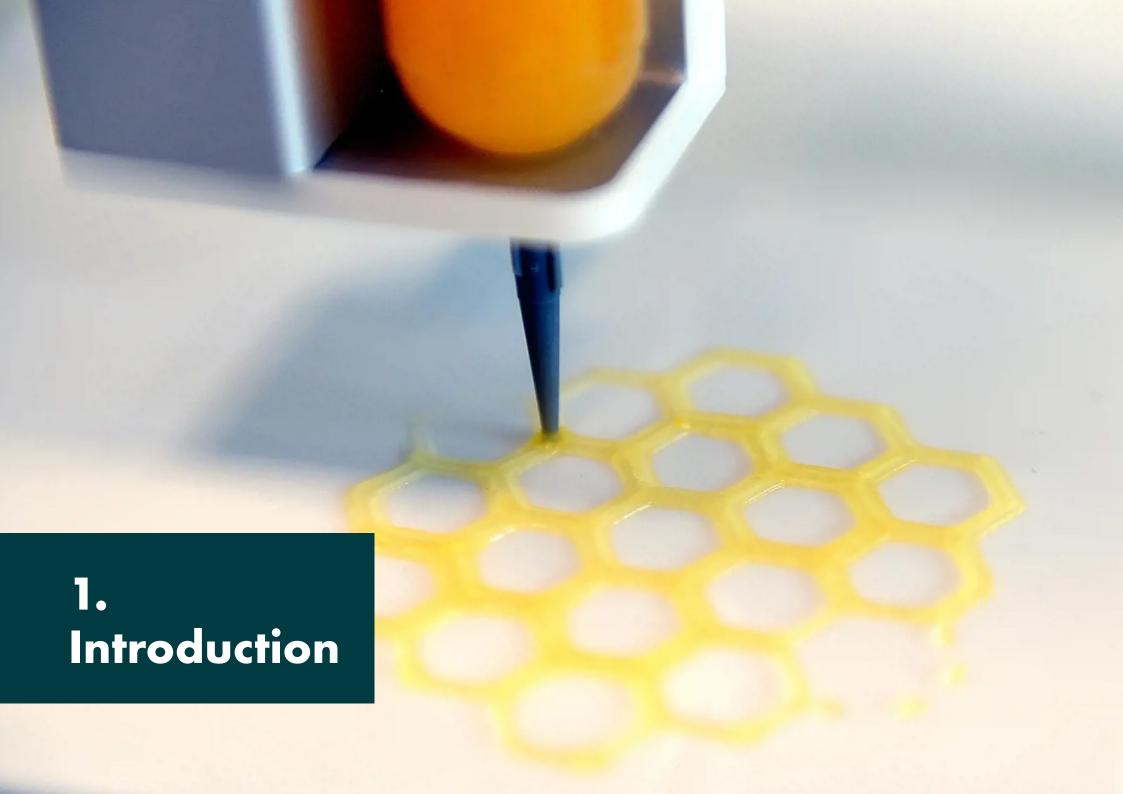


# **Table of Contents**

1. Introduction	3
2. Our Role and Partnerships	5
3. Our Way of Working	8
4. Innovations for a Better Future	13
Our Commitment to Five Missions through Innovation Coalitions	18

Action Plan Innovation 2024 – 2027

Table of Contents - 2



In Brabant, we have a strong and innovative economy. In recent years, we have developed into the innovation and growth engine of the Netherlands and make a significant contribution to the national and even global economy. As a province, we are working towards an internationally competitive, circular, and prosperous Brabant economy. This ensures that we are ready for the future and can respond to changes smartly and in time. A well-functioning Brabant economy is a key condition for enhancing our broad prosperity.

# From Policy to Action: Towards 2030

In 2020, the Provincial Council adopted the Economic Policy Framework 'Towards a Future-Proof Economy 2030'. In the past administrative period (2019-2023), we took the first important steps towards the implementation of this policy framework.

The action plan 'Towards a Future-Proof Economy 2024-2027' is the next step towards achieving our ambitions and goals for 2030.

Three main lines are central to the agenda:

- 1. Space and prerequisites for the Brabant economy
- 2. Innovations for a better future
- 3. Towards a data-driven and circular economy

This document focuses on line II: Innovations for a better future.

Action Plan Innovation 2024 – 2027



Strengthening the regional economy is a core task of the province. As a regional government, we play various roles that are broad and diverse.

### **Connecting**



- As a regional government, we can positively influence the functioning of the (regional) economy. Of course, we do not have the illusion that we can fully steer or shape the economy as a province. However, we do have strong positions, networks, tools, and regulations, and influence over the business and investment climate and on how ecosystems function. Naturally, we cannot do this alone. We will always seek collaboration with other organizations. The Brabant Development Agency (BOM) is an important implementation partner for the province in this regard.
- We see ourselves as a connecting and driving middle layer, the hub between the Brabant regions and between the regions and other provinces, the national government, and the European Union (EU). For our competitive position, it is crucial that we work integrally in networks and ecosystems. As a province, we have a large network, both in the world of knowledge, education, and economy, as well as in the political sphere. We want to and can be a connecting link between different government levels,

- businesses, and knowledge institutions. For example, by connecting with the agendas and programs of the national government and Europe, lobbying with other provinces (such as within the context of the IPO), stimulating coherence in chains and clusters, gathering and contributing good practices from elsewhere, and promoting knowledge sharing between hybrid learning environments and strategic locations, such as campuses.
- We want to connect the strengths and successes of one region with another. Brabant is a province with four strong subregions. Each has its own powerful and distinctive economic profile, and they are complementary. As a province, we recognize regional accents. We explore and drive successful cooperation and synergy opportunities to prevent competition between these regions. The success of the regions is significant. We must facilitate that together and benefit from it together.
- We stimulate collaboration, synergy, and mutual knowledge exchange between triple-helix organizations to strengthen innovation and entrepreneurship in Brabant. By joining forces, we, as a

- province, can work with regional development organizations to seize opportunities and tackle challenges. We support more intensive collaboration between these partners and work with them to look towards the future. We program long-term on the opportunities we see together and ensure continuity and impact.
- Partnerships between businesses, knowledge institutions, and governments, both domestically and internationally, help bring applicable innovation to the market more rapidly. By promoting cross-border collaboration, we can provide faster solutions to societal challenges in Brabant. We do this, for example, by promoting trade through the BOM, attracting foreign investments, and supporting foreign companies that want to add value to Brabant. We connect our innovation clusters and coalitions with potential partners abroad and build relevant networks for this purpose. We monitor trends in Europe and beyond and proactively translate them into opportunities for Brabant

### **Accelerating**

- Ö
- We support promising, innovative, and highimpact initiatives. Our focus is on knowledge development and sharing, bringing knowledge to market, and supporting initiatives toward (largescale) implementation. If market, system, or transition failures occur, we steer towards an appropriate societal outcome. Where possible, we help remove barriers. This means that, as a province, we take action to accelerate transitions, for example, by helping circular start-ups scale up through Braventure (the collaboration between Brabant knowledge and educational institutions, the BOM, and triple-helix organizations) and the Brabant Start-up Fund (BSF). When it comes to financing, we prefer never to be the sole funder: at least half of the financing must come from other investors and financiers. If we step in where necessary, we do so primarily through (temporary) interventions. We may also provide guarantees to cover initial losses or to enable or maintain unique and valuable facilities for Brabant.
- As a province, we also set a good example in the economic domain and in the transitions we help accelerate. This includes our sustainable procurement policy, acting as a launching customer, and evaluating subsidies with sustainability in mind.

### **Investing**



- We enable developments through Brabantspecific funds, investments, and schemes. For example, we implement the MIT-regulation (subsidy program in the Netherlands that supports small and medium-sized enterprises (SMEs) in developing and applying innovative solutions), together with the national government as part of the Knowledge and Innovation Agenda and the Knowledge and Innovation Covenant (KIA-KIC). This supports innovative SMEs in Brabant. When it comes to investments in high-impact start-ups and scale-ups, initiatives such as the BSF (through the triple-helix partnership Braventure), the Innovation Fund, and the Energy Fund of the BOM provide solutions. As a province, we are the majority shareholder in both the BSF and the BOM. Similarly, we are willing to participate in an entity when the situation calls for it. For instance, we are shareholders in several renowned Brabant campuses, such as Business Park Aviolanda in Woensdrecht and Pivot Park in Oss.
- As a province, we drive initiatives and establish alliances, securing co-financing from the national government and the EU to create financial multipliers. This approach has brought Brabant hundreds of millions of euros in recent years—via European programs such as Interreg, Horizon Europe, the Vanguard Initiative, and OP-Zuid. We will continue and optimize the process of accessing major national and European funding

sources. By building expertise in this area, we can secure more (additional) funding as a multiplier on our own resources. Alongside closer collaboration with the Smart Financing and Participations program, we proactively and reactively engage with Brabant, Dutch, and European partners to develop new collaborative initiatives—and strengthen existing ones—that contribute to our policy objectives.

Action Plan Innovation 2024 – 2027

2. Our Role and Partnerships - 7



We work from the DNA of Brabant, with a clear focus on major societal challenges, strengthening Brabant's innovation, collaboration, and agglomeration power.

As the world changes and we incorporated lessons learned from the previous implementation period, further refinement is required. More than before, we consider our strategic autonomy and economic security. Scarcity issues mean we must focus more sharply on added value, such as broad prosperity and economic contribution. Internationalization remains a key theme both despite and because of geopolitical dynamics. Finally, we continue to utilize funding opportunities made available through the national government or the EU

### **Our Guiding Compass**

We work from the DNA of Brabant. This means that we build on the qualities, competencies, and networks developed over the past decades. Creativity and a drive for innovation, entrepreneurship, and a strong collaborative spirit are deeply embedded in Brabant's identity. These competencies have provided a fertile ground for the growth of various clusters and ecosystems, such as high-tech systems & materials, pharmaceutical and medical technology, agrifood, and automotive. We align our efforts with these strengths, as they form the knowledge base and industrial foundation of Brabant, enabling us to capitalize on the power of the region.



Collaboration power



Agglomeration power



Strategic autonomy







Focus on 5 missions



DNA of **Brabant** 



Innovation power



Action Plan Innovation 2024 - 2027 3. Our Way of Working - 9

### **Mission-Driven Innovation**



- 1. Energy Transition
- 2. From Linear to Circular Economy (Resource Transition)
- 3. Food Chains in Harmony with Environment and Climate
- 4. Healthy Aging in an Aging Society
- 5. Safe and Resilient in Both Physical and Digital Environments

**Mission-Driven Innovative Solutions** 

**Future Earning Potential** 

### **Broad Prosperity**

Action Plan Innovation 2024 – 2027

3. Our Way of Working - 10

# We work on solutions for societal challenges and future earning potential

There are five missions that reflect the major societal themes of today. Within these missions, we have defined specific challenges as a province. Naturally, neither the Province of North Brabant, the Brabant business sector, nor Brabant's knowledge institutions can solve these challenges entirely on their own. However, as a province, we can make a significant contribution to parts of the solutions, future employment, and strengthening innovation capacity. That is why we allocate our resources and capacity to innovations that both contribute to solving societal challenges and enhance the future earning potential of Brabant and the Netherlands.

# We strengthen Brabant's innovation, collaboration, and agglomeration power

The world is changing drastically. Our future prosperity can only be sustained if Brabant, the Netherlands, and the EU remain geopolitically relevant—by staying at the forefront and excelling in key technologies. Strengthening innovation, collaboration, and agglomeration power reinforces the structure of our high-value economy.

# We prioritize strategic autonomy and economic security

Strategic autonomy and economic security require our attention and commitment. To address this, we align primarily with national and EU policies and action perspectives. As a province, we remain focused on technological excellence. This requires insight into value chains, as well as valuable know-

ledge and technology still in development. At the same time, we continue our efforts toward a circular economy, including resource reduction and substitution. We also contribute to safeguarding strategic positions (control points) in areas such as production, knowledge, technology, and (digital) infrastructure. Additionally, we apply greater selectivity in supporting innovations. We exert influence in these areas through our contracting activities, for example, via the BOM (innovation and investment promotion).

#### We focus on value rather than volume

This era demands making choices. In the decisions we make, we prioritize added value over volume more than ever before. This applies to investments, land and property allocation, and business acquisition. In short: 'from volume to value' with regional benefits. We emphasize qualitative values—such as labor productivity, research and development (R&D), sustainability, and contributions to health—rather than purely quantitative metrics like revenue and job numbers. Our focus is on attracting and retaining high-value businesses that provide the greatest possible added value to Brabant's challenges and ecosystems.



Action Plan Innovation 2024 – 2027

3. Our Way of Working - 11

### **Our Framework for Action**

## We execute more purposefully and dare to make choices

In recent years, we've made significant progress in implementing the Economic Policy Framework 2030. We've explored various areas, seized opportunities, and formed new collaborations. However, impactful investment and stimulation also require making choices. Now is the time to reflect on what has worked, what has potential to contribute, and what we should stop. Making choices can also be a luxury in times of economic prosperity. We are becoming more focused, creating synergy and mass in what we do, and making decisions based on our guiding compass. We will stimulate and invest where the impact is greatest.

### We work and program adaptively

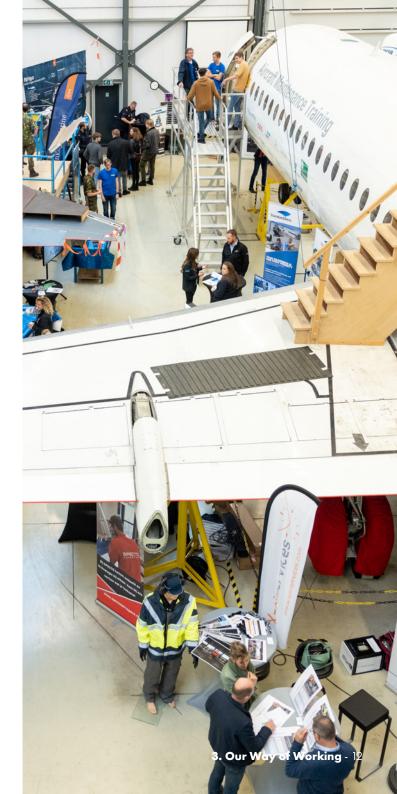
We learn from the past and supplement this with the current state of the economy, as well as external trends and developments affecting the Brabant economy. However, the future remains difficult to predict. We simply cannot foresee which technological breakthroughs and innovative solutions will emerge in the coming years. Our execution is therefore adaptive. We remain flexible and leave room in this action plan to capitalize on opportunities for Brabant as they arise. This also means we need to strengthen our own knowledge and information position. We will be investing in this over the coming period.

## We work beyond borders and continue to focus on internationalization

As a province, we have built a strong, distinctive, and internationally oriented profile with our partners in Brabant, the Netherlands, and abroad. We aim to maintain and expand these collaborations between businesses, knowledge institutions, and governments. In doing so, we work beyond borders. An excellent example is our collaboration with Overijssel and Gelderland on photonics. Brabant euros invested there can enhance ecosystems and innovations here. We will also continue to focus on internationalization, while considering the changing geopolitical context. For us as a province, internationalization is not an end in itself. It is a means to achieve provincial goals. We always weigh whether international cooperation adds value. More information on this is available in the broad provincial Approach to Internationalization (2024) with a decision compass.

# We connect with European and national agendas for more opportunities for Brabant

In recent years, we have established connections with programs from the national government and the EU. This has brought us hundreds of millions of euros. In the coming period, we will continue this approach. For example, by working on and utilizing recent National Growth Fund allocations and investments made together with the national government through Operation Beethoven (the agreement to facilitate the development of the microchip sector).





Strengthening the economy is our core task as a province. We stimulate the development of a strong, future-proof, and competitive economy through a combination of generic economic (precondition) policies and specific knowledge and innovation policies. We do this by investing in the business climate, innovation and knowledge infrastructure, work locations, the link between education and the labor market, and circularity in the manufacturing industry

With the execution line 'Innovations for a Better Future', we aim to add more strategic innovation and technology policies alongside the more general economic policy. We support high-quality (key) technologies, innovative start-ups and scale-ups, and ecosystems that provide solutions for societal challenges, accelerate transitions, and secure future earning potential. We focus particularly where we have a unique and distinctive position in value chains. This greatly contributes to our goals of achieving a leading position in the European innovation system, maintaining an excellent competitive position, and fostering a society that benefits from economic developments.

We focus on start-ups and scale-ups, as well as (key) technologies, that provide solutions for societal challenges and accelerate transitions (such as energy transition, material transition, protein transition, healthy aging, and safety and resilience in both physical and digital environments), while also securing future earning potential. This is especially important where we have a unique and distinctive position in value

chains that align with the strong clusters in Brabant. We recognize that remaining innovative and competitive on an international scale is not guaranteed, particularly given the current international and geopolitical landscape.



Action Plan Innovation 2024 – 2027

4. Innovations for a Better Future - 14

### What will we have achieved by 2027?

- 1. We will have an improved and up-to-date toolkit for supporting and financing innovative start-ups and scale-ups.
- 2. The driving force of Brabant's SMEs will have been encouraged and facilitated to bring more innovative products to the market that contribute to one of the five missions or the development of key technologies.
- 3. We will have stimulated and facilitated technological breakthroughs and the application of new technologies for the missions through the development of new and the expansion of existing Brabant innovation coalitions.
- **4.** We will have encouraged the (further) development of key technologies.

### What will we do to achieve this?

# Improving the ecosystem for start-ups and scale-ups



Innovative start-ups and scale-ups are key for the solutions of tomorrow. We aim to eliminate barriers faced by start-ups, particularly regarding funding and scaling. We continually work to ensure that the network of tools and funding opportunities remains comprehensive for all development stages of innovative start-ups. As the market evolves and the involvement of other parties changes, we are seeing shifts in the funding landscape and demand. We will continue to support the main routes for service and

funding via Braventure and the BSF. As agreed, we will evaluate Braventure and the BSF and update the Innovation Fund. Based on this, we will continue to develop our support measures and tools. We are planning a new capital injection for BSF in 2025, preferably in collaboration with the national government. We aim to broaden BSF to support start-ups across all of Brabant, especially those working on societal challenges, including plant-based and circular economy start-ups. We will discontinue the Innovation Stimulation in the Region (SIR) scheme due to overlap with other programs.

More start-ups than before must grow into scale-ups. There are few funding sources available for larger investments to support scale-ups in later funding rounds. We are exploring whether the Brabant Immunization Portfolio can help fill part of this gap. Our current collaboration with Invest-NL and the European Investment Fund under the SME-plus facility is coming to an end, and we are looking at the next steps. Within the Brabant Start-up Framework (which divides the growth of start-ups and scale-ups into four life stages), we will focus on programs for stages two and three in the coming period, after having invested in stage one in the past years. We will also create a Brabant Start-up Agenda (BASE) in collaboration with other public and private partners in the Brabant start-up ecosystem. This can then serve as a bid for the national government and the EU.

# Stimulating and facilitating innovation through the innovative SME sector



The innovative SME sector has traditionally been crucial for the economy, supplying innovative products and processes. They create employment, serve as important suppliers to large companies, and utilize knowledge they develop themselves or that is further developed by research institutions. We stimulate, finance, and facilitate innovations (feasibility and R&D cprojects) for SMEs through the MIT-regulation (SME Innovation Stimulation in Regions and Top Sectors). This is done together with the national government, based on the Knowledge and Innovation Agenda and the Knowledge and Innovation Agreement (KIA-KIC). It is our intention and that of the national government and other provinces to continue the MIT-regulation after 2024. Additionally, we connect the innovative SMEs in Brabant to national and European funds and schemes, such as the national Mission-driven Top Sectors and Innovation Policy (MTIB), and European programs like OP-Zuid, Eurostars, and Horizon.

Action Plan Innovation 2024 – 2027

4. Innovations for a Better Future - 15

# Stimulating breakthroughs and applications of new technologies



Just as in the past period, we stimulate and facilitate the formation of Brabant-based or national innovation coalitions and projects. In these coalitions, we challenge businesses and knowledge institutions to help develop products and services in expected growth markets, contributing to societal transitions. For each challenge, we jointly establish a (public-private) innovation infrastructure. This is linked to R&D projects that lead to a proof-of-concept, which in turn leads to industrial scaling. We place the end-user or customer at the center. Experience shows that successful coalitions require a multi-year commitment.

### Expanding and better targeting existing innovation coalitions

Several innovation coalitions are already underway, such as those in the fields of batteries, solar energy, nuclear, protein transition, digital road infrastructure, and medical technology. These mostly have a lifespan until 2026 or beyond. We will further expand, better target, and mature these coalitions. For all coalitions, we will specifically look at how internationalization (via the broader Internationalization approach) can contribute and strengthen them. This will include organizing the Brabant Innovation Days (BID) in focus countries and regions where we collaborate or where we see opportunities.

#### Intended new innovation coalitions

In the upcoming period, we will focus on a few new challenges. We will develop:

- A new coalition on hydrogen
- Two new coalitions for a circular economy: Circular Semicon and Fiber Strategy
- A new coalition for pharmaceutical technology
- A new coalition on both cybersecurity and Defense
- A new coalition for future-proof high-tech production chains

### Capitalizing on emerging opportunities

It's simple: we can't predict which technological breakthroughs and innovative solutions will emerge in the coming years. Therefore, we leave room to seize opportunities that arise through targeted and precise interventions. A good example of this is the BITS program, which we run together with Brainport, the Ministries of Defense and Economic Affairs, and the BOM, as part of the Safety mission. The program accelerates innovations within so-called dual-use technology developments. It also aligns with Brabant's DNA and addresses a significant societal need due to the changing geopolitical situation. We map out how the development of Brabant-based locations for Defense can contribute to this. Additionally, we remain alert to ecosystem-strengthening innovation projects that are different in nature from an innovation coalition but still contribute to one of the missions or the development of key technologies.



# Supporting the development of Brabant's key technologies



Key technologies are those that have a significant impact on how we live, learn, produce, and innovate, offering opportunities to address societal challenges. Both the national government and Europe encourage the development of these technologies. Without a solid foundation in key technologies, we cannot pursue a powerful, mission-driven innovation policy. Due to both economic and geopolitical interests, it is important to stay ahead in developing strategic technologies and products, as well as securing access to strategic raw materials.

With our implementation, we align with the National Technology Strategy framework from the national government. We prioritize based on four aspects: contribution to economic value, impact on societal challenges, importance for national security, and enabling technological leadership. Our role is more connective and catalytic than that of a financier. While we remain alert to emerging promising developments and international opportunities, we will focus on the following in the coming period:

 Semicon: We support developments to keep the semiconductor industry's supply chain competitive, make it more sustainable, and further internationalize it. We also focus on developments in chip design and the connection with photonics. Together with other provinces and triple-helix organizations, we are working on a plan for the future of the semiconductor industry.

- (Integrated) Photonics: We support developments stemming from the National Growth Fund proposal and take action where needed.
- Battery Technology: This is pursued through the Innovation Coalition "Batteries for the Future."
- Al (in combination with High Performance Computing), Data, and Cybersecurity: This is tackled under Execution Line III "Towards a Smart, Datadriven, and Circular Economy."



Action Plan Innovation 2024 – 2027

4. Innovations for a Better Future - 17

# Our Commitment to Five Missions through Innovation Coalitions

# Mission 1: Energy Transition

Our energy supply is changing. Fossil fuels are being replaced by renewable energy sources, and decentralized energy supply is becoming increasingly important. We intend to contribute to national and European objectives in this domain. Together with our partners, we are working on new initiatives that accelerate the transition to sustainable energy while creating new business opportunities as well as strengthening our international position.



### **Battery**

We are collaborating with partners (including Holst Centre, TU Eindhoven, TNO Mobility & Built Environment) to strengthen the battery technology cluster in Brabant and are exploring the possibility of securing a position in semi-industrial pilot production. This includes developing educational programs to prepare the workforce for the future of battery technology.

### Solar

Solar power is of great importance in the energy transition. We are working with partners, TNO Solliance and the Brabant Development Agency (BOM), on a new generation of flexible, high-efficiency PV-foil based on perovskite, which can be integrated into the built environment and can be produced customer-specifically. The results of this development are promising, with Brabant-based supply chain companies being closely involved in the setup of the solar ecosystem.

### Nuclear

As a province, we want to be at the forefront of the development of Small Modular Reactors (SMR). One of the technologies being developed within SMRs is the Molten Salt Reactor (MSR). The Administrative Agreement 2023-2027 stipulates that Brabant will explore the opportunities for Molten Salt Reactors

through the innovation coalition 'Nuclear Energy for the Future' that was launched in the previous governance period. Based on these results, we will initiate a follow-up process. By taking steps now, Brabant can build a robust Dutch knowledge and business cluster in nuclear energy, strengthening our high-tech sector. The focus for Brabant is on building a coalition around Generation IV technology, including Thorizon's Molten Salt Reactor. In collaboration with the Ministry of Economic Affairs and Climate Policy (EZK) and other provinces, we will concretize the SMR program and, in the future, submit project proposals to apply for the SMR budget from EZK.

# Sustainable, Smart, and Future-Proof Mobility for People and Goods

We are focusing on a mobility transition to promote sustainable mobility solutions. We are working on digital road infrastructure and next-level logistics. Additionally, we will continue to invest in innovations for energy-efficient technologies and vehicles, while promoting the development of new climate-neutral fuels and electric propulsion systems. We are also preparing our energy system for new technologies that will be integrated in the future.

### **NEW - Hydrogen**

Hydrogen will play a key role in future energy systems and in reducing grid congestion. A new generation of electrolyzers is needed to produce green hydrogen, but production must become more efficient and less dependent on scarce raw materials. The Hydrogen Innovation Coalition addresses this societal urgency and connects the contribution from Brabant's hightech systems sector with the development of hydrogen production systems and equipment, thereby creating economic value for the Brabant economy of tomorrow. The Hydrogen Innovation Coalition has three lines of development: Technological International Innovation, Human Capital, and Collaborative Innovation & Trade.

### NEW - Connected Cooperative Automated Mobility

The goal is to acquire a competitive international position in developing and testing smart future mobility solutions and ensuring the safe introduction of new mobility concepts on the road. In recent years, we have worked on the foundation for this, including the MARQ (Mobility Applied Research Quarter) in Helmond. In collaboration with our partners, we are now focusing on Connected Cooperative Automated Mobility (CCAM). In CCAM, the development of

technologies for autonomous driving (levels 4 and 5) is central. Digital and physical test infrastructure is essential for this. We are also closely monitoring developments in 5G/6G networks, communication, and high-performance computing for autonomous mobility and transport. This contributes to smart, safe, and sustainable mobility and leads to innovative advancements and competitive advantages for Brabant's businesses and system developers working on radar, lidar, chips, Al models, and 3D maps.

### Mission 2: Circular Economy & Resource Transition

We are working towards a sustainable and circular economy. Our efforts in this field take shape through various approaches, one of which is developing smart technological solutions.



### **NEW - Circular Semicon**

The semiconductor sector relies heavily on high-quality and often scarce materials. Together with the BOM, Brainport Industries, and Impact X, we are building a broad coalition of collaborating parties in the semiconductor value chain. The objective is to close material loops and ensure the availability of essential resources. Through the innovation coalition Circular Semicon, we aim to focus on developing circular business strategies and value creation, enhancing knowledge and skills, optimizing the design phase, extending product lifespan, and leveraging data and digitalization to accelerate circularity. We seek alignment with existing Growth Fund resources and European funding opportunities.

### **NEW - Fiber Strategy**

We are developing an innovation coalition to establish processing capacity in Brabant for cultivated or to be cultivated green raw materials and/or residual streams. Green, innovative machinery is needed to enable fiber processing. This will help promote the use of green raw materials and their potential by-products while reducing reliance on fossil-based materials. Together with partners, we are developing a multifaceted approach, from advocating supportive legislation and fostering public-private partnerships to stimulating market demand. This innovation coalition aligns with Building Balance and the ENZuid program, which focuses on maximizing the use of valuable substances from plants. We aim to collaborate and secure financial support through the Interreg program.

### Mission 3: Food Chains in Harmony with the Environment and Climate

The unique food production chain of Brabant faces the challenge of maintaining its leading role in the future. We strive for a more sustainable and healthier food system with a shift from animal-based to plant-based diets.



### **Scale Up Plant (Protein Transition)**

Together with businesses, knowledge institutions, the BOM, and REWIN, we are developing the Scale Up Plant Brabant ecosystem to facilitate the market scale-up of plant-based food ingredients and non-food (biobased) materials. This Brabant-based ecosystem enables us to respond flexibly to future (market) developments and trends in the fields of resource, food, and protein transitions.

# **NEW - High-Tech in the Agro & Food Industry**

Further investments in innovation for robotics in the primary sector (smart farming) will be pursued when additional innovative solutions create opportunities for Brabant's manufacturing industry. Regarding robotics/cobotics (smart processing) in the food-producing industry, we are closely following ongoing developments, including initiatives such as Next Tech Food Factories. We will explore potential opportunities and promising connections with innovations in High-Tech Systems & Materials (e.g. photonics) as well as data and digitalization (e.g. Al-driven solutions).

### Mission 4: Healthy Aging in an Aging Society

We contribute to the provincial goal of adding three healthy years of life by driving innovation in three key domains: Medtech, Healthtech, and Life Sciences. Additionally, we continue to support innovations that reduce the use of animal testing, such as data-driven approaches, VR, and digital twinning, and we encourage initiatives in this field. We align our efforts with national developments such as TPI, the awarded Growth Fund application for the Center for Animal-Free Biomedical Translation, and European opportunities.



### **Medical Technology**

Brabant's Medtech sector is internationally strong and provides a solid foundation for further growth. Together with our partners (Brainport Development, BOM, and TU/e), we are developing a Master Plan Medtech. This initiative combines expertise in medical technology and high-tech solutions, collaborating with the NXTGen Hightech Growth Fund program and European partners.

### Regenerative Medicine (RegMed)

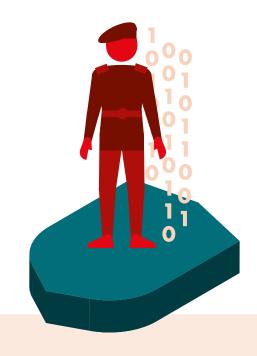
Regenerative medicine is an emerging technology in which Brabant is taking a leading role. Together with other provinces, we remain closely involved in the RegMedXB initiative. We support the development of SBMC and foster its growth toward an independent, strong position as a first step toward establishing a robust regenerative medicine sector in Brabant. This effort is aligned with the NXTGen Hightech Growth Fund program.

### **NEW - Life Sciences**

We promote collaboration within the Life Sciences manufacturing cluster Brabant and seek closer cooperation with Pivot Park in Oss. We support the further strengthening of the Pivot Park campus and work towards fostering new business opportunities in Brabant through an incubator program.

### Mission 5: Ensuring Safety and Resilience in Both the Physical and Digital Environment

Contributing to a safe society through smart solutions is at the core of this mission.



### AI, Data, and IT

The AI, Data, and IT innovation coalition serves as a driving force for scaling small and medium-sized enterprises (SMEs) and the start-ups of tomorrow. This coalition not only impacts the transition to a digital and data-driven economy but also plays a role in the energy and health missions. Through this innovation coalition, we help Brabant's businesses become more competitive. Additionally, we challenge start-ups and students through AI challenges, encouraging them to enhance Brabant's innovation potential by developing solutions for societal issues.

### **NEW - Defense**

The province of North Brabant has a strong and extensive defense ecosystem. Starting from the collaboration within Maintenance Valley in Woensdrecht, significant investments have been made over the years in public-private partnerships with the Ministry of Defense. The increasing societal need to invest in national and international security presents opportunities to accelerate cooperation in Brabant, thereby strengthening security, strategic autonomy, and economic growth. We aim to continue our current efforts in smart maintenance in Brabant, working alongside partners such as WCM and the BOM. Additionally, we will enhance the Brabant defense ecosystem by building on strategic collaborations with the Ministry of Defense (BITS, MINDBase, F-35 steering group), developing field labs (CAMPIONE and AMICI), and strengthening cooperation between Brabant's industry clusters through innovation projects, cross-sector consortia, sessions, and events.

Furthermore, we will focus on developing, scaling, and applying defense innovations by supporting financing and venture building while connecting the Dutch industry with international manufacturing supply chains. Lastly, we facilitate dual-use defense innovations through data-driven technologies such as AI, cyber security, digital connectivity, immersive tech, and robotics.

### **NEW - Cyber security**

Current European regulations, technological advancements (such as AI and quantum computing), and geopolitical developments demand increased action in the field of cyber security to safeguard our strategic economic position. This is crucial for both entrepreneurs and technology sector businesses. We are further expanding a cyber security ecosystem within Brabant and are exploring opportunities for various innovative niches, such as cryptology and operational technology (OT) security. In collaboration with governments, knowledge institutions, and businesses, we are developing initiatives and services that will enhance the resilience of the Brabant economy for the future.

### IC Smart Industry 4.0

The Smart Industry 4.0 innovation coalition acts as a driving force by ensuring that faster and more productive manufacturing processes are implemented more efficiently, increasing labor productivity. Through this innovation coalition, we contribute to a future-proof Brabant by focusing on the development and dissemination of knowledge and financial support for the high-tech sector. This innovation coalition has a significant impact on the missions related to energy, health, and food. In this way, Brabant moves toward the future in a better, smarter, and stronger way.

## NEW - Future-Proof High-Tech Production Chains

The manufacturing industry's production chain is under significant pressure due to new requirements from OEMs, rising energy costs, sector-specific growth and decline challenges, workforce shortages, and new European regulations on material use and circularity. At the same time, there are ample technical and organizational solutions available, from new materials to smarter designs, that can address these challenges. As a province, we aim to develop strategic actions in close collaboration with relevant partners in the high-tech sector. These actions will not only strengthen the production chain but also address broader societal challenges, with a particular focus on the energy transition. A true win-win opportunity.

Action Plan Innovation 2024 – 2027

2024 2025 2026 and Beyond

- Evaluation of Braventure and BSF completed
- Innovation Fund Brabant updated
- Hydrogen Innovation Coalition developed and launched
- Nuclear Innovation Coalition deepened
- Contributed to the establishment of an open innovation center for battery technology developments
- Perspective on the resource transition to plantbased developed
- Medical Technology Innovation Coalition deepened
- Al and data innovations stimulated in healthcare prevention
- Organized Brabant Innovation Days (BID)

- Approach to Braventure and BSF improved
- Agreements made and tasks assigned to the BOM regarding involvement in the startup financing landscape
- Brabant Start-up Agenda (BASE) developed and implemented
- Programs for phases 2 and 3 of startup development prepared and launched
- Decision made on continuation of the MIT-regulation
- Toolkit for supporting innovative ecosystems completed
- Innovation foundation for the further development of the battery technology cluster completed
- Exploration of an innovation coalition on circularity and resource transition conducted
- Exploration of promising connections between high-tech and the agro- and food industry conducted
- Brabant defense/dual-use strategy for ecosystem strengthening completed and implemented
- Plan for the semiconductor industry completed and implemented
- Brabant Innovation Days (BID) organized
- Innovation coalition for future-proof high-tech production chains developed and implemented

- Further development in the field of defense: commitment to location development ready
- Facilitated the development, scaling, and application of defense innovations
- Organized Brabant Innovation Days (BID)
- Exploration of a second innovation coalition in the field of circularity and resource transition conducted