monitoring, evaluating and reporting on public policy in the field of enterprise, science and innovation. The EWI Department also funds fundamental and applied research at the universities,

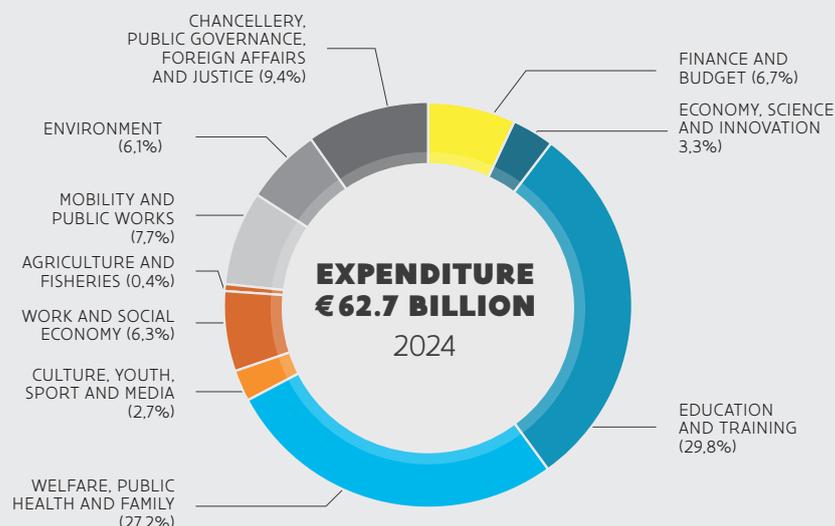
strategic research centres and scientific institutes. From these evaluations and reports, the EWI Department creates **STI policy that aims to** create sustainable economic growth by facilitating entrepreneurship, stimulating innovation and encouraging knowledge creation.

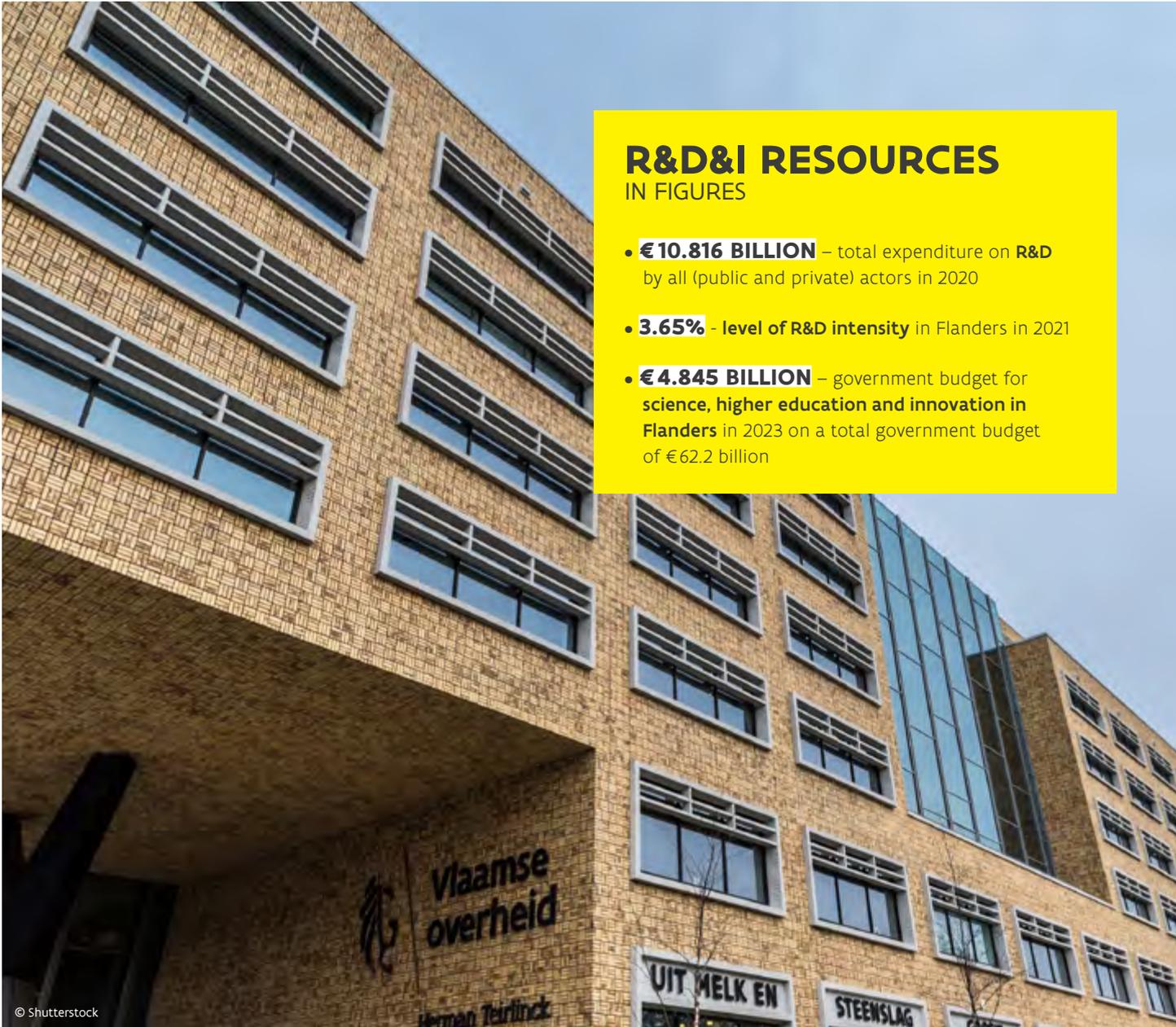
Four agencies are tasked with the implementation of the STI policy:

- **FWO (Fonds voor Wetenschappelijk Onderzoek Vlaanderen /Research Foundation Flanders)** which supports fundamental and strategic research and cooperation at Flemish universities.
- **VLAIO (Vlaanderen Agentschap Innoveren en Ondernemen /Flanders Innovation and Entrepreneurship)** is the one-stop-shop for companies, managing all the economic and innovative support needed by new or growing companies located or active in the Flemish Region.
- **PMV (Participatie Maatschappij Vlaanderen/Flemish Investment Company)** provides capital, loans and guarantees for Flemish businesses.
- **LRM (Limburg Investment Company)** develops and stimulates economic growth in the Flemish province of Limburg by providing lending and venture capital.

FLEMISH AUTHORITIES: 10 POLICY AREAS WITH A BUDGET OF 62.7 BILLION EURO IN 2024

Figure 4





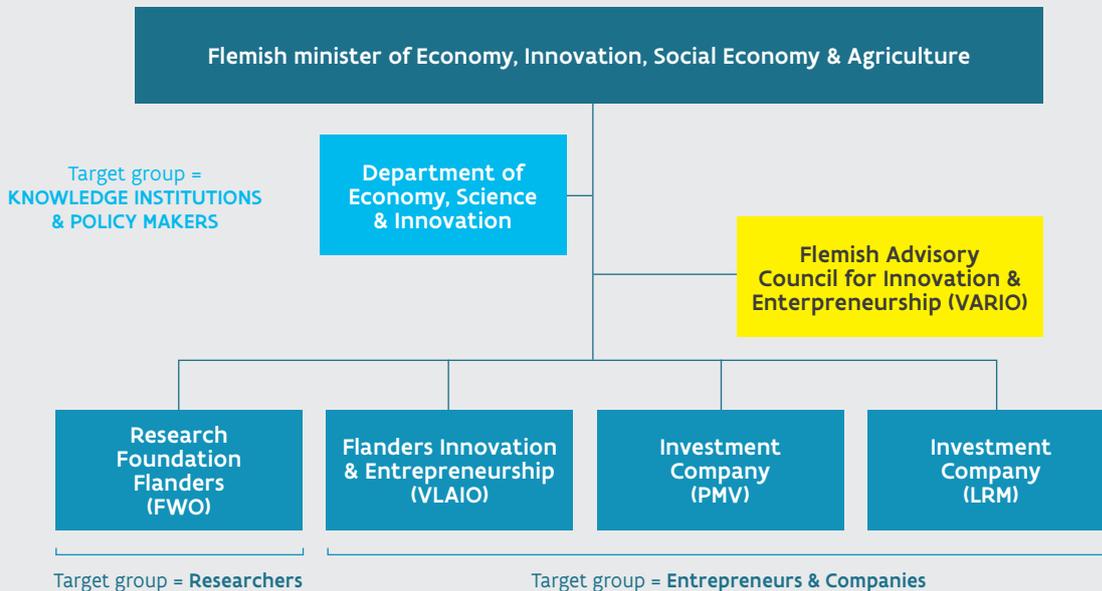
R&D&I RESOURCES IN FIGURES

- **€10.816 BILLION** – total expenditure on R&D by all (public and private) actors in 2020
- **3.65%** - level of R&D intensity in Flanders in 2021
- **€4.845 BILLION** – government budget for science, higher education and innovation in Flanders in 2023 on a total government budget of €62.2 billion

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ECONOMY, SCIENCE AND INNOVATION (EWI) POLICY AREA FROM THE FLEMISH GOVERNMENT, ANNO 2023

Figure 11



II

KNOWLEDGE INSTITUTIONS

Research institutions – higher education institutes, strategic research centres and scientific & knowledge institutes – are vital for pushing technological boundaries, creating knowledge and sharing innovative ideas in Flanders.

5 HIGHER EDUCATION INSTITUTIONS

In 2003 the Flemish Parliament created university associations in order to stimulate the collaboration between the five universities (academic higher education and research) and 13 universities of applied sciences and arts.

Mission and goals of these 5 university associations are situated on the research, educational and service level. Therefor their aim is to coordinate and set up projects that stimulate the collaboration in order to strenghten the link between fundamental and practical research, create closer collaboration and stimulate student mobility between academic and professional educational programmes, and services offered by higher education institutions (such as sport activities, student wellbeing, science communication towards a broader public, collaboration between industries and higher education, cultural programmes). The five university associations tend to work together in order to strengthen the critical mass and efficient outcomes.

In addition to providing higher education and advanced vocational training, the five universities in Flanders undertake a significant amount of research, generating almost 90% of all non-private scientific output in the Region.

The headquarters of the five university associations of the Flemish Community are situated in the cities of Antwerp, Brussels, Ghent, Hasselt and Leuven.

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/eng



ASSOCIATIE UNIVERSITEIT GENT (AUGENT)

Universiteit Gent and the 5 universities of applied sciences and arts Arteveldehogeschool, HOGENT, Howest, KASK and Conservatoire.

www.augent.be/en



ASSOCIATIE UNIVERSITEIT & HOGESCHOLEN ANTWERPEN (AUHA)

Universiteit Antwerpen and the 5 universities of applied sciences and arts AP Hogeschool Antwerpen, Antwerp of Fine Arts, Conservatoire, Hogere Zeevaartschool and Karel de Grote Hogeschool.

www.auha.be/english



UNIVERSITAIRE ASSOCIATIE BRUSSEL (UAB)

Vrije Universiteit Brussel and the university of applied sciences and arts Erasmushogeschool Brussel, RITCS, KCB and a cooperation agreement with the Brussels based Royal Military School.

www.universitaireassociatiebrussel.be



ASSOCIATIE UNIVERSITEIT-HOGESCHOOL LIMBURG (AUHL)

Universiteit Hasselt and the university of applied sciences and arts PXL and MAD School of Arts.

www.auhl.be





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 359.32 euro in 2023. The amount of public support for imec alone is 150.26 million in 2023, which makes it the biggest funding from the Flemish Government awarded to any knowledge institute.



Industry 5.0

- Strategic research centre that stimulates product and production innovation for the industry
- 850 researchers and 200 companies form an ecosystem in which they collaborate on research that leads to concrete solutions at companies.
- Close collaboration with universities and other research institutions
- **High-tech research infrastructure** for **testing** and **validating** new products, vehicles and machines
- **€ 86 million turnover in 2022**

www.flandersmake.be



Biotechnology

- Independent research institute doing cutting edge research on molecular mechanisms of life, from microorganisms to plants and human beings
- 1,900 scientists from 78 countries
- **Close collaboration** with Flemish universities and businesses **to bridge the gap** between **scientific research** and **entrepreneurship**
- Achieved major biotech breakthroughs
- **€ 139 million turnover in 2022**

www.vib.be



Cleantech

- Independent research centre focused on accelerating the transition to a sustainable future by providing research-based insights and solutions
- Almost 1,200 employees from 50 countries, including over 120 people with a PhD
- Interdisciplinary research and large-scale pilot installations in the fields of energy, chemistry, materials, health technology and land use
- Supports **companies** create a net zero industry by 2050, **policy makers** build livable cities beyond 2050 and **society** adapt to existing climate change and limit further climate impact.
- In Flanders, Europe and the world
- **€ 237 million revenue in 2022**

www.vito.be



Nano and digital technologies

- World-leading **research and innovation hub** in **nanoelectronics and digital technologies**
- Over 5500 skilled people from over 95 nationalities
- Research sites across Belgium, in the Netherlands, and the USA, and offices in 3 continents.
- **€ 846 million revenue in 2022**

www.imec-int.com/en



PATENTS IN FIGURES

- **42,863 PATENTS** applications were filed in Flanders between 1980 and 2021, of which 23.472 (55%) have been effectively assigned.
- Flanders is ranked **9TH FOR THE NUMBER OF PATENTS BY ORIGIN** (based on inventor and/or applicant address) with 288.6 patents per million of population.
- Almost **11%** of Flemish patents are held by **public research centres and universities**, which is significantly higher than the international average.

SCIENTIFIC AND KNOWLEDGE INSTITUTES

Flanders is also home to a wide variety of scientific and knowledge institutions, each with a specific focus. These institutions include such as:

- **Agency Botanic Garden Meise** (Agentschap Plantentuin Meise)
- **Flanders Research Institute for Agriculture, Fisheries and Food** (Instituut voor Landbouw-, Visserij- en Voedingsonderzoek ILVO)
- **Research Institute for Nature and Forest** (Instituut voor Natuur- en Bosonderzoek, INBO)
- **Royal Museum of Fine Arts Antwerp** (Koninklijk Museum voor Schone Kunsten Antwerpen, KMSKA)
- **Flanders Heritage Agency** (Agentschap voor Onroerend Erfgoed, AOE)
- **Flanders Marine Institute** (Vlaams Instituut voor de Zee, VLIZ)
- **Institute for Tropical Medicine** (Instituut voor Tropische Geneeskunde, ITM/ITG)
- **Antwerp Zoo Centre for Research and Conservation** (CRC) from the Royal Zoological Society of Antwerp (RZSA)
- **Antwerp Management School**
- **Vlerick Business School**

COOPERATION BETWEEN RESEARCH INSTITUTIONS

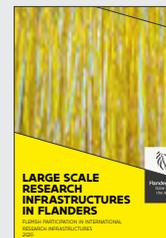
Cooperation between Flemish research institutions is increasingly common:

- **Energyville** which researches sustainable and intelligent energy systems and
- **Neuro-electronics Research Flanders** (NERF) that researches nano-electronics and neurobiology.

• RESEARCH INFRASTRUCTURE

Flemish policy concerning research infrastructure is the responsibility of the FWO and EWI Department, with the EWI Department drafting policy and representing the Flemish position in international forums while the FWO supports Flemish research.

More information on the Flemish participation in international research infrastructures you'll find in the publication **Large scale research infrastructures in Flanders**.



• BIOECONOMY IN FLANDERS

As early as 2013, Flanders adopted its first regional bioeconomy strategy, which collected the priorities from a broad range of stakeholders and was accompanied by a detailed action plan from the government of Flanders.

The brochure **Flanders' bioeconomy** highlights four local assets that make Flanders a top European region in the field of bioeconomy and shows why bioeconomy in Flanders still has great potential for further growth.

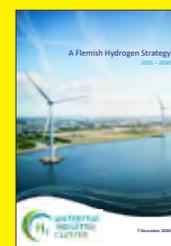


For more information, please consult the publications on www.ewi-vlaanderen.be/publications

• HYDROGEN STRATEGY

Flanders aspires to become a European leader in the field of hydrogen and published a Flemish hydrogen vision and strategy "European frontrunner through sustainable innovation" in November 2020. Hydrogen plays an important role in our energy and climate transition and it creates economic opportunities for the many Flemish companies and technology players that are active throughout the hydrogen value chain. Hydrogen will be crucial for the decarbonisation of the Flemish industry for both industrial processes and as a feedstock for sustainable chemical products, and to further decarbonise our mobility sector. Large offshore windpower farms off the Flemish coast generate green electricity, which can be used for producing green hydrogen that can be stored and used later for multiple applications with no carbon emissions.

The hydrogen community in Flanders is organised in the "Waterstof Industrie Cluster", a strong collaboration of companies, research institutes and government agencies and coordinated by WaterstofNet, the Flemish hydrogen knowledge centre. They join forces on pilot projects, studies and project consortia along the hydrogen value chain to establish a complete hydrogen ecosystem in Flanders. In line with the Flemish policy vision on hydrogen the WIC published "A Flemish Hydrogen Strategy 2025-2030" in December 2020.



For more information, please consult the publications on www.waterstofnet.eu/en/knowledge-centre/publications



BUSINESS

Business research and innovation activities are essential for maintaining Flanders' competitive advantage.

6 SPEARHEAD CLUSTERS

At the heart of Flemish R&I-policy aimed at enterprises are six spearhead clusters that stimulate active and sustainable cooperation between ambitious and forward-thinking business organisations and knowledge institutes.

These large-scale initiatives develop and implement an ambitious long-term strategy and competitiveness programme in a strategic domain. The spearhead clusters in Flanders are:



Catalisti
sustainable chemistry and
synthetics
www.catalisti.be



Flanders' Food
agro-food
www.flandersfood.com



**Flanders Logistics
Cluster (VIL)**
specialised logistics
www.vil.be



Flux50
energy and smart grids
www.flux50.com



Blue cluster
sustainable North Sea
economic activities
www.blauwecluster.be



Medvia
crossover biotech, medical
and digital technologies
www.medvia.be

R&D&I in companies

Enterprises play an important role in the STI system in Flanders, funding 73% of Flemish R&D in 2021. While most of this investment comes from innovation-active international companies, a growing amount comes from innovation-oriented high-tech SMEs.

NETWORKS AND COLLABORATION

Flanders' network of science parks, research parks, incubators, and accelerators stimulate collaboration for research-based young companies and innovative enterprises to develop their internal knowledge and tackle common technological issues efficiently.

BUSINESS ORGANISATIONS



Voka, the biggest Flemish network of enterprises, was established in 2004 as an alliance of the then eight Flemish Chambers of Commerce. As a network Voka unites more than 18.000 businesses. Its mission is to create an optimal framework for successful entrepreneurship.

www.voka.be



UNIZO, the Union of Independent Entrepreneurs, has existed since 1948. UNIZO unites a total of 110,000 independent entrepreneurs and SMEs. Either they are a direct member of UNIZO or they are members through the more than 100 sector organizations that are affiliated with UNIZO.

www.unizo.be

.AGORIA

Agoria is the technology federation for all technology-inspired companies in Belgium. Agoria is structured by expertise centres, market teams, industry teams and policy units.

www.agoria.be

PRIVATE R&D IN FIGURES

- **73% OF R&D** in Flanders was funded by the business enterprise sector in 2021.
- **75%** of all companies in Flanders in 2018-2020 can be called innovative (product innovation, business process innovation as well as ongoing or abandoned innovation activities) according to the 2021 Community Innovation Survey (CIS).
- Business expenditure on R&D in 2021 was **€7.896 BILLION**, of which 39% was invested in the chemical and pharmaceutical sector (2019).
- **20% of foreign investments** in 2022 took place in the R&D sector.
- **R&D intensity** in the business sector was **2.67%** in 2021 (higher than the EU-27 average) compared to 2.56% in 2020.
- Flanders represents about two thirds of the total Belgian patent portfolio, out of which **82%** of patent activity is accounted for by private companies.



Flanders: 1st in Europe
for the proportion
of enterprises with
innovation activities

IV

CIVIL SOCIETY

The knowledge, skills and innovation of Flemish citizens form another important element of the quadruple helix. Flanders stimulates the curiosity and talents of people of all ages.

CITIZEN SCIENCE

Flanders has implemented a number of initiatives to increase the scientific knowledge and literacy of Flemish society and encourage young people to study STEM. Some of these initiatives are:

- **Citizen Science:** researchers initiate projects that rely on the active participation of citizens for data gathering and processing.
- **Science Agenda:** the FWO and Royal Academy of Sciences regularly collect questions for scientists from Flemish citizens.
- **Science communication:** Technopolis science centre, Science Communication Expertise Centres, and other science information actors promote science through activities, experiments and workshops.
- **Media:** scientific themes are also spread via the Flemish Radio and Television Broadcasting (VRT) and EOS publisher.
- **Science festivals:** the general public can meet scientists at events like the Flemish Science Day, Day of Biotechnology, Sound of Science festival, and& festival and Supernova science festival.



Flanders has implemented a number of initiatives to increase the scientific knowledge and literacy of Flemish society and encourage young people to study STEM.

STEM EDUCATION IN FIGURES

- **52.008** students enrolled for the first time at a Flemish university or universities of **applied sciences and arts** in the 2021-2022 academic year
- **30%** of first entry master students at Flemish universities are studying in the **science and technology domain**
- **19.1%** of 20-29-year-olds in Flanders have a higher degree in **mathematics, science and technology** (2020-2021)

STEM EDUCATION

Attracting more people towards STEM careers starts early in Flanders. The STEM Action Plan 2020-2030 aims to encourage young people to seriously consider a STEM career with a range of initiatives, including rolling out STEM academies to teach young people coding and other computing skills.

STEM CAREERS

Outstanding researchers are vital to Flanders' efforts to stimulate R&D&I in the region. For this reason, Flanders has developed a range of initiatives to encourage excellent researchers and support their long-term career paths. Flanders also encourages the mobility of researchers, welcoming researchers from China, Germany, India, Italy, the Netherlands and Spain, as well as many other countries.

VARIO

The Flemish Advisory Council for Innovation and Entrepreneurship (Vlaamse Adviesraad voor Innoveren en Ondernemen or VARIO) advises the Flemish Government and the Flemish Parliament on its science, technology, innovation, industry and entrepreneurship policy. The council does this on its own initiative as well as on request.

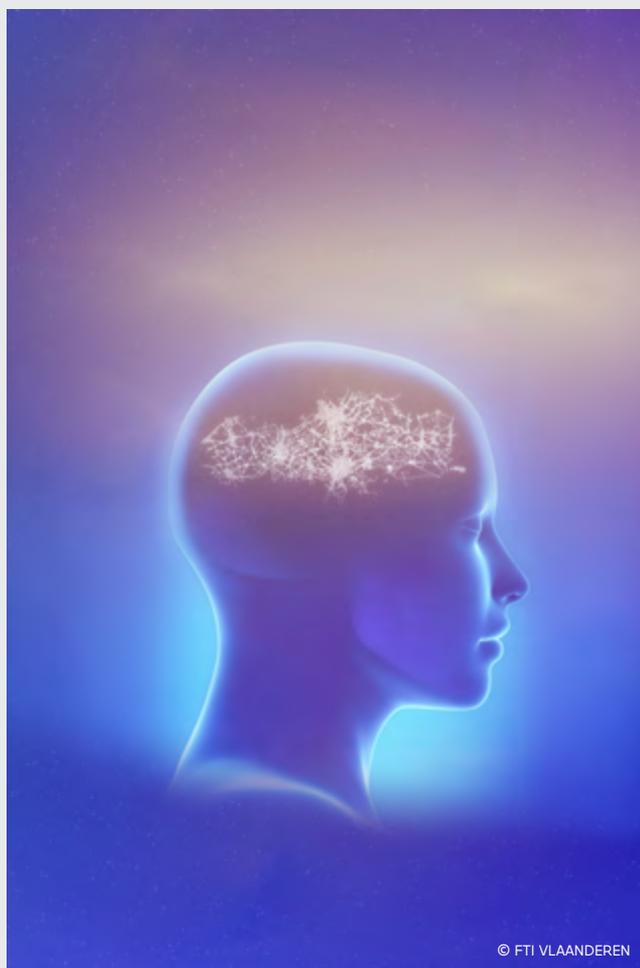
OPEN SCIENCE

Flanders implements Open Science through its Flemish Open Science Board.

FLANDERS TECHNOLOGY & INNOVATION (FTI)

Flanders Technology & Innovation (FTI) is a uniting social project that aims to promote belief in progress and counteract growing societal discontent. FTI's objective is to connect people and knowledge to bring about innovation that improves industrial competitiveness and social well-being in a sustainable way.

<https://fti.vlaanderen/en>



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STEM CAREERS IN FIGURES

- **66,365 FULL-TIME EQUIVALENTS (FTE)** R&D personnel in Flanders in 2019, which is **38.4% more** than in 2016
- **64.9%** of R&D personnel work in the **private sector**
- **72.5% - 82%** of R&D personnel in the public sector work for the higher education sector (HES), of which **81.4% are researchers**, a figure significantly higher than the EU-27 average
- **44.1%** of researchers in HES are **female**, which is more than in the neighbouring countries of France and Germany
- **73%** of R&D personnel working for the Flemish government research institutes are **researchers**, which is higher than the EU-27 average
- **1 IN 3** of all R&D personnel in the public sector has a **PhD**
- R&D personnel made up **2.1%** of the labour force higher than the EU-27 average
- About **2,000 PhDs** in Flanders in 2019-2020
- **45%** of PhD holders are **female**

2024 IS A PIVOTAL YEAR FOR FLANDERS

2024 will see a series of political elections: European, federal, regional and local. Against this backdrop, Belgium (and Flanders!) will take up the presidency of the Council of the European Union during the first half of 2024. In the same period, the current Government's last grand project, Flanders Technology and Innovation, will reach cruising speed.

FLANDERS AT THE HELM OF THE EU

UNDERSTANDING THE EUROPEAN PRESIDENCY

From 1 January to the 30 June 2024, **Belgium will chair the Council of the European Union**. The Presidency of the Council rotates among the EU member states every 6 months. During this period, it plays a leading role in the work of the Council of the European Union and acts as an honest and neutral mediator to ensure continuity of the EU agenda, legislative processes and cooperation among member states. The Presidency has two main tasks: planning and chairing meetings in the Council and its preparatory bodies and representing the Council in relations with the other EU institutions. Belgium, together with Spain and Hungary, forms a Trio Presidency that formulates medium-term objectives and develops a relatively limited Joint programme.

FLANDERS, REPRESENTING BELGIUM, CHAIRS THE COMPETITIVENESS COUNCIL ON INDUSTRY

During the Belgian Presidency of the Council of the EU, Flanders plays an important role. The division of competences in Belgium between the federal government and the regions and communities also applies at EU level (i.e. in foro interno, in foro externo). During the EU presidency, Flanders will represent Belgium in the areas of youth, culture, audiovisual media, fisheries and industry. More specifically, Flemish Minister for Economy, Innovation, Work, Social Economy and Agriculture, Jo Brouns, will represent Belgium during the Presidency of the Competitiveness Council on industry.

The Competitiveness Council works to enhance competitiveness and increase growth in the EU. It deals with four major policy areas: internal market, industry, research and innovation and space.



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A PACKED AGENDA

The Belgian presidency will face a particularly busy schedule, managing its own priorities while also addressing 'carry-over' files such as the Net-Zero Industry Act and the Critical Raw Materials Act, aiming to bring them to completion.

Situated just before the European Parliament elections in June 2024, Belgium holds the unique position of being the final presidency under the current Commission. This provides an opportunity to review the EU's recent achievements and set the stage for future initiatives. Belgium intends to draft Council conclusions to guide the incoming Commission's efforts.



Flanders will not only shape EU industry policy but also steer EU-wide legislative processes and foster greater cooperation among member states.

EWI PRESIDENCY CALENDAR 2024

JAN

Opening Event 'Zie ons doen'
Mechelen
Saturday 6 January

FEB

Research to Reality: Digital Solutions to European Challenges **LEAD**
The EGG, Brussels
Monday 5 February - Tuesday 6 February

Bridging the Funding Gap (PMV)
Bozar, Brussels
Monday 5 February

Informal Council Competitiveness **LEAD**
Thor Park, Genk
Thursday 8 - Friday 9 February

Informal Council Research
Dolce La Hulpe, Brussels
Wednesday 14 February - Thursday 15 February

Ministerial Dialogue on principles and values for international cooperation in research and innovation
Résidence Palace, Brussels
Thursday 15 - Friday 16 February

Research Perspectives on the Health Impacts of Climate Change
Charlemagne building, Brussels
Monday 19 feb - Tuesday 20 February

HLG COMPCRO
Brussels
Thursday 22 February

MRT

European Mission Forum **LEAD**
Hendrik Consciencegebouw, Brussels
Wednesday 6 March - Thursday 7 March

Open Food Conference **CO-LEAD**
Provinciehuis, Leuven
Monday 11 March - Wednesday 13 March

Do we really need Science Communication? (FWO)
Paleis Der Academiën, Brussels
Tuesday 12 March - Wednesday 13 March

Formal Council Competitiveness
Europagebouw, Brussels
Tuesday 12 March - Wednesday 13 March

EuroHPC Summit Week
A Room With A Zoo, Antwerp
Monday 18 March - Thursday 21 March

Innovation Procurement Conference **LEAD**
Tour & Taxis, Brussels
Tuesday 19 March - Wednesday 20 March

APR

ERAC Conference
Namen
Thursday 11 April - Friday 12 April

HLG COMPCRO
Brussels
Thursday 11 April

APR

EOSC & OS Policies event **CO-LEAD**
Paleis Der Academiën, Brussels
Tuesday 16 April

Circular Economy Event **CO-LEAD**
The Square, Brussels
Wednesday 17 April

Marie-Sklodowska-Curie Conference 2024 **CO-LEAD**
WCCM + Mundaneum, Bergen
Thursday 18 April - Friday 19 April

Successful reconversion and sustainable transformation of a former mining region (LRM)
Terhills, Maasmechelen
Friday 19 April

Security Research Conference
Charleroi
Tuesday 30 April

MAY

Cluster 2 evidence-informed policy making **CO-LEAD**
Afrika Museum, Tervuren
Thursday 2 May - Friday 3 May

Informal HLG COMPCRO
Mechelen
Tuesday 7 May - Wednesday 8 May

Europe united against old and new pandemics **LEAD**
A Room With A Zoo, Antwerp
Tuesday 14 May - Wednesday 15 May

Formal Council Competitiveness
Europagebouw, Brussels
Thursday 23 May - Friday 24 May

The convergence of technologies enabling R&I for the healthcare of the future **LEAD**
The EGG, Brussels
Tuesday 28 May - Wednesday 29 May

JUN

INDTECH Conference
Namen
Monday 3 June - Wednesday 5 June

ESFRI Forum
Brussel
Tuesday 4 June t/m Friday 7 June

Informal Attaché meeting Research
Spa
Wednesday 12 June - Friday 14 June

Informal Attaché meeting Industry **LEAD**
Gent
Monday 17 June - Tuesday 18 June

<https://www.ewi-vlaanderen.be/en/events>

PRIORITIES FOR A FUTURE-PROOF EUROPEAN INDUSTRY

In a time of global shifts toward sustainability and digitization, Europe's industrial landscape is at a crossroads. The EU's updated 2021 industrial strategy aims to navigate these complexities, focusing on carbon neutrality, resource efficiency, and digital adoption, among other challenges. With the U.S.'s recent Inflation Reduction Act, the EU faces mounting pressure to respond to global protectionist measures. It is crucial for the EU to balance its green and digital ambitions with the need to protect European industries, as global actions have direct repercussions on the Union's competitiveness.

THE GREEN TRANSITION: A FOCUS ON CIRCULAR ECONOMY

In its upcoming European Council Presidency, Belgium intends to focus on circular economy as a cornerstone of the green transition. A diverse set of related issues—like bio-economy, circular manufacturing, and hydrogen use—will be explored in the context of specific industries, such as textiles or construction.

DIGITAL TRANSFORMATION: BRIDGING THE GAP BETWEEN SUSTAINABILITY AND TECHNOLOGICAL PROGRESS

Belgium and Flanders emphasize the interconnection between sustainability and digital transformation as part of its European Council Presidency agenda. Key to this approach is supporting companies, especially SMEs, in digital adoption and workforce upskilling and reskilling. European Digital Innovation Hubs serve as vital links between EU objectives and regional ecosystems. Belgium will host the event 'From Research to Reality: Digital Solutions to European Challenges' in Brussels on 5 and 6 February 2024, focusing on the intersection of Horizon Europe and the Digital Europe Programme. The event aims to foster high-level policy dialogue and stakeholder networking, setting the stage for future policy directions.



ADDRESSING STRATEGIC DEPENDENCIES

The issue of reducing strategic dependencies has long been a focal point of the EU's policy discussions, although up until now, only isolated initiatives have been deployed to tackle this complex challenge. Recognizing this gap, Belgium aims to look into a more holistic strategy focused on achieving open strategic autonomy. This comprehensive approach should attempt to capture the overarching implications of dependency issues. The theme of reducing strategic dependencies will be integrated across multiple policy dossiers. In particular, it will influence the driving forces behind both the green transition and digital transformation. For example, reducing reliance on critical raw materials and fossil fuels is essential not just for maintaining an open economy but also for advancing toward a more sustainable and digitally proficient future.

THE ECOSYSTEM APPROACH

Building upon Belgium's longstanding support for an ecosystem and value chain approach in European industrial policy, this focus will be intensified during the upcoming presidency. The goal is to enrich existing ecosystem frameworks and foster more resilient, interconnected value chains, aligning with the overarching objectives of the European Union.



THE EU TOOLBOX & INNOVATION-BASED PROCUREMENT

Belgium aims to assess the EU's current industrial strategy toolbox, focusing on its effectiveness in supporting innovative SMEs. Among these support instruments are IPCEI, InvestEU, and the European Innovation Council. The new strategy for technology infrastructures, due by the end of 2023, aims to smooth the transfer of knowledge from research to production. Additionally, the role of 'innovation-based procurement' will be reevaluated, with Flanders already ahead in implementing this approach. A dedicated event, one of many to be held under auspices of the Presidency across its priorities, will dive deep into the untapped potential of innovation procurement, showcasing a benchmark analysis and encouraging knowledge exchange. Flanders' established policy framework in this area will also feature prominently, underscoring its influence in Belgium's EU agenda.



Belgium and Flanders emphasize the interconnection between sustainability and digital transformation as part of its European Council Presidency agenda.



www.belgium24.eu

www.flanders.be/eu2024

 @belgiumEU

 belgiumineu

#EU2024BE

#EUvoorzitterschap2024

#EU2024Flanders

LOOK AT US GO: OPENING EVENT OF THE EU PRESIDENCY IN FLANDERS

Together we make Europe shine. That is the starting point of the opening spectacle on Saturday, January 6 in host city Mechelen. Count on an inspiring program packed with home-grown talent that young and old will thoroughly enjoy.

This event is also the kick-off of a campaign about the EU presidency that shows the influence Europe has on our daily lives. In the coming months, the spotlight will be on Flemish people who realize fantastic projects that also resonate in Europe. This way we focus on what Flanders does best; making Europe shine.

LOOK
AT US
GO  Together
we make
Europe
shine





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FLANDERS TECHNOLOGY AND INNOVATION

The government of Flanders launched Flanders Technology & Innovation (FTI) in October 2022. The intention is to bridge the gap between Flanders' cutting-edge technology, which is highly regarded internationally, and segments of the population who have a gloomy outlook on the future. Government, companies, knowledge centres and citizens will focus on six domains:

1) Energy transition, 2) health care, 3) lifelong learning, 4) data 5) mobility and 6) media and entertainment.

The FTI acronym has been used before in Flanders and is a household name for generations. The FTI technology fairs, which took place between 1984 and 1999, were an inspiration to many and the launching platform for knowledge centers such as imec and VIB.

With the new Flanders Technology and Innovation, the government of Flanders is now launching a contemporary project and a promotional campaign on innovation and technology.

The Flemish Government is convinced that technology can generate progress and therefore there is ample room

for optimism. With the slogan, 'Welcome to Domorrow' ('Welkom in de Doekomst'), the Flemish Government is referring to the need for real solutions to major issues, and making Flanders the laboratory of Europe in the process.

FIRST TECHNOLOGY FAIR IN 2024

The countdown is on to Friday 15 March 2024, the kick-off for Flanders Technology & Innovation at the all-new Winter Circus in Ghent. Ten days of events will continue during the massive innovation and inspiration festival in six cities: Antwerp, Brussels, Ghent, Hasselt, Kortrijk and Leuven.

FTI is also buzzing in numerous Flemish companies, schools and universities. One of the highlights is the Open Technology & Innovation Day on 17 March 2024. This is when technology organisations can put themselves in the spotlight for the general public, applicants and technology enthusiasts.

The inspiring festival week will conclude on Saturday 23 and Sunday 24 March with a closing festival in the city of Antwerp for the general public.

<https://fti.vlaanderen>

FLANDERS ON THE INTERNATIONAL STAGE

Flanders pushes beyond its borders entering into bilateral and international agreements, supporting companies as they expand, and cooperating with actors across Europe and the world.

FLANDERS IN EUROPE

The Flemish Government has made considerable efforts to internationalise STI policy, with a particular focus on the EU level. Thus, Flanders aligns its priorities with those of the European Union and the European Commission, namely “developing a strong and vibrant economic base; building a climate-neutral, green, fair and social Europe; the European Green deal; a Europe fit for the digital age” etc.. In this way, Flanders is trying to meet major challenges together with Europe. Moreover, Flanders contributes to the further development of the European Research Area and is committed to improving and implementing EU funding programmes such as the EU’s main funding programme for research and innovation (Horizon 2020 and Horizon Europe), the Digital Europe Programme, InvestEU, the Single Market Programme, etc. Furthermore, Flanders closely follows the European semester and actively contributes by drafting the Flemish Reform Programme, as part of the Belgian Reform Programme.

HORIZON EUROPE

The Flemish Government plans to participate in 13 of the 14 partnerships of the first wave of the first Horizon Europe strategic plan (2021-2024) for a total amount of around 120 million in cash and about 140 million in kind. This represents about 75% of Belgium’s contribution to the first wave of partnerships. A second wave of partnerships is currently being prepared by the European Commission and member states.

FLANDERS IN THE WORLD

Flanders also works within the frameworks of the United Nations (UN) and Organisation for Economic Co-operation and Development (OECD) to present Flanders’ strengths in the fields of economy, science, and innovation and to learn from other countries and regions.

NATIONAL, REGIONAL AND INTERNATIONAL SUPPORT

Flanders Investment and Trade (FIT)

Working in both the EU and further afield, FIT supports the international activities of Flemish companies and attracts foreign investors to Flanders. From its worldwide network of over 90 offices, FIT offers tailored advice and guidance, shares its network of contacts, and provides financial support and information about a wide range of financial incentives.

VLAIO: Regarding international innovation, VLAIO supports business organisations as National Contact Point (NCP) for Flanders for the European Framework Programme for research and innovation (together with FWO, also known as NCP Flanders) and Enterprise Europe Network Flanders (together with FIT). VLAIO also provides co-funding for European projects.

FWO: The actions of FWO are crucial to stimulate the internationalisation of research and focus on international mobility, including research projects, international collaboration, international contacts, European programmes and involvement in international policy.

VLEVA: The liaison agency Flanders-Europe (VLEVA) is successfully supporting Flemish actors to discover the most appropriate European funding opportunities. VLEVA creates a platform for Flanders in Europe by bridging the gap between Flanders and Europe and underlining how important Europe is to Flanders.

EWI stakeholder platform: The Flemish platform for European Programmes groups the ‘quadruple helix’ (government, knowledge institutions, industry and civil society) in Flanders into one umbrella platform. Stakeholder consultation through this platform not only supports and nurtures EWI representatives in European committees and working groups in the preparation of policy positions but also proactively produced policy reflection papers, such as an internationally well received paper on the new ERA.



Flemish partners already attracted €920 million and contribute in 1372 projects of the Horizon Europe Framework.

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GLOBAL FLANDERS

IN FIGURES

IMPORT
EUR 373 BILLION
 (GOODS, 2022, NATIONAL CONCEPT)

EXPORT
EUR 339 BILLION
 (GOODS, 2022, NATIONAL CONCEPT)

INTERNATIONAL COLLABORATION

10 SCIENCE AND TECHNOLOGY OFFICES WORLDWIDE

in New York, Palo Alto, Paris, London, Copenhagen, Munich, Mumbai, Singapore, Guangzhou and Tokyo;

SCIENTIFIC COOPERATION

agreements with a number of countries for the funding of potential exchange projects, namely with: Japan, Bulgaria, Poland, China, Brazil, Argentina, France, South-Korea, Taiwan, Turkey, Mexico, France-Tourneol, Hungary;

BILATERAL RESEARCH COOPERATION

with Brazil, China, Ecuador, Vietnam, South-Africa, Québec (Canada);

LEAD AGENCY PROCEDURES

with Luxembourg, Austria, Slovenia and Switzerland;

BIG SCIENCE PROJECTS

the "Big Science" programme supports researchers at institutes of the Flemish Community who want to conduct research projects at major international research facilities, the membership for which is paid for by the Belgian Federal or Flemish Government.

PORTS IN FLANDERS



FOREIGN INVESTMENTS

2022

€ 5.26 BILLION
 TOTAL INVESTMENTS

278
 NEW PROJECTS

6,540
 NEW JOBS

MAIN EXPORT SECTORS

(NATIONAL CONCEPT)



1. **CHEMISTRY AND PHARMA**
EUR 90,9 billion



2. **MINERAL PRODUCTS**
EUR 54,1 billion



3. **MACHINES & ELECTRICAL EQUIPMENT**
EUR 30,5 billion



4. **TRANSPORT EQUIPMENT**
EUR 29,9 billion



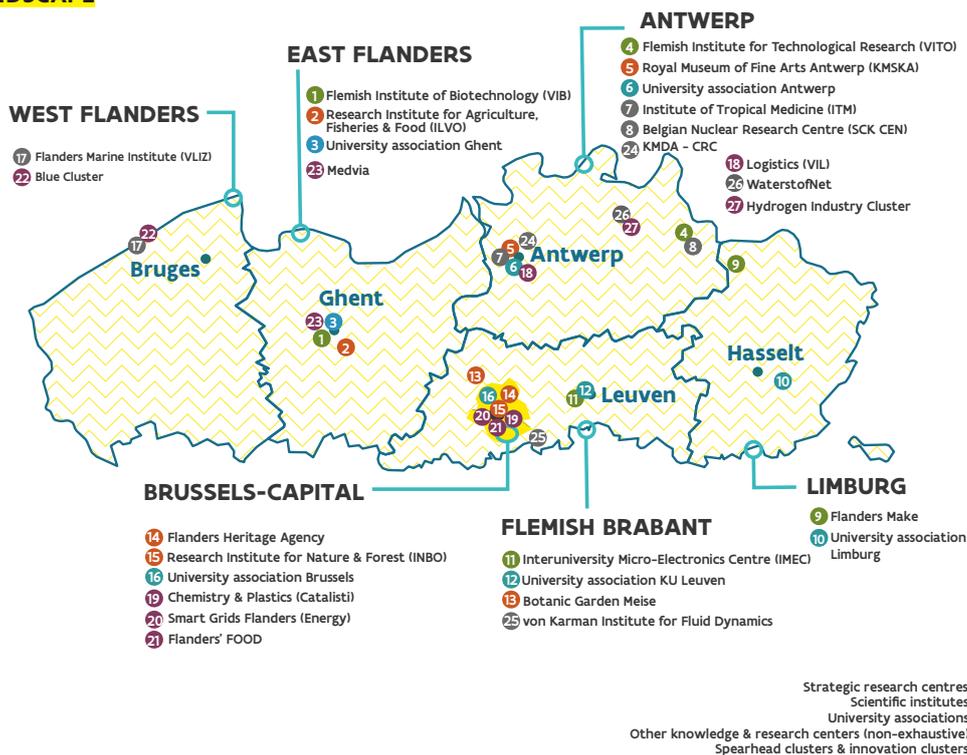
5. **BASE METALS AND APPLICATIONS**
EUR 23,5 billion

Source: National Bank of Belgium (External Accounts, National Concept, 2022)

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MAIN RESEARCH AND ECONOMIC ACTORS IN THE FLEMISH STI-LANDSCAPE

Figure 6



75% of all companies in Flanders in 2018-2020 can be called innovative according to the 2021 Community Innovation Survey (CIS).

R&D INTENSITY

Investments in R&D are key to ensuring a high level of productivity and maintain competitiveness in a global perspective. R&D-investments are also expected to be crucial to tackle grand societal challenges such as the energy and climate transition or an ageing population. In its Innovation Pact of 2003 and on subsequent occasions (Pact 2020, Flanders in Action, Vision 2050) the Flemish Government has stated its ambition to reach a 3% R&D-intensity (measured as the percentage of GERD related to GDP), thus subscribing to the Europe 2020 3%-target.



Investments in R&D are key to ensuring a high level of productivity and maintain competitiveness in a global perspective.

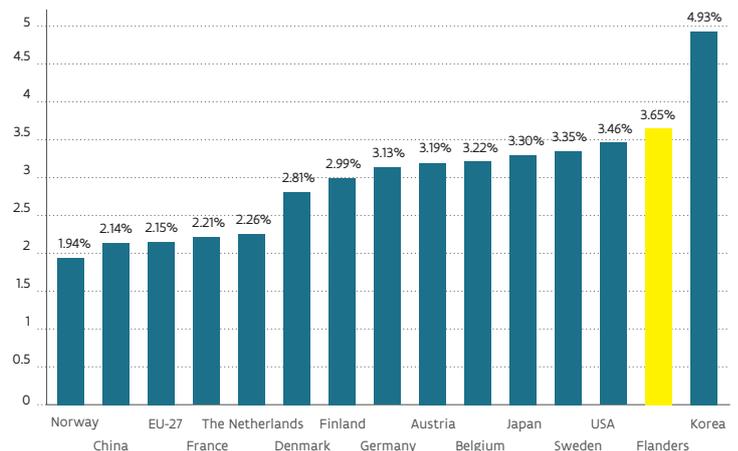
GROSS DOMESTIC EXPENDITURE ON R&D (GERD)

In 2021, Flanders spent over 10.816 million euros on R&D (GERD). More than two-thirds of the research cost was paid by companies (the Business Enterprise Sector or BES) and almost one-third by public research institutes (PNP, GOV and HES).

The R&D intensity (measured as the percentage of GERD related to GDP) of Flanders was 3.65% in 2021 (compared to 2.88% in 2017, 2.94% in 2018 3.35% in 2019 and 3.60% in 2020). Flanders ranks very high for the total R&D intensity of GERD in 2021. Flanders ranks higher than Sweden, Austria, Germany, the USA and the EU-27 average.

INTERNATIONAL COMPARISON OF THE R&D INTENSITY OF GERD FOR 2021

Figure 7



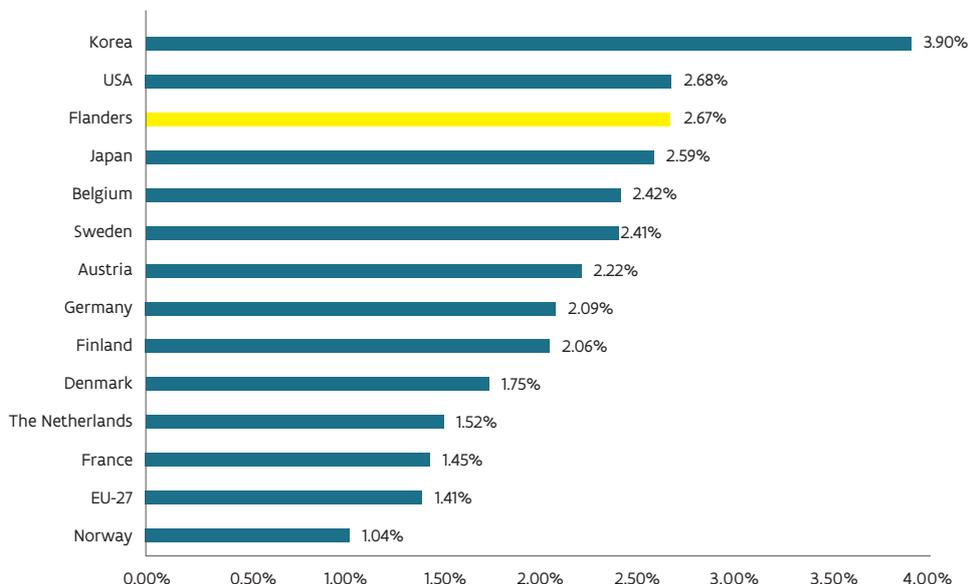
Source: OECD database, Main Science and Technology Indicators. France, Denmark, USA: provisional figure; EU-27, Sweden : estimated value; definition differs

BUSINESS ENTERPRISE EXPENDITURE ON R&D (BERD)

In 2021, the business enterprise sector spent 7.896 million euros on R&D activities in Flanders, measured at current prices. This is the Business Expenditure on R&D (BERD), which corresponds to a R&D intensity (BERD as a % of GDP) of 2.67%. Flanders therefore ranks much higher than the EU-27 average, the Netherlands, Finland, Germany and Austria. Flanders scores a little higher than Sweden and equal to Japan.

INTERNATIONAL COMPARISON OF THE R&D INTENSITY OF BERD FOR 2021

Figure 8



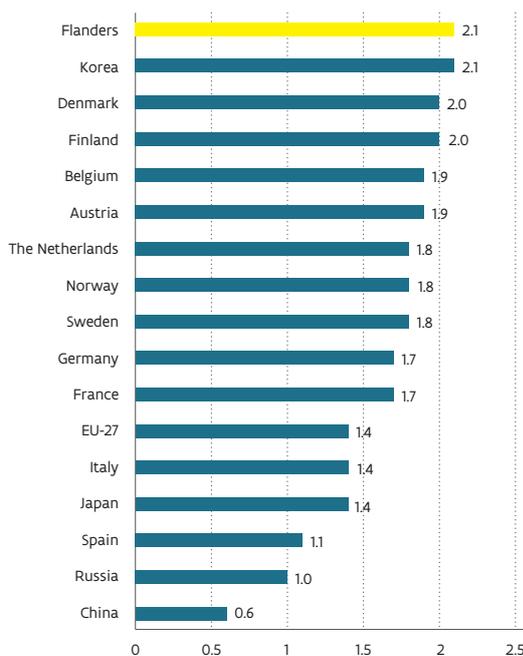
Source: OECD Main science and technology indicators, Denmark provisional, EU27 estimate, USA provisional and definitions may differ

TOTAL R&D PERSONNEL PER THOUSAND LABOUR FORCE

The level of R&D personnel corresponds to 2.1% (2021) labour force. Flanders has a significant lead.

INTERNATIONAL POSITION OF FLANDERS FOR TOTAL R&D PERSONNEL (% OF THE LABOUR FORCE) IN 2021

Figure 9



Source: OECD database. Main Science and Technology Indicators Spain, Italy, EU27, Japan, Austria, Belgium, the Netherlands, France, Germany, Norway, Sweden, Finland and Denmark: estimation Japan, Austria and Spain: other definition Denmark, Norway, the Netherlands and Germany : provisional figure figure for China (2018), Italy (2019) and Belgium (2020)

FLEMISH UNIVERSITIES

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 know rankings.

The Times Higher Education (THE) World University Rankings 2023 is an international “league table” ranking that uses 13 metrics clustered in following 4 areas teaching, research, knowledge transfer and international outlook.

The Academic Ranking of World Universities (ARWU) 2022, the so-called “Shanghai Ranking”, scores more than 1,800 universities yearly and the best 1,000 universities worldwide are published. This ranking uses objective 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

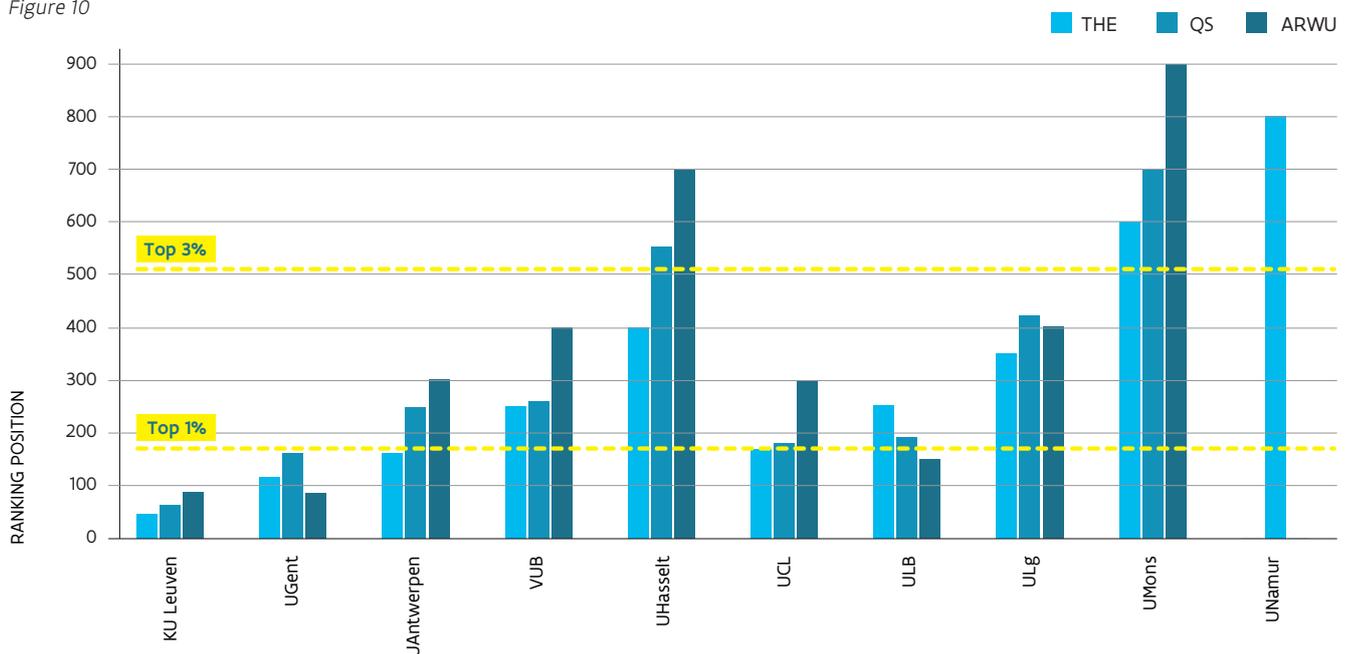
researchers) and prestige (Alumni and staff with awards). Since 2019 all Flemish universities are part of this ranking.

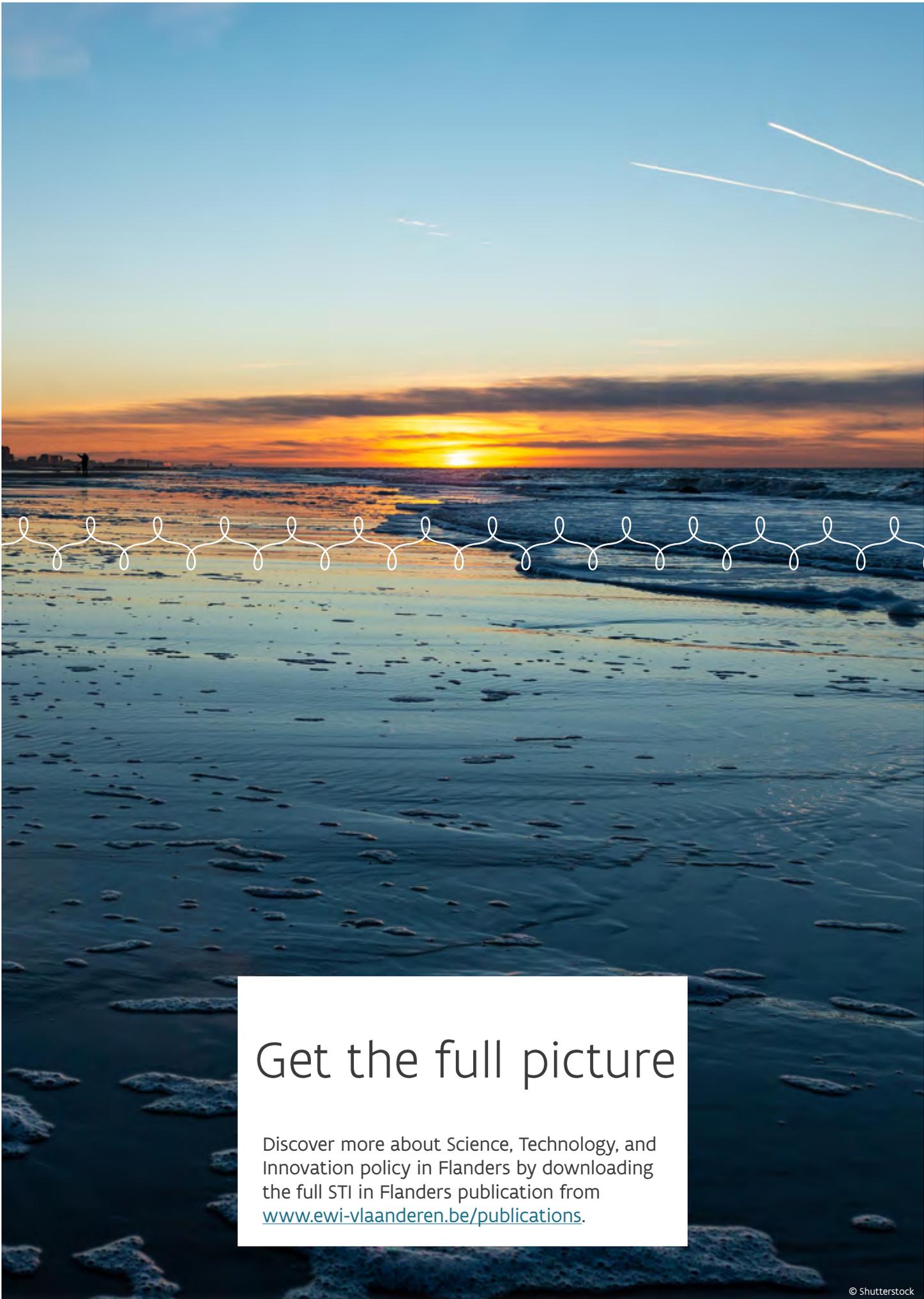
The Quacquarelli Symonds (QS) World University Ranking 2023 scores universities worldwide on the indicators Academic reputation, Employer reputation, Faculty/student ratio, Citations per faculty, International faculty ratio and International student ratio. Next to this three well known rankings, the European Commission asked to develop another type of ranking.

Since 2014 the **online ranking tool U-Multirank** is active. The U-Multirank is different than 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 an online tool www.umultirank.org it is possible to compare universities based on the criteria of your own choice. The different criteria are grouped into 5 dimensions: Teaching & learning, Research, Knowledge Transfer, International Orientation and Regional Engagement. The presence of universities from the Flemish Community in the major worldwide rankings is shown in the figure below.

RANKING POSITION OF THE BELGIAN UNIVERSITIES 2023-2024

Figure 10





Get the full picture

Discover more about Science, Technology, and Innovation policy in Flanders by downloading the full STI in Flanders publication from www.ewi-vlaanderen.be/publications.

MAIN R&D ACTORS

PUBLIC AUTHORITY

Department of Economy, Science and Innovation	www.ewi-vlaanderen.be/en
Flanders Chancellery and Foreign Office	www.fdfa.be/en/home
Research Foundation Flanders (FWO)	www.fwo.be/en/
Flanders Innovation and Entrepreneurship (VLAIO)	www.vlaio.be/en
Flanders Holding Company (PMV)	www.pmv.eu/en
Limburg Reconversion Company (LRM)	www.lrm.be/en
Flanders Investment and Trade (FIT)	www.flandersinvestmentandtrade.com/en

ADVISORY COUNCILS

Flemish Advisory Council for Innovation and Entrepreneurship (VARIO)	www.vario.be/en
Social and Economic Council of Flanders (SERV)	www.serv.be/en/serv

SCIENTIFIC INSTITUTES (from the Flemish Community)

Agency Botanic Garden Meise	www.plantentuinmeise.be/en/
Flanders Research Institute for Agriculture, Fisheries and Food (ILVO)	www.ilvo.vlaanderen.be/en
Research Institute for Nature and Forest (INBO)	www.inbo.be/en
Royal Museum of Fine Arts Antwerp (KMSKA)	www.kmska.be/en
Flanders Heritage Agency (AOE)	www.onroerenderfgoed.be/

OTHER BODIES OF PUBLIC INTEREST IN THE FIELD OF SCIENCE AND INNOVATION

Royal Flemish Academy of Belgium for Arts and Sciences (KVAB) www.kvab.be/en/home-1

Royal Academy of Belgium for Medicine (KAGB) www.academiegeneeskunde.be/

Royal Academy for Dutch Language and Literature (KANTL) www.kantl.be/

Flanders Foundation for Technology Assessment
in Innovation and Work (STV voor Innovatie en Arbeid) www.serv.be/en/stichting

Flemish Academic Centre for Science and the Arts (VLAST) www.kvab.be/nl/vlast

UNIVERSITY ASSOCIATIONS

Antwerp www.auha.be/en

Brussels www.universitaireassociatiebrussel.be/en

Ghent www.augent.be/en

Leuven www.associatie.kuleuven.be/eng

Limburg www.auhl.be

STRATEGIC RESEARCH CENTRES

Interuniversity Micro-electronics Centre (imec) www.imec-int.com/en

Flanders Make www.flandersmake.be/en

Flemish Institute for Biotechnology (VIB) www.vib.be/en

Flemish Institute for Technological Research (VITO) www.vito.be/en

OTHER KNOWLEDGE INSTITUTES

Flanders Marine Institute (VLIZ) www.vliz.be/en

Institute for Tropical Medicine (ITM) www.itg.be/en

Antwerp Zoo Centre for Research and Conservation (CRC) bebol.myspecies.info/content/centre-research-and-conservation-crc

Antwerp Management School www.antwerpmanagementschool.be

Vlerick Business School www.vlerick.com

WaterstofNet www.waterstofnet.eu/en

FEDERAL SCIENTIFIC INSTITUTES

Belgian Institute for Space Aeronomy (BIRA)	www.aeronomie.be/en
National Library of Belgium (KBR)	www.kbr.be/en
Royal Belgian Institute of Natural Sciences (KBIN)	www.naturalsciences.be
Royal Institute for Cultural Heritage (KIK)	www.kikirpa.be/EN/1/61/Home.htm
Royal Meteorological Institute of Belgium (KMI)	www.meteo.be/en/belgium
Royal Museum for Central Africa	www.africamuseum.be/en
Royal Museums of Art and History (KMG)	www.kmkg-mrah.be/art-history-museum-0
Royal Museums of Fine Arts of Belgium (KMSK)	www.fine-arts-museum.be/en
Royal Observatory of Belgium (KSB)	www.astro.oma.be/en
State Archives of Belgium	www.arch.be/index.php?l=en

FEDERAL RESEARCH CENTRES

Sciensano	www.sciensano.be/en
National Institute for Radio-elements (IRE)	www.ire.eu
Nuclear Energy Centre (SCK)	www.sckcen.be/en

INTERNATIONAL INSTITUTES, ORGANISATIONS OR PLATFORMS IN THE STI FIELD, LOCATED IN FLANDERS

JRC - Institute for Reference Materials and Measurements (IRMM)	www.confidence.eu/participants/ec-jrc-irmm
EU Joint Technology Initiatives (IMI, Clean Sky, ECSEL, FCH)	www.rvo.nl/subsidie-en-financieringswijzer/joint-technology-initiatives
European Cooperation in Science and Technology (COST)	www.cost.eu/news/ESA
Business and Innovation Centre (ESA BIC)	www.sbicnoordwijk.nl/esa-bic
United Nations University Institute on Comparative Regional Integration Studies (UNU-CRIS)	www.cris.unu.edu
European Marine Observation and Data Network (EMODnet)	www.emodnet.eu
European Marine Board (EMB)	www.marineboard.eu
Von Karmann Institute (VKI)	www.vki.ac.be

TECHNOLOGY TRANSFER OFFICES (TTO) AT THE UNIVERSITIES AND THE STRATEGIC RESEARCH CENTRES

KU Leuven Research & Development	www.lrd.kuleuven.be/en
UGent TechTransfer	www.ugent.be/techtransfer/en
VUB TechTransfer	www.vubtechtransfer.be
AUHA Interfacedienst	www.uantwerpen.be/nl/onderzoek/informatie-voor-bedrijven
UHasselt Tech Transfer Office	www.uhasselt.be/techtransfer_en
Tech Transfer Offices Flanders	www.ttoflanders.be/en

SCIENCE / TECHNOLOGY PARKS

Tech Lane Ghent Science Park (previously the Ardoyen and Eiland Zwijnaarde parks) (Ghent)	www.techlane.be/about
Zellik (Asse)	www.researchparkzellik.be
Arenberg, Haasrode (Leuven)	www.wetenschapspark-arenberg.be/en
Feed Food Health (Tienen)	www.foodport.be
Thor Park (Genk)	www.thorpark.be
Corda Campus (previously Research Campus Hasselt) (Hasselt)	www.cordacampus.com/en
Ostend Science Park	https://ostendsciencepark.be/

SPEARHEAD CLUSTERS

Catalisti	www.catalisti.be
Flanders' Food	www.flandersfood.com
Flanders Logistics Cluster	www.vil.be
Flux50	www.flux50.com
Blue cluster	www.blauwecluster.be
Medvia	www.medvia.be

STRATEGIC RESEARCH CENTRES

imec	www.imec-int.com/en
VIB	www.vib.be
Vito	www.vito.be
Flanders Make	www.flandersmake.be

**DEPARTMENT OF
ECONOMY
SCIENCE &
INNOVATION**

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