visioneering tomorrow

Impact report 2025

vito

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Foreword

Science only gains meaning when it sets something in motion and creates solutions for businesses, governments and citizens. In this impact report, we proudly show how our Visioneers, together with partners, turned that ambition into concrete results in 2025.

For the second year in a row, our sustainability reporting runs as a common thread throughout VITO's daily operations and strategy. This allows us to work more consciously, make better choices, monitor our impact more closely, and communicate it clearly.

In 2025, we achieved tangible results across our three impact domains – circular industry, a resilient society and a healthy living environment. These include new technologies and spin-offs that strengthen the competitiveness and resilience of Flanders and Europe, projects that accelerate the global climate transition and mitigate the impacts of climate change, and STEM initiatives that inspire young people to engage with science and innovation.

We would like to highlight a few specific achievements: our teams worked with partners in Flanders, across Europe and beyond on cleaner and more competitive energy and water systems, green hydrogen, circular and fossil-free construction and renovation, carbon capture and reuse, and AI-driven battery sorting. Data, monitoring and analysis help us to better understand risks related to air, water and soil, enabling more accurate risk assessment. In this way, we provide advice that helps secure the industry's licence to operate while safeguarding a healthy living environment.
Alongside the achievements presented in this report, many more can be found at **vito.be**.

The world is changing rapidly. Geopolitically, tensions are high, energy prices fluctuate, Europe's competitiveness and industrial base are under significant pressure, and at the same time, climate challenges are intensifying. In this context, VITO remains committed to a compelling vision for the future, driven by the energy transition and circularity. Innovations in electrification and the smart reuse of every (carbon) molecule not only benefit the climate, but are also essential for building an independent, strong and competitive Europe.

We firmly stand on the side of solutions and innovation. Together with industry and other (knowledge) partners, we accelerate the journey from the lab to competitive production. Our projects demonstrate that collaboration works: through joint efforts, new solutions become scalable, economically viable and practically applicable.

VITO's achievements in 2025 show that change is not an abstract concept. It emerges step by step through research and innovation, collaboration and policy advice that make a difference every day.

We are grateful for the commitment of everyone who contributes to this effort and look forward with confidence to what we will achieve together in the future.

Inge Neven, CEO VITO
Ingrid Vanden Berghe, Chair of the Board of Directors VITO

Inge Neven
CEO VITO

Ingrid Vanden Berghe
Chair of the Board of Directors VITO

About VITO

As a leading European research centre, VITO transforms science into cutting-edge technologies, AI solutions, and evidence-based policy advice, with one clear ambition: to contribute to a future-proof world where prosperity, resilience and quality of life reinforce one another.

Sustainability runs through everything we do. Our first double materiality assessment confirmed this focus and helped shape the handprint–footprint model that now guides both our strategy and this impact report.

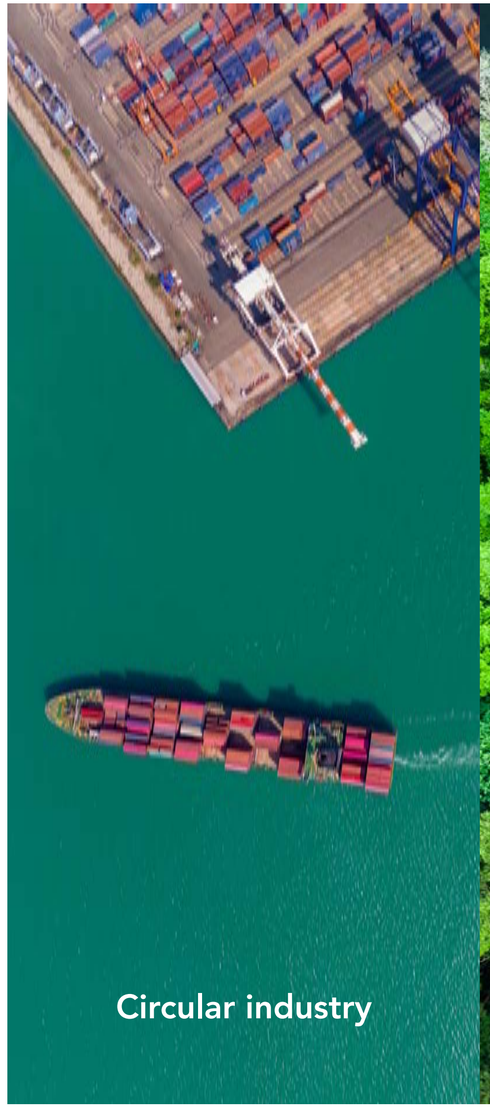
The footprint shows how we carefully manage resources, our environment, and people, while the handprint highlights the positive change we are setting in motion: innovation that strenghtens Flanders, enables companies to grow more competitively, and accelerates the scaling of circular solutions.

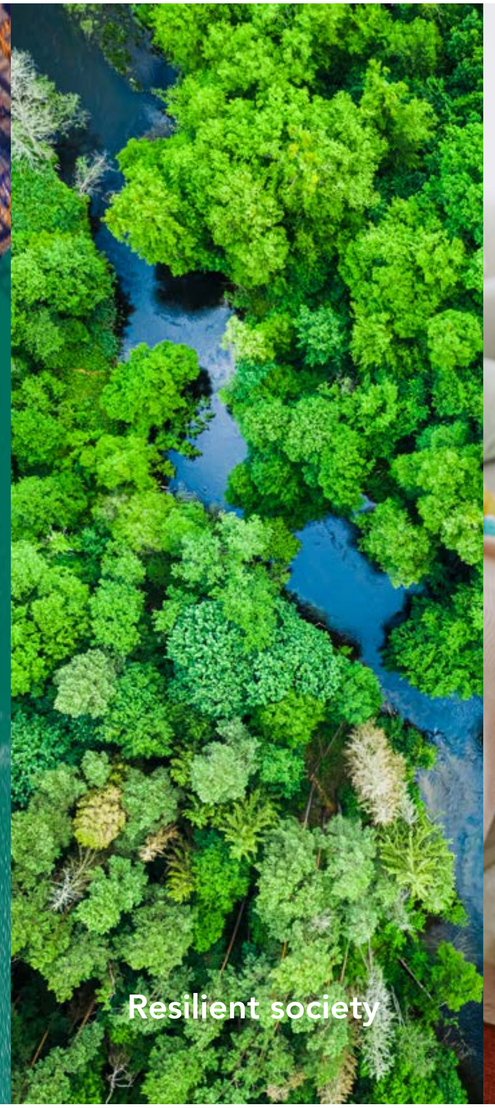
In 2025, we continued to bring this model to life.
We invite you to explore our impact year.

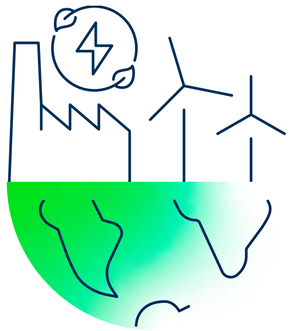
Three impact areas

Flanders is facing profound changes. Energy is becoming more expensive, raw materials are becoming scarcer, the climate is putting pressure on systems, and international developments are less predictable. To protect our prosperity, the Flemish government is opting for an economy that focuses on innovation, future-proofing, and strategic autonomy (**Policy Note 2024-2029**, Minister-President Diependaele).

VITO helps drive this transition. With more than 1,400 experts, we turn science into practical solutions for businesses, governments, and society. Our efforts are focused on three impact areas: circular industry, resilient society, and healthy living environment.







Circular industry

VITO supports companies in the transition to a circular and bio-based economy. We develop technologies that are ready for practical use, economically viable, and limit investment risk.

Examples include the use of waste products as raw materials with a low or negative carbon footprint, the recycling of plastics and critical raw materials, and making production processes more efficient with techniques such as electrolysis, membranes, and 3D printing.

Resilient society

Geopolitical tensions and climate change make robust energy, water, and raw materials systems more important than ever. VITO contributes to solutions that strengthen Flanders' resilience to crises, with a focus on energy security, water management, critical infrastructure and strategic raw materials.

This impact becomes visible locally in fossil-free neighbourhoods, smart water systems, and a more balanced use of open space, which enhances liveability and affordability.

Public health and food safety are also central. By continuously monitoring air, water, and soil, we identify risks in time and support policy and practice with reliable data.

Healthy living environment

Healthy living environments require a better understanding of the impact of harmful substances and of the interplay between environment, lifestyle and health. VITO contributes to this by detecting risks at an early stage using advanced measurement techniques, and by supporting companies in developing safe and sustainable alternatives.

We focus on clean air, water, and soil and follow the principle of 'Safe and Sustainable by Design'. This results in products that are responsible from the outset and contribute to a low-carbon and resource-efficient economy.

Our approach strengthens prevention and makes care more targeted: patients receive tailored care, citizens have more control over their health data, and society gains in quality of life and resilience.

Our locations

Mol
Head office
Boeretang 200
2400 Mol

Berchem
Roderveldlaan 5
2600 Berchem

Genk
EnergyVille
Thor Park 8310 en 8320
3600 Genk

Oostende
Bluebridge
Wetenschapspark 1
8400 Oostende

Kortrijk
Flanders Make
Graaf Karel de Goedelaan 16/18
500 Kortrijk

VAC Leuven
Dirk Boutsgebouw
Diestsepoort 6
3000 Leuven

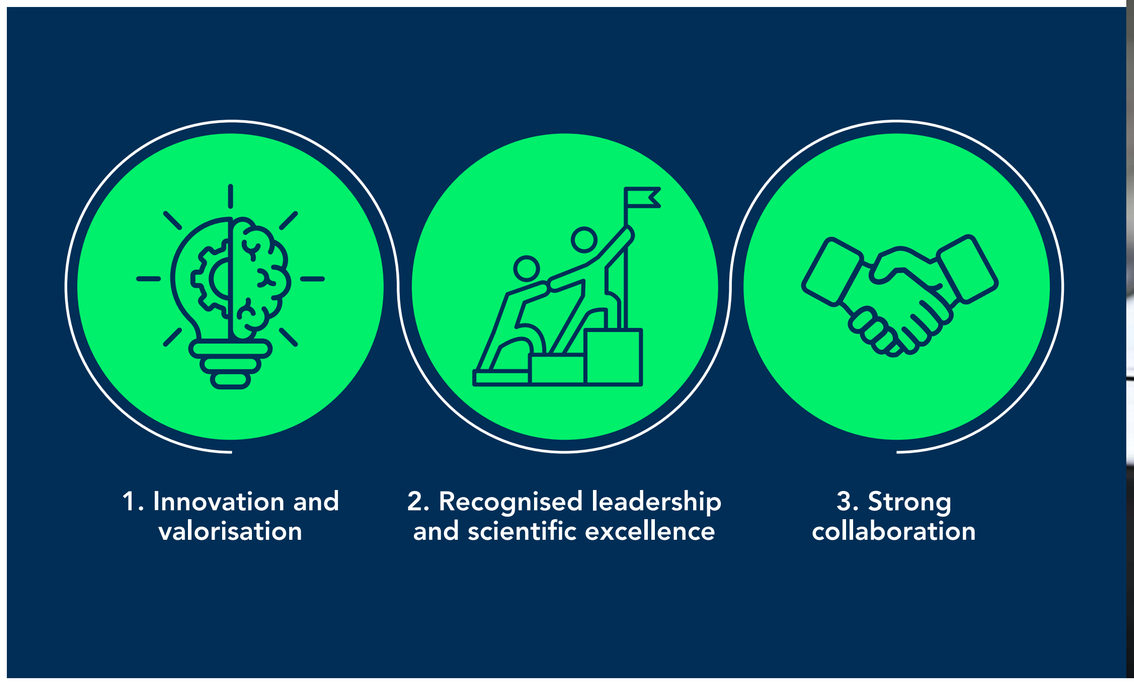
2 Handprint

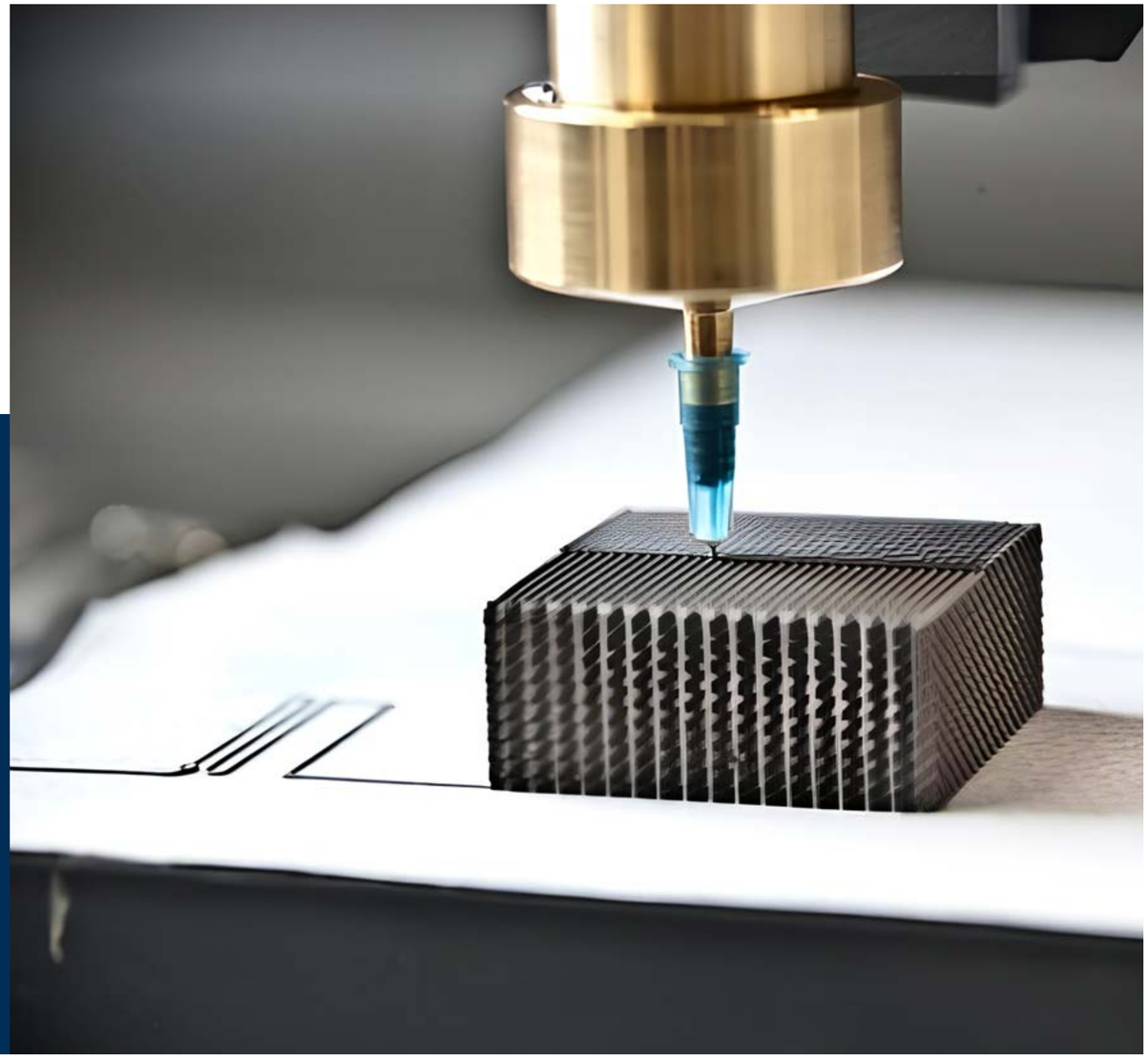
“VITO connects high-tech infrastructure with data-driven R&D, making advanced technology deployable in real-world applications. This allows innovations to scale up faster and strengthens the competitiveness of Flemish companies.”

Leen Govaerts
Director Water and Energy Transition

Three pillars

VITO works from knowledge to results trough three interrelated pillars: innovation and valorisation, recognised leadership and scientific excellence, and strong collaboration. Together, they ensure that research contributes directly to businesses, policy, and society.





1. Innovation and valorisation

Infrastructure as an accelerator of industrial innovation

At VITO, companies can bring their innovations to practice faster and with less risk. To this end, we connect technology, data and AI to an advanced infrastructure - from laboratories to pilot and demo installations - while taking costs, feasibility and long-term impact into account. By making our infrastructure even more accessible to companies, we enable solutions to scale up faster and foster collaboration and growth.

Our technology platforms serve various sectors. For example, we use 3D design for catalysts, batteries, electrolysers, heat exchangers and carbon reuse. LignoValue converts lignin - a residual product from wood - into applications for chemicals, construction, cosmetics and plastics. By the end of 2025, the pilot plant processed nearly two tonnes of lignin-rich feed in a trouble-free 72-hour run, an important step towards industrial upscaling. In **BIORIZON**, our joint programme with TNO on a bio-based economy, more than 750 companies collaborate across sectors and value chains.

Data and AI for societal and industrial impact

Europe aims to play **a pioneering role in artificial intelligence**, focusing on areas such as energy, mobility, health and the living environment. VITO aligns with this ambition by combining data and AI with domain expertise to develop solutions for companies and governments and to strengthen Flanders' internationally. Within the Geo Intelligence Hub, we map changes in time and space using satellites, drones and sensors, and translate this data into practical insights that make cities smarter, protect nature and manage infrastructure more efficiently. Through our open ESA platform **Terrascope**, we make this technology accessible to agriculture, industry and policymakers.

Our applications are already visible today. We are working on heat-resistant crops, climate-resilient cities, smart water management systems and future-proof energy infrastructures. In industry, we use AI to sort and reuse materials more efficiently.

We also bring this technology to the market through spin-offs. Pleevi ensures that electric vehicle fleets can be charged smartly and cost-effectively, Xbat.ai enables effective and correct battery recycling, and Orion Grid Technologies helps grid operators manage our electricity grids more efficiently and safely. In addition, we valorise our knowledge through licences.

Our data and AI programme brings all these initiatives together. We strengthen data platforms and make them FAIR (Findable, Accessible, Interoperable, Reusable), link real-time sensor data to European data structures via Common Data Spaces, and build secure, reliable and ethically deployable **agentic AI** (a form of artificial intelligence that makes independent decisions and takes independent actions). Through digital twins, we make complex AI applications practically usable.

From lab to market through collaboration

Collaboration drives innovation. By connecting research institutions, universities, universities of applied sciences, and industry in Flanders and Europe, ideas grow faster into practical solutions. The focus is on complementarity rather than competitiony: shared roadmaps, expertise and infrastructure make innovation more efficient.

VITO supports this through a programmatic research approach. Initiatives such as **VITO MateriNex**, **VITO Kennispunt Water** and the **Knowledge Centre for Innovative Remediation Solutions (KIS)** translate joint innovation agendas into concrete projects. Collaboration with all Flemish universities and universities of applied sciences, as well as European partners via Horizon Europe, Energyville and Capture, among others, makes this approach scalable.

Strengthening start-ups, scale-ups, and SMEs

The **VITO4STARTERS** programme combines technological expertise, business coaching, access to labs and infrastructure, and up to €200,000 in start-up capital to help teams become investment-ready faster. In 2025, it evolved into a full-fledged deep tech accelerator programme, focused on investing in, guiding, and validating early-stage technologies for market introduction. Additional efforts were made to ensure a high-quality deal flow: of 57 start-ups screened since May, five cases remained under evaluation, laying the foundation for investment decisions from 2026 onwards.

Two examples of VITO4STARTERS in action:

- At the 2025 StarWatts event, SKIPPER NDT won the VITO4STARTERS Award. The start-up develops technology to map and assess underground energy and water pipelines and received a €25,000 in-kind voucher along with access to VITO expertise to further strengthen its technology.

- An earlier pitch at VITO4STARTERS grew into TGR Pallets, which raised €2 million in 2025 to scale CO_2-negative, high-performance, and affordable pallets. TGR worked closely with VITO on a bio-based, formaldehyde-free binder that makes their product sustainable, circular and industrially applicable.

In December 2025, VITO4STARTERS received €4.36 million in funding from the Flemish government to support start-ups and scale-ups in strategic domains and help them move faster through the ‘valley of death’. We also expanded our network of investors and industrial partners so that start-ups can more easily access external financing and strategic collaborations.

As a partner in Scaleup Flanders, VITO supports scale-ups in international markets, technology transfer, mentoring, and complex sustainability challenges, strengthening their growth and innovation capacity. In 2025, together with Scaleup Flanders and Duracell, we organized the Scaleup Flanders Pitch Competition, challenging ten start- and scale-ups to make industrial maintenance processes smarter and more sustainable through real-time monitoring and predictive technologies. The winning solutions - Sentigrate, Maecos & Hyperion, and Mappalink - are now being developed into proof of concepts at Duracell’s Belgian factory.

Through the European Digital Innovation Hub Energy in the Built Environment (EDIH EBE), VITO - together with Flemish partners such as T2-Campus, Flux50, and Embuild - supports SMEs and public organisations in their digital and green transitions. In 2025, we provided technical expertise and testing facilities via targeted demo projects and proofs-of-concept. We also focused on stronger alignment, with initiatives such as a COOCK project that involved the construction sector in the electrification of construction sites.

2. Recognised leadership and scientific excellence

Our research supports essential industrial and societal transitions. Together with companies, governments, and research institutions, we turn science into policy and practical solutions for Flanders and Europe. VITO therefore aims to grow further into a leading European centre for sustainable technology and innovation by 2030.

The quality of our research is reflected, among other things, in the **Scimago ranking**, which compares research institutions worldwide on publications, citations, innovation and societal impact. Our innovation strength is also recognised externally: in 2025, VITO ranked eighth in the Belgian top 10 of companies and institutions with the highest number of international patent applications, with 48 filings. In addition, we actively contribute to public debate. In topics such as PFAS, nitrogen, and the energy transition, we provide expertise that that influences policymaking and societal dialogue. Examples include the **PATHS2050** report, which received a **DOI** (Digital Object Identifier) in 2025, making the societal value of policy-oriented research visible and measurable, and our contributions through the **G-STIC** community, supporting the United Nations in implementing the Sustainable Development Goals.

Knowledge sharing is a lever for progress. VITO invests in Open Science and the Flanders Research Data Network (FRDN) – which connects 36 organisations and makes data accessible according to the FAIR (Findable, Accessible, Interoperable, Reusable) principles – and has applied an open access policy for publications since 2019. In 2025, 82% of our publications were directly open-access according to Web of Science. In line with the open-access KPI of the Federal Public Service Foreign Affairs (80%), we report through FRIS (Flanders Research Information Space). By systematically making accepted publications available through our channels, we achieve this target every year.

Finally, we invest in the next generation of researchers. Through PhD programmes and educational initiatives, young researchers are given every opportunity to grow and contribute to sustainable innovation. In 2025, we supervised 98 PhD students, encouraging them to make their research accessible to a broad audience. Through initiatives such as SciMingo and the Flemish PhD Cup, young researchers - including **Marlies Thys**, **Mats Van Delen**, **Tu Nguyen**, **Frédérique Vilenne**, **Lionel Delchambre**, **Rafael Arevalo-Ascanio**, and **Pai Raikar** - shared their work in accessible formats. One of our researchers, **Avni Guruji**, received no fewer than three international awards in 2025 for her research on electrochemical CO_2 reduction using Bi-Sn eutectic mixtures.

3. Strong collaboration

Innovation across disciplines

VITO invests in a cross-disciplinary approach that connects technology, expertise and application areas. We accelerate multidisciplinary technologies such as advanced energy storage and CO_2 reuse, ensuring that technology platforms collaborate where needed. Through organisation-wide competence centres around data & AI, labs, infrastructure and sustainability assessments, we strengthen collaboration between all partners.

By assigning ownership to our five missions (circular port region, resilient neighbourhoods, safe and sovereign society, care-free living environment, natural capital and regenerative space), we address societal challenges across teams and disciplines and translate shared ambitions into concrete innovation and valorisation trajectories. Together with partners from government, industry, science and society, we test new ideas, explore future pathways and expand our capacity for transformative innovation.

Science close to people

Major societal challenges require clear knowledge and broad support. That is why VITO focuses on facts and reliable information, bringing science directly to people.

In 2025, for example, VITO was present at **Nerdland Festival**, welcoming 2,000 visitors at our remote sensing stand and reaching 1,000 spectators through our showcases. With **VITOpolis**, our travelling pop-up on sustainability, we attracted more than four thousand visitors in Roeselare, Kortrijk, Ostend and Turnhout. **Solar Olympiad** brought together 400 students from lower, middle, and upper secondary schools around renewable energy.

During **Dag van de Wetenschap**, 1,480 interested visitors found their way to our activities in Genk (EnergyVille), Kortrijk, and Turnhout, while **Techfair** reached 2,100 senior secondary students. At **Trefdag Digitaal Vlaanderen**, we reached more than 4,000 visitors with keynotes and interactive demos on data- and AI-driven solutions for areas such as water management, health data, renovation tools and satellite data.

We also make science tangible beyond events. At our **STEM Learning Centre**, 2,484 students explored interactive topics such as geothermal energy, lignin as an alternative to petroleum, and sustainable cities. Through **ResourcCity**, an interactive city game where players collect chemical elements, we made complex topics engaging and playful. Additionally, **Love Tomorrow**, co-founded by VITO, attracted over 6,000 visitors in 2025. VITO delivered several keynotes, appeared twice on the main stage and offered space for partners and HR meetings.

For VITO, citizens are not mere spectators but active partners. In projects such as **oPEN Lab**, science becomes visible in people's living environment: homes in Genk, Pamplona, and Tartu are being renovated and equipped with smart energy solutions.

We also engage in initiatives such as **River Watchers**, which combines citizen participation and AI to combat riverbank pollution, contributed to a new **EDUbox on future literacy and nutrition** (launched early 2026), and share insights **via Z-Sustainable Future** on Kanaal Z.

To accelerate knowledge uptake and create public support, VITO builds collaborative platforms. **PATHS2050**, for example, outlines together with partners the pathway towards a climate-neutral energy infrastructure by 2050.

VITO's role in European research and technology policy

VITO strengthens Flanders' influence at the European level through policy support, advocacy, and participation in networks such as **EARTO** (European Association of Research and Technology Organisations) and **KICs** (Knowledge and Innovation Communities - partnerships of companies, universities. These efforts enhance Flanders' competitiveness and provide access to additional resources.

Our international efforts focus on three priorities: supporting Flemish companies in export and innovation; science diplomacy and international projects on climate, energy, and the circular economy in collaboration with strategic partners across Europe, Africa, Asia, and America; and learning through access to global knowledge and best practices. This allows us to transform both local and international expertise into sustainable solutions.

A key community in this regard is **G-STIC**, which enables Flanders to share its knowledge globally and accelerate climate action and sustainable projects. In 2025, G-STIC celebrated its tenth anniversary and and **the eighth edition of the G-STIC conference** took place in Pretoria, South Africa, co-hosted with CSIR. The event brought together 1,500 scientists, entrepreneurs, policymakers, and investors, strengthening international collaboration and amplifying Africa's voice in the global sustainability debate.

Our impact stories

At VITO, research is never an end in itself. It is about progress that can be felt in everyday life, in our environment and in the economy. The following impact stories illustrate this.

The following impact stories illustrate this. →

Impact story

Building fossil-free and resilient neighbourhoods

Challenge

Flanders faces a significant challenge in the built environment: energy-intensive buildings, a low renovation rate, and vulnerability to climate shocks require fast and smart fossil-free solutions. At the same time, the construction sector struggles with labour shortages and increasing foreign competition.

The European ETS2 policy adds further pressure: from 2028 onwards, fossil fuels will become more expensive, making heat pumps, electrification, and insulation essential. The Social Climate Fund aims to keep this transition affordable and socially fair.

The challenge is clear: how can we make fossil-free living feasible and attractive for everyone?

Solution

In 2025, significant progress was made, from concrete practical projects to policy-oriented studies that accelerate the energy transition.

oPEN Lab – fast and smart renovation

Together with its industrial partners Daikin, Habenu-van de Kreeke, Futech, Van Roey, Cast4All and LITO, VITO/EnergyVille shows that even older homes can contribute to fossil-free and future-proof neighbourhoods. The Horizon 2020 oPEN Lab project accelerates renovations using prefab approaches and smart energy solutions in Genk (Belgium), Pamplona (Spain), and Tartu (Estonia).

In the social housing neighbourhood Nieuw Texas in Genk, 27 rental homes were fully renovated with new façades and efficient technologies, reducing heating consumption by roughly 40%. Each home is equipped with more than 200 sensors to continuously monitor solar panels, ventilation, heat pumps, and home batteries.

In the historic Tuinwijk Waterschei, older homes have also been modernised: the seven houses will heat fossil-free using heat pumps, and three homes have already achieved an EPC label A.

Resident experiences are crucial for understanding what works in daily life. The project therefore supports them in using their new systems optimally. By early 2026, a digital twin of the neighbourhoods will be developed, allowing researchers to compare real measurements with simulations and further optimise energy use in each home through a cloud-based District Energy Management System (DEMS).

Make a virtual tour via **360openlab-genk.eu**

CollecThor – buildings sharing heating and cooling through a shared network

VITO/EnergyVille strongly focuses on collective solutions. At Thor Park in Genk, the district heating network CollecThor became operational last year: a smart network in which buildings share heat and cooling. Waste heat is reused, cooling is stored, and energy is optimised locally. Thanks to its collective and expandable design, the network can grow and adapt to new buildings and technologies, making it particularly suitable for compact urban environments. CollecThor reduces costs and emissions and demonstrates how sharing energy is more efficient than solving everything individually.

One hundred resilient fossil-free neighbourhoods in Flanders by 2030

The same collective logic underpins the ‘Fossil-Free Resilient Neighbourhoods’ mission, which VITO is rolling out together with its partners. Instead of focusing on individual measures in homes, entire neighbourhoods, apartment blocks and business parks are addressed as a whole: collective renovation, innovative district heating networks of various scales, water and sewage management, biodiversity and strengthening of public space in one integrated trajectory. The ambition is to initiate this approach in one hundred Flemish neighbourhoods by 2030, with at least ten becoming genuinely fossil-free and climate-resilient. In 2025, this approach was thoroughly prepared through concrete pilot projects in Leuven, Mortsel, Bruges, Ostend and Mechelen (the so-called HELIOS F5D proposal, starting in 2026), with a particular focus on apartment buildings.

Wijkbaromotor – data and local knowledge reinforce each other

In 2025, VITO launched the 'Wijkbaromotor' and rolled out the first prototypes in Dessel (in collaboration with **Warmtegeleiders**), Mortsel, Ostend and Bruges. The Wijkbaromotor brings together data and local insights, making future scenarios for neighbourhoods tangible, discussable and actionable. Data acts as a conversation starter, opening new perspectives and stimulating joint action. This initiative was the first practical demonstration of cross-unit collaboration across the three VITO divisions, linking data and tools while highlighting concrete opportunities for integration. In 2026, these pilots will be further developed into a key lever for the Resilient Neighbourhoods mission.

"Anyone investing in fossil-free neighbourhoods today is investing in health, comfort, and affordable energy in times of uncertainty - not in abstract climate targets."

Maarten De Groote, Programme Manager Energiebeleid en Bouwinnovatie

Policy support

In 2025, VITO/EnergyVille provided evidence-based insights for policymakers.

Research by VITO/EnergyVille on behalf of Luminus, shows that homes can be better assessed if the EPC (Energy Performance Certificate) includes not only energy consumption but also CO_2 emissions. This approach clearly identifies which homes are truly climate-friendly in terms of heating. Combined with a more balanced ratio between electricity and gas prices, sustainable choices such as heat pumps become clearly more attractive. Moreover, it offers homeowners a clear, step-by-step pathway towards low-carbon living. Read the full report **here.**

Another study highlights that decisive climate policies can keep energy affordable if support measures are distributed fairly and fossil fuel use is gradually discouraged. From 2028 onwards, the European ETS2 system will make fossil fuels more expensive, but smart choices - such as lower electricity prices, targeted support and investments in energy efficiency - can keep the transition socially fair, aligned with European targets. Read the position paper (in Dutch) **here.**

These policy insights are also leveraged at European level. In 2025, the EU Heat Pump Accelerator Platform, co-initiated by VITO the previous year, grew into a strong community of over 80 stakeholders, including heat pump industry, governments, grid operators, financial institutions and research centres. The coalition identified bottlenecks in regulation, financing, grid capacity and market development, and worked towards a jointly supported position paper published by the European Commission in January 2026. This gives policymakers and industry concrete levers to reduce costs, enhance competitiveness, and accelerate the rollout of heat pumps across Europe. Read the position paper **here.**

“With this series of initiatives, we reinforce the resilience of our neighbourhoods by putting people at the centre and linking residents’ creativity with VITO’s knowledge and data, creating a shared perspective for collective action.”

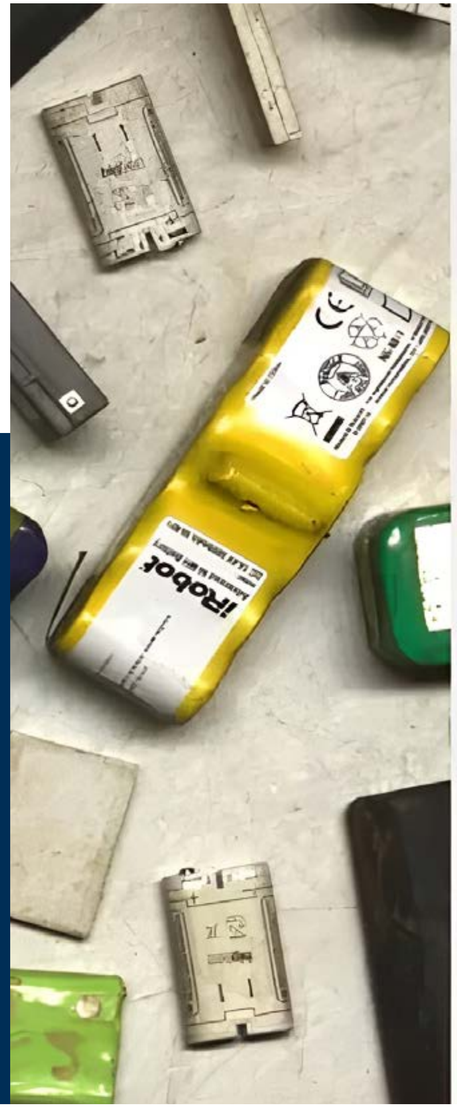
Elise Steyaert, Corporate Public Affairs Manager

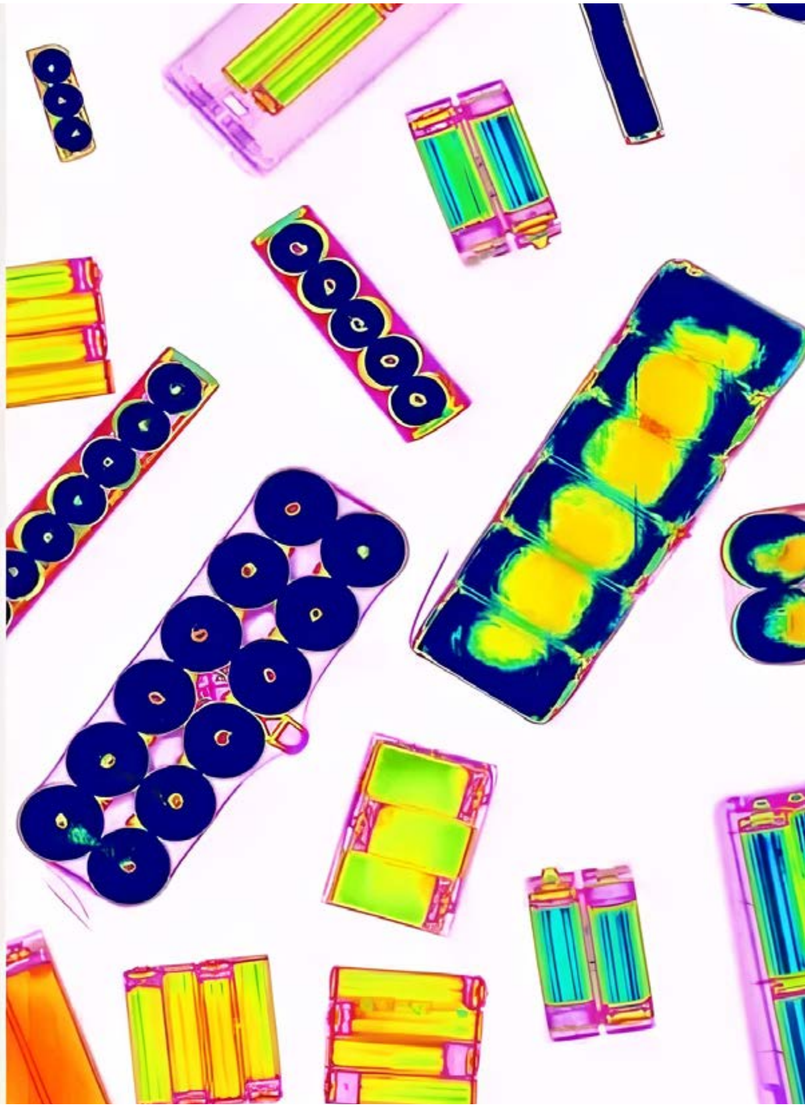
Impact

The initiatives of 2025 clearly show that a low-carbon living environment is not a theoretical end goal, but a tangible pathway. Smarter home assessments provide citizens with guidance, district heating networks show that collective systems work, and a neighbourhood-focused approach makes the transition faster and more affordable.

Impact story

Xbat.ai: AI and X-ray technology for safe and fast battery sorting





Challenge

The growing demand for batteries increases Europe's dependence on critical raw materials such as lithium, cobalt, and nickel. At the same time, the number of battery types is rising rapidly, with major differences in shape, composition, and application. This complicates recycling, causes material losses, and increases safety risks such as overheating, fire, or explosion. Correct sorting is therefore the first and crucial step towards efficient, safe, and economically viable recycling.

Today, sorting is still largely done manually. The process is slow, complex, error-prone, and unsustainable in a rapidly growing and constantly evolving market.

Solution

VITO - together with Sortbat, Bebat, and engineering partner Absolem - developed an industrial prototype for smart battery sorting. The technology combines X-ray technology and artificial intelligence to automatically identify the chemical composition of batteries. Both individual cells and complete battery packs from, for example, laptops or power tools can thus be sorted safely and correctly.

Within the joint venture **Xbat.ai**, founded by VITO and Sortbat, the technology has been further developed into a scalable industrial sorting system. For global deployment, Xbat.ai collaborates with Smiths Detection, a world leader in X-ray technology and airport security. Their international expertise and network enable the Xbat.ai hardware to be implemented and maintained worldwide.

“From an idea on paper to an impactful industrial application – this is how VITO helps build a sustainable world.”

Mieke Quaghebeur, Programme Manager VITO

Impact

Thanks to Xbat.ai, battery sorting has become faster, safer, and more reliable. More valuable materials can be recovered, making recycling more efficient. This collaboration shows how research, innovation, and industrial application can come together to provide a concrete solution to a growing sustainability challenge.

VITO is now exploring the use of this technology for other complex materials and waste streams. Improved material characterisation is a key requirement for high-quality recycling, more efficient resource use, and reduced dependence on critical and imported raw materials.

Watch **the video** on Z-Sustainable Future.

Impact story

Fast and reliable screening for safe cosmetics

Challenge

Certain substances in nail products, such as TPO and HEMA, can cause allergies and skin irritation for both nail technicians and consumers. Since September 2025, TPO has been banned in Europe, and HEMA is increasingly under scrutiny. As a result, the demand for HEMA-free alternatives is growing rapidly.

For the beauty industry, this presents a challenge: switching to safer products and demonstrating compliance with regulations. Studies and practical experience highlight the need for stricter and more reliable testing to better protect professionals and consumers.

Solution

VITO supports the cosmetics sector by testing products quickly and accurately for these potentially harmful substances. Nail gels, polishes, and other cosmetics are analysed directly in the lab without complex preparation. Within a few minutes, companies know whether a product is safe and complies with European regulations. What used to take days can now be done much faster and with a high degree of reliability.

The Belgian company Urban Nails has used this approach to quickly identify which products were safe and which needed to be adjusted.

“What’s great about working with VITO is that they actively think along with us. They really listened, immediately understood what we wanted, and executed it accordingly. This resulted in clear reports on the composition of the nail gel.”

Janetta Wouters, CEO Urban Nails

Impact

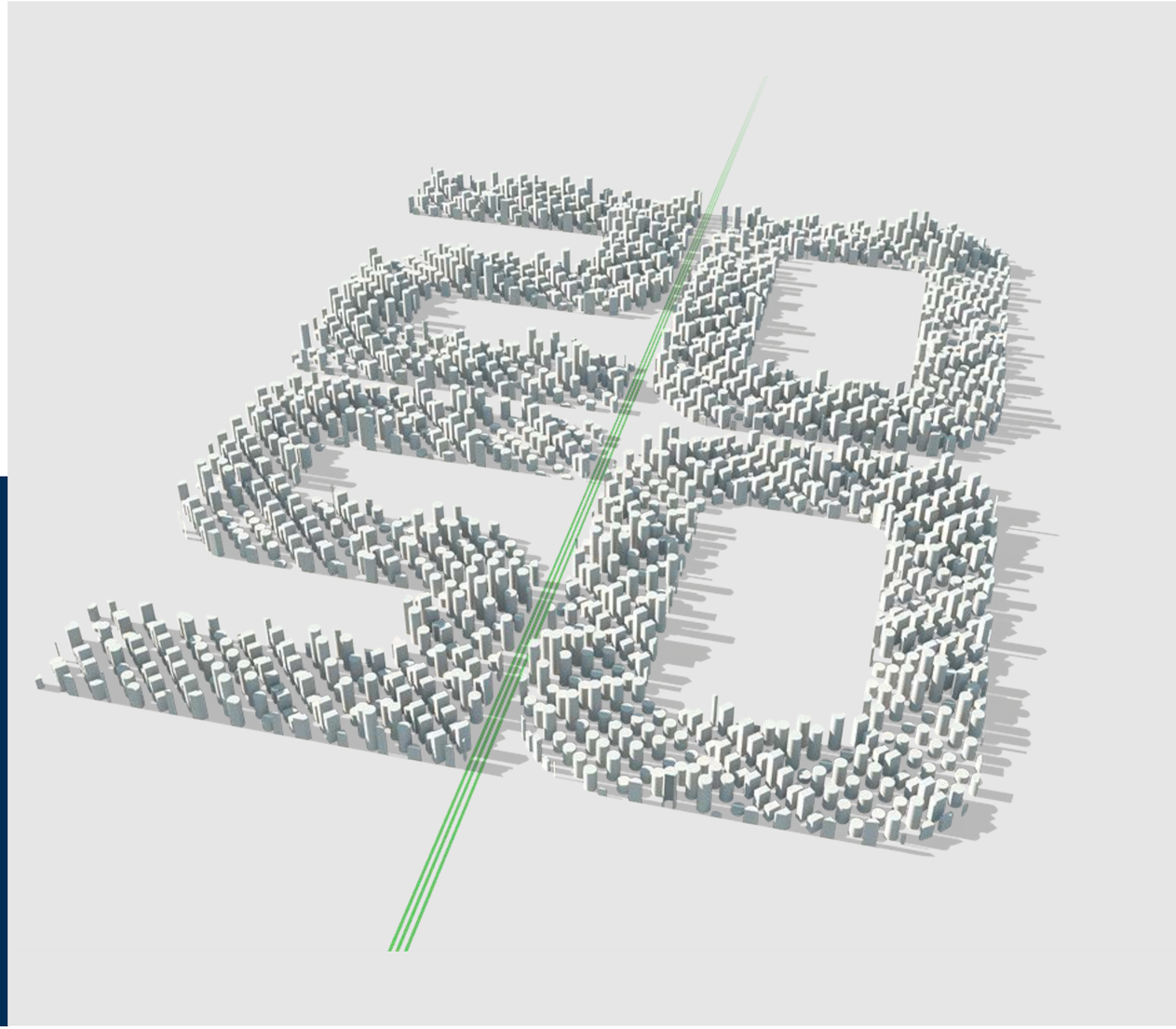
These rapid checks allow companies to bring safer products to market and respond more quickly to new regulations. Professionals who work with cosmetics daily face a lower risk of skin irritation, and consumers can trust that products meet the required standards. In this way, VITO contributes to better health protection, greater transparency in the sector, and a smoother transition to stricter European rules.

Watch the video:
Urban Nails: Veiligere cosmetica zonder TPO en HEMA - YouTube

Read the article in The Guardian:
Exactly how safe is a gel manicure?

Impact story

PATHS2050: data-driven scenarios for a carbon-neutral Belgium by 2050



Challenge

Belgium is at a turning point in the energy transition. To achieve the climate targets for 2030 and 2050, buildings, transport, and industry must start operating on electricity at a large scale. At the same time, uncertainty remains around key technologies such as renewable energy, nuclear production, and carbon capture and storage (CCS).

Companies and policymakers therefore need data-driven insights to take the right steps for both climate and the economy.

Solution

Since 2022, VITO has supported this process through the PATHS2050 platform, a data-driven tool that provides scenarios and roadmaps for a climate-neutral Belgium by 2050. The platform combines economic, technological, and industrial data while accounting for uncertainties in energy prices, technological development, and infrastructure.

The PATHS2050 Coalition, established in 2024 with five founding partners (ArcelorMittal, BASF, Elia, Fluxys, and Luminus), expanded in 2025 with Engie, Holcim, Otary, and SCK CEN. As a result, nine leading companies are aligning efforts to achieve a climate-neutral and economically strong Belgium.

The coalition developed a **data-driven roadmap with three realistic energy transition pathways**, including concrete steps and investments for 2030, 2040, and 2050. All scenarios towards a carbon-neutral energy system demonstrate that electrification of our energy demand will be crucial.

The calculated pathways and additional analyses take future uncertainties into account and provide insights into the reliability and feasibility of the model results. In every scenario, increasing investments in renewable energy are essential, complemented by new nuclear electricity production, which could play a significant role from 2040 onward.

Additionally, carbon capture and storage (CCS) is critical for rapidly reducing industrial CO_2 emissions. Synthetic molecules (such as e-methane, e-ammonia, and e-kerosene) are indispensable for emission reductions in international transport (aviation and shipping) and for industrial sectors where electrification is not possible.

Impact

Thanks to its broad coalition and data-driven analyses, PATHS2050 provides a practical compass for policymakers and companies in 2025. Scenarios, roadmaps, and sensitivity analyses help align investments and infrastructure projects faster and more effectively, make the energy transition tangible, and strengthen Belgium as an innovative and sustainable industrial hub, in line with the European Clean Industrial Deal.

More info: **perspective2050.energyville.be**

“The PATHS2050 Coalition exchange is crucial to achieve a feasible, robust and cost-efficient path towards climate neutrality by 2050.”

Stany Vaes, Director Sustainability & Corporate Affairs, Holcim Belgium

Impact story

Advanced membranes for green hydrogen production

Challenge

Green hydrogen is essential for making industry and transport more sustainable, but its large-scale production remains complex. A key role is played by the membrane (separator) in the electrolysis process, in which water is converted into oxygen and hydrogen. This membrane is a thin separating layer between the produced hydrogen and oxygen and determines the efficiency, safety and lifespan of the system.

With ZIRFON™, a high-tech membrane developed by VITO and Agfa-Gevaert, a strong foundation has been established. At the same time, further technological optimisation, industrial upscaling and global deployment remain necessary to meet the demand for green hydrogen. The challenge therefore lies in continuously improving and applying this technology on a large scale, so that it can be used reliably and affordably in industrial applications worldwide.

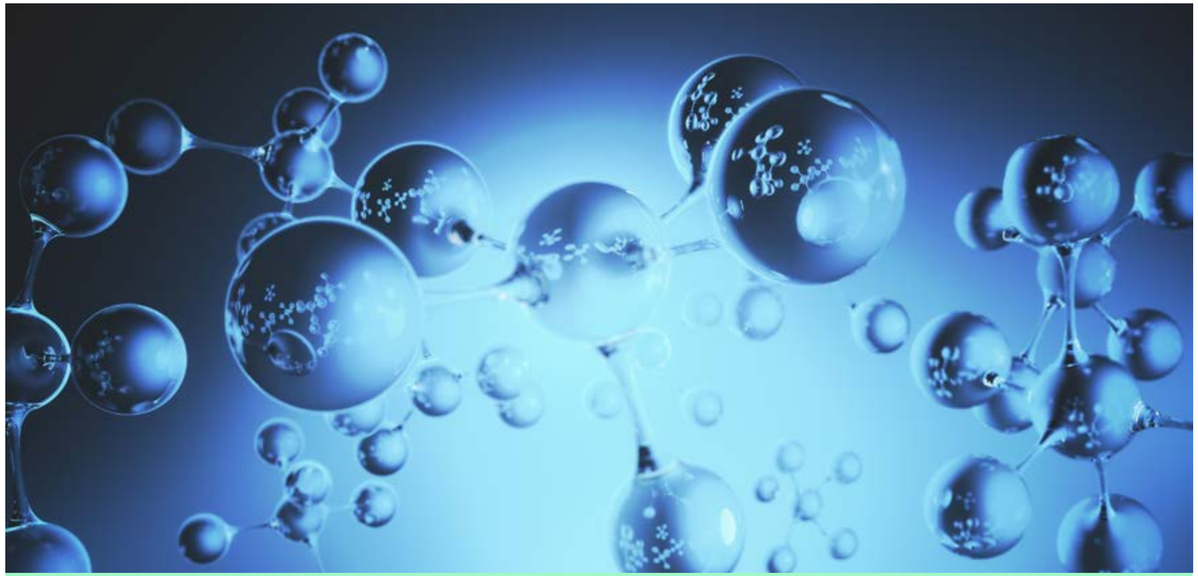
Solution

To achieve the upscaling of green hydrogen, VITO and Agfa-Gevaert have been combining their expertise since 2007. ZIRFON™, now widely used in alkaline water electrolysers worldwide, makes production more efficient – up to four times more hydrogen – and at the same time sustainable, enabling industrial applications to run reliably.

In 2025, VITO and Agfa-Gevaert signed a strategic research agreement for the further development of a next generation of membranes. At the same time, Agfa invested in a new production unit for ZIRFON™ membranes in Flanders. This will enable a significant upscaling of production, allowing industrial projects involving green hydrogen to be served worldwide.

“In 2025, Agfa and VITO formalised their strategic research agreement on green hydrogen. Guided by a shared long-term vision, we have been working together since 2007 on the development of ZIRFON membranes, and through our joint roadmap and Agfa’s increased production capacity, we will significantly accelerate the transition to a much greener world.”

Vincent Wille, President Industrial Solutions, Agfa



Impact

The new plant in Mortsel supports electrolysis installations with a production capacity of up to twenty gigawatts per year, corresponding to a potential annual reduction of fifteen million tonnes of CO_2 emissions. The collaboration between VITO and Agfa-Gevaert not only contributes to European climate targets but also strengthens Flanders’ economic future, positioning the region as a global hub for sustainable industry.

More info on ZIRFON technology: **www.agfa.com/zirfon**

Impact story

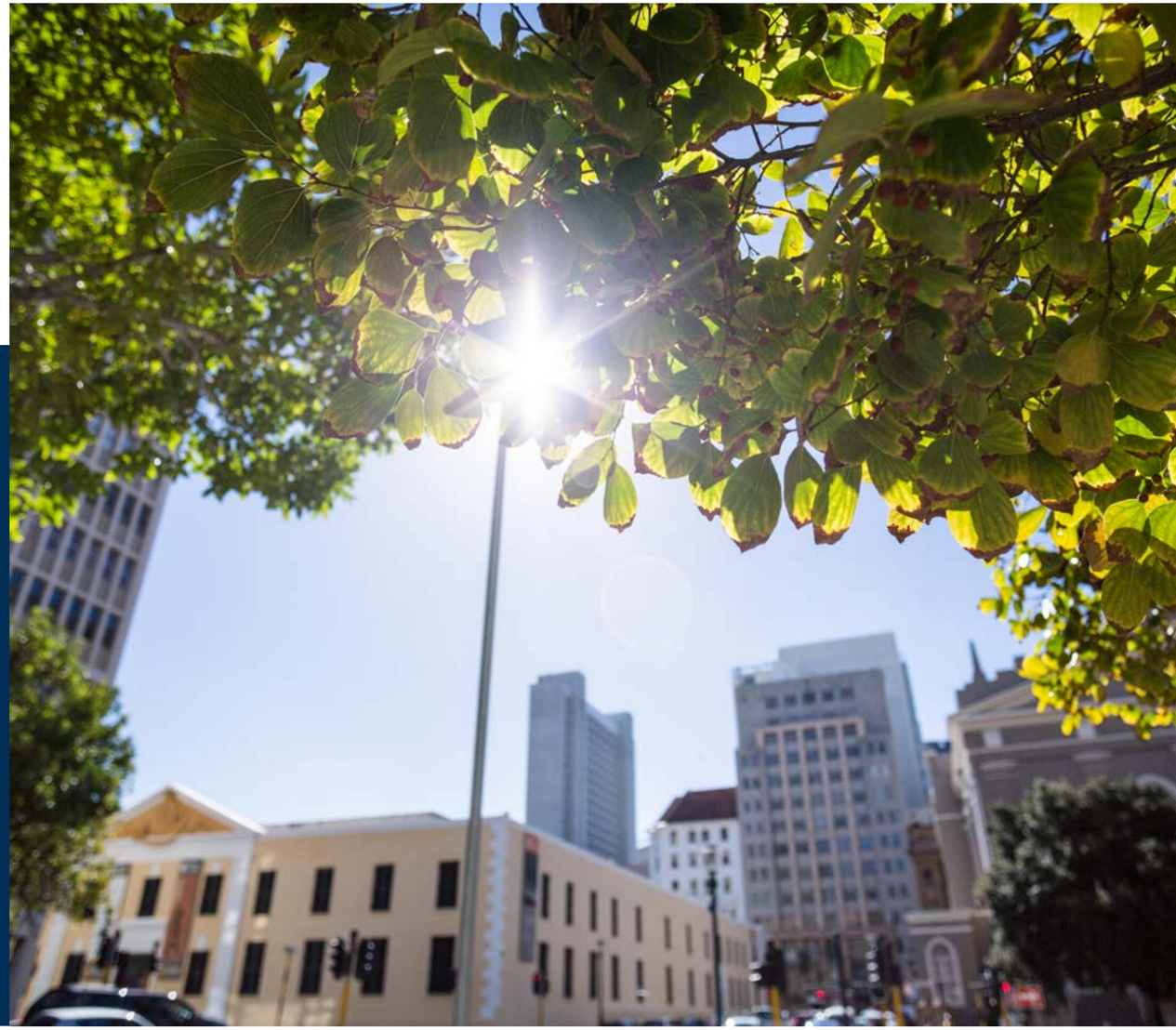
AI and data for climate and health

Challenge

Climate change is increasingly impacting cities and public health. Urban heat, air pollution, droughts, and changing weather conditions affect liveability, health, and infrastructure.

A **recent study** by the Belgian Climate Risk Assessment Center (CERAC), to which VITO contributed, shows that heat stress may cause around a thousand additional deaths each year in Belgium, particularly among the elderly and children. The risk of diseases transmitted by mosquitoes and ticks, such as Lyme disease, dengue, West Nile fever and tick-borne encephalitis, is also increasing, due to changes in temperature, humidity and precipitation.

These developments make detailed, local information on urban climates, heat islands, and weather variability essential. Traditional datasets are often too coarse or not available in real time, making targeted interventions more difficult.



Solution

VITO collaborates with knowledge partners and governments on an integrated approach to urban climate and health risks. In 2025, we continued to make significant progress.

revention of mosquito- and tick-borne diseases

In collaboration with the Belgian Climate Centre, VITO developed a climate service for Sciensano that automatically links real-time weather data with local health information. AI-driven models create highly detailed climate maps at neighbourhood level (100 metres) across Belgium, allowing the influence of climate on mosquitoes and ticks to be monitored and predicted more accurately.

The prototype is operational and validated, and the first results of the AI model are available. In early 2026, the service will be tested in practice at Sciensano, helping Belgium to be better prepared for the upcoming season of vector-borne diseases. The project was funded by the European Centre for Medium-Range Weather Forecasts under the Copernicus Climate Change Service (C3S) National Collaboration Programme.

“VITO possesses in-house expertise in both modelling climate change and analysing its potential impacts, making it the ideal partner for urban climate adaptation.”

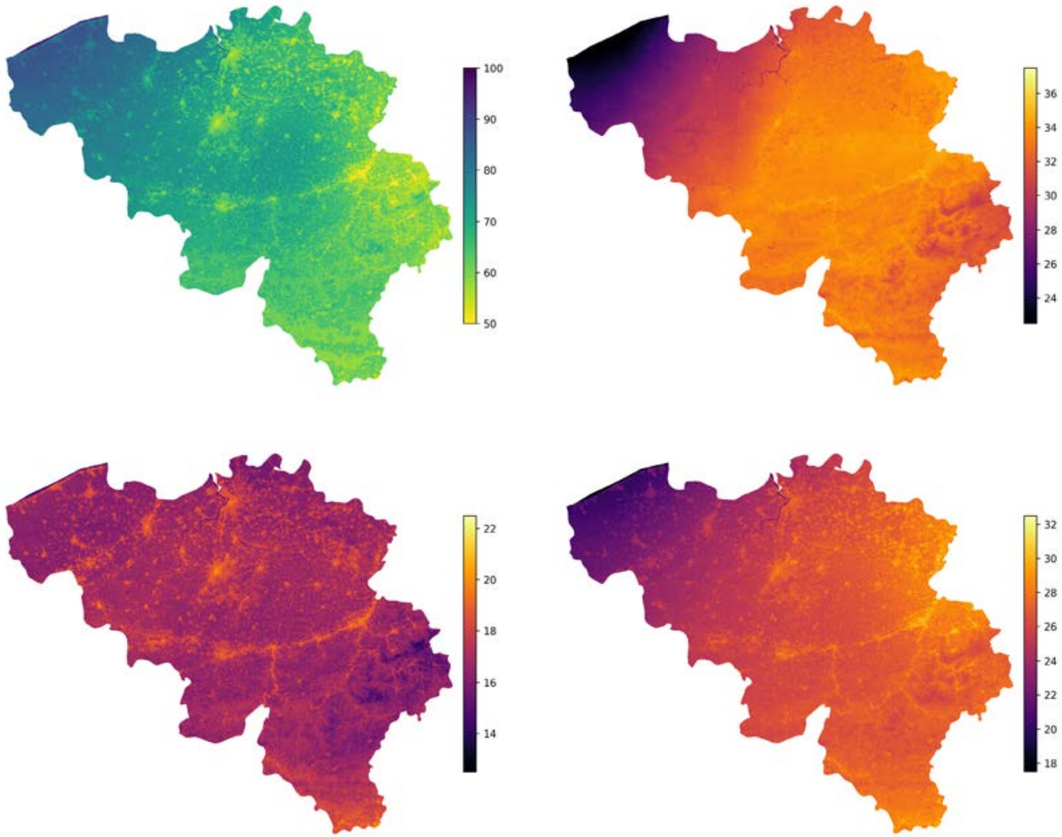
Raf Theunissen, Programme Manager Land Use and Climate Impacts

Understanding heat stress and urban climate

The EheCatL project, led by VITO and funded through Belgium’s BELSPO STEREOIV programme, studies how buildings, green spaces, water and infrastructure influence the urban climate in Brussels. The aim is simple but crucial: to better understand where and when the city becomes too hot and what this means for people’s comfort and health.

Using a sensor network developed by VITO, the project simultaneously measures temperature and heat stress at multiple locations. These data are combined with satellite information and processed using a VITO-developed and validated AI algorithm.

The outcome is highly detailed maps of air temperature and heat comfort down to neighbourhood level (100 metres). A mobile version of the sensors was also deployed in Abu Dhabi to measure the heat stress experienced by couriers on the move.



Impact

By combining AI, climate data and health information in a smart way, cities and policymakers gain insight into what is happening locally. This enables targeted prevention, supports informed investments in climate adaptation and strengthens the resilience of cities and citizens to the growing health impacts of climate change.

Impact story

VITO's AI spin-offs as a lever for the energy transition

Challenge

The energy transition is putting increasing pressure on the energy system. Peak loads, highly variable consumption, and limited grid capacity make energy management complex. Companies and grid operators are looking for ways to meet rising demand and electrification, use the network efficiently, and simultaneously accelerate sustainability and economic growth.

Solution

In 2025, VITO/Energyville continued to take concrete steps to bring smart energy solutions to the market faster through its spin-offs Pleevi and Orion Grid Technologies.

Pleevi
- smart charging within grid limits

Founded in 2024, Pleevi helps companies and site managers automatically align electric vehicle charging infrastructure with grid capacity, user demand, and energy prices. This prevents peak loads, ensures business continuity, and maximises the use of existing infrastructure.
In 2025, the company launched two new products: Pleevi EMS, a real-time platform that automatically balances energy assets; and Pleevi Simulation, which allows organisations to simulate different scenarios in order to make data-driven decisions about EV charging infrastructure.

“Companies are looking for solutions to manage charging yards intelligently within grid limits. With Pleevi Simulation, we help them make data-driven decisions, and with our real-time Pleevi EMS, we already provide a concrete solution to manage charging infrastructure safely, efficiently, and at scale.”

Wout Lagae, CEO Pleevi

In addition, Pleevi expanded its collaboration with two new integration partners, Eniris and WithTheGrid, making the technology applicable in a wider range of contexts. Within this framework, five use cases were developed that illustrate how the technology can be applied: from smart planning of charging sessions at workplaces and multimodal charging locations, to linking charging management with local solar energy and battery storage at parking lots, and aligning charging schedules with fluctuating building loads and operational needs at logistics depots and large parking clusters.

Orion Grid Technologies
- better insights for future-proof grids

Founded in early 2026, Orion Grid Technologies develops data- and AI-driven tools for operational management, modelling, and forward-looking planning of low-voltage grids.

A concrete example is Piri, developed in collaboration with Fluvius. Piri uses AI to link smart meter data with network topology and GIS cable information, enabling grid operators to identify which house is connected to which cable – basic information that is often missing today. This allows operators to detect bottlenecks faster, make informed investment decisions, explore alternatives to traditional grid upgrades, and notify the right stakeholders during maintenance work. Piri has meanwhile been recognised as **a best-practice example by the European distribution system operators' association** (LV Connect – E.DSO).

At the end of 2025, Orion Grid Technologies received the Silver Spark Award from Start it Accelerate @KBC for its contribution to a faster, more cost-effective energy transition and the digitalisation of electricity grids. The spin-off now supports several distribution network operators in Germany and Austria with its data-driven solutions.

"Orion Grid Technologies is an excellent example of how years of research and high-risk innovation, in collaboration with industry (distribution network operators), can gradually lead to concrete implementations of validated solutions. Orion Grid Technologies thus creates a valuable positive impact on current and future low-voltage distribution network management at an international level."

Koen Vanthournout, CEO Orion Grid Technologies & Daan Six, Programme Manager VITO

Impact

Pleevi and Orion demonstrate how research can contribute directly to the energy transition. By developing innovative technologies and delivering competitive solutions, they make the energy system more efficient, reliable, and sustainable. Science becomes tangible, and the transition toward a future-ready energy system is concretely supported.

Impact story

Smart choices for CO_2 capture and utilisation with Map-it CCU

Challenge

Companies aiming to reduce their CO_2 emissions often struggle to navigate the complex landscape of carbon capture and utilisation (CCU) technologies. While many solutions exist, it is not easy to identify which technology best suits the characteristics of a specific CO_2 stream, the capacity of a plant, or a company's sustainability targets. This complexity makes strategic CO_2 management challenging for organisations seeking concrete steps toward carbon neutrality.

Solution

The Map-it CCU project, a Flemish collaborative initiative coordinated by VITO, developed a smart tool that helps companies and organisations make informed decisions on how to capture and reuse CO_2 (CCU).

Users simply enter characteristics of their CO_2 stream, such as concentration, temperature, and pressure. The tool then indicates which carbon capture technologies best fit the situation, including technical specifications and indicative costs.

What makes Map-it CCU unique is that it does not only assess individual technologies, but also provides insight into their role in the full chain of CO_2 capture, purification, conditioning and utilisation. This gives companies a clear overview of what is possible across different sectors and scenarios.

The project was realised thanks to a team of knowledge institutions, including Ghent University, University of Antwerp, Vrije Universiteit Brussel, and VITO (CAPTURE), alongside partners such as Smart Delta Resources Flanders and with support from VLAIO and the spearhead clusters Catalisti and FLUX50.

Through the CAPTURE Academy, the project also offers training, including an online course on CCU technologies, making knowledge about carbon capture and utilisation accessible to a broad audience.

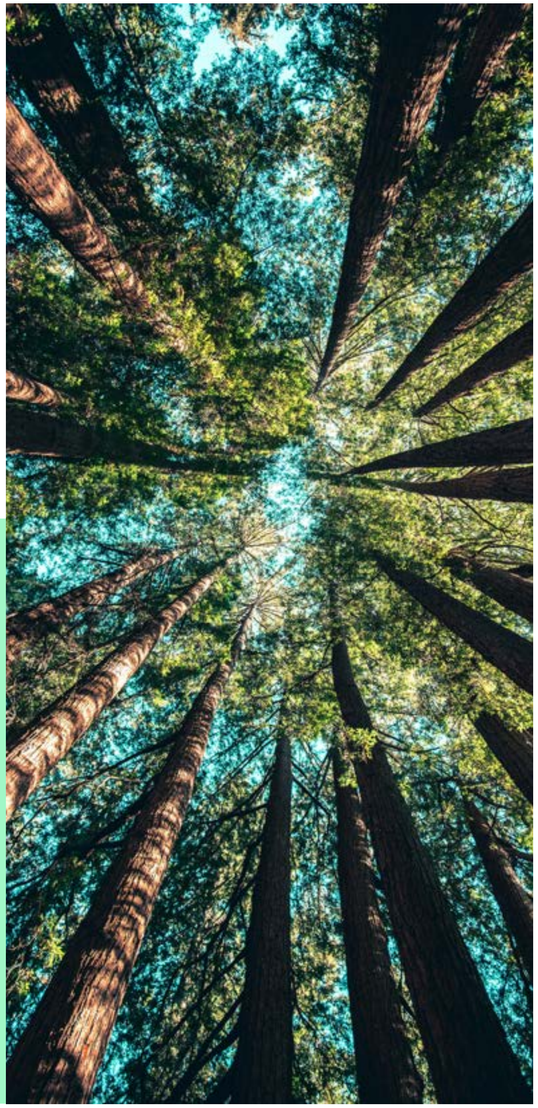
“With Map-it CCU, we aim to lower the barrier for organisations that want to start with carbon capture but aren’t sure where to begin.”

Miet Van Dael, Researcher techno-economische analyse

Impact

The Map-it CCU tool makes it far easier for companies to make well-informed decisions about CO_2 technologies. At a glance, they can see which solutions fit their specific situation, allowing them to work more effectively toward carbon neutrality. At the same time, the tool generates new insights across different sectors, accelerating the practical application of carbon capture and utilisation knowledge and enabling real progress.

More info: **https://capture-resources.be/projects/map-it-ccu**



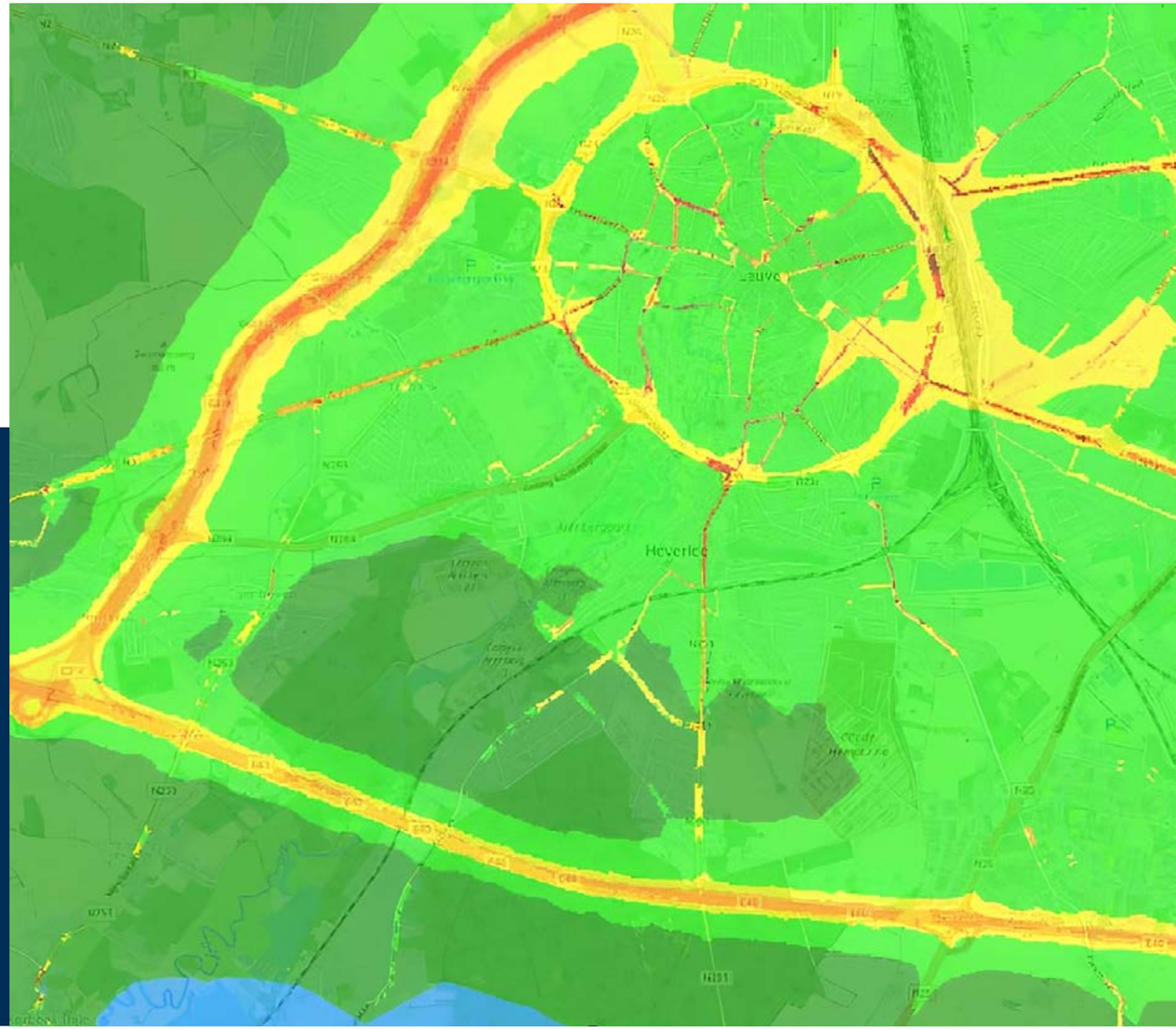
Impact story

Air Quality 360: an integrated approach to healthy air

Challenge

Daily exposure to air pollution poses a serious and often underestimated health risk. The impact of COVID-19 in 2020 and the recent attention to PFAS demonstrate that the early identification and management of new threats is becoming increasingly complex and requires specialised expertise.

Companies need timely identification, accurate measurements, and effective management of new chemical pollutants and airborne viruses. A reference laboratory with the right infrastructure and expertise provides them with the insights needed to act proactively, thereby also protecting society.



Solution

VITO specialises in measuring and modelling chemical substances, particles, odours, and airborne viruses. Using inverse modelling - a method to trace pollution sources - combined with best available techniques (BAT), VITO provides an integrated 360° approach to air quality in industry, agriculture, transport, offices, homes, and schools, aiming to minimise environmental impact and health risks.

PFAS are a growing group of persistent pollutants that spread widely and hardly degrade. Since 2021, they have been a key focus of policy, and in 2025 companies and governments took further steps to measure and reduce emissions. VITO developed a Flemish reference method for PFAS emissions and also plays a key role in developing a European standard. Since 2022, VITO has conducted environmental campaigns around known PFAS hotspots to assess exposure risks and provides methods that commercial consulting firms can later use.

The expertise gained during the COVID-19 pandemic is being applied by VITO to detect airborne viruses, with a focus on vulnerable environments such as childcare facilities and schools. In addition, VITO assists companies in Belgium and internationally in managing odour nuisance, creating a direct positive impact on the well-being of nearby residents.

Airports also received attention in 2025, with monitoring of volatile organic compounds, odours, and (ultra)fine particles, including through the European Stargate project. These measurements provide insight into both the impact of airport activities and the emission reduction potential of aviation innovations.

“I’m proud that our Air Quality 360 approach enables us to help companies tackle the often complex challenges of air quality, and I’m excited about the new opportunities ahead.”

Jeroen Van Deun, Business Development Manager VITO

The increasing use of affordable and widely deployable sensor systems calls for reliable quality frameworks. Since 2025, VITO has been leading a European project to develop a test protocol for such sensor systems, supported by CEN/TC264/WG42 (the European working group within CEN responsible for standardisation and quality frameworks for air quality measurements with sensors).

Thanks to FWO funding, VITO has been part of **ACTRIS** through ACTRIS-Flanders since 2025, in collaboration with the Flemish Environment Agency. This European research infrastructure provides high-quality data on aerosols (ultrafine particles and soot), the atmosphere, and reactive gases (nitrogen oxides, ozone, and volatile organic compounds) for climate and air quality research. Through its mobile platform - consisting of two trailers equipped with high-end aerosol and gas monitoring instruments - VITO can address scientific questions related to sources, dynamics, and exposure, while simultaneously supporting innovation and policy with reliable data.

Impact

With an integrated approach combining measurements, modelling, and best available techniques (BAT), VITO supports sustainable development in industry, agriculture, and transport, with a focus on a healthy living environment. Companies need reliable and feasible methods to assess and reduce their environmental impact. Through its Air Quality 360 approach, VITO guides the entire process, from measurements to the implementation of suitable solutions.

In 2025, 85 new projects were launched, with VITO providing innovative support to 27 companies and 15 additional clients.

Einstein Telescope: research into sustainable energy supply, resource reuse and geology

Uitdaging

The Einstein Telescope is a visionary European project: an underground observatory for gravitational waves, comprising three tunnels, each just over ten kilometres long. Its ambition is to enable scientists to look further into the universe than ever before, all the way back to the Big Bang.

Such a large-scale infrastructure project places high demands not only in scientific and technological terms, but also with regard to sustainability. Its construction, fifty years of operation, and eventual decommissioning or repurposing will require substantial amounts of energy and materials. At the same time, the impact on landscape, climate and local ecosystems must be kept to a minimum, while regional such as stronger infrastructure and new, sustainable jobs are actively leveraged. A thorough understanding of the subsurface is essential in this context, not only for the design of the tunnels, but also for questions related to stability, groundwater flows and the propagation of seismic noise.

The project therefore calls for an integrated approach, in which energy, circularity and geology are considered together.

Solution

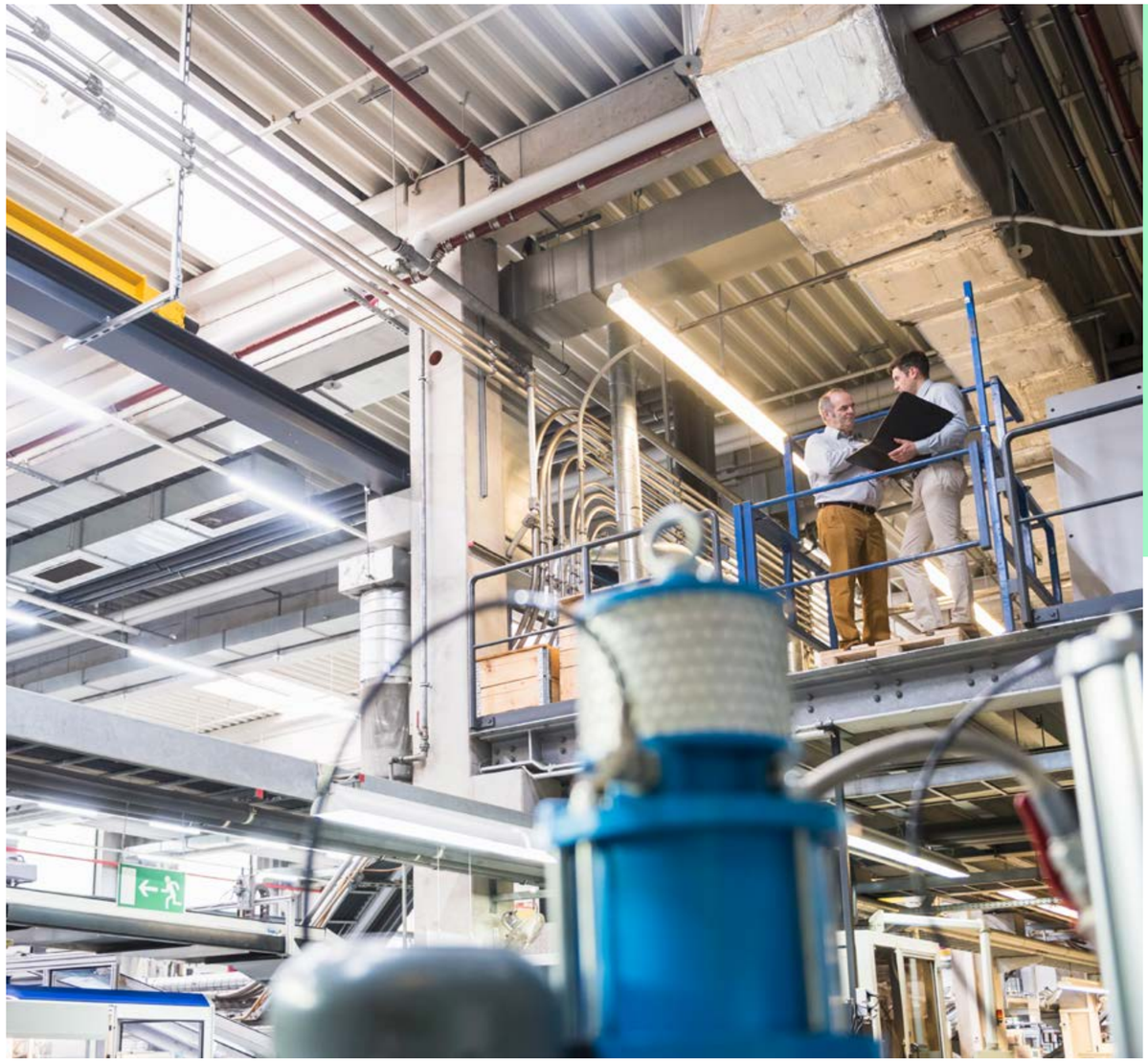
A consortium of research institutions within EnergyVille, including VITO, Hasselt University, KU Leuven and imec, launched a large-scale study into a sustainable energy supply and circular design for the Einstein Telescope, commissioned by the ET-EMR project office. The Flemish Government supports this research with a study budget of €500,000, focusing on four main themes: energy modelling, sustainable energy production, energy transmission and energy storage.

Collaboration is also taking place in the field of circular and future-proof construction. Within the Materinex project **bETon**, researchers are developing technologies to intelligently recover construction materials from hard rock - excavated during tunnel construction - and reuse them on site as aggregates, binders or fillers for sustainable concrete with low carbon emissions. VITO and the University of Antwerp are examining the potential impact of reusing excavated soil material and groundwater, the circular design of the tunnels and facilities, and the use of existing infrastructure and vacant buildings. This approach not only makes the project more sustainable but also delivers tangible benefits for the local community.

“When assessing the sustainability and circularity of the Einstein Telescope, the focus should not only be on limiting environmental impacts, but also – crucially - on seizing opportunities such as material reuse or energy sharing.”

John Van Oorschot, Senior R&D Lifecycle Assessment and Circularity in the Built Environment VITO

The subsurface plays a crucial role in identifying the ideal location for constructing the Einstein Telescope. VITO therefore worked with other members of the ET-EMR project office to map the geological context of the Euregio. We also made a significant contribution to the development of a 3D geological model that will be used for further research on aspects such as stability, groundwater flow and the propagation of vibrations or sound.



Impact

In 2027, European ministers will decide where the Einstein Telescope will be built. The Euregio - the border region of Belgium, the Netherlands, and Germany - is one of the candidates, alongside Sardinia and Saxony.

With this integrated approach to energy, circularity and the subsurface, the project partners are strengthening the Euregio's bid book as a candidate location for the Einstein Telescope. The study thus supports both the design of sustainable research infrastructure and the substantiation of the site selection.

Impact story

VITO remote sensing: real-time insights for agriculture and the environment

Challenge

In an increasingly complex world, it is essential to make decisions based on reliable data. Policymakers, researchers, companies and the industrial sector need real-time and integrated insights that reveal and keep track of large-scale trends in ecosystems, agriculture and infrastructure.

Without these insights, decisions become slow, more costly or less effective, which not only affects sustainability, but also economic growth, industrial efficiency and innovation.

Solution

VITO combines satellite, aerial, and in-situ data to support agriculture, nature management, water management, and climate policy. This also enables economic and industrial activities to be planned, executed, and monitored more efficiently. The **Terrascope** platform serves as the foundation, providing direct access to Copernicus data and cloud-based analysis tools. This makes large-scale, real-time geospatial insights immediately available to policymakers, researchers, and companies. Meanwhile, this community has grown to more than 30,000 active users.

In 2025, several key steps were taken:

HRL Cropland (Copernicus) – European map layer for detailed monitoring of agricultural land

In close collaboration with VITO, the HRL Cropland layer has been developed, a new theme layer in the European High Resolution Layers portfolio for the European Environmental Agency. This layer shows agricultural land at a resolution of ten metres and provides insight into crop types, fallow land and main and intermediate crops. Policymakers, researchers and agricultural organisations can use this to monitor agricultural trends accurately and make better-informed decisions. The dataset is **freely available via the Copernicus CLMS platform** and is regularly updated.

“Both the technological advances and the emerging abundance of new satellite data provide an unprecedented wealth of opportunities to strengthen our society, in terms of sustainability and civil protection.”

Dennis Clarijs, Programme Manager Remote Sensing Services

Collaboration with Planet – daily satellite images for better insight into agriculture and nature

VITO and Planet continue to collaborate on using daily satellite images to gain a better overview of land and nature. This allows crops, drought, nature reserves and biodiversity to be monitored accurately. By combining Planet’s images with VITO’s analysis tools, governments, farmers and nature managers gain faster and clearer insights. This enables more targeted agricultural policy, improved biodiversity monitoring and faster intervention when issues arise. Thanks to this collaboration, satellite data becomes a practical tool for more sustainable and resilient agriculture and nature.

ESA APEx – earth observation innovations put into practice faster

Together with ESA and international partners, VITO took an important step forward with APEx, a platform that helps researchers bring earth observation innovations into practice faster. Thanks to the first operational services, researchers can now more easily convert their satellite ideas and calculation models into user-friendly online applications. Through shared cloud environments, databases and ready-to-use analysis tools, research results remain available and usable even after projects have ended and are kept up to date. In this way, the results, know-how and technical expertise are guaranteed in accordance with the FAIR principles: Findable, Accessible, Interoperable and Reproducible.

IPERLITE Hyperspectral In-Orbit Demonstration Mission – hyperspectral satellite for new insights into vegetation, soil and water

At the end of November 2025, SpaceX launched the Belgian satellite NAHLA into orbit. The satellite is equipped with a hyperspectral camera capable of detecting subtle differences in vegetation, soil, and water – information that remains invisible with traditional satellite images. From an orbit at an altitude of 510 kilometres, the camera provides high-resolution images of large areas.

NAHLA is part of the IPERLITE mission, a project led by VITO in collaboration with the European Space Agency (ESA), the Belgian Federal Science Policy Office (BELSPO) and the Belgian space company Aerospacelab. The Belgian partners AMOS, Deltatec, imec and Spacebel contributed their advanced technology and expertise to this innovative mission.

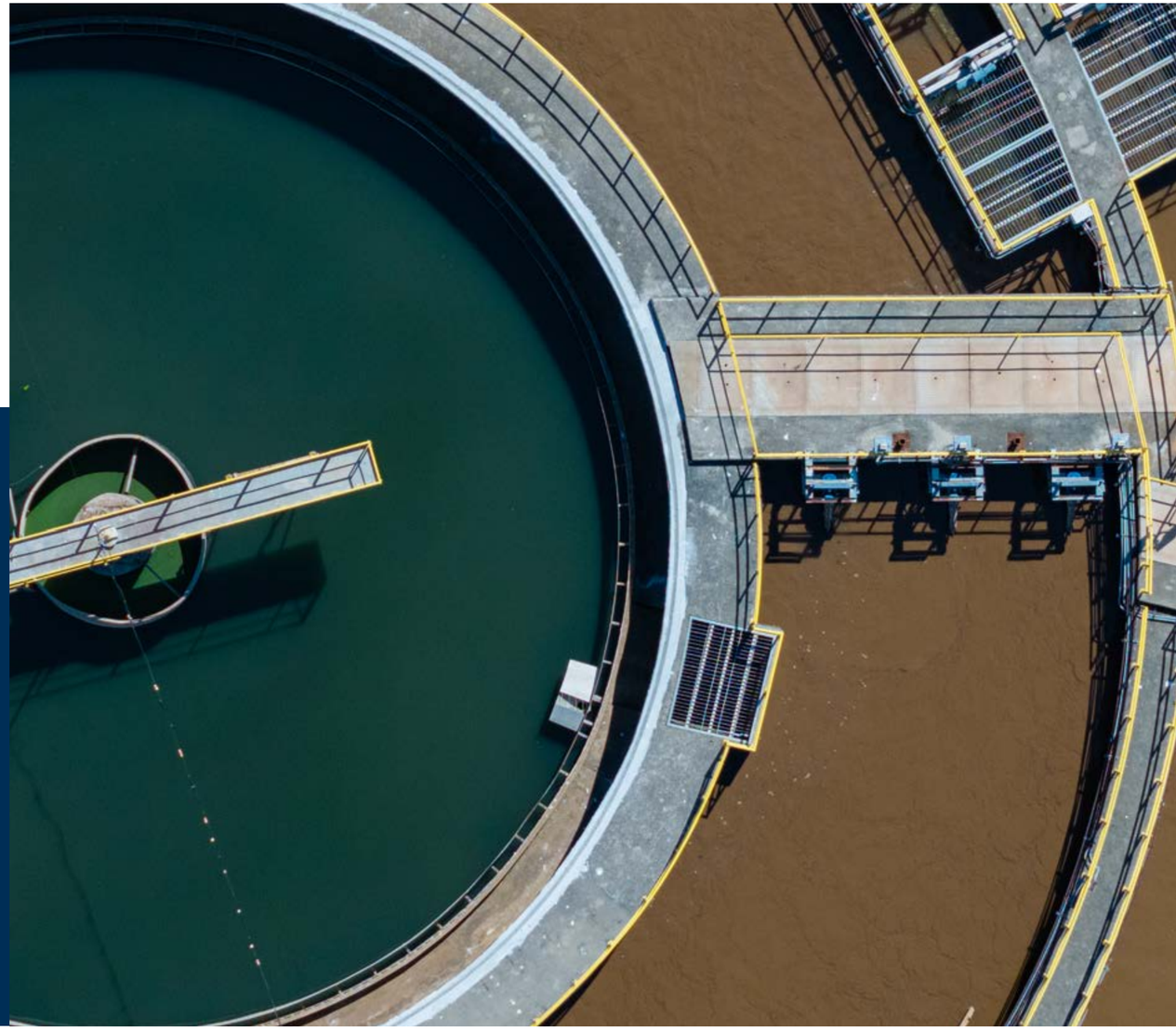
VITO develops the ground segment and is responsible for processing and quality control of the images, providing policymakers, researchers and companies with reliable information for sustainable agriculture, water management and environmental research. This information will also be disseminated via the **Terrascope platform**.

Impact

Thanks to VITO's earth observation, decisions about agriculture, nature and water management can be made faster and better. In 2025, the new tools and collaborations laid a strong foundation for more effective measures, smarter use of resources and a closer connection between the environment, policy and the economy. The technology and knowledge developed by VITO, which makes it a European leader in this field, can also be used in the context of safety applications and risk management.

Impact story

Water security: a strategic lever for economic resilience



Challenge

An **update (2026) from VITO Kennispunt Water** shows that the fifteen largest water-consuming sectors together represent a quarter of Flemish jobs and more than 70 billion euros in gross added value annually. At the same time, the cost of water is rising faster than inflation, climate change is increasingly manifesting itself through drought and flooding, and cooling water remains a crucial challenge for industrial processes.

For industrial regions, this marks a clear shift: water is no longer a self-evident resource, but a strategic condition for economic development. With stricter regulations, restrictions on abstraction and discharge, and a growing dependence on complex water systems, water stress risks becoming a barrier to growth, innovation and investment certainty without additional insights and collaboration.

Solution

To address the challenges of water security in Flanders, several innovative projects are underway that combine technology, data analysis and collaboration with companies. Three examples in which VITO plays a central role are CHERISH$_2$O and AquaSPICE in the port of Antwerp, and EAU Secours in West Flanders.

CHERISH$_2$O – circular water networks for the Port of Antwerp

CHERISH$_2$O (CHEmical industry water Reuse In a Sustainable Harbour) explores how chemical companies in the Port of Antwerp can reuse their treated wastewater to secure the availability of process water and reduce pressure on conventional water sources. Twelve companies - Ashland, BASF, Bayer, Borealis, Envalior, Evonik, ExxonMobil, Ineos Phenol, Lanxess, 3M, Monument Chemicals and TotalEnergies - are collaborating on this project with VITO, Port of Antwerp-Bruges, essenscia, the Flemish Environment Agency and Antea Group.

After analysing water consumption, water quality and discharges, three industrial clusters were identified in which companies can exchange water within circular networks. Together with its partners, VITO examined the preconditions, including the discharge of concentrate streams, taking into account new Flemish regulations (June 2025) and the European Water Framework Directive.

A preliminary design was also developed for large-scale treatment facilities and pipeline networks, including cost estimates, and preparations for pilot testing have begun. These tests are technically and organisationally challenging, as they involve water streams from multiple companies and require additional permits.

CHERISH$_2$O, co-financed by Blue Deal funds from the Flemish government, is the first study to investigate the feasibility of decentralised circular water networks in a port environment on this scale. The project runs until autumn 2026.

EAU Secours – smart water management for the River Leie in West Flanders

EAU Secours focuses on the Leie River in West Flanders, where fluctuations in water quantity and quality affect the companies that abstract water from the river or discharge into it. Climate change and the cross-border context of the Leie pose an additional challenge.

To support companies and water managers, POM West Flanders and VITO are building a network of sensors in five pilot zones that continuously measure water quality and quantity. These data are combined with existing measurement infrastructure and company input to gain insight into abstraction, discharge and their impact on the water system.

VITO is responsible for the technical development of the sensor network and data processing and analysis, so that targeted advice can be formulated on business processes and water management.

The EAU Secours project is subsidised by the ERDF (European Regional Development Fund) as part of the call for proposals ‘Bevorderen van klimaatadaptatie - GTI West-Vlaanderen’.

AquaSPICE – continuous monitoring for water availability in the Port of Antwerp and the Albert Canal

AquaSPICE addresses the water challenge in the Port of Antwerp and the Albert Canal. Due to climate change, the availability of fresh water is decreasing while salinisation is increasing, affecting major industrial users in the chemical cluster as well as the drinking water supply of water-link. Within this European research project, an innovative sensor network was established to continuously monitor water quality and water levels. The sensors track, among other parameters, the conductivity (salt content) of surface water at the intake points for drinking water production. During periods of drought, salinity levels can fluctuate significantly; continuous monitoring enables water-link to better manage water intake and improve the security of drinking water supply.

The project was realised through collaboration between VITO, Port of Antwerp-Bruges and water-link, as part of a broader European partnership on sustainable water management. The results proved so valuable that, following the completion of the project, the Port and water-link decided to continue the system using their own resources. AquaSPICE has therefore evolved from a research demonstration into a semi-operational application that is now actively used to improve the management of water availability and quality.

With VITO as partner for data management and operational support, and water-link responsible for sensor maintenance, the project is a strong example of how European research can lead to concrete implementation and the further scaling up of innovative technology in practice.

“Companies can no longer solve water-related challenges on their own. Projects such as CHERISH$_2$O, EAU Secours and AquaSPICE demonstrate that shared insights and collective solutions are crucial to making our industry resilient in a changing climate.”

Karen Vanderstraeten, Programme Manager VITO

Impact

These innovative projects transform water management from a risk factor into a strategic lever for sustainable industrial development. They demonstrate that cooperation between government, research institutions and businesses is essential to make industry future-proof and resilient.

Impact story

Cleaner rivers through technology and citizen participation

Challenge

Every day, several million kilograms of plastic end up in water worldwide, flowing through rivers into seas and oceans. Along the way, it breaks down into microplastics, which are difficult to remove and ultimately end up in our food chain.

Rivers are therefore a crucial link in the fight against litter. They transport not only visible waste such as bottles and packaging, but also smaller plastic particles that often go unnoticed. It is precisely this combination of large and small waste that makes the problem complex and difficult to map using traditional methods.

Solution

In 2025, VITO, together with its partners, took significant steps to tackle litter and plastic pollution in (Flemish) rivers. Three key initiatives stand out:

INSPIRE – a holistic approach to waste detection and prevention

INSPIRE, a consortium of 25 European partners plus one from Thailand, develops an integrated approach to detect, collect, and prevent waste in rivers, contributing to Europe's 2030 ambition of restoring oceans and water bodies. The project focuses on the Scheldt, Po, Rhine, Douro, Kamniška Bistrica, and Danube rivers, testing twenty innovative technologies simultaneously, combined with knowledge sharing and citizen engagement.

The Flemish partners contribute their expertise in various ways. VITO uses drones and cameras beneath bridges to map plastic waste on and along the water surface, after AI analyses of high-resolution images. River Cleanup tests smart EcoBins that measure waste levels and transmit the data, while Flanders Marine Institute (VLIZ) coordinates the project and deploys innovative monitoring instruments, such as a manta net (a trawl net for floating microplastics) and the FerryBox (a pumping system that analyses water samples with mesh sizes ranging from 50-300 µm).
In addition, researchers and citizens can register floating litter using the JRC Floating Litter Monitoring app. All collected data are linked to the European database, providing scientists and policymakers with a comprehensive view of riverine waste flows.

The first results reveal the severity of pollution in the Scheldt: macroplastics such as PET bottles, cans, and cigarette butts make up the majority of the waste, and up to 11,000 microplastic particles per square metre were measured. Approximately 96% of the waste along the Scheldt consists of plastic, underscoring the urgent need for targeted interventions.

"Whereas we previously relied on visual inspections on site, the combination of remote sensing and advanced AI models enables VITO to quantify plastic pollution on an unprecedented scale. By combining data from smartphones, drones and satellites, we can identify objects in geographically complex areas in great detail, down to the level of plastic pellets, which is essential for a scientifically based prevention policy."

Arne Van Overloop, Project Manager VITO

River Watchers – citizen science with AI

VITO and River Cleanup launched the citizen science project River Watchers, which allows anyone with a smartphone to photograph and upload litter. This turns citizens into literal waste detectives, while AI analyses the images and even recognises hard-to-detect mesoplastics - particles measuring 5 to 25 mm, such as cigarette butts or plastic pellets. It is the first citizen science project worldwide to use AI to detect mesoplastics along riverbanks.

The project combines technology, citizen participation and gamification: participants collect trash tokens, place their findings on an interactive map and compete on a leaderboard as real 'trash hunters'. From 2026 onwards, one hundred dedicated participants will regularly monitor specific routes, providing scientifically based insights into trends and types of litter.
Watch the **video** on Z-Sustainable Future.

SSPIRIT – innovative satellite and remote sensing technology to better map plastic in seas and rivers

In June 2025, the Flemish SSPIRIT project ('From Seabed to Space'), funded by VLAIO, was launched to identify and quantify plastic pollution in the Belgian part of the North Sea and the Scheldt estuary using a combination of satellite images, drones, underwater and aerial measurements, data analysis and physical modelling. By improving the detection of plastic from micro to macro size and in different water layers, the project aims to provide a complete three-dimensional picture of distribution and concentrations.

SSPIRIT brings together partners such as VITO, VLIZ, KU Leuven, the University of Antwerp, Ghent University, Blue Cluster and Flanders Space and is working on the scientific basis for future detection technologies and monitoring tools that will help policymakers and industry to combat plastic pollution more effectively. VITO's contribution focuses primarily on preparing a hyperspectral satellite mission for plastic identification, and on the direct and indirect observation of plastic pellets from 5 mm using smartphones, drones and AI.

Impact

By combining smart technology with citizen science and international cooperation, VITO makes plastic pollution visible where it used to remain hidden. This provides reliable data on where waste is generated, how it moves and which measures are most effective. This gives governments, water managers and organisations concrete tools to take more targeted action, strengthen prevention and structurally reduce the flow of plastic into the sea.

3 Footprint

Our operations

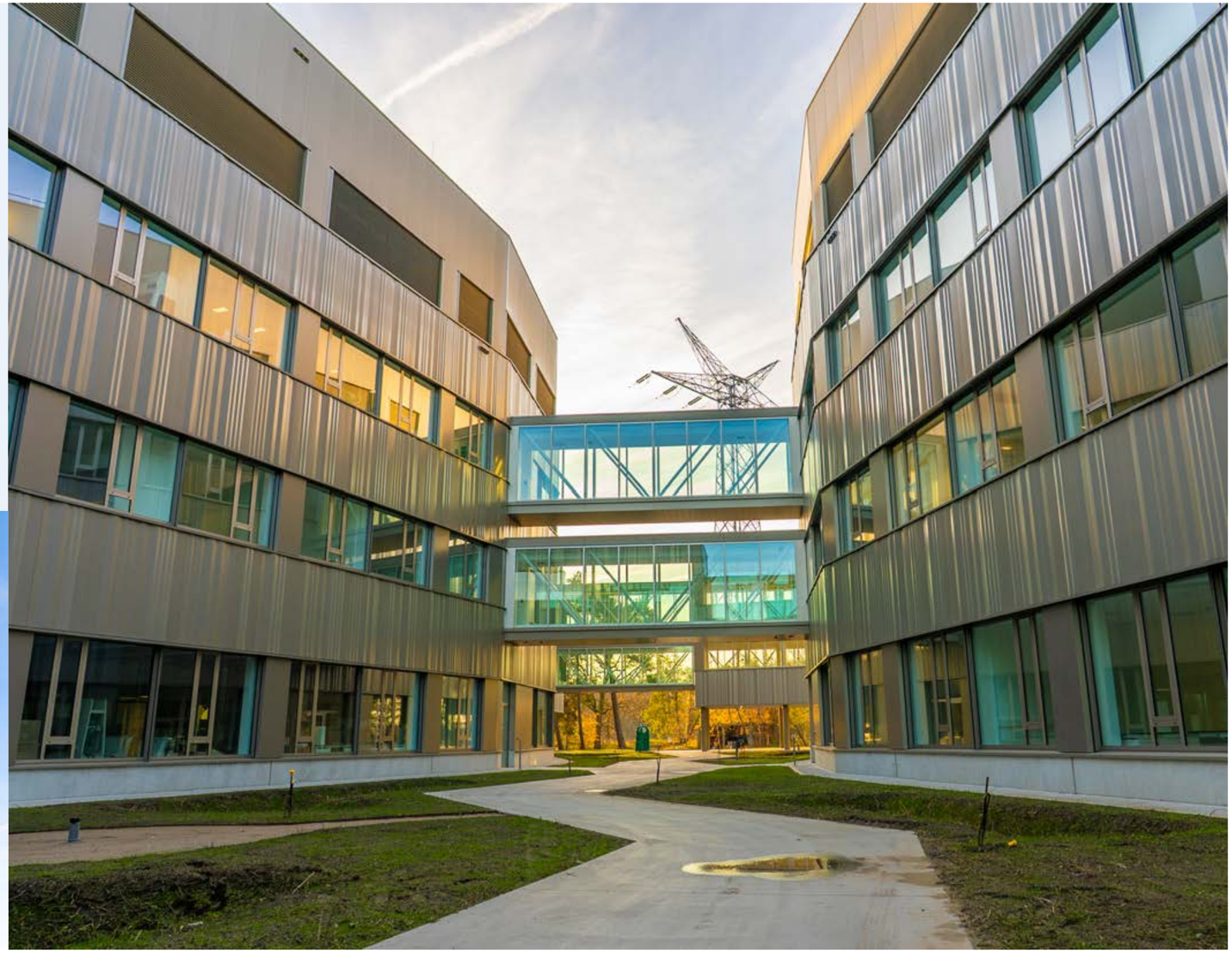
Climate action in practice

“Building on last year’s climate efforts, 2025 marks a clear shift from ambition to action. Our 2030–2045 carbon transition plan turns that ambition into concrete measures, with the new EARTH building as a first tangible milestone.”

Carmen Six
Director Finance & Operations

VITO EARTH: a benchmark for sustainable research infrastructure

With the completion of the VITO EARTH building at our main site in Mol, we are setting a benchmark for sustainable and energy-efficient research infrastructure in Flanders - a leading innovation project in the region. The building runs entirely on electricity, eliminating the need for natural gas, and thus marking an important step in the site's electrification strategy.



A few facts about VITO's carbon-neutral EARTH building

Building permit received:
February, 2023

Laying the foundation stone:
October, 2023

First interior Carbstone walls in place:
January, 2024

First Visioneers move to EARTH:
November, 2025

Official inauguration: 4 June 2026

What makes the EARTH building sustainable

1. Flanders' first climate-neutral laboratory building

Powered by underground heat and cold storage (ATES or Aquifer Thermal Energy Storage), extensive solar energy capacity (PV), and advanced energy reuse systems, EARTH is among the frontrunners in low-carbon research infrastructure. The building achieved an E0 score - an indicator of energy efficiency that counts toward the GRO assessment. Thanks to these combined features, EARTH was awarded the GRO 'excellent' label, the highest rating within Belgium's sustainability instrument for construction and renovation projects.

2. Circular design, with sustainable materials at its core

With **Carbstone/VITO carbon bricks**, reuse of industrial soil, smart water management and landscaping that enhances biodiversity, circularity is deeply embedded in the building's DNA.

3. Future-proof, flexible, and modular architecture

Movable walls, modular laboratory spaces, and adaptable infrastructure ensure long-term usability and limit the impact of renovation.

4. High comfort and low energy consumption through smart design choices

Large façade windows for natural daylight, external blinds to prevent overheating, and optimal orientation ensure energy efficiency without compromising comfort.

5. Accessible and inclusive with an A+ accessibility label

Accessible to everyone and with attention to the social dimension of sustainability, combined with a state-of-the-art working and innovation environment.

6. Electric vehicle charging infrastructure in the new parking area

The new car park at EARTH has sixty charging stations (120 charging points) and four fast chargers (8 charging points), encouraging VITO employees to use electric vehicles.

“With its E0-score and GRO ‘excellent’ rating for the EARTH building, VITO sets a new standard in laboratory infrastructure. An inspiring, inclusive lab where innovation and collaboration drive each other forward.”

Pieter-Jan Haest, Project Manager EARTH

Our impact on the climate

As a research organisation dedicated to sustainability, we are committed to controlling and reducing our climate impact.

The majority of our greenhouse gas emissions results from heating our own and neighbouring sites, from purchases related to our research activities, and from travel. To address this impact, we invest in energy-efficient buildings, collaborate with partners in our value chain to reduce their footprint, and optimise our travel practices.

In 2025, we focused on refining our carbon footprint by collecting even more primary data. At the same time, we developed a transition plan with concrete actions for our main emission sources and established a reduction pathway aligned with the Paris Climate Agreement (COP21).

Carbon transition plan VITO (E1-1)

Our approach

In drawing up VITO's carbon transition plan, we aim - and strongly believe - that targets should not only be aligned with climate science, but also demonstrably achievable and measurable.

Rather than defining targets first, we deliberately started with a thorough scenario analysis and a detailed action plan, supported by key departments such as Facilities, Procurement, HR and internal experts. This approach allowed us to define targets that are scientifically sound, ambitious and realistically achievable within VITO's context.

In addition to our ongoing commitment to the 'Intern Klimaatplan Vlaamse overheid', we now also have targets that are in line with the Paris Agreement (COP21).

The transition plan follows VITO's strategy and has been formally approved by the Direction Team. Each year, we critically evaluate our progress, review key assumptions and identify new opportunities to respond flexibly to developments. 2026 will be a crucial year: we aim to complete our move to the EARTH building and gain more insight into our carbon impact, allowing us to further refine the plan.

01 In line with climate science

Anchored in the COP21 Paris Agreement:

- Peak emissions before 2025
- IPCC: Global -43% emissions by 2030 (vs. 2019)
- Net –zero by 2050

02 Demonstrably achievable

- Backed by analyses and action plan
- Supported by available technology
- Necessary resources (OPEX/ CAPEX) behind

03 Quantifiable

- Scope 1 & 2: Measured in tCo2e, direct and trackable
- Scope 3: Proxy-based but still year-on-year measurement

Three core pillars

VITO's carbon transition plan is built around three carbon reduction pillars, based on the groups with the largest impact identified in our 2024 carbon footprint analysis (baseline measurement). These pillars guide our reduction efforts across scope 1, scope 2 and scope 3.

Pillar 1: Energy and Infrastructure

Emissions from buildings and infrastructure. We reduce this impact through two main decarbonisation levers: by making our buildings more sustainable - especially in terms of heating - and by sourcing as much renewable energy as possible.

Pijler 2: Mobility

Addressing emissions from business travel and commuting.

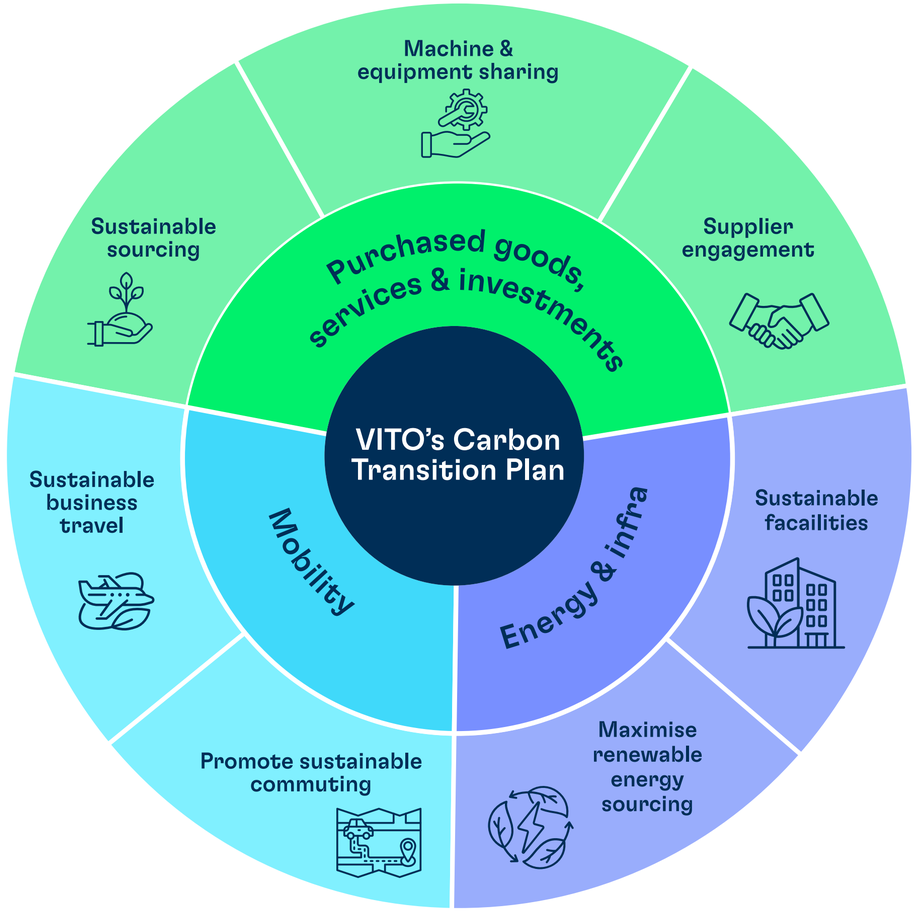
Pillar 3: Purchased goods and services, investments

Emissions generated within our value chain, most of which are indirect and difficult to measure. We address them through two approaches:

Supplier engagement: active collaboration with our suppliers to understand their progress in the carbon transition and how their climate actions align with our transition targets.

Sustainable sourcing: integrating sustainability criteria into the selection and purchase of goods and services, ensuring that our purchasing decisions support our carbon transition goals.

In addition, sharing equipment and machinery, both within our laboratories and research activities and with external partners, contributes to our circular strategy by maximising the use of existing resources before acquiring new ones.



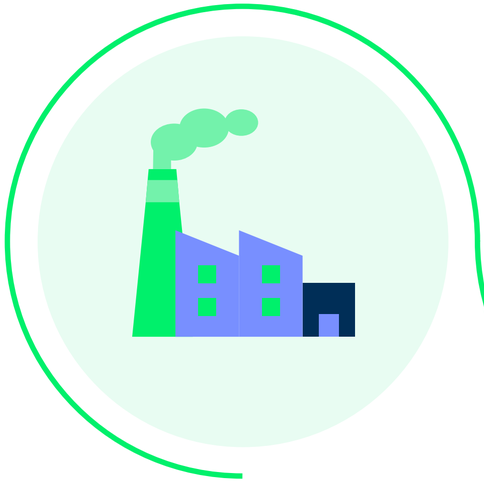
Carbon reduction levers and targets

VITO identified the key levers and corresponding actions to reduce its greenhouse gas emissions. These are grouped around the three core pillars of the carbon transition plan. A commitment or target was formulated for each lever.

For scopes 1 and 2 (energy and infrastructure), absolute reduction targets have been set. For scope 3 (purchased goods and services, investments + mobility), we apply targets that focus - depending on the category - on improvement and on reducing emissions per activity.

On the following pages, you can read more about the reduction targets for each scope.

Scope 1



Direct emissions stationary sources
4.784 tCo_2e

Direct emissions from mobile sources + fugitive emissions
160 tCo_2e

Scope 2

Electricity consumption (market-based)
45 tCo_2e

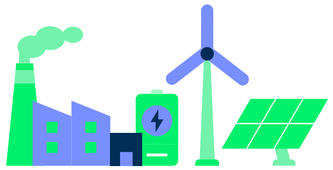
Scope 3

Purchased Goods & services
5.251 tCo_2e

Travel (Business travels and commuting)
1.816 tCo_2e

Capital goods
12.475 tCo_2e

Other
1.510 tCo_2e



Reduction targets for scope 1 en 2 - Energy and Infrastructure

VITO is committed to reducing greenhouse gas emissions from natural gas consumption at its own sites by 55% by 2030 (scope 1). At the same time, the fossil fuel supply for neighbouring sites will be phased out. In addition, VITO is continuing its efforts to purchase 100% renewable electricity (scope 2).

VITO's targets for 2045 are even more ambitious: a complete phase-out of fossil energy for all processes (scope 1), the continued purchase of 100% renewable electricity (scope 2), and increasingly efficient energy consumption in all our facilities and processes.

Dependencies

Whether VITO can achieve its scope 1 and 2 targets, depends on several factors.

A key challenge is the so-called locked-in emissions from the fossil-fuelled boilers that heat part of VITO's own facilities and neighbouring sites. Reductions in scope 1 emissions therefore depend not only on VITO's own actions, but also on the ambition of and cooperation with partners who use these installations.

In addition, significant investments in infrastructure are needed to achieve these targets, making the availability of adequate funding an important condition.

The further expansion of VITO's geothermal initiatives also plays an important role. VITO developed Flanders' first deep geothermal power plant, which supplies sustainable heat to the site and the surrounding area. At the same time, the plant supports valuable research to further roll out geothermal energy in the region. To minimise the risk of induced seismic activity, the plant operates under strictly controlled conditions that determine how it functions and how much heat can be supplied.

Some laboratory activities also require high temperatures. The transition plan assumes the electrification of these processes, but further technical analyses are needed to determine which commercial solutions are feasible.

Reduction targets for scope 3 Purchased goods and services, and investments

Supplier engagement

By 2030, VITO commits that at least 67% of its suppliers - measured based on the emissions from purchased goods and services and capital goods - will have science-based emission targets. By 2045, the ambition is for all suppliers to have established such targets.

Sustainable sourcing

By 2030, VITO will apply general sustainability criteria in all its procurement procedures. For the most important tenders, product- or service-specific criteria will also be included. By 2045, both types of criteria will be standard in every procurement process.

In addition, sharing machines and equipment will help to achieve these targets. Unnecessary purchases will be avoided and the emissions associated with materials within VITO's operations are reduced.

Dependencies

As a research centre, VITO often procures highly specialised goods and services for which sustainable alternatives are limited or unavailable. We are committed to integrating sustainability into every purchasing decision and actively engage in dialogue with key partners to explore carbon reduction opportunities.

During the implementation phase, we assess the feasibility and costs of emission reductions within our upstream supply chain. We recognise that some solutions require new technology or long-term collaboration. Achieving our targets therefore also depends on market developments and on the willingness of partners to adopt science-based targets.

Reduction targets for mobility

Employee business travel

In the short term, VITO aims to reduce emissions from air travel by 25% per FTE, with a long-term goal of a 90% reduction per FTE.

Employee commuting

In the short term, the goal is for 50% of employees to commute sustainably by (electric) bicycle, public transport, electric vehicles or carpooling. By 2045, we aim to have all employees travelling to work sustainably.

Dependencies

International cooperation is an essential part of our research. Although we are committed to reducing emissions from travel, flying remains necessary and cannot always be replaced by train or digital alternatives. Our long-term goals for emissions from travel therefore also depend in part on the decarbonisation of the aviation sector.

Dependencies

The geographical spread of our office locations means that some employees inevitably use their cars, even though they clearly prefer sustainable alternatives.

Our performance and progress 2025

Scope 1 en 2

In 2025, VITO's total greenhouse gas emissions amounted to 26,041 tonnes of CO_2e, an increase of 2% compared to 2024.

Our direct scope 1 emissions accounted for 4,944 tonnes of CO_2e, most of which came from natural gas consumption. Indirect scope 2 emissions (market-based) amounted to 45 tonnes of CO_2e, slightly higher than last year due to the continued sourcing of renewable electricity for our buildings. All electricity purchased is 100% renewable.

Our scope 1 emissions from natural gas consumption decreased by 7% compared to 2024. Scope 1 includes both the natural gas we use ourselves and the natural gas used to supply heat to our neighbouring sites. In 2025, part of our office activities moved to the fully electrified EARTH building, contributing to the phase-out of natural gas consumption. The impact of this transition will be reflected in the scope 1-3 emissions for 2026, once all activities have been relocated and the site is fully operational.

In 2025, our energy consumption shifted from 76% fossil fuels/24% renewable energy to 66% fossil fuels/34% renewable energy (see appendix, table Energy 2024–2025: consumption + mix). To further reduce emissions from heating our buildings, it was also decided in 2025 to lower the temperature in office spaces from 2026 onwards.

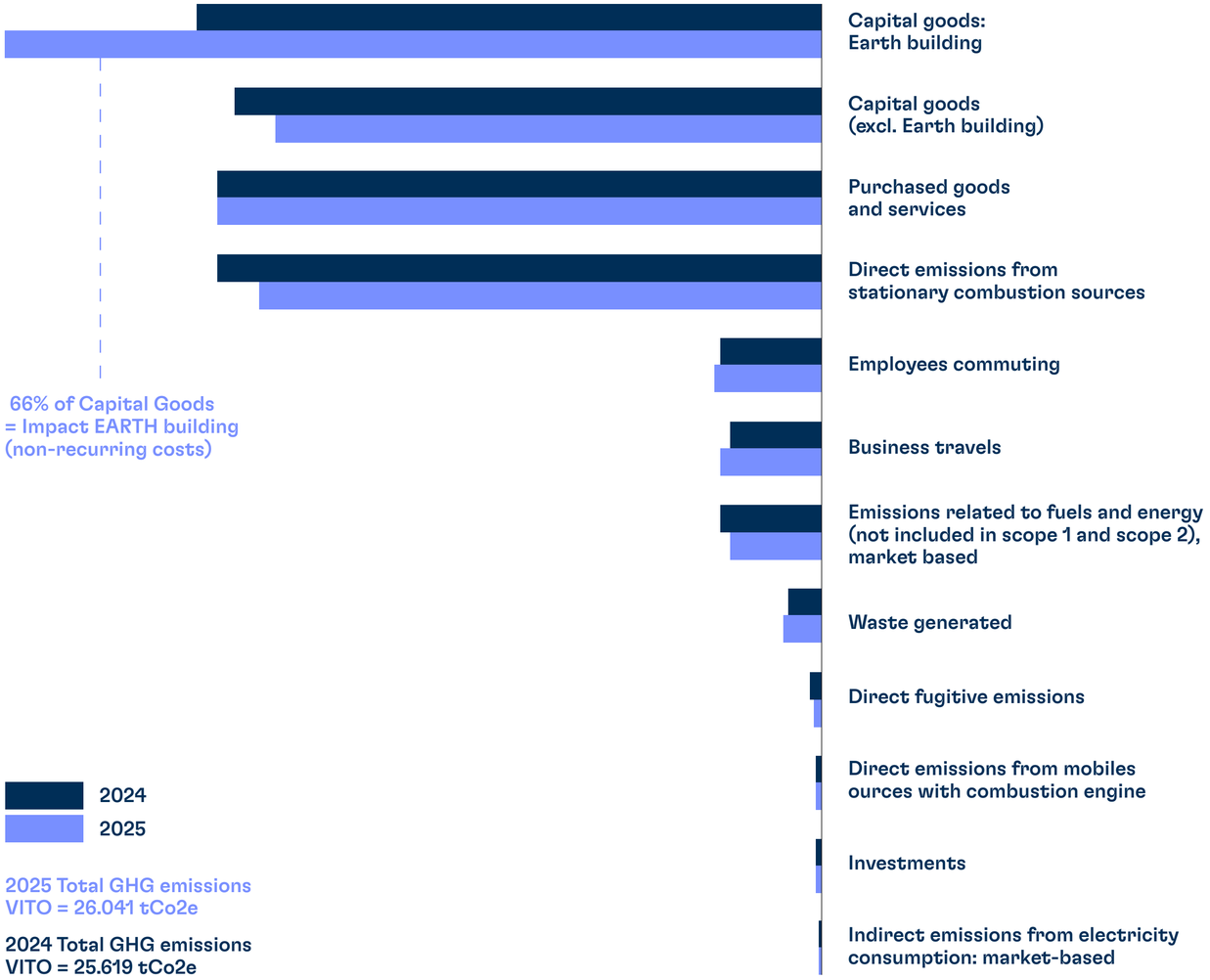
Scope 2 emissions (market-based) increased by 17%, mainly at our site in Mol. This increase is related to the carbon reduction of our facilities, where natural gas is being replaced by heat pumps and deep geothermal energy, resulting in higher electricity consumption as these systems run on electricity.

GHG emissions (tCO2e)	2024	2025
Scope 1 GHG emissions		
Gross Scope 1 greenhouse gas emissions	5.388	4.944
Scope 2 GHG emissions		
Gross location-based Scope 2 greenhouse gas emissions	824	985
Gross market-based Scope 2 greenhouse gas emissions	39	45
Scope 3 GHG emissions		
Purchased goods and services	5.230	5.251
Capital goods	11.847	12.475
…of which EARTH building	6.853	8.251
Fuel and energy-related activities	975	941
Waste generated in operations	264	417
Business travel	785	823
Employee commuting	940	993
Investments	151	151
Total Gross indirect (Scope 3) GHG emissions	20.192	21.052
Total GHG emissions (market-based)	**25.619**	**26.041**

Scope 3

As in the previous year, indirect scope 3 emissions accounted for 81% of our emissions. In total, these amounted to 21,052 tonnes of CO_2e, a slight increase of 4% compared to 2024. The main contributors were the construction of EARTH (+20%) and our PV infrastructure at the Mol sites, which together accounted for a 5% increase in emissions from capital goods. The final construction costs for EARTH were recorded in 2025, marking the completion of the project. We therefore expect a significant decrease in scope 3 emissions in 2026.

Excluding emissions from the construction of EARTH in 2024, total emissions fell by approximately 5% in 2025. This decrease is mainly due to fewer purchases of recurring capital goods, for example within our laboratory and IT environment. The reduction is further reinforced by the actions taken in 2025, including the development of a Sustainable Procurement Guidebook, which integrates climate considerations into purchasing decisions and supplier engagement.



Mobility

Emissions from business travel increased slightly in 2025 to 823 tonnes of CO_2e. The main cause was air travel, which rose by 7% tonnes of CO_2e compared to 2024.

With the introduction of a revised travel policy in 2025, we now offer clearer guidelines and incentives to encourage low-carbon travel. We try to avoid travel and opt for train travel wherever possible. To this end, we introduced a 'traffic light system' based on travel time by train. In 2025, we also improved the way we calculate emissions from business air travel by basing them on actual travel activities rather than expenditure.

Our carbon intensity in 2025

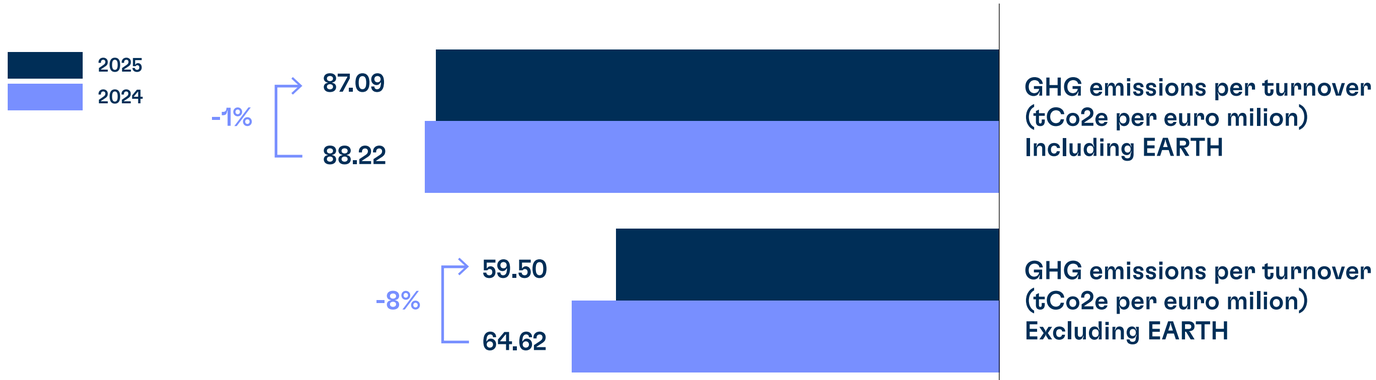
In 2025, our carbon intensity per turnover* fell slightly by 1% compared to 2024. This modest decrease is partly explained by major strategic investments, such as the EARTH building and our PV installations, which temporarily caused additional emissions. Carbon intensity per FTE** decreased by 4%.

What this means for VITO is clear: despite higher absolute emissions due to strategic projects, VITO is becoming more carbon efficient as an organisation. Emissions per employee are lower than in the previous year. This confirms that our internal measures - from energy savings and more sustainable mobility to more efficient operational processes - are beginning to bear fruit. It also shows that long-term investments are temporarily slowing down the decline in carbon intensity relative to turnover, but do not hinder the overall decarbonisation of our activities.

In short, VITO continues to make progress in reducing its CO_2 emissions, even as we expand our infrastructure and activities. With our carbon transition plan, we now have a clear roadmap and a solid foundation for sustained emission reductions in the years ahead.

*Including tCO_2e per turnover, including EARTH
**Including tCO_2e per FTE, including EARTH

1.Emission relative to VITO turnover 2025*



2. Emission relative to VITO FTE count 2025*

Our people

Visioneers take centre stage

“Challenging times call for a careful balance between financial sustainability, necessary transitions and caring for our Visioneers. What remains unchanged is our belief that human capital is our greatest strength. Every day, our Visioneers make a difference through their drive for innovation and their commitment.”

Marianne Wens
Human Capital Manager

Visioneers at the heart of our impact

At VITO, people are at the heart of everything we do. In 2025, it was once again our Visioneers who translated scientific insights into tangible solutions for industry, policy and society. Their curiosity, expertise and commitment are the driving force behind VITO's contribution to a resilient and sustainable future.

We continue to invest in an environment in which our employees feel supported and can develop themselves. In 2025, we further strengthened the Human Capital team for this purpose and refined its structure, roles and responsibilities. At the same time, we supported the organisational transformation and further developed the strategic Human Capital Plan 2030 in line with VITO's long-term ambitions.

The result is a clear vision and a sharpened ambition, in which talent is central to all phases of the employment lifecycle. Important in this regard is the reaffirmation of the strategic well-being theme FIT@VITO, our focus on total reward in support of a sustainable financial future, and preparations for the continued growth of the organisation, management and employees, including through the strategic programme Visioneers in Leadership. Leadership is an essential pillar of VITO's success. With Visioneers in Leadership, we strengthen this pillar, invest in leadership development and make leadership a shared responsibility. Current and future managers receive support based on a clear vision that helps them connect, inspire and guide others in order to achieve impact together.

We invest in talent, well-being, and diversity and inclusion, in line with the strategic focus in the hand and footprint model. These three pillars form the core of the Human Capital vision.
In our programmes, we focus on ownership, self-reflection, a culture of feedback and constructive collaboration.

1. Developing, retaining and strenghtening talent

Attracting, retaining and enabling our employees to flourish forms the foundation of our talent policy. Growth and development are supported by personal guidance, team development and a strategic training offer. Our Visioneers take ownership of their careers, supported by managers, mentors and colleagues who reinfoce each other within and across teams. In 2025, we recorded more than 15,000 training hours and a participation rate of 84%.

Continuous learning and development are embedded in the DNA of a knowledge-driven organisation. We therefore continue to invest in renewing our learning pathways, internal mobility, and leadership. In 2025, we designed new programmes and initiatives to be rolled out in 2026, including an onboarding toolkit for new managers and the selection of a new learning platform that introduces learning paths and new formats such as podcasts, microlearning and webinars. Supporting processes, such as recruitment and selection, onboarding and training, were also evaluated with a view to further optimisation.

In 2025, we filled 153 vacancies, which is in line with the period 2022–2024, and welcomed 128 new starters, mainly in R&D positions. 148 employees were supported during their onboarding through the digital onboarding app and rated this support positively.

At VITO, we encourage empowerment so that employees can contribute ideas, participate in decision-making and make a difference, for example through the Young Advisory Board. This platform gives young talents an active voice within the organisation. In 2025, a new batch of members joined the YAB.

2. Well-being: a holistic and evidence-based approach

Well-being is a strategic pillar at VITO. The FIT@VITO programme combines mental, physical and social well-being and is approached on four levels: individual, team, manager and organisation.

In 2025, we offered various training courses and coaching initiatives, including team scans to promote collaboration and connection, individual and team coaching, and individual programmes, with mindful@work and 'dealing with perfectionism' as two of the most popular courses. This offering was in line with the results of the FIT@VITO survey and the Impact Scorecard, an internal tool for monitoring and managing our impact KPIs.

In 2025, clear agreements, prevention policies and support continued to ensure that employees can work safely and healthily, both physically and mentally. The Committee for Prevention and Protection at Work safeguards well-being and safety and ensures that agreements are implemented in practice and further improved. This is supported by **our policy on quality, health, safety and the environment**, which includes concrete objectives and guidelines. In addition, activity-based working remains the basis of our way of working and our commitment as an **HR Excellence in Research organisation** underlines our commitment to good working conditions for our researchers and the entire community.

"This is the second year our team has participated in Run & Freeze, each time with different colleagues. The competitive relay aspect motivates us to give it our all, but above all, participating together fosters team spirit and solidarity. And finishing off with spaghetti and a drink makes it complete."

Niels Cautaerts, Researcher VITO

FUN@Work remains an important lever for fostering connection. Through the VITO Activito community, our employees organise sporting, social and community activities, ranging from company competitions to joint charity initiatives. Initiatives such as Run and Freeze, the VITO quiz, campaigns for Kom op tegen Kanker and joint volunteer activities strengthen informal contact between colleagues and a sense of belonging. During larger events such as VITO Day, we also join forces for social projects, such as cleaning up rivers. Our annual summer party likewise offers a moment to connect in a relaxed atmosphere and get to know each other better.

3. Diversity and inclusion: a broad perspective for broader impact

Diversity, equality and inclusion (DEI) are structural drivers for scientific quality and social innovation. At VITO, we create an environment in which every Visioneer – regardless of background, nationality, beliefs or preferences – can contribute fully.

As an internationally oriented organisation, our diversity continues to grow. The number of international employees on the payroll rose from 244 to 263; our entire international community grew from 349 to 375 people, with representatives from 73 different nationalities (compared to 69 in 2024). This diversity enhances creativity, multidisciplinarity and the quality of our research, while also increasing VITO's appeal as an employer.

Diversity is not an end in itself, but a strength that further enhances our scientific excellence and societal impact. It requires leadership that can flexibly respond to teams composed of employees, PhD researchers, consultants, postdocs, interim staff and interns.

Employee in the spotlight: Brida Mbuwir

In 2025, Brida Mbuwir, a researcher at VITO's Water and Energy Transition Unit, was selected as European Young Energy Ambassador by the European Commission. In this role, she represents young people in policy dialogues on the energy transition, including during European Sustainable Energy Week, and shares insights on inclusive and equitable energy supply.

At VITO, Brida works on innovative energy technologies, such as smart grids and renewable energy, translating science into social impact.

"Energy poverty remains a global challenge that needs context-driven policies rather than one-size-fits-all goals. Realistic and inclusive targets that account for geographic diversity, vulnerable groups and resource constraints are the first step to tackling this challenge."

Brida Mbuwir

Employee in the spotlight: Gwen Willeghems

After six years in VITO's Water and Energy Transition Unit, Gwen felt that her role was gradually shifting. 'My work evolved more towards qualitative research, while I personally prefer working at the intersection of insights and data. Over time, I also discovered that I thrive best in a generalist role, where different perspectives come together.'

Thanks to internal mobility, Gwen moved to another domain within VITO. "In my new role, I once again find the mix of qualitative and quantitative research. I work on a variety of topics – from heat pumps and heat exchangers to batteries and solar panels – and do so in close collaboration with different teams at VITO. What I enjoy is that I can still work with my former colleagues; I didn't really want to leave them behind. At the same time, I remain part of an organisation that truly suits me: value-driven, flexible and with exceptionally great colleagues."

Gwen Willeghems

4 Good governance

“Good governance builds trust. It gives our researchers the freedom to work independently and provides our partners with the confidence that VITO stands for quality, integrity, and transparency.”

Peter Vercaemst
Deputy to the CEO

VITO's governance framework

As one of the four Strategic Research Centres (SOCs) in Flanders, VITO operates every day at the intersection of science, policy, and societal impact. This mission is embedded in a five-year management agreement with the Flemish Government, its supervising shareholder. The **current agreement**, covering the period from 2024 to 2028, provides the compass for VITO's operations and ambitions.

Good governance is therefore not a formality, but an essential condition for trust and impact. The Board of Directors and the Direction Team jointly steer the organisation, safeguard its strategic direction, and ensure that VITO operates transparently, carefully, and in compliance with applicable regulations.

To maintain focus on this responsibility, the Board of Directors is assisted by several consultative and advisory bodies. The Audit Committee oversees financial management and internal processes, while the Remuneration Committee advises on remuneration and employment conditions. The Scientific Advisory Board acts as a sounding board for the research strategy, and the Valorisation Board guides the translation of knowledge into societal and economic value, including through spin-offs and technology transfer.

The foundation for all of this is laid out in the **Charter for Good Governance**, which clearly outlines VITO's organisational structure, the associated roles and responsibilities, and the nature of its relationship with the Flemish Region. Together with the staff code of conduct and the policy on scientific integrity, this charter provides a solid foundation for independent and reliable research. By consistently working according to evidence-based principles and recognised European and Belgian research standards, VITO safeguards its independence and impartiality.

Board of Directors and Direction Team

In composing VITO's Board of Directors, deliberate attention has been paid to democratic representation, diversity, and a balanced mix of skills, experience, and expertise. One third of the voting board members are independent.

The **Charter for Good Governance** continues to provide the framework for careful and ethical governance. It ensures that decisions are taken on the basis of independent and objective judgement, free from personal or professional bias. Board members are expected to avoid conflicts of interest and to perform their role at VITO impartially, irrespective of any private or professional ties with other organisations.

Board of Directors

Chair: Ingrid Vanden Berghe

Voting members: Danielle Vermaelen, Christiane Malcorps, Eric Vermeylen, Jan Delcour, Isabel Van Driessche, Elke Van de Walle, Wim Van den Abeele, Robert Malina, Bob Van den Broeck, Michel Meeus, Francis De Meyere

Attend the meeting in an advisory capacity: Inge Neven (CEO), Rien Hoeyberghs (regeringscommissaris), Arnout Pieters (regeringscommissaris)

Observers: Johan Keppens (PMV), Annelies De wael (WEWIS), Wesley Boënne (VITO), Maarten Spruyt (VITO), Peter Vercaemst (VITO, secretaris)

Elke Van de Walle

Board member since: April 2016
Permanent representative of PMV
Profession: Member of the Executive Committee of ParticipatieMaatschappij Vlaanderen, Legal Affairs and Audit
Education: Master's degree in Law
Internal positions: Board member, member of the Remuneration Committee
External positions: Board member of Welvaartsfonds, Blue Gate Antwerp Public Holding, Blue Gate Antwerp Development, member of PMV's fund investments investment committee

Ingrid Vanden Berghe

Board member since: 1997-08
Occupation: Administrator-General, National Geographic Institute
Education: Master's degree in Bioengineering
Internal positions: Chair of the Board of Directors, member of the Remuneration Committee
External positions: Acting Chair of the European Section of the United Nations Committee of Experts on Global Geo-Information Management (UN-GGIM:Europe), member of the UN-GGIM Executive Committee, Chair of the G-Cloud Strategic Council, guest lecturer at KULeuven

Wim Van den Abbeele

Board member since: April 2016
Occupation: CEO WATERZANDE and HAZ
Education: Master's degree in Law
Internal positions: Board member
External positions: Board member DE NIL VLEESWAREN, chair of the board of directors Zingametall

Francis De Meyere

Board member since: 2022-10
Occupation: Chief of Staff for General Policy to the Deputy Prime Minister, Minister of Finance and Pensions
Education: Master's degree in Commercial Engineering
Internal positions: Board member

Isabel Van Driessche

Board member since: March 2017
Occupation: Dean of the Faculty of Science, Ghent University
Education: Doctor of Chemistry
Internal positions: Board member
External positions: Board member of Ostend Science Park, team leader of the SCRiPTS research group

Jan Delcour

Board member since: 2022-12
Profession: Professor emeritus with assignment at KU Leuven
Education: Master's degree in Food Science and Technology, Doctorate in Bioengineering Sciences
Internal functions: Board member, member of the Remuneration Committee, member of the Valorisation Council
External positions: Chair of the Board of Directors of NV Brouwerij Lindemans, NV Tilia, NV Bio-Incubator and vzw Instituut Brood & Gezondheid, Board member of FWO-Vlaanderen, NV Foodport, NV Better3Fruit and The International Maize and Wheat Improvement Centre (CIMMYT)

Eric Vermeylen

Board member since: April 2016
Occupation: Secretary-General – Flemish Council of Universities of Applied Sciences
Education: Master's degree in Engineering Sciences
Internal positions: Board member, member of the Remuneration Committee

Danielle Vermaelen

Board member since: September 2023
Occupation: Independent Director, Honorary Accountant
Education: Master's degree in Business Engineering with a specialisation in Policy Informatics
Internal roles: Board Member, Member of the Audit Committee
External roles: Board positions, including EOS Science, Belgium Japan Association, and the Chamber of Commerce

Michel Meeus

Board member since: April 2010
Occupation: Alderman for the municipality of Dessel, Director of Support Services at Elegast vzw
Education: Master's degree in Medical-Social Sciences and Hospital Policy
Internal positions: Board member, Chair of the Audit Committee
External positions: Board member of KSOM, Welzijnszorg Kempen

Robert Malina

Board member since: 2023-09
Occupation: Institute Director and Professor of Environmental Economics, Hasselt University
Education: Doctor of Economic Sciences
Internal positions: Board member
External positions: Member of the scientific advisory board of Clean Aviation, subgroup leader at the International Civil Aviation Organisation (ICAO), ICAOCAEP Task Force on Fuels L, member of the Research Council of Hasselt University

Christiane Malcorps

Board member since: 2022-10
Profession: Independent director, investor-founder, innovative and sustainable transformation strategist, former global director at Solvay
Education: Master's degree in Chemical Engineering (Belgium), Master's degree in Biomedical Engineering (USA), PhD in Veterinary Science (major) & Biomedical Engineering (minor) (USA)
Internal positions: Board member, member of the Audit Committee
External positions: Chair of the Mentes General Meeting, board member of SONACA, Genius Forum, ImpaktEU, KVAB, TfB, member of the Board of Directors of Ariadne Innovation, ESG, Sustainable Stories, mentor at YL-IM, ASATT, BeWiSe, GDA Incubator

Bob Van den Broeck

Board member since: 2025-11
Occupation: Administrator-General, Agency for Justice and Enforcement
Education: Master's degree in Law, Master's degree in International and European Law
Internal positions: Board member
External positions: Guest lecturer at the University of Antwerp, member of the High Council of Justice

Rien Hoeyberghs

Government Commissioner since: 2025-12
Occupation: Deputy Chief of Staff to Flemish Minister-President Diependaele
Education: Master's degree in Engineering Sciences, Master's degree in Policy Economics
Internal positions: Government Commissioner
External positions: Director at NIRAS, Government Commissioner at Technopolis

Arnout Pieters

Government Commissioner since: 2025-12
Occupation: Energy & Climate Advisor to the Deputy Prime Minister of the Flemish Government and Flemish Minister for Housing, Energy & Climate, Tourism & Youth
Education: Master's degree in Public Administration and Public Management and Master's degree in Economics
Internal positions: Government Commissioner
External positions: Board member at the National Institute for Radioelements, Member of the National Climate Commission

Direction Team

From left to right: Leen Govaerts (Water & Energy Transition), Carmen Six (Business Support Services), Rudi Torfs (Environmental Intelligence), Bert Bouwman (Materials & Chemistry), Inge Neven (CEO)

Inge Neven

Position: Chief Executive Officer
Member of the Board since: 23 May 2023
Education: Master's degree in Bioengineering, Master's degree in Precision Agriculture ENSAM, MBA Vlerick
External positions: Member of the Supervisory Board of the Foundation against Cancer, member of the Audit Committee and Supervisory Board of P&V Group, member of the Supervisory Board of EARTO, member of the Supervisory Board of Business Benelux Roundtable

Carmen Six

Position: Director, Finance and Operations
Executive Board Member since: 15 November 2023
Education: Master's degree in Applied Economics; MBA, Hasselt University; Master's degree in Corporate Finance, Vlerick Management School

Leen Govaerts

Position: Director, Water and Energy Transition
Executive Board Member since: 1 January 2024
Education: Master's degree in Business Engineering; MBA
External roles: Board Member, EnergyVille; Vice-Chair, EERA (European Energy Research Alliance); Chair, BERA (Belgian Energy Research Alliance); Chair, Open Thor cv

Bert Bouwman

Position: Director, Materials and Chemistry
Executive Board Member since: 1 January 2024
Education: Master's degree in Electronics – Semiconductors
External roles: Member of the Catalisti Focus Group; Board Member, HYVE

Rudi Torfs

Position: Director, Environmental Intelligence
Executive Board Member since: 1 January 2024
Education: Master's degree in Engineering: Applied Physics; Master's degree in Physics
External roles: Member of the Medvia Innovation Board; Member of the Flemish AI Steering Group

Extended Direction Team

Peter Vercaemst

Position: Deputy CEO
Executive Board Member since: 1 January 2024
Education: Master's degree in Business Engineering; Master's degree in Environmental Sciences
External roles: Board Member, VIL

Yves Plees

Position: Director, Marketing and Internationalisation
Executive Board Member since: 1 June 2024
Education: Master's degree in Communication Sociology; MBA in Business Administration
External roles: Member of the Advisory Board, Engage 4; Member of the Advisory Board, IndiGov

Dirk Vangeneugden

Position: Valorisation Director, Materials and Chemistry
Executive Board Member since: 1 April 2024
Education: PhD in Chemistry

Clemens Mensink

Position: Research Director, Environmental Intelligence
Executive Board Member since: 1 January 2024
Education: Master's degree in Engineering: Mechanical Engineering; PhD in Applied Sciences
External roles: Chair, International Technical Meeting on Air Pollution Modelling and its Applications; Professor of Atmospheric Modelling, Ghent University

Thomas Cardinaels

Position: Research Director, Materials and Chemistry
Executive Board Member since: 15 August 2024
Education: PhD in Chemistry
External roles: Professor of Chemistry, KU Leuven; Board Member, Catalisti

Marlies Van Holm

Position: Valorisation Director, Water and Energy Transition
Executive Board Member since: 1 May 2024
Education: Master's degree in Engineering and Architecture; MBA, Warwick Business School (UK); Advanced Master's degree in Cultural Studies
External roles: CMO, EnergyVille

Bert Gysen

Position: Research Director, Water and Energy Transition
Executive Board Member since: 1 January 2024
Education: Master's degree in **Engineering:** Electromechanics
External roles: Chair, IEA Energy Storage TCP; Executive Director, EnergyVille; Board Member, KIC InnoEnergy Benelux; Board Member, Flux 50, Campus EnergyVille, Thor Park

Roel Smolders

Position: Valorisation Director, Environmental Intelligence Unit
Executive Board Member since: 1 September 2025
Education: Bioengineer: PhD in Biological Sciences
External roles: Member of the Innovation Stakeholder Board, UZ Leuven

Shane O'Seasnáin

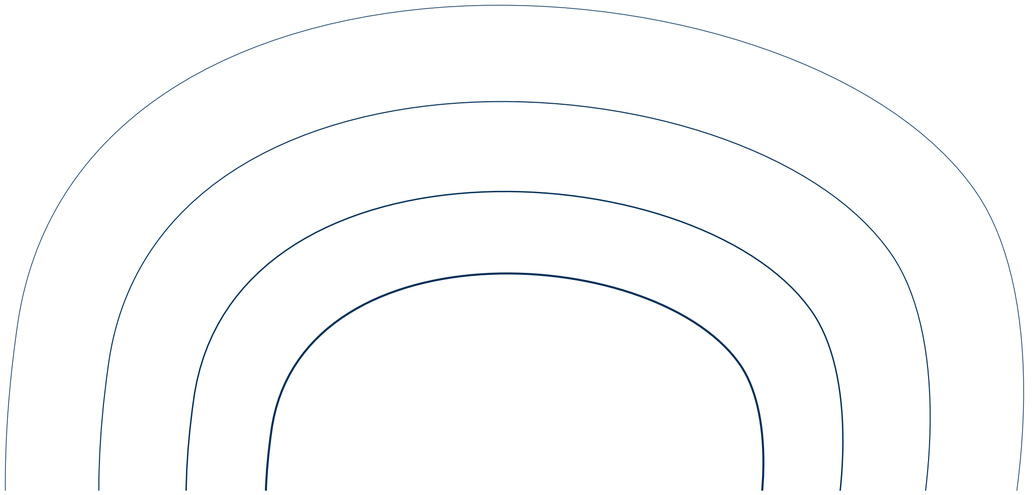
Position: Director Digitisation and AI
Executive Board Member since: 1 October 2025
Education: Master Electronic Systems
External roles: Board member BDVA, Guest Researcher TU/e, Expert DG-CNECT

Marianne Wens

Position: Director Human Capital
Executive Board Member since: 1 January 2024
Education: Bachelor Sociale Sciences

Remuneration for management

VITO's Board members and advisory committee members receive remuneration for their mandates, with fees set by the General Assembly. The Board of Directors determines grants, attendance fees, and advisory council remuneration. The Directors Team's salary package, set by the Board, includes a fixed salary and a variable component based on achieving VITO's strategic goals. Performance is assessed using financial and societal impact KPIs informed by VITO's management agreement with the Flemish government. All other employees are remunerated according to VITO's collective labour agreement.



Sustainability management

At VITO, positive societal impact is central. That is why we fully integrate sustainability into our corporate strategy and directly incorporate the insights from our double materiality assessment (DMA). In this way, we maximise our positive impact (handprint) and limit and control our negative impact (footprint).

In 2025, this strategy was further concretised with objectives set out in the Impact Scorecard, an internal tool for monitoring and managing our impact KPIs. This puts our impact at the heart of how we manage our organisation.

The Direction Team determines VITO's strategic course, sets annual objectives and monitors their implementation within their areas of responsibility, ensuring that we make targeted progress towards our sustainability goals. Several members were actively involved in the DMA in 2024, ensuring that material themes and strategic priorities are closely aligned.

The IMPACT team coordinates the execution of our strategy, monitors progress and supports the organisation in delivering strategic and sustainable impact projects. At the same time, they provide stakeholders with transparent updates on progress in impact and sustainability.

The Board of Directors receives regular updates and assesses key sustainability results or issues, which are then formally approved. In this way, we ensure that impact and sustainability are deeply embedded in everything we do.

In 2025, the Direction Team confirmed that an update of the double materiality assessment was not required. No changes occurred in VITO's own activities or value chain that would materially affect the scores or thresholds, meaning the 2024 analysis remains sufficiently representative. The need for a DMA revision is assessed on an annual basis.

Risk management

In 2025, VITO conducted a renewed company-wide risk analysis to identify potential risks and opportunities relevant to its strategic objectives. This involved assessing strategic, operational, financial, compliance and reputational risks across the entire organisation, with input from various sources and stakeholders, including the annual environmental council report and internal and external audits.

All risks were assessed based on their likelihood and impact and included in the Enterprise Risk Register. For each risk, a risk owner and an action owner were designated to monitor the risks and take mitigating measures. The results serve as input for the 2026 audit plan and contribute to strengthening VITO's governance.

In 2025, the annual environmental council report served as important source of input. In 2026, VITO will systematically continue to integrate sustainability-related impacts, risks and opportunities into its company-wide risk management.

Corporate culture, ethics, and scientific integrity

At VITO, ethical and responsible conduct is central to everything we do. This is embedded in our code of conduct, which applies to all employees and provides clear guidelines on appropriate behaviour, integrity, and transparency. The code ensures that VITO complies with all relevant legislation and internal rules, leaving no room for bribery, conflicts of interest, or inappropriate benefits such as gifts or commissions. It also reflects our core values: sustainability, fair collaboration, excellence, innovation, and customer focus. The Direction Team actively safeguards this culture through training, internal communication, and leading by example.

Through our complaints and whistleblowing procedures, employees, partners, and other stakeholders can safely report potential breaches or unethical behaviour. To prevent mistakes and misuse, VITO also applies clear delegation rules and a four-eyes principle for sensitive decisions and processes.

As a research organisation, VITO places particular emphasis on scientific integrity and ethics. Our research and valorisation activities are guided by principles such as diligence, reliability and verifiability, independence and impartiality, and social responsibility. VITO adheres to the Belgian Ethical Code for Scientific Research and the European Code of Conduct for Research Integrity (ALLEA). We have a dedicated contact point for scientific integrity and recognise the Flemish Commission for Scientific Integrity (VCWI) as an external advisory body. When necessary, VITO actively seeks their advice and incorporates it into decision-making. To identify and manage potential ethical concerns early, research or valorisation projects are reviewed in advance.

To structurally ensure these principles, VITO has established a Committee for Ethics and Scientific Integrity (CESI). Chaired by the Deputy CEO and including representatives from all research and support units, CESI develops internal guidelines and advises staff and the Direction Team on ethical matters. This includes, among other things, research involving human participants, the use of human cells or tissues, privacy and GDPR, dual-use risks, and artificial intelligence. Where possible, VITO opts for non-animal testing methods and actively contributes to their development.

In 2025, an internal policy for the responsible use of generative AI was also introduced. At the same time, CESI identified additional areas of attention, including dual-use technology, collaborations outside the EU, and trustworthy AI, for which further guidelines are currently being developed.

Potential breaches of scientific integrity can be reported via a central contact point within VITO, with the option to request an external second opinion from the **VCWI**. This ensures an open, transparent, and integrity-driven research environment where trust and responsibility go hand in hand. In 2025, no reports were filed.

As a research institute, VITO plays a key role in the scientific underpinning of policy and regulation at the Flemish, Belgian, and European levels, supporting the green transition and societal impact. This policy dialogue is conducted transparently and independently: VITO is registered in **the EU Transparency Register** and does not provide financial contributions to political parties.

Privacy and data security

Privacy

Privacy is a top priority at VITO. We ensure that personal data is processed securely, in line with GDPR and the expectations of our stakeholders. In 2025, following internal audits, we reviewed and updated our guidelines and procedures.

The Data Protection Officer prepares an annual action plan to further enhance data protection and embed responsibilities across all units and support services. This ensures that VITO continues to prioritise transparent, secure, and proper data processing. For more information on VITO's privacy policy: **vito.be/en/privacy-policy**

Information security

Information security is firmly embedded in VITO's organisation. In 2025, our information security policy was fully reviewed and updated, integrating core cybersecurity principles and clearly defining roles and responsibilities. This strengthens our cyber resilience and aligns with our strategic objective to optimally protect information.

Preparations for the NIS2 Directive included a thorough security assessment using the NIS2 CyFun framework, allowing us to refine our policies and set clear objectives and measures for the coming years. Compliance with these standards, including requirements from the Belgian Cybersecurity Centre (CCB), enhances the trust of customers, partners, and governments in the management of data such as health information, geo-intelligence data, and material passports.

VITO opt for transparancy: data breaches and security incidents are reported to internal stakeholders, the national CSIRT, data protection authorities, and affected individuals.

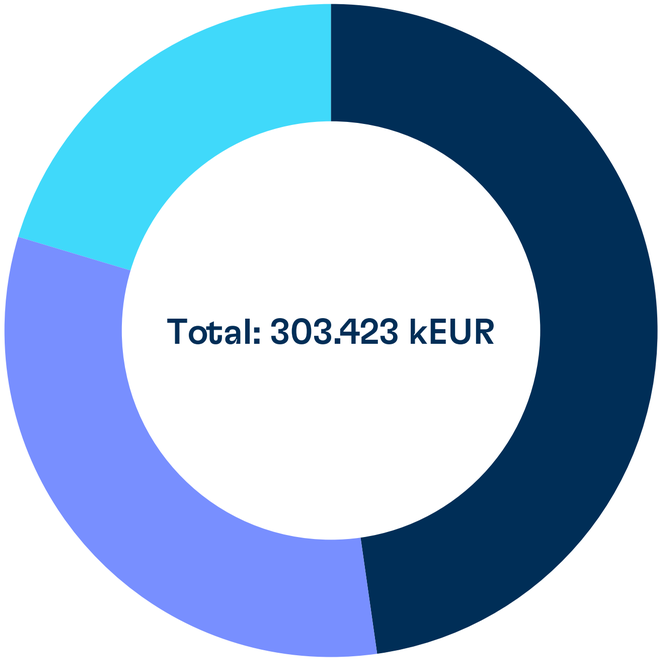
Future goals

VITO continues to improve its data processing practices and raise awareness of privacy and cybersecurity. In addition, the Information Security Awareness programme is being further integrated into company training courses so that all employees have the knowledge and skills to comply with the highest security standards. Information security thus remains embedded in our culture and daily operations.

At the same time, we are committed to continuously improving our cyber resilience, further implementing the NIS2 CyFun framework and robust governance. As an independent research centre, VITO classifies itself as an 'essential' entity under Belgian NIS2 legislation and aims to achieve the highest certification by April 2027.

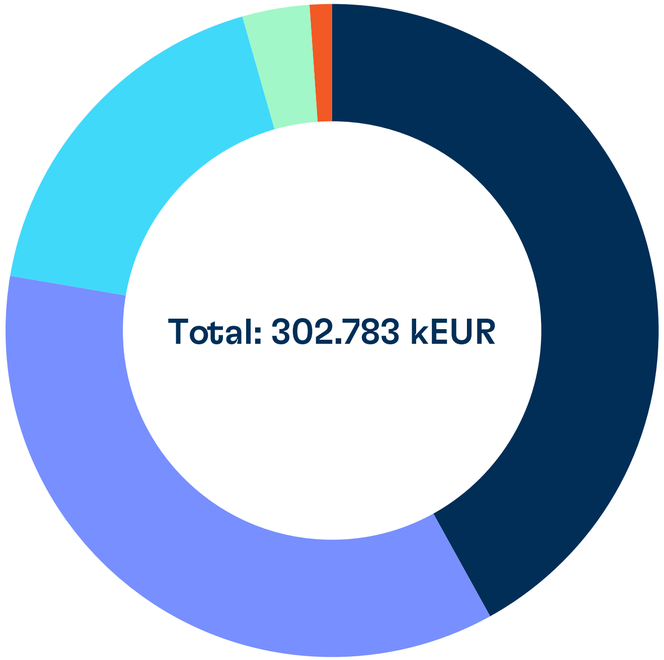
Financial health

Revenue 2025



- Business revenue: 147.279 kEUR
- Activation R&D: 90.000 kEUR
- Grants: 66.144 kEUR

Expenditures 2025



- Personnel costs: -137.515 kEUR
- Depreciation R&D: -90.000 kEUR
- Operating costs: -67.332 kEUR
- Depreciation: -6.357 kEUR
- Others: -1.579 kEUR

5 Appendix

List of reporting requirements

Disclosure requirement		Reference
ESRS 2 BP-1	General basis for preparation of sustainability statements	Page 102
ESRS 2 BP-2	Disclosures in relation to specific circumstances	Page 102
ESRS 2 GOV-1	The role of the administrative, management and supervisory bodies	Page 79-86 VITO's Sustainability Manager leads the development and coordination of the organisation's sustainability strategy, reporting to the Sustainability Steering Committee, which includes the CEO, deputy-CEO, and Finance and Operations Director.
ESRS 2 GOV-2	Information provided to and sustainability matters addressed by the undertaking's administrative, management and supervisory bodies	Page 79-87 The Board and Directors validated the results of the double materiality assessment, confirming all material IROs. Necessary actions and policy amendments to manage these IRO were discussed. The Board receives regular updates and discusses or approves key sustainability matters. VITO is further refining its governance framework to ensure effective oversight of sustainability-related IROs.
ESRS 2 GOV-3	Integration of sustainability-related performance in incentive schemes	Page 86
ESRS 2 GOV-4	Statement on due diligence	Efforts to further incorporate sustainability in our business processes: 1) Different processes are being set up to further refine the governance of IRO's: ESRS 2 GOV 2 2) Integrating the principles of DMA & Stakeholder engagement in VITO's business processes: Page 106 – 115 3) Identifying and assessing negative impacts on people and the environment : Page 106 – 115 4) Taking action to address negative impacts on people and the environment Page 106 – 115, page 71-77 – 17 en page 56- 70 5) Tracking the effectiveness of these efforts and communicating : Page 71-77 - 17, page 56- 70 en page 87-88
ESRS 2 GOV-5	Risk management and internal controls over sustainability reporting	Page 88 As explained in chapter 5. Deugdelijke bestuur, different actions took place in 2025 regarding our risk management. In 2026, we will work to better integrate the sustainability-related impacts, risks and opportunities with this business processes of VITO

ESRS 2 SBM-1	Strategy, business model and value chain	Page 4- 6, page 9-16 Further information on the business model and value chain of VITO can be found in the 2024 impact report and the DMA in appendix
ESRS 2 SBM-2	Interests and views of stakeholders	Page 106 – 115
ESRS 2 SBM-3	Material impacts, risks and opportunities and their interaction with strategy and business mode	Page 106 – 115
ESRS 2 IRO-1	Description of the processes to identify and assess material impacts, risks and opportunities	Page 106 – 115
ESRS 2 IRO-2	Disclosure requirements in ESRS covered by the undertaking's sustainability statement	This disclosure requirement tabel
ESRS E1-1	Transition plan for climate change mitigation	Page 56- 70
ESRS E1-2	Policies related to climate change mitigation and adaptation	Page 56- 70 Page 121-122 Page 123-133
ESRS E1-3	Actions and resources in relation to climate change policies	Page 56- 70
ESRS E1-4	Targets related to climate change mitigation and adaptation	Page 56- 70
ESRS E1-5	Energy consumption and mix	Page 123-133

ESRS E1-6	Gross Scopes 1, 2, 3 and Total GHG emissions	Page 123-133
ESRS E1-7	GHG removals and GHG mitigation projects financed through carbon credits	N/A
ESRS E1-8	Internal carbon pricing	N/A
ESRS E1-9	Anticipated financial effects from material physical and transition risks and potential climate-related opportunities	We aim to develop a robust methodology to accurately and quantitatively capture financial effects associated with material IROs. The finalization of the revised ESRS will serve as input in the design of the most effective methodology. Additionally, we aim to integrate the financial assessment of material risks and opportunities in our current businesses processes, ensuring that the outcomes of these assessments are optimally leveraged within the organization's decisionmaking framework.
ESRS E2	Pollution	not material - more information in Appendix page 106 - 115
ESRS E3	Water & marine resources	not material - more information in Appendix page 106 - 115
ESRS E4	Biodiversity & ecosystems	not material - more information in Appendix page 106 - 115
ESRS E5	Resource use and circular economy	not material - more information in Appendix page 106 - 115
ESRS S1-1	Policies related to own workforce	Page 71-77 Page 121-122
ESRS S1-2	Processes for engaging with own workers and workers' representatives about impacts	Page 106 - 115
ESRS S1-3	Processes to remediate negative impacts and channels for own workers to raise concerns	Page 89-90 Page 71-77 Page 106 - 115

ESRS S1-4	Taking action on material impacts on own workforce, and approaches to mitigating material risks and pursuing material opportunities related to own workforce, and effectiveness of those actions	Page 71-77 We focus on talent, well-being, and diversity & inclusion, in line with the strategic focus of the handprint and footprint model. These three pillars therefore form the core of our Human Capital vision. More information about how this strategic focus was developed can be found in the 2024 double materiality assessment.
ESRS S1-5	Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities	VITO has set several targets in relation to its diversity & inclusion policy. These are published in the diversity & inclusion action plan (Link: https://vito.be/en/about-vito/diversity-and-inclusion) VITO also monitors several KPI's such as the number of nationalities, the age distribution, the number of trained managers/ employees in 'bias", etc. VITO engages its workforce in setting these targets, especially through the Young Advisory Board, and the extended FIT@VITO (1/4 years) survey.
ESRS S1-6	Characteristics of the undertaking's employees	Page 117-120
ESRS S1-7	Characteristics of non-employee workers in the undertaking's own workforce	Page 117-120
ESRS S1-8	Collective bargaining coverage and social dialogue	Page 117-120
ESRS S1-9	Diversity metrics	Page 71-77 Page 117-120
ESRS S1-10	Adequate wages	All employees within VITO's own staff are paid an adequate wage according to applicable benchmarks. Periodic benchmarks on VITO's wages are performed.
ESRS S1-11	Social protection	All employees of VITO are subject to the legislation relating to occupational accidents and the social security system by operation of law. This includes: health insurance, unemployment benefits, parental leave, retirement benefits VITO also has the following insurance policies: life/death group insurance, additional insurance for accidents, insurance for work relocation with a private vehicles, additional hospitalisation insurance, outpatient insurance.
ESRS S1-12	Persons with disabilities	Given the lack of definition (within CSRD or the Flemish work context) of what constitutes a person with a disability, VITO will await clarification on the concept to report on.

ESRS S1-13	Training and skills development metrics	Page 117-120
ESRS S1-14	Health and safety metrics	not material - more information in Appendix page 106 - 115
ESRS S1-15	Work-life balance metrics	Page 117-120
ESRS S1-16	Compensation metrics	Page 117-120
ESRS S1-17	Incidents, complaints and severe human rights impacts	VITO provides an internal reporting channel for whistleblowers to highlight breaches (via SD Worx). In 2025 no irregularities were reported. In addition, VITO provides two internal confidential advisors for psychosocial support, and employees also have the option to contact an external prevention advisor through IDEWE vzw. In 2025, there were 12 informal psychosocial interventions with VITO's internal confidential advisors and 7 informal interventions handled by IDEWE. No formal psychosocial interventions were recorded, and there were no registrations of transgressive behavior. The exact content of these informal interventions are confidential and may relate to all subjects within transgressive behavior. Page 89-90 Page 71-77
ESRS S2	Workers in the value chain	not material - more information in page 106 - 115
ESRS S3	Affected communities	not material - more information in page 106 - 115
ESRS S4 -1 (entiteitspecifiek)	Policies related to clients and partners	Page 9-16 As explained in the chapter on VITO's handprint, collaboration with clients and partners is essential for VITO in realizing its vision. VITO supports its clients through the translation of research into solutions and advice. VITO collaborates across the sustainability knowledge chain to enhance innovation. While this commitment is actively reflected in our operations, it is not yet formalized in a dedicated company policy.

ESRS S4 -2 (entiteitspecifiek)	Processes for engaging with clients and partners	Page 112-115
ESRS S4 -3 (entiteitspecifiek)	Processes to remediate negative impacts and channels for clients and partners to raise concerns	VITO regularly engages with clients and partners. During all of these moments of contact clients and partners have the opportunity to raise concerns. Additionally, VITO sends out Client satisfaction surveys at the end of every contract. Furthermore, VITO provides a reporting channel for whistleblowers to highlight breaches. This includes both VITO's employees as well as third parties. More information on the whistleblower can be found in the Appendix page 121-122.
ESRS S4 -4 (entiteitspecifiek)	Taking action on material impacts on clients and partners, and approaches to mitigating material risks and pursuing material opportunities related to clients and partners, and effectiveness of those actions	Page 9-16 VITO regularly engages in dialogue with customers and partners. The input from these conversations is used to assess whether further action or policy changes are needed. Any necessary actions relating to negative impacts are discussed at the level of the CEO, the unit directors, valorisation and research, and are addressed on an ad hoc basis by the Board of Directors. VITO also has various initiatives in place to mitigate negative impacts on SMEs and start-ups, and provides accessible access to its innovation services, expertise, training and funding. Page 113 – 115' (See Appendix page 100)
ESRS S4 -5 (entiteitspecifiek)	Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities	VITO did not set any time-bound or outcome-oriented targets.
ESRS G1 GOV-1	The role of the administrative, supervisory and management bodies	Page 79-86
ESRS G1-1	Corporate culture and business conduct policies and corporate culture	Page 89-90
ESRS G1-2	Management of relationships with suppliers	not material - more information on the DMA can be found in appendix page 106 - 115
ESRS G1-3	Prevention and detection of corruption and bribery	Page 89-90 Page 121-122
ESRS G1-4	Confirmed incidents of corruption or bribery	In 2025 there were no confirmed incidents of corruption or bribery, nor were there any fines for violation of anti-corruption and anti-bribery laws.

ESRS G1-5	Political influence and lobbying activities	Page 89-90
ESRS G1-6	Payment practices	not material - more information on the DMA can be found in appendix page 106 - 115
ESRS G (entiteitspecifiek)	Policies, actions, metrics and targets related to privacy and data security	Page 91 Page 121-122

Basis for preparation

Name: VITO NV (Enterprise number KBO: 0244.195.916)
Legal structure: Public limited company under public law
Head office: Boeretang 200, 2400 Mol, Belgium
Reporting period: 1 January 2025 – 31 December 2025

Time horizons

In this report and in VITO's double materiality assessment, time horizons are defined as follows:

- Short-term time horizon: up to one year,
- Medium-term time horizon: one to five years
- Long-term time horizon: more than five years.

Sources of estimation and outcome uncertainty

VITO aims to disclose data as correctly and accurately as possible, using primary data where available. For all data inputs in our carbon footprint, we aim to provide a complete and accurate representation of GHG emissions and their impact. Where granular data was unavailable, we applied a consistent approach to estimate missing values. For a full overview of all assumptions and uncertainties, please find in appendix our 2025 carbon footprint methodology.

Scope of consolidation

This report complements VITO NV's financial figures with non-financial information for 2025. The scope of the consolidation as applied in VITO's annual financial accounts includes 3 subsidiary which are fully consolidated:

- Site-Ontwikkeling Vlaanderen (Boeretang 200, 2400 Mol, Belgium - 0473.563.304)
- Clean Vision Invest (Boeretang 200, 2400 Mol, Belgium - 0778.490.029)
- VITO Asia Limited (Dawning House, 145 Connaught Road Central 11 bus F, Hong-Kong Hong-Kong, Hongkong)*

*In line with our financial statements, we have included all relevant entities within the scope of our non-financial reporting. This includes our subsidiary, VITO Asia Limited. However, we note that this entity does not employ any staff members, operates without a physical location or leased premises, and is solely engaged in preliminary business development activities. While VITO Asia Limited is formally included in the reporting boundary, its operational scale and influence are negligible, and as such, it does not affect the overall materiality or completeness of our sustainability disclosures.

Independent assurance

To ensure the completeness and accuracy of the information presented, the external audit firm RSM carried out an assurance engagement with a limited degree of certainty (limited assurance). This engagement covered the entire impact report, with the exception of the individual impact stories, as well as all CSRD data requirements that are material to VITO.

Although VITO is not currently legally required to report in accordance with the CSRD, we have chosen to do so voluntarily. In doing so, we aim to further strengthen the quality and reliability of our sustainability reporting and inspire other organisations to adopt similar transparent reporting practices.

Transparency towards our stakeholders and continuous improvement of our data quality are key priorities for VITO. The independent and critical assessment by a third party such as RSM supports us in achieving these objectives.

REPORT OF THE INDEPENDENT AUDITOR FOR THE YEAR ENDED DECEMBER 31, 2025 TO THE ATTENTION OF VITO N.V.

Scope

We have been engaged by Vito N.V. to perform a 'limited assurance engagement', hereafter referred to as "the Engagement", to report on certain sustainability information of Vito N.V (the "Company") as listed in Appendix 1 (the "Subject Matter") and as included in the impact report 2025 (the "Report") for the period from 1 January 2025 to 31 December 2025.

Other than as described in the preceding paragraph, which sets out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the Report, and accordingly, we do not express a conclusion on this information.

Conclusion

Based on review, nothing has come to our attention that make us believe that the Subject Matter of Vito, as listed in Appendix 1, and as included in the Report for the period from 1 January 2025 to 31 December 2025, was not prepared, in all material respects, in accordance with the Criteria.

Criteria applied by VITO

In preparing the sustainability information as listed in Annex 1 of the Report, Vito applied the ESRS standards (on a voluntary basis) and the Greenhouse gas protocol, (the "Criteria").

Basis for conclusion

We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements other than Audits or Reviews of Historical Financial Information" (ISAE 3000), published by the International Auditing and Assurance Standards Board. This standard requires that we plan and perform our Engagement to obtain limited assurance about whether, in all material respects, the Subject Matter is presented in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error

Our engagement has been carried out in compliance with the legal requirements in respect of auditor independence, particularly in accordance with the rules set down in the Belgian Act of 7 December 2016 organizing the audit profession and its public oversight of registered auditors, and with other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our firm also applies the International Standard on Quality Management 1. Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

VITO's responsibilities

VITO's management is responsible for selecting the Criteria, and for presenting the Subject Matter in accordance with the Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the Subject Matter, such that it is free from material misstatement, whether due to fraud or error.

Our responsibilities

Our responsibility is to express a conclusion on the presentation of the Subject Matter based on the evidence we have obtained.

Procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Subject Matter and related information and applying analytical and other appropriate procedures.

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

Our procedures included amongst other:

- Obtaining an understanding of the reporting processes for the Subject Matter;
- Evaluating the consistent application of the Criteria;
- Interviewing relevant staff at local level responsible for data collection, reporting and calculation of the Subject Matter;
- Interviewing management and relevant staff at corporate level responsible for consolidating and carrying out internal control procedures on the Subject Matter;
- Determining the nature and extent of the review procedures for each of the locations contributing to the Subject Matter.
- Obtaining information that the Subject Matter reconciles with underlying records of the Company;
- Evaluating, on a limited test basis, relevant internal and external documentation;
- Performing an analytical review of the data and trends in the Subject Matter for consolidation at corporate level and the data reported by the sites;
- Evaluating the overall calculation of the Subject Matter.

We also performed such other procedures as we considered necessary in the circumstances.

ANNEX 1

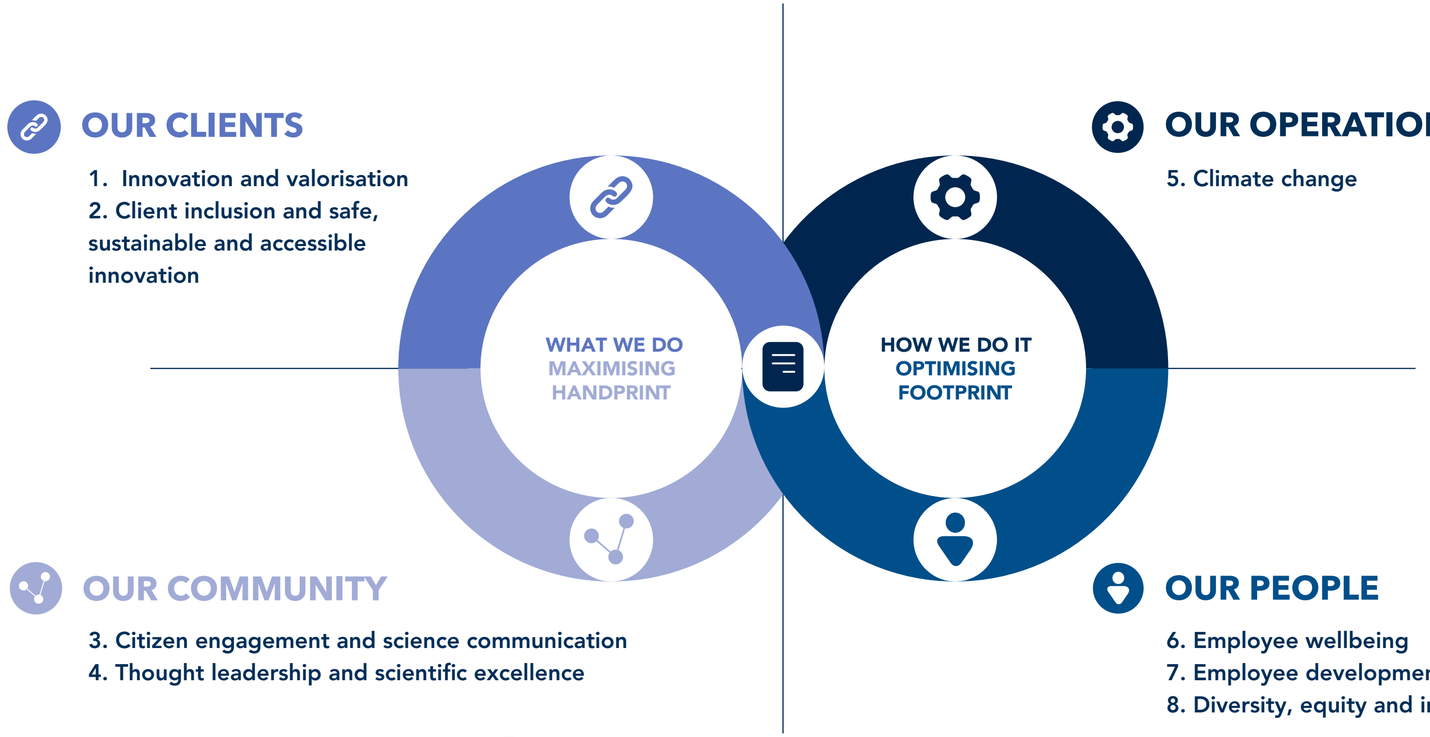
Our assurance engagement covers all sections of the impact report except the chapter around "Impact stories".

Zaventem, March 30 2026

RSM INTERAUDIT SRL
Registered Auditors

Represented by
Deborah Fischer
Partner

VITO's double materiality assessment and stakeholder engagement



OUR CLIENTS

1. Innovation and valorisation
2. Client inclusion and safe, sustainable and accessible innovation

OUR OPERATIONS

5. Climate change

OUR COMMUNITY

3. Citizen engagement and science communication
4. Thought leadership and scientific excellence

OUR PEOPLE

6. Employee wellbeing
7. Employee development
8. Diversity, equity and inclusion

GOOD GOVERNANCE

9. Business conduct, corporate values and research ethics
10. Privacy and data security

Sustainability is the common thread running through everything we do. Our first double materiality assessment, carried out from May to September 2024, confirmed this focus and helped shape the handprint and footprint framework that now guides our strategy and this impact report. The footprint shows how we use resources, our environment and people sustainably, while the handprint reflects the positive change we set in motion: innovation that strengthens Flanders, supports companies in growing more competitively, and accelerates the rollout of sustainable, circular solutions.

We identified 10 topics that are the most important to our organization and that stakeholders expect us to take action on. These 10 material topics are clustered according to VITO's handprint-footprint model and will form the core of this report.

The need for a revision of VITO's DMA is evaluated annually. In 2025, the Direction Team confirmed that an update of the double materiality assessment was not required. No material changes have occurred in VITO's operations or value chain that would affect the validity of the 2024 assessment. For 2026 VITO will continue to integrate the (outcome of the) DMA in its existing business processes.

The assessment process from 2024 can be found below. Feel free to read our full 2024 impact report, which can be found **here.**

Material topics

1. Innovation and valorisation

This topic addresses the impact VITO creates through its technology development, services and innovation support to industry and policy (e.g. Support in reducing clients' environmental footprint, increased climate resilience, contribution to healthier living environment…)

2. Client inclusion and safe, sustainable, and accessible innovation

This topic emphasizes the importance of engaging with a broad client base, including start-ups, SMEs and non-profits, by addressing their unique needs and financial constraints. It also focuses on developing technology that is safe and sustainable by design (SSBD), ensuring that our innovations, once scaled to industrial/commercial level, are safe and accessible to a wide range of end-users. This approach supports a fair and just transition to more sustainable practices.

3. Citizen engagement and science communication

This topic addresses the role VITO plays in science communication and dissemination to the broader public, inspiring and educating citizens to take sustainable action in their daily life or professional choices.

Collaboration across all actors in the quintuple helix—industry, government, scientific partners, society, and the environment—is fundamental to VITO's business strategy. We therefore chose to report on this as a comprehensive, cross-cutting theme. Citizen engagement and science communication, as key elements of our interaction with broader society, form an essential part of this theme.

4. Thought leadership and scientific excellence

This topic addresses VITO's impact through its contribution to the development, strengthening and expansion of the knowledge base on sustainable development.

5. Climate change

This topic addresses the direct and indirect greenhouse gas emissions from VITO's own operations and in the value chain (scope 1, 2 and 3).

6. Employee wellbeing

This topic addresses working conditions and physical and mental wellbeing of employees: fostering secure employment, reasonable working hours, fair compensation, collective bargaining and social protection.

7. Employee development

This topic focuses on VITO's talent management lifecycle, aiming to enhance employee excellence. It concerns VITO's approach to advancing the knowledge and skills of current and future employees through training, performance evaluations, and coaching, thereby promoting employability and career growth.

8. Diversity, equity and inclusion

This topic focuses on equal treatment and opportunities for all in the workplace (incl. Recruitment) in own operations

9. Business conduct, corporate values and research ethics

This topic addresses how VITO ensures integrity, independence and excellence through ethical, responsible and value-driven business and research conduct.

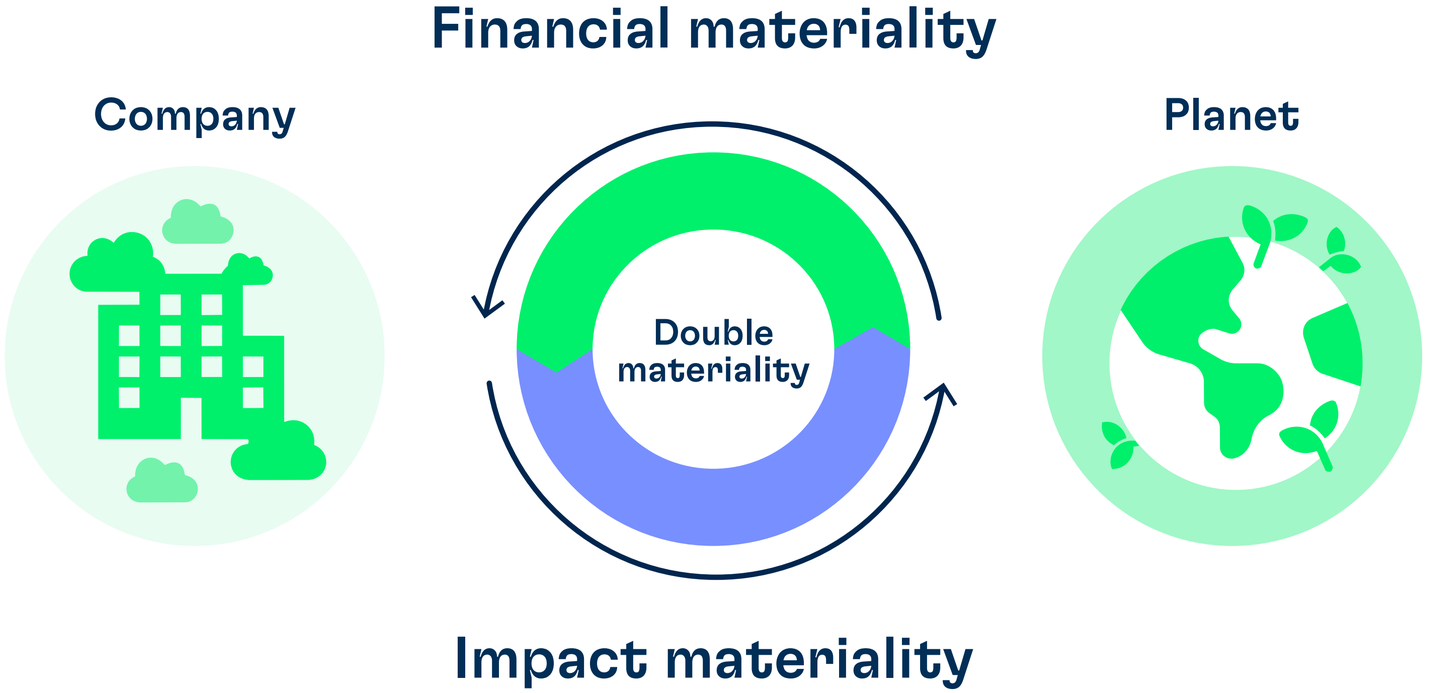
10. Privacy and data security

This topic addresses impacts, risks and opportunities related to collection, retention, and use of sensitive, confidential, and/or proprietary employee, client, citizen or partner data.

2024 double materiality assessment process

From May to September 2024, VITO conducted its double materiality assessment following the EFRAG guidelines. It encompasses the following steps:

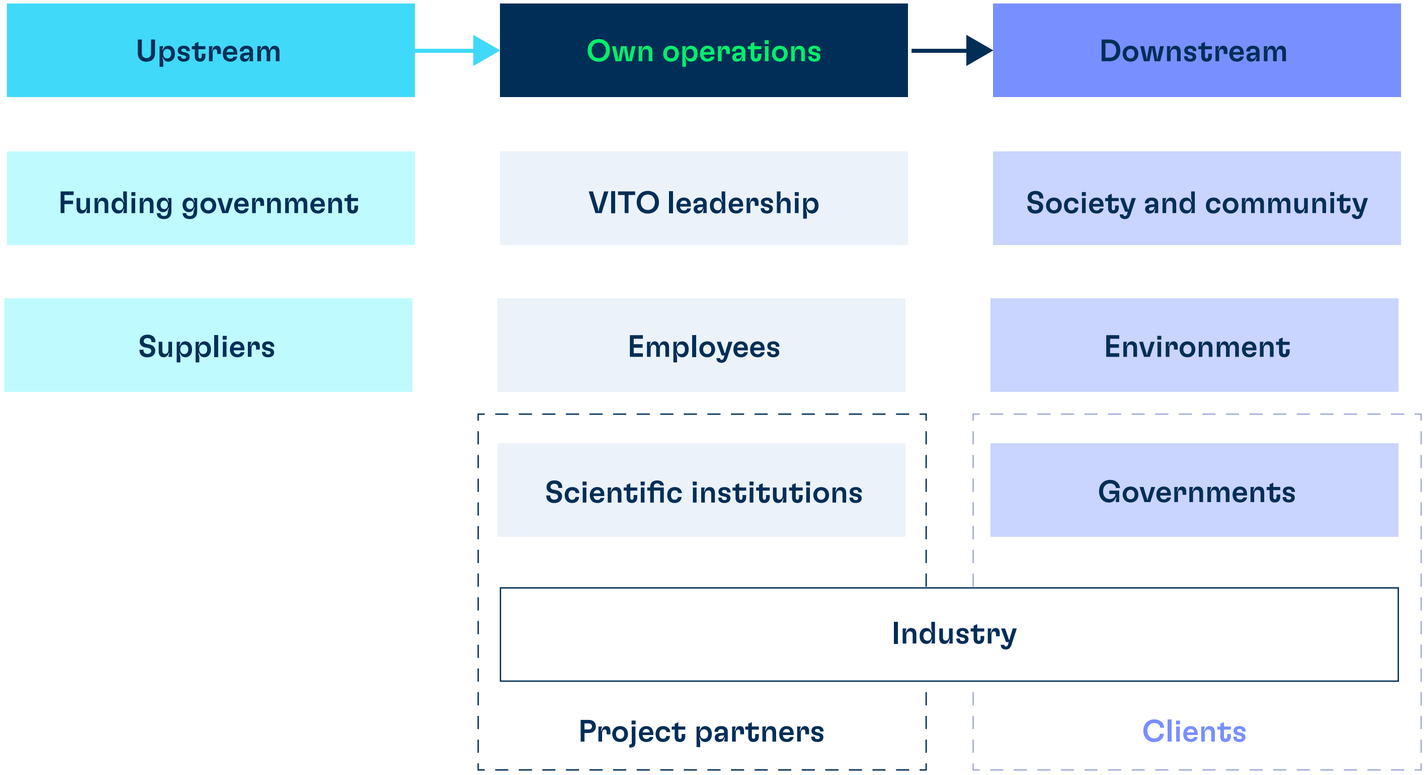
1. Preparation
2. Identification of relevant ESG topics and corresponding IROs
3. Assessing IROs on impact and financial materiality
4. Consolidation and validation of the final list of material ESG topics.
5. Double Materiality Assessment outcome



1. Preparation

A first step was to map VITO's main activities and corresponding value chain and key stakeholders to ensure a solid materiality assessment process with a broadly informed outcome. As a knowledge institute, VITO relies on its unique human capital, infrastructure and processes to create knowledge in the form of demonstrators and pilots, tools and solutions, policy recommendations and scientific output.

This is not done in isolation but through strong interaction with the quintuple helix (industry, government, scientific partners, society and environment). Based on this value chain mapping, 9 key stakeholder groups were identified, both within the organization and across the value chain: clients, leadership, employees, suppliers, scientific partners, neighbouring communities, funding government, society and environment. For each stakeholder group, we defined the mode of engagement and at which stage of the materiality assessment process engagement would be most appropriate (see table below).



2. Identification of relevant ESG topics and corresponding IROs

In the identification phase, we identified the relevant (= potentially material) ESG topics and corresponding list of impacts, risks, and opportunities (IROs) for VITO, deploying an objective evidence-based approach whenever possible. This list was prepared based on:

- ESRS and other internationally recognized ESG standards
- Existing internal documentation and data and stakeholder engagement documents
- Peer analysis
- Third-party data and research (such as scientific papers)
- External and internal stakeholder interviews
- Review, validation and addition by stakeholders from across the organization.

This resulted in a longlist of 22 relevant ESG topics and 147 IROs. While our base is still the topics as defined by ESRS, we noticed in this phase the need to adapt based on the specificities of a research institute and research activities. Consequently, we split some of the ESRS defined topics into its subtopics (for example, S1 Own workforce was split into topics 'Employee wellbeing', 'Employee development', 'Diversity, equity and inclusion' and 'Health and safety') to evaluate materiality on a subtopic level and allow for more precise scoping in and out.

We also introduced entity-specific topics to cover the impacts, risks and opportunities that were not covered by the topical standards. We made the conscious decision to capture the impacts, risks and opportunities related to VITO's innovation, technology development and policy advice to clients in a separate entity-specific topic 'Innovation and valorisation'. VITO is active across the ESRS environmental topical standards. Including the impact made through client work on each of these subtopics would dilute VITO's own impact through its (value chain) operations and lead to difficult discussions on the relative importance of the different business units during financial and impact materiality scoring.

3. Assessing IROs on impact and financial materiality

The IROs identified in the previous phase were then scored according to ESRS guidelines in three separate workshops with broad internal representation and expertise according to the themes that were discussed. In these workshops insights from the desk research and interviews were taken into account. Each workshop consisted of introducing the ESG topics and corresponding IROs, ensuring a common understanding and then individual scoring of the IROs. During the workshop, it was possible to add additional topics or IROs.

4. Consolidation and validation of the final list of material ESG topics

The scores from the materiality workshops were then consolidated into a materiality matrix showing impact and financial materiality on the axes. In a workshop with representatives from the Directors' Team, these results were discussed and validated and thresholds for materiality were decided on. The outcome of the double materiality assessment was validated by the Directors Team, the Board and by an external auditor in pre-assurance.

5. Double Materiality Assessment outcome

We carried out a diligent evaluation of our impacts on the environment and society (impact materiality) as well as the sustainability-related risks and opportunities for VITO (financial materiality). We have summarized the outcome showing the ten topics that are most important to our organization and that stakeholders expect us to take action on (Figure 1). The topics are clustered according to VITO's sustainability focus areas. 9 topics are identified as material and hence form the focus of VITO's sustainability reporting for 2024. In addition, given the strong match with our VITO values and culture, we choose to voluntarily report on 'diversity, equity and inclusion'. For the topics that fell under our materiality threshold in 2024, we still recognize our existing footprint and impact. We will therefore aim to, in the future, also include disclosures on the key impacts and actions relevant to our stakeholders where applicable.

Value chain and stakeholder engagement

Through its research and valorisation activities, VITO aims to create positive societal impact across its three impact domains. This is achieved not in isolation but through strong interaction with industry, governments, scientific partners, society and environment. Collaborating with and considering the needs of this broad group of stakeholders ensures that our research is relevant, capable of addressing complex challenges and creating lasting societal impact.

The Impact pathway framework can thus be regarded as VITO's value chain. This value chain is not linear but involves multiple feedback loops and interactions among various stakeholders. Throughout the value chain, VITO identifies nine key stakeholder groups. These groups and the engagement model for each are described in table below.

Stakeholder group	Key material ESG topics	Involvement in double materiality assessment	Modes of engagement		
			Mode	Outcomes	Directors Team / Board involvement
Clients and partners	• Innovation and valorisation • Client inclusion and safe, sustainable and accessible innovation • Business conduct, corporate values and research ethics • Privacy and data security	• Interviews (both industry and government clients) • Internal documentation (stakeholder survey, client satisfaction surveys) • Representation from across VITO's units and leadership team in the identification and scoring workshops	• Direct engagement in projects and ongoing relationship management • Client satisfaction survey • Social media • Events (Love tomorrow, FTI, CVS…) • Structural discussions in the context of spearhead clusters, reference tasks… • Dedicated contact person for key accounts • Scale-up Flanders, EDIH EBE and VITO4STARTERS	• Feeds research and valorisation roadmaps to better meet client needs • Client relationship management • Input from engagements is used to evaluate if further actions or changes in policy need to be implemented	• CEO, Unit, Valorisation and Research directors • Discussed at the Board on an ad hoc basis
Employees	• Innovation and valorisation • Employee wellbeing • Employee development • Diversity, equity and inclusion • Business conduct, corporate values and research ethics • Privacy and data security	• Interview with union representatives • Human Capital representation in identification and scoring workshop	• Regular Works council consultations* • Engagement survey (FIT@ VITO)* • Intranet + daily / weekly newsletter • Townhalls • HR Business partners • Goal and development conversation • Whistleblower's channel, confidential counselor • Young advisory board*	• Feeds HR strategy • Input from engagements is used to evaluate if further actions or changes in policy need to be implemented	• Human Capital director • FIT@VITO one of the VITO targets, progress discussed with the Board on a quarterly basis

Society	• Innovation and valorisation • Client inclusion and safe, sustainable and accessible innovation • Citizen engagement and science communication • Climate change	• Interview with Flemish government as key shareholder and representative of (Flemish) society • Internal experts present in identification and scoring workshops	• Events • Social media • News articles • VITOpolis • Citizen science projects	• Feeds communication strategy • Input from engagements is used to evaluate if further actions or changes in policy need to be implemented	• Director Marketing, Communication and International Affairs • Discussed at the Board on an ad hoc basis
Local community	• Innovation and valorisation • Climate change • Citizen engagement and science communication • Employee wellbeing	• Interview with VITO spokesperson for Mol area • Presence of environmental coordinator and facility and technical services in identification and scoring workshops	• Regular consultations with local authorities and neighbouring companies • Regular consultations with local advisory boards (e.g. MONA) • Information sessions for the neighbourhood • Direct contact point via vito.be and email for citizen inquiries • VITO spokesperson for the Mol neighbourhood	• Input from consultations are used to evaluate if further actions need to be implemented	• Alderman of local municipality in Board
Suppliers	• Climate change • Business conduct, corporate values and research ethics • Privacy and data security	• Representation from Procurement present in identification and scoring workshops	• Direct engagement via procurement and/or in project context • Supplier evaluations	• Input from engagements and evaluations is used to evaluate if further actions or changes in policy need to be implemented	• Director Finance and Operations

Scientific partners	• Thought leadership and scientific excellence • Innovation and valorisation • Business conduct, corporate values and research ethics • Privacy and data security	• Interview with VITO's Research Office • Academic representation during identification and scoring	• Conferences • Publications • Structural collaborations • Participation in common projects, forums, and associations	• Feeds into research strategy • Input from engagements is used to evaluate if further actions or changes in policy need to be implemented	• Research and Valorisation director and unit research directors • Board members from academic community • Scientific Advisory Council as advising committee to the Board
Shareholder (Flemish government)	• All	• Interview with responsible policy officer for VITO • Internal documents consulted (e.g. covenant 2024-2028, evaluation of covenant 2019-2023) to feed identification and scoring workshops	• Attendance in Board meetings • Regular consultations with Directors Team • Yearly reporting on covenant requirements	• Input feeds into corporate strategy	• Regular interactions with full Directors Team and Board
Environment	• Climate change • Client inclusion and safe, sustainable and accessible by design • Innovation and valorisation	• Environmental coordinator and environmental and impact assessment experts present during identification and scoring workshop	Silent stakeholder		
VITO leadership	• All	• Directors Team members present in every workshop • Setting of thresholds by Sustainability SteerCo	Not applicable		

* See: Extra information to understand the engagement with employees

Extra information to understand the engagement with employees:

FIT@VITO surveys: measuring the wellbeing experience, identifying areas of improvement and defining relevant actions. We look at this on a company level. On team level each team discusses their outcome to define actions. The most recent survey was the FIT barometer conducted in June 2024, a ‘pulse check’ as a follow-up of the extended survey in 2022. It got a high response rate of 77%. The results were mostly in line with 2022. Wellbeing scores were largely unchanged and comparable to external benchmarks. More information on the 2024 results can be found in the 2024 impact report page 73. The next survey is planned in 2026.

The Works Council is a formal consultative body within the company, consisting of employees and employer, whose task it is to represent the interests of both the organisation and the employees. Periodic meetings take place and the minutes from these meetings are published on our intranet. Often environmental, social or governance topics make up a key part of the agenda.

VITO’s Young Advisory Board (YAB) consists of 14 young VITO employees who help shape the future of our organisation. The Young Advisory Board meets with the CEO, Human Capital Manager and other representatives from the management team to provide input and feedback on the corporate policies and guidelines, and initiating and providing feedback on progress of corporate and YAB-led initiatives.

Our People – metrics

Number of employees (headcount)

	2023	2024	2025
Total number of employees over the year	1.296	1.393	1.454
Total number of employees at end of year (31/12)	1.127	1.200	1.258
Number of payroll employees (31/12)	927	990	1.044
Number of non-payroll employees (31/12)*	200	210	214

*Non-payroll employees consist of: PhDs and postdocs that are not on VITO's payroll but whose research is linked to VITO (through for instance a VITO promotor), Visiting researchers, Consultants, Internships, Regular visitors, Interim, Regiewerkers

Employee turnover rate (payroll only)

	2023	2024	2025
Number of employees (head count) who left VITO	70	75	86
Number of employees (head count) on 31/12	927	990	1.044
Employee turnover rate	7,55%	7,58%	8,24%

Number of employees (headcount) per contract type and gender

	2023				2024				2025			
	Female	Male	other or not disclosed	Total	Female	Male	other or not disclosed	Total	Female	Male	other or not disclosed	Total
Number of employees (payroll)*	367	560	0	927	384	606	0	990	400	644	0	1.044
Number of permanent employees*	285	448	0	733	299	484	0	783	325	527	0	852
Number of temporary employees*	82	112	0	194	85	122	0	207	75	117	0	192
Number of non-guaranteed hours employees*	0	0	0	0	0	0	0	0	0	0	0	0
Number of full-time employees*	281	489	0	770	291	535	0	826	315	564	0	879
Number of part-time employees*	86	71	0	157	93	71	0	164	85	80	0	165

elates to numbers in head counts on 31/12/Year

Collective bargaining / social dialogue

	2023	2024	2025
Share of employees covered by collective bargaining agreements	100%	100%	100%
Share of employees working in establishment with workers' representatives*	100%	100%	100%

*Employee representation is organized at national level in accordance with local legislation.

Diversity metrics

	Top management*						All employees**					
	2023		2024		2025		2023		2024		2025	
	#	%	#	%	#	%	#	%	#	%	#	%
< 30 years old		0%		0%		0%	101	11%	110	11%	115	11%
30-50 years old	2	40%	2	33%	2	40%	584	63%	635	64%	668	64%
over 50 years old	3	60%	4	67%	3	60%	242	26%	245	25%	261	25%
Total	5	100%	6	100%	5	100%	927	100%	990	100%	1.044	100%

	2023				2024				2025			
	Top management*		All employees**		Top management*		All employees**		Top management*		All employees**	
Gender	#	%	#	%	#	%	#	%	#	%	#	%
Male	2	40%	560	60%	3	50%	606	61%	2	40%	647	62%
Female	3	60%	367	40%	3	50%	384	39%	3	60%	397	38%
Other	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	5	100%	927	100%	6	100%	990	100%	5		1.044	

*Everyone with function director on 31/12/Year in head count
**Every employee on payroll on 31/12/Year in head count

Training & skill development*

	2023			2024			2025		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
% of payroll employees with training in 2023	89%	88%	88%	92%	90%	91%	88%	82%	84%
Number of training hours per employee	16,33	15,79	16,00	14,9	13,49	14,02	16,63	13,89	14,94

* At VITO, the Development and Performance Management Cycle (OPM for short) is the annual cycle of setting goals, giving feedback, evaluating targets and overall performance. Twice a year each employee has a conversation to review performance, and discuss career goals.

Pay gap ratios

	Pay gap ratio*
2023	103%
2024	103%
2025	101,7%

*Calculated as the average gross hourly pay level of a male employee on the average gross hourly pay level of a female employee. Every function at VITO has a pay class with a minimum and maximum salary. The pay gap ratio is calculated per pay class.

Work-life balance metrics

	2025
Percentage of employees entitled to take family-related leave (%)	100%
Percentage of employees who took family-related leave (%)	4,70%
Percentage of employees who took family-related leave, broken down by gender (%)	
Male	5.6%
Female	3,0%

*Information could only be reported as of 2025

Policies

VITO has established a number of policies to guide our ways of working in relation to our material topics:

Related to our employee development, well-being and Diversity and inclusion:

- The VITO arbeidsreglement is established to ensure the working conditions, safety, and health of employees. It includes procedures and guidelines that contribute to the well-being of employees, such as preventing psychosocial risks, promoting a positive work atmosphere, and providing clear agreements on work-life balance and digital disconnection.

- Our Diversity & Inclusion policy fosters a supportive and respectful work environment, enhancing employees' wellbeing. By valuing diverse perspectives, it promotes a sense of belonging and reduces stress. (link: **https://vito.be/en/about-vito/diversity-and-inclusion**).

- The VITO Code of Conduct provides an ethical and behavioral framework for all VITO employees and, together with the mission and values, forms an essential part of our VITO culture. It is based on VITO's main principles, including organizational values, scientific ethics and integrity, diversity and equal opportunities, and quality, environment, health, and safety. VITO's code of conduct is available at our intranet pages with detailed information on each of our VITO values and how to put them into practice. When new employees are onboarded they are made aware of our code of conduct.

Related to Quality, health, safety and environment

- Transition plan: Building on the insights obtained from the DMA and the carbon footprint analysis, VITO has developed a comprehensive and integrated transition plan. This plan provides guidance for the design and implementation of the projects and processes required to reduce carbon emissions. Within this framework, specific policies will be established, for example a travel policy planned for 2026. A separate overarching policy aligned with the transition plan will not be developed, as the transition plan itself serves as the primary steering document.
- A Quality, health & safety and environment policy which states that VITO carries out its activities in conformity with **the following guidelines**

1. Implementing an integrated quality, safety and environment management system which is adhering to legal and other quality, safety and environment related requirements;
2. Pursuing a proactive management by identification of hazards and carrying out risk assessments to avert any injuries or illness with personnel, visitors and suppliers and to ensure the protection of the environment;
3. Taking measures following the principles of the prevention hierarchy to avoid safety and environmental incidents and to limit their consequences;

Related to good governance

- **Corporate Governance Charter** lists the various principles guiding VITO's governance.
- **Whistleblower policy**: VITO provides an internal reporting channel for whistleblowers to highlight violations of the European regulations or national law. VITO ensures that all investigations into reported concerns are conducted neutrally and impartially, with strict confidentiality for the reporter. Whistleblowers using this channel in good faith are protected from any unjustified disadvantages. In addition to VITO's internal reporting system, concerns can also be reported through the external channel managed by the office of the Flemish Ombudsman or via public disclosure.
- **Code of scientific integrity**: our research institute attaches great importance to scientific ethics and integrity.

Related to information security

VITO upholds an (internal) information security and privacy policy to comply with legislation and stakeholder expectations, implementing measures in line with applicable regulations such as the GDPR. The 2025 update of this policy integrates key cybersecurity principles, clearly defines the roles and responsibilities of all stakeholders, and aligns with our strategic objective to safeguard information security and strengthen our cyber resilience.

VITO's carbon footprint 2025

Scope 1-2-3 Emissions 2024-2025

GHG emissions (tCO2e)	2024	2025
Scope 1 GHG emissions		
Gross Scope 1 greenhouse gas emissions	5.388	4.944
Scope 2 GHG emissions		
Gross location-based Scope 2 greenhouse gas emissions	824	985
Gross market-based Scope 2 greenhouse gas emissions	39	45
Scope 3 GHG emissions		
Purchased goods and services	5.230	5.251
Capital goods	11.847	12.475
…of which EARTH building	6.853	8.251
Fuel and energy-related activities	975	941
Waste generated in operations	264	417
Business travel	785	823
Employee commuting	940	993
Investments	151	151
Total Gross indirect (Scope 3) GHG emissions	20.192	21.052
Total GHG emissions (market-based)	**25.619**	**26.041**

Energy consumption and mix 2024-2025

Energy consumption mix (E1-5)	2024	2025
Fuel consumption from coal and coal products (MWh)	0	0
Fuel consumption from crude oil and petroleum products (MWh)	184	260
Fuel consumption from natural gas (MWh)	27.754	25.641
Fuel consumption from other fossil sources (MWh)	0	0
Consumption of purchased or acquired electricity, heat, steam, and cooling from fossil sources (MWh)	85	135
Total fossil energy consumption (MWh) (calculated as the sum of lines 1 to 5)	28.023	26.036
Share of fossil sources in total energy consumption (%)	76%	66%
Consumption from nuclear sources (MWh)	0	0
Share of consumption from nuclear sources in total energy consumption (%)	0%	0%
Fuel consumption for renewable sources (e.g., biomass, biogas, hydrogen) (MWh)	n/a	n/a
Consumption of purchased/acquired electricity, heat, steam, and cooling from renewable sources (MWh)	7.252	8.650
The consumption of self-generated non-fuel renewable energy (MWh)	1.787	4.859
Total renewable energy consumption (MWh) (calculated as the sum of lines 8 to 10)	9.039	13.509
Share of renewable sources in total energy consumption (%)	24%	34%
Total energy consumption (MWh)	**37.063**	**39.545**
Non-renewable energy production (MWh)	27.754	25.641
Renewable energy production (MWh)	1.787	4.859

VITO Transition Plan

			Target 2030	Target 2045
Scope 1 & 2	Energy & infrastructure	Sustainable facilities	Reduce use of natural gas VITO sites only: by 55% VITO total: phase out fossil-based energy supply to neighboring sites	No natural gas
		Maximize renewable energy sourcing	100% of sourced electricity is renewable	Maintain 100% of sourced electricity as renewable *We will explore pathways to achieving 100% green electricity
			Continuous improvement on energy efficiency	
Scope 3	Purchased goods, services & investments	Supplier engagement	VITO commits that 67% of its suppliers by emissions covering purchased goods and services and capital goods will have science-based targets by FY 2030.	All VITO suppliers have set science-based climate targets
		Sustainable sourcing	All VITO tenders include general sustainability criteria Tenders covering >90% include product- or service specific sustainability criteria	All VITO tenders include general and product- or service specific sustainability criteria
		Machine & equipment sharing	Optimize the use, sharing and lifetime of machines, infrastructure and equipment	
	Mobility	Sustainable business travel	Achieve a 25% reduction in air travel GHG emissions per FTE	Achieve a 90% reduction in air travel GHG emissions per FTE
		Promote sustainable commuting	Establish a commuting baseline and achieve a 50% share of VITO Visioneers commuting using sustainable transport.	Achieve 100% sustainable commuting among VITO Visioneer

Methodology

VITO's carbon footprint covers full-year 2025 data and is based on financial- and consumption data, marking VITO's first comprehensive carbon assessment, and establishing the baseline for our future environmental performance monitoring. Financial data, based on VITO's Management report, covering all purchases for January – End of December 2025 (primarily for Scope 3). Respectively consumption data applied to mainly Scope 1 and 2 emissions. Where possible, we prioritized consumption data over financial data for accuracy and deducted any overlap from the financial inputs to avoid double counting.

The assessment encompasses emissions across Scopes 1–3, as outlined by the GHG Protocol. Scope 1 covers direct emissions from VITO's operations, such as fuel use for vehicles and gas consumption in buildings. Scope 2 addresses indirect emissions from purchased electricity and heating, while Scope 3 accounts for emissions across VITO's value chain, including business travel, commuting, waste, and supply chain activities. A detailed list of VITO's categories, based on the GHG Protocol, can be found at the end of this document.

The footprint is calculated by multiplying annual figures on the use of products and services with the corresponding carbon emission factor of these products and services. In alignment with the **GHG Protocol** we calculated for Scope 2 the location-based as well as the market-based emissions. It is important for VITO, and as a best practice in alignment with the **GHG protocol**, to report a location-based emission total to understand the physical impacts of our operation without market influences being taken into account. However, in the total tCo2e of VITO we include the market based total emissions for Scope 2 only, see below. For the market-based approach we included the Total kWh consumed from grid (split out per energy type based on energy contract) and included this approach to reflect the actual energy mix tied to your energy purchases for an accurate accounting of Scope 2 emissions.

Calculations highlighted in graphs are all in tCO2e (tons of CO2 equivalents).
The included emission factors for Scope 1-3 are drawn from sources such as Base carbone, BEIS, DEFRA, Ecoinvent, IEA, EXIOBASE, with Base carbone being the main source for emission factors linked to physical data and EXIOBASE (applied via VITO's internal FIGARO platform) for those linked to financial data. For the factors available for Belgium, we applied the local factor. Else we applied e.g. Europe or Worldwide applicable emission factors, mostly for Scope 1 & Scope 2. Generally, we applied the most recent source years per emissions factor where possible/available.

We have used the Operational Control Approach to establish our organisational boundaries. By adopting this method, we ensure that emissions from all operations under our control are captured in our GHG inventory, accurately reflecting our responsibility for the environmental impact of these activities. To maintain a cohesive calculation approach, we opted to include primary data were available. If locations were unable to provide primary data, we opted for an average per FTE approach, see explained in the following in more detail.

The following locations were included in the assessment :

Mol/Geel sites including:
- Mol HQ: Boeretang 200, 2400 Mol
- Mol TAP: Boeretang 282, 2400 Mol
- Mol HAL/GEO (incl. EARTH building under construction): Boeretang 199, 2400 Mol)
- Geel BIO: Industriezone Vlasmeer 7, 2400 MOL

Genk Energyville (office): Thor Park 8300 - Poort Genk 8300, 3600 GENK
(60% of sqm/usage included as not the whole building is used by VITO)

Oostende (office): Bluebridge - Wetenschapspark 1, 8400 Oostende
Berchem (office): The Sage - Roderveldlaan 5, 2600 BERCHEM
Kortrijk (office): Flanders Make - Karel de Goedelaan 165, 8500 KORTRIJK

Daughter company:
- Clean Vision (offices on Mol site): Boeretang 200, 2400 Mol

Excluded locations:
Vito Asia: 18 Zhong Guan Cun East Road, Hai Dian District, Beijing, China (100083)
- The location has less than 10 employees which attributes to less than 5% of total FTE count and impact, negligible emissions. We therefore excluded this location in the scope of the carbon footprint exercise.

SOV site: comprises only of land, no physical location hence we excluded this site in the scope of the carbon footprint exercise.
Genk Thoreaq: the pilot hall location has less than 10 employees with negligible emissions, hence excluded for this exercise.

Assumptions, uncertainties & missing data

For all data inputs in our carbon footprint assessment, we aim to provide a complete and accurate representation of GHG emissions and their impacts. However, for certain datapoints or offices we applied a consistent approach to estimate missing data. More information on our assumptions we made, uncertainties or missing data can be found in the table below.

Scope 1-3	Calculation assumptions & Uncertainties
Scope 1	**For Scope 1 we have very little uncertainties due to access and updates of consumption data including fuels in 2025**
1-1 Direct emissions from stationary combustion sources	For the 2025 update, all offices have submitted verified 1-1 consumption data and confirmed (if applicable) their natural gas use for heating, resulting in the most complete dataset to date. Consequently, extrapolation based on the Genk EnergyVille site is no longer required for satellite or other offices. • Restated Comparative Figures (2024): • Oostende and Kortrijk offices have no natural gas consumption; their 2023 and 2024 carbon footprint figures have been corrected to zero. • Berchem office had data quality issues; its 2023 and 2024 natural gas consumption data has been corrected.
1-2 Direct emissions from mobile sources with combustion engine	We are actively transitioning our company fleet to electric vehicles, with over 80% now electric. For the remaining diesel and gasoline vehicles, consumption data has been collected. In 2025, we updated our calculation approach to use invoice data, ensuring more accurate reporting of fleet emissions. Restated Comparative Figures (2024): • The 2024 data was retroactively updated using the invoice-based calculation approach.
1-4 Direct fugitive emissions	We have primary data on cooling fluids in our installations but limited insight into those used in some lab equipment (Scope 3). These currently form a minor fraction and are reported under purchased Goods & Services. We plan to improve transparency and eventually reclassify them to Scope 1. In 2025 four types of refrigerant refills have been purchased: R410A, R407C, R449A and R507, compared to 2024 where R134A was included.

Scope 2	For Scope 2 both the location-based as well as market-based method was calculated, in alignment with Scope 2 Guidance of the GHG protocol. Included in the total for Scope 2 is the market-based approach.
2-1 Indirect emissions from electricity consumption	Calculation approach: All sites, including satellite offices, provided 2025 electricity consumption data with the correct VITO share. In 2025, satellite and other offices provided activity-based data, replacing previous extrapolations. Missing months—Oostende (Nov–Dec) and Kortrijk (Sep–Dec)—were extrapolated using prior-year data. For Genk EnergyVille, only 60% of the EV1 building meter is attributed to VITO, based on occupied sqm. Mol site data remains accurate from meter readings (Domains 1+3 and 2), with the 2025 electricity split using the 2024 VEB mix, as the 2025 certificate is not yet available. Biofuel emissions: In accordance with paragraph **6.12 of the GHG protocol Scope 2 guidance**, relating to the treatment of biofuel emissions, we report the emissions of CH4 and N2O under scope 2. The CO2 portion of biofuel/biomass/biogas is reported separately as biogenic GHG emissions per category – also part of ESRS E1 reporting requirement. EV data: Some electric cars charge in countries other than Belgium. We therefore conducted an overview based on all invoices per charging activity and country. Besides Belgium, the following countries are included in this overview for category 2-1: Germany, Spain, France, Italy, Luxembourg, the Netherlands, Austria and Switzerland. Restated Comparative Figures (2024): The electricity purchased for Berchem office was adapted for 2024 after recent, more accurate data was made available by facility manager.

Scope 3	**For Scope 3, we primarily relied on the available financial data inputs and worked with the level of granularity available. Moving forward, we aim to enhance data granularity, starting with our largest GHG emission drivers.** **General improvement for Scope 3: Spend-based emission factors update to most recent factors (Exiobase/FIGARO).**
3-1 Purchased goods and services	General: Almost all data in this category is based on financial inputs. The accounts that do represent purchased goods & services but are not included represent <1% of the total spend on purchased goods & services. These were not included because they were general accounts that did not represent any specific product or service, or which were already included (avoiding double counting). Generally, this GHG category entails many different underlying purchases, each linked with respective emission factor from databases such as Exiobase/FIGARO. Missing data water: For sites in which no water consumption data is available, the average water per FTE for Genk Energyville was used as a reference. Multiplied with the number of FTE for each site, we get an estimation of the total water usage per site including tab- and rainwater. For 2025 Kortrijk office was able to provide water consumption data which means that no extrapolation needed to be applied for this location. Restated Comparative Figures (2024): The 2024 water data for Berchem office became available in the course of 2025 and therefore updated with more granular consumption data instead of extrapolation made based on Genk Energyville data.
3-2 Capital goods	General: This category is based on financial data on purchases throughout the year, including construction costs (mainly from our new EARTH building), laboratory machines and IT-equipment.
3-3 Emissions related to fuels and energy	General: This category includes emissions from e.g. the mining and extraction of fuels. In VITO's case this is the extraction of purchased Natural gas. Energy loss during the transmission and distribution of electricity or heat purchased by the company (i.e., not directly part of Scope 2). Calculations are based the actual consumption data from Scope 1-2, hence little uncertainty for this category.
3-5 Waste generated during production or distribution activities at the VITO sites	General: At VITO sites, waste from production and distribution is tracked via the internal waste register based on actual consumption. Waste types include paper/cardboard, PMC/PMD, household, green, hazardous solids and liquids (incinerated), and non-hazardous recycled waste. In 2025, we updated our waste-related emission factors using the Ecoinvent database. Missing data: • For all sites except Mol, reliable waste data was unavailable. Office waste (PMC/PMD, paper/cardboard, household) was estimated using Mol's average waste per FTE, multiplied by each site's FTE. Restated Comparative Figures (2024): • The waste data for Berchem office became available in the course of 2025 and updated with more granular consumption data instead of extrapolation made based on Mol data. Included waste types are paper/cardboard waste, PMC/PMD waste and household waste.

3-6 Business travels	Data sources: Business travel data is derived from travel reports from our travel agency, including hotel rooms, private car, train and transfer line costs. In addition, the travel agency provides us with specific flight information per flight/km flown. In 2025 we updated our calculation approach from spend-based approach to activity approach by applying the specific DEFRA emission factors per flight (short-haul vs. long-haul) and respective flight class. This category also includes financial data covering costs for hotel rooms and restaurant expenses not booked through our travel agency as well as work-related private car usage based on kilometres driven per employee.
3-7 Employee commuting between home and VITO sites & teleworking	Data sources: Whereas in prior years we worked with FTE data per location of offices and assumed that the employees of VITO follow the same commuting distribution as the Flemish average based on the **Study of Belgian Government** , for 2025 we applied a more granular approach. The update is based on commuting insights derived from a VITO survey administered for year 2024, which is presenting more recent insights. Included are calculations for: private cars, train, public transport, motorcycle, normal bike and e-bike. The average commuting distance in Flanders is based on the report shared above: 17.6km, which remains applicable in the calculation. In 2025, we further refined our calculation approach by excluding the teleworking days from the total of 197 working days. Restated Comparative Figures (2024): Update calculation approach, see details above. Teleworking: In 2023, employees averaged 197 working days, with 40% from home. Data is based on HR records and a 2024 internal survey, reflecting the Belgian average. Future surveys aim to improve accuracy.
3-15 Investments	General: The Scope 1 and 2 emissions of investments are estimated by multiplying the Scope 1 and 2 emissions per VITO FTE (based on the MoI site 1-3) by the total number of FTEs and shares for each investment.

List of Scope 1 - Scope 3 categories excluded

Scope 1:

1-3 Process emissions - from physical or chemical processes / VITO does not conduct industrial processes (e.g., cement or chemical manufacturing) that lead to process-related emissions. Therefore, this category is not applicable.

Scope 3:

Upstream

- 3-4 Upstream transportation and distribution/ Transportation and distribution of purchased goods are either minimal or already included in supplier Scope 1 or 2 emissions. VITO's supply chain logistics are not significant in carbon terms and thus not material.
- 3-8 Upstream leased assets / Any leased office space or equipment is either owned or accounted for under Scope 1 or 2

Downstream

- 3-9 Downstream transportation and distribution/ VITO provides services or research outputs rather than physical products. As such, there is no downstream logistics involving distribution of goods
- 3-10 Processing of sold products/ VITO does not sell products that require further processing by customers, making this category not applicable
- 3-11 Use of sold products/ VITO delivers knowledge, services, and research—not physical goods—so there is no end-user product use phase generating emissions
- 3-12 End-of-life treatment of sold products/ Since no physical goods are sold, there is no waste or disposal phase associated with VITO's outputs
- 3-13 Downstream leased assets/ VITO does not lease assets to third parties. All owned or used assets are under direct control or accounted for in Scope 1 or 2.
- 3-14 Franchises/ VITO does not operate under a franchise model, nor does it have franchisees. This category is not relevant

Data improvements compared to last year's reporting

Retroactive adjustments/ improvements for 2024 per category	2024 (prior**)	2024 (updated)	Difference in tCo2e	Explanation
Scope 1 GHG emissions				
Gross Scope 1 greenhouse gas emissions	5.394	5.388	-6	Exclusion of natural gas emissions for other offices where no natural gas consumption was confirmed.
Scope 2 GHG emissions				
Gross location-based Scope 2 greenhouse gas emissions	823	824	+1	Small deviation due to adjustment of Berchem consumption figures 2024.
Gross market-based Scope 2 greenhouse gas emissions	56	39	-17	2023 Electricity mix applied, changed to 2024 VEB Electricity mix with different % per type of electricity.
Scope 3 GHG emissions				
Purchased goods and services	5.575	5.230	-345	Emission factor improvement (Exiobase/FIGARO)
Capital goods	12.249	11.847	-402	Emission factor improvement (Exiobase/FIGARO)
…of which EARTH building	7.018	6.853	-165	Emission factor improvement (Exiobase/FIGARO)
Fuel and energy-related activities	1.002	975	-27	Related to decrease in emission reported for Scope 2, see above.
Waste generated in operations	132	264	+132	Adjustment of waste emission factors to Ecolvent.
Business travel	661	785	+124	Adjustment of air travel calculations: transitioning from a spend-based approach to an activity-based approach, incorporating DEFRA emission factors for short- and long-haul flights, as well as flight class (economy, premium economy, and business).
Employee commuting	1.701	940	-761	Adjustment of commuting calculation approach; exclusion of teleworking days in updated calculation to avoid double counting.
Investments	151	151	0	No changes applied.
Total Gross indirect (Scope 3) GHG emissions	21.470	20.192	-1.278	Sum of changes above (Scope 3)
Total GHG emissions (market-based)	**26.920**	**25.619**	**-1.301**	**Decrease of emissions due to updates of emission factors, double counting of emissions review and further data improvements**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