



Brainport Industries Campus



Brainport
Industries

PERSONAL INTRODUCTION

Michel Weeda

Current positions

- Manager Innovation Program “Factory of the Future”
- Member MT Brainport Industries Campus
- Sr. Program Manager High Tech & Services, BOM

Former positions & industrial background

- Co Founder “World Class Maintenance”
- Regional Team Manager, Stork
- Risk Management Consultant, AEA/Ricardo

Educational background

- Mechanical Engineering (MSc.)
- Master Management & Organisation (MMO)



Innovation Program Factory of the Future

PART OF THE BIC PICTURE

[BIC Explanation Movie](#)

Content presentation

- Introduction Brainport Industries Cooperation
- Introduction Brainport Industries Campus
- Innovation Program “Factory of the Future”

BRAINPORT INDUSTRIES

Founded in 2011

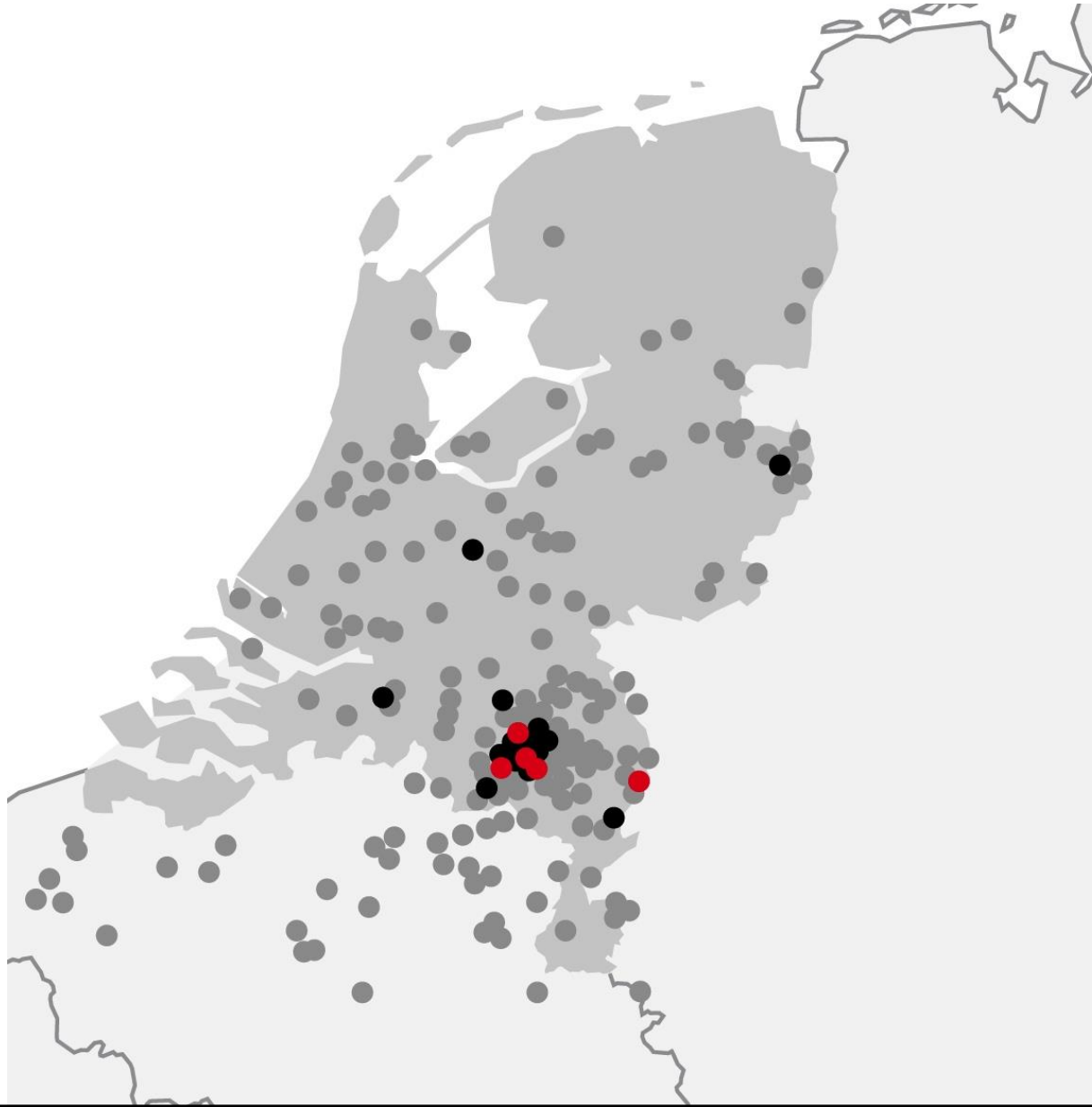


*Founding partners Brainport Industries Cooperation (March 3 2011):
NTS Group, Frencken, KMWE, Van der Hoorn Buigtechniek, Van Berlo, Sioux,
Eurotechniek & HTR Rubber & Foam, supported by Brainport Development &
BOM.*

INNOVATION PROGRAM FACTORY OF THE FUTURE



BASED IN EINDHOVEN: HOME OF THE HIGH TECH SUPPLY CHAIN



5 OEM's in the Netherlands

- 80% of OEM's in Eindhoven region
- FEI, DAF, Philips & ASML
- Océ just outside Brainport region



14 First tier suppliers

- 71% in Eindhoven region
- Bosch Rexroth, Frencken, GIS Europe, GL Group, KMWE, Neways Electronics, Norma, NTS Group, Optiwa, VanBerlo, Prodrive, SKF, VDL ETG, Wilvo

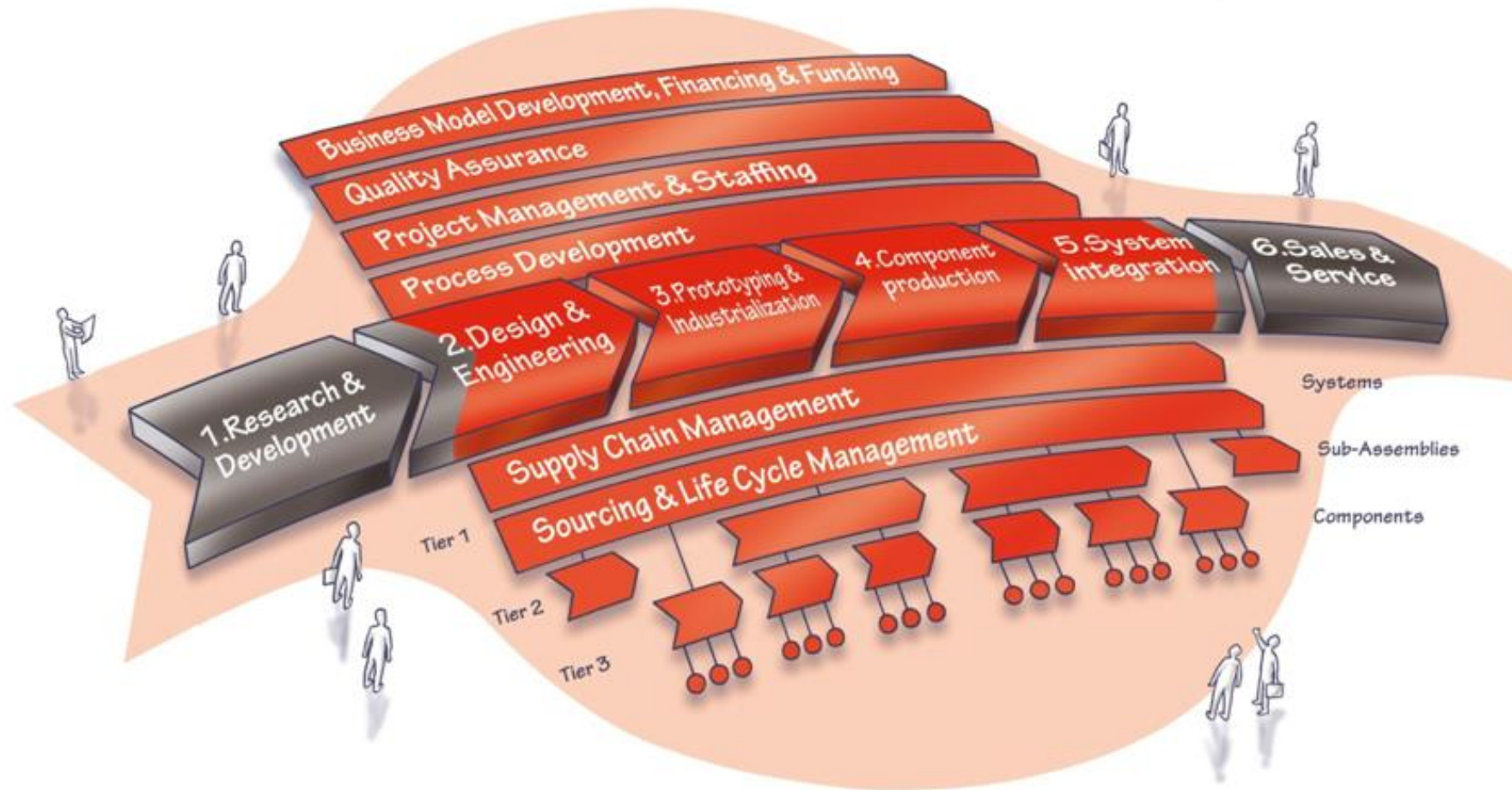


320 Second and third tier suppliers

- 34% in Eindhoven region

BRAINPORT INDUSTRIES

Open Supply Network



MEMBERS (>10K FTE >2,5 BLN € TURNOVER)



INNOVATION PROGRAM FACTORY OF THE FUTURE

Program Lines

Brainport Industries initiates & develops projects in the field of:

- Human capital / Talent & Cooperation
- International Markets & Supply chain
- Technology & Manufacturing processes

Goal is to **accelerate innovation power & improve competitiveness** of Dutch (high tech) supply chain network.

Smart Industry ambitions

By 2021 the Netherlands has developed the best and most flexible “digital connected” production network in Europe

**8 transformation
with ultimate
ambitions**

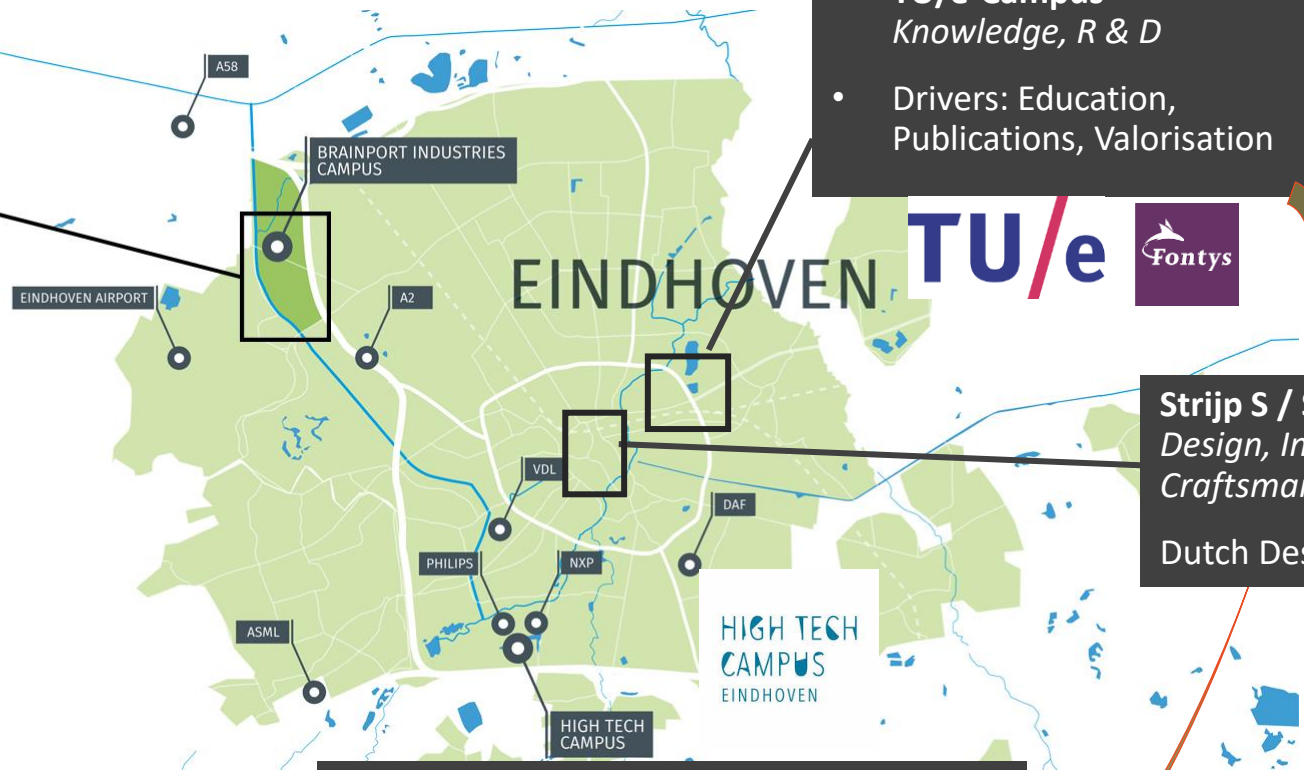
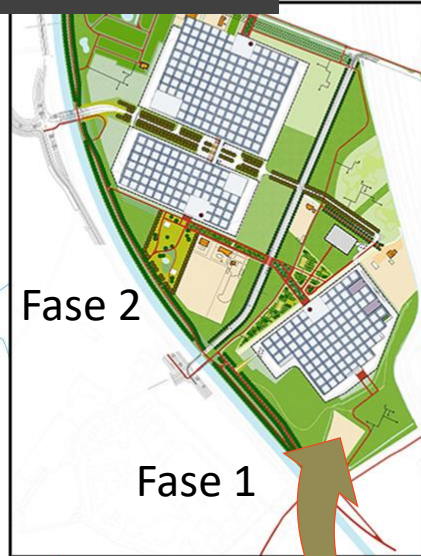
- 1 Zero defects in production/product:
100% Q-control at each production step
- 2 Zero-problems at customer site/usage:
100% monitoring of usage of product/service
- 3 Zero tooling:
3D printing/additive manufacturing
- 4 Zero delay:
lean manufacturing, just-in-time, lot size n=1
- 5 Zero waste
recycling and sustainable energy
- 6 Zero drop-out
life long learning for every one
- 7 Zero programming:
2G/3G robots with sensing
- 8 Zero surprise:
predictive maintenance



High Tech Systems “ecosystem” Brabant – Brainport region

Knowledge & Technology > Product Manufacturing > Global Business

- **Brainport Industries Campus:**
Manufacturing & Industrialisation
- Drivers: Quality, Logistics, Technology, Cost, Sustainability



- **TU/e-Campus**
Knowledge, R & D
- Drivers: Education, Publications, Valorisation

Strijp S / Strijp T:
Design, Innovation & Craftsmanship

Dutch Design Week

High Tech Campus Eindhoven:
Product development, R & D, lab facilities

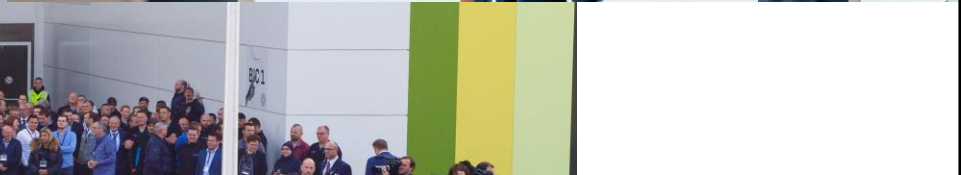
Drivers: Patents, New Business Creation

- 1. Smart building**
Your production facilities prepared for the future
- 2. Shared Production Facilities**
Sharing enhances productivity of individual companies
- 3. Smart and shared logistics**
Operational excellence improvement of the total supply chain
- 4. (Production) service boulevard**
Broad diversity of manufacturing support services
- 5. Digital factory**
Real-time product and process data
- 6. Sustainable supply chain**





7. De locatie



Visit King Willem Alexander @BIC
Eindhoven, October 3 - 2019

BIC (development) Partners



Provincie Noord-Brabant

BIC (services) Partners



RUBIX



BIC current tenants



ATRIUM



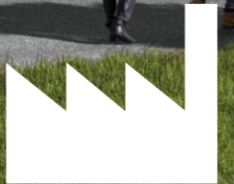
- Main entrance for the building clusters
- Location for shared services and facilities
- Space for education and knowledge institutes
- Location for start-ups
- Logistics zone + storage under the atrium
- Meeting & inspiration place for employees, visitors and students
- Showrooms & Service boulevard

INNOVATION PROGRAM

Factory of the Future



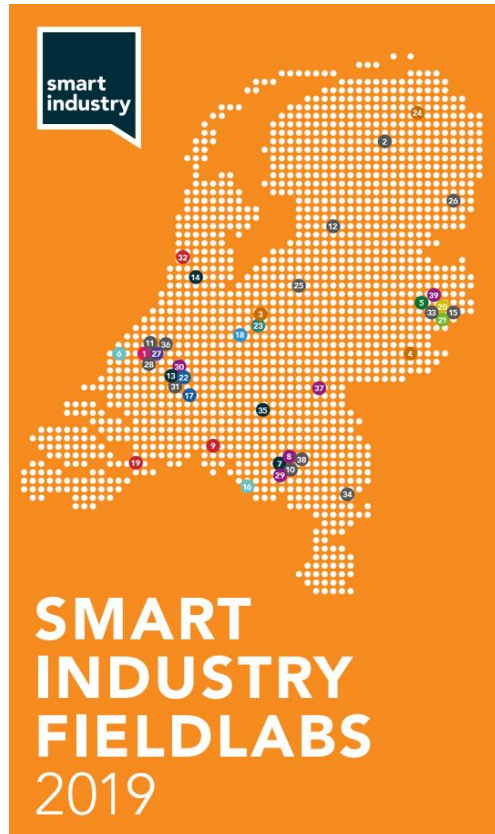
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SMART INDUSTRY

National & Regional Smart Industry Program



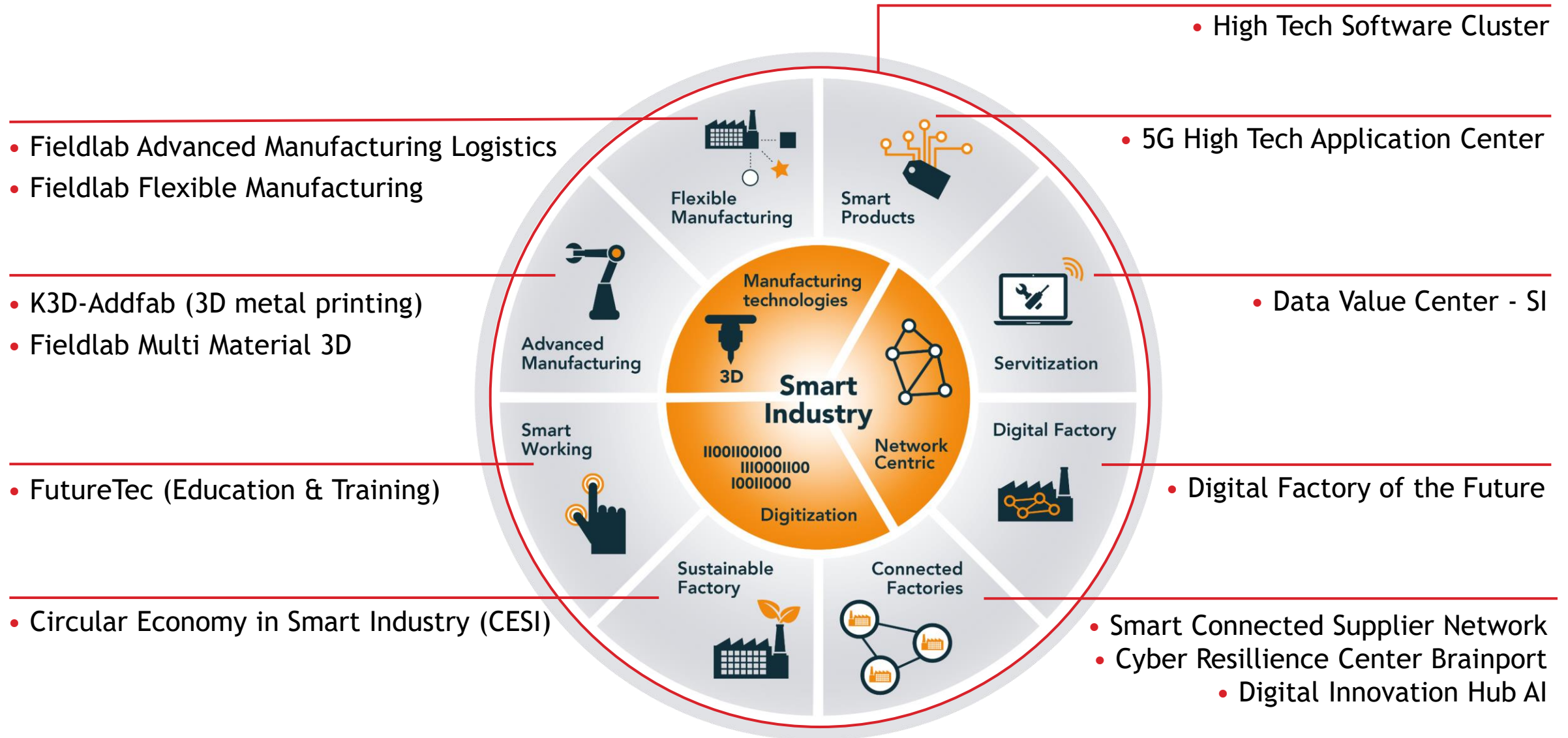
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Brabantse Ontwikkelings Maatschappij



Provincie Noord-Brabant

SMART INDUSTRY – BIC INNOVATION PROGRAM



INNOVATION PROGRAM

Fieldlab High Tech Software Cluster

Digitization of industrial products and processes

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

**HIGH TECH
SOFTWARE
CLUSTER**

INNOVATION PROGRAM **FACTORY OF THE FUTURE**



INNOVATION PROGRAM

Fieldlab High Tech Software Cluster

HIGH TECH SOFTWARE CLUSTER

PARTNERS



INNOVATION PROGRAM

Digital Factory

- Access to data at BIC and other locations
- Development of a blueprint for the Digital Factory of the Future, focussing on:
 - Collecting and using data within one factory
 - Controlled sharing of data in the chain with customers, suppliers and providers of new services
- Testing, research and development environment
- Development of new business models



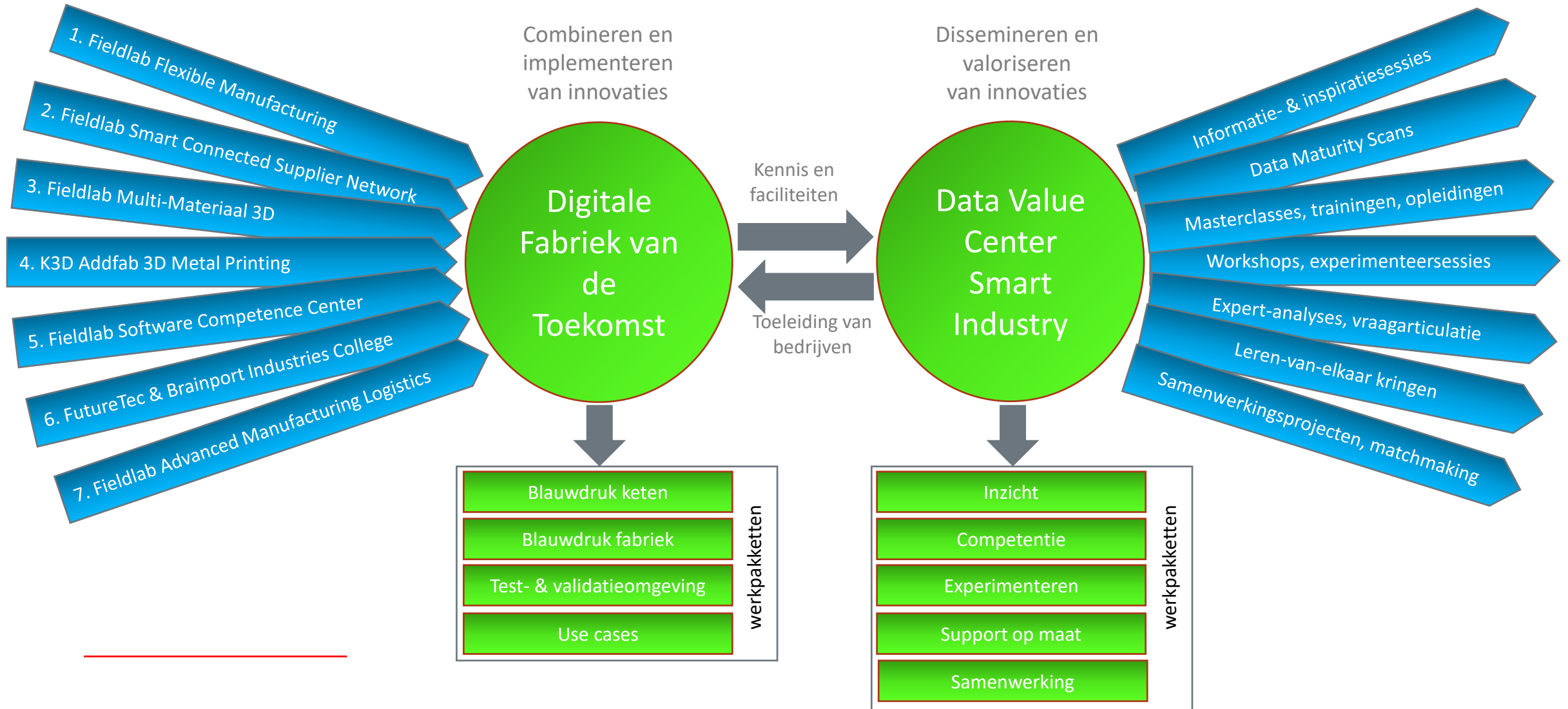
INNOVATION PROGRAM

Digital Factory

PARTNERS



Digital Factory & Data Value Center SI



INNOVATION PROGRAM

Factory of the Future

www.brainportindustries.com/nl/innovatieprogramma

www.brainportindustriescampus.com/nl/home



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