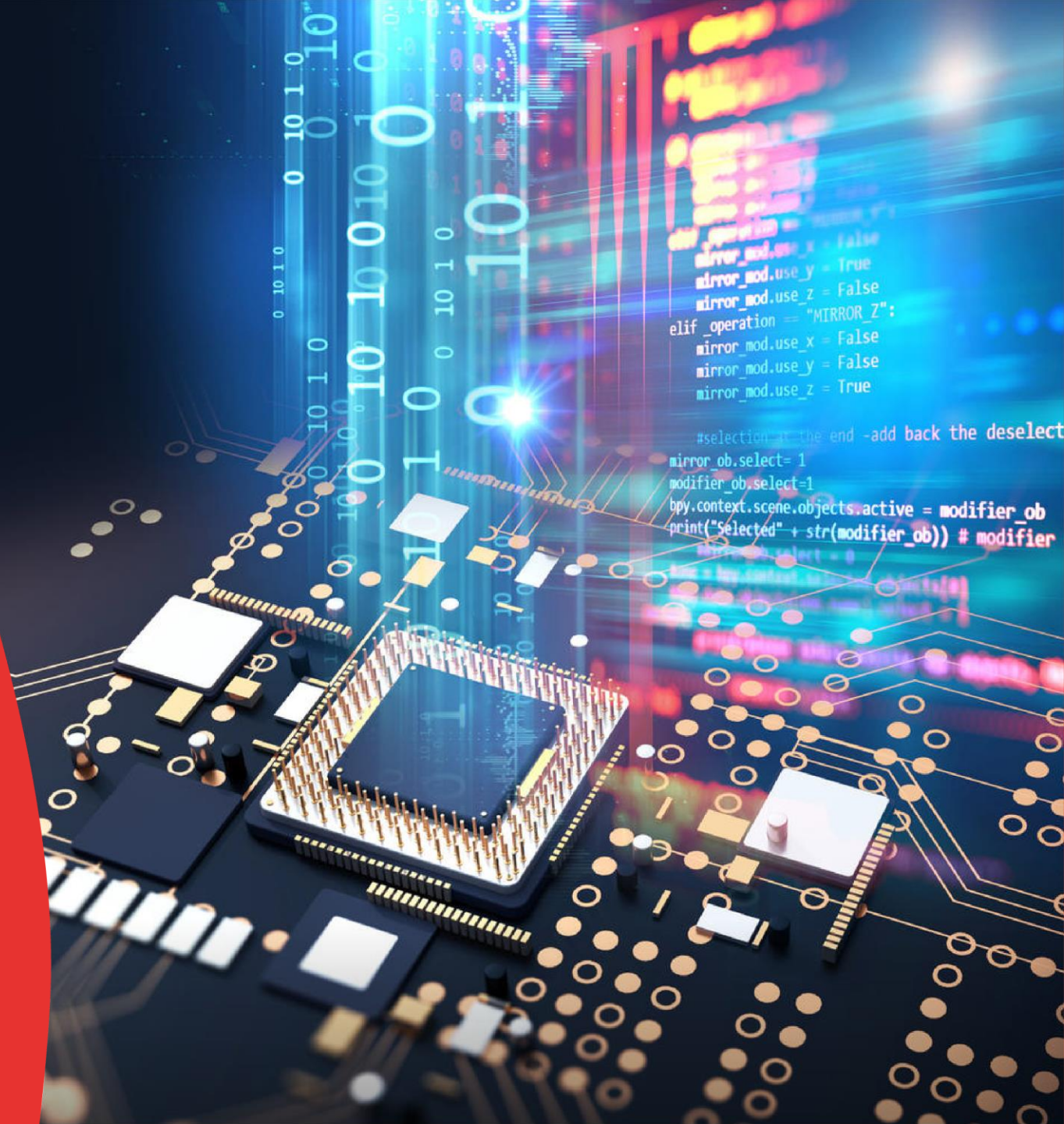


IT AND DATA SCIENCE

in Brabant



This is why Brabant excels



Research, product and process development are part of Brabant's DNA. It's the **#1 Innovative Region for IT in the Netherlands**



A distinct strong culture, history and tradition and home to various open innovation clusters and field labs around specific themes.



The highest number of **IT graduates in the Netherlands**, and a growing number of IT students at education institutes.



Top class digital infrastructure: Eindhoven Fiber Exchange and high Broadband penetration, 5G.





60 years
of software
innovations

HISTORY

IT changed the world in a way that we are now able to store, retrieve, manipulate, transmit, or receive information electronically in a digital form. The Brabant region played a **KEY role** in the further worldwide development and implementation of IT Technologies.

From the early 1970's, the focus of the High Tech company Philips started shifting towards IT technologies. The development of **digital optical information storage** on a disc can be considered as one of the major breakthroughs Philips Research has created in the IT area. Based on its broad capabilities in Research, Philips (together with Sony) launched the highly successful compact disc in 1979. Later, this success was repeated with other optical storage formats, such as DVD and Blu-ray Disc.

TODAY

Philips is still responsible for the vast majority of the Dutch IT innovations. The region is Europe's leading innovation cluster for Internet of Things (IoT), Big Data, 5G, and Artificial Intelligence (AI).

The region boasts a high degree of specialization with various IT technologies, such as in 3D systems, smart industrial technologies, smart medical applications, and smart agriculture.

Philips is still driving innovation within the region and has created open innovation hubs like the High Tech Campus, where 12,000 researchers work in the smartest square kilometer of Europe.

PHILIPS

TNO innovation
for life

TU/e Eindhoven
University of
Technology

ASML

SILOUX TECHNOLOGIES

SAP

ADVANTECH

here

centric
connect.engage.succeed.

AtoS

ERICSSON

NXP

Cognizant

@signify

ALTEN

SIEMENS

Because of this heritage and innovative-ecosystem **Brabant particularly excels in:**



**EMBEDDED SOFTWARE WITH
A SPECIAL FOCUS ON
COMPLEX SYSTEMS &
CYBERSECURITY**



**BIG DATA, AI AND
DATA SCIENCES FOR
THE BRABANT TOP SECTORS:**

- HTSM (Smart Industry)
- Life Sciences & Health,
(Smart Health)
- AgriFood, (Smart Farming)
- Mobility (Smart Mobility)
- Logistics (Smart Logistics)



**APPLIED CREATIVE SOFTWARE
TECHNOLOGIES FOR REAL LIFE
OR ENTERTAINMENT PURPOSES**



**BUSINESS AND INSTITUTION
SOFTWARE**

Cluster size IT

KEY FACTS

10,492
companies

7.2
billion euros
production value of
IT & Data Science

10.5%

growth of the
sector from 2015-2019

14.6%

fastest growth of
software and IT
services in Brabant.

BRAINPORT EINDHOVEN NUMBER ONE REGION IN EUROPE



4th Industrial
revolution
Technologies



Specialization:
3D-systems
and Smart



Healthcare
Solutions

JOBS

42,630

people in Brabant are employed
in the IT sector, of which...

68%

in software and
IT services

28.5%

in hardware

79,000

IT Professionals
in Brabant

12.1%

of the Netherlands'
workforce in the IT
sector is employed
in Brabant

9.8%

total IT job
growth in
Brabant from
2015-2019

BRABANT PATENT SHARE IN THE NETHERLANDS



Artificial Intelligence



IOT



Data Analytics



Extended Reality
(umbrella term: VR/AR/MR)



Cyber Security



Communication Technology
(4G/5G)

■ North Brabant

■ Other 11 Regions Netherlands

**BRABANT BOASTS THE MOST HIGHLY EDUCATED
IT & DATA GRADUATES IN THE NETHERLANDS**



Most connected country



#1

most connected country
in the world

World's **3rd** largest
for Internet Exchange (AMS-IX)

Direct connection to all major exchanges
890 networks are connected within AMS-IX.

98% State-of-the-art,
fast broadband coverage and

99% 4G coverage, 5G since 2020
(full coverage by 2025)



#1

for broadband connections

(10 mb/s) in the EU Via AMS-IX one can reach
80% of all Europeans within 50 milliseconds



14.8

Data Centers

per 1 million inhabitants (relative to Belgium: 6.5;
United Kingdom: 6.5; Germany: 5.2; France: 4.1)

#4

**in the European Union on the Digital
Economy and Society Index (DESI)**



State-of-the-art 100% digital,

**advanced fiber-optic
network**

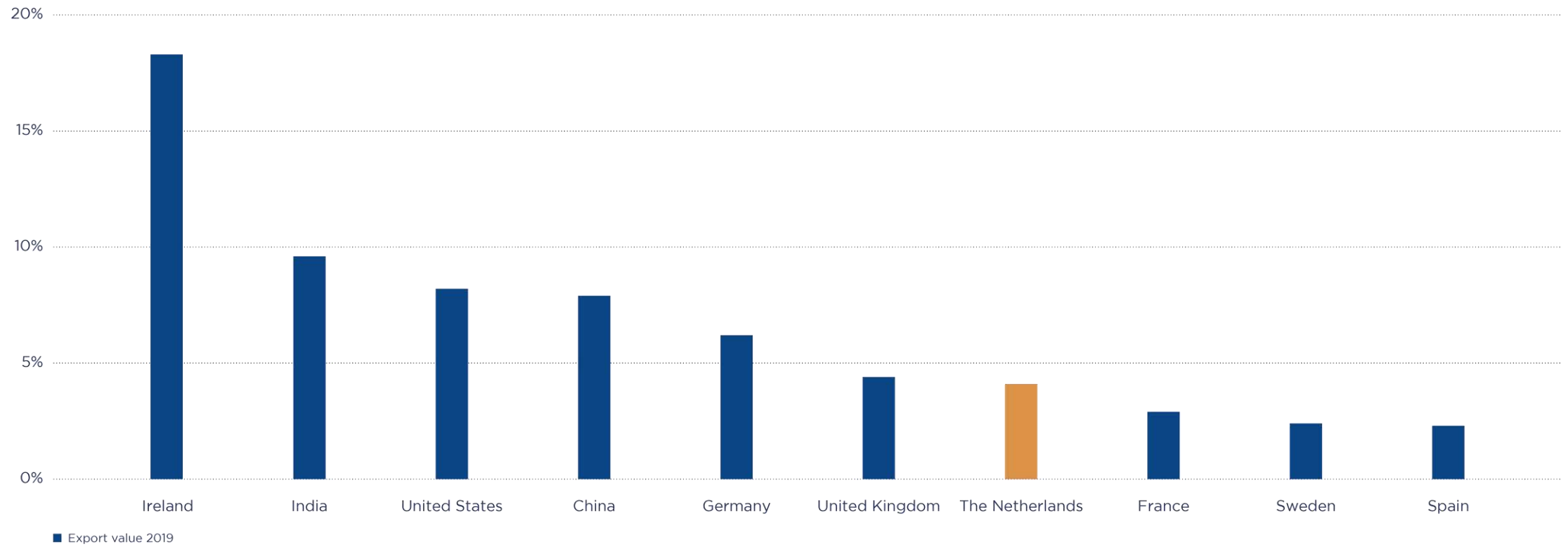


Hub of (intercontinental) connections

11 of 15 transatlantic sea cables come ashore here,
connecting directly to the AMS-IX

Impressive export IT services

TOP 10 EXPORT VALUE OF IT SERVICES WORLDWIDE



Impressive import & export IT goods

THE NETHERLANDS IS THE 10TH LARGEST IMPORTER & EXPORTER OF IT GOODS WORLDWIDE

Import **61.2 billion** euros
worth of IT goods and services

Exports of IT-related goods and services
(including re-exports) stood at
74.6 billion euros

RE-EXPORT

Nearly half of all Dutch IT exports in 2018 were re-exports (35.3 billion euros or 47.3 percent). These concern IT goods or services destined for use or consumption abroad. This share is rising.

MAJORITY OF IT GOODS FOR THE EUROPEAN MARKET ARE STORED IN EUROPEAN LOGISTICS OPERATIONS IN BRABANT. EXAMPLES ARE:



Milestones Foreign Investments

2014



Wipro Technologies, the global IT, consulting and outsourcing company with headquarters in India, opened their IT services center in Eindhoven to become their Benelux HQ.

Focus: AI, 5G, blockchain, cyber security, cloud computing, crowdsourcing, and robotics for several industries

2017



ADVANTECH

Advantech, The Taiwanese global leader in the fields of IoT intelligent systems and embedded platforms Advantech expanded their production, logistic and office facilities in Son.

Focus: industrial automation, both with software and hardware

2019



SIEMENS

Siemens industry software, The specializing global company in 3D & 2D Product Lifecycle Management software expanded their presence in the Brabant region at the Brainport Industries Campus.

Focus: digital transformation technologies for the industry

2019



UiPath™

UiPath, the leading Robotic Process Automation software company, announced the acquisition of **ProcessGold**, a leading process mining vendor

Focus: Process mining and Robotic Process Automation solutions

2019



L&T Technology Services

L&t technology services The global leader in Engineering and R&D services from India, opened their European Digital Engineering Centre in Eindhoven.

Focus: 5G, AI, Collaborative Robots, Digital Factory and Autonomous Transport.

2021

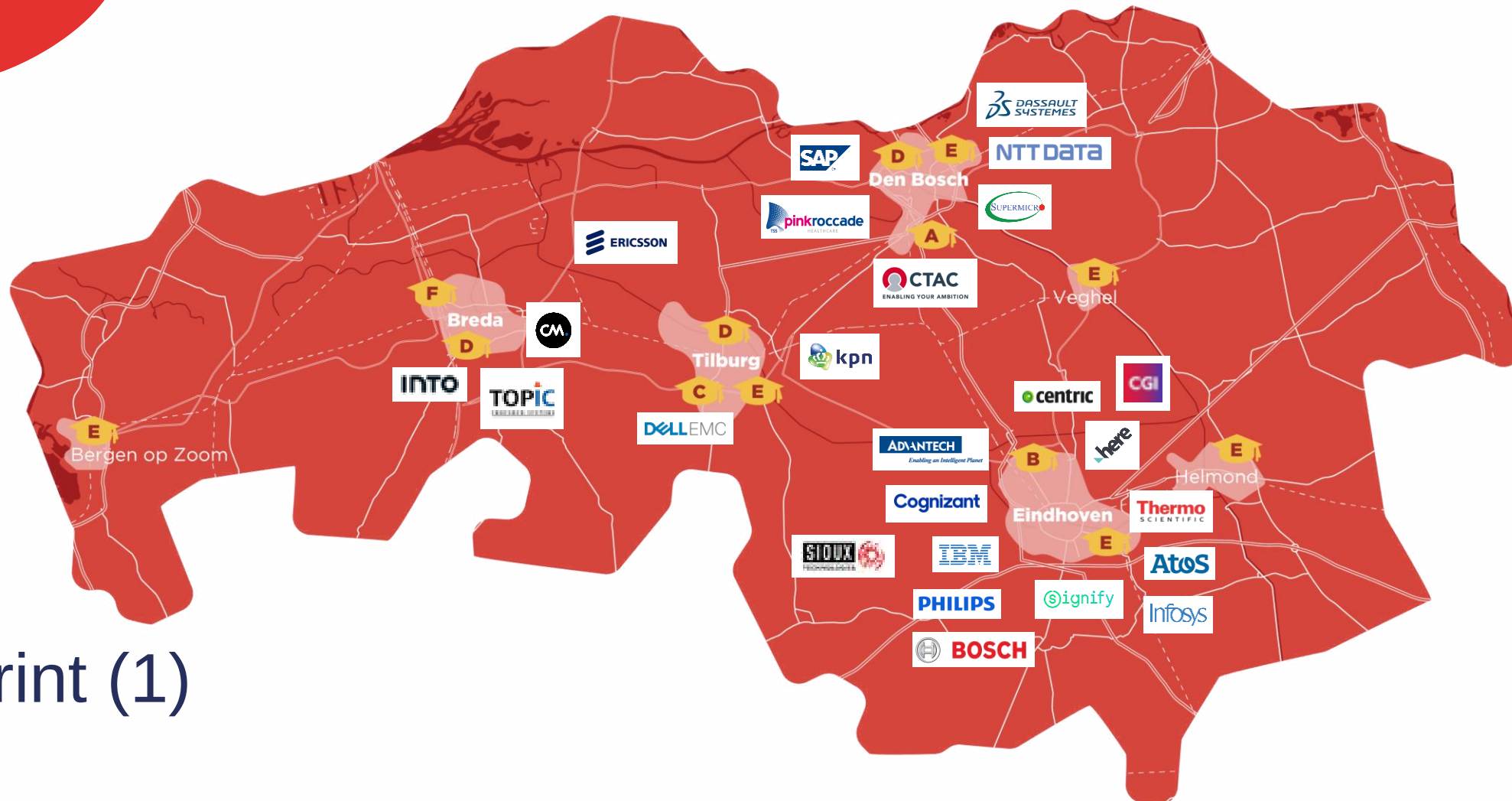


IBM

IBM, The global technology company from the US, expanded their operations in Brabant with their new IBM Client Innovation center in Eindhoven.

Focus: Cloud, AI, and data innovations for companies in the area

IT footprint (1)

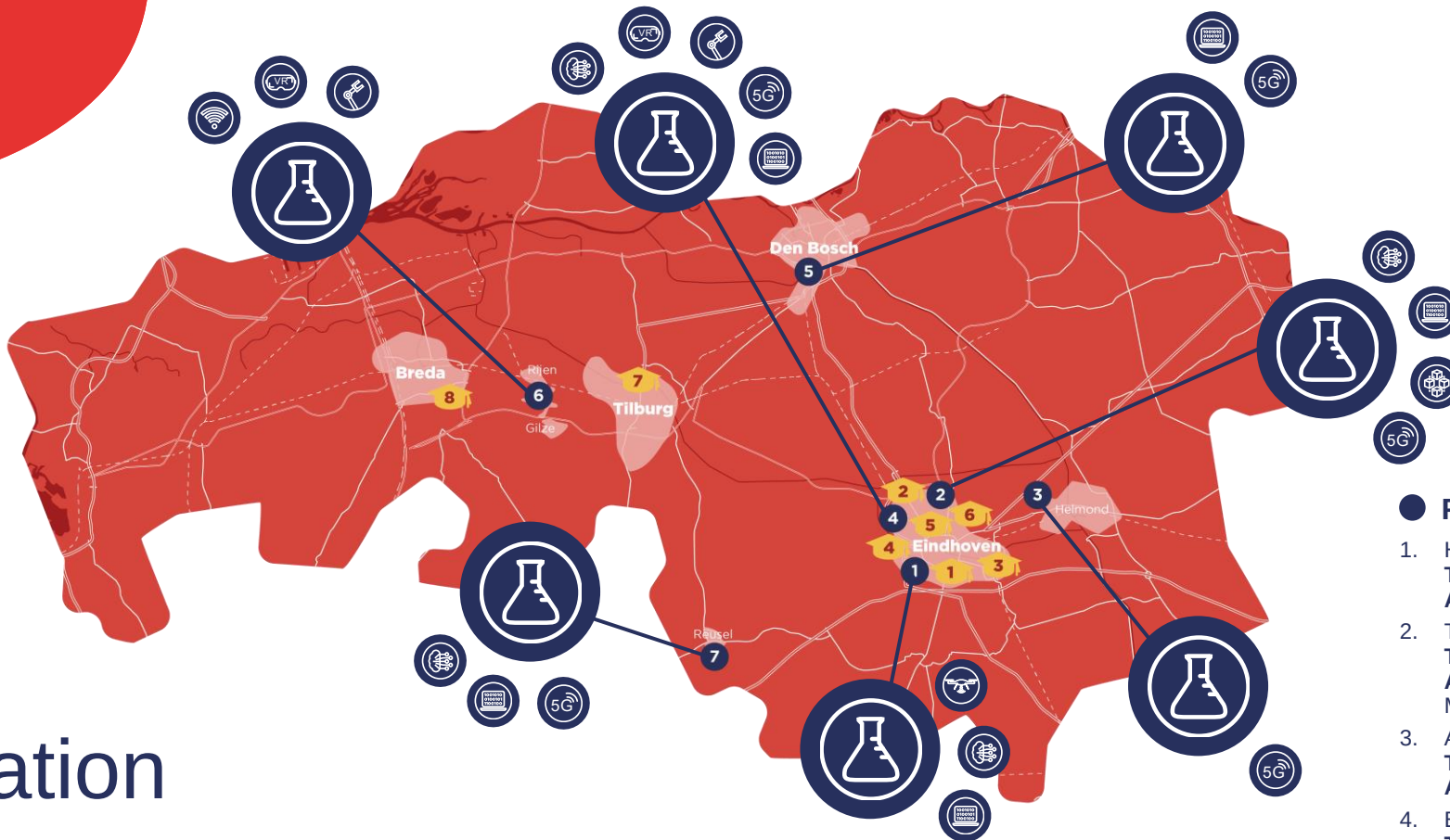


Education

- A. Jheronimus Academy of Data Science (JADS), **Den Bosch**
- B. Eindhoven University of Technology (TU/e), **Eindhoven**
- C. Tilburg University, **Tilburg**
- D. Avans University of Applied Sciences, **Den Bosch / Breda / Tilburg**
- E. Fontys University of Applied Sciences, **Den Bosch / Veghel / Eindhoven / Bergen op Zoom / Helmond**
- F. Breda University of Applied Science (BUAS), **Breda**

IT innovation clusters & fieldlabs

What sets Brabant apart from the rest of Netherlands, are the various innovation clusters and field labs around specific themes. These public-private testing grounds are hotspots for co-creation and speed up innovation.



Innovation clusters

1. EAISI (AI), **Eindhoven**
2. Embedded Systems innovation By TNO, **Eindhoven**
3. Eindhoven Institute for the Protection of Systems and Information, **Eindhoven**
4. Holst Centre, **Eindhoven**
5. AI Innovation Center, **Eindhoven**
6. 5G Hub, **Eindhoven**
7. MindLabs, **Tilburg**
8. Breda Game City, **Breda**

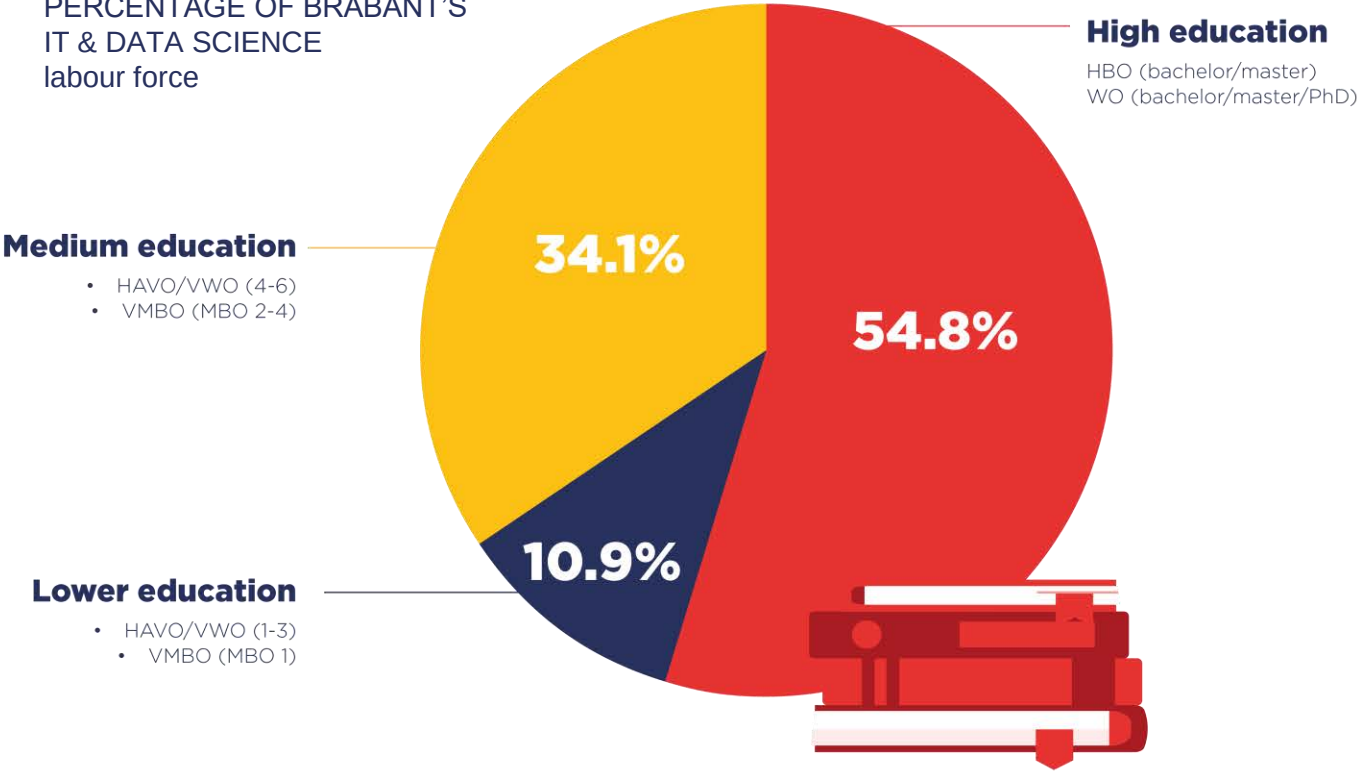
Fieldlabs

1. High Tech Campus, **Eindhoven**
Technology: Drone, AI and Data
Application: HTSM and LSH
2. Tu/e, **Eindhoven**
Technology: AI, Data, Blockchain and 5G
Application: Automotive, LSH, Maintenance and LSH
3. Automotive Campus, **Helmond**
Technology: 5G
Application: Automotive
4. BIC, **Eindhoven**
Technology: AI, VR, Robotics, 5G and Data
Application: HTSM, Maintenance and Logistics
5. JADS, **Den Bosch**
Technology: Data and 5G
Application: HTSM
6. Gate 2, **Gilze Rijen**
Technology: IoT, VR and Robotics
Application: HTSM and Maintenance
7. **Reusel**
Technology: AI, Data and 5G
Application: Agrofood

Highly educated workforce

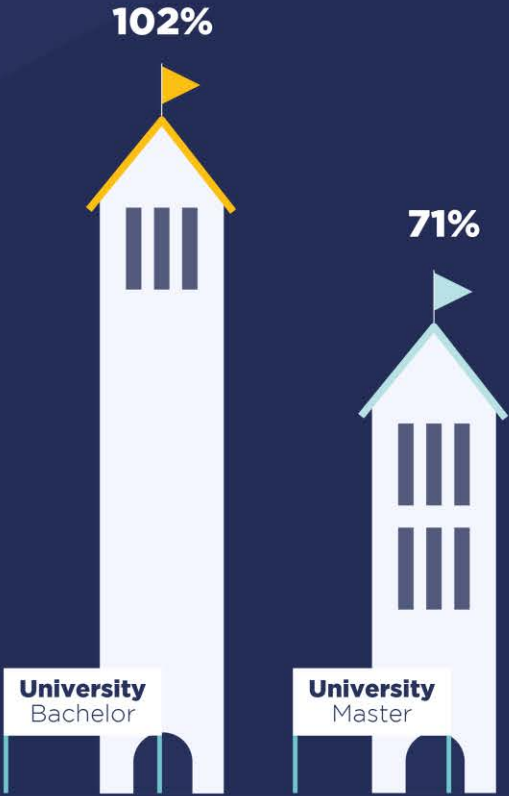
NUMBER OF JOBS BY EDUCATION LEVEL
IN IT & DATA SCIENCE

PERCENTAGE OF BRABANT'S
IT & DATA SCIENCE
labour force



Source: CBS, LISA 2020, Vestigingenregister Noord-Brabant 2020, edited by Fanion onderzoek & advies

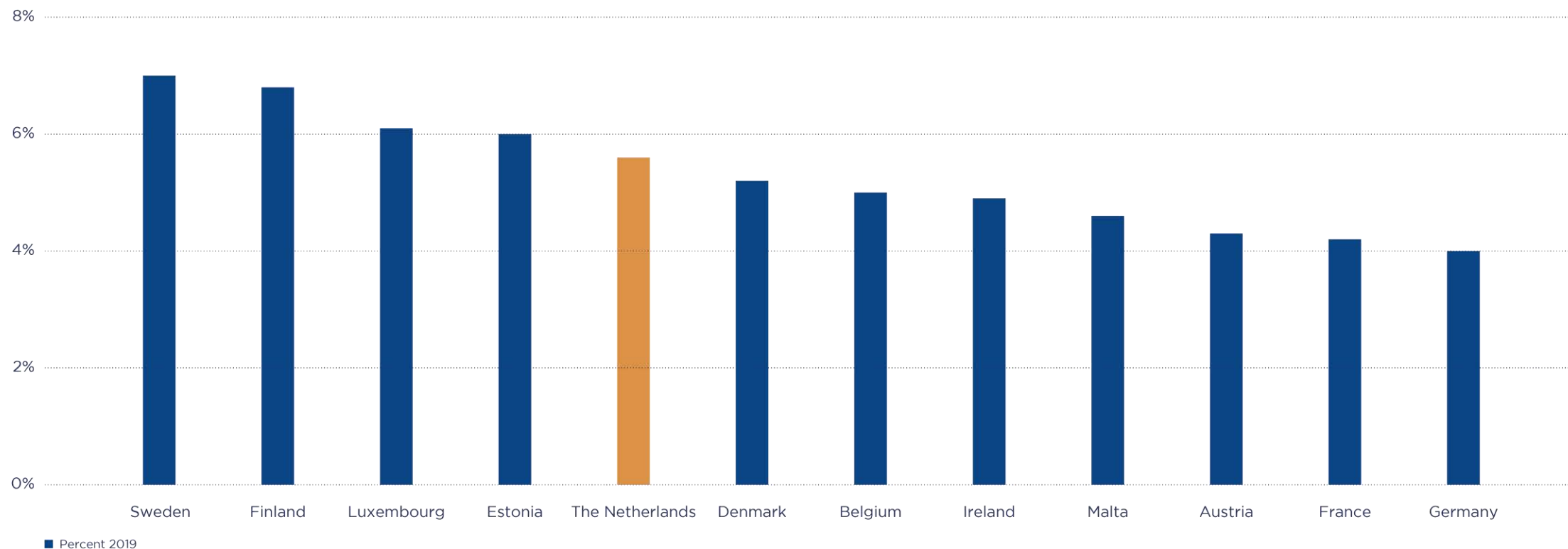
NUMBER OF GRADUATES IN
IT & DATA SCIENCE
% GROWTH SINCE 2014



Source: DUO, 2020. Adapted by Fanion onderzoek & advies

Large share of IT specialists

TOP 12 WORKING POPULATION OF IT SPECIALISTS IN EUROPE



IT STUDENTS 2020

3410
graduates

5121
new students



THE PLACE IN THE NETHERLANDS TO FIND IT & DATA TALENT

BRABANT SHOWS THE HIGHEST AND MOST STEADY GROWTH OF IT TALENT

Relative growth of both new students and graduates in all education levels is above the national average.

NEW STUDENTS

Average growth
from 2007

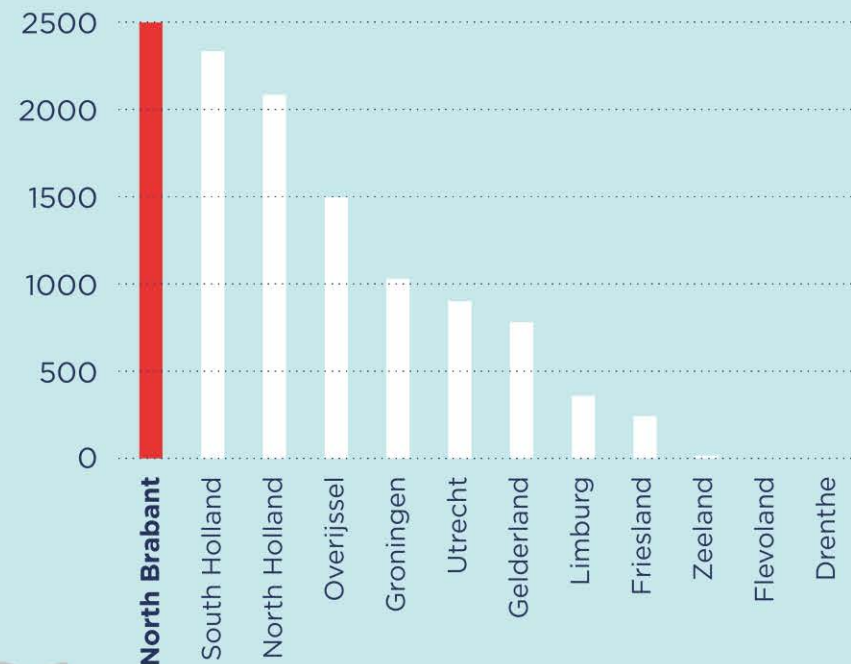
Noord-Brabant	7,1%
Utrecht	6,2%
Noord-Holland	6,0%
Overijssel	5,8%
Groningen	5,7%
Zuid-Holland	5,0%
Gelderland	3,6%
Flevoland	3,0%
Limburg	3,0%
Zeeland	2,9%
Friesland	2,5%
Drenthe	-1,2%

GRADUATES

Average growth
from 2007

Noord-Brabant	5,3%
Noord-Holland	4,4%
Utrecht	4,4%
Groningen	4,2%
Gelderland	3,7%
Zuid-Holland	2,9%
Friesland	1,4%
Overijssel	1,3%
Drenthe	1,1%
Flevoland	0,3%
Limburg	0,1%
Zeeland	-0,1%

BRABANT BOASTS THE MOST HIGHLY EDUCATED IT TALENT in the Netherlands



TOP SKILLS ARE

- Embedded software / systems
- Robotics / Robot programming
- Automation software
- Simulation software
- Low level Programming
- Assembly Language programming
- Real time operating systems software
- Ada Programming
- SAP Software

Education – universities closeby

Within a radius of 150 km around Brabant, there are 22 universities in three countries: a total of 605,340 students, 255,680 of which in the field of nature, health or technology.





Jheronimus Academy of Data Science (JADS)

At JADS, researchers and students work closely with the business community. In addition to education and research, JADS also offers space for innovative, data-driven entrepreneurship and public-private partnerships.

FUNDAMENTAL LABS

6

NATIONALITIES

30

IN PDENG PROGRAM DATA SCIENCE

77 trainees

PROFESSIONAL EDUCATION CERTIFICATES

JOINT DEGREES DATA SCIENCE AND ENTREPRENEURSHIP

CURRENT STUDENT BODY NUMBERS 1,500 – 2,000

Key University

Jheronimus Academy of Data Science (JADS)

Data Science is essential to finding answers to today's challenges in the world.

JADS offers data science bachelor and master programs, PDEng education, professional education and help organizations shape their data driven future.



OBJECTIVES

The mission of JADS is to understand and use the value of data for solving complex societal and business challenges. The AgriFood industry is a Priority Industry to JADS, given that linking AgriFood to high tech by means of data communication, big data processing and artificial intelligence (AI) is one of society's challenges when it comes to sustainably feeding the world's growing population.



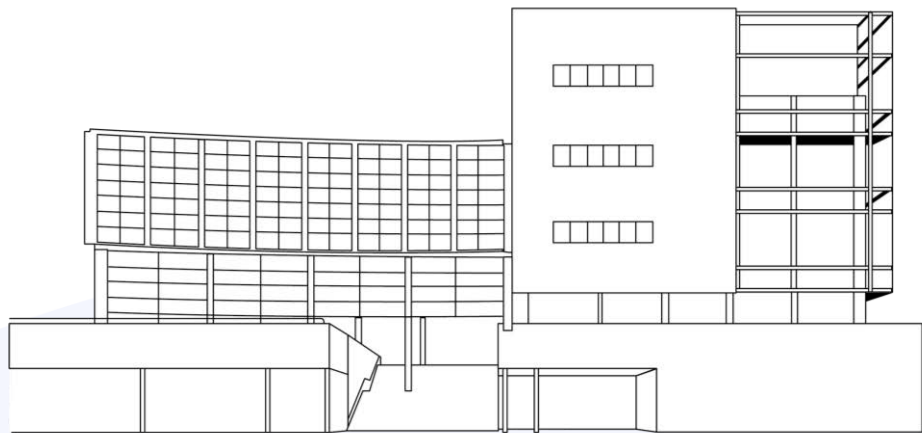
THE JADS DISCIPLINES

- Data Analytics
- Data Governance
- Data Entrepreneurship



APPLICATION AREAS

- Social & Digital Entrepreneurship
- AgriFood and Nature
- Crime & Safety



Fontys facts and figures

STUDENTS

44,230

INTERNATIONAL STUDENTS

5,200

GRADUATES A YEAR

7,697

BACHELOR'S, MASTER'S,
AND OTHER COURSES

477

IT RELATED RESEARCH GROUPS

8

IT RELATED RESEARCH CENTERS

4

IT GRADUATES 2020

578

NEW IT STUDENTS 2020

1,135

Key University

Fontys University of Applied Sciences

Fontys is the largest university of applied sciences in the southern Netherlands.

Education and research at Fontys are directly in line with the current and future demands and needs of students, the professional arena, and (regional) society. Main focus areas of the University is AI, Data and Blockchain for the industry and health sector



FONTYS IT INNOVATION LAB

The Fontys IT InnovationLab is an open innovation environment located in the Strijp-T Innovation District in Eindhoven. Various research groups in the fields of Big Data, AI, blockchain and interaction design are housed in the 4000 m² TQ building.

A range of **innovation partners** work with **600 junior IT researchers** (students) and **50 senior researchers** on a wide range of issues to accelerate the digital transformation of the region.

The IT InnovationLab offers room for experimentation and for exploring all possible ideas for practice oriented research questions within the IT domain.



THE FONTYS DISCIPLINES

- AI & Big Data
- High Tech Embedded Software
- Humanity & Software
- Smart Industry
- VR
- Gaming
- IT For Health



RESEARCH CENTERS

- Centre of Expertise Big Data
- Big Data Lab
- Fontys Centre of Expertise HTSM



BUAS facts and figures

IT GRADUATES 2020

165

NEW IT STUDENTS 2020

188

Key University

Breda University of Applied Sciences (BUAS)

Main focus areas of the University is Game & Media developments.

BUAS is one of the best game design schools worldwide. The Games research program at the BUAS focuses on **digitally enhanced realities (DER)**, new forms of human interaction in environments designed with games blended with Big Data, geo-data, simulations, robotics, and AI.



KEY OPINION LEADER

Mata Haggis-Burridge

Mata is an award-winning game designer, Professor at BUAS, owner of the narrative and game design consultancy Copper Stone Sea, part of the Game City Breda organization and writer with over twenty years experience of both AAA and indie development, including 'Burnout Paradise', 'Aliens Versus Predator' (2010), 'Resident Evil Resistance', and in collaboration with Techland's narrative team on mission writing/design for 'Dying Light 2'.



THE MAIN IT BUAS DISCIPLINES

- Game technology & Creative media
- AI & Big Data



OTHER IT RESEARCH FOCUS AREAS

- Tourism
- Logistics
- Leisure and event
- Built environment
- Facility
- Hotel



THE CRADLE LAB

The BUAS is home to its own research lab: The CRADLE lab, where the next generation of games and digital media products and services are designed and created.



CRADLE lab

"THE RESEACH TEAM WORKS CLOSELY WITH THE INTERNATIONAL 'TRIPLE A' VIDEO GAME INDUSTRY."

Games Research

GAMES ARE PART AND PARCEL OF OUR LIVES. THEY SHAPE INTERESTING NEW GAME CULTURES, SUCH AS IN E-SPORTS. THE GAME INDUSTRIES BRING ABOUT MANY INNOVATIONS. GAME TECHNOLOGY CAN ALSO BE USED FOR NON-ENTERTAINMENT PURPOSES SUCH AS FOR GAME-BASED LEARNING, URBAN PLANNING OR MEDICAL SYSTEMS.

Key Research Institute at BUAS

CRADLE lab

The lab where the next generation of games and digital media products and services are designed and created.



ENTERTAINMENT GAMES

Focusses on **game cultures and the design and creation of video games**. Within this broad field there is focus on issues relating to:

- diversity,
- storytelling,
- interface,
- design/feedback, and
- puzzle design (using 'escape rooms' as a thematic entry point).



SERIOUS GAMES

Focusses on how games can be used to improve the **performance of organizations and systems**. Application areas:

- spatial planning,
- logistics,
- sustainability & ecological systems,
- tourism,
- entrepreneurship, management, leadership an change.



Eindhoven University of Technology in numbers

SCIENTIFIC PUBLICATIONS

3,000

PHD-AWARDS

140

PATENTS EVERY YEAR

40

IT GRADUATES 2020

499

NEW IT STUDENTS 2020

840

BACHELOR COLLEGE WITH
15 DIFFERENT MAJORS

MASTER PROGRAMS IN THE FIELDS OF:

- ARTIFICIAL INTELLIGENCE
- ENGINEERING & HEALTH
- HUMANS & TECHNOLOGY
- SMART CITIES
- SMART MOBILITY
- SUSTAINABLE ENERGY
- DATA SCIENCE
- ROBOTICS
- HIGH TECH SYSTEMS
- INTEGRATED PHOTONICS

Key University

Technical University of Eindhoven

One of the focus areas of the University is Artificial Intelligence.



KEY OPINION LEADER

Carlo van der Weijer

Carlo van der Weijer advises ministries and industries around the world on the future of mobility/AI and is member of the supervisory board of several high-tech companies and start-ups. He is an international speaker on exponential technology and the future of high-tech, amongst others as faculty member of Silicon Valley based Singularity University. Furthermore, he is a weekly columnist in the leading Dutch financial newspaper.



MAIN AI RESEARCH FOCUS AREAS

- High Tech systems and Robotics
- Smart Mobility
- Health Applications



OBJECTIVES

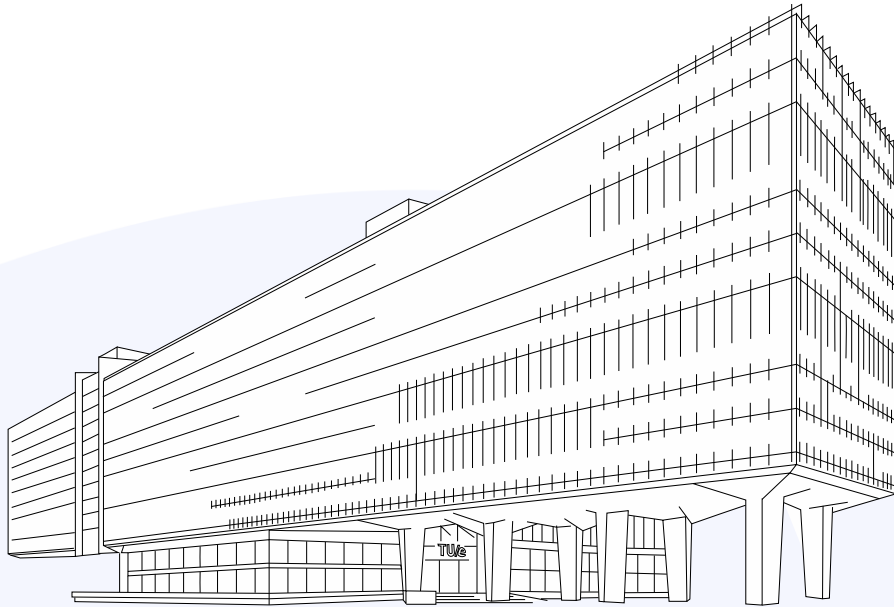
The TU/e has been active in the field of artificial intelligence for decades. Using its traditional strengths in systems engineering and close ties with industry, the TU/e aims to leverage the huge potential of AI to real-world applications in industrial engineering systems.



EASI

The Eindhoven AI Systems Institute brings together all TU/e artificial intelligence activities. Top researchers from the various research groups work together to create new and exciting AI methodologies and applications with a direct impact on the real world.

"AI for the real world".



Key Research Institute at TU/e

EASI Institute

World class Research: The Eindhoven Artificial Intelligence Systems Institute (EASI) is the new institute of Eindhoven University of Technology in the field of artificial intelligence (AI).



OBJECTIVES

The Eindhoven AI Systems Institute combines all TU/e Artificial Intelligence activities. Top researchers from various research groups work together to create new and exciting AI methodologies and applications with a direct impact on the real world. TU/e has been active in the field of AI for many years, which gives the new institute an excellent starting position to build upon.



COLLABORATION WITH INDUSTRY

Building on the traditionally close ties of TU/e with industry, EASI is partnering with a number of leading companies and organizations, both at a regional, national and European level. These include among others: ASML Philips Healthcare, NXP Brainport Eindhoven AI NL Coalition 4TU.Federation EuroTech.



FOCUS AREAS

1 High Tech Systems and Robotics

- Guaranteed machine performance
- Autonomous machine operation and smart human-operator support
- Multi-agent robotics
- PredITive maintenance

2 Health

- Improved diagnostics
- Personalized and wearable health systems
- Better understanding of personal health states
- Preventive health management.

3 Mobility

- Vision and Sensor capabilities for autonomous driving
- Data analytics for effective transportation systems and distributed traffic management
- Advanced Driver Assistance Systems



Key R&D Partnership

Mindlabs – “Where minds, media & technology meet”

MindLabs is a partnership in which four knowledge institutions, authorities and a growing number of business partners, social institutions and startups participate.

Focus: strengthen the development of technologies that interact with human behaviour by connecting knowledge and the application of interactive technology with entrepreneurship.



FOCUS

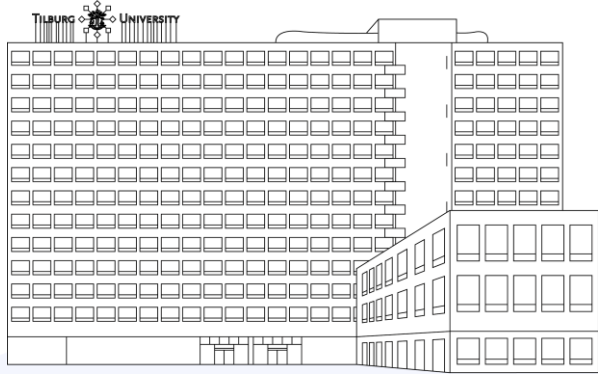
- Virtual, mixed & augmented reality
- Natural language and data processing
- Robotics & avatars
- Serious games & learning



STRATEGIC THEMES

- Smart media
- Smart health
- Smart services
- Smart logistics
- Smart maintenance
- Smart leisure





Facts and figures Tilburg University

STUDENTS

19,334

INTERNATIONAL STUDENTS

3,711

PROGRAMS OFFERED IN ENGLISH

35

ALUMNI SINCE 1927

78,000+

INTERNATIONAL GRADUATES

8,900+

DIFFERENT NATIONALITIES

132

PROFESSIONAL AND EDUCATIONAL STAFF

1,500

BACHELOR'S, MASTER'S, AND OTHER COURSES

73

IT GRADUATES 2020

781

NEW IT GRADUATES 2020

1,156

Key University

Tilburg University

One of the focus areas of the University is fundamental Artificial Intelligence.



OBJECTIVES

AI & Data Science plays a role in providing better and more efficient responses to major issues. Tilburg University's strength is that it illuminates these issues from various angles. The university combines expertise in AI & Data Science with expertise in people and society.

The University is unique in that it combines computer science and mathematical and statistical techniques as well as human-technology interaction, social sciences, and legal and ethical aspects.



IT RESEARCH FOCUS AREAS

- Data Science
- Fundamental AI
- Data & Society
- Cognitive science & AI
- Business analytics
- Marketing analytics

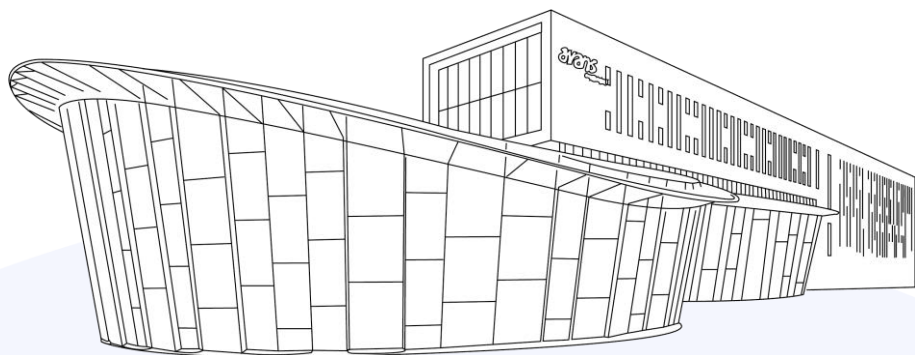


DATA SCIENCE CENTER TILBURG

The Data Science Center Tilburg (DSC/t) brings together Tilburg University's scientific expertise in economics, management, law, social sciences, behavioral sciences, and the humanities to develop and apply data science.

The following application domains are defined:

- Consumer behavior
- Smart industries ("Industry 4.0")
- Health analytics
- Human capital and labor market
- Smart cities
- Finance institutions
- Legal analytics



Facts and figures Avans

STUDENTS

35,083

RESEARCH FIELDS

10

LOCATIONS

13

CENTERS OF EXPERTISE

6

RESEARCH GROUPS

25

PROFESSIONAL STAFF

3,300

IT GRADUATES 2020

472

NEW IT GRADUATES 2020

812

Key University

Avans University of Applied sciences

One of the focus areas of the University is the Resilient City.



OBJECTIVES

It is of great importance that cities be prepared for a sustainable future, in view of increasing urbanization, the energy transition, and material scarcity and waste. An integrated approach is required for this transition.

Accessibility, livability, sustainability, air quality, sound health, and economic vitality are all inextricably linked to that transition. Moreover, increasing urbanization and the changing composition of households pose environmental, infrastructural, and security challenges.



RESEARCH FOCUS AREAS

- Art, Design and Technology
- Caring Society 3.0
- Center of Expertise Biobased Economy
- Public Safety and Criminal Justice
- Sustainable Business
- Technical Innovation



CENTER OF APPLIED RESEARCH FOR TECHNICAL INNOVATION

CARTI seeks solutions to the resilient city in a circular economy, robotization, and the creation of smart cities – cities with, for example, highly developed public transport systems and online platforms that make organizing the city a more efficient process.

CARTI is a joint initiative involving all the engineering study programs at the AVANS University of Applied Sciences. Professors, researchers, lecturers, and students have organized themselves into research groups to conduct practice based research into the development of the resilient city. The research is carried out at the request of businesses and organizations.



State-of-the-art facilities

High Tech Campus Eindhoven

Often recognized as the smartest square km in Europe, the **HTCE campus** is built around an ecosystem of 235 companies with a range of application fields. Home to over 12,000 innovators, researchers, engineers that create the technologies and business of tomorrow.



OBJECTIVES

High Tech Campus is Eindhoven, the smartest km² in Europe is an ecosystem of 235 high tech companies. It's home to more than 12,000 innovators, researchers and engineers. Each company at High Tech Campus Eindhoven shares a common goal: developing new technologies and applications that help solve social problems and challenges, and successfully bringing these to the market.



LEADING COMPANIES

- Multinationals such as Philips Healthcare, Teleledyne Dalsa, NXP and Intel
- Research institutes like the Holst Centre, Philips Research and Innovation lab
- Scale ups and startups like Usono, Lifesense Group, Bambibelt, GTX medical and Sirius Medical



KEY CHARACTERISTICS

- 42% of all patent applications in the NL come from the Campus
- >85 nationalities
- AI innovation Centre
- 12,500 Smart People
- Total 350,000 m²
- 25,000 sqm R&D facilities
- 1 billion private R&D
- Top 7 incubator for start-ups



APPLICATION AREAS

HTCE is a global hotspot in the areas of Health & Vitality, Sustainability, Applied Intelligence, Smart Environments & Connectivity and Software & Platforms.



Key incubator & accelerator at HTC

AI innovation center

AI Innovation Center has the mission to industrialize AI in the Brainport Eindhoven region. 1.100m² facility which brings together all relevant partners in the ecosystem. Pushing companies on the wave of Data Science and AI. Within the center, companies work on projects and share their knowledge and experience. The Center also acts as an incubator for AI projects & startups.

The focus of the center is on:



ENABLERS

- Bring together service providers, venture capitalists, governmental partners, research institutes and launching customers
- Build a dedicated AI ecosystem infrastructure to support and motivate companies to adopt AI



ACCELERATION

- Drive adoption and accelerate the application of AI technologies by companies in the region
- We organize workshops that support AI adoption and acceleration
- We offer a soft landing (eg workspace, network) to early stage startups



KNOWLEDGE & CAPABILITIES

- Organize events, workshops and training programs
- Support research, publish white papers, blogs and vlogs
- Bring in industry specialists to share the latest AI insights



PARTNERS

- ASML
- NXP
- Philips
- Signify



Key R&D facility at HTC

5G Hub

The 5G hub acts as a **Research and development facility**. The 5G also acts as a "**technology community**" where companies come together to experience and be inspired by the recent innovations.



FOCUS TECHNOLOGIES

- 5G
- Artificial intelligence
- Virtual reality
- Augmented reality
- Blockchain
- Photonics



FOCUS AREAS

- Future of health
- Future of business
- Future of sustainability
- Future of entertainment



ACTIVITIES

- Develop
- Test
- Demonstrate (inspire)
- Network



POWERED BY

- Vodafone
- Ericsson





Key Resilience Center at HTC

Cyber Resilience Center

Brabant is the first economic area in the Netherlands to have a Cyber Resilience Center. Since September 2019, the foundation has been helping companies within the knowledge-intensive industry with **resilience against digital e-spionage and cyber attacks**.

Key Activities:



ENRICHERS

By sharing news, knowledge and practical examples. Mutually and by third parties, during knowledge sessions, webinars, training courses and workshops.



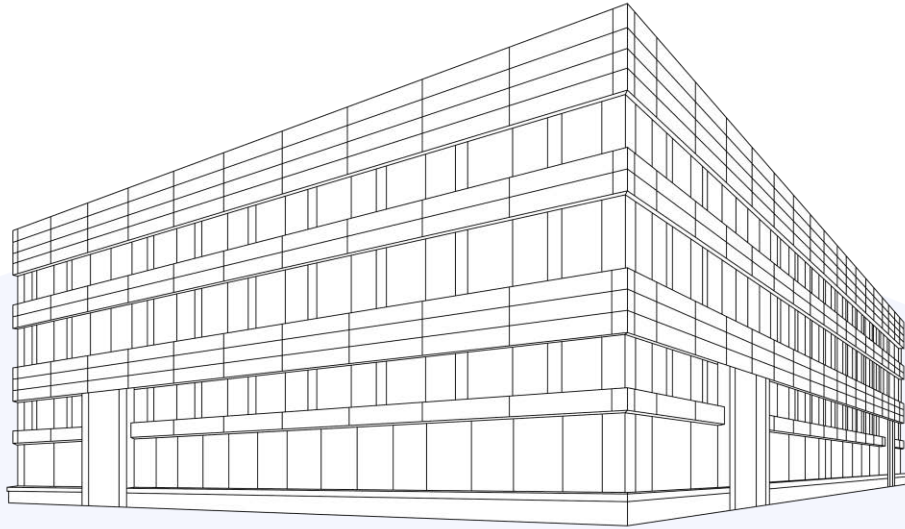
CONNECTS

By connecting companies, a community is growing with a common goal: improving cybersecurity together.



STRENGTHENS

By first identifying the digital threats your company faces and constantly informing them of threat information.



Key Research Institute

Embedded Systems Innovation by TNO

TNO-ESI is a research institute that focuses on design and engineering of high-tech embedded systems. Its extensive research programme aims to advance high-tech industry in improving lead-time and effectiveness of their product innovation process, as well as the functionality and quality of their products.



FOCUS

- System Architecting
- System Dependability
- System Evolvability
- Exploiting Systems context
- System performance



THEMES

- Digital twin
- Diagnostics
- Software legacy
- Reflexion
- Enable-S3

In the TNO-ESI research programme, multi-disciplinary teams of experts of renowned (multi)national high-tech enterprises, SMEs, and leading academic research groups work together on the latest technologies and innovations.

State-of-the-art facilities

Brainport Industries Campus

The most innovative and successful companies and institutions in the Brainport region come together as one on the **Brainport Industries Campus**.



HIGH TECH MANUFACTURING

Brainport Industries Campus is the place to be for far-reaching partnerships between suppliers, specialist companies and innovative education and knowledge institutes. This is where the next generation of professionals in the hightech manufacturing industry is trained in a state-of-the-art working and learning environment.



COOPERATION

Brainport Industries Campus is the very first location where high tech suppliers innovate and manufacture together, where the most successful companies share high-quality facilities, such as cleanrooms, flexible production areas, warehouses, and other advanced facilities, and where they present themselves as a unified force that they can showcase to their national and international customers.



KEY FIGURES

- Over 35 companies
- 2,000 high level staff
- 1,500 students
- Surface 105,000 m²
- 6,000 m² of shared facilities
- 6,000 m² of shared warehousing





Key R&D Cluster at BIC

High Tech Software Cluster

The High Tech Software Cluster is an alliance of over 30 innovative software companies, research organizations and educational institutions that support you in making the digitization of your business affordable and practical.

Main focus: software for the 4th industrial revolution



FOCUS TECHNOLOGIES

- Virtual Prototyping and Design
- Artificial intelligence and Machine Learning
- Big Data Analytics and Data Services
- Industrial Internet of Things
- Industrial 5G and Wireless Communication
- Model-based Software Engineering



SOFTWARE COMPETENCE CENTER

At the HTSc Software Competence Center companies can find out about the competences, products, services and knowledge that HTSc members can provide and you can experience at first hand the software technologies that you can use to innovate in and with software.

**HIGH TECH
SOFTWARE
CLUSTER**



State-of-the-art facilities

Automotive Campus Eindhoven

The **Automotive Campus** has become a hotspot where businesses, knowledge institutes, and student teams find one another and form partnerships.



PARTNERING

The organizations on campus partner with the leading high tech businesses in the Netherlands, as well as leaders in other industries, including IT, energy, and infrastructure. This cross-pollination encourages innovation and creates partnerships that mean ideas can be turned into the technology of the future, faster than ever before.



LEADING COMPANIES

Some of the leading companies on campus are Altran Engineering, Lightyear, VDL ETS, TASS International, Durapower, V-Tron.



KEY FIGURES

- 45 companies and organizations
- 25 labs and test facilities
- 620 engineers and research specialists
- 600 automotive students at all education levels
- 110,000 m² offices, workshops, and labs
- 140,000 m² still to be constructed
- 100 events per year
- 10,000 visitors per year



APPLICATION AREAS

Application areas include green mobility and smart mobility. The campus is home to various high-quality technical facilities serving many purposes.

Prominent players in Brabant



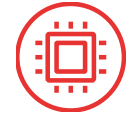
Priority niches



EMBEDDED SOFTWARE WITH A
SPECIAL FOCUS ON COMPLEX
SYSTEMS & CYBERSECURITY



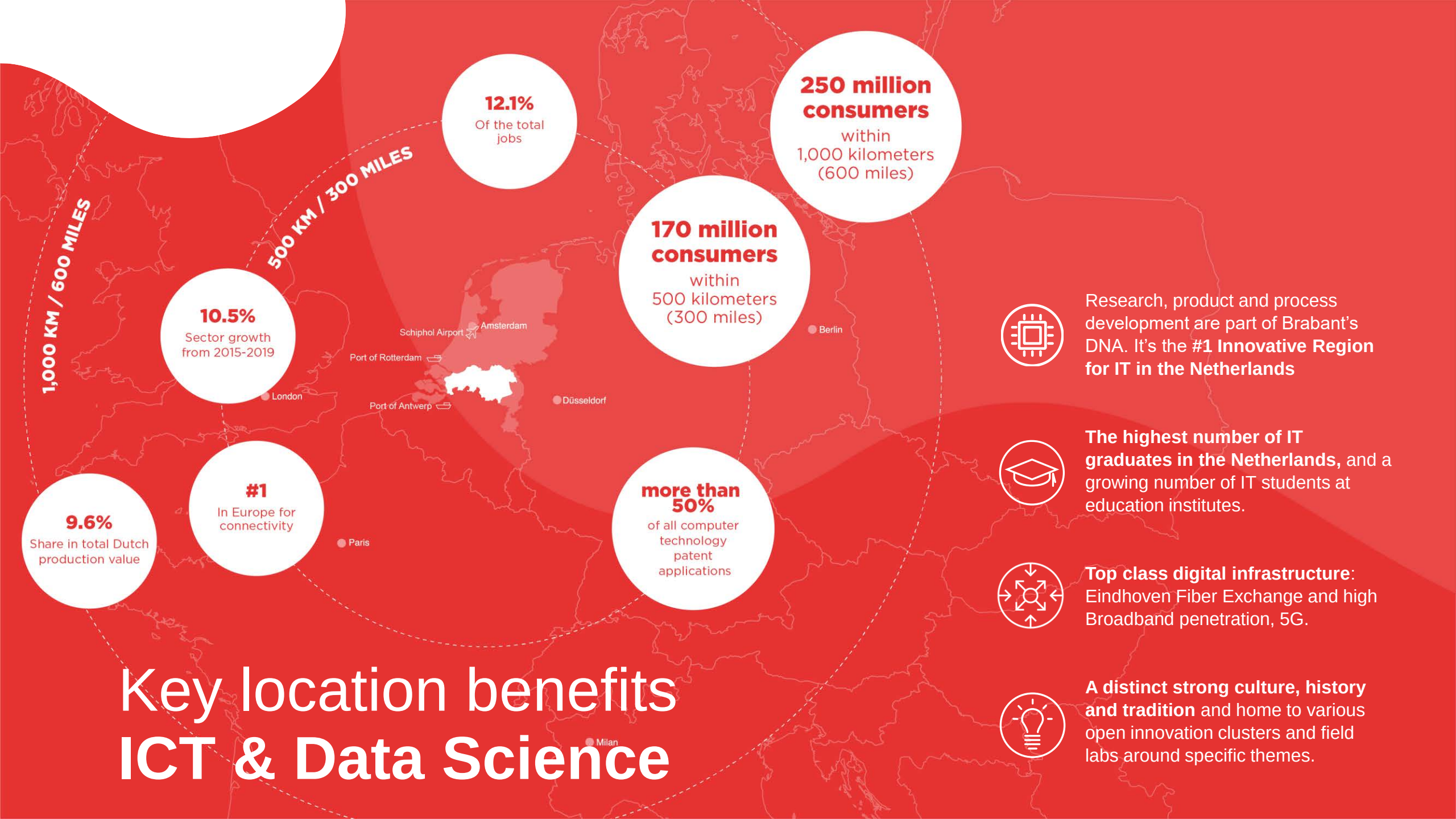
APPLIED CREATIVE SOFTWARE
TECHNOLOGIES FOR REAL LIFE OR
ENTERTAINMENT PURPOSES



BIG DATA, AI AND DATA SCIENCES
FOR THE BRABANT TOP SECTORS:
HTSM (Smart Industry), Life Sciences &
Health (Smart Health), AgriFood,
(Smart Farming), Mobility (Smart Mobility)
and Logistics (Smart Logistics)



BUSINESS AND INSTITUTION
SOFTWARE



Key location benefits ICT & Data Science

www.brabantbusinessregion.com