

# The Netherlands

Europe's most attractive and innovative biopharmaceutical environment



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# FOREWORD

## Welcome to the Netherlands, the new home of the European Medicines Agency!

**World-class research institutes, a highly educated workforce, an excellent healthcare system, and an innovation-friendly government, combined with a central location make the Netherlands the ultimate R&D innovation hub in Europe and the ideal base for your biopharmaceutical operations.**

At the Ministry of Economic Affairs and Climate Policy, we are proud of the Netherlands' spirit of innovation and enterprise and we work hard to strengthen our international competitive position while striving for sustainability. The Top Sector Life Sciences and Health is one of the priority sectors in which the Ministry actively participates to create an attractive business climate, foster R&D collaboration and provides optimum conditions for businesses to innovate and grow.

Innovation, entrepreneurship and partnership are second nature to the Dutch. It is connected to our centuries-old battle against the water – a way of life that has produced innovative and smart solutions, like our famous dikes, as well as a cooperative mindset.

Our country is one of the main gateways to Europe. Thanks to our first-rate infrastructure, we offer excellent and efficient connections to Europe's 500 million consumers. Our world-class airport, top-ranked maritime ports and high-speed road, rail and broadband networks are second to none.

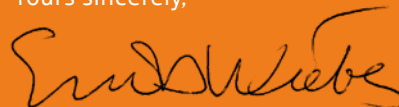
We're especially proud of the pharmaceutical sector, which plays an important role in our economy and acts as a breeding ground for new talent. Leading pharmaceutical companies like Janssen, AstraZeneca and Synthon

are already conducting their R&D activities in the Netherlands. Others, including Amgen, Teva and MSD are taking advantage of our strategic location for their distribution activities. The Netherlands is also home to many promising start-ups and scale-ups such as Galapagos, Genmab, Pharming and uniQure.

The relocation of EMA to Amsterdam in March 2019 will give a boost to the biopharmaceutical sector and put the Netherlands firmly on the map internationally. At the same time it will create huge opportunities for biopharmaceutical companies and service providers. The Ministry has joined forces with other organisations in PharmInvestHolland, to strengthen the Dutch biopharmaceutical sector and create the most attractive and innovative biopharmaceutical industry environment in Europe.

I am pleased to present this bid book, illustrating all that the Netherlands can offer your company. I hope it will lead you to consider the Netherlands as a base for your pharmaceutical operations.

Yours sincerely,



**Eric Wiebes**

Minister of Economic Affairs and Climate Policy





# FOREWORD

**For six consecutive years, the Netherlands has been awarded a number one position in the Euro Health Consumer Index.**

This ranking is first and foremost due to the commitment of more than a million healthcare workers serving our patients every day. Furthermore, quality and user friendliness prosper in our dynamic healthcare system, which is a unique system of checks and balances.

The government guarantees solidarity and access for all, while competing private healthcare insurers push innovation, user friendliness and value for money. We believe both quality and sustainability are served best by this public-private cooperation. That is why patient organizations, healthcare providers, knowledge institutes and industry work closely together to further improve results for our patients. As in many European countries, it is a challenge to ensure quality of care and maintain an affordable and accessible healthcare system in the future as well. We believe we can only face this challenge together with our private partners. A sensible use of innovative medicines and new medical technologies, for example, will help us to improve medical outcomes.

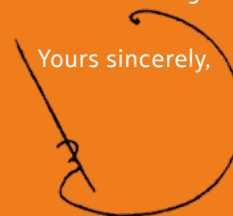
Our country has received international praise for its pioneering work in public-private partnerships. Many small and large companies and knowledge institutions work together with our hospitals on a new generation of innovative drugs. In addition, The Netherlands is a front runner in regulatory science and regulatory innovation.

The relocation of the European Medicines Agency to Amsterdam in 2019 will be a driver for an innovative regulatory ecosystem where European public and private parties work together to strengthen the development of new health solutions.

The Netherlands offers multiple opportunities for medicines development. First class science, highly motivated and qualified scientists and a stimulating and efficient regulatory environment.

I hope this bid book inspires you to make full use of the possibilities the Netherlands has to offer. Together we can improve the health of our citizens. We are looking forward to welcome you.

Yours sincerely,



**Bruno Bruins**  
Minister of Medical Care and Sport



# EXECUTIVE SUMMARY

## Discover Europe's most attractive and innovative biopharmaceutical environment.

With an unrivalled concentration of biopharmaceutical companies, world-class universities and a long history of strategic partnerships linking science, industry and government, the Netherlands is a perfect location for biopharmaceutical innovation in Europe. Many ground-breaking companies have already established themselves in the Netherlands. The EMA has also made the decision to relocate to Amsterdam. This confirms once more that the Netherlands is the perfect home for biopharmaceutical companies from around the globe.

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### Attractive location for your company

The Netherlands is a thriving and prosperous country, providing an attractive place to live and locate your business. With a geographical radius of only 120 miles, the country boasts a competitive international business climate which is reflected by its status as the sixth-largest EU economy, a major global exporter and importer of goods and a Forbes ranking as the third best country for doing business.

The strategic location of the Netherlands, bordering the three largest economies in Europe (Germany, the United Kingdom and France), makes it the perfect gateway into Europe. Its superior infrastructure guarantees quick and easy access to European markets while ensuring that markets around the world are also within easy reach. Also, the country is a data & ICT hub with an excellent information technology infrastructure. Moreover, its ranking as the sixth-happiest place on earth in the World Happiness Report further demonstrates that the Netherlands is an attractive place to live.

### Appealing industry climate

The Netherlands offers an appealing business climate with plenty of room for innovation. It has a competitive and stable tax regime, attractive incentives that support R&D, and outstanding research and educational institutions. The country is also highly regarded for its well-educated, multilingual and dynamic workforce.

### Concentrated biopharmaceutical ecosystem

The Netherlands is home to one of the most concentrated Life Science & Health clusters in the world, featuring more than 2,900 innovative R&D Life Sciences companies, including 420 biopharmaceutical companies. These 420 companies employ over 65,000 people, both in direct and indirect employment. Scientific research in the Netherlands is highly regarded internationally. This is demonstrated by the high quality of Dutch research universities and university medical centres, its high citation impact score and the position of its universities in international rankings. The country has a rich tradition of public-private cooperation, which has been further stimulated by multiple government-initiated programs. The government actively stimulates private cash investments in public-private R&D partnerships by supplementing these investments.

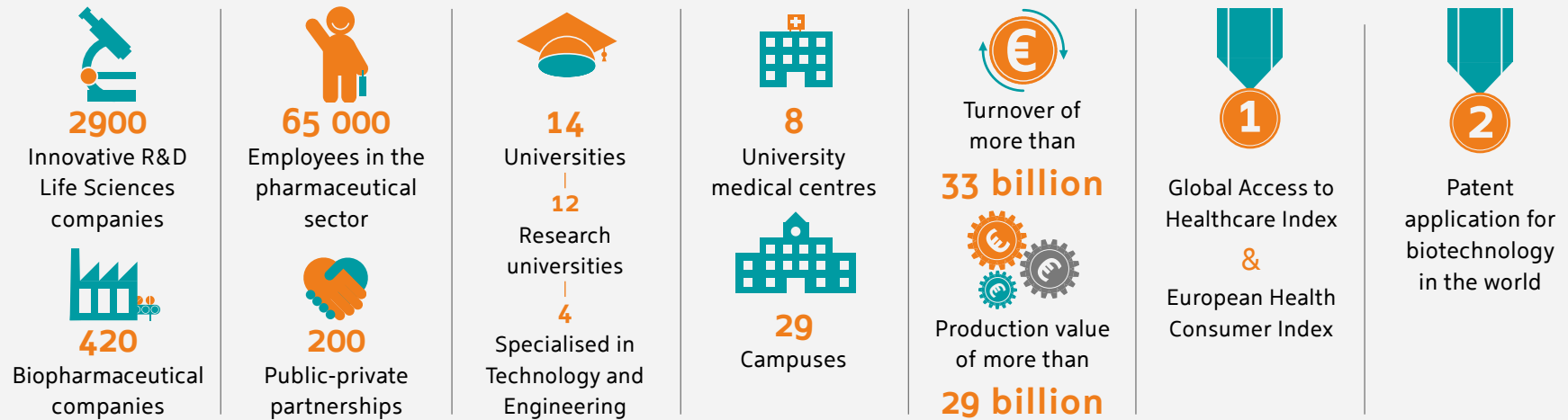
### Most innovative biopharmaceutical environment

Public and private partners in the Dutch biopharmaceutical sector have joined forces with the ambition of establishing the world's most attractive and innovative biopharmaceutical environment. We are dedicated to further improving our excellent R&D climate for the benefit of patients. Together we can make this ambition become a reality, so come and join us to strengthen the sector further!

Read all about the advantages of setting up your business in the Netherlands in this bid book.

## Key figures of the Netherlands

### Biopharmaceutical sector



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### What more does the Netherlands have to offer?





# BIOPHARMACEUTICAL SECTOR

# BIOPHARMACEUTICAL SECTOR

The Netherlands provides an unbeatable location for businesses in the biopharmaceutical industry. The dynamic and thriving Dutch biopharmaceutical sector is characterised by outstanding hubs and clusters linked by first-class physical and digital infrastructure. Home to 2,900 innovative Life Sciences businesses, including 420 biopharmaceutical companies, and the European Medicines Agency (in 2019), the Netherlands is one of the most concentrated Life Science & Health clusters in the world.

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Living in a densely-populated river delta such as the Netherlands creates, by necessity, a culture of collaboration that is perhaps most clearly manifested in the country's smart and effective defences against water. In creating a highly competitive economy where a third of GDP is earned below-sea-level the Dutch have, over the centuries, learned the value of interaction, trust, and vision in the establishment of robust, well-functioning systems. This propensity for cooperation and consensus can be found in every facet of Dutch society, including the government, which is unfailingly in the form of a coalition.

There is a high level of inter-dependency between government, industry and population that is supported by a complex matrix of physical and digital infrastructures - providing a holistic, integrated approach to work and life in the

delta. This is manifested in the ability and the willingness of companies, research institutions, and government to work closely together, sharing knowledge, creating solutions and achieving valuable synergies.

## Tradition of innovation

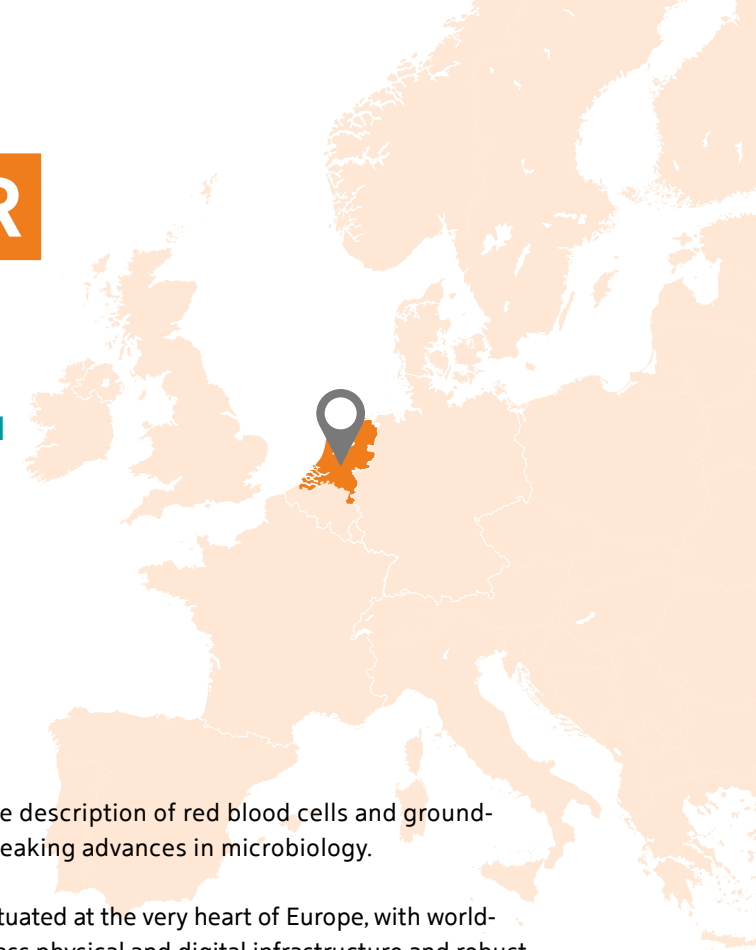
In its 2017-18 Global Competitiveness Index, the World Economic Forum ranks the Netherlands as the 4<sup>th</sup> most-competitive economy in the world and 1<sup>st</sup> in the EU, making it an excellent location for business and providing a thriving hotbed for companies in which to settle and grow. This is fostered by centuries of scientific innovation, invention, and discoveries that have impacted global health and well-being, such as the microscope, electrocardiogram, artificial kidney, heart/lung machine, artificial heart,

the description of red blood cells and ground-breaking advances in microbiology.

Situated at the very heart of Europe, with world-class physical and digital infrastructure and robust services sector, the Netherlands is the ideal location for the establishment of global or European operations in Life Sciences & Health. Companies choosing to locate here can count on a strong economy and stable government, access to a skilled, motivated and multi-lingual workforce, inspiring cities, and high quality of life at a reasonable cost.

## Close-knit community

Consequently, it should come as no surprise to learn that the Netherlands is home to one of the most concentrated, efficient, and close-knit Life Sciences & Health clusters in the world.



## Working towards a healthier world

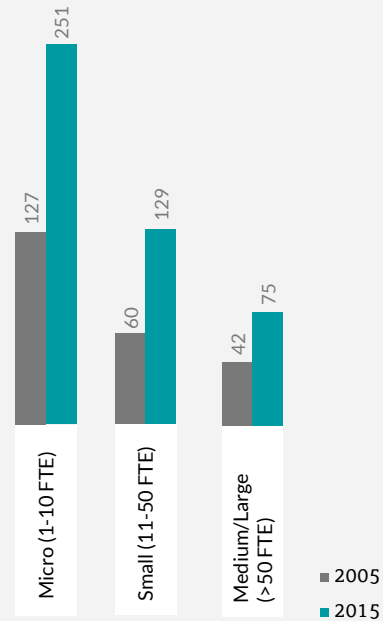
When Dutchmen Hans and Zacharias Jansen first invented the microscope back in the 1590s, they laid a strong foundation for the Netherlands' future role as a global player in Life Sciences & Health. They were followed by a stream of pioneering scientists that continued to push the boundaries of medical science through the centuries, up until the present day.

### High level of R&D

With around 34,000 people employed in 2,900 innovative R&D Life Sciences companies, the Life Sciences & Health sector in the Netherlands is characterised by a high level of R&D output and expertise in areas such as cancer research, cardiovascular-, infectious- and neurodegenerative diseases, clinical

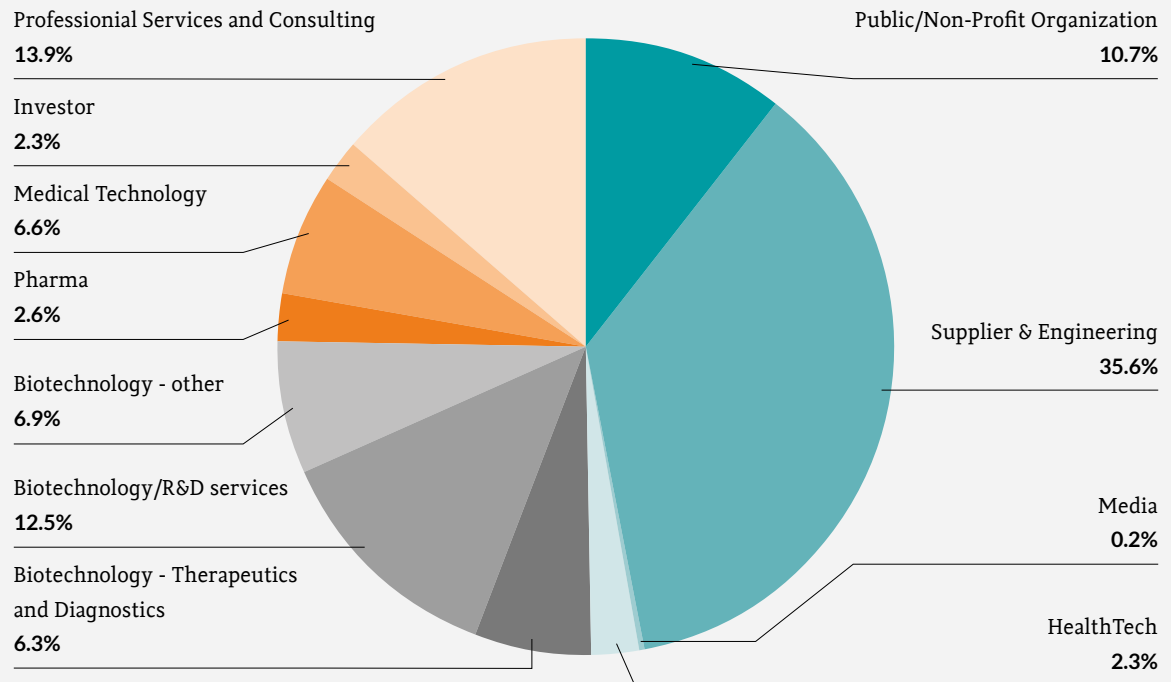
research, medical imaging in preventative healthcare, and healthcare systems. Over the last ten years, the number of companies active in the Life Sciences has more than doubled, and the Netherlands now has one of the highest concentrations of Life Sciences & Health activity in the world.

Life Sciences companies in 2005 and 2015



Source: HollandBIO, Life Sciences 2030

Companies per sector



Source: Dutch Life Science Database, 2018

### Active ecosystems

One of the key success-factors contributing to the booming Life Sciences & Health sector in the Netherlands is the thriving community formed by a number of specialised Science Parks spread throughout the country. Each Science Park is an active ecosystem that is home to a cluster of small-, medium-, and

large-sized businesses, start-ups, a university, and a University Medical Centre. Each park's governing body supports its local businesses and facilitates networking and cooperation. This enables high levels of seamless cross-fertilisation and collaboration, allowing people to work together to develop joint solutions for emerging and urgent matters in the field of

Life Sciences & Health. The clusters are often in close proximity to each other (the farthest apart being roughly 2.5 hours' drive), and the flat Dutch topography and excellent road and rail networks mean that your close collaborators are never that far away. Below are some examples of science parks located in the Netherlands.



### Leiden Bio Science Park

The Leiden Bio Science Park is a leading location for biotechnology and pharmaceuticals businesses to thrive and prosper. This dynamic and rapidly-growing hub ranks amongst the top-5 science parks in Europe and is currently home to 195 organisations employing over 18,000 people. With 106 biomedical companies, dozens of innovative bioscience start-ups, and several research institutions, educational institutions, and healthcare organisations, the Leiden Bio Science Park provides a fertile environment for collaboration and knowledge exchange and is a significant global R&D cluster.



### Pivot Park

Founded in 2012, Pivot Park is a relatively-new initiative and is currently home to some 50 companies, including start-ups, scale-ups, contract research and contract management organisations and service providers all active in pharmaceutical R&D. Medicine development at this location, however, stretches back almost a century. The park is located in the city of Oss, former home of the pharmaceutical company Organon, which started operations there back in 1923. Organon made a significant contribution to modern medicines, and Pivot Park builds upon that impressive legacy, providing an outstanding pharma R&D infrastructure that helps start-ups to flourish, grow and contribute to a healthier world by developing new and innovative medicines.

The Pivot Park initiative is spearheaded by pharmaceutical company MSD, in collaboration with the Province of Noord Brabant, the municipality of Oss, the Ministry of Economic Affairs & Climate, the Ministry of Health, Welfare & Sport, and the Brabant Development Agency (BOM).

*"The Netherlands is a perfect breeding ground for new pharmaceutical companies. The Leiden Bio Science Park hosts more than 100 companies active in the discovery, development and production of new medicines. It truly represents an innovative ecosystem with nearby academic institutions (Leiden Academic Center for Drug Research, Leiden University Medical Center & Centre for Human Drug Research) feeding into it with new research findings from molecule-to-man and also by continuously delivering well-trained and motivated young scientists."*

**Douwe D. Breimer**, Professor of Pharmacology and Former Rector Magnificus & President at Leiden University



Leiden Bio Science Park

*“To develop vaccines against pathogens of global concern, such as Ebola, HIV and AMR bacteria, partnerships are essential. In the Netherlands, Janssen Vaccines can collaborate with many high-ranking academic institutes, and it is a breeding ground for biotech start-ups. This creates a climate of cooperation that allows us to stay a frontrunner in our field.”*

**Johan van Hoof**, Global Head of Vaccines R&D at Janssen

## The power of public-private partnerships

Thinking out-of-the-box, directness, and willingness to collaborate and exchange knowledge are key characteristics that give the Dutch a leading position in public-private research and ‘open innovation’. The Dutch approach is: ‘It’s not what we do for you, it’s what we do with you, that counts.’ This lays a firm foundation for companies, NGOs, knowledge institutions, and government, upon which to build; the so-called ‘quadruple-helix’ approach – a formalized structure created to set out specific guidelines, common policies and goals.

### Pragmatic solutions

Dutch Public-Private Partnerships (PPPs) receive worldwide acclaim, especially in the areas of oncology, medical technology, bio-banks and vaccines. PPPs such as the Netherlands Genomics Initiative, CTMM and TI Pharma (both merged into Lygature) have set international standards. The entire healthcare-chain is typified by a strong inter-disciplinary approach that leads to pragmatic, holistic solutions - from bench to patient.

### An enabling mechanism

There are currently around 200 PPPs in the Netherlands, of varying shapes and sizes, working together to find answers to many of society's healthcare challenges. These diverse partnerships are able to share funding as well as the bundled knowledge and expertise of the various participants.

This is crucial in the biopharmaceutical sector as it creates opportunities for the joint-development of medicines for complex diseases. PPPs often enable medicines and vaccines to be developed more rapidly, in the drive to cure destructive diseases such as Alzheimer's, anti-microbial resistance, and cancer.

Below are some recent examples of Dutch public-private partnerships in the field of Life Sciences and Health.



Oncode is a new independent world-class, innovative institute that unites, under a common strategy, more than five hundred of the Netherlands' most outstanding scientists, specialized in the field of fundamental oncological research (i.e. research on how cancer operates at a basic, molecular level). Oncode incorporates the knowledge and experience to identify and foster scientific discoveries that are potentially beneficial to patients. The institute helps to pave the path leading from such discoveries towards translational and clinical research and practical applications. Outsmarting cancer, Impacting lives.

[www.oncode.nl](http://www.oncode.nl)



Health-RI connects existing Dutch Infrastructure programs in a public-private partnership. Health-RI builds a state-of-the-art infrastructure to support personalized medicine and health research in the Netherlands. The national infrastructure improves efficiency by offering shared services, allowing for optimal exchange and reuse of data, samples and images, and acting as the collective voice of the field for research infrastructure related topics. By optimally facilitating personalized medicine and health research, Health-RI will accelerate the development of personalized medicine and health solutions, creating major value for researchers, patients and citizens.

[www.health-ri.nl](http://www.health-ri.nl)



RegMed XB (Regenerative Medicine Crossing Borders) is a virtual institute that uses regenerative medicine strategies to cure common chronic diseases. It comprises an intensive Flemish-Dutch public-private partnership between governments, health funds, doctors, scientists and specialized companies. In phase 1, the ambitious research focuses on curing patients with type 1 diabetes, kidney failure and osteoarthritis. Looking to the future, the research will also focus on other diseases. Regenerative Medicine holds the promise to cure many of what are now chronic patients, restoring health rather than protracting decline, bettering the lives of millions in the Netherlands and beyond and at the same time preventing lifelong, expensive care processes: Cure instead of Care.

[www.regmedxb.com](http://www.regmedxb.com)



## International health initiatives

The dynamic Life Sciences & Health sector in the Netherlands has a strong knowledge-base and a high concentration of innovative companies that contribute greatly to health and well-being around the globe. International research in Life Sciences & Health is beneficial to the development of health research programs in the Netherlands, extending and broadening the research domain beyond national boundaries. Horizon 2020 is an EU-broad research and innovation stimulus program with an 80 billion euro budget and it is one of the most successful European health initiatives. The Netherlands' involvement in this program is extremely high, with Dutch participants involved in 49% of the initiatives in Horizon 2020 health research programs.

Dutch SMEs and scientific institutions also participate in projects driven by the Innovative Medicines Initiative. The non-profit organization Lygature supports the development of new medical solutions for patients by managing public-private partnerships involving academia, industry and society.

An example of a successful PPP is the European Lead Factory, whose mission is to deliver innovative drug discovery starting-points. The European Lead Factory has founded the European Compound Library and the European Screening Centre - a unique industry-standard uHTS platform offering free access to up to 500,000 novel compounds. The impact of the European Lead Factory to-date has been impressive:

- Total budget 2013-2018: 196 million euros
- 30 participants from 15 European countries
- 150 employees from public partners involved
- > 40 million data points collected on possible drug candidates
- > 6.000 high-quality hit compounds identified for >120 innovative disease targets
- > 60 scientific articles in high-impact journals
- Featured three times in Nature reviews drug discovery
- Two start-ups launched based on results from the European Lead Factory

*“The European Lead Factory is definitely the type of platform we need in the European ecosystem.”*

**Jemila Houacine**, Associate, Investment team at Medicxi Ventures, Switzerland

## Attractive biopharmaceutical environment

With more than 2,900 innovative R&D Life Sciences companies operating in the Netherlands the country is a popular destination for a number of major biopharmaceutical companies that have chosen to establish R&D, manufacturing, distribution or logistics operations here.

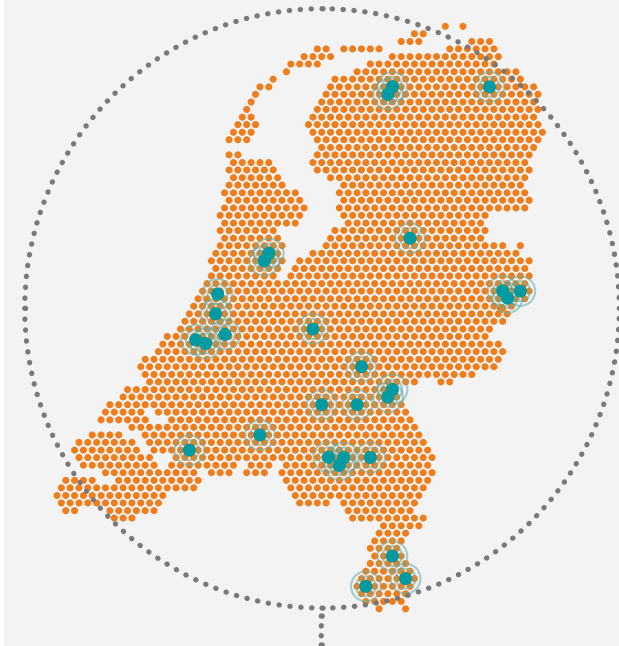
### Close-by collaborators

It is a compact country with 420 biopharmaceutical companies within a 120-mile radius. This high concentration of businesses results in a high level of collaboration and a dedicated pool of knowledge and talent. Some 65,000 people work both directly and indirectly in medicine development. Of the direct employment, 87% is involved in the manufacture of medicines, 12% in clinical research, and 1% in pharmaceutical raw materials. The large number of small- and medium-sized companies ensures that the country is an attractive and stimulating place for young talent.

### Unparalleled IT infrastructure

Underpinning the culture of cooperation in the Netherlands is a world-leading digital infrastructure that attracts global IT companies. Microsoft, Cisco, Oracle, Intel, IBM, Verizon, and Google, all tap into the unparalleled IT infrastructure backed up by the Amsterdam Internet Exchange (AMS-IX), the world's largest data traffic hub. In the 2016 McKinsey Global Institute report on digital globalisation, the Netherlands ranked 2<sup>nd</sup> in the top 10 for Data Flow, underscoring the crucial significance of data transfer and, consequently, global competitiveness and innovation. This ease with which data can flow is also crucial to the seamless operation of the biopharmaceutical sector. Furthermore, the Netherlands is also a leader in the digitalization of healthcare with around 87% of patient-related data carried in digital records. This is extremely attractive for the biopharmaceutical sector, providing massive opportunities for improving medicine development.

## Campuses in the Netherlands



8 UNIVERSITY MEDICAL CENTRES

420 BIOPHARMACEUTICAL COMPANIES

12 UNIVERSITIES ENGAGED  
IN BIOMEDICAL RESEARCH

... all within a **120** mile radius!

## Companies in the Netherlands

Many leading multinational pharmaceutical businesses have established operations in the Netherlands, including MSD (also known as Merck & Co.), Janssen pharmaceutical companies (a division of Johnson & Johnson), and Amgen. Their operations cover everything from R&D and production to logistics and marketing. Some have established their European Headquarters in the Netherlands or have invested in Dutch SMEs.



### Biotechnology companies

Biotechnology is a prominent feature of the Netherlands' Life Sciences landscape. The country is home to numerous innovative biotechnology companies - from start-ups, to SMEs to large organisations – that operate in the areas of health, nutrition, or the bio-based economy. Playing a key role in establishing this

thriving segment are Dutch scientists and entrepreneurs such as Herbert Heyneker, Hubert Schoemaker and Henri Termeer.

Over the past few decades, biotech companies in the Netherlands such as Galapagos, Genmab and Kiadis, have made significant contributions to the development of new medicines, diagnostics, and industry products that have

contributed significantly to global society, sustainability, and health.

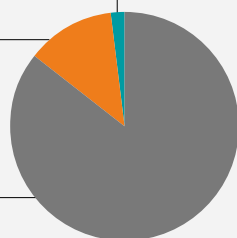
The majority of biotech companies located in the Netherlands (85.7%) are private or independent organisations and are primarily engaged in therapeutics, diagnostics and analytical services, and associated services and supplies.

### Biotechnology companies by ownership status

Publicly listed on stock exchange  
2.2%

Subsidiary  
12.1%

Private / independent  
85.7%



Source: The Dutch Life Sciences Trend Analysis 2018

### Key activities of biotechnology companies

Veterinary  
3.3%

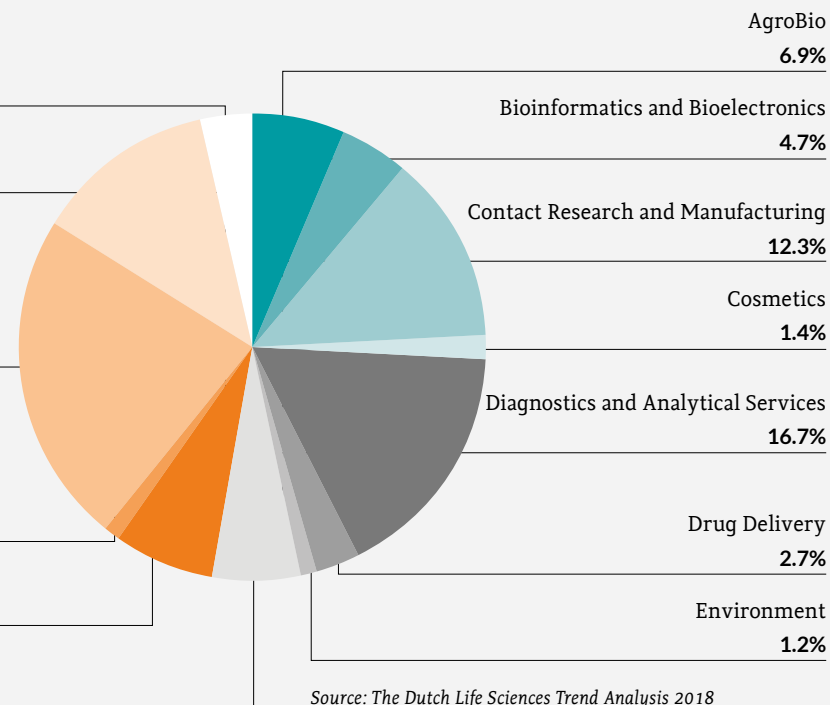
Therapeutics  
13%

Other Services and Suppliers  
23.3%

Industrial Biotechnology  
1%

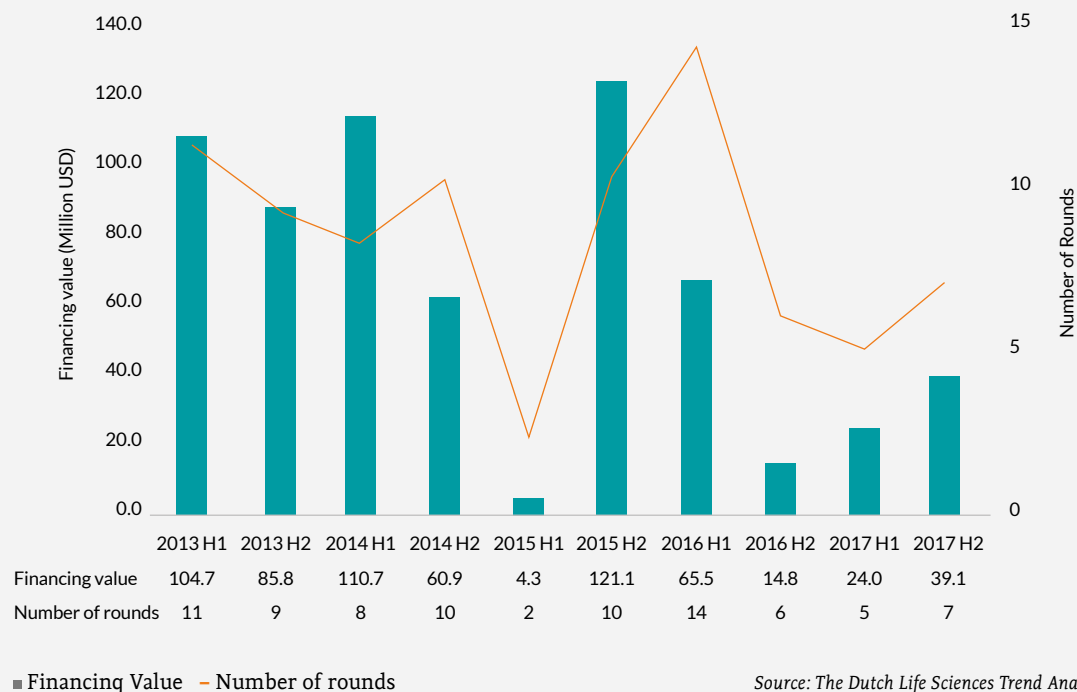
Genomics and Proteomics  
7.3%

Food and Nutraceuticals  
5.9%



Source: The Dutch Life Sciences Trend Analysis 2018

### Venture financing of biotech companies

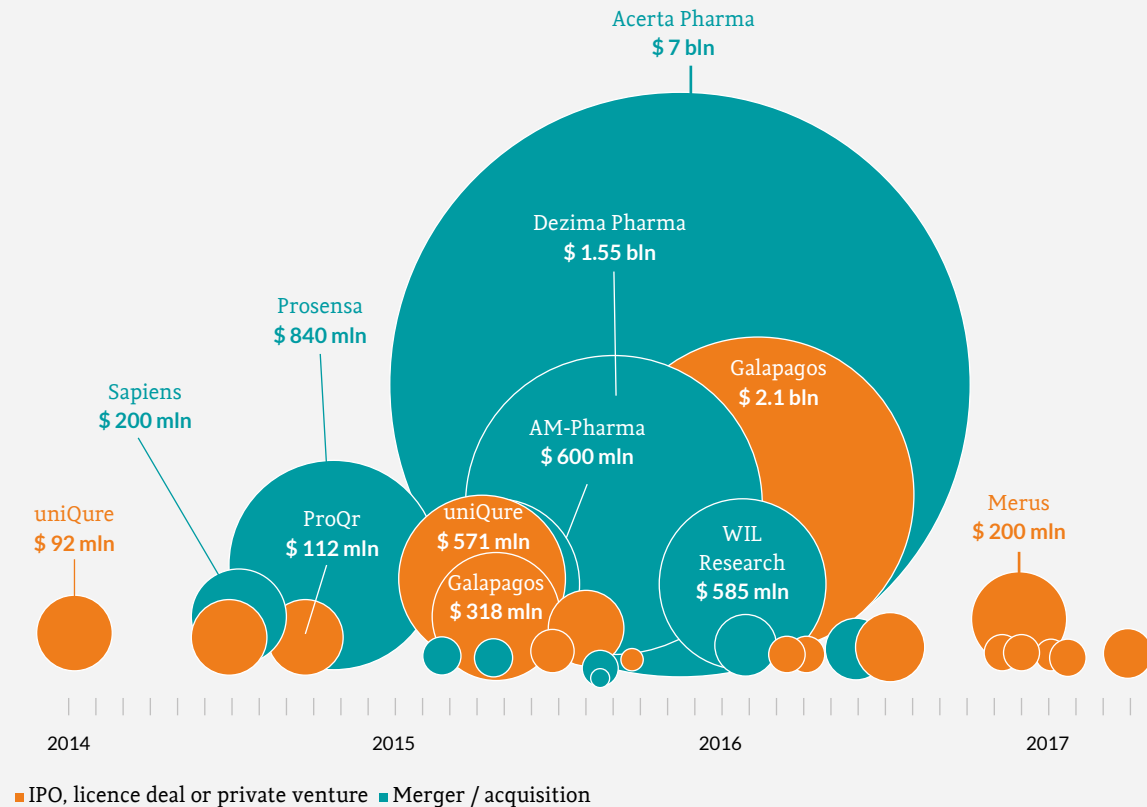


Source: The Dutch Life Sciences Trend Analysis 2018

*“The Netherlands has many promising start-ups in the pharma sector, such as Acerta Pharma. The potential of the technology of Acerta Pharma and the quality of its scientists were reasons for our interest in this company. We did a majority share investment in the company in 2016. Since then, Acerta Pharma serves as the Hematologic Oncology Center of Excellence of our company, working on several new targeted therapies for patients with hematologic malignancies.”*

**Patrick Connor**, Country President Netherlands at AstraZeneca

## Mergers and IPOs



### Recent mergers and deals

In recent years, several Dutch biopharmaceutical companies have attracted investments from larger pharmaceutical companies, occasionally resulting in the acquisition of the Dutch company. Furthermore, several companies have launched successful IPOs (Initial Public Offering) on Wall Street.

Largest IPOs and mergers/acquisitions:

#### IPOs

Galapagos: \$317 mln

uniQure: \$91.8 mln

Merus: \$42.5 mln

#### Mergers/acquisitions

Acerta Pharma: max \$7 bln

Dezima Pharma: \$1.55 bln

WIL Research: \$585 mln

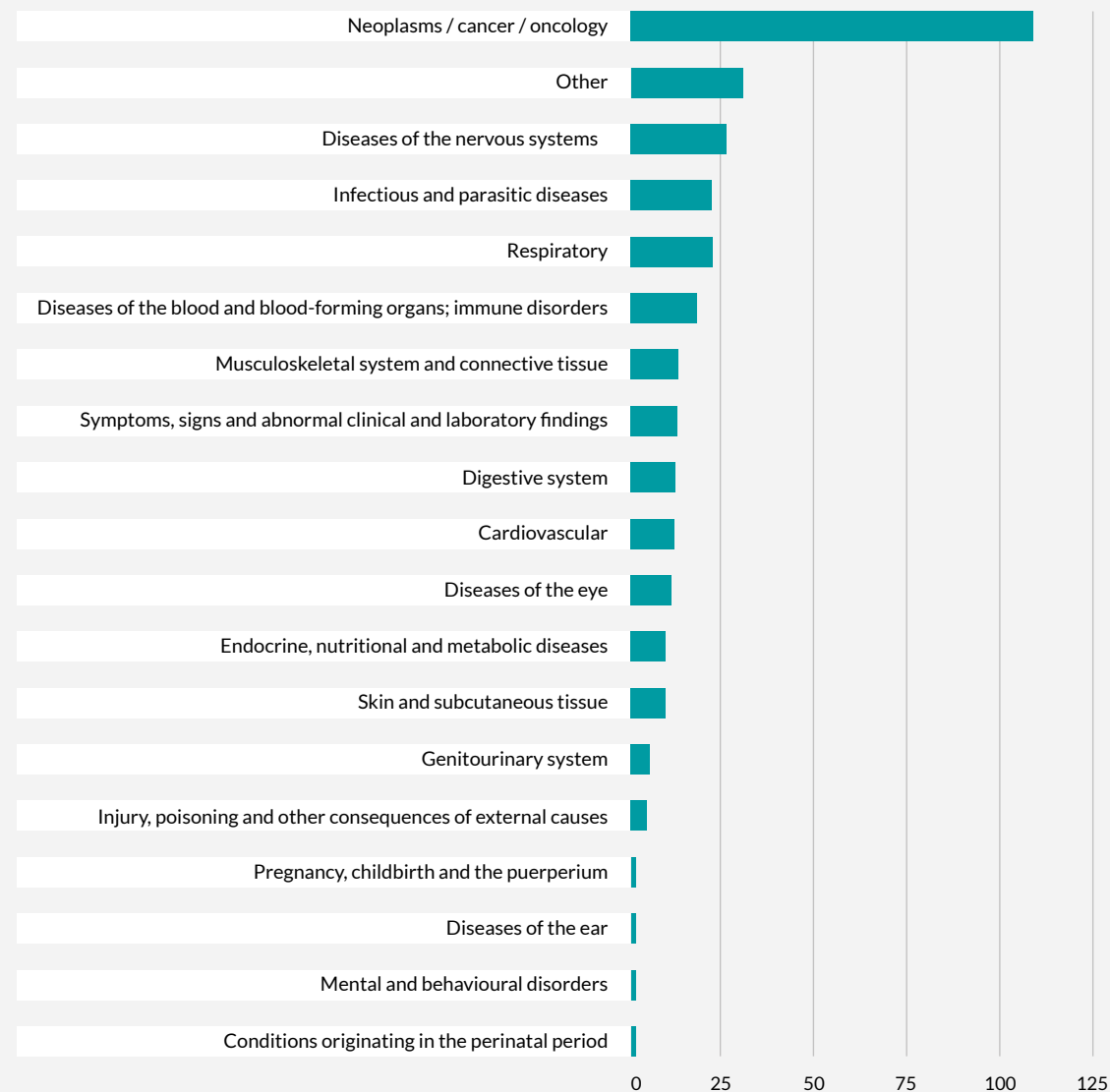
#### Significant Partnerships (ex. royalties)

Galapagos/Gilead: \$725 mln

Galapagos/Abbvie: \$600 mln

uniQure/BMS: \$245 mln

### Biotech products - breakdown by therapeutic area

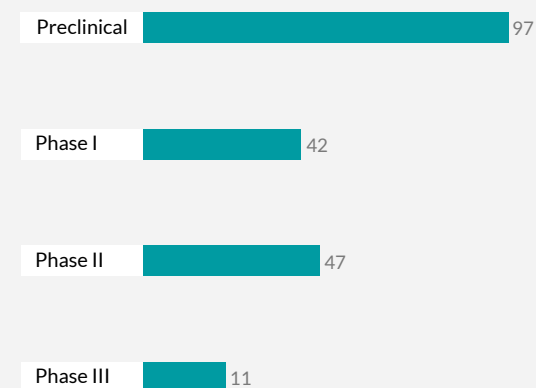


Source: The Dutch Life Sciences Trend Analysis 2018

## Medicine development

The Netherlands maintains strong positions in biopharmaceuticals, human and veterinary vaccines, and regenerative medicine. In 2018, 197 biotech medicines were being developed in the Netherlands, the majority of which (97) were at pre-clinical trial stage, and 11 of which were already in Phase III. Most of the biotech products available on the market are for the treatment of cancer, infectious and parasitic diseases, and diseases of the nervous system.

### 197 Biotech medicines in development



Source: The Dutch Life Sciences Trend Analysis 2018

## Clinical research

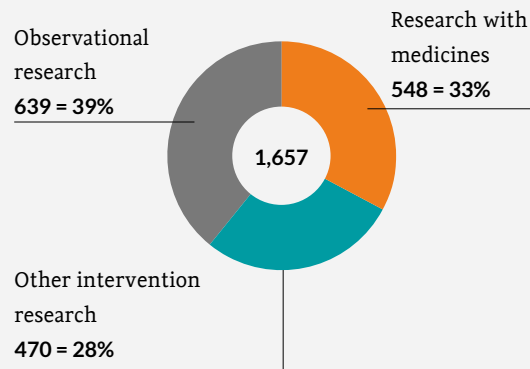
Highly regarded for its excellent scientific knowledge, involved physicians and scientists, and the cooperation of patients, the Netherlands plays a significant role in the conducting of clinical drug trials. The country's dense network of research institutes and general practitioners also helps to ensure a high level of patient registration.

### Facts and figures

Every year, approximately 500 new clinical trials are submitted to the CCMO (The Central Committee on Research Involving Human Subjects) for approval, of which approximately 97% are approved. In 2017, the CCMO and the medical ethics committees evaluated a total of 1657 research files, of which 548 (33%) were clinical drug trials. The majority of the clinical drug trials were submitted by industry (61%) and were Phase 3 studies (30%).

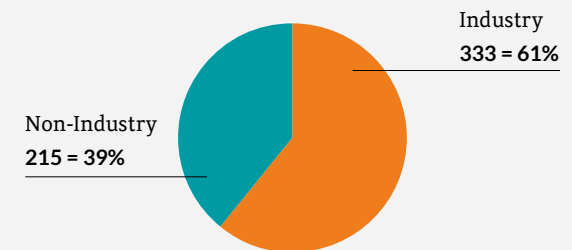
In 2018, data from the web-based resource ClinicalTrials.gov showed that there were 773 active clinical trial studies in the Netherlands and 1486 studies that were recruiting participants. These numbers are on a par with neighbouring country Belgium. The Netherlands performs a relatively high number of clinical trials per capita in comparison with France, Germany and United Kingdom.

### Research files (2017)



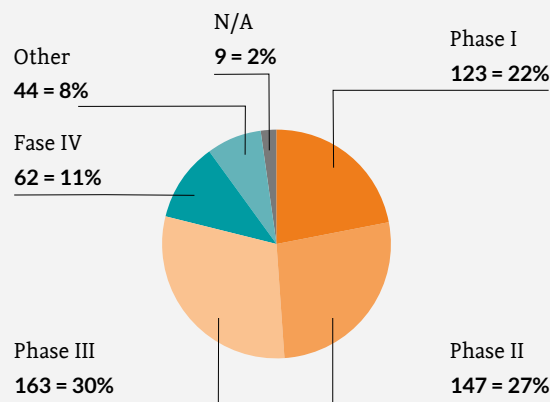
Source: Annual report CCMO 2017

### Clinical drug trials by industry and non-industry (2017)



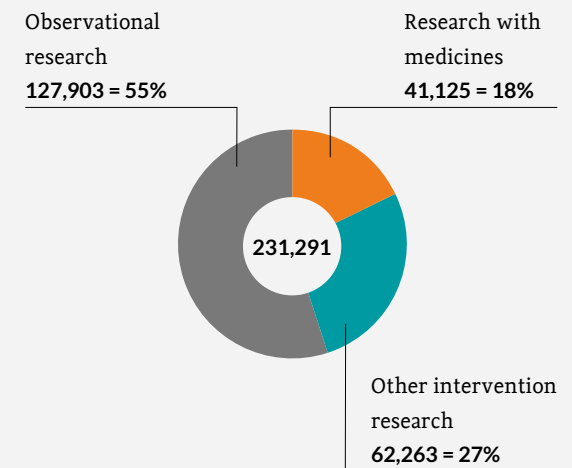
Source: Annual report CCMO 2017

### Clinical drug trials per phase (2017)



Source: Annual report CCMO 2017

### Participants (2017)



Source: Annual report CCMO 2017

### High level of collaboration

A factor that distinguishes the Netherlands from its neighbours is the high level of collaboration, which is strongly reflected in the country's clinical research. Close collaboration between universities, academic medical centres, patient organisations and industry are the norm, resulting in high-quality clinical research.

There is a network of industry associations such as ACRON (contract research organisations), Association Innovative Medicines (innovative pharmaceutical industry) and HollandBIO (biotechnology) that work in harmony to strengthen clinical research.

Furthermore, numerous stakeholders are united under the banner of the Dutch Clinical Research Foundation (DCRF), focusing on maximising clinical research so that valuable knowledge and science can benefit the patient as rapidly as possible. The foundation comprises of organisations that work closely together to ensure that new, effective, and safe treatment methods are made rapidly available to patients. DCRF members are, amongst others, branch organisations of university medical centres, contract research organisations, drug development companies, medical ethics committees, patients and patient organisations and the government.

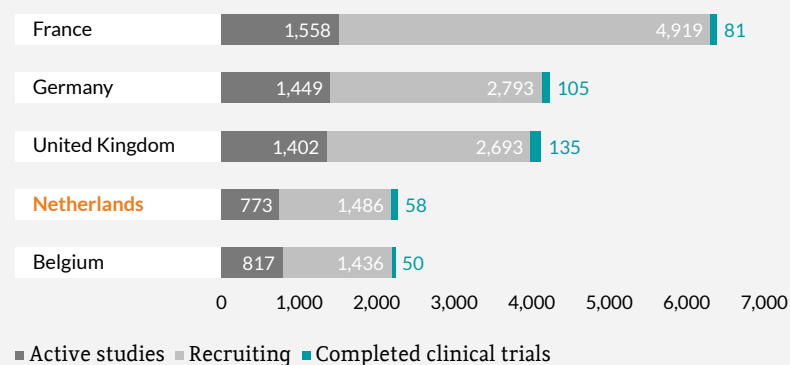
The DCRF also ensures that the implementation of the new European Clinical Trial Regulation (ECTR) and the transition to the new system will run smoothly. In doing so, it guarantees that the Netherlands remains highly-attractive for the developers of medicines and a perfect location to carry out clinical medical research.

### Early clinical research

The Netherlands is a highly attractive location for early clinical research due to short approval times, excellent quality and high levels of expertise. The majority of the Phase 1 clinical trials are approved within one month. This is relatively rapid in comparison with other European countries and provides companies with a competitive advantage when commencing their clinical trials.

In addition to the factors above, the Netherlands benefits from a considerable body of expertise regarding Phase 1 studies. Three large contract research organisations specifically carry out Phase 1 studies. These organisations are valued highly by companies because of their wide-ranging service offering, from study design and protocol development to regulatory submission and clinical conduct and analysis, and also because of their close links with universities and university medical centres.

### Number of clinical trials (2018)



Source: ClinicalTrials.gov

## Intellectual property

The number of biotechnology patents in the Netherlands is remarkably high and has been increasing rapidly over recent years: in 2015 more than 600 patents were filed by Dutch

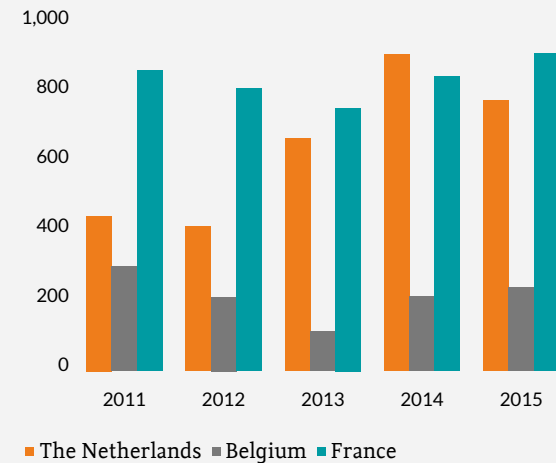
inventors. The country currently ranks 2<sup>nd</sup> in the world with regard to biotechnology patent applications.



Branch of the EPO at The Hague, Netherlands

### Number of patents

Biopharma and biotechnology in the Netherlands, Belgium and France



Source: PwC, Economische Footprint Nederlandse Geneesmiddelensector, 2017

## Regulatory science & innovation

The Netherlands is a frontrunner in regulatory science and innovation. Regulatory science is a relatively new discipline aimed at the development and validation of new standards and tools for assessing both the efficacy and the risks of medicines. Regulatory science is crucial in the improvement of the regulatory efficiency and efficacy of medicines assessment.

### Pioneering bodies

In close collaboration with Utrecht University, the Dutch Medicines Evaluation Board (MEB) - an independent national authority that regulates the quality, efficacy and safety of medicines - has been pioneering the field of regulatory science and leading research efforts within the European network of regulatory

authorities. The relocation of the European Medicines Association to Amsterdam bolsters the work of the MEB and provides a significant opportunity for the Netherlands to further strengthen its position as a frontrunner in regulatory innovation in Europe.

### Networks & platforms

The Netherlands benefits from a close-knit network regarding regulatory science and several Dutch initiatives focus on improving the regulatory system and facilitating regulatory innovation. A prime example is Escher; a platform that brings together a wide variety of stakeholders (industry, academia, government and NGOs). Escher's purpose is to promote research and international debate in the field of policy and regulations relating to

development, market authorization, reimbursement, and use of medicines and medical technology in order to create an efficient and effective regulatory system.

Another key initiative is the Regulatory Science Network Netherlands (RSNN): a national platform for dialogue and knowledge-sharing. The RSNN comprises a network of regulatory science experts from industry, academia, governmental bodies and the broader regulatory science field. Its mission is to advance an efficient and effective regulatory system for medicines development, marketing authorisation, access, and appropriate use of medicines, by sharing and disseminating knowledge among all stakeholders and setting the agenda for further research.

*“In the Netherlands, regulatory authorities and scientists from both academia and commercial companies jointly search for further improvement of medicine regulations, leading to tailor-made and practical advice and proposals for the assessment of new therapies.”*

**Joop van Gerven**, Chairman at Central Committee on Research Involving Human Subjects (CCMO)

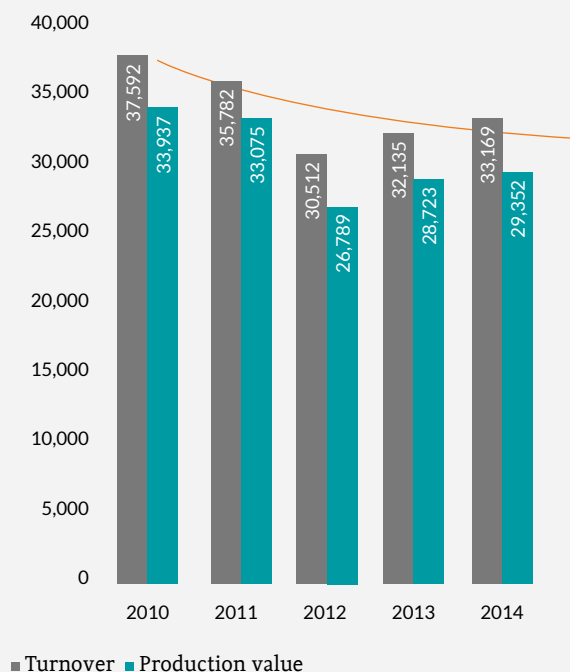
## Turnover & investments

The turnover\* of the pharmaceutical sector in the Netherlands amounted to 33 billion euros in 2014, with a production value\* of more than 29 billion euros. The turnover in the pharmaceutical sector in the Netherlands is predominantly from the distribution of medical articles (84%), and the manufacturing of pharmaceutical products (16%).

Around 380 million euros is invested in R&D activities each year in the Netherlands: 250 million euros for internal R&D activities, and 130 million euros for external R&D costs.

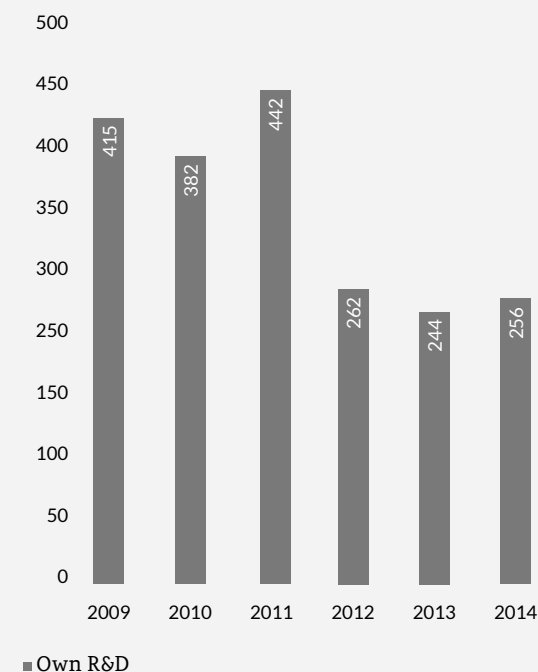
\* Turnover is the total volume of sales by a company (organisation, legal entity) over a given period. Production value is calculated by the value of production-related sales.

Total turnover and production value in millions of euros



Source: PwC, Economische Footprint Nederlandse Geneesmiddelensector, 2017

Private investments in own R&D in millions of euros



Source: PwC, Economische Footprint Nederlandse Geneesmiddelensector, 2017

Distribution of turnover



Source: PwC, Economische Footprint Nederlandse Geneesmiddelensector, 2017

## Import & export

With pharmaceutical exports totalling 27 billion euros and imports of 19 billion euros, the Netherlands ranks 7<sup>th</sup> in Europe according to the European Federation of Pharmaceutical Industries and Associations (EFPIA).

### Pharmaceutical exports

EFPIA 2015	€ million
Germany	68,706
Switzerland	58,127
Belgium	41,003
United Kingdom	33,343
Ireland	30,231
France	27,857
<b>Netherlands</b>	<b>27,434</b>
Denmark	11,537
Spain	10,934
Austria	8,472

Source: EFPIA, *The Pharmaceutical Industry in Figures*, 2017

### Pharmaceutical imports

EFPIA 2015	€ million
Germany	42,282
Belgium	34,694
United Kingdom	30,503
France	23,659
Italy	21,372
Switzerland	20,688
<b>Netherlands</b>	<b>19,168</b>
Spain	13,826
Austria	8,002
Russia	6,873

Source: EFPIA, *The Pharmaceutical Industry in Figures*, 2017



## **Markwin Velders**

### Vice President Operations & Managing Director at Kite Pharma

“There are several aspects that make the Netherlands a good base for Kite Pharma. Having hospitals in close proximity is important for Kite since we require patient samples for our R&D. Standards of living are important, the fact that there are international schools and that a lot of people speak English, are all factors that positively contribute to the Netherlands as a location.

The Netherlands is a gateway to Europe; an important selection criterion for Kite. We are currently building a manufacturing facility to supply our innovative therapies to Europe that will employ around 500 people in the next couple of years. Since we are producing personalised medicines, batches that are patient-specific, logistics is crucial to our product. That is why we are located close to Schiphol, where we can take maximum advantage of the logistics infrastructure.

The quality of research in the Netherlands is good, and there are many examples of good biotech companies that from academic research and have developed into respected stock exchange listed companies, such as Crucell, Kite and Genmab.”



Hopefully, this chapter has provided valuable insights into the character of the biopharmaceutical sector in the Netherlands. The subsequent chapters provide a comprehensive, in-depth description of the Netherlands as a business destination, covering topics such as economy, infrastructure, fiscal climate and incentives, as well as quality of life.



# THE NETHERLANDS

# About the Netherlands

**Official name:**

Kingdom of the Netherlands

**Form of government:**

A constitutional monarchy and a parliamentary democracy

**Head of state:**

His Majesty King Willem-Alexander, King of the Netherlands, Prince of Orange-Nassau

**Capital:**

Amsterdam

**Seat of government:**

The Hague

**Surface area:**

33,800 km<sup>2</sup>

**Location:**

In Western Europe, bordering the North Sea to the west, Belgium to the south and Germany to the east

**Number of inhabitants:**

17,250,348 (September 2018)

**Number of inhabitants per km<sup>2</sup>:**

510 (September 2018)

**Monetary unit:**

Euro

**Languages:**

Dutch, Frisian

*Source: Holland Compared, 2018*

# THE NETHERLANDS

With its strategic location, highly educated multilingual workforce, advanced healthcare system and excellent international business climate, the Netherlands is one of the world's leading locations for foreign businesses. The country consistently ranks highly in global quality-of-life surveys and provides a stable, open, safe and welcoming location for visitors from overseas.

The Netherlands is a wealthy, flourishing country and is one of the founding member states of the European Union. It receives high scores for safety, transparency, stability and social responsibility thanks to its first-rate educational system, excellent healthcare, multi-skilled multilingual workforce and high market efficiency.

The country's multicultural population enjoys an affordable, high standard of living. Its bustling urban centres, where many people get around by bicycle, maintain a pleasant community feel. Meanwhile, the peace and tranquility of the Dutch countryside is always within easy reach. Locals and expats alike enjoy the country's rich diversity of culture, entertainment, sports and other activities.

A central location at the heart of the three largest economies in the EU - France, Germany and the UK - facilitates easy access to Europe and provides international organisations and companies with an ideal basis from which to serve key markets within the region.

The Netherlands has a long-standing reputation for stability and justice. It is home to EU organisations Europol and Eurojust, as well as the European Court of Human Rights and many other such institutions. High rankings for anti-corruption and cybersecurity, contribute to a stable business infrastructure that is among the best in the world.



## Strategic location

The Netherlands is a first-rate, strategic location for international businesses whose activities extend into Europe and other parts of the world. Its favourable location guarantees quick and easy access to the European marketplace. In fact, 95% of Europe's most lucrative consumer markets are located within 24 hours of Amsterdam and Rotterdam.

The Netherlands is considered a strategic hub for distribution within Europe, thanks to its location and highly ranked airports (including Amsterdam Schiphol) and seaports (e.g. Rotterdam, Amsterdam). It boasts the largest number of distribution centres and the largest inland shipping fleet in Europe. The Netherlands is also one of the most wired countries in the world with 98% of all households having access to the Internet.

### European Medicines Agency

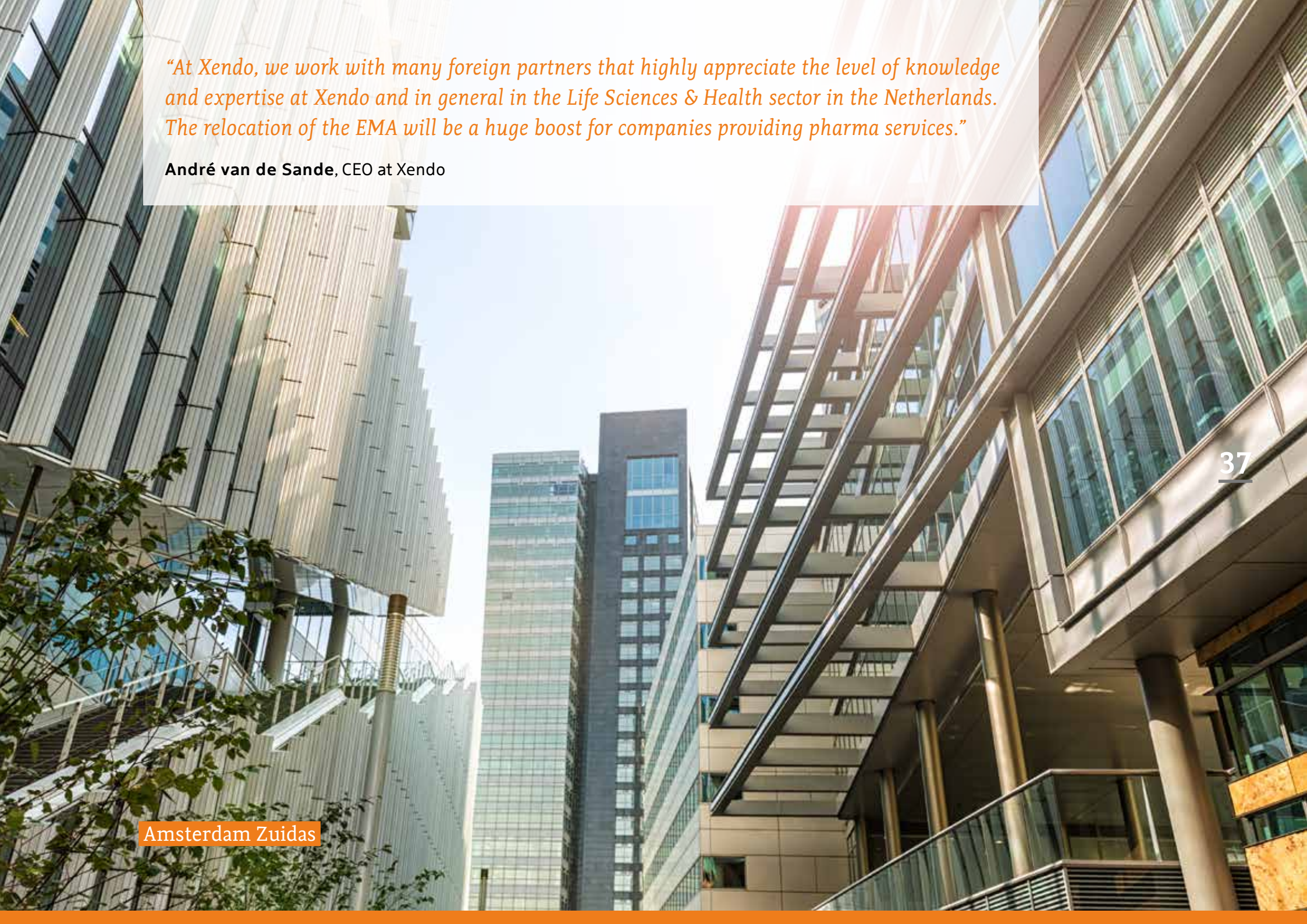
From March 2019, Amsterdam is the new home to the European Medicines Agency (EMA). The EMA, a decentralised agency of the European Union (EU), ensures the safety, effectiveness and quality standards of all

medicines available on the EU market.

The EMA assesses, supervises and monitors the scientific development of medicines in the EU and protects human and animal health in 28 EU Member States and the countries of the European Economic Area. In other words, it monitors a market that serves more than 500 million EU residents.

The EMA's relocation from London to Amsterdam is a direct consequence of Brexit. The move will enhance the already dynamic Dutch pharmaceutical sector. Not only does it put the Netherlands in the spotlight, but it also offers huge opportunities to attract new biopharmaceutical companies and service providers to the Netherlands. The Dutch government expects that the arrival of the EMA in Amsterdam will create thousands of new jobs in the pharmaceutical industry and the service sector. Moreover, specialised lawyers, patent experts and consultants will also relocate to Amsterdam in order to be close to the EMA. Insiders expect that the Dutch medicines research industry will also receive a significant boost.





*“At Xendo, we work with many foreign partners that highly appreciate the level of knowledge and expertise at Xendo and in general in the Life Sciences & Health sector in the Netherlands. The relocation of the EMA will be a huge boost for companies providing pharma services.”*

**André van de Sande**, CEO at Xendo

Amsterdam Zuidas

## Superior infrastructure

The Netherlands ranks third in the world for overall logistics performance, thanks in part to its top-ranking seaports and airports, a comprehensive network of railways and motorways as well as the second highest quality broadband network in Europe.

The country tops DHL's Global Connectedness Index due to its strategic location and international, business-orientated focus. Indeed, half of the Netherlands' Gross Domestic Product (GDP) is derived internationally. It is clear as to why the

country is so attractive to global companies wishing to reach millions of customers in Europe and beyond.

### Airports

In addition to Amsterdam's award-winning Schiphol Airport, the Netherlands has four regional airports offering international flights, making it one of the world's top air transport infrastructures. Schiphol, which has been voted the 'Best Airport in Europe' for 25 consecutive years by the Business Traveller Awards, is also Europe's top airport for cargo and passenger

transport. The airport is a short distance from all major Dutch cities and easily reachable via the country's compact and efficient network of motorways, secondary roads and high-speed rail links. The regional Maastricht-Aachen Airport is considered the fastest air cargo handler in Europe. Maastricht- Aachen airport is located in the tri-border region with Germany and Belgium. After landing, it takes a mere 45 minutes for an aircraft to be unloaded and for the first delivery trucks to be on their way to some of the most concentrated industrial- and population centres in Europe.



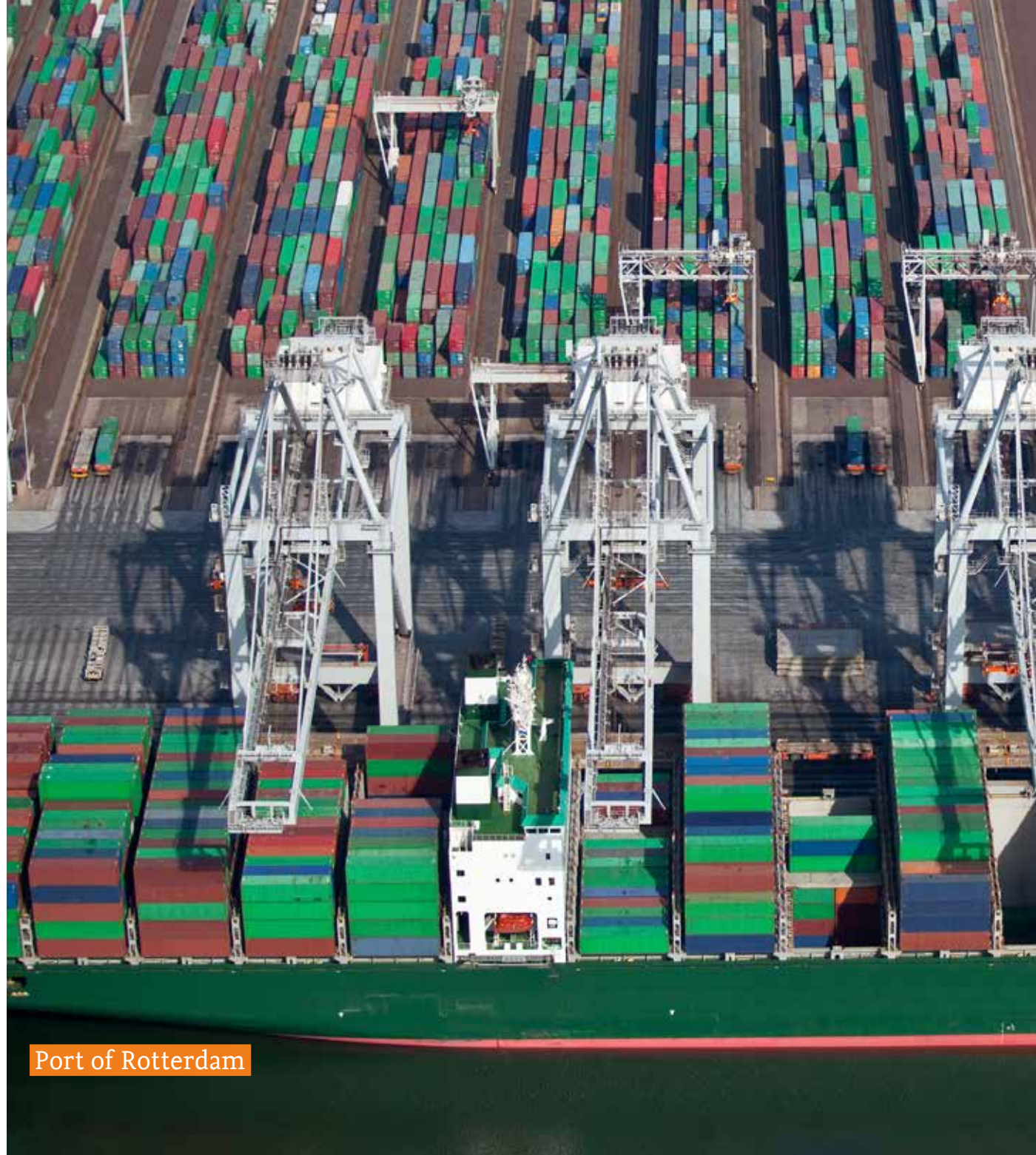
*“Pharma Gateway Amsterdam is a community approach in becoming the most qualified, efficient, transparent and best European pharma gateway at Amsterdam Airport Schiphol. The 23 logistics companies which are part of the Pharma Gateway Amsterdam includes airlines, forwarders, handlers and hauliers and all parties are dedicated to improve and innovate air freight processes together.”*

**Maaïke van der Windt**, Head of Aviation Marketing, Cargo & Customer Experience at Royal Schiphol Group



## Ports

Dutch ports handle 54% of all trade shipping in Western Europe, transporting over 580 million metric tonnes annually. The country's port infrastructure receives top rankings globally. Home to three deep-water ports, thousands of kilometres of rivers and a sophisticated network of canals, cargo from the Port of Rotterdam – Europe's largest and most important harbour – can reach Western Europe's major industrial and economic centres in less than a day. This gives companies unparalleled access to the European market. The Port of Amsterdam (fifth largest in Europe) offers additional logistics and distribution benefits. Furthermore, the ports of Groningen and Zeeland serve the north and south of the country.



Port of Rotterdam

### Digital hub

The digital infrastructure in the Netherlands is among the best in Europe. Amsterdam hosts one of the four key datacentre hot spots in Europe: AMS-IX, which is the largest internet exchange point in the world. In recent years, the AMS-IX has helped transform Amsterdam into a digital hub. Also, the Dutch LTE mobile internet broadband scores highest with regard to coverage, and fourth in terms of speed, on a European level.

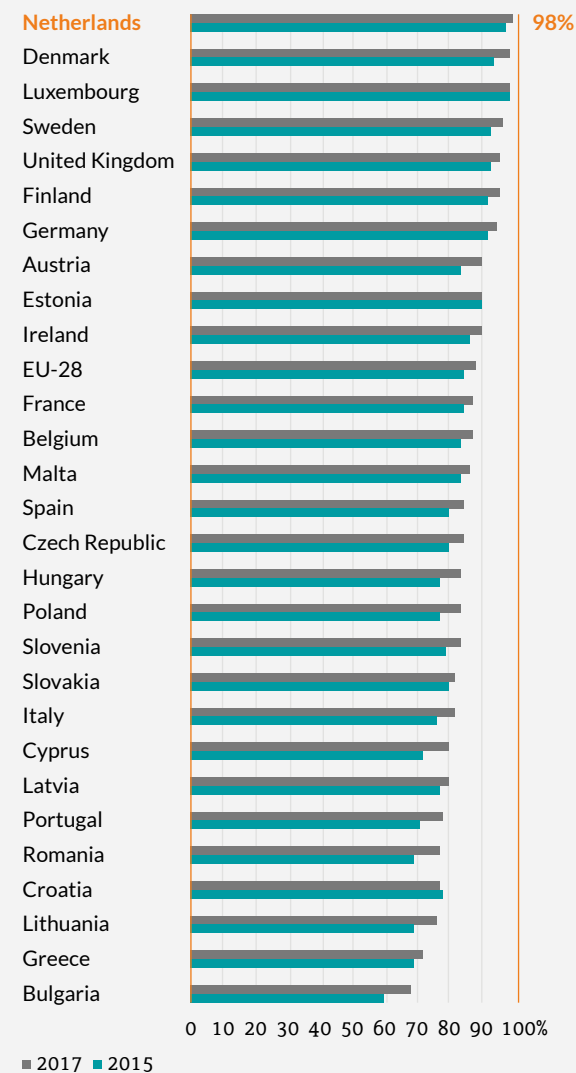
The Netherlands also has one of the highest levels of household broadband connections in the world, at 98%. Average broadband speeds in the Netherlands are some of the highest in the world, and it also has one of the highest levels of cybersecurity. It also directly links continental Europe to North America: eleven of the fifteen transatlantic cables run directly through the Netherlands. This ultra-modern, fully digital, advanced fibre-optic network serves a multitude of start-ups, datacentres and multinationals, such as Microsoft, IBM, Google, Cisco and Oracle.

### Road & rail

Businesses looking to establish logistics and distribution operations in Europe gravitate naturally to the Netherlands, given its comprehensive, state-of-the-art network of roadways. The country has over 139,000 km (86,000 miles) of roads, including 3,055 km (1,900 miles) of highspeed motorways, and more than 12,000 transport companies. With the Netherlands handling 14% of Europe's international road transport, it forms a critical hub for Europe's international road-freight transport.

The country's rail system boasts 3,055 km (1,900 miles) of network rail, directly linked to inland container terminals and destinations throughout the EU, Scandinavia and the Middle East. The Netherlands also has three high-speed rail lines as well as the Betuweroute, a dedicated double-track freight line running from Rotterdam to Germany. This provides businesses with rapid and direct access to European distribution centres.

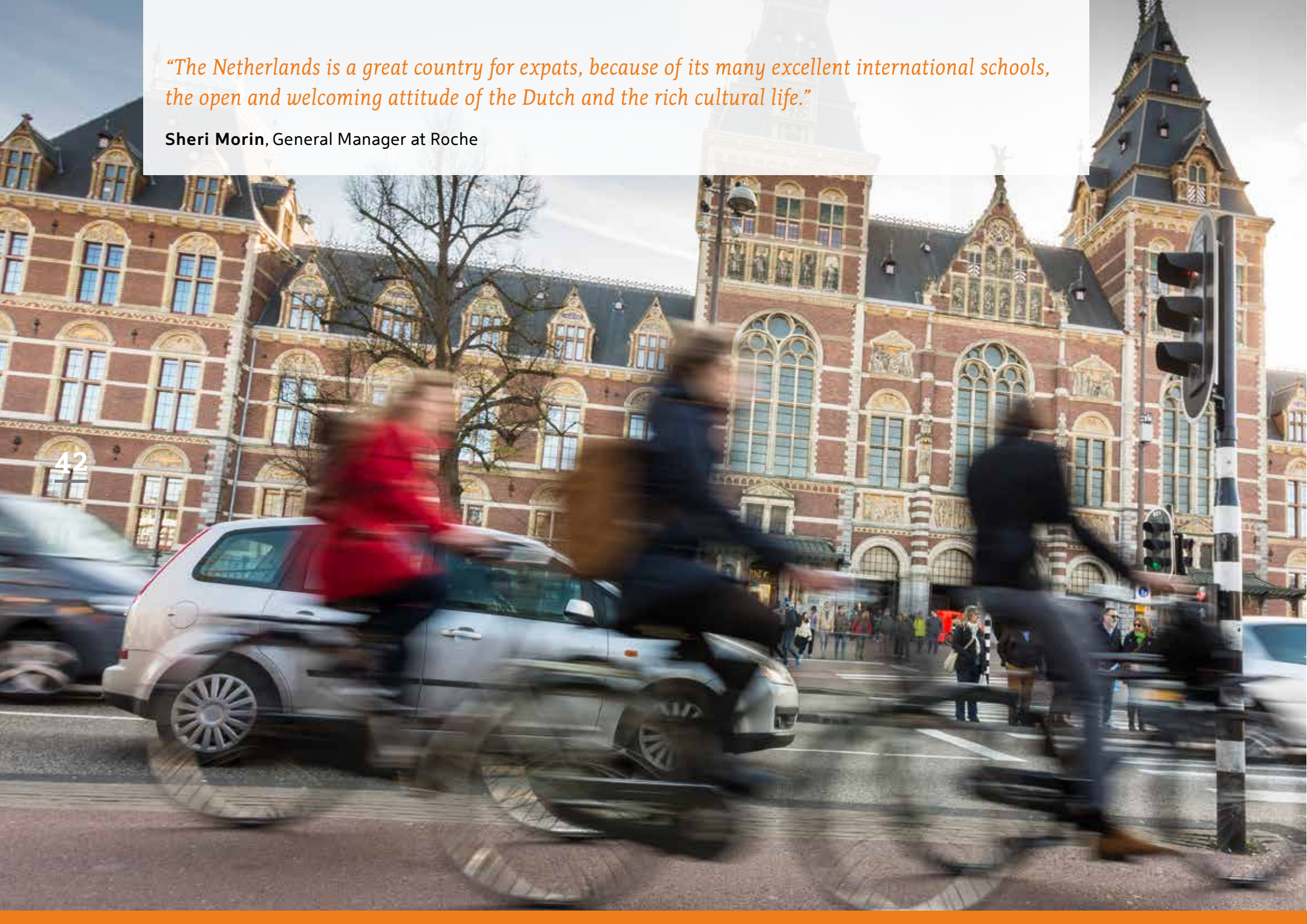
### EU-28 households with internet access at home



Source: Statistics Netherlands, 2018

*“The Netherlands is a great country for expats, because of its many excellent international schools, the open and welcoming attitude of the Dutch and the rich cultural life.”*

**Sheri Morin**, General Manager at Roche



## Living in the Netherlands

The Netherlands ranks highly as a great place to live. Enjoying excellent housing facilities, rich cultural offerings, and an outstanding healthcare system, the Dutch are among the happiest people in the world.

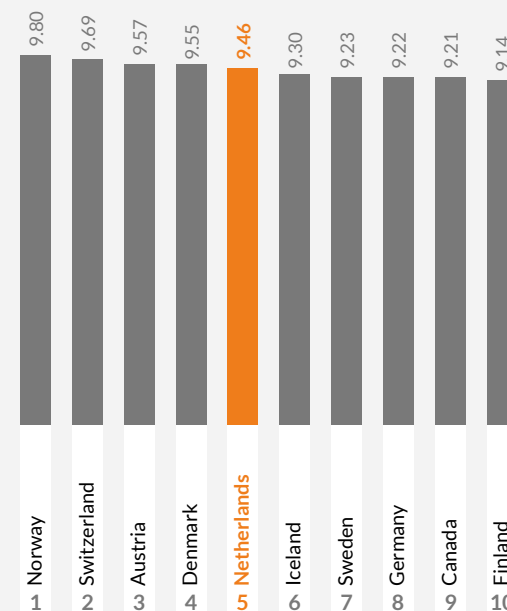
### Appealing place to live

The Netherlands is a great place, not only to visit and do business, but also to live in. It offers a wide array of conveniently located leisure and cultural activities and its historical city-centres are a delight. Its many museums include the renowned Van Gogh Museum and the Rijksmuseum in Amsterdam.



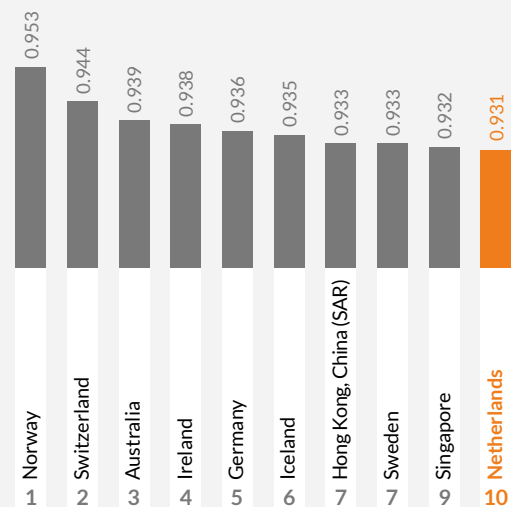
The Netherlands ranks fifth in the top 10 for quality of life, and housing is relatively affordable according to IMD. For international residents, there is a good selection of international schools, as well as increasing numbers of schools that teach in both Dutch and English (130 in 2015). The Commonwealth Fund ranks Dutch healthcare as the best in the world with regard to quality, access, efficiency, funding and healthy lifestyle of the general population. Moreover, in 2017, the Swedish think-tank Health Consumer Powerhouse rated the Dutch healthcare system as 'outstanding' (#1) among its European peers.

### Quality of life (2017)



Source: IMD, 2017

### Human Development Index (2017)

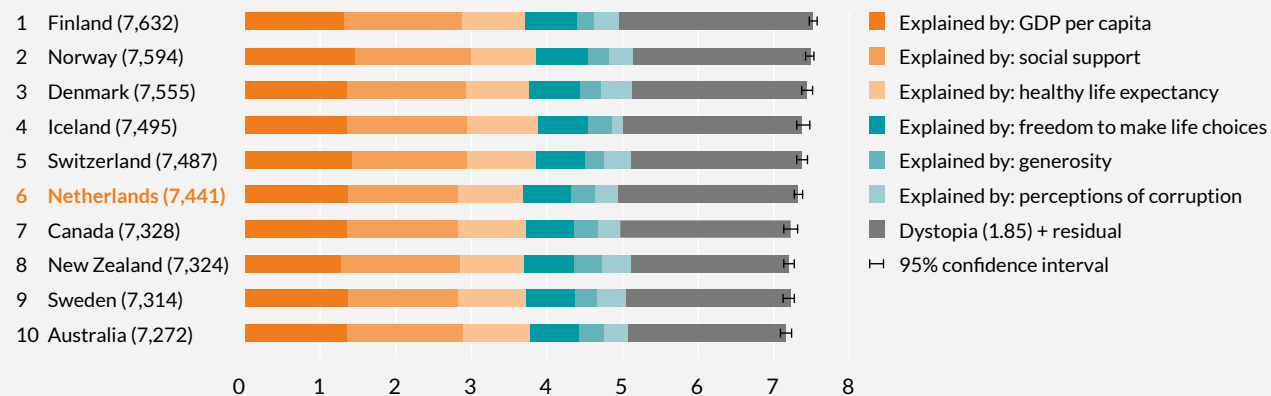


The Netherlands is ranked the tenth most prosperous country out of 188 listed in the United Nations Development Program (UNDP) Human Development Index. Alongside GDP, UNDP considers other factors in determining 'prosperity', such as life expectancy, literacy levels and public health.

Also, the Netherlands took sixth place in the World Happiness Report's ranking of happiness, based on factors such as care, generosity, health and freedom. Compared to most major European countries, the Netherlands has a lower cost of living while still maintaining a high standard.

Source: United Nations Development Programme, 2018

### Ranking of Happiness 2015-2017



Source: World Happiness Report 2017

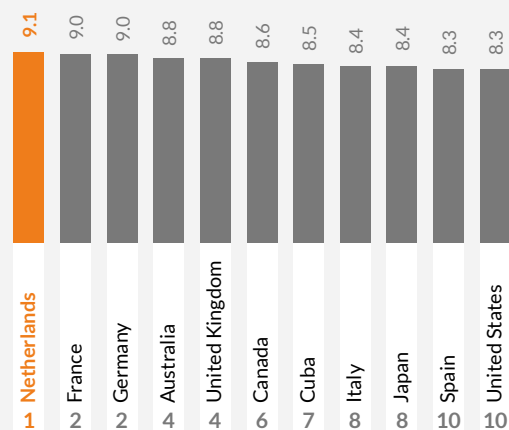


*“As a research-driven global biopharmaceutical company, AbbVie values the extremely high standards of healthcare in the Netherlands. There is still a great opportunity to join forces with partners across the healthcare spectrum to accelerate access to innovative treatments for patients. By working together, we can combine the best efforts, thinking and resources that can go beyond treating the illness to have a positive impact on patients’ lives, on societies—and on science itself.”*

**Esteban Plata**, Vice President International, Western Europe & Canada at AbbVie

### Global Access to Healthcare Index (2017)

Score out of 10



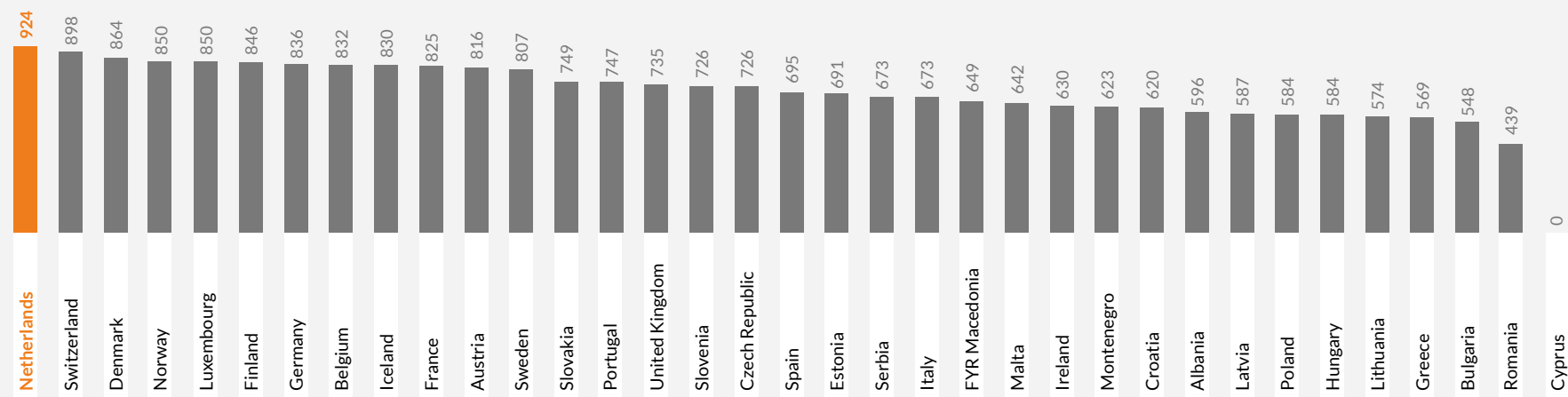
### Outstanding healthcare

One of the best things about living in the Netherlands is its first-rate standard of healthcare. Indeed, it ranks first on the list of 35 countries in the 2017 Euro Health Consumer Index (the industry standard) for providing the best healthcare services. Since 2005, the Netherlands is the only country to consistently maintain a top-three ranking.

The country also ranks number one on the Economist Intelligence Unit's Global Access to Healthcare Index, which measures countries worldwide on accessibility of healthcare and the overall healthcare system. Not only is healthcare in the Netherlands highly ranked and accessible, but also affordable. Health spending grew by an annual average of only 1% from 2009-2016, according to the OECD.

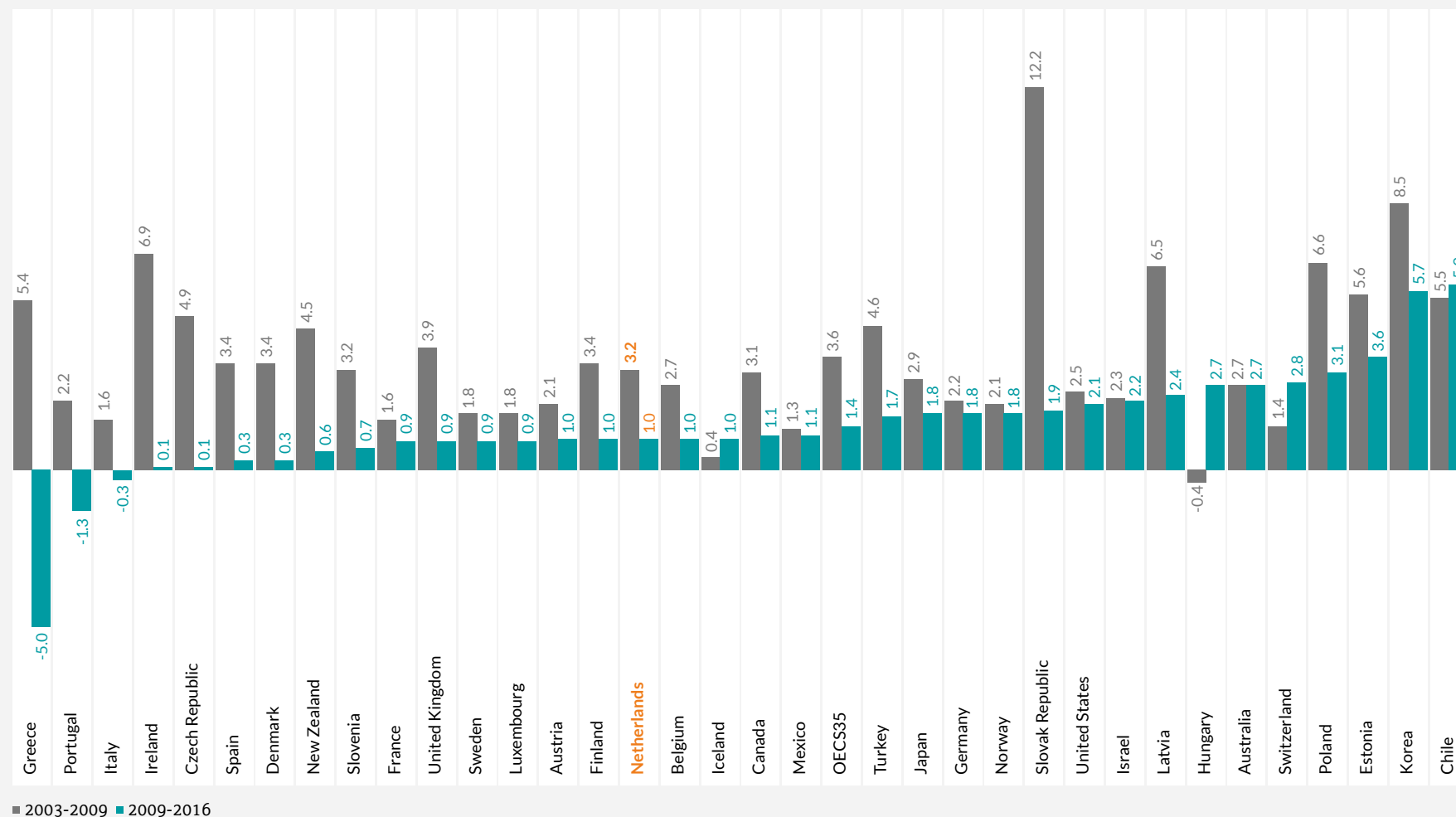
Source: The Economist Intelligence Unit, Global Access to Healthcare Index

### Euro Health Consumer Index Scores (2017)



Source: Euro Health Consumer Index Scores (2017)

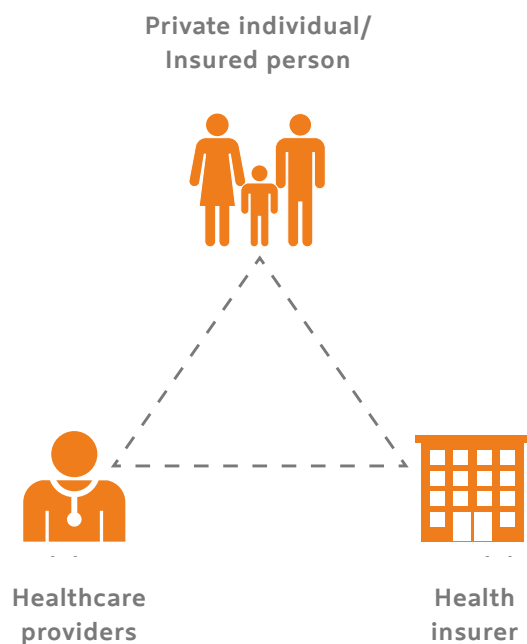
Annual average growth rate in per capita health expenditure, real terms, 2003 to 2016 (or nearest year) in %



Source: OECD Health Statistics 2017

### Healthcare system

The success of the healthcare system in the Netherlands is underpinned by the tenets of access to care for everyone, solidarity through compulsory medical insurance and high-quality services. The fact that the country achieves high rankings for healthcare is partly due to this philosophy of cooperation and spirit of joint effort.



The same applies to the Dutch Life Sciences & Health sector, which is characterised by collaboration and knowledge-sharing among companies and research institutions, with full government support. Dutch healthcare products, and services related to medical equipment, remote care and other areas are equally innovative, providing comprehensive 'smart solutions'. The Dutch model, which leads to affordable and sustainable products and solutions, reflects its highly inter-disciplinary approach and high levels of expertise throughout the healthcare chain.

### From supply to demand

The healthcare system in place in the Netherlands today is the result of various changes in recent years, which took the supply-driven system and made it demand-driven. The new Health Insurance Act, which entitles all Dutch residents to a comprehensive basic health insurance package, went into effect in 2006.

This means that all legal residents are required to take out health insurance offered by 24 competitive private (mainly non-profit) health insurers. The basic package includes essential medical care and residents have the option to take out supplementary dental and

other coverage. Meanwhile, under the Long-term Care Act, residents are legally insured against the risk of long-term care.

### Reduced red-tape

Although the Dutch healthcare system is essentially a private system, the government maintains a controlling role in order to protect the public interest. The overhaul has led to various improvements that benefit patients, including more focus on effectiveness and quality, partly through selective contracting. In addition, waiting lists are shorter and red tape has been reduced. Patients have the freedom to switch healthcare insurers each year and can influence the policies of insurers and health providers.

*“With the establishment of the Princess Máxima Center, the largest European centre for pediatric oncology is a fact. In this new centre health care and research regarding pediatric oncology are all bundled together in Utrecht, the Netherlands. This aggregation of expertise and knowledge will lead to increased opportunities for the development of new treatments that will benefit all children with cancer, both now and in the future.”*

**Hans Clevers**, Research Director at the Princess Máxima Center for Pediatric Oncology

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Prinses Máxima Center



### Dutch healthcare facts

The Netherlands is very much aware of the rising costs of healthcare and the Ministry of Health, Welfare & Sport devotes a great deal of attention to keeping these costs in check, so that the country's healthcare system remains affordable and accessible. In 2017, healthcare spending in the Netherlands amounted to 97,5 billion euros, or 13.3% of GDP.

In 2016, there were 79 hospitals at 121 locations in the Netherlands and 144 outpatient clinics. The sector employed approximately 1.1 million people in 2015.

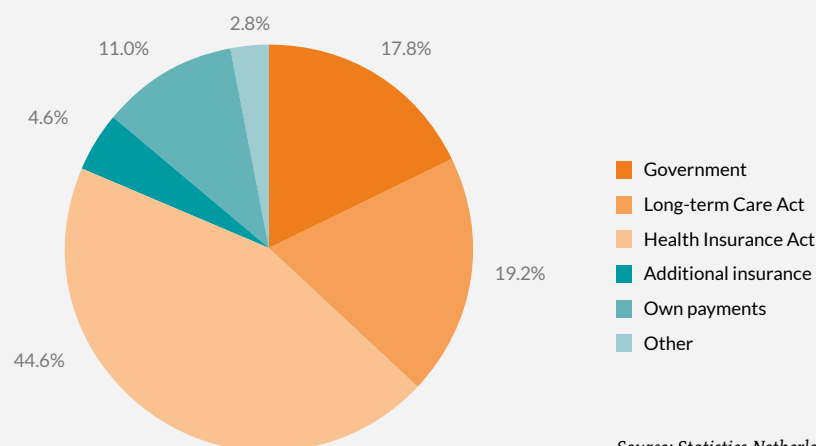
Overall, the number of hospitals is actually declining, but this is because many hospitals are partnering up, with a focus on creating specialised institutions. On the other hand, accessibility to healthcare is increasing thanks

to its availability at more locations and via care in the home.

### Patient power

Patient organisations play a crucial role in formulating healthcare policies in the Netherlands. The largest patient association is the umbrella organisation NPCF, which acts as representative for approximately 170 different patient associations.

### Financing of health expenditure (2017)



Source: Statistics Netherlands, 2018

### Jobs in the Dutch healthcare sector

- > 2,525 pharmacists
- > 2,852 midwives
- > 8,775 dentists
- > 8,865 GPs
- > 17,082 physiotherapists
- > 22,585 specialists
- > 400,000 nurses / carers / home helps

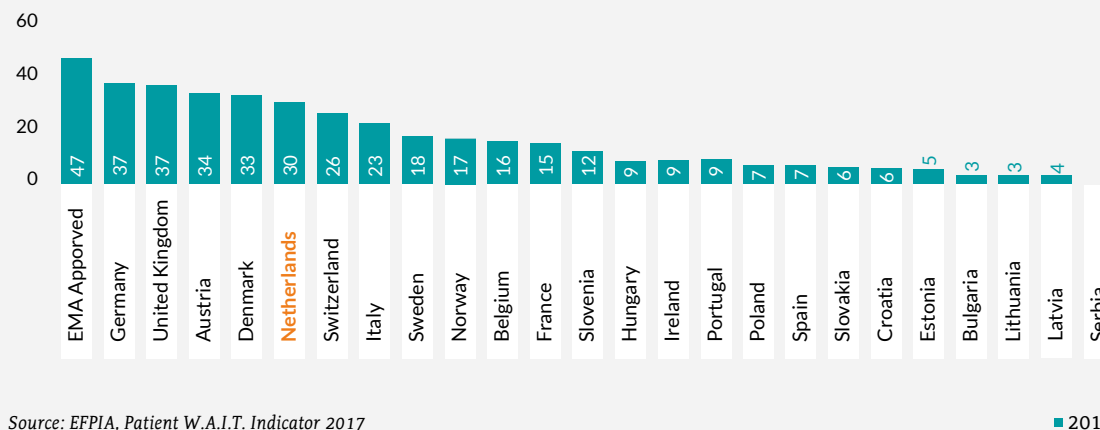
Source: Dutch Ministry of Health, Welfare and Sport, 2016

### Availability of medicines

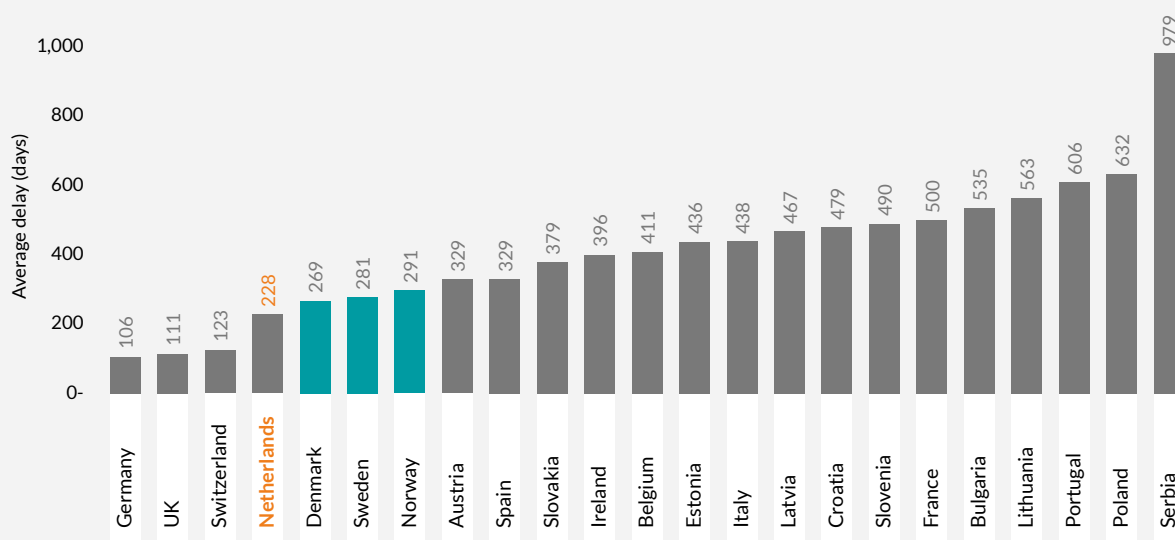
In 2016, the Netherlands had a medicine availability rate of 30. The rate of availability is measured by the number of medicines available to patients in European countries. In most countries, this is when the product is placed on the reimbursement list. With an availability rate of 30, the Netherlands ranks 6<sup>th</sup> among the EU countries.

Furthermore, the Netherlands also provides quick patient access to medicines following marketing authorisation, and ranks in the top 5 countries in Europe. On average, it takes 228 days for patients to obtain access to their medicines in the Netherlands. The average time between marketing authorisation and patient access is measured by the number of days between the date of EU marketing authorisation (or effective marketing authorization in non-EEA countries) and the date of completing the post-marketing authorisation administrative processes.

### Rate of availability



### Average time between marketing authorisation and patient access



■ For most countries patient access equates to granting of access to the reimbursement list, except for hospital products in DK, FI, NO, SE where some products are not covered by the general reimbursement scheme and so the zero-delay is artificially declining the median and average.

In France, some innovative products without competitors can be made available prior to market authorisation under the system of Temporary Authorisations. As these are not taken into account in the analysis, the average for France is higher than in reality.

Source: EFPIA, Patient W.A.I.T. Indicator 2017



## Competitive economy

The Dutch business climate is attractive and its economy competitive. In 2017, the Netherlands ranked third on Forbes' annual Best Country for Business list. The Netherlands also receives high marks for its favourable business climate from the World Economic Forum and IMD. It draws significant investor interest, including from a wide range of multinationals in various sectors. Businesses consider the Netherlands an attractive place to locate in Europe thanks not only to its competitive tax climate and stable business relations, but also to its international focus, its well-educated highly productive labour force, its sophisticated (IT-) infrastructure, its strategic location and its key role as a European transportation hub, as well as its good quality of life. The Netherlands has the sixth-largest economy in the European Union (18<sup>th</sup> in the world), with a Gross Domestic Product (GDP) of 733 billion euros in 2017. That is impressive for a small country with a small surface area (134<sup>th</sup> worldwide).

### Major exporter and importer

The Netherlands is the world's 5<sup>th</sup>-largest exporter, making it a major player in world trade.

In 2016, the Netherlands exported just under 570 billion US dollars in goods, accounting for some 3.6% of total global exports.

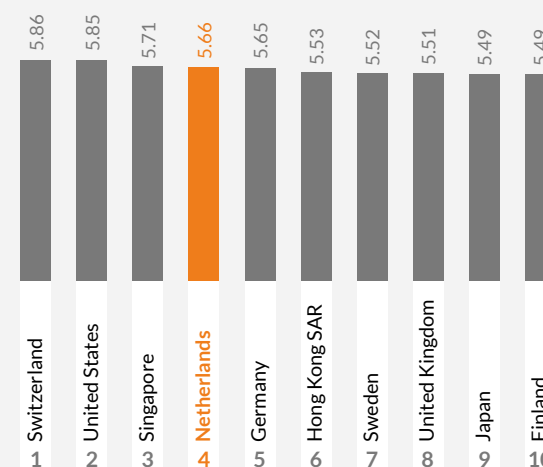
It is also a major importer, ranking eighth and taking 3.1% of the global share of imports (504 billion US dollars in 2016). The Netherlands exports and imports a significant amount of commercial services, totalling 180 billion and 173 billion US dollars respectively in 2015. This ranks the country in sixth place for exports and seventh place for imports of commercial services.

### High productivity

Labour productivity in the Netherlands is among the highest in the world, thanks to a highly educated workforce and solid economic structure. Dutch employees have an international focus, and the majority are multilingual. Overall, the country has a high level of labour participation among both highly educated and lower educated employees.

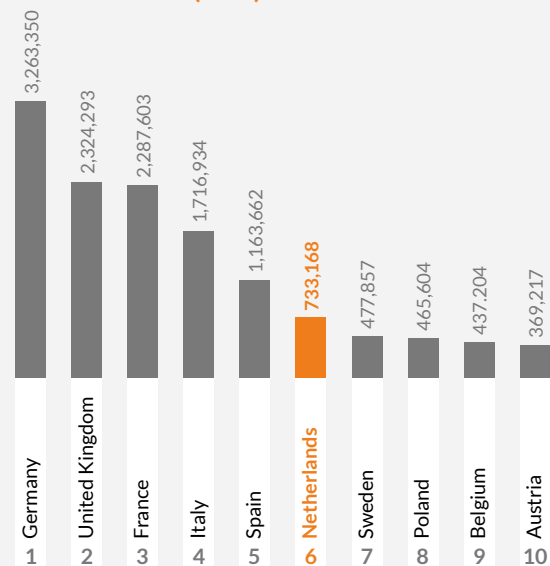
In summary, the Netherlands is one of the European Union's wealthiest nations. GDP per capita of employed person is 52,959 US dollars (OECD, 2016), compared to the EU average of 40,920 US dollars.

### Global Competitiveness Index (2017-2018)



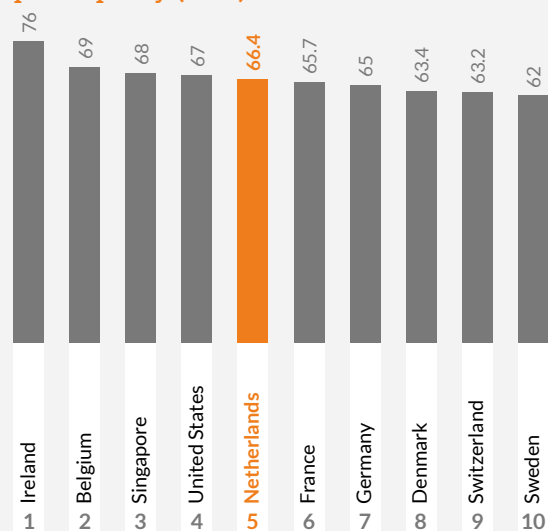
Source: The Global Competitiveness Report 2017-2018

## GDP in the EU (2017)



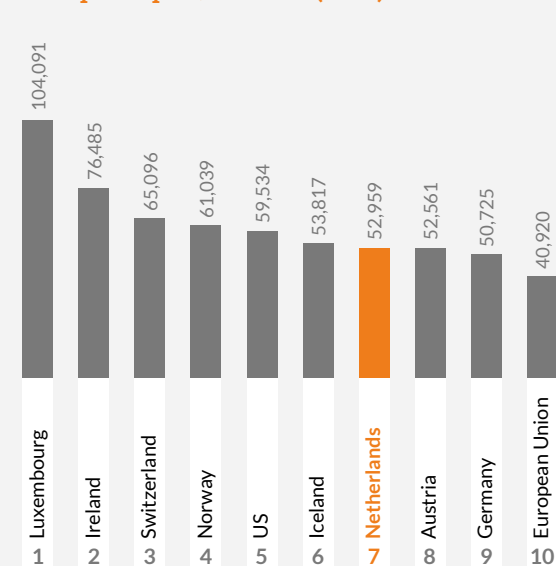
Billions of euros. Source: Eurostat

## GDP per hour, corrected for purchasing power parity (2016)



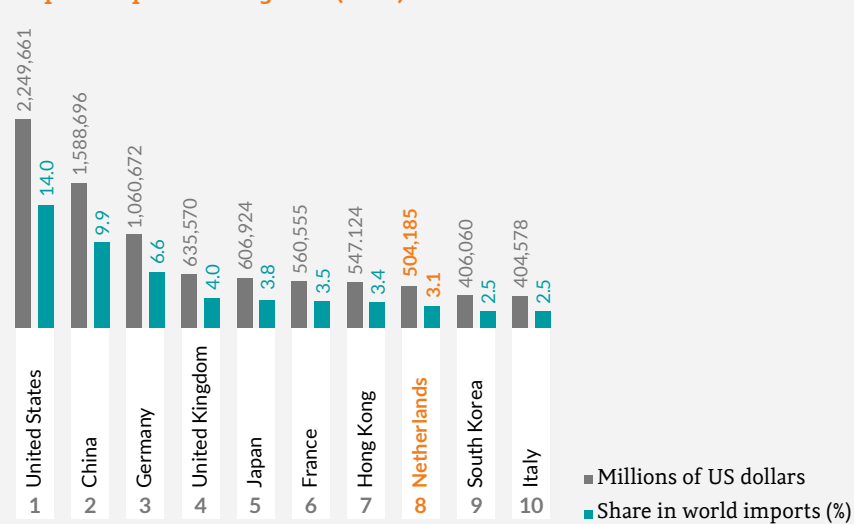
US dollars. Source: The Conference Board, 2017

## GDP per capita, PPP in \$ (2016)



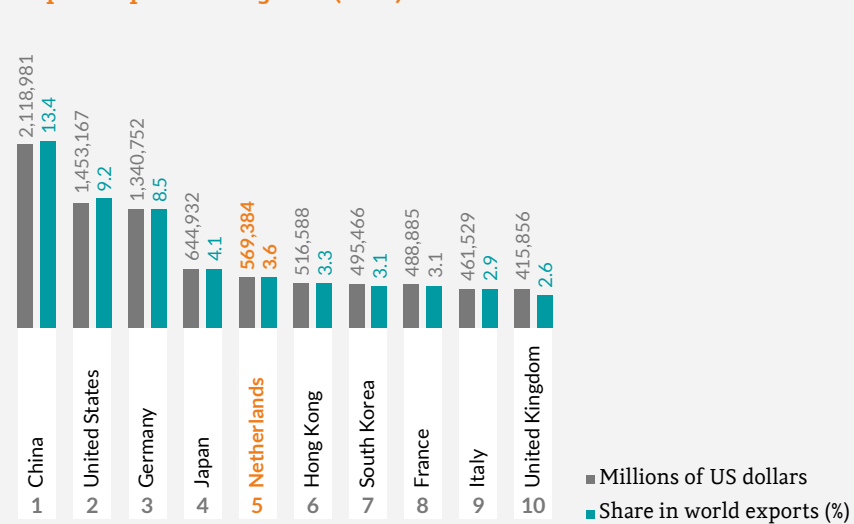
Source: OECD, 2016

## Top 10 importers of goods (2016)



Source: International Trade Organisation, 2017

## Top 10 exporters of goods (2016)



Source: International Trade Organisation, 2017

## Entrepreneurial spirit

The Netherlands is renowned for being a nation of entrepreneurs. This is reflected in the fact that some 12% of Dutch workers are self-employed. To this day, the government encourages start-ups as a way of boosting economic vitality as well as competition and innovation among existing businesses. Many leading multinationals got their start in the Netherlands, including Philips, Unilever, ASML and Booking.com. There are also numerous smaller international companies with Dutch roots, including G-Star and eBuddy. There is much creative talent in the Netherlands, as evidenced by its No.2 ranking on the Global Innovation Index, thanks to its test market, open culture and flexible consumers.

### Leading ICT environment

The Netherlands is also an innovator in the field of ICT, thanks to its robust infrastructure, high-level security and advanced research. The country is a major hub for internet traffic, with around one-third of Europe's traffic with the US routed via the Amsterdam Internet Exchange. The Hague Security Delta, amongst other centres of expertise, reflects the country's concern for cybersecurity. Foreign investors are taking advantage of the opportunities the country has to offer and a quarter of all FDI projects are ICT-related.





## Thriving sectors

As a nation of traders, the Netherlands has long benefitted from its spirit of entrepreneurship and innovation, enabling it to grow to become one of the world's twenty largest economies. Even during times of economic and social adversity, this entrepreneurial spirit has helped the country to prosper. In an effort to maintain its edge in the global marketplace, Dutch government policies focus on nine top sectors that are considered drivers of the economy. These sectors are: Agriculture & Food, Chemistry, Creative Industries, Energy, High-Tech Systems & Materials (HTSM), Horticulture & Starting Materials, Life Sciences & Health, Logistics, and Water.

In a joint effort, governments, companies, research- and civil society organisations are

working together to facilitate innovation and create a climate for continuous innovation. In addition to the benefits of cooperation, the sectors profit from cross-fertilisation, resulting in the best products and services, using the best people. This approach also helps the sectors to thrive and expand internationally.

### Mission-driven innovation policy - 2018

In 2018, the Cabinet announced the new Mission-driven Innovation Policy, which builds upon existing cooperation resulting from the Top Sector approach. Central to this new mission-driven innovation policy are four societal challenges: Agriculture, Water & Food; Health & Care; Energy transition & Sustainability and Safety. The Netherlands aims to provide solutions for global challenges in these areas.

# The Netherlands: one of the twenty largest economies in the world

## The nine top sectors for innovation in the Netherlands:



AGRICULTURE & FOOD



CHEMISTRY



CREATIVE INDUSTRIES



ENERGY



HIGH TECH SYSTEMS AND MATERIALS (HTSM)



HORTICULTURE AND STARTING MATERIALS



LIFE SCIENCES AND HEALTH



LOGISTICS



WATER

### Top Sector Chemistry

With over 2000 chemistry companies across the entire supply chain, the Netherlands commands a leading position in the supply of chemical products and services in Europe. With exports valued at 7.8 billion euros, 19 of the top-25 global chemical companies have major operations in the Netherlands.

The Top Sector Chemistry is earmarked to play a key role in the shift to green and sustainable chemistry. Like other industries, the chemical sector is facing a shortage of raw materials.

Current efforts are focused on increasing the (re)use of environmentally-friendly and sustainable raw materials for the energy, transport, food and healthcare industries.

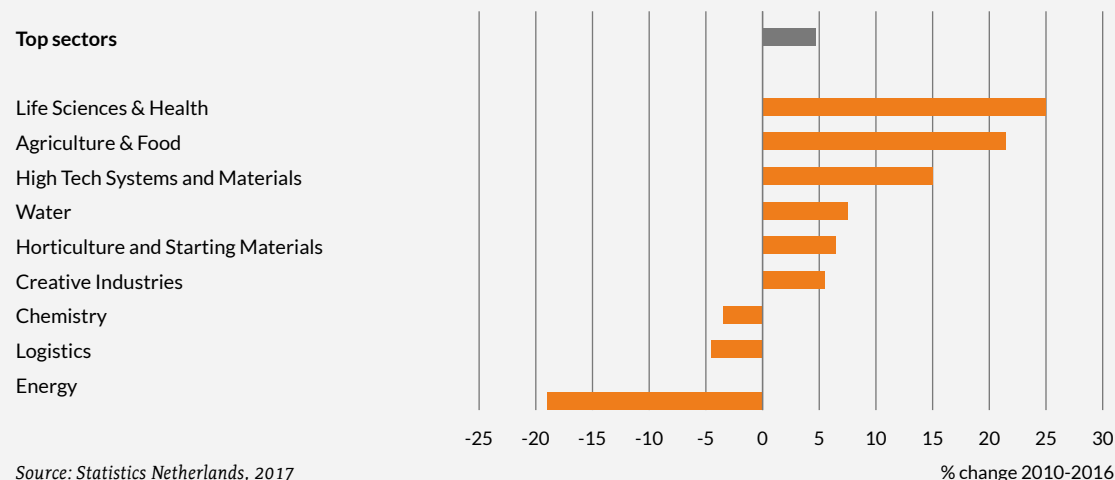
### Top Sector Life Sciences & Health

The Netherlands is home to one of the most concentrated life sciences clusters in the world, with 2,500 Life Sciences & Health companies and research organisations, 79 hospitals and 12 research universities. Its excellent healthcare system and infrastructure are further supported by its advanced technological know-how in patient monitoring and medical imaging.

The key feature of the Top Sector Life Sciences & Health is the close collaboration among government, knowledge institutions, industry, and patient organisations. The top sector covers not only health infrastructure but also medical technology, biopharmaceuticals and regenerative medicine.

Its goals are to improve health and quality of life, address the problems of an ageing population and ensure care remains affordable and accessible. Dutch companies and universities are contributing to major innovations in the international biomedical and healthcare fields. This sector grew by 25% between 2010 and 2016, outpacing the other top sectors. Total exports of the LSH sector are more than €5.7 billion annually.

### Development in value added by top sector, 2010-2016



### Top Sector Logistics

With a long history of international trade, the Netherlands is an important global economic player. Given the growing importance of sustainability, the Top Sector Logistics must focus its efforts on reducing CO<sub>2</sub> emissions while ensuring improved accessibility – including through the country's main airport (Amsterdam Schiphol) and seaport (Rotterdam). To maintain the Netherlands' competitive position, this sector also concentrates on international logistics and supply chain management.

## Jurgen Kwik

### Strategy & Operations Leader at Janssen Vaccines & Prevention

“There are a number of reasons why the Netherlands is one of our key locations. In terms of historical background, Janssen built its Dutch presence firstly through the acquisition of Centocor Biotech, and later, Crucell. Both companies were already located in Leiden but, specifically on the R&D and manufacturing fronts, Janssen has invested heavily over recent years to expand its presence and to strengthen the capabilities we have in the Netherlands.

There are a couple of reasons for this: the co-location of our activities with external capabilities, the access to external expertise, and access to talent. For example, the ‘hub’ created through the close proximity between Amsterdam and Leiden, both with the co-location of a BioScience Park, the Medical Centres, several universities, and many different types of companies (CROs, CMOs, biotech start-up companies and companies like ourselves) creates an environment that is very interesting for us.

We believe in building and participating in such an environment because we feel that cross-fertilisation is critical in ensuring sustainable innovation in our industry.”





# INDUSTRY CLIMATE

# INDUSTRY CLIMATE

The Netherlands provides an attractive business climate with wide-ranging scope for innovation. It is known for its competitive and stable tax regime, attractive R&D incentives, excellent research facilities and top-rated educational institutions that result in a well-educated and multilingual workforce with a high level of productivity.

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## International business climate

The Netherlands has a highly attractive international business environment and is home to over 15,000 foreign companies. Their decision to locate in the Netherlands is based on several factors. The local workforce is highly productive and has a strong work ethic. In addition, the Netherlands has several leading (technical) universities as well as an excellent business infrastructure. The private sector enjoys an open relationship with government, knowledge institutes and other organisations and institutions and companies locating in the Netherlands often attribute their success to this environment of mutual transparency.



## Competitive fiscal climate

International companies view the Netherlands as an attractive location, thanks in part to its investment-friendly corporate income tax system. It has a competitive corporate tax rate of 20-25% as well as excellent incentives for innovation and R&D, and a cooperative tax authority. Dutch tax practices have met OECD standards for the past 30 years. This, combined with its cooperative tax authority and stable government, means businesses can be confident that future changes will not pose significant obstacles or disadvantages to foreign investors.

### Investment-friendly corporate tax system

The Dutch tax system offers several competitive features for companies looking to relocate or expand their operations in Europe:

- A broad participation exemption of 100% from Dutch corporate income tax for all benefits related to qualifying shareholding. This measure is aimed at preventing double taxation.
- Advance tax ruling from the tax authorities as well as the option for an Advance Pricing Agreement (APA). These give companies certainty concerning their tax position in the future.
- Nearly 100 bilateral tax treaties to prevent double taxation and many companies enjoy lower withholding tax on dividends, interest and royalties (the latter often to 0%).
- An efficient fiscal unity regime that provides tax consolidation for domestic activities within a corporate group.
- A relatively low statutory corporate income tax rate of 25%.
- There is no statutory withholding tax on outgoing interest and royalty payments.
- A transfer pricing practice that is aligned with OECD Transfer Pricing Guidelines.
- Pro-active and practical customs authorities.
- No up-front payment of VAT upon importation: no actual payment of VAT.
- Tax authorities allow access to the tax inspector.
- A beneficial tax program with a 30% personal tax income advantage for qualified, skilled foreign workers.
- An R&D tax credit for qualifying R&D wage costs and other related costs and investments (WBSO).
- An 'Innovation Box' to stimulate technical innovation, which means an effective corporate tax rate of 7% for qualifying profits.
- A tax relief program for sustainable energy investments (EIA).
- Tax relief for environmentally friendly investments (MIA/Vamil).

# The Netherlands: excellent incentives for innovation and R&D



## Supportive R&D incentives

The Netherlands has several measures in place that promote research & development. These include general corporate and specific R&D tax incentives. These pro-innovation R&D tax measures not only cut R&D costs but also lower a company's taxable base.

### R&D Tax Credit (WBSO)

The WBSO tax credit is an example of a scheme for businesses involved in developing technically new products and production processes as well as those performing scientific research in biotechnology, physics, chemistry, production technology and IT technology. Clinical trials are also included in this scheme. The WBSO provides a payroll tax deduction as well as compensation for other costs for companies involved in R&D. Self-employed entrepreneurs can also qualify and are entitled to a fixed deduction of 12,623 euros, while start-up entrepreneurs can receive an additional deduction of 6,315 euros. Companies may be entitled to as much as a 32% reduction on the first 350,000 euros in R&D wage costs and other R&D-related expenses, and 14% for costs over 350,000 euros. Public knowledge institutes are excluded from the scheme.

### Innovation Box

Under the Innovation Box initiative, companies can benefit from an effective tax rate of only 7% for R&D income from patented and unpatented intangible assets. This includes technological innovations created by the Dutch taxpayer and for which an R&D tax credit was received. The normal corporate income tax rate is 20% to 25%. Companies are not required to apply for the Innovation Box and the level of income allocated is restricted. This means that as more R&D activities are outsourced, fewer profits can be allocated to the intangible assets that result from these activities. There is a flat-rate regulation for SMEs, which can decide each year to apply 25% of their profits to the Innovation Box with a cap of 25,000 euros. The corporate income taxpayer claims the lower 7% rate on their return. The lower rate is, in fact, an exemption of 72% of the profits that can be allocated to the Innovation Box, giving an effective rate of approximately 7%. The effective rate applies to profits exceeding any development costs and losses made. Such losses and expenses are deductible at the normal tax rate of 25%.



## Innovation-oriented schemes

### Innovation Credit

The Dutch Ministry of Economic Affairs & Climate Policy offers Innovation Credit in the form of a risk-bearing loan that companies can use in the (technical) development phase of a product, process or service that is considered 'technically new'. Funding, which can also be applied to the development of medical products that require a clinical study, varies from 25% for large companies to 45% for SMEs. This can be applied to project costs capped at 10 million euros with a minimum project size of 150,000 euros. Any additional expenses must be financed from the company's own resources.

Companies must repay the loan within ten years after the settlement date. This requirement may be waived if the project fails for technical reasons or if there is a change in the commercial environment. During the development phase, interest is added to the loan; generally at 7% for technical development projects and 10% for clinical development projects. Businesses can only apply for the credit if they lack sufficient resources to finance their project. Both SMEs and large companies whose activities are based in the Netherlands can apply for a loan for their projects, which must have a maximum duration of four years. Applicants must have a systematic development approach and a detailed project plan.

### PPP Allowance

Top Sector Life Sciences & Health supports innovative research carried out by public-private partnerships (PPPs) in the Dutch LSH sector. Stakeholders from research organisations, health foundations and companies (start-ups, SMEs and industry) are invited to jointly invest in R&D to perform groundbreaking innovations and to contribute to a strong and sustainable LSH sector that plays a major role in finding solutions for healthcare challenges around the world. With the PPP (Public-Private Partnership) Allowance, the Top Sector provides stakeholders, such as research organisations, knowledge institutes, companies, and health foundations with a financial tool to realise their innovative ideas. Partnerships are offered the opportunity to apply for a PPP Allowance twice a year and can receive funding for up to 75 % of the R&D costs provided that both the company and the research organization, make a substantial contribution in cash and/or in kind to jointly bear the costs and risks of the R&D project. The Top Sector Life Sciences & Health 'Health-Holland', matches every euro invested by private partners with up to 30 cents by the Dutch government. The Top Sector LSH currently finances 27 projects in the field of biopharma with a PPP Allowance. Unraveling the genetic basis of ALS by large-scale genetic

sequencing is currently one of the projects financed with a PPP Allowance.

### MIT Scheme

The MIT Scheme (SME Innovation Stimulation) offers SME entrepreneurs the opportunity to receive additional funding for innovative R&D activities within the Top Sector. The funding, partly from national and regional instruments, can be used in several ways: knowledge vouchers, innovation consultancy projects, feasibility projects and R&D joint ventures.

**Knowledge vouchers:** An SME entrepreneur can present a knowledge voucher to a centre of expertise for a scientific inquiry into a research question.

**Innovation consultancy projects:** To obtain innovation advice and recommendations from a centre of expertise or independent consultancy, such as answering a research question or addressing a request for advice.

**Feasibility projects:** To identify the potential technical and financial risks of a proposed innovation project.

**R&D joint venture:** A collaboration with at least one other SME entrepreneur to innovate or develop a product, production process or service.



## Sustainability-oriented schemes

### The MIA and Vamil schemes

The Netherlands also provides tax relief programs for sustainable energy and environmentally friendly investments, including the MIA and Vamil schemes. Any Dutch entrepreneur paying income- or corporate tax can apply, and the two schemes can usually be combined. Under the MIA scheme, they can deduct up to 36% of an environmentally-friendly investment from their tax profit. However, the investment must be included on the Environment List. This list of approximately 270 investments is updated annually and is found on the MIA/Vamil website of the Netherlands Enterprise Agency (in Dutch only). In 2018, the minimum investment amount is 2,500 euros and the maximum is 25,000,000 euros.

The Vamil scheme provides entrepreneurs with an advantage in liquidity and interest as they can decide when to write off 75% of their Environment List-related investment spending. For the remaining 25%, they can apply the regular investment rebate procedure. The schemes encourage companies investing in building/operating a manufacturing plant to do so in an environmentally-friendly way. They are particularly beneficial to businesses in the shipping, agricultural and industrial sectors.

### EIA and SDE+ schemes

Under the Energy Investment Allowance (EIA), the Dutch government provides a 54.5% deduction to companies that invest in energy-saving installations, or that make use of sustainable energy. The deduction, which is made on the amount invested sum and comes on top of the usual depreciation, is deducted from their taxable profits in the year in which the goods are purchased. The allowance is applicable to new fixed assets within three months of purchase and must be included on the Energy List. Any investment grant for that asset must be deducted from the costs, with the exception of operating subsidies. In 2018, the investment must be at least 2,500 euros and the deduction applies to investments up to 121,000,000 euros. Any energy advice and additional expenses to make an asset operational can also be included in the deduction. On average, the EIA gives a 13.5% tax advantage.

Under the Sustainable Energy Production Scheme (SDE+), producers of sustainable electricity and heat or a combination of sustainable heat and electricity (CHP) or green gas, are compensated for the renewable energy generated. The scheme is aimed at companies, institutions and non-profit organisations whose projects are realised in the Netherlands; private producers of renewable energy are not eligible. Energy generated using biomass is controlled to ensure it adheres to the sustainability criteria. Renewable energy production may not be profitable because the cost to generate it can outstrip the market price. This unprofitable component is compensated under SDE+ for a set number of years, depending on the technology involved.

The Netherlands provides  
tax relief programs for  
sustainable energy



## Further financial support

### Other governmental incentives

The Dutch government offers several other incentives to companies. One example is the Corporate Finance Guarantee Scheme (GO), in which capital providers are granted a 50% government guarantee to facilitate medium- and large companies wishing to borrow large amounts of money. For SMEs, there is the Growth Facility Scheme, under which the government provides a 50% guarantee for financiers providing venture capital to these enterprises. Moreover, employers can receive a tax-free budget for benefits equal to 1.2% of their annual taxable wage under the Work-related Costs Scheme. For employees, there is a Travel Allowance scheme for commuting costs to-and-from a fixed workplace.

### Invest-NL

In 2017, the Dutch government announced a new incentive, Invest-NL. The objective of this scheme is to stimulate investments in the Netherlands. In 2019, Invest-NL will be a development and financing body with a capital of 2.5 billion euros aimed at helping companies experiencing difficulties with raising capital. This might be because there is uncertainty about the relationship between risk and return,

or because of a long and uncertain return on investment. Invest-NL offers entrepreneurs support in risk capital, guarantees, export credit insurances and international financing programs. Moreover, Invest-NL will develop large-scale social projects in the Netherlands and abroad and co-finance where necessary.

### Public financing of R&D

The Dutch government finances approximately one-third of the annual national expenses on R&D. There are several ways in which R&D is publicly funded. In general terms, basic financing allows universities and institutions to allocate the funds themselves. There is also project or program financing available. Here, funds are provided for a specific time, budget and content. In most cases, there is also a competitive element. Health research is funded, among others, by the Netherlands Organisation for Health Research and Development (ZonMW). This organisation also promotes the actual use of the knowledge this research produces.

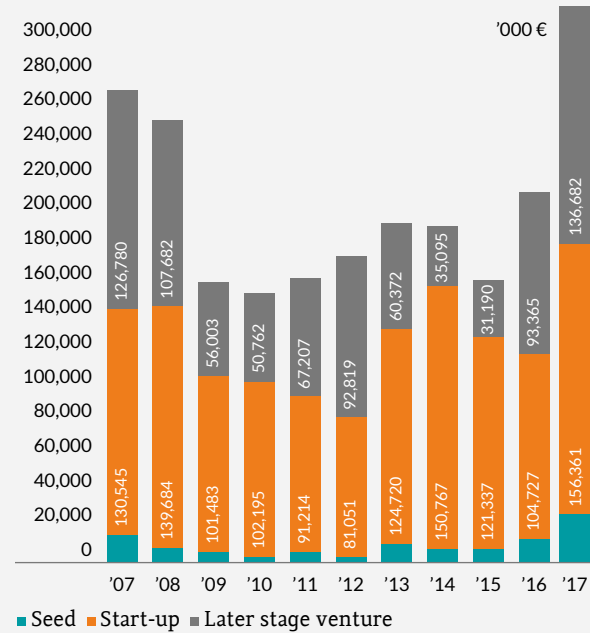
Recently, the National Science Agenda provided a boost to the Dutch science policy, which was generated in 2016. The purpose of

the Agenda was to connect existing research agendas, such as the EU Horizon 2020 program, with questions arising from Dutch society. It is expected that the National Science Agenda will be an important building block for future research programs at universities and institutions. While further developing the health agenda, alternative methods for testing the clinical effectiveness of new medical interventions (including medicines) will also be investigated, as well as research into outcome measures at the level of the individual patient. Attention will also be paid to new approaches, such as customised and regenerative medicines.

### Venture capital and private equity

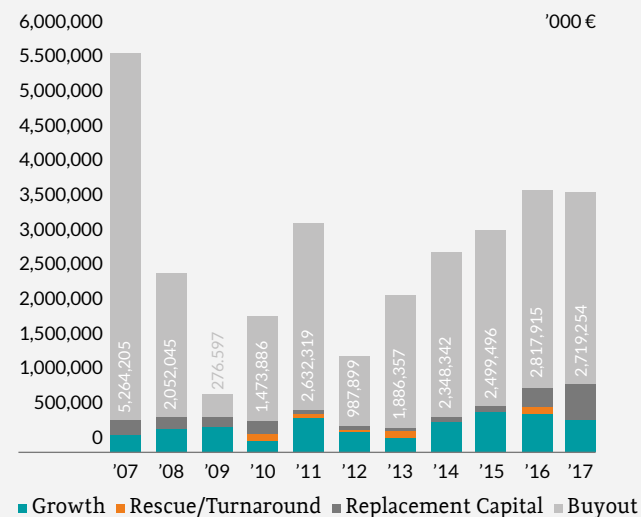
The Netherlands has not only a highly appealing tax regime and incentive schemes but also an abundance of venture capital companies that invest in the country's innovative enterprises. A total of 4.0 billion euros was invested across 411 companies in 2017. These funds included venture capital injections in fast-growing start-ups and private equity investments in mature companies. Venture capitalists in the Netherlands often focus on life sciences and ICT companies.

## Venture capital investments (2017)



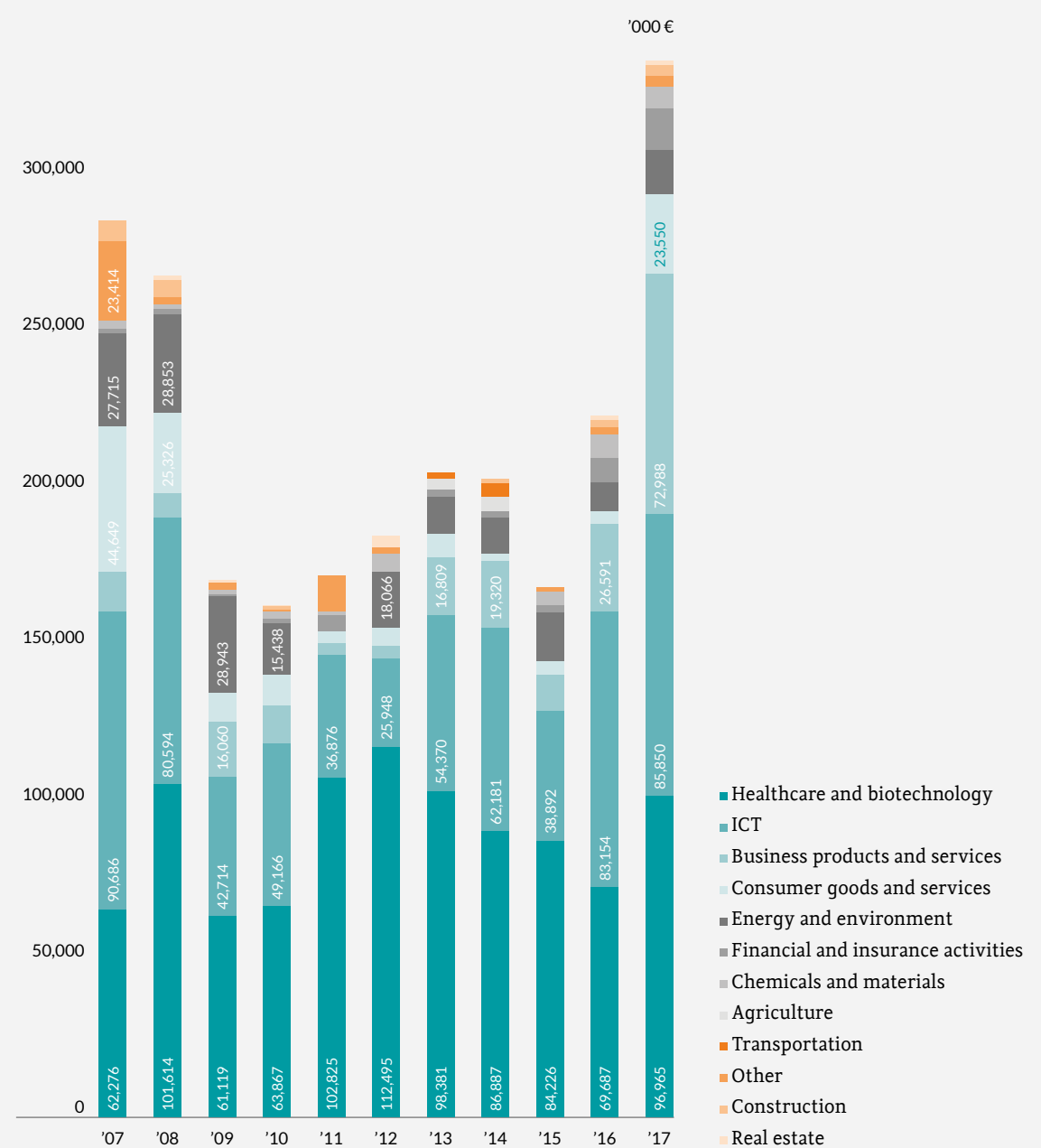
Source: Nederlandse Vereniging van Participatiemaatschappijen (NVP)

## Private equity investments (2017)



Source: Nederlandse Vereniging van Participatiemaatschappijen (NVP)

## Venture capital investments by sector (2017)



Source: Nederlandse Vereniging van Participatiemaatschappijen (NVP)

### Local business support

Business investments in the Netherlands receive local support from regional development organisations (ROMs). The country has a number of ROMs in several provinces, which provide a comprehensive range of services including arranging venture capital, supporting foreign companies upon their establishment in the Netherlands, coordinating collaboration between companies and knowledge institutes and occasionally becoming shareholders in regional companies. ROMs invested a total of 89 million euros across 140 companies in 2017. They focus primarily on fast-growing innovative businesses and they not only help entrepreneurs with their operations but also encourage them to locate in their region.

### Regional development organisations



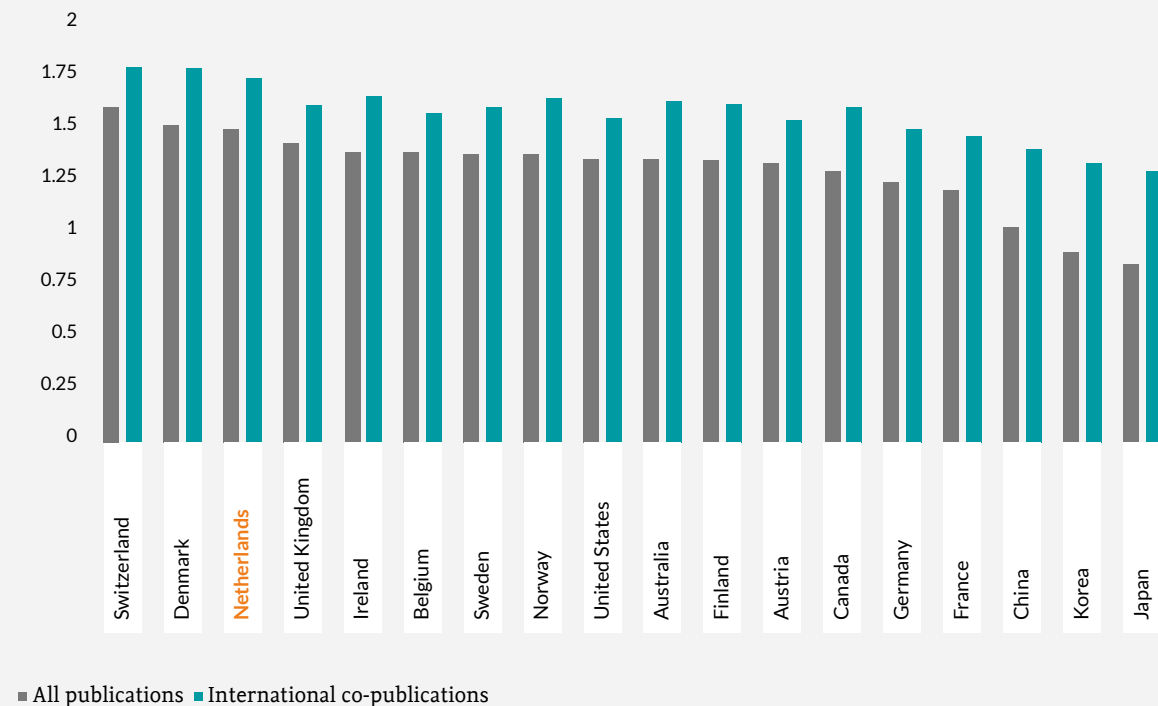
## Human capital

The Netherlands is a highly-appealing country for multinationals thanks, in part, to its highly qualified workforce and the country's strong educational system.


### World-class education system

The Netherlands has an outstanding higher education system, aimed at producing a pool of highly knowledgeable and skilled graduates. The country has 14 universities, 13 of which are globally ranked (QS World University Rankings, 2018), and 37 universities of applied sciences as well as many other training facilities. In 2018, the Netherlands ranked 7<sup>th</sup> in the QS Higher Education System Strength, and 6<sup>th</sup> in the Universitas21 Higher Education Systems main rankings. Dutch universities also receive high citation impact scores, with the Netherlands ranking among the top three worldwide. The same is true for international co-publications.

Citation Impact Score 2012-2015



Source: OCW, 2018

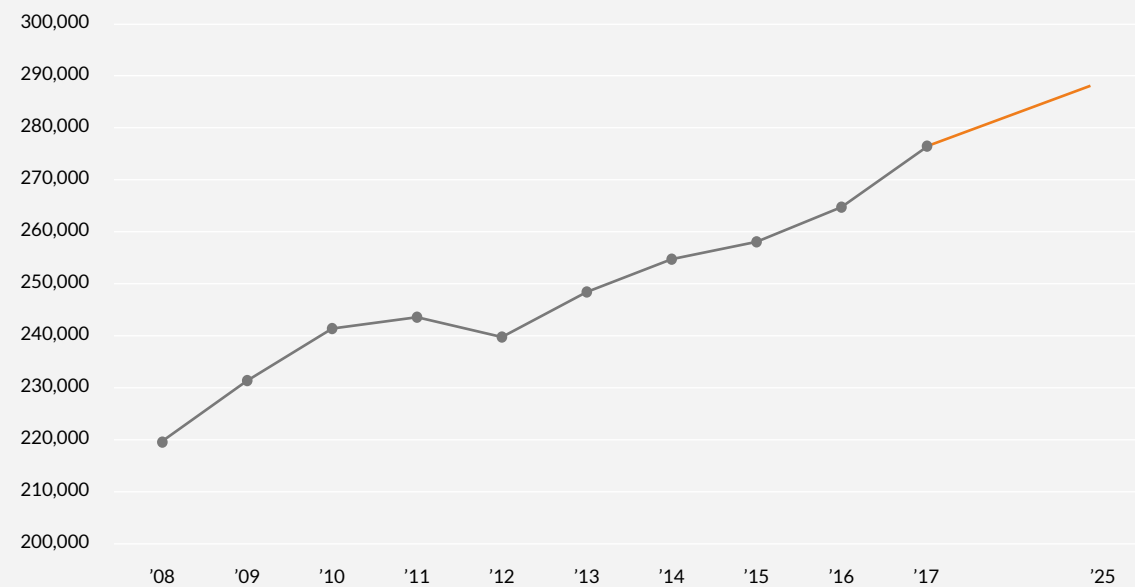
A photograph of two young women walking on a city street. The woman on the left has long brown hair and is wearing a grey scarf and a dark jacket. The woman on the right has long blonde hair and is wearing a maroon scarf and a grey jacket. They are both smiling and looking towards the camera. The woman on the left is holding a stack of books, and the woman on the right is holding a purple spiral notebook. The background is a blurred city street with buildings and other people.

*“For Amgen, the steady social economic climate, a highly skilled workforce and the excellent infrastructure connecting the Netherlands and the rest of the world is of vital importance. Due to this, our medicines reach out to 75 countries in the world. This makes our goal to always have our products available at the right place and at the right time for the treatment of patients a reality and in line with our mission: to serve patients.”*

**Jan Bouman**, exec. Director Site Operations at Amgen Breda

The Dutch education system generates an impressive pool of human capital and the number of students enrolled at (scientific) universities has seen a sharp growth in recent years. In 2017, there were 276,713 students enrolled in Bachelor or Master programs, with over 33,000 in health programs and over 41,000 doing technology studies. Another 453,000 were attending higher vocational education courses in 2017-2018. Another reflection of the country's academic excellence is the number of PhD graduates, which has doubled over the past 25 years to 4,747 in 2016/2017.

### Registered university students academic year



Source: VSNU/CBS, 1cHO2017; Prognosis 2025; Reference Forecast 2016, OCW

# The Netherlands: world-leading in terms of research achievements

## Knowledge institutions

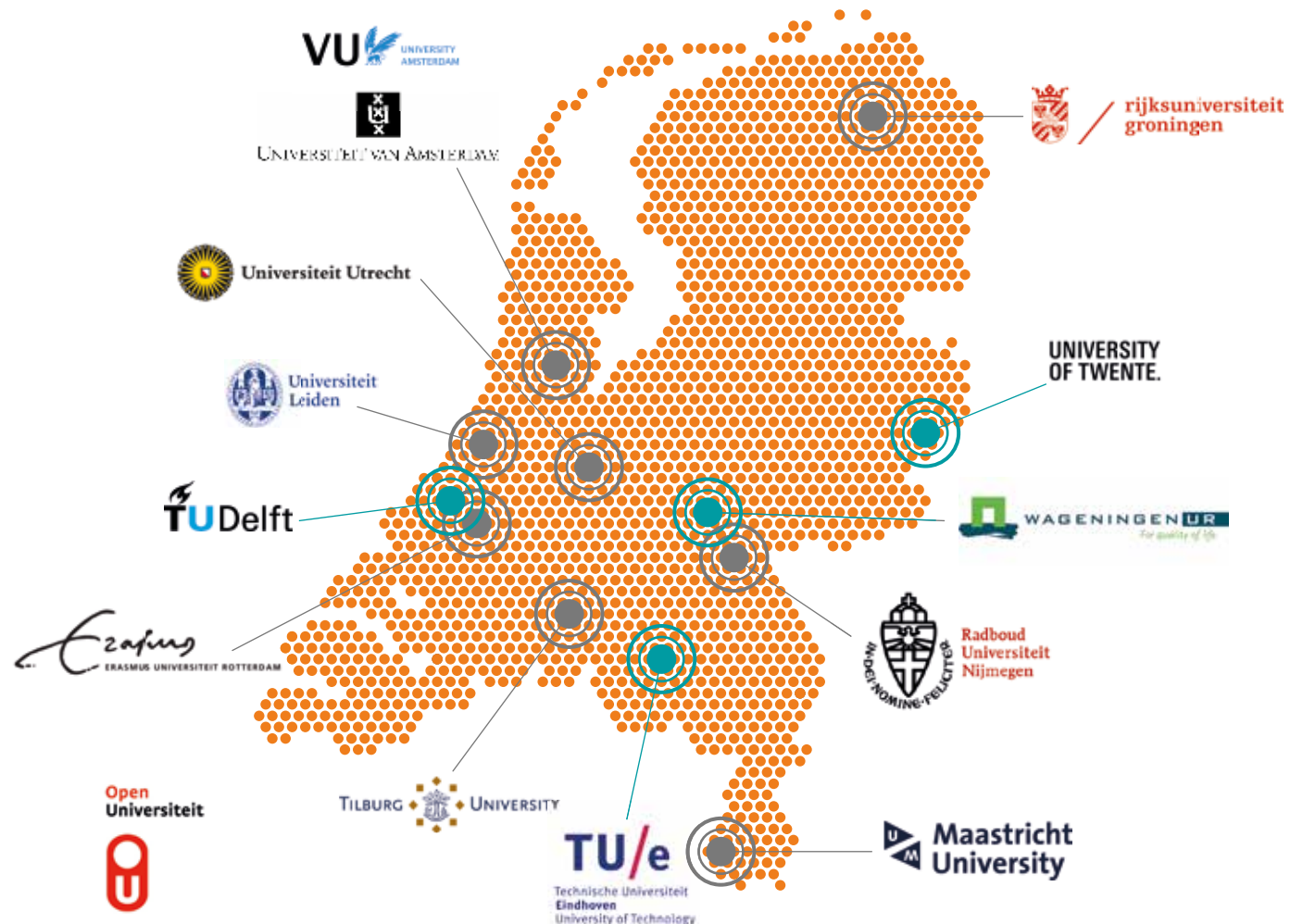
### Universities

There are fourteen universities in the Netherlands, including twelve research universities; four specialised in technology and engineering, and eight university medical centres. There are also 37 universities of applied sciences.

### Universities of Technology

There are four universities of technology in the Netherlands, three of which rank in the top 10 of the best 300 universities worldwide in working with industry. Not only are there opportunities for high-quality education, but also excellent jobs for knowledge workers.

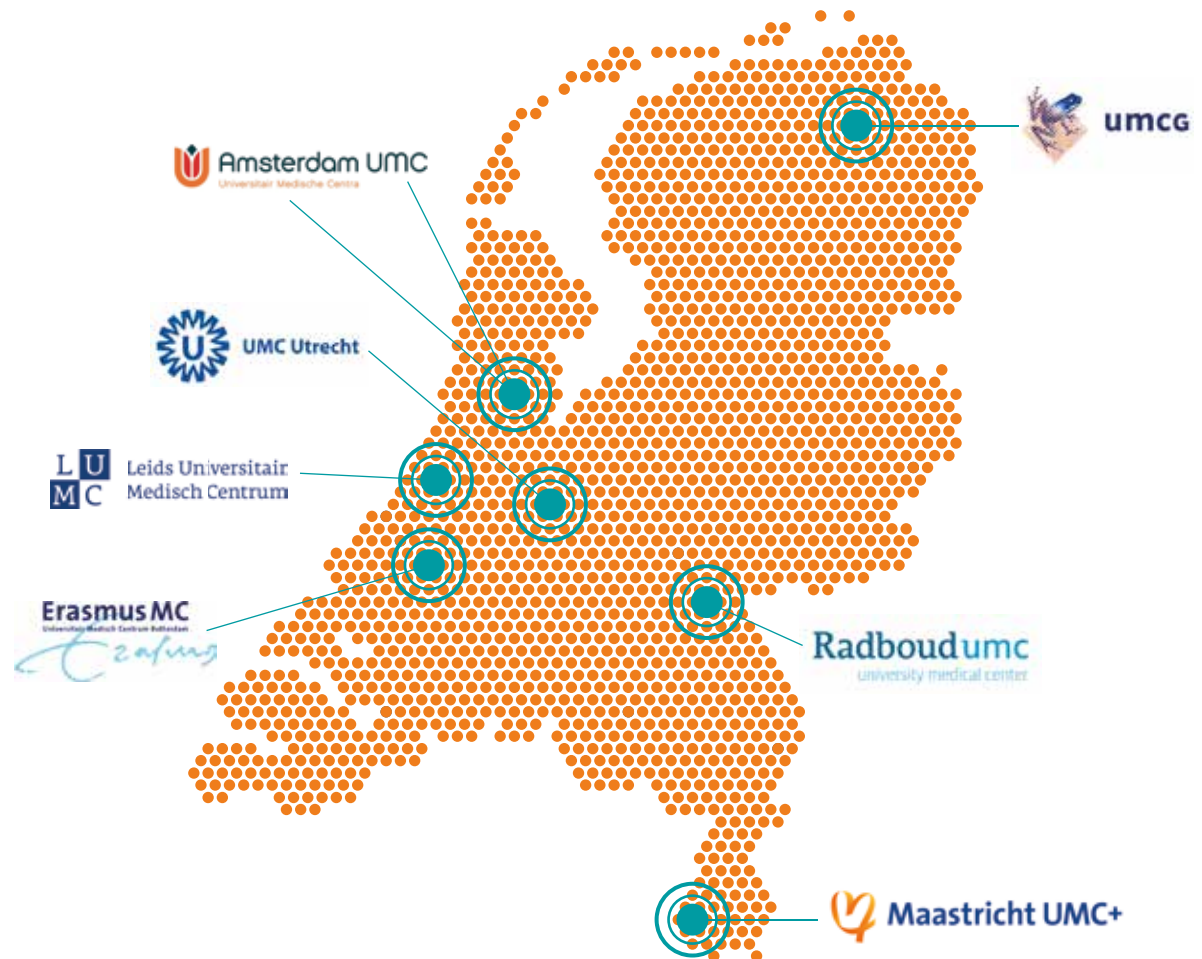
Furthermore, the Netherlands is world-leading in terms of research achievements in science and engineering. It is among the top-three countries with the greatest scientific impact related to research and development in the area of technology and innovation, as well as collaboration and technology partnerships.



### 📍 University Medical Centres

The Netherlands is home to eight university medical centres (UMCs), all of which have a wider range of responsibilities than regular hospitals. Patients with rare or complex diseases are generally referred to UMCs, which also serve as educational institutions and research centres.

UMCs offer Bachelor and Master courses for medical students, training for physicians specialising in a particular medical field, and both basic and advanced nursing courses.





Leiden University Medical Center

### Productive and multilingual workforce

The country is home to a highly educated, well-motivated, and multilingual workforce, whose productivity exceeds that of most European countries. It is also highly regarded for its large pool of candidates with advanced degrees and acceptance of foreign ways of doing business. Not only are 90% of Dutch fluent in English, but many are multilingual, and the Netherlands ranks first out of 80 countries in the EF English Proficiency Index. A significant proportion of the population also speaks German and French. Also, life-long learning is common, compared with other EU member states.

The Dutch are known for their pragmatism, also extending to the business arena, and consequently, labour disputes are relatively rare compared to other European countries. The high labour productivity is also facilitated by robust employer-employee relations.

### Fast-track permits

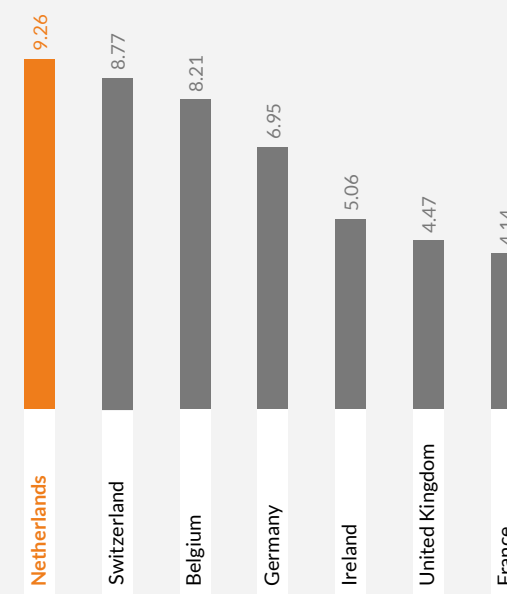
Dutch immigration laws also assist companies in attracting top international talent. Under the country's fast-track permit scheme for highly-skilled migrants (so-called 'knowledge workers'), employers are not required to apply for a work permit for such employees coming from outside the EU. Such knowledge workers and their families only require a provisional residence permit (MVV) and/or residence permit. There is a special tax

ruling for these specialised knowledge workers, who must have an employment contract. The required monthly income (2018) to qualify as a highly-skilled knowledge worker is at least 4,404 euros gross (3,229 euros for those under age 30). The salary must be considered reasonable when compared to other similar jobs in the sector. However, this requirement does not apply to employees of education or research institutes or scientific researchers and physicians training to become specialists. Additionally, shareholder/employees who own more than 25% of the company's shares are not included in this permit scheme as they are considered self-employed.

### Short-stay scheme

The short-stay scheme for highly-skilled migrants allows these individuals to work in the Netherlands for up to 90 days on short-term projects, or while providing consultation or training. Employers must first be approved as recognised sponsors and are required to apply for work permits. Still, the process is simpler than it is for other migrants and the Employee Insurance Agency UWV issues the permit within two weeks (compared to the usual five weeks). There is also less red-tape involved and no requirement for labour market testing or verifying the validity of the vacancy. The gross monthly income requirements are the same as for the fast-track permit scheme and the employer must provide proof of salary payment.

### Language skills



Source: IMD World Talent Ranking, 2017

### 30% ruling

The Netherlands is not only attractive for multinationals and investors, but also for expats who can take advantage of a special tax regime, the so-called 30% ruling. Under the ruling, the employer may give foreign workers a tax-free allowance of up to a maximum of 30% of his or her gross salary that is subject to payroll tax, for up to 60 months. The allowance, which is meant as compensation for the extra costs involved in living abroad, includes bonus payments and stock options but not pension payments. To qualify, the employee must have lived at a distance of more than 150 km from the Netherlands for more than two-thirds of the two-years period prior to commencement of work. The ruling can be applied for five years. This five-year period may be reduced if the expat has previously lived or worked in the Netherlands. The gross salary must be at least 37,296 euros (or 53,280 euros including the 30% reimbursement) or 28,350 euros (or 40,500 euros including reimbursement) for under-30s with a university degree (these minimums do not apply to scientific researchers, doctors in training or employees in the scientific education field). The ruling also requires that the employment contract must detail the taxable and non-taxable portions of the employee's income.



University of Groningen

## Daniel de Boer

### CEO at ProQR

“Leiden has been the perfect place for us to get ProQR going and expanding. The large number of companies in our industry located nearby means there is a healthy talent pool and, consequently, we were able to find highly experienced personnel in the local labour market.

Local collaborations are certainly very important. We have great universities on our doorstep that produce high-quality science. Beyond that, I think the financing climate in the Netherlands is very advantageous. The government really stimulates innovation and the creation of jobs in this industry, through all kinds of support programs. Significantly, operating costs for us here in the Netherlands are around a half, or one-third the cost of the same business based in one of the US hotspots. The cost of living is so much lower, and that brings down the operational costs for companies like ours.

Relations with regulatory bodies on both sides of the Atlantic are critical for companies in our industry. Being located close to the EMA and having the opportunity to have more frequent interactions - a lower barrier to achieve those interactions - I think is priceless.”



# INVEST IN HOLLAND NETWORK

## A powerful team ready to help

The Invest in Holland Network is a collaborative team of the Netherlands Foreign Investment Agency, regional economic development agencies and several large cities. The network works to provide a continuum of free, confidential support services to new foreign investors, as well as existing foreign investors that already have operations in the Netherlands. We'll connect you to the right partners in our network to assist with everything from recruiting talent to introducing you to powerful public-private partnerships.

- Present concrete solutions that simplify and optimize establishment in the Netherlands.
- Offer tailor-made support by sector specialists in the agri/food, chemical, IT, high tech systems, life sciences & health and other sectors.

The services provided by the Invest in Holland Network are 100% confidential and completely free of charge.

Invest in Holland Network partners:

- Netherlands Foreign Investment Agency (NFIA)
- amsterdam inbusiness (aib)
- Brabant Development Agency (BOM)
- East Netherlands Development Agency (Oost NL)
- Holland International Distribution Council (HIDC)
- InnovationQuarter
- Invest in Zeeland
- Invest Utrecht
- Limburg Development and Investment Company (LIOF)
- NOM Foreign Direct Investment
- Rotterdam Partners
- The Development Agency Noord-Holland Noord (NHN)
- The Hague Business Agency

## Contact

Please find out more about our services at [investinholland.com](https://investinholland.com)

## Personalized information and practical solutions

Starting in your country of origin, we are prepared to assist your company in every stage of establishing, rolling out or expanding operations in the Netherlands. We organize fact finding missions and meetings with relevant partners, as well as provide personalized guidance and counsel on tax, government and permit procedures, location options and business solutions. To aid in your site selection, establishment and/or expansion processes, we will:

- Provide up-to-date, customized information on the Netherlands in general, relevant business locations, Dutch legislation and tax regulations, labor issues, permit procedures, governmental incentives and many other subjects during preliminary in-person meetings.
- Organize custom-made fact-finding trips in close cooperation with the Invest in Holland Network, including introductions with relevant business partners, government authorities, a variety of Dutch networks and service suppliers, and other relevant contacts in the investment process.

## Colophon

This document contains our comprehensive overview in a bid to attract foreign biopharmaceutical companies to the Netherlands. The information contained in this publication has been compiled with great care by the partners of PharmInvestHolland and is accurate to the best of its knowledge at the time of production.

PharmInvestHolland is a public-private initiative that focuses on:

- Enhancing the business and R&D climate for biopharmaceutical companies in the Netherlands
- Earlier availability of medicines for patients

PharmInvestHolland is powered by:

- American Chamber of Commerce
- Dutch Association Innovative Medicines
- Health-Holland
- HollandBIO
- Lygature
- Ministry of Economic Affairs and Climate Policy
- Netherlands Foreign Investment Agency
- VNO-NCW

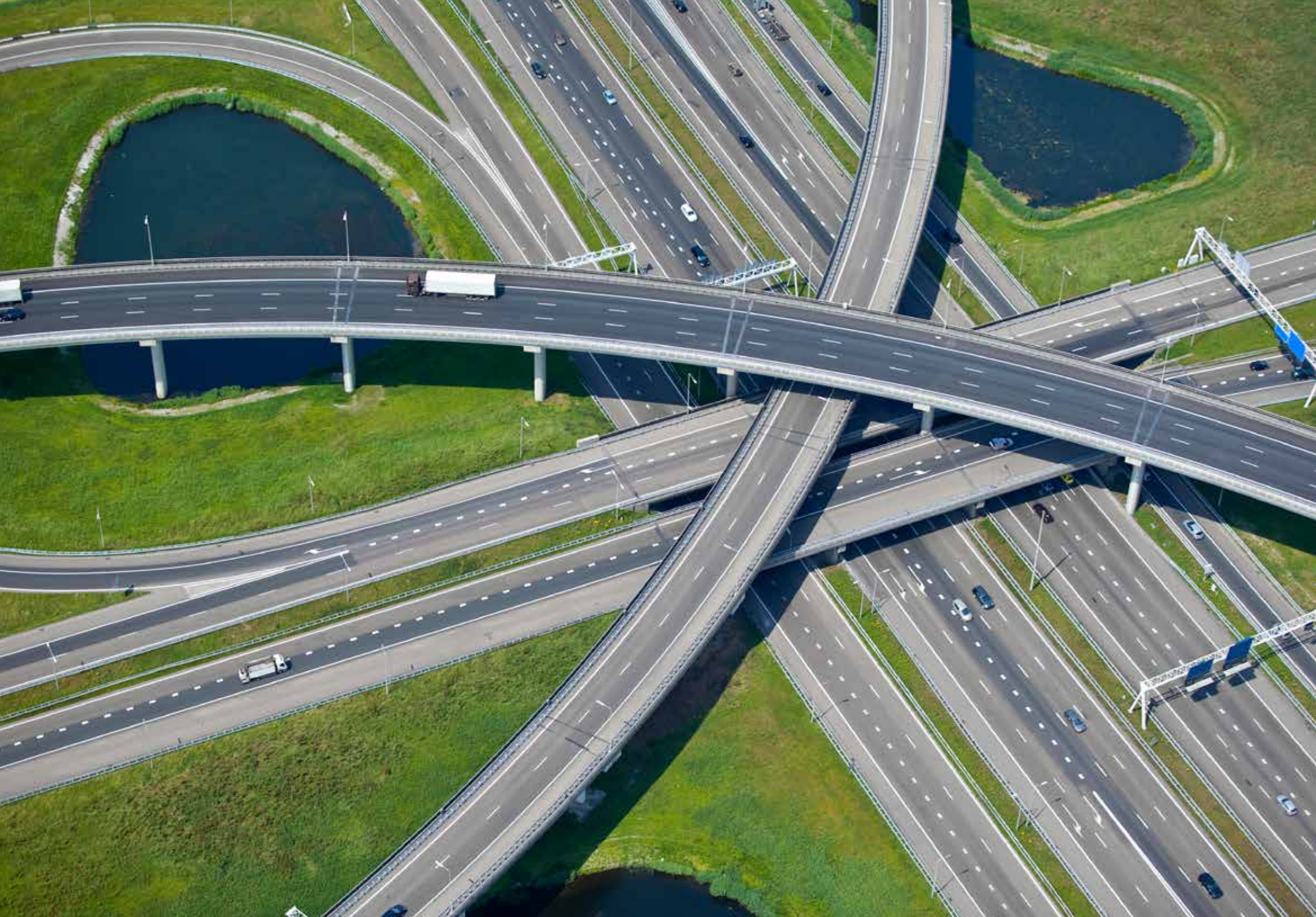
For more information on the possibilities for life sciences companies in the Netherlands, please visit the Invest in Holland and Health-Holland website.

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Nederland

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N 233

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