

CHAPTER 2

GOVERNMENT ACTORS





STI policy in Flanders is characterised by a strong integration of scientific research, innovation policy and entrepreneurship.

This chapter introduces the key government actors shaping Science, Technology and Innovation (STI) policy in Flanders. As a key government actor, **the Flemish Government** sets the overarching policy orientation and priorities for the legislative period and steers the main instruments and implementing bodies.

Science, technology and innovation are central pillars of the Flemish socio-economic model. As a highly open and export-oriented region, Flanders considers excellence in research, technological development and innovation as key drivers for long-term prosperity, societal wellbeing and international competitiveness.

This ambition is firmly rooted in the **Flemish Government Coalition Agreement 2024–2029**, which places productivity and competitiveness, the climate and digital transitions, and long term prosperity and social cohesion at the centre of the policy agenda. Within this framework, a **reinforced STI policy** is positioned as a key horizontal lever: it supports industrial modernisation and strategic autonomy and accelerates the diffusion of innovation across the economy (including SMEs), contributing to solutions for major societal and economic transitions.

STI policy in Flanders is characterised by a strong integration of scientific research, innovation policy and entrepreneurship. It combines long-term investments in world-class research with a broad range of instruments that stimulate knowledge valorisation, industrial transformation and the uptake of innovation across the economy.

The Flemish Government balances bottom up, excellence driven research funding with a stronger emphasis on **strategic and challenge driven innovation** that supports productivity growth, industrial transformation and societal impact. Throughout the framework, **international openness and cooperation**—in particular within the European research and innovation landscape—remain guiding principles.

Members of the Flemish Government 2024–2029



Members of the Flemish Government, 2024–2029, pictured left to right:

Front row

- › **Ben Weyts**, Deputy Minister-President of the Government of Flanders, Flemish Minister for Budget and Finance, Vlaamse Rand, Immovable Heritage and Animal Welfare
- › **Hilde Crevits**, Deputy Minister-President of the Government of Flanders, Flemish Minister for Home Affairs, Urban and Rural Policy, Living Together, Integration and Civic Integration, Public Governance, Social Economy and Fisheries
- › **Minister-President Matthias Diependaele**, Minister-President of the Government of Flanders, Flemish Minister for Economy, Innovation and Industry, Foreign Affairs, Digitalisation and Facility Management
- › **Melissa Depraetere**, Deputy Minister-President of the Government of Flanders, Flemish Minister for Housing, Energy and Climate, Tourism and Youth

Back row

- › **Cieltje Van Achter**, Flemish Minister for Brussels and Media
- › **Annick De Ridder**, Flemish Minister for Mobility, Public Works, Ports and Sport
- › **Caroline Gennez**, Flemish Minister for Welfare and Poverty Reduction, Culture and Equal Opportunities
- › **Zuhal Demir**, Flemish Minister for Education, Justice and Work
- › **Jo Brouns**, Flemish Minister for Environment and Agriculture

Flemish Government priorities (2024–2029)

- › Boosting **productivity, competitiveness** and sustainable economic growth
- › Accelerating the **climate and energy transition**, while safeguarding affordability and industrial strength
- › Strengthening **digitalisation** and data-driven transformation across society and the economy
- › Raising **employment** and skills, including activation and lifelong learning
- › Investing in **education** and talent development, with a focus on quality and equal opportunities
- › Ensuring **accessible care** and support for vulnerable groups, and reducing poverty
- › Increasing **affordable housing** and improving spatial planning and permitting capacity
- › Upgrading **mobility**, ports and infrastructure to strengthen connectivity and logistics
- › Strengthening **security**, resilience, integration and effective public governance

Source: Flemish Government Coalition Agreement 2024–2029 (summary of key priorities).

1

Governance and policy architecture of STI in Flanders

Science, Technology and Innovation (STI) policy in Flanders is embedded in an integrated governance framework that brings together scientific research, innovation, entrepreneurship and industrial policy. As a highly open, knowledge-intensive regional economy, Flanders considers STI a key driver for long-term competitiveness, societal wellbeing and international positioning.

At the governmental level, since 2025, the WEWILS policy domain has brought together work, economy, science, innovation, social economy and agriculture within a unified framework. Far more than a mere organisational structure, WEWILS serves as a strategic clustering for the Flemish public administration, enabling the development and implementation of policies that foster synergy across these interconnected sectors. By integrating domains such as scientific excellence, innovation capacity, economic growth, and social development, WEWILS ensures that policy-making is coherent and mutually reinforcing, positioning Flanders to address complex societal challenges and enhance competitiveness in a holistic manner.

Policy governance in Flanders is characterised by a division of roles between policy preparation and policy implementation. A central government department is responsible for policy development and coordination, while a number of specialised agencies translate policy objectives into concrete support instruments and investments.

1.1

Government department responsible for STI policy

Within the Flemish public administration, the Department WEWIS is tasked with the preparation, monitoring, evaluation and reporting of STI policy. Its mandate covers scientific research, innovation, entrepreneurship and industrial development, and it acts as the central policy coordinator within the STI system.

The department's mission in the STI field is to contribute to economic prosperity and societal wellbeing in Flanders by promoting:

- › excellence in scientific research;
- › a competitive, innovative and sustainable business environment;
- › creativity, entrepreneurship and knowledge valorisation.

In practice, **the Department WEWIS** performs a number of core functions:

- › It prepares legislative initiatives and policy documents in the field of science, research and innovation, and ensures coherence across the different STI policy instruments;
- › It stimulates close cooperation between research organisations, higher education institutions and companies;
- › It prepares multiannual management agreements with key actors in the Flemish STI landscape, including the four strategic research centres (imec, VIB, VITO and Flanders Make) and research funding bodies, such as Research Foundation Flanders (FWO), the Flanders Marine Institute (VLIZ)... ;
- › It evaluates policy instruments and organisations that receive governmental and public support;
- › It coordinates all R&D&I topics, including the programme committees under the EU Framework Programme for R&I;
- › It actively participates in meetings of the EU -mainly Council, preparative bodies, ERAC, ERA forum, high level group COMPCRO and bodies implementing the policies;
- › It actively participates in meetings of the OECD - mainly Committee for Scientific and Technological Policy (CSTP) and global steel forum and in meetings concerning execution committees;
- › It has representatives in the Flemish Representation/ Delegation to the EU (within Belgium's Permanent Representation to the EU), who participate in Council of the EU working parties;
- › It monitors the execution of policy measures and reports on policy developments in the STI domain towards the Flemish, federal and international (mainly EU and OECD) policy level;
- › It actively supports the further development of the European Research Area by taking part in many ERA Actions and coordinating stakeholder input;
- › It coordinates the information flow from the European level towards Flemish stakeholders (and vice versa) through its stakeholder management platform for European R&I policy;
- › It holds responsibility for the direct implementation of several policy (support) instruments, specific on-off initiatives, participation fees or representational positions.

1.2

Policy advice and strategic reflection

Independent policy advice forms an integral part of the STI governance model in Flanders. The Flemish Government and Parliament are advised by the **Flemish Advisory Council for Innovation and Entrepreneurship (VARIO)**, which provides recommendations on science, technology, innovation, industry and entrepreneurship policy.

VARIO operates independently from government and stakeholders, and consists of experts from academia and the business community who act in a personal capacity. The council issues advice both on its own initiative and at the request of policymakers, and publishes reports on a wide range of STI-related topics.

Complementary socio-economic advice is provided by the Social and Economic Council of Flanders (SERV), in which employer organisations and trade unions are represented. Through these advisory structures, STI policy in Flanders is supported by evidence-based analysis, strategic reflection and broad societal input.

1.3

Implementing agencies

The implementation of STI policy in Flanders is delivered through a number of specialised public agencies within the Policy Area Work, Economy, Science, Innovation, Agriculture and Social Economy (WEWILS) of the Flemish Government.

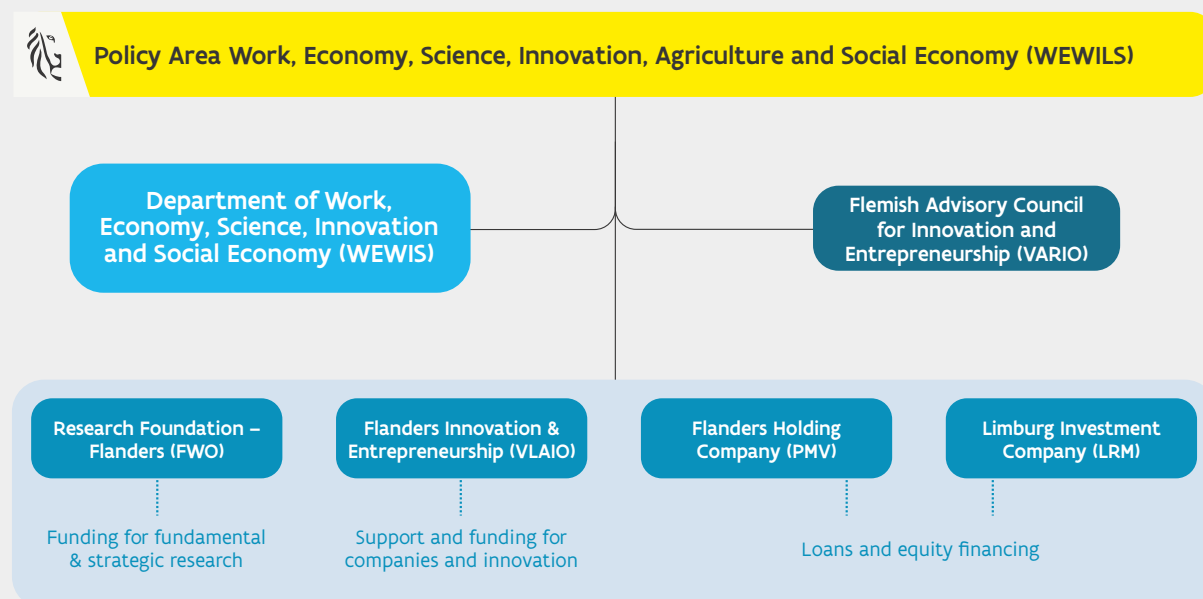
Together, these agencies operate a broad and differentiated policy toolbox covering research funding, innovation support and financial instruments for enterprises and strategic projects.

While these organisations jointly deliver the STI policy toolbox, they do so by serving **different primary target groups** (or 'clients') and operating distinct types of instruments.

- › **Department WEWIS:** policy preparation and thematic STI policy development; grants and programmes primarily targeting research and knowledge institutions (and system-level actors).
- › **FWO:** competitive grants primarily targeting individual researchers and research teams (excellence-based).
- › **VLAIO:** innovation and entrepreneurship support primarily targeting companies—individually, collaboratively, or in partnership with knowledge institutions.
- › **PMV / LRM:** public financing and investment instruments for enterprises and strategic projects; LRM has a distinct regional focus (Province of Limburg).

Policy Area Work, Economy, Science, Innovation, Agriculture and social Economy (WEWILS)

Figure 7



Source : Department WEWIS

Research Foundation Flanders (FWO)

The Research Foundation Flanders (FWO) is the funding agency that supports ground-breaking fundamental research, strategic research and clinical scientific research in Flanders. The FWO also stimulates cooperation between the research institutes and promotes equal opportunity. Its main mission is to deepen knowledge about people and their environment. The FWO funds both excellent and promising researchers, as well as research projects, following an interinstitutional competition and an evaluation by national and international experts. The only criterion is the outstanding quality of the researcher and the research proposal. Researchers can apply for support from the FWO through a broad range of funding instruments.

A system of peer review by the international scientific community is used to assess all applications and scientific activity reports. To this end, the FWO has organized several scientific committees, including top researchers from Belgium and abroad. The FWO's scientific committees, called "FWO Experts Panels", are crucial to ensuring the excellence of FWO-funded activities. There are Expert Panels that are specialised committees for a specific scientific research discipline and there are interdisciplinary committees, which cover all the scientific research disciplines of Flemish concern. Each committee consists of several experts, the majority always being affiliated to a non-Flemish university.

The main instruments of the FWO are support to fellowships (PhD students, postdoctoral researchers, etc.) and to research (via grants and projects). Furthermore, extensive means are available for medium-scale and large-scale research infrastructure, the management of large computing capacity in Flanders, promoting international cooperation and mobility, including participation in multilateral initiatives or in international research facilities, such as CERN. Finally, the FWO also awards scientific prizes to distinguished researchers, often in collaboration with private companies.

Almost all instruments of the FWO are bottom-up oriented so candidates can freely apply with their own curiosity-driven research. Only a small fraction of the FWO instruments and budget has a mission-driven character. The Research Foundation Flanders (FWO) is the primary funding agency for fundamental, strategic and clinical scientific research in Flanders. Its mission is to stimulate high-quality, curiosity-driven research and to deepen knowledge about people and their environment.

www.fwo.be

Flanders Innovation & Entrepreneurship (VLAIO)

Flanders Innovation & Entrepreneurship (VLAIO) is the government agency responsible for the implementation of innovation and enterprise policy in Flanders. It acts as a one-stop shop for companies seeking support for start-up, growth, innovation and internationalisation.

It helps companies with the start-up of their activities, the growth and continuity of their business, but also with the search for the right location, information on permits, financing, investments in innovation and ecological technologies, and other topics. VLAIO also hosts the Enterprise Europe Network (EEN) Flanders, and acts as the managing authority for the EU ERDF calls and support in the Flemish Region. In short, VLAIO manages all economic and innovation support for companies located or active within the Flemish Region.

In the field of innovation support, VLAIO assists companies, research centres and knowledge centres in realising their research and development projects, by offering funding, advice and a network of potential partners in Flanders and abroad. To achieve this, it has different types of instruments at its disposal:

- › Direct funding: supporting the innovative projects of companies, research centres, collective research initiatives, organisations and individuals through assignments set by the Flemish Government;
- › Advice and services: offering support to all Flemish SMEs and large companies and research centres by helping them with their applications or by providing technological advice during their innovative projects;
- › Co-ordination and networking: stimulating cooperation by bringing innovative companies and research centres into contact with Flemish intermediate organisations that stimulate innovation; to this end, VLAIO manages a broad network of partner organisations and works closely with 'Team Bedrijfstrajecten';
- › Policy development: supporting the Flemish Government in its innovation policy; e.g. by studying the effectiveness of the innovation initiatives and different support programmes.

VLAIO supports all types of innovators in Flanders:

- › Companies that are actively innovating, from small start-ups to multinationals with a branch in Flanders; specific attention is paid to SMEs, although partnerships between companies and knowledge centres are also eligible for innovation support. VLAIO supports a number of spearhead clusters ([see chapter 4](#));



- › Individual researchers and research centres can apply to VLAIO for the appropriate support and can also receive funding, advice and contacts with potential partners for innovative scientific research, applied research and technology transfer;
- › Organisations of various types (e.g. collective research centres) that stimulate innovation in Flanders can receive financial support.

The agency applies a bottom-up approach: subsidies and advice are typically awarded to initiatives proposed by the actors themselves and any project including a technological innovation component is eligible for funding. VLAIO continues to adapt its policy instruments to broaden and deepen the innovation trajectory, as well as adapting this trajectory to specific needs.

The support schemes are aimed at businesses (from SME's to large companies), research organisations, service-providing organisations, non-profit organisations, and individual persons.

The main support instruments for innovation and R&D are:

- › R&D business projects
- › R&D feasibility studies
- › Innovative start-ups support
- › Interdisciplinary cooperative research projects (ICON)
- › Baekeland mandates
- › Innovation mandates
- › COOCK (Projecten 'Collectief Onderzoek & Ontwikkeling en Collectieve Kennisverspreiding/-transfer')
- › Support for cooperation and the dissemination of knowledge (TETRA, Agricultural Innovation Projects)
- › Co-financing of international projects (ERA-Net, JTI, Eurostars, EUREKA)
- › Spearhead clusters and cluster projects
- › Living labs
- › Innovative Public Procurement Programme (PIO)

www.vlaio.be

Participation Company Flanders (PMV)

Participation Company Flanders (PMV) is a public investment company that provides financial instruments to support innovative enterprises and strategic projects in Flanders. PMV is the partner of ambitious companies and projects, focusing on social impact and financial return. PMV finances promising companies from the very start, through to growth and internationalisation. PMV offers tailor-made financial solutions to all entrepreneurs with a good business plan and a strong management team. It does so with capital, loans and guarantees. PMV also provides financing and expertise for the transition to sustainable energy, the reallocation of cultural-historical heritage, the investment in infrastructure and the efficient (re) use of space in Flanders. PMV is also functioning as the National Promotional Bank (NPB) for Flanders in the framework of the InvestEU programme.

PMV focuses on long-term value creation and combines financial returns with societal impact. It finances companies from early-stage development through growth and international expansion, and plays a specific role in areas such as life sciences, sustainable energy, infrastructure and technology valorisation. In addition, PMV manages specific government-backed investment funds aimed at strengthening the Flemish innovation ecosystem.

PMV offers financial solutions through capital, loans or guarantees, or combination thereof. PMV provides venture capital – always in co-financing with the market – both at an early stage and to more mature companies. This may range from limited tickets – often in as convertible subordinated loans – to large capital tickets. PMV is different from many other capital providers. It has no pre-determined exit date and can therefore spend years working with companies to build their future. Moreover, it is an active but patient investor. PMV will try to meet the company's financing needs in the best possible way, taking into account both the company's needs and those of other stakeholders.

PMV raises capital for companies in various sectors, but has developed particular expertise in the Life Sciences & Care industry. For the latter, PMV focusses on pioneering innovations that offer scalable solutions with a strong ambition to strengthen the local ecosystem.

PMV also provide the Flemish Government with fiduciary management of some of its assets. One recent example is the Flanders Future Tech Fund (FFTF). This fund, set up in 2019 with an initial 75 million euro injection by the Flemish Government, is an early-stage financing fund that wants to meet the financing needs of early technology initiatives of research centres, universities and Flemish spearhead clusters, as well as private parties. Through its investments, the Flanders Future Techfund wants to focus on the valorization of technology developed by Flemish companies, with particular attention to the spearhead domains of Care & Welfare, Digital Transformation and Climate & Sustainability.

www.pmv.eu

Limburg Reconversion Company (LRM)

The Limburg Reconversion Company (LRM) is a regional investment company focused on economic development and industrial transition in the Flemish province of Limburg.

LRM targets all sectors and companies, from starting companies to growing SMEs and larger businesses. LRM provides lending and venture capital to companies who are related to Limburg and is a catalyst for the transition of the Limburg manufacturing economy towards an innovative and technological economy. LRM is developing qualitative clusters within the spearhead sectors in Limburg. In addition, LRM develops infrastructure, such as campuses and incubators, and gives former mining sites a make-over. LRM focuses on the following four investment domains:

- › Sustainable Societies;
- › Health & Care;
- › Smart Services & Manufacturing;
- › Leisure & Heritage Experience

www.lrm.be

2

Strategic orientation of STI policy in Flanders

The strategic orientation of Science, Technology and Innovation (STI) policy in Flanders is defined by a strong focus on **productivity growth, competitiveness and long-term resilience**. In a global context characterised by rapid technological change, climate transition and growing geopolitical uncertainty, STI policy is increasingly positioned as a **core pillar of economic and industrial strategy**, rather than as a stand-alone research policy.

This orientation is articulated and underpinned by several key policy documents, including:

- › the **Flemish Government Coalition Agreement 2024–2029** in which the various political parties that are part of the governing coalition outline their priorities for the five-yearly parliamentary term;
- › the **Policy Note on Economy, Science, Innovation and Industry 2024–2029** of the Flemish Minister for Economy, Innovation and Industry, Foreign Affairs, Digitalisation and Facility Management;
- › **several multi-annual strategic plans and targets** that are agreed with a broad-ranging group of stakeholders from government, civil society and industry. These plans set out targets across a range of policy fields, amongst which STI is assigned a clear priority. The major plans include **The Flemish Resilience (2020)** and the **Productivity and Competitiveness Agenda (2025)**.

Together, these documents outline a coherent policy framework that combines excellence in research with a stronger emphasis on valorisation, diffusion and strategic impact.

The Flemish Government has set a bold objective in this legislative period (2024–2029): to position Flanders among the top five most innovative knowledge regions in Europe as measured by the Regional Innovation Scoreboard. To make this ambition a reality, **we are increasing our combined investments in research and development to 5% of GDP, while continuing to strengthen public investment up to 1%.**

To provide clearer strategic steering, the Flemish Government presents its agenda through a small set of **Overarching Strategic Objectives (OSDs)** that are intended to be actionable

and monitorable across policy instruments. This framing helps position subsequent **thematic priorities** and **flagship initiatives** as concrete delivery vehicles, while supporting alignment with complementary domains such as skills, energy and digitalisation.

Overarching Strategic Objectives (OSDs)

Policy Note on Economy, Science, Innovation and Industry (2024–2029)

- › **OSD 1** – Sustainably strengthen the **productivity and competitiveness** of the Flemish economy and industry.
- › **OSD 2** – Support **strategic sectors** and increase **strategic autonomy**.
- › **OSD 3** – Create an **entrepreneur- and SME-friendly** government and business environment.
- › **OSD 4** – Increase investment in **R&D&I** while strengthening **economic valorisation**.

Source: Policy Note on Economy, Science, Innovation and Industry 2024–2029.



2.1

STI policy within a productivity and competitiveness framework

Flanders ranks among Europe's leading innovation regions, with high levels of public and private investment in research and development and strong performance in international benchmarking exercises. At the same time, recent analyses highlight that **high R&D intensity alone does not automatically translate into sustained productivity growth**.

As a result, STI policy in Flanders is explicitly embedded in a broader **productivity and competitiveness agenda**. Innovation is regarded as a key engine of productivity growth, but one that must interact with complementary factors such as skills development, entrepreneurship, digitalisation, infrastructure, efficient regulation and access to markets.

This systemic insight is central to the Flemish productivity agenda, which adopts a **cross-policy and whole-of-government**

approach. STI policy is therefore closely aligned with policies on education and talent, labour markets, industrial transformation, energy and climate, and international economic positioning. Within this framework, STI policy acts as a lever for structural transformation and value creation across the entire economy.

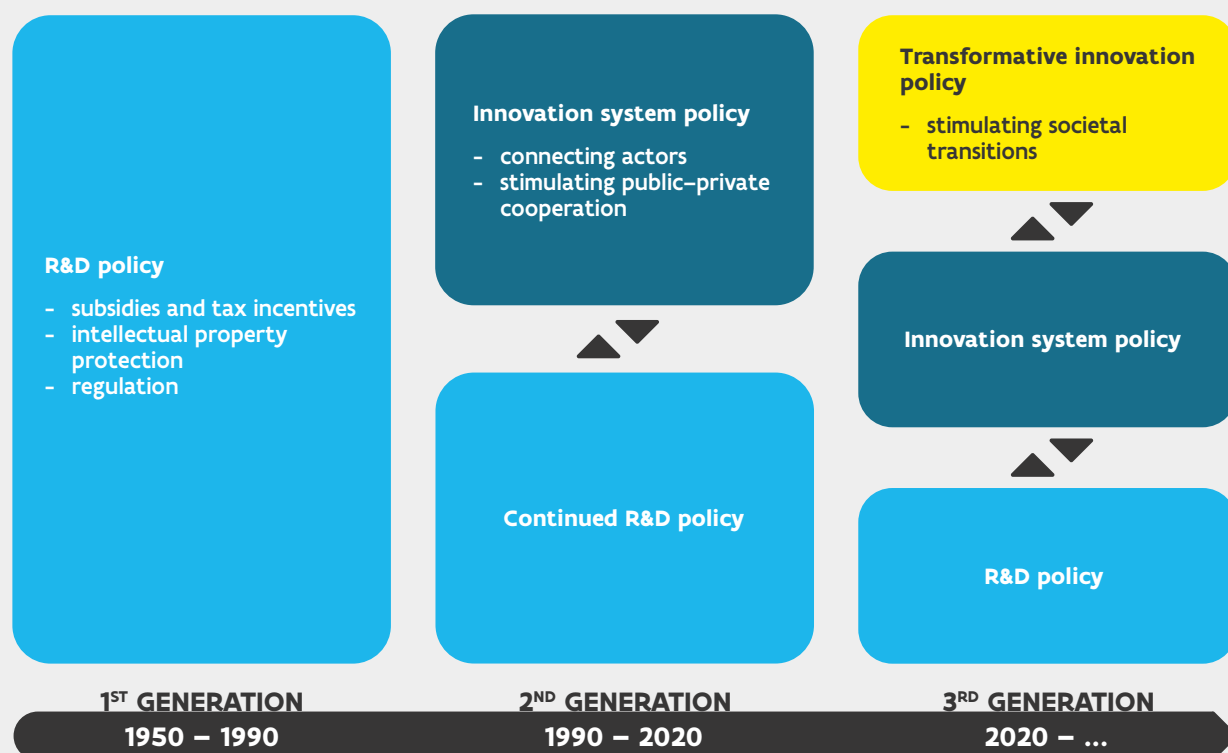
2.2

A systemic and transformative STI policy approach

Recent Flemish policy documents and analyses point to a clear evolution towards a system-oriented and transformative STI policy model. This approach recognises that today's major societal and economic challenges – such as climate neutrality, digital transition, demographic change and strategic autonomy – require innovation that goes beyond incremental technological improvements.

Three generations of innovation policy

Figure 8



Source: Rathenau Instituut. Gebaseerd op Schott & Steinmeuller, 2018)

Consequently, Flemish STI policy increasingly:

- › emphasises the interaction between different stages of the innovation chain, from fundamental research to applied innovation and market diffusion;
- › promotes cooperation between universities, research centres, companies, governments and civil society, in line with a quadruple helix model;
- › complements bottom-up, excellence-driven research funding with more mission-oriented and challenge-driven initiatives.

This transformation does not imply a departure from established strengths. On the contrary, **scientific excellence and academic freedom remain core principles** of the Flemish STI system. The policy ambition is to better align this strong knowledge base with societal needs and economic opportunities, while preserving openness and international orientation.

2.3

Thematic priorities, flagship initiatives and strategic collaborations

The thematic priorities of Flemish STI policy are translated into a number of **flagship initiatives, structured programmes and strategic collaborations** in which the Flemish Government invests during the current legislative period. These initiatives operationalise the policy ambition to combine scientific excellence with productivity growth, industrial transformation and societal impact.

These thematic priorities and their associated flagship initiatives can be read as the concrete operationalisation of the four **Overarching Strategic Objectives (OSDs)** set out in the 2024–2029 Policy Note. In particular,

- › they translate the ambition to strengthen productivity and competitiveness (**OSD 1**) into targeted technology and ecosystem investments;
- › they reinforce strategic sectors and reduce critical dependencies through strategic programmes and European partnerships (**OSD 2**);
- › they support an entrepreneur- and SME-friendly innovation environment by combining funding, advice and diffusion instruments (**OSD 3**);
- › and they connect increased R&D&I investment with stronger valorisation pathways and scale-up finance (**OSD 4**).

The remainder of this section presents the main thematic priorities and illustrates, for each, the key flagship initiatives and strategic collaborations through which the Flemish Government is steering STI policy in practice.

2.3.1

Digital technologies and data-driven innovation

Digitalisation is a cornerstone of Flemish STI policy and a key driver of productivity growth across the economy. Public investment focuses on both **frontier research** and **large-scale uptake of digital technologies** by enterprises and public actors.

A cornerstone actor is **imec**, the Flemish strategic research centre for **nanoelectronics and digital technologies**. Imec combines frontier research with large-scale R&D infrastructure (including pilot lines and test environments) and plays a system role in **technology transfer and ecosystem building**, connecting universities, start-ups, SMEs and global technology firms. Through this position, imec helps anchor Flanders in European initiatives on semiconductors, high-performance computing and trusted AI, and accelerates the translation of research results into industrial applications.

A central initiative in this domain is the **Artificial Intelligence Policy Programme**, which combines:

- › a **Flanders AI Research Program** bringing together all five Flemish universities, all strategic research centres as well as Sirris and ILVO with imec acting as overall coordinating organisation,
- › **business-oriented** AI adoption via innovation support schemes,
- › and a **governance and societal embedding component**, supported by actors including the Flemish AI Institute (VAIA) and the Knowledge Centre Data & Society (Kenniscentrum Data & Maatschappij).

In addition, Flanders invests in **European digital infrastructures and partnerships**, including participation in the **EuroHPC Joint Undertaking** (high-performance computing) and the **Chips Joint Undertaking**, with **imec** acting as a key Flemish anchor organisation in the European semiconductor R&D ecosystem. The further roll-out of a Belgian **AI Factory Antenna** (coordinated by imec), the establishment of an AI-centered **European Digital Innovation Hub** (coordinated by Sirris), the participation of imec and ILVO in the Testing & Experimentation Facilities (**TEFs**) on **edge computing resp. agriculture** as the local implementation of various European AI policy initiatives strengthens access to cutting-edge AI infrastructure and expertise for Flemish researchers and companies.

Cybersecurity is addressed through a dedicated **Cybersecurity Policy Plan**, combining research, innovation support for enterprises and skills development, and linked to both economic and security policy objectives.



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2.3.2

Climate transition, energy and sustainability

STI policy is a key lever in the Flemish approach to the **industrial climate transition**, combining innovation, infrastructure and competitiveness considerations.

A central system actor in this domain is **VITO** (the Flemish strategic research centre for cleantech and sustainable development), which combines applied research, pilot infrastructure and ecosystem collaboration to accelerate industrial decarbonisation and circular solutions.

A flagship programme in this domain is **Moonshot CO₂**, a long-term research and innovation programme focused on breakthrough technologies for industrial decarbonisation, CO₂ capture, utilisation and circular carbon pathways. Moonshot is explicitly connected to industrial ecosystems and is being reinforced with stronger attention to valorisation and industrial uptake.

In parallel, the **Flemish Climate Leap for Industry (Klimaatsprong)** functions as a coordinating framework for the industrial transition to climate neutrality. Under the current legislature, this programme is being further developed with:

- › updated transition roadmaps (including international competitiveness considerations);
- › pilot instruments such as **Contracts for Difference** to support early movers;
- › and close alignment with energy, infrastructure and innovation policy.

Hydrogen is addressed through the **Flemish Hydrogen Vision and Strategy**, currently being updated. A major investment with strong European leverage is the **FLHYports Hydrogen Valley**, which connects the ports of Antwerp-Bruges, North Sea Port and Ostend into an integrated hydrogen ecosystem covering production, transport, storage and industrial use. The hydrogen ecosystem is further structured through the **Waterstof Industrie Cluster**, coordinated by **WaterstofNet**.

2.3.3

Health, life sciences and biotechnology

Health, life sciences and biotechnology constitute a long-standing strategic domain within Flemish STI policy, combining scientific excellence with strong economic value creation.

Public investment supports a dense ecosystem of universities, hospitals, research institutes and companies, with **VIB (Flanders Institute for Biotechnology)** as a cornerstone actor. The policy framework emphasises:

- › translation of fundamental research into medical, pharmaceutical and biotech applications;
- › support for spin-offs and scale-ups in health-related value chains;
- › and international collaboration and participation in EU research programmes.

This thematic priority also ties into broader societal goals, including sustainable healthcare systems, preventive medicine and bio-based solutions for agriculture and food.

2.3.4

Industrial transformation and advanced manufacturing

Strengthening productivity, competitiveness and resilience of the Flemish industrial base is a core orientation of STI policy.

A key role is played by **Flanders Make**, the strategic research centre for manufacturing, which supports long-term, pre-competitive research on advanced materials, production technologies and digital manufacturing systems, in close collaboration with industry.

This domain is strongly connected to the **Productivity and Competitiveness Agenda**, under which the Flemish Government invests in:

- › innovation-driven industrial modernisation;
- › diffusion of advanced manufacturing technologies to SMEs;
- › and alignment between STI policy and broader industrial, skills and investment policies.

Cluster policy further reinforces this orientation. The **spearhead clusters** (such as Catalisti, Flux50, Flanders' FOOD, Biovia, ENT.A, the Blue Cluster and the Logistics cluster) are being reformed in the current legislature to become more mission-oriented, internationally connected and productivity-focused. See further more in Chapter 4.

2.3.5

Security, defence and space-related technologies

In response to the evolving geopolitical context, Flemish STI policy places increasing emphasis on **security, defence and space-related innovation**, always within a European and international cooperation framework.

A major new policy initiative is the **Flemish Innovation and Industry Strategy for Security and Defence (VISD)**, which aims to strengthen Flemish participation in European and NATO innovation ecosystems. Flanders actively contributes to and co-finance participation in **NATO DIANA** and the **NATO Innovation Fund**, and supports defence-related innovation via VLAIO and PMV, including through adapted ethical and strategic governance mechanisms.

In the space domain, the **Space Economy Impulse Programme** supports R&D, entrepreneurship and talent development in space-related applications. Flanders also actively seeks to increase its return within **European Space Agency (ESA)** programmes and to strengthen links between space technologies, digitalisation and defence.

2.3.6

Large-scale research infrastructure and international programmes

Across all thematic priorities, Flanders invests in **research infrastructure as a strategic asset**. A flagship example is the **Einstein Telescope** candidature in the Euregio Meuse–Rhine, supported by significant Flemish investment. Beyond its scientific importance, this project is explicitly framed as a driver of innovation, valorisation and industrial participation (See Chapter 6 for more details about the Einstein Telescope).

Furthermore, Flemish STI policy strongly leverages **European framework programmes**, with high participation in **Horizon Europe** and related initiatives (See chapter 6). Strategic research centres (imec, VIB, VITO, Flanders Make) and organisations such as VLIZ play a key role in international research infrastructures and global knowledge networks (See chapter 3).

Major policy initiatives in the field of STI in Flanders – Explanatory Boxes

Table 3

	1 Flemish Acceleration – Productivity and Competitiveness Agenda	2 Nano Integrated Circuits (NanoIC Pilot Line)	3 Contracts for Difference (CfD)
Who?	The Flemish Government, coordinated by the Minister-President of Flanders, involving all policy domains related to economy, science, innovation, industry and labour.	Hosted by imec, supported by the Flemish Government, the European Commission and international industry partners under the EU Chips Act.	Flemish Government, implemented by VLAIO, with scientific support from VITO.
What?	The Flemish Acceleration is a government-wide agenda aimed at structurally strengthening productivity and competitiveness in the Flemish economy. It brings together concrete actions focusing on a business friendly environment, robust infrastructure and investment in human capital, explicitly positioning R&D, innovation and strategic research infrastructures as key levers.	NanoIC is a European pilot manufacturing line for sub 2 nanometre semiconductor technologies. It enables companies and research organisations to develop, test and validate next generation chip technologies before large scale industrial production, bridging the gap between research and market deployment.	Contracts for Difference are market based support instruments that stimulate industrial investment in low carbon technologies through long term contracts. Public support partially offsets price and market risks, accelerating deployment of climate neutral industrial solutions.
Why?	It provides the overarching economic and innovation framework guiding major investment choices and reforms to safeguard long-term prosperity and welfare in Flanders.	NanoIC anchors Flanders as a core region in Europe's strategic semiconductor ecosystem and strengthens Europe's technological sovereignty.	They speed up industrial decarbonisation while maximising leverage and limiting distortive subsidy effects.
Duration	2024–2029 (current legislative period)	Starting in 2024; long-term research and innovation infrastructure	Pilot contracts with a duration of up to 10 years
Key actors	Flemish Government, Department WEWIS, VLAIO, VESOC (Flemish Economic and Social Consultative Committee), VARIO, ECOOM, Voka, Unizo	imec, Flemish Government, European Commission, industry partners (including ASML), universities and research institutes	VLAIO, VITO, Flemish Government, participating industrial companies
Investment (€)	No single dedicated budget; the Flemish Acceleration acts as an overarching policy framework that aligns and pools existing and new investments within the Flemish budget for the 2024–2029 period. Its concrete implementation is translated through, among others, the Flemish Industry Plan, R&D funding instruments, and strategic infrastructure projects (amounting to several billions of euros, but spread across different policy lines).	Approximately €2.5 billion (combined public–private investment from Flanders, the EU and industry). The Flemish contribution amounts to €750 million .	€70 million for the first Flemish pilot call, spread over a 10 year period. In addition, a political commitment has been made to make €2 billion available, spread over 10 years (e.g. €200 million per year from 2029 for 10 years).
Broader theme	Productivity, competitiveness, economy and innovation policy	Key enabling technologies, micro electronics, digital sovereignty	Climate transition, industrial innovation, energy policy

4 Flemish Defence Plan & VISD (Flemish Innovation and Industrial Strategy for Security and Defence)

Flemish Government, coordinated via the Department WEWIS, in close collaboration with industry and knowledge institutions.

The Flemish Defence Plan aims to strengthen security, resilience and economic opportunities. VISD (Flemish Innovation and Industrial Strategy for Security and Defence) translates this ambition into concrete innovation and industrialisation instruments targeting defence and dual use technologies, with a strong focus on collaboration, scaling up and integration into European value chains.

It enhances strategic autonomy while creating new industrial and innovation driven growth trajectories.

2025–2029

Flemish Government, Department WEWIS, VLAIO, defence and technology companies, research organisations, European partners

- › Flemish Defence Fund: up to **€1 billion** in strategic capital
- › VISD innovation budget: annual growth path up to ± **€50 million per year by 2029**

Security, defence, innovation, strategic autonomy

5 Einstein Telescope

International consortium involving Belgium, the Netherlands and Germany, with strong Flemish coordination.

The Einstein Telescope is a future underground research infrastructure designed to detect gravitational waves with unprecedented sensitivity. Beyond fundamental science, it drives technological spill overs in areas such as photonics, precision engineering and data analytics.

It represents a potential scientific and economic game changer, comparable to CERN in earlier decades.

Preparatory phase until around 2027; construction and operation from the mid 2030s onwards

Flemish Government, FWO, universities, international partners (NL, DE), European research organisations

A political commitment has been expressed for **€500 million from Flanders**; estimated total project cost of ± **€1.7 billion at international level**.

Large scale research infrastructures, fundamental science, advanced technologies

6 EuroHPC

European High Performance Computing Joint Undertaking (EuroHPC JU), with participation of EU Member States, including Belgium and Flanders.

EuroHPC is a European public private initiative developing world class supercomputing, AI and quantum computing infrastructure. Flanders participates via Belgian contributions and the EuroCC Belgium competence centre, facilitating access for researchers and industry.

It is essential for Europe's digital and technological sovereignty and underpins innovation in AI, climate modelling, health and advanced industry.

Multiannual EU programme (current phase 2021–2027)

European Commission, Member States, Flemish Government, EuroCC Belgium, research organisations and companies

Approximately **€7 billion at EU level** (joint EU and national funding). In addition, an investment decision of the **Flemish Government** of over **€20 million** was taken in 2025.

Digital infrastructure, AI, data intensive research

2.4

Balancing excellence, valorisation and diffusion

A defining feature of the Flemish STI policy orientation is the continued commitment to **excellence in fundamental and strategic research**. High-quality research is recognised as the indispensable foundation for future innovation and long-term societal progress.

At the same time, stronger emphasis is placed on **knowledge valorisation and diffusion**. Policy initiatives seek to:

- › improve the translation of research results into economic and societal applications;
- › reduce bottlenecks between research, innovation and market deployment;
- › ensure that innovation benefits reach a broad range of actors, including small and medium-sized enterprises and innovation-followers.

This balance between excellence and impact is reflected in support for strategic research centres, collaborative research with industry, innovation ecosystems and knowledge transfer mechanisms, while maintaining open competition and international peer review standards.

2.5

International openness and strategic autonomy

Flemish STI policy remains firmly embedded in an **open and international research and innovation system**. Participation in European and international programmes, networks and partnerships is a cornerstone of the policy, enabling critical mass, international visibility and access to global knowledge flows.

At the same time, recent policy documents highlight a growing focus on **strategic autonomy and resilience**. Without moving towards protectionism, Flanders seeks to reduce excessive dependencies in key technologies, value chains and infrastructures, and to strengthen its role within European strategic initiatives.

In this context, STI policy serves a dual purpose: anchoring Flanders in global knowledge networks, while contributing to a more resilient and competitive European innovation and industrial ecosystem.

2.6

Enabling and cross cutting drivers of STI policy

Beyond thematic priorities, Flemish STI policy is shaped by a number of **cross cutting enabling drivers** that attract substantial public investment and determine system performance.

The **Productivity and Competitiveness Agenda** acts as an overarching steering framework that aligns STI investments with industrial, digital, energy, infrastructure and talent policies. STI initiatives are increasingly assessed on their contribution to productivity, diffusion and economic impact, supported by the systemic analysis of the R&D&I system.

Strategic research and innovation infrastructure constitutes a major investment area. Projects such as the **Einstein Telescope candidature** and investments in **European digital and AI infrastructure** are framed as long term assets for excellence, valorisation and industrial participation.

Human capital development – through STEM education, digital skills and lifelong learning – is treated as a core enabling condition for STI impact. Initiatives to strengthen innovation culture and societal engagement complement formal education and training.

Strategic infrastructure, notably **ports and logistics hubs**, is increasingly positioned as an innovation platform for energy transition, industrial decarbonisation and smart logistics, attracting significant public and private investment.

Finally, growing attention is paid to **knowledge security and economic resilience**, addressing risks related to sensitive technologies, dual use research and foreign investment, while maintaining openness and international collaboration. European initiatives and funding mechanisms are actively leveraged to reinforce this approach.



2.7

Smart specialisation and innovation ecosystems

Smart specialisation constitutes a core organising principle of Flemish STI policy. In line with the European Smart Specialisation Strategy (S3) framework, Flanders focuses its public investments in research and innovation on domains where **scientific excellence, industrial strength and societal challenges converge**, while maintaining openness and flexibility for emerging opportunities.

Rather than a narrow sectoral selection, smart specialisation in Flanders is conceived as an **ecosystem oriented approach**. It builds on existing competencies, dense innovation networks and strong interactions between research organisations, companies and public authorities. This approach is explicitly embedded in broader economic and industrial policy objectives, notably productivity growth, competitiveness and strategic autonomy.

From sectoral focus to ecosystem logic

Over successive policy periods, Flemish smart specialisation has evolved from a largely sector based orientation towards a **cross cutting, mission aware ecosystem approach**. This evolution reflects the recognition that innovation increasingly takes place at the intersection of technologies, sectors and value chains.

Strategic domains such as digital technologies, advanced manufacturing, health and life sciences, climate transition, circular economy and bio economy are therefore not treated as isolated silos. Instead, policy focuses on enabling collaboration across domains, for example between digital technologies and manufacturing, or between biotechnology, health and sustainable food systems.

This ecosystem logic is reinforced through instruments that stimulate cooperation, pre competitive research and collective knowledge creation, while also supporting valorisation and diffusion towards a broad range of enterprises, including SMEs.

Spearhead clusters as smart specialisation vehicles

A key operational pillar of smart specialisation in Flanders is the policy on **spearhead clusters**. These clusters bring together companies, research organisations and other stakeholders around shared innovation agendas in strategically important domains.

Under the current legislative period, cluster policy is being further refined to:

- › strengthen its mission oriented character, in line with climate, productivity and societal objectives;
- › enhance international positioning and European embedding;
- › ensure stronger alignment with STI policy, industrial transformation and skills development.

Clusters function as platforms for collective research, innovation projects, ecosystem building and international collaboration, and play a central role in translating smart specialisation priorities into concrete action. (See chapter 4)

Territorial dimension and regional ecosystems

While Flanders is a relatively small and highly integrated innovation region, smart specialisation also has a **territorial dimension**. Regional and provincial ecosystems build on local strengths, industrial legacies and knowledge infrastructures, while remaining connected to the broader Flemish and international innovation system.

Investment companies and development actors at regional level contribute to this territorial anchoring by supporting campus development, incubators and innovation driven regeneration of former industrial sites. This reinforces place based innovation without fragmenting the overall STI strategy.

Alignment with European policy and funding

Flemish smart specialisation is closely aligned with European policy frameworks and funding instruments. Participation in **ERDF programmes, IPCEIs, Horizon Europe** partnerships and other European initiatives strengthens both financial leverage and strategic positioning.

Smart specialisation thus functions not only as a regional prioritisation instrument, but also as a gateway for international collaboration and European integration of Flemish innovation ecosystems.



3

Monitoring, reporting and evaluation of R&D&I policy

Monitoring and reporting are integral components of Flemish STI policy. They support evidence based policymaking, ensure transparency on public investments and provide insights into the performance and impact of the R&D&I system.

Rather than focusing exclusively on input indicators such as expenditure levels, current monitoring practices increasingly emphasise **system performance, outcomes and impact**, in line with the productivity oriented policy framework.

Evidence based policymaking and system monitoring

The Flemish Government systematically monitors its STI policy through a combination of administrative data, statistical indicators and analytical studies. A central role is played by the **systemic analysis of the Flemish R&D&I system**, which assesses how research and innovation contribute to productivity growth, competitiveness and societal value.

This analysis serves multiple purposes:

- › identifying strengths and bottlenecks in the innovation system;
- › supporting policy prioritisation and rationalisation;
- › informing budgetary and expenditure reviews;
- › strengthening coordination across policy domains.

Monitoring frameworks are periodically refined to reflect new policy objectives, emerging technologies and evolving societal challenges.

Reporting at Flemish, European and international level

Flemish STI policy is embedded in a multi level governance context. As a result, reporting takes place towards:

- › the Flemish Parliament and Government;
- › the federal level (where relevant);
- › European institutions, notably in the context of the European Semester, Horizon Europe and cohesion policy;
- › international organisations such as the OECD.

These reporting processes ensure comparability, accountability and international benchmarking, while also allowing Flanders to position itself as a mature and transparent innovation system.

Role of FRIS and data transparency

The research portal Flanders Research Information Space (FRIS) plays a central role in improving transparency and accessibility of data on publicly funded research and innovation. FRIS provides structured information on research organisations, projects, infrastructures and funding streams. See Chapter 3.

By enhancing data availability and interoperability, FRIS supports:

- › policy monitoring and evaluation;
- › strategic analysis at system level;
- › evidence based dialogue with stakeholders;
- › international visibility of the Flemish research and innovation landscape.

Evaluation of instruments and organisations

In addition to system level monitoring, Flemish STI policy includes regular evaluations of policy instruments and publicly funded organisations. These evaluations assess effectiveness, efficiency, relevance and coherence, and underpin decisions on continuation, adaptation or reform of funding mechanisms.