# High Tech Systems & Materials sector

A Summary Fact Sheet of the High Tech Systems

& Materials sector in Brabant



### THE STUDY

This 2020/2021 study aims to provide a comprehensive overview of the High Tech Systems & Materials (HTSM) sector in Brabant, including international trends and developments and its priority niches and development areas. The report is laced with profiles of inspiring regional and national players in the High Tech world.

This study was executed by Ben Engel, Engel – Een Heldere Blik, Henry de Vaan, Fanion Onderzoek & Advies and Frits Hoeve, Senior Project Manager High Tech Systems at the Brabant Development Agency. This study is commissioned by the Brabant Development Agency (BOM).

### RESEARCH

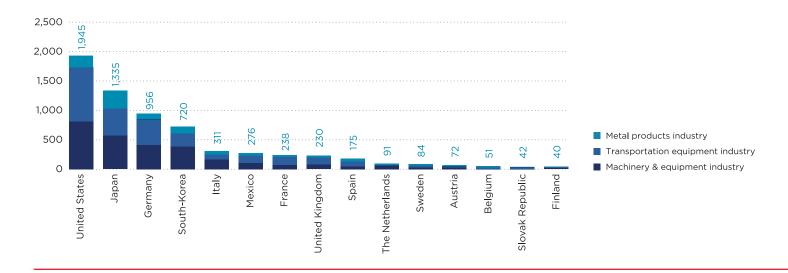
38 sector-specialists contributed to the result of this study. In addition, the study is based on desk research, extensive data-analysis and intensive cooperation between the authors and representatives of BOM and its key partner organizations in Brabant.



## The Netherlands

### THE DUTCH TOP SECTOR HIGH TECH SYSTEMS & MATERIALS IS:

- The sector with by far the greatest added value (approx. 1/3 of the total of all 9 top sectors);
- The sector that invests the most in R&D: about 60% of the total R&D expenditure by the top sectors;
- The largest employer with more than 600,000 employees in the Netherlands, of which almost 130,000 in Brabant;
- The Netherlands is in the top 10 of OECD high tech systems manufactures.





## **Brabant**

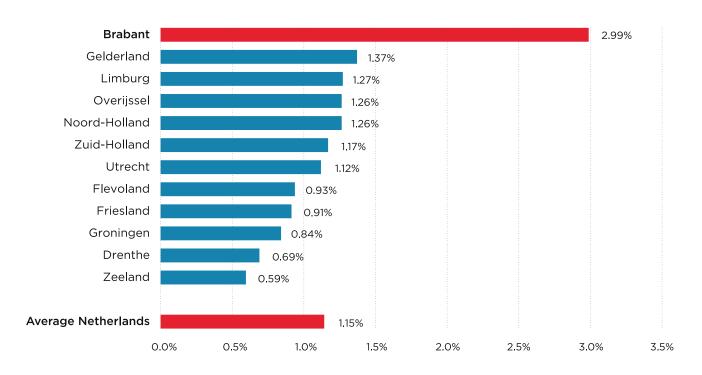
- Brabant is home to 15,560 HTSM companies, employing a total of 129,110 people. This means that the province has 16.2% of all companies and 21.5% of all jobs in the HTSM sector in the Netherlands. In other words, the High Tech Manufacturing & Systems sector has a strong presence in Brabant. Brabant has a long and world class track record in high complexity machine building and complex systems;
- Production value of HTSM in the Netherlands was more than 185 billion euros in 2019. More than 40% of this originates from Brabant: about 81 billion euros. Of this, 28.3 billion euros was exported;
- 50% of all European patent applications from the Netherlands are generated in Brabant and 19% of all R&D researchers work in Brabant, most in Brainport Eindhoven.



## **Brabant**

## BRABANT HAS THE MOST R&D ACTIVITY OF ALL PROVINCES IN THE NETHERLANDS.

### Private R&D expenditure (percentage of GDP) in 2017



### **BRAINPORT REGION**

In 2019, company R&D expenditure in Brainport Eindhoven rose to the highest level ever, at 2.4 billion euros. As such, the region continues to lead the way in the Netherlands in the field of industrial innovation. The region's industrial players are responsible for more than one-fifth (20%) of all Dutch corporate R&D, and in 2019 it grew for the seventh consecutive year.



## The complete HTSM value chain is present and well-developed in Brabant

The integrated value chain HTSM brabant - including a selection of companies













· Bosch Security Systems



· Altran (TASS)

- · AME Applied Micro Electronics
- ASML
- DEMCON
- · Malvern Panalytical
- NXP
- · Philips Healthcare
- RAITH
- Sioux Technologies
- · Thermo Fisher Scientific
- Dimenco

- AAE Advanced
- Automated Engineering
- DEMCON

- Technologies Group
- · IME Elektrospinning

- · Frencken Mechatronics
- · The MathWorks
- · Prodrive Technologies
- · Proven Concepts

- · Bradford Engineering
- NXP
- VDL ETG, Enabling

- - NXP
  - NTS Group
    - Philips Healthcare · Philips Innovation Services
    - - Incooling
      - Lightyear
      - SALDtech
      - · Smart Photonics Smart Robotics

- Ceratec Technical
- Ceramics
  - KMWE NTS Group
  - Teledyne DALSA VDL Group
    - · Additive Industries

Anteryon

- Levden-Jar Technologies
- LionVolt
- SALDtech
- · Smart Photonics

- · Frencken Engineering DAF Trucks
- GKN Fokker Technologies Dasault Systèmes
  - · GEA Food Solutions
  - Kulicke & Soffa
  - Marel Poultry

  - Plantl ab
  - Thermo Fisher Scientific · HTSC (EAISI)

  - · Additive Industries
  - PrecEves
  - LIQAL
  - · Pixelfarming Robotics
- · PAL-V International

DAF Trucks

PlantLab

· Signify

Philips Healthcare

Thales Cryogenics

· Thermo Fisher Scientific

· Vanderlande Industries

NXP

- ASML
- · Chromallov Holland
- DAF Trucls
- · DVC Machine Vision
- ENGIE
- Flowserve
- · Philips Healthcare
- SPIF
- SPM Instrument
- Stork Thermed

LIQAL

#### (OUTSOURCED) SUPPLY CHAIN & SUPPORT CHAIN

Rhenus - O&M Movianto - DB Schenker - Systemair - Tjoapack - Neways Technology - IT&Care - Arnold & Siedsma - PerkinElmer / One Source - Axxicon Moulds - Bestronics - BKB Precision Bronkhorst Flow Technology - Ceratec Technical Ceramics - DEMCON - Eurofins Materials Science - Fujitsu Glovia - Gain Automation Technology - Goudsmit Magnetics - HighTechXL - The Gate KMWE Toolmakers - Mevi Advanced Technology - NTS Group - Philips Innovation Services - Sioux Technologies - TMC Group - Unicorn Industrial Cleaning Solutions Van Veghel Industrial Packaging - VanBerlo Goup - Xycarb Ceramics - YASKAWA

#### UNIVERSITIES, RESEARCH INSTITUTES & EDUCATION

TU/e, Eindhoven University of Technology - JADS, Jheronimus Academy of Data Science (a.o. Den Bosch) - Avans University of Applied Sciences (a.o. Breda) Fontys University of Applied Sciences (a.o. Eindhoven, Den Bosch) - Breda University of Applied Sciences - Holst Centre (Eindhoven) - Summa College - ROC ter AA Solliance Solar Research Institute (Eindhoven) - DIFFER Basic Energy Research Institute (Eindhoven) - EAISI Eindhoven Artificial Intelligence Systems Institute - Eindhoven Engine

- High Tech Systems & Materials
- Start-up, scale-up or newly spun-off company

