

Brainport

CO-CREATING THE FUTURE



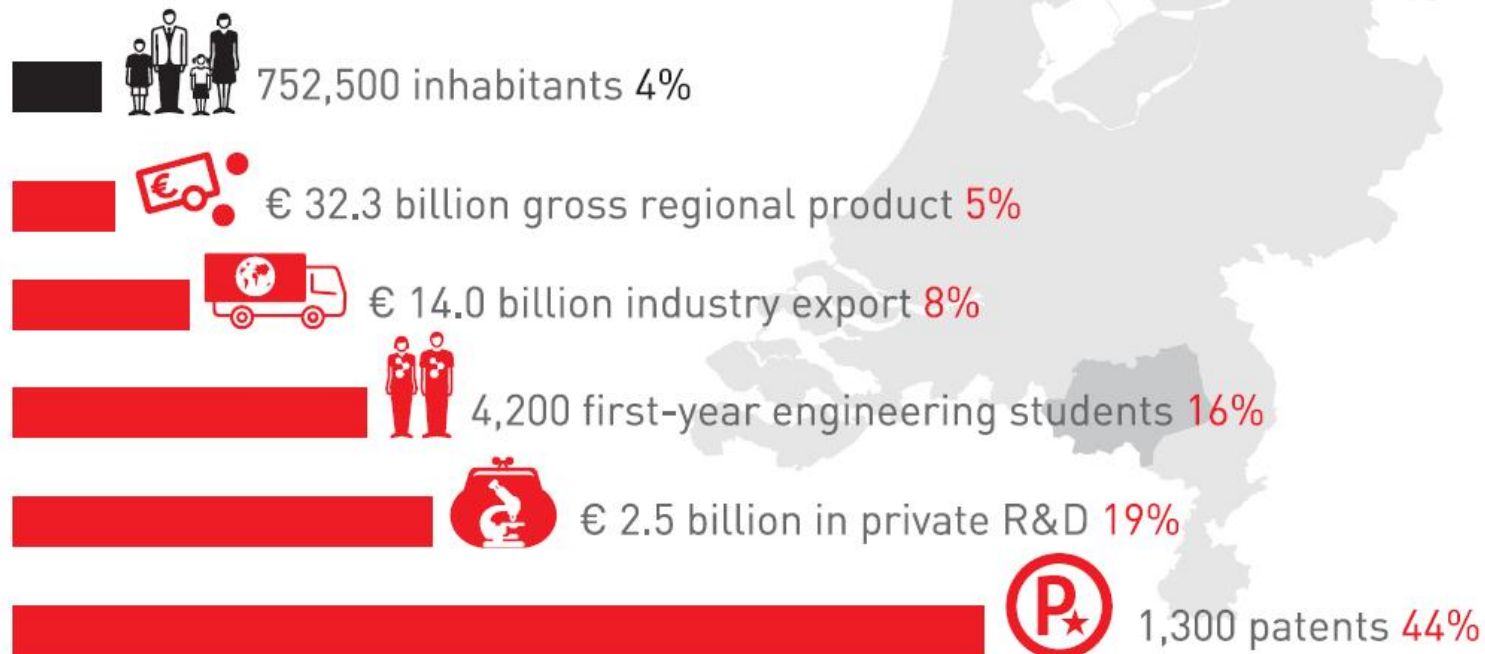
THE ROLE OF TNO IN THE HIGH TECH ECOSYSTEM OF THE BRAINPORT EINDHOVEN REGION

JOINT RESEARCH CENTRE & EARTO “THE ROLE OF RTOS IN SMART SPECIALISATION”

OCTOBER 15TH 2015

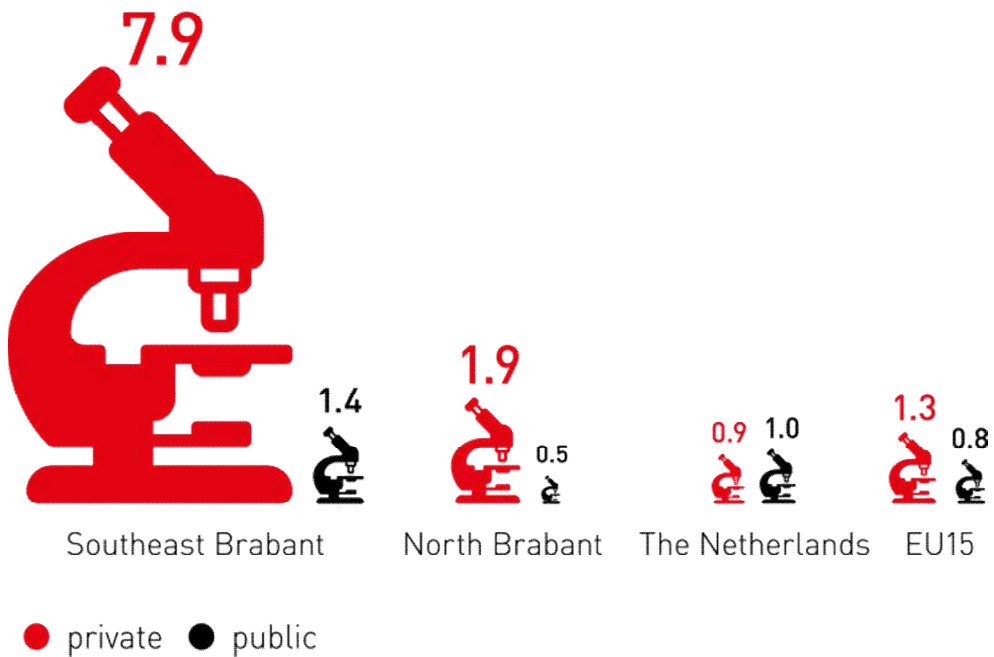
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Brainport's share in Dutch competitiveness



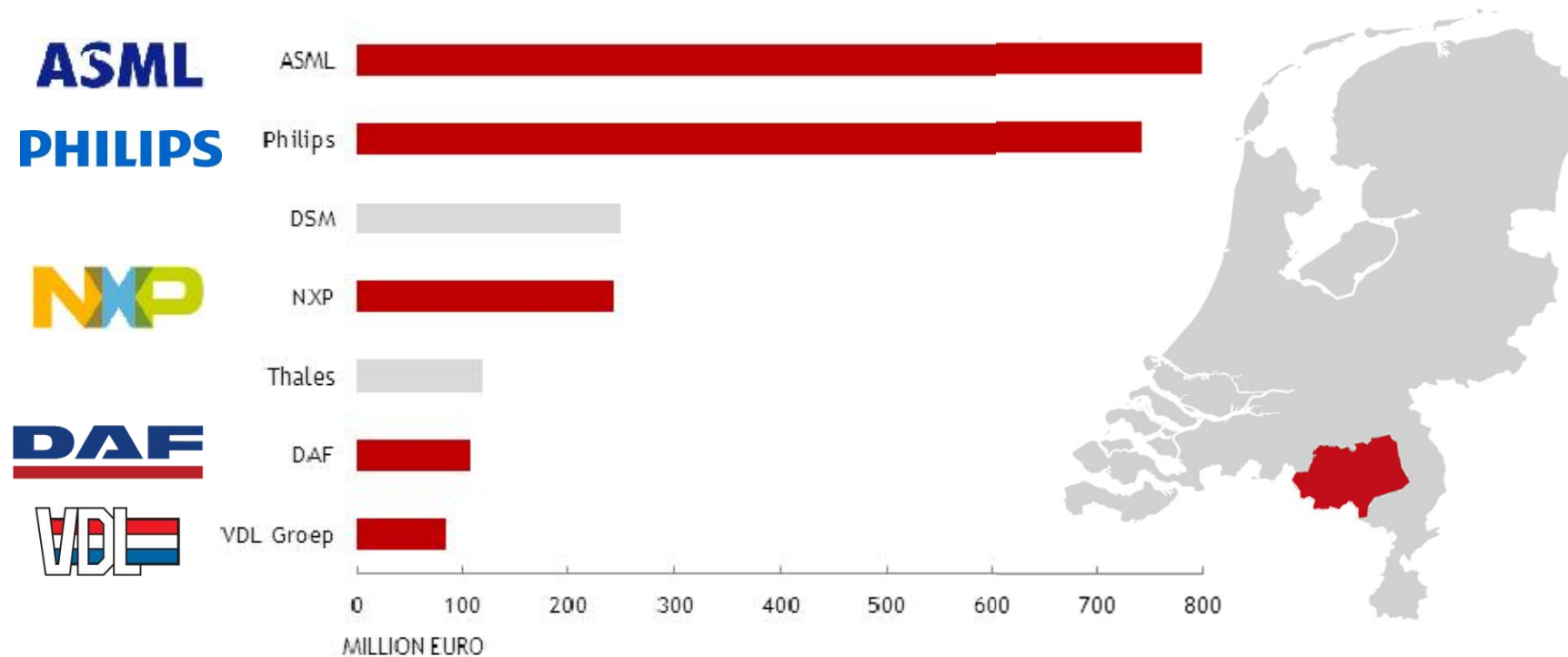
Brainport's share in Dutch competitiveness

% of GRP



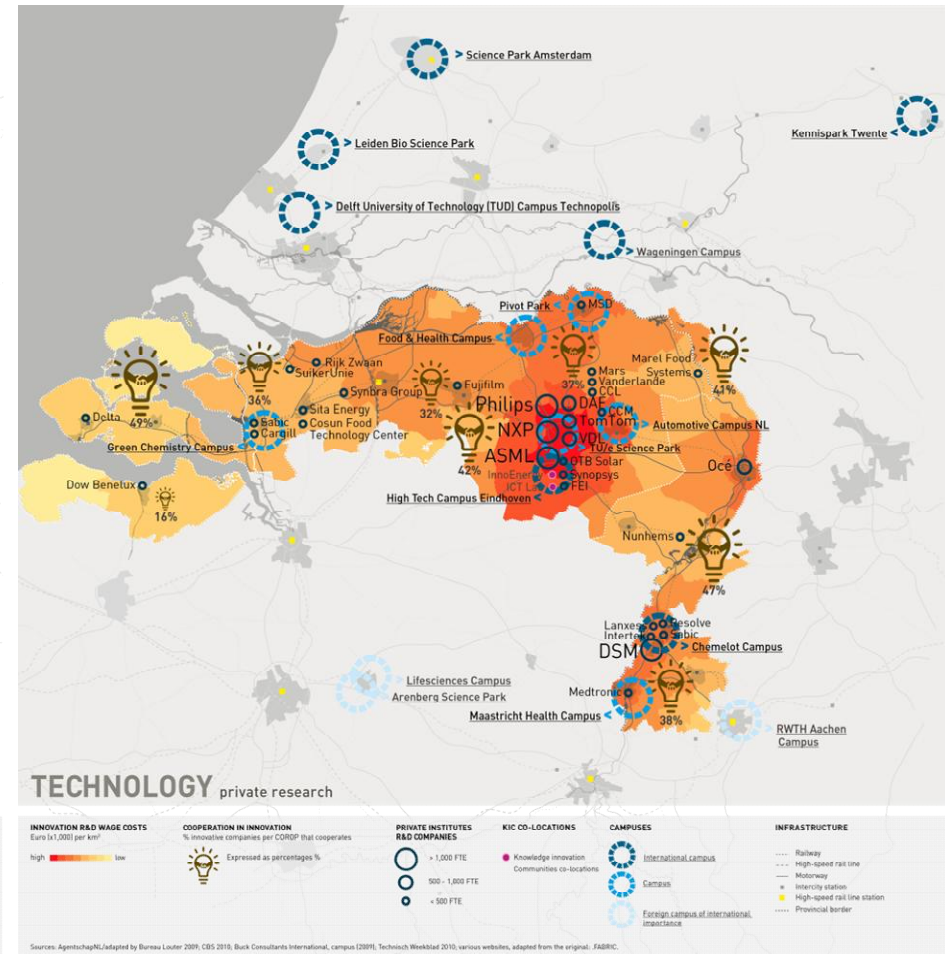
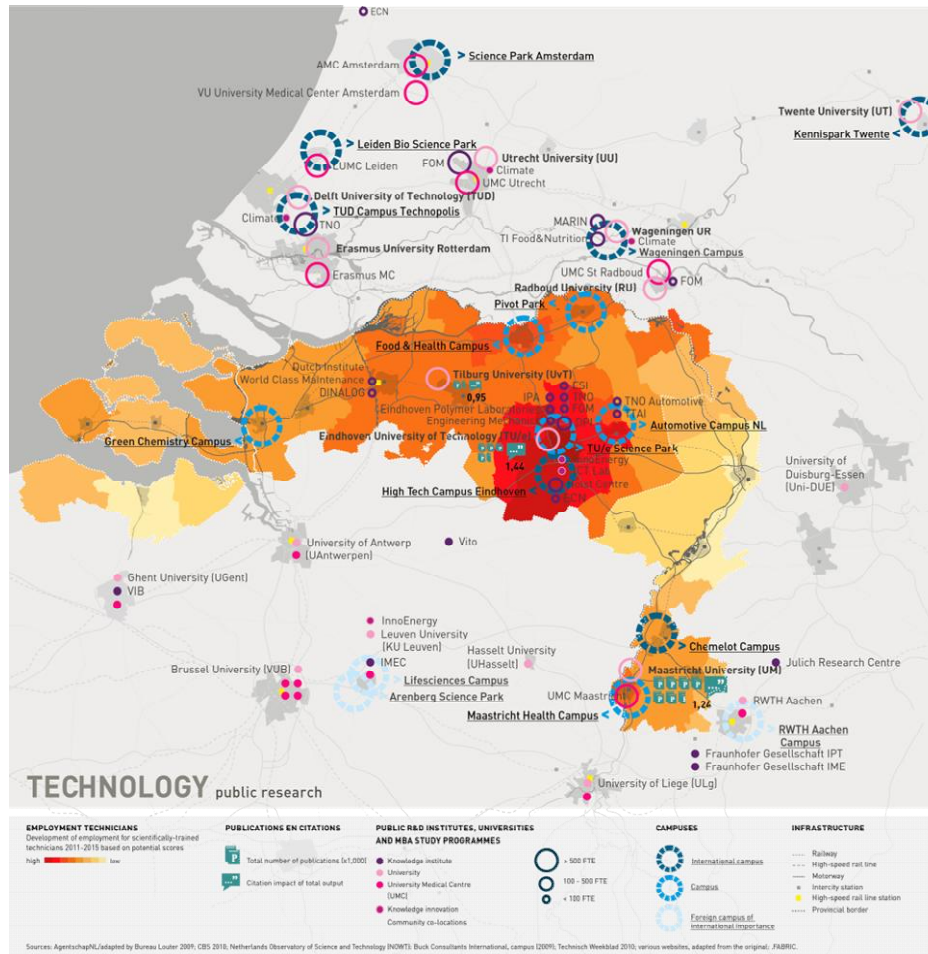
● Brainport
● Nederland

Top 7 R&D companies in the Netherlands

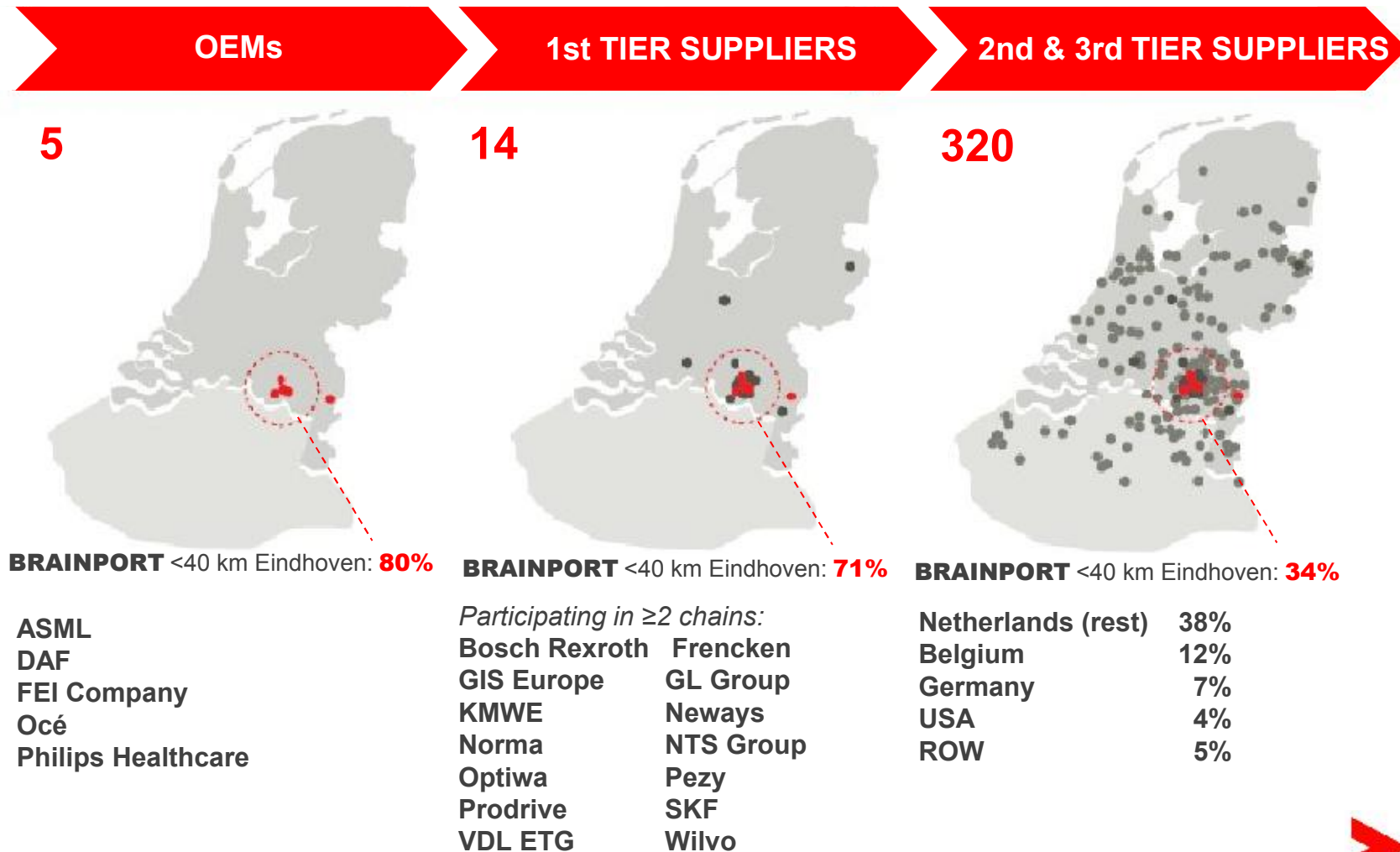


Source: Technisch Weekblad, 2015

The public and private R&D landscape

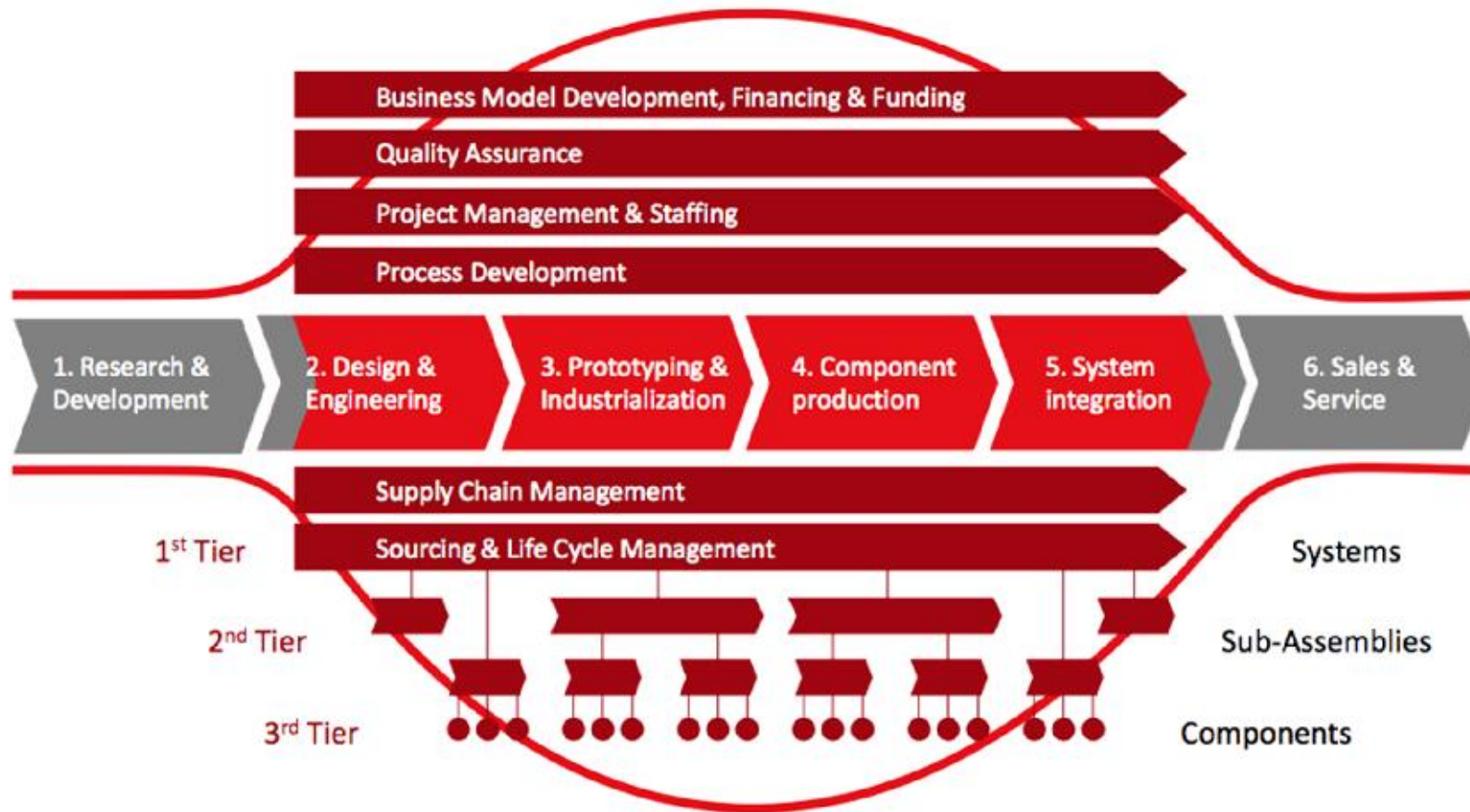


Strong and interrelated supply chains



Open supply chain

OEMs transforming to lean companies



Collaborating with very innovative SMEs

Share of turnover of products and services less than 3 years on the market, 2010



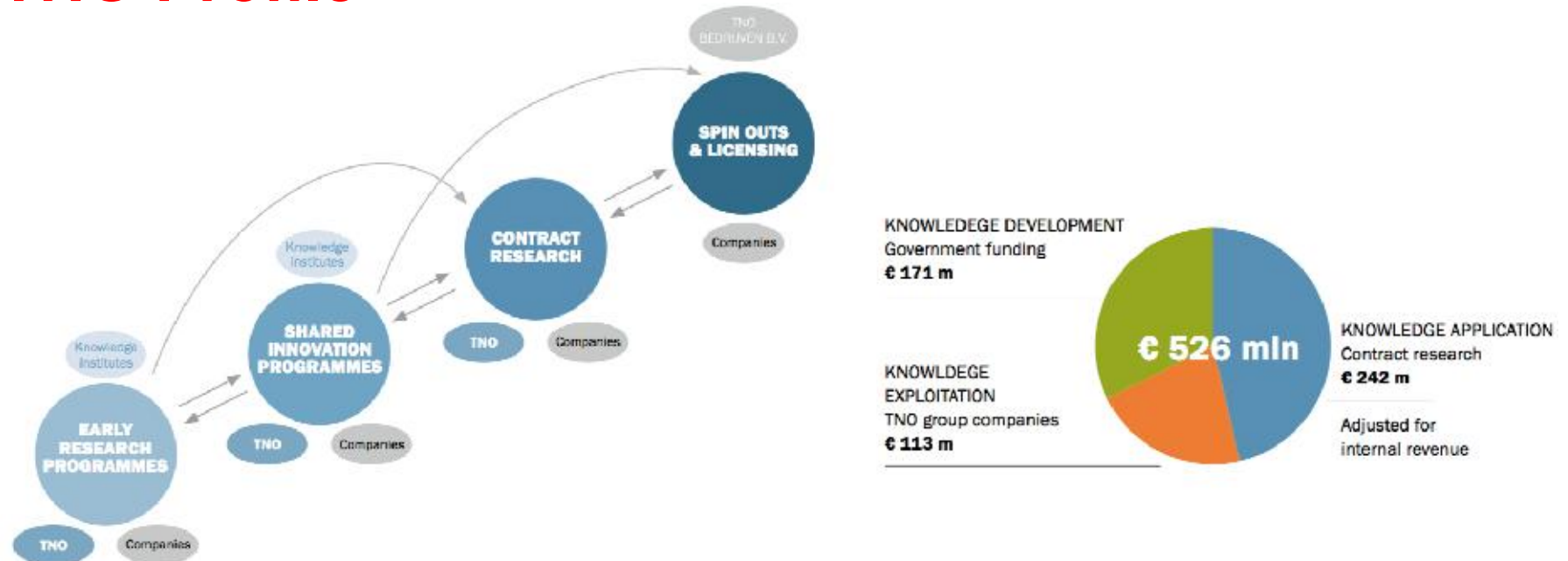
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The Netherlands

Source: CBS CIS

TNO Profile



TNO in the Brainport Innovation Ecosystem

TU/e Technische Universiteit
Eindhoven
University of Technology
Where innovation starts



HIGH TECH CAMPUS EINDHOVEN
SHAPING TECHNOLOGY INTO BUSINESS



**AUTOMOTIVE
CAMPUS**



SOLLIANCE
SOLAR RESEARCH

tassinternational

DITCM
Facilities
DITCM
Innovations

Holst Centre
Open Innovation by imec and TNO

TNO innovation
for life

VEHIL Lab

Automotive

1995

2000

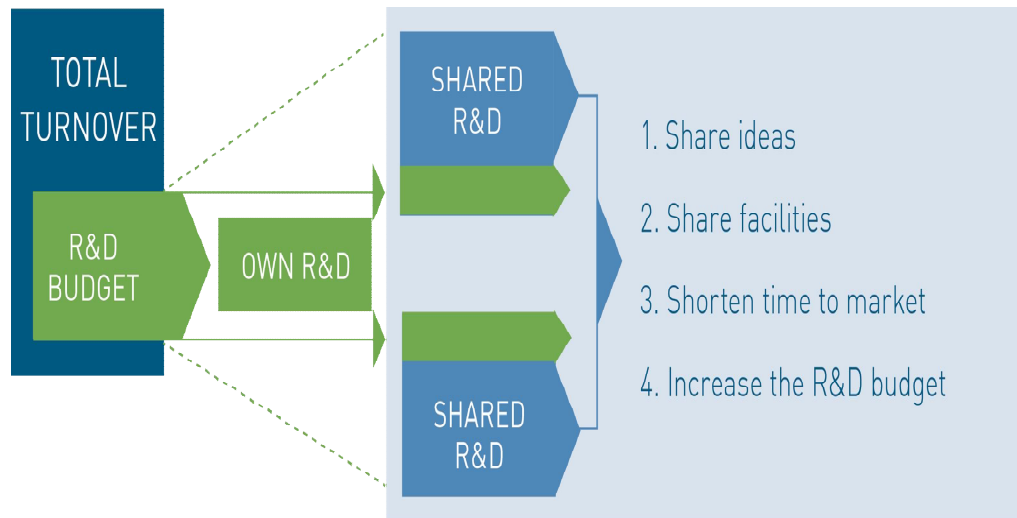
2005

2010

2015

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R&D costs and risks: share & lever



Source: Holst Centre



Automotive Shared Facilities & DITCM

DITCM Innovations is a public-private partnership which aims to realise a shared programme on 'how to get cooperative driving solutions deployed'.



A joint vision has been worked out in a roadmap for 2014-2020. This aims to accelerate the development of products and services by working together on pre-competitive topics and by sharing resources, tooling, experience and facilities.



Holst Centre

Holst Centre is an independent R&D centre that develops technologies for wireless autonomous sensor technologies and flexible electronics, in an open innovation setting and in dedicated research trajectories.

A key feature of Holst Centre is its partnership model with industry and academia based around roadmaps and programs. It is this kind of cross-fertilisation that enables Holst Centre to tune its scientific strategy to industrial needs.



Solliance

Solliance is a partnership of R&D organisations from the Netherlands, Belgium and Germany working in thin film photovoltaic solar energy.

In order to strengthen the EU region's position as a world player in PV, Solliance is creating the required synergy by consolidating and coordinating the activities of 250 researchers in industry, at research institutes and universities.

Various state-of-the-art laboratories and pilot production lines are jointly used for dedicated research programs which are executed in close cooperation with the solar business community.



The Role of TNO in the Brainport Innovation Ecosystem

- The success-story of Brainport Eindhoven is based on path-dependency, clustering, open innovation, pro-active policy making and embedded in a tradition of public- private cooperation,
- The role of TNO in this process is significant:
 - Building a bridge between science and industry, between knowledge and application
 - Being an important player in the ecosystem:
 - Organisation of stakeholders
 - Definition of a shared vision
 - Development of technology and innovation roadmaps
 - Selection of innovation focus areas
 - Offering programmes, platforms and facilities for collaboration

Impact through (pre-competitive) collaboration

TNO helps to create innovation impact and competitive industries:

- Based on shared collective agendas with shared ownership, to create innovation ecosystems: findings ways beyond the capacity of a single organisation to enhance connectivity across specialised capabilities and resources.
- By being part of and by helping the shaping and scoping of an innovation ecosystem from which each individual organisation can derive benefits.
- Through building layers of infrastructure and platforms that create a system in which many separate entities can operate for their own gains and improve collective competitiveness and regional economic performance
- By seeking domains for success: technology or market leadership
- By rapidly iterating ideas and concepts into scalable, viable programmes to unlock the business potential

RIS3 and adaptivity



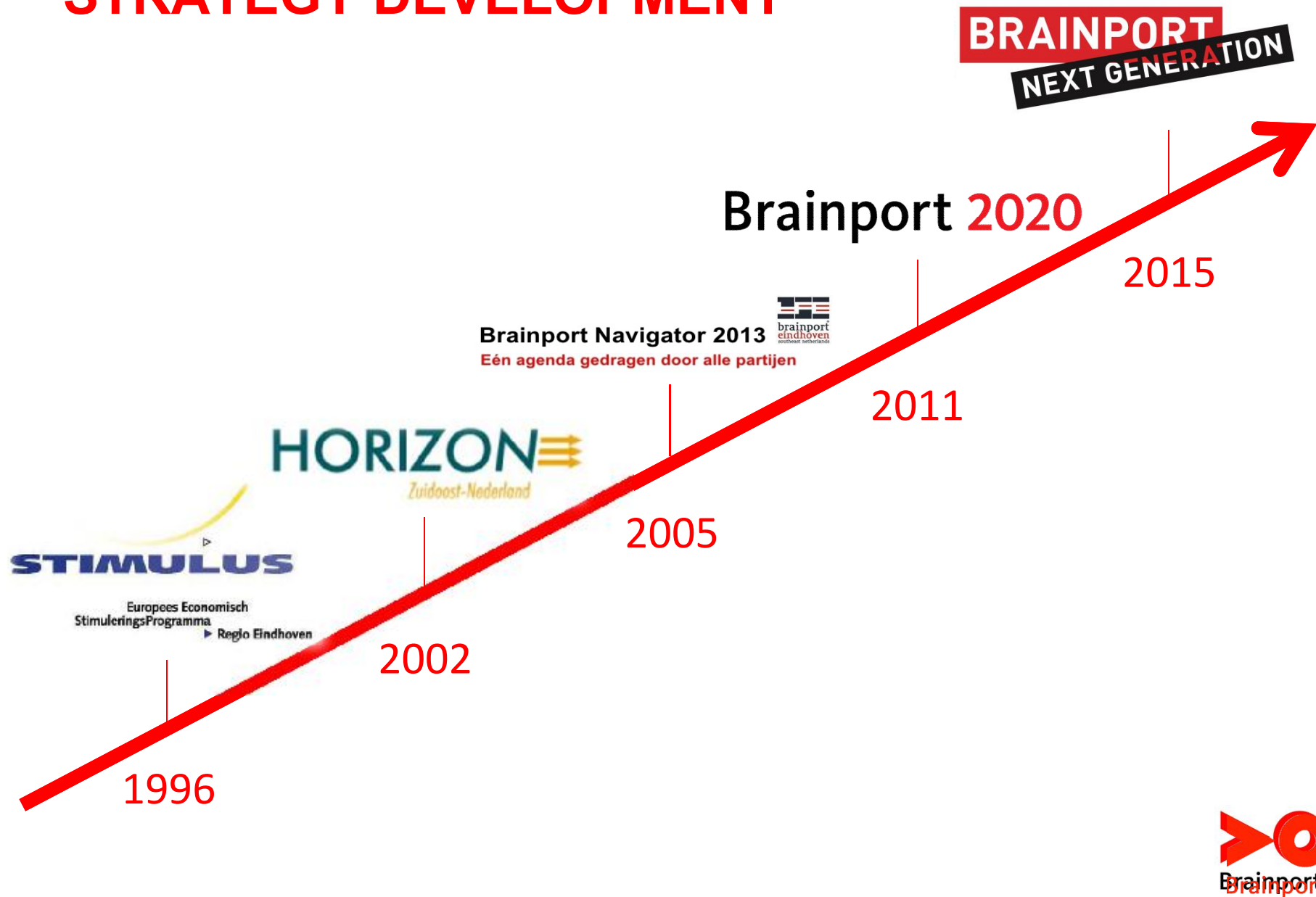


SMART, STRONG AND ADAPTIVE

“It is not the
strongest of the
species that
survives, nor the
most intelligent,
but the one most
responsive to
change.”

~Charles Darwin, 1809

STRATEGY DEVELOPMENT





CO-CREATING THE FUTURE