

## **BRAINPORT EINDHOVEN REGION** CO-CREATING THE FUTURE

The Brainport region, with Eindhoven at its heart, is a world-class top technology region. High-tech and design are combined with high-end manufacturing industry and entrepreneurship. Cooperation and sharing knowledge are part of our DNA and provide the basis for the characteristic open innovation culture which makes Brainport so intelligent and strong. By guickly



anticipating the world-wide changes and continuously forming new connections, we create new opportunities for everyone. This attracts talent and companies from all over the world. In a unique business climate we work together in finding solutions for societal challenges with regards to health, mobility, energy, food and safety. Brainport is the high-tech growth accelerator of the Dutch economy.

Geographically situated in the southern part of the Netherlands, the Brainport region has a population of around 750,000 and a workforce of 400,000. In 2011 the region was awarded the prestigious title 'Intelligent Community of the Year'. The economic success of Brainport can be attributed to cooperation, both regional and international. The cooperation among industry, knowledge and educational institutions and the government – the so-called triple helix collaboration – is unique and forms the foundation of the current economic success of the Brainport region.

#### ONE OF THE THREE CORNERSTONES OF THE DUTCH ECONOMY

The economic success of Brainport is crucial to the international competitiveness of the Netherlands: along with Amsterdam (airport) and Rotterdam (seaport), Brainport is one of the main cornerstones of the Dutch economy.





#### TRADEMARK WITH A HISTORY THAT GOES BACK OVER A CENTURY

The Brainport area is no stranger to innovation. Its manufacturing history can be traced back to over a hundred years. Classical inventions and applications include the first overseas radio broadcast, the videophone, electronic music and the CD. Also, Brainport continues to make 'the products of tomorrow'. In today's scenario, knowledge and manufacturing reinforce each other in a network economy with many successful national and international collaborations.

Today it is home to a growing concentration of top technology and research institutes. A list, by no means exclusive, includes innovative companies and highly reputable knowledge and research institutes: Philips, DAF, ASML, VDL, FEI Company, TomTom, Eindhoven University of Technology, TNO, Design Academy Eindhoven, High Tech Campus Eindhoven, High Tech Automotive Campus and Holst Centre.

Around the flourishing knowledge and manufacturing industries lies an even greater and more intricate web of domestic and foreign suppliers and service providers. The entire value chain is represented: from fundamental research to marketing. The region is a top rated environment for the typical Brainport entrepreneur with a Knowledge-Skill-Till mentality.



### **BRAINPORT NEXT GENERATION STRATEGY**

To be able to retain and expand the economic growth and development of the Brainport Region, a new strategy was defined in 2015. A strategy that has three key elements:

### 1. ADAPTIVITY

It is vital to be able to respond fast and capably to new developments. Those that adapt best will survive in the end. The rapidly changing markets make the traditional models redundant. So, as a region we have to align our strategy accordingly. With the world around us changing rapidly, we have to gear up for globalization and digitalization, which are driving these changes at breakneck speed. While some regard rapid changes as a threat, we see it mainly as a new opportunities, which can be game changers for the region. Brainport is traditionally a smart region, with a huge amount of research and development that has been increasingly better transformed into economic success in recent years. But being smart and strong is no longer good enough. Today's world requires business and industry, government, educational and research institutions, entrepreneurs, employees and residents of the region to be able to respond to the changes. The capacity to adapt is essential.

### 2. FROM TRIPLE HELIX TO MULTI HELIX

We are looking for a new route to the future, a path that we have not previously chosen. It will be somewhat chaotic and disruptive. We will have to accept before we start that we may be 'out-of-control' now and then. We have to accept the errors we make and learn from them. It is a route we want to plan together and inclusively. If you want to be adaptive, you have to adjust to the flow, change faster and create smart coalitions. This is why we are shifting from Triple Helix to Multi Helix. No longer restricted to the university-industry-government triangle but involving citizens, customers, consumers, investors, designers, artists and corporations. Success according to us is defined by trying new things, being prepared for things to go wrong and start again. The rapidly changing markets make the traditional models redundant. So, as a region we have to align our strategy accordingly.

#### 3. SCENARIOS

While the future is unpredictable, we can still prepare by looking ahead. By analysing trends, we can sketch pictures of the future, and plan for strategic choices. For Brainport, in dialogue with experts and representatives from the ecosystem, three scenarios have been drawn up. Each scenario sketches a completely different picture of the future. By considering these possible futures now, we can respond faster and better.



FROM SOCIETAL CHALLENGES WE CREATE TOMORROW'S ECONOMIC OPPORTUNITIES We see a new, supplementary route to future economic and societal success in finding solutions to the 'grand challenges' of health, mobility, energy, food and safety. This offers many companies in the region a new window of opportunity. Companies with top hightech competencies are searching for connections with other sectors and are thus tapping into global markets that had previously not existed. Brainport is geared precisely to those challenges where our unique combination of technology and design and social and organisational innovation can add the most value.

#### FIVE BRAINPORT DOMAINS

Brainport is characterised by extremely strong high-tech manufacturing, an extraordinary design sector and a unique model of collaboration. This is something to be cherished and continually strengthened. To stay ahead internationally we must constantly invest in our 'enablers for growth': People, Technology, Business, Basics and Internationalization. We must continue to invest to maximise returns from our ecosystem. These are the foundations of the Brainport strategy.

# PEOPLE

#### A HIGH-QUALITY, ADAPTIVE WORKFORCE POTENTIAL IS ESSENTIAL FOR OUR REGION

Human capital investment in a key enabler for our region. Making sure there are enough well-educated professionals and knowledge workers is essential to the economic growth of Brainport. We must continue to attract and retain talent from home and abroad. However, the competencies demanded from companies and knowledge institutions are always changing. Apart from technological knowledge and skills, competencies like entrepreneurship, research and design as taught in Brainport are becoming increasingly vital. With the rapid tempo of societal changes, it is essential for all the actors in education and the employment market to boost their capacity to adapt. We want to give children, students and employees in the region ongoing education so that they always have the right knowledge and capacity to adapt and thus be permanently employable in our business and industry. Individual capacity to adapt is key to getting the best out of the talents of people. This collective capacity to adapt is fundamental to enabling many companies in Brainport to meet the need to combine the flexible employability of employees with the workers' need for employment security. In launching the 'Brainport TechnologiePact Next Generation' we convert these ideas into concrete activities and experiments.



# TECHNOLOGY

UNIQUE TECHNOLOGY AND OPEN INNOVATION POSITION CONSTANTLY NOURISHES AND CHALLENGES

Our region is typified by a very strong position in the latest technologies, system integration and social innovation. Brainport excels in the technology disciplines of high-tech systems, materials and data science. Private spending on R&D and the number of patents have been at a very high level internationally for many years. This is likely to be a key differentiator in the years to come. To encourage companies to continue performing their R&D in our region, it is essential to ensure that our public R&D is given a strong boost. To this end we will intensify our lobby in the national and European governments, a process that will pay dividends for both the Netherlands and Europe. Recent scientific studies have revealed that for each euro spent on private R&D, economic growth benefits by 2.30 euros. We will also be profiling and promoting internationally, our unique technological and manufacturing competencies along with the quality of our open innovation campuses and institutes in much greater detail. This is important if we are to continue to attract foreign investors and companies. With the disciplines in which the region excels, we can make the difference in the future.

# BUSINESS

BRAINPORT AS THE PERFECT PLACE FOR TECH START-UPS AND GROWING COMPANIES

Start-ups create dynamics, employment and growth. Brainport wants to be in the world's top 20 start-up ecosystems. We create a lively breeding pond with a sparkling Brainport 'buzz' that also makes it an interesting place for foreign start-ups to locate. Each year we support a thousand or so start-ups that generate 200 highly-promising technology companies that go on to be successful. Our approach is to strengthen entrepreneurial skills, make our start-ups more visible internationally, improve the match between demand and supply of capital, and reinforce the start-up networks. Particular attention focuses on growth companies, whereby the experience of the top technology companies that have made our region great like Philips, ASML, NXP, DAF, VDL Group and FEI Company can be used for both inspiration and development power. Also by stimulating the cooperation of our unique network of industrial suppliers (Brainport Industries) and through the specific support of industry clusters, we expect to achieve impetus.



# BASICS

BETTER INTERNATIONAL ACCESSIBILITY, A TOP BUSINESS CLIMATE AND AN ATTRACTIVE IMAGE

An international top region should be a top-quality place to work, live and reside. The conurbation strength and urban network of Brainport can be further enhanced by ensuring excellent links with neighbouring regions in the South part of the Netherlands, the two other pillars of the Dutch economy – Amsterdam and Rotterdam – as well as economic hotspots across the border. International accessibility will gain a further boost from the growth of business-related destinations from Eindhoven Airport. We strive to align the amenities and activities in Brainport, such as culture and sports, to provide world class opportunities.

## INTERNATIONALISATION

COLLABORATION WITH HIGH-TECH AND DESIGN ECOSYSTEMS WORLDWIDE

Collaboration between government, research and industry is in our genes and is an integral feature of our success. It has brought us international visibility among other successful regions that are often keen to work with us. Our vizier has widened from the provincial and national to the European and global arena. Which is logical given the international orientation and operation of our companies and knowledge institutions. This applies to the export of products and services as well as to alliances with innovation partners and the recruitment of global talent. As a region we want to attract more foreign investment to strengthen the ecosystem and boost employment. With the aim of increasing our international muscle, partners from the region have united in the Brainport International Programme, thereby intensifying relationships with high-tech hotspots in Belgium and Germany, and building a network with Asian, American and other knowledge regions that can help enhance Brainport's position in terms of knowledge and economy.



# **BRAINPORT DEVELOPMENT** ECONOMIC DEVELOPMENT AGENCY

Brainport Development is the economic development agency for the Brainport region and cooperates with many partners on strengthening the Brainport region. Brainport Development develops the regional economic strategy, develops and realizes projects, offers business advice and innovative business premises and promotes Brainport in the Netherlands and abroad.

The Brainport region has experienced a considerable transformation over the last 20 years. From being a region that faced declining industrial growth and a rise in unemployment rates, it has transformed into an international high tech hotspot in a global network with innovative companies, research institutions and governments. More than a place on the map, Brainport exudes a "philosophy, a mind set, a way of doing things". High tech knowledge goes hand in hand with design, entrepreneurship and especially high-quality manufacturing.

This transition was not an easy one, however there was a clear course to chart. The philosophy for this change started with working informally but closely with stakeholders in the local government, businesses and knowledge and educational institutions based on the 'Triple Helix'. The concept of the Triple Helix of university-industry-government relationships initiated in the 1990s by Etzkowitz and Leydesdorff, interprets the shift from a dominating industry-government dyad in the Industrial Society to a growing triadic relationship between university-industry-government in the Knowledge Society.

This informal coordination meeting was institutionalized in 2005 with the Brainport foundation. The board of the Brainport Foundation is a reflection of the Triple Helix of companies, knowledge and educational institutions and government from the Brainport region. All segments of the Triple Helix are equally represented. The Brainport Foundation regional partners share their vision for the future of the region. The board for the economic development of the Brainport region has a strategic, coordinating and directing role; members of the foundation form the basis for the regional economic governance of the region. The board members are both stakeholders for their constituencies but at the same time have the interests of the Brainport region as a whole.

The Brainport Foundation achieved its goals not only by the coordinating and directing role towards their own constituencies and partners in the region, but also set up a special think tank - Brainport Development, its development and implantation organization to spearhead its goals.



#### TRIPLE HELIX COOPERATION AND ROLES

The Triple Helix model of cooperation in the Brainport region has become the example for strengthening the economic structure, both nationally and internationally. The core of the sustainable cooperation model is that companies, educational and research institutions and governments collectively own the programmatic approach of economic structure reinforcement. Every constituent of the Triple Helix has its own role and responsibility. The role of the (municipal) government is that of the "facilitator" – bringing together parties to foster collaboration, provide continuity, provide long-term financing of the supporting development organization , the co-financing of projects. It acts as the via media and owner of activities to strengthen the business climate of the region to boost the high-tech ecosystem.

Businesses, education and research institutions, in turn, provide the strategic focus, via its own activities to strengthen the areas 'technology' (open and shared innovation, knowledge and transfer), 'business' (investing in start-ups, developers and cooperation; foreign direct investment) and along with the government on the key game changer - 'people' (education, entrepreneurship, flexible labor, talent attraction, life-long-learning). They participate as a co-financer and driving force. Businesses see the value in investing in knowledge institutions and industry. They have seen direct benefits from the development of projects. The results are visible in increased prosperity and welfare to the region as a whole. Benefits include growth in employment opportunities, increased profits, consumer spending, improved health care and sustainability.

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