



Maastricht University

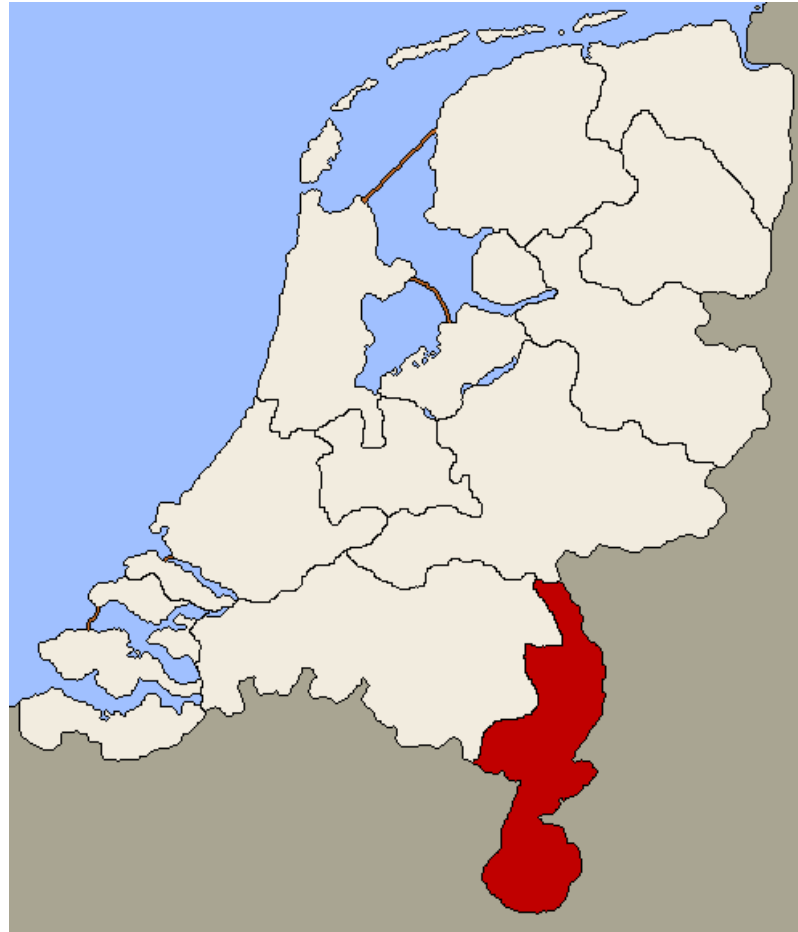
*Leading
in Learning!*

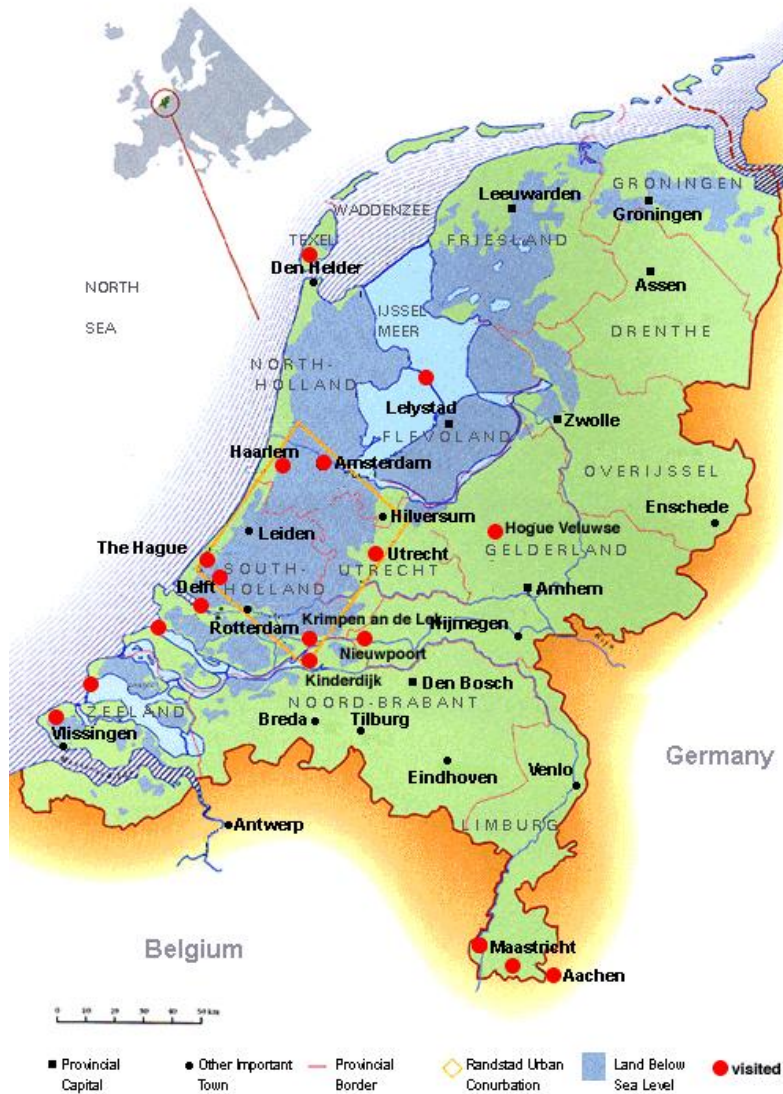
Limburg and its open innovation policy on the Brightlands campuses



Prof. dr. Martin Paul
President Maastricht University

Where is Limburg?





Euregio Maas-Rhein: 3,9 Mio. Einwohner

History of the Limburg region

- *"Transition is tradition" (quote Theo Bovens)*
- Transition process in Limburg:
 - Accession to the Netherlands (1815)
 - From agriculture to the stone coal industry(1900)
 - Loss of support for stone coal industry threatened the stability of the socio-economic system (1965)
- Creation of alternative places of employment
 - e.g. DAF (BMW), DSM (Chemelot), University of Limburg (UM), University Hospital Maastricht (MUMC), CBS, APG



Post-coal era

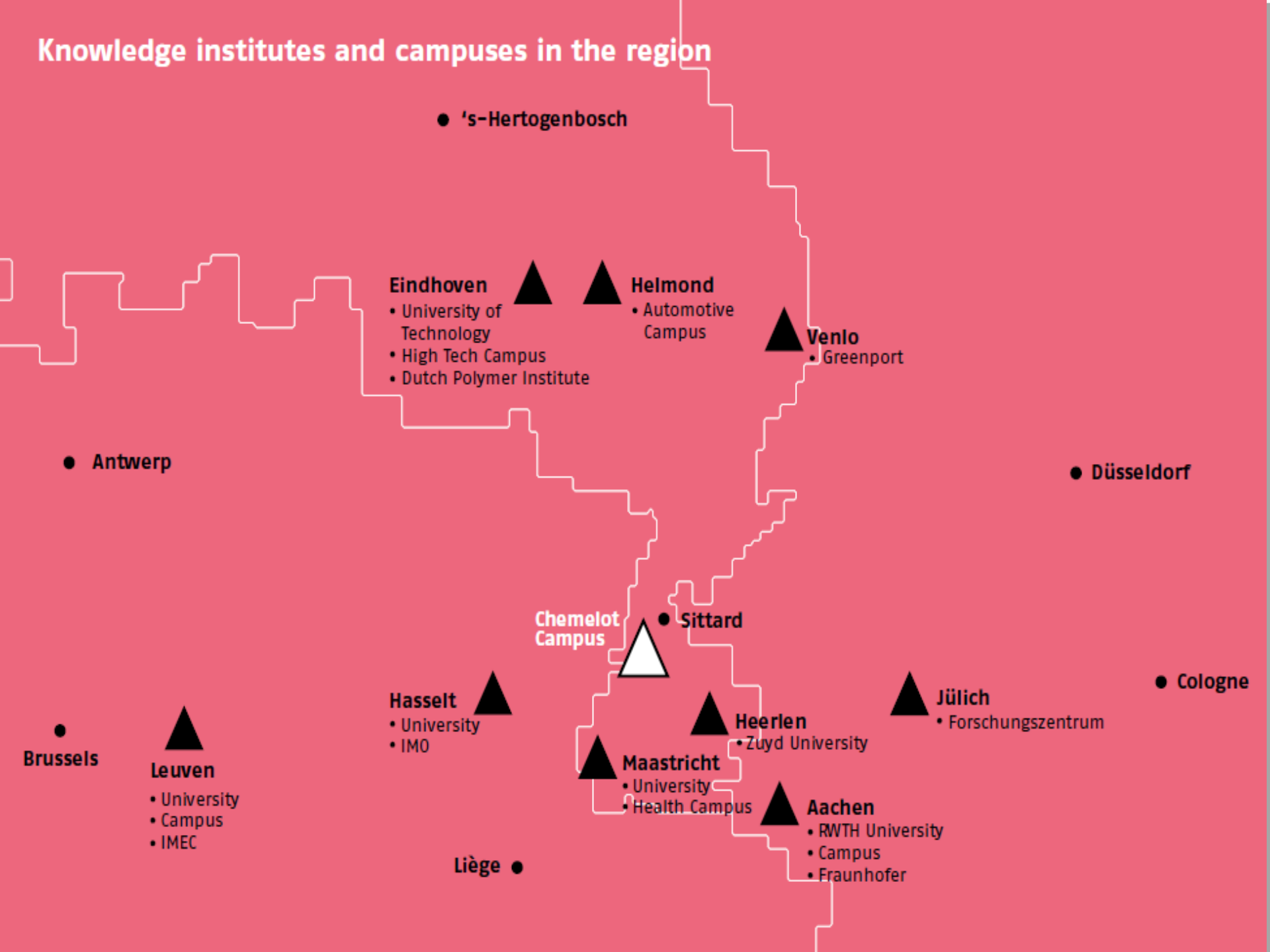
- New employers safeguard economic recommencement.
- Imbalance between knowledge/education and demands of the economy.
 - Lack of skilled workers.
- Demand for knowledge-based society → Kennis-As Limburg - Brightlands
 - At first, project-based cooperation.
 - Later on, comprehensive triple-helix programme.

Maastricht University at a Glance

- More than 15.000 students.
- Students from over 130 different countries.
- 76% of bachelor's & master's programmes taught in English.
- Small scale and personal atmosphere (PBL).
- Top quality, high scores in (international) rankings.
- International classroom and teaching staff.
- Career and study guidance.
- 87% of all graduates find a job within one year.



Knowledge institutes and campuses in the region



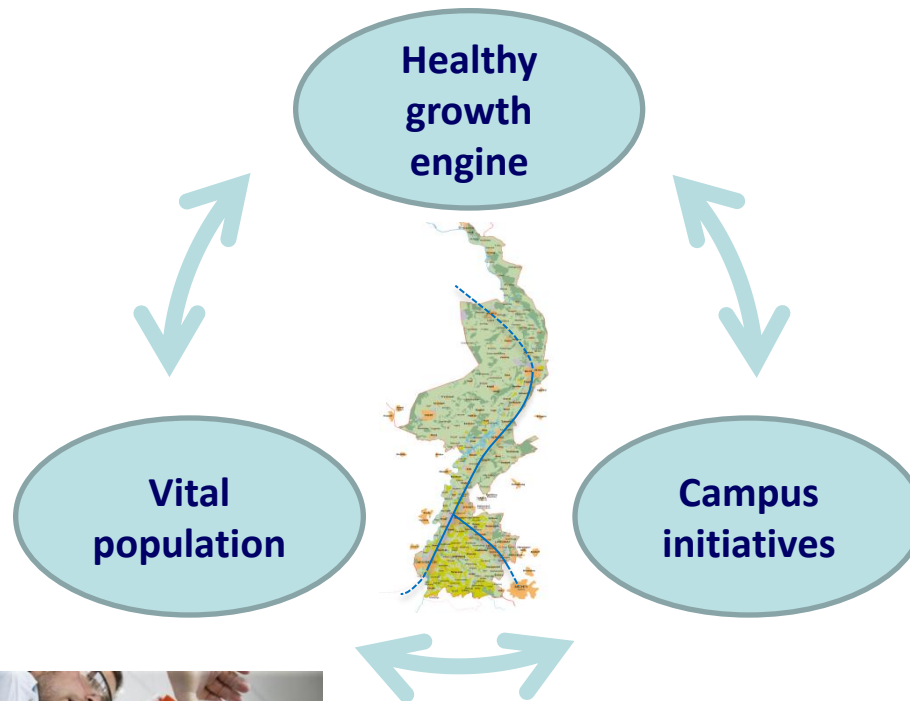
Brainport 2020

- Top 3 technology-region in Europe.
- Increase of contribution to Dutch GNP with € 40 billion.
- Increase of knowledge workers.
- Increase of mobility of people and knowledge.



Kennis-As Limburg: bridge to South East Holland and Euregion within BP 2020

3 essential elements




Greenport
 VENLO


chemelot
 The chemical innovation community

Maastricht
 Health Campus



Elements campus development

Industry



Education

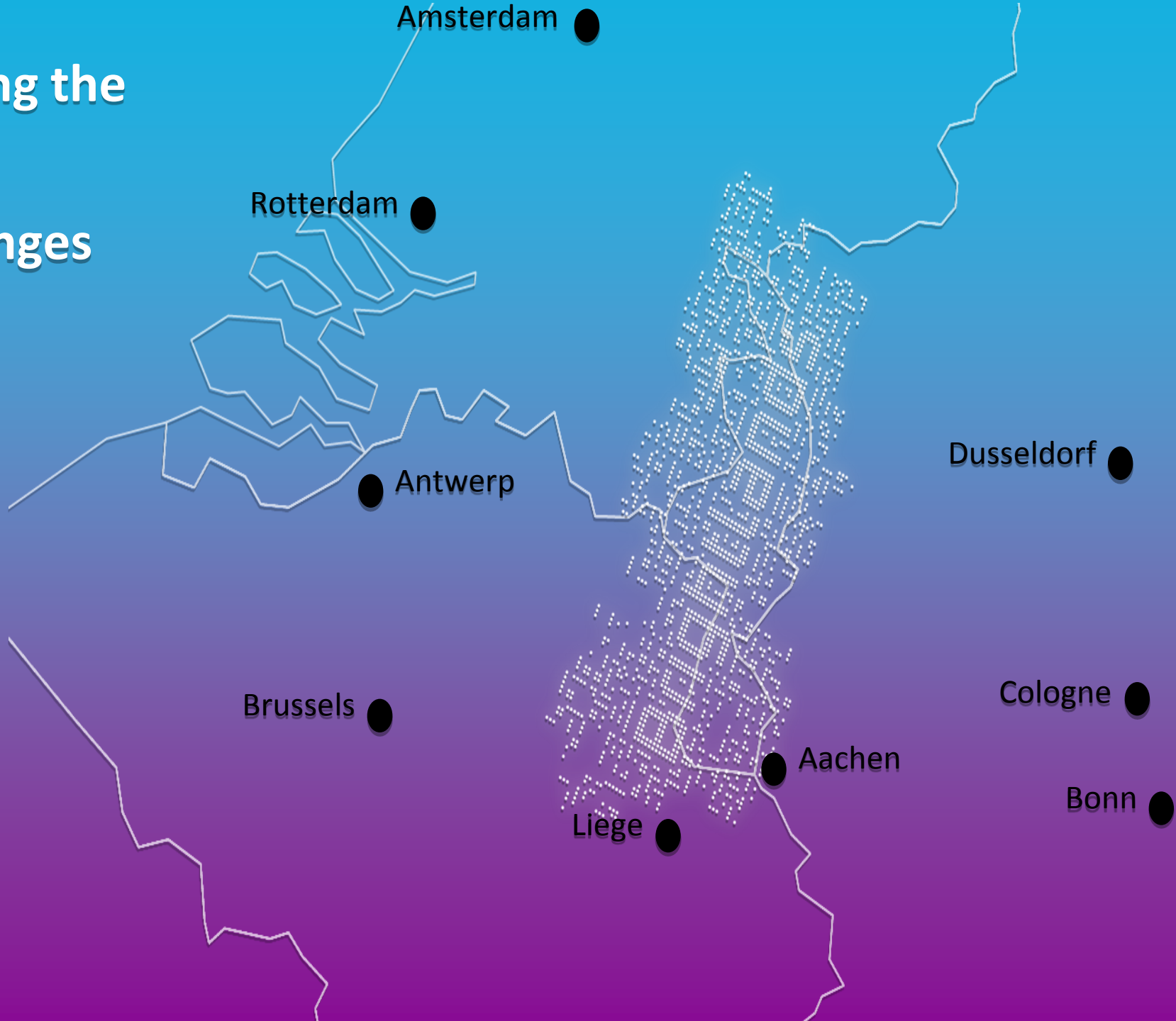


Research



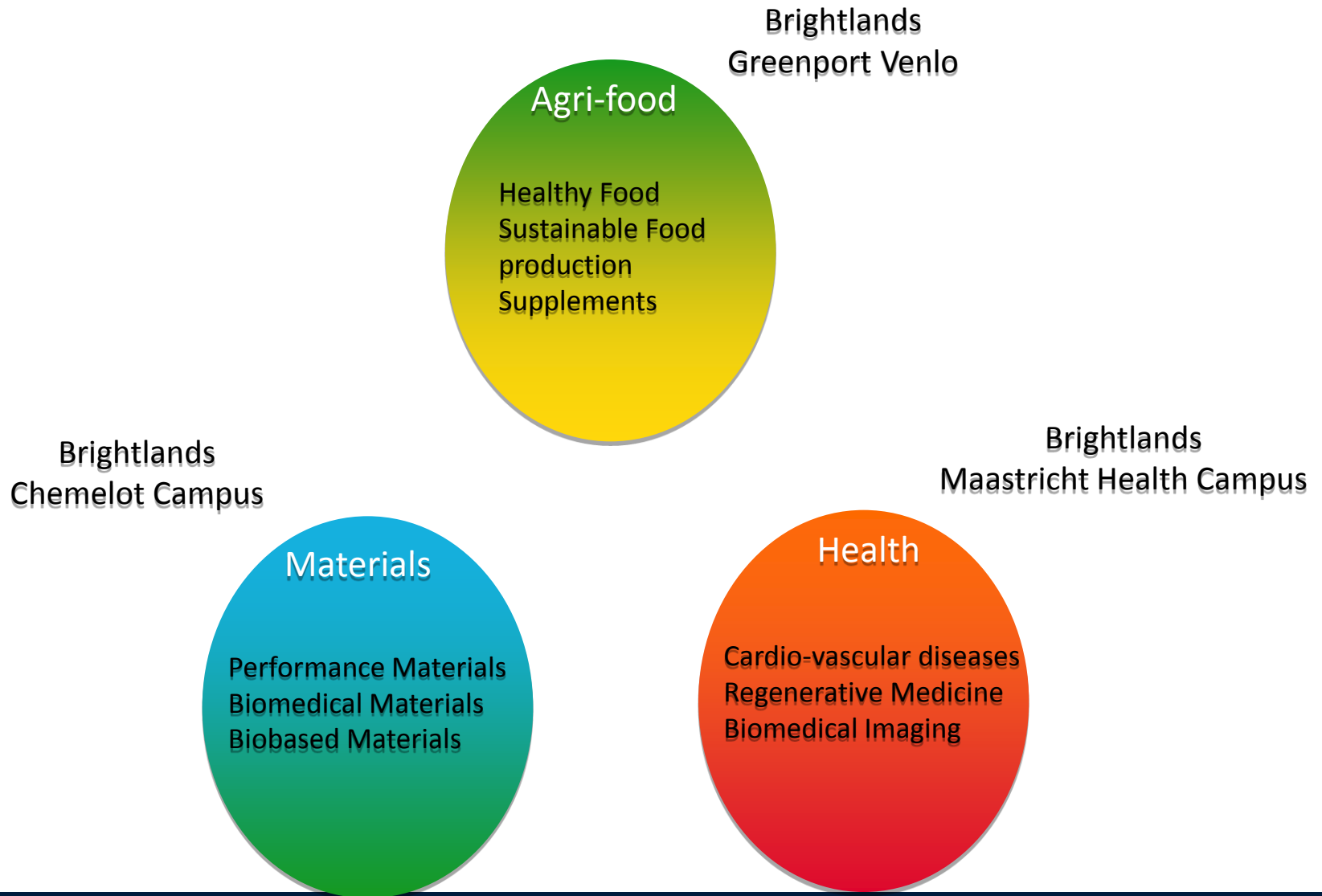
Innovation, valorisation

Meeting the Grand Challenges

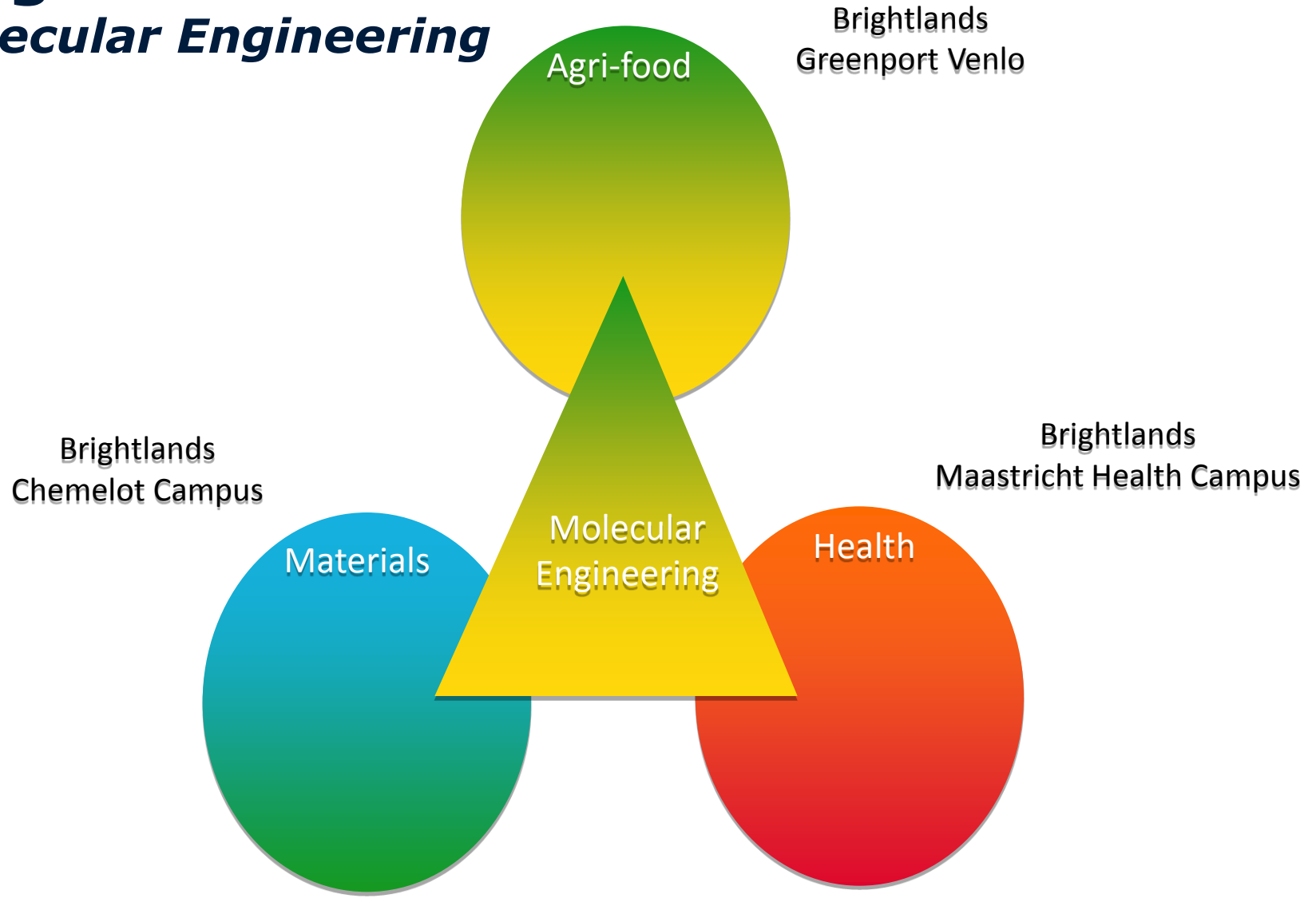


Brightlands Focus Areas

Health – Materials – Agri-Food



Molecular Engineering



Brightlands Chemelot Campus

- ***Development:***

2002

Chemelot brand introduced

Initiated by DSM divestment of petrochemicals to SABIC

2005

Start pioneering phase Chemelot development (covenant)

Attract third parties to Chemelot site

2012

Consortium Agreement Chemelot Campus Triple Helix

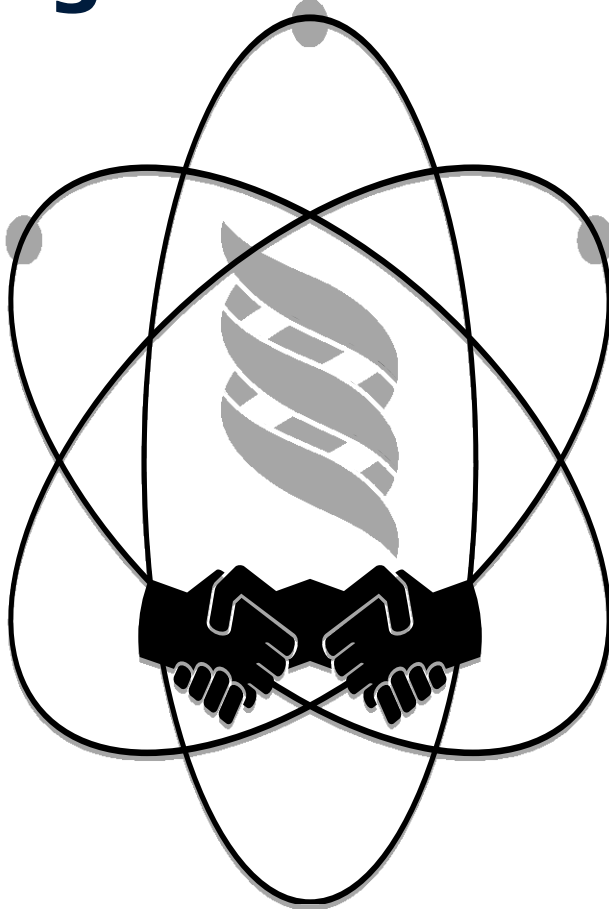
Formation Chemelot Campus and Chemelot Industrial Park

2014

Brightlands kick-off

Building a strong regional brand

Triple Helix approach driving growth



Province of Limburg

Province of Limburg heavily invests in development Brightlands Chemelot Campus as regional growth engine

DSM



DSM heavily invests in attractive environment for its materials researchers at Brightlands Chemelot Campus

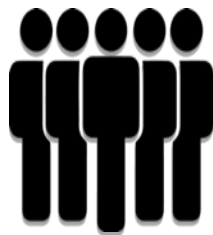
Maastricht University



Maastricht University heavily invests in education and R&D programs on Brightlands Chemelot Campus

Committed to growth

Employees



Student



Companies



• 2005

900

0

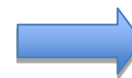
4

2015

1.560

300

53



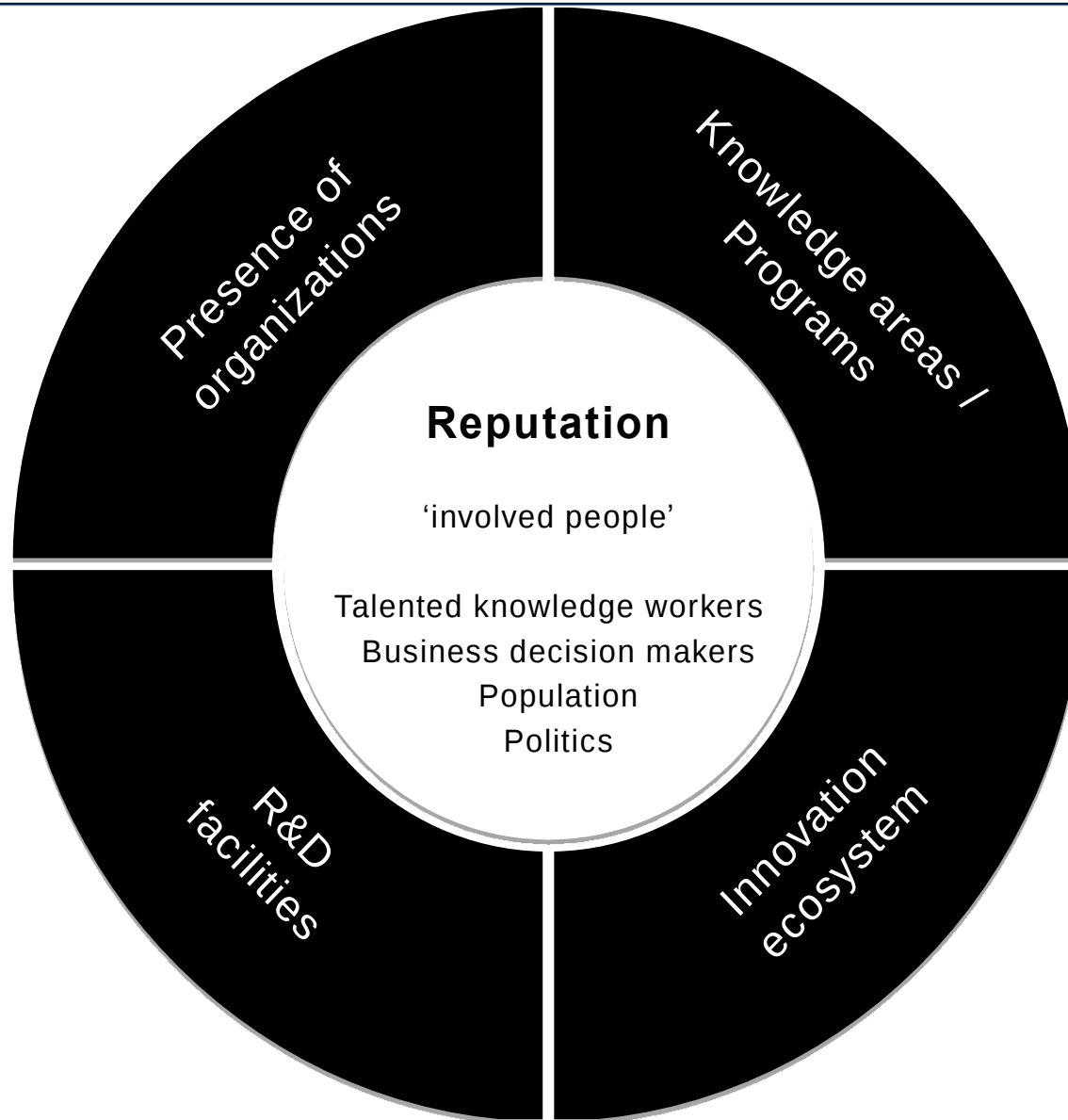
2023

2.900

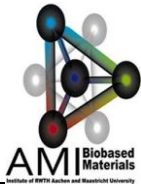
1.000

100

Well filled
pipeline of
acquisitions &
startups

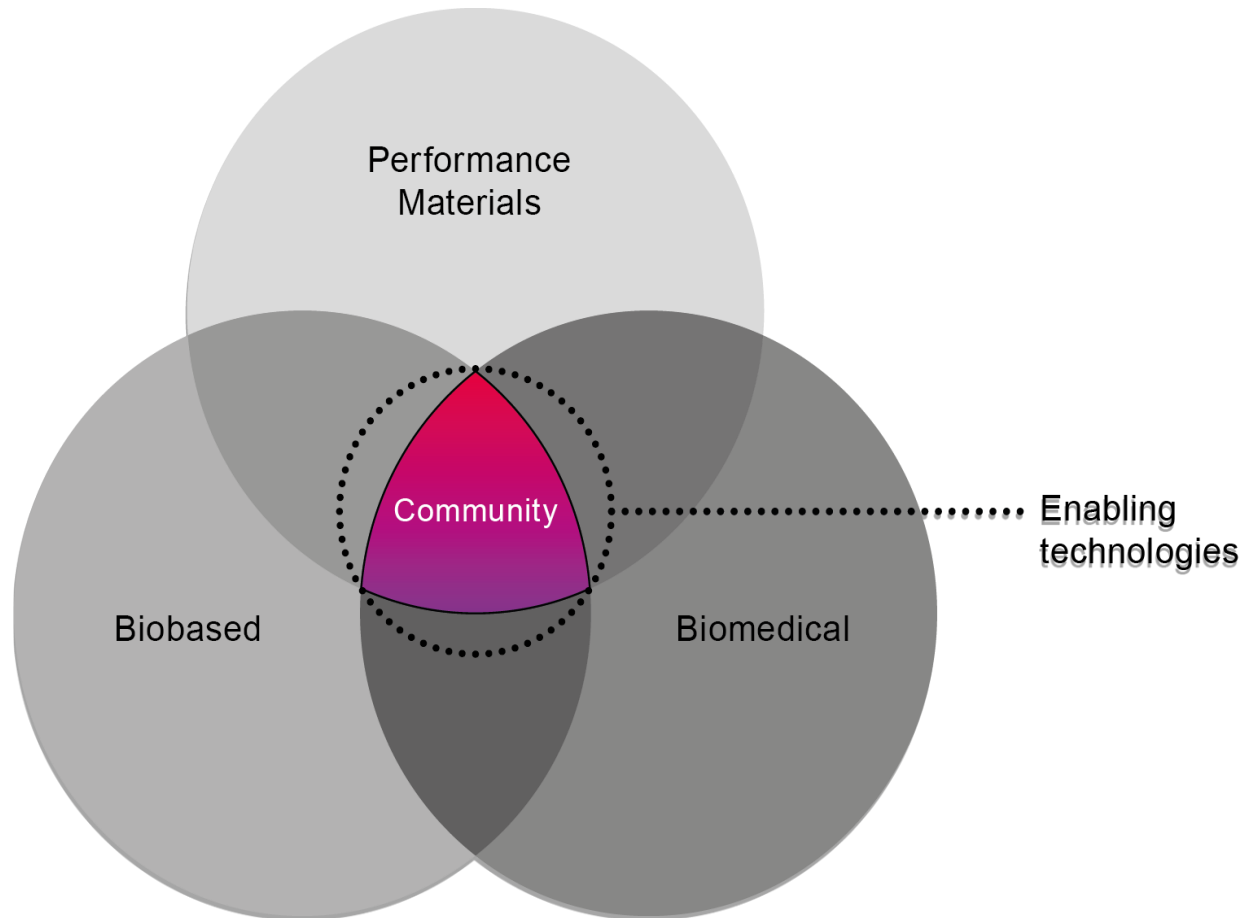


Presence of organizations

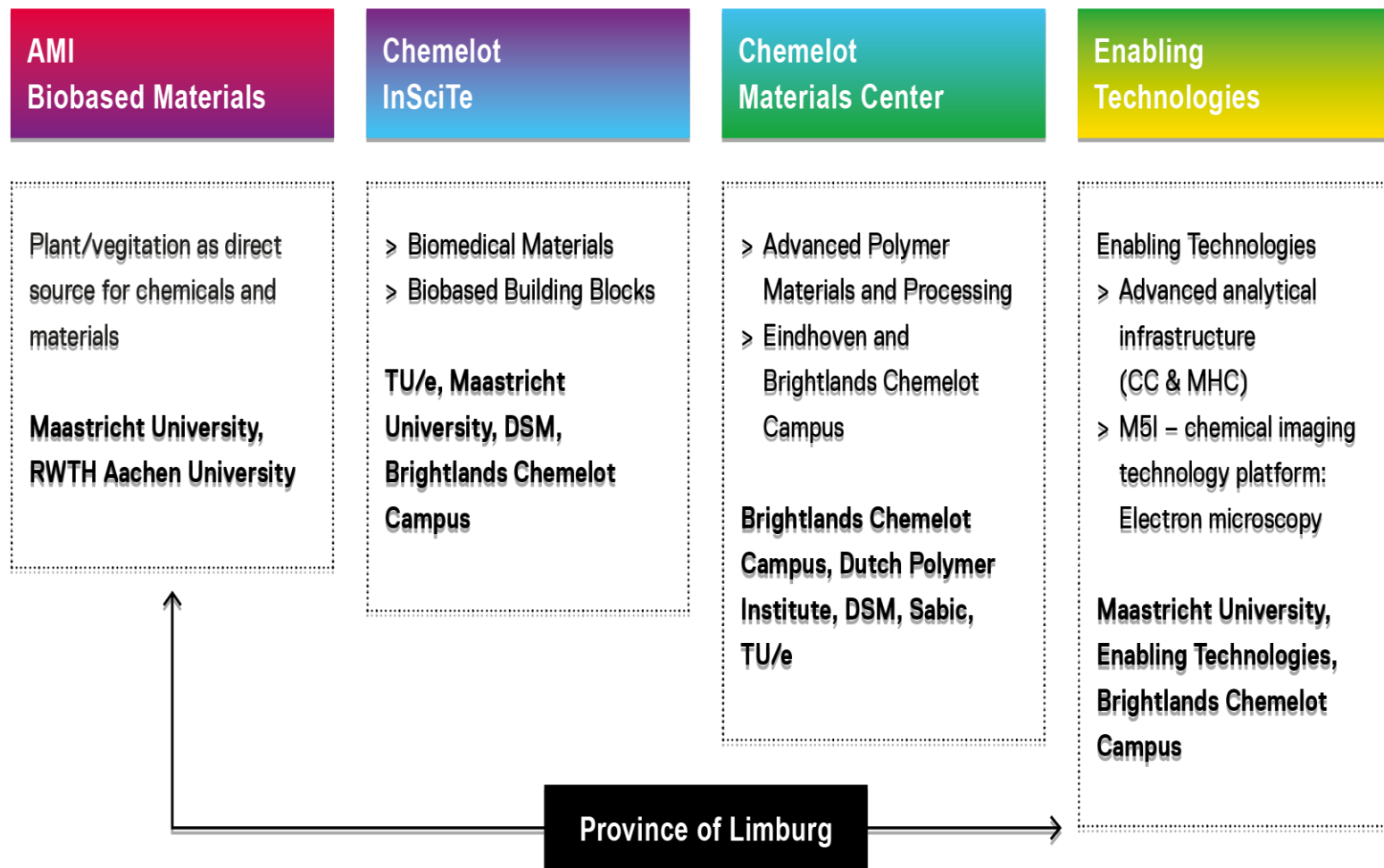
• Corporates	   
• Startups	 
• SMEs	   
• Knowledge partners	    
• Scientific Centers	    

Knowledge areas – Programs

- *strengthening focus areas*

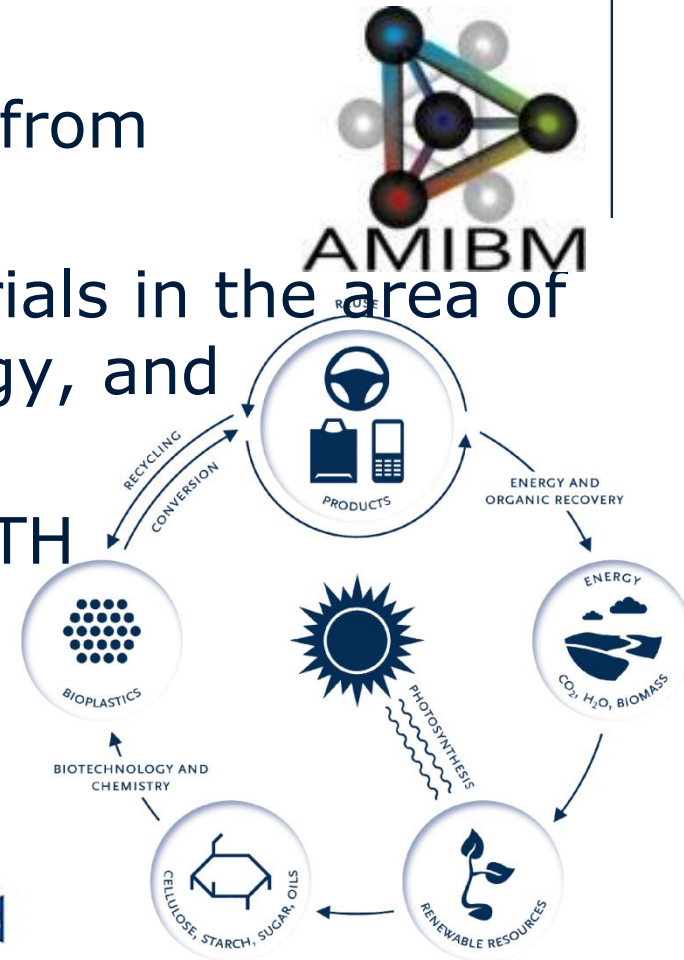


Knowledge areas – Programs

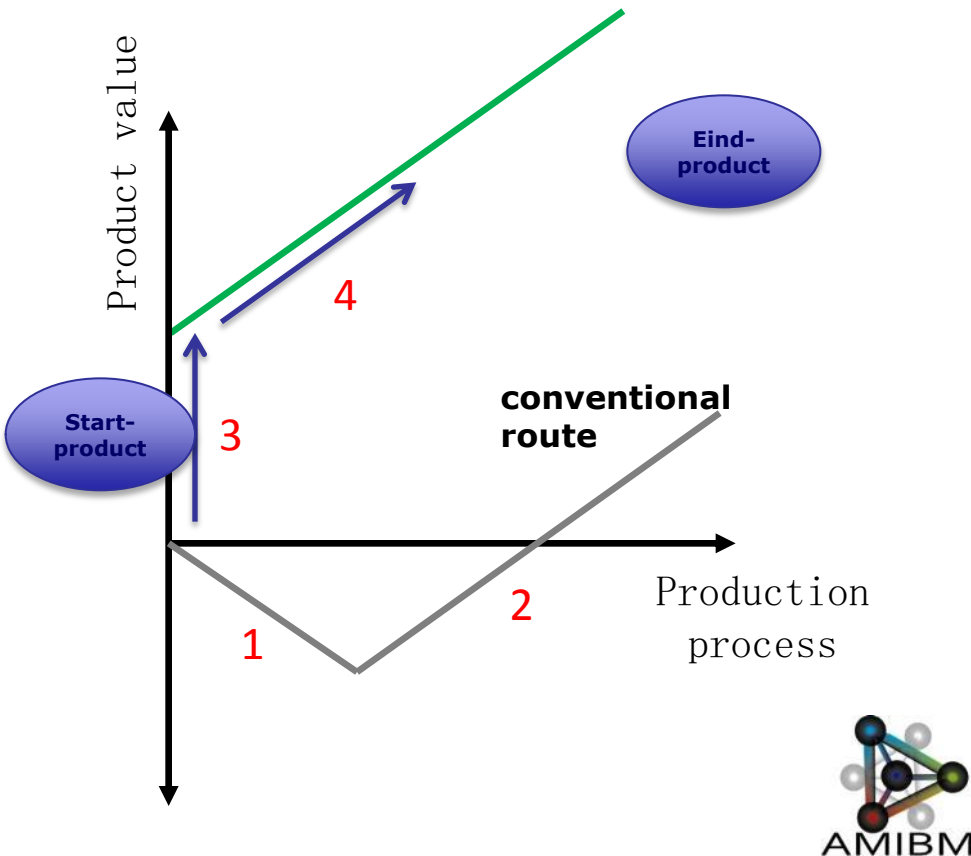


Aachen Maastricht Institute for Biobased Materials (AMIBM)

- Rich biobased materials produced from plants and other organisms.
- Application of new biobased materials in the area of molecular biology, fibres technology, and biomedical technology.
- Joint research institute of UM, RWTH and Fraunhofer IME.



AMIBM: Biobased Materials



Conventional

Break down natural resources to small molecules (1) and then merge to high-quality molecules (2) for synthetic materials.

Paradigm change AMIBM

Natural resources (plants, micro-organisms) deliver high-quality resources (3) that can be refined to synthetic materials with high-quality characteristics directly (4).

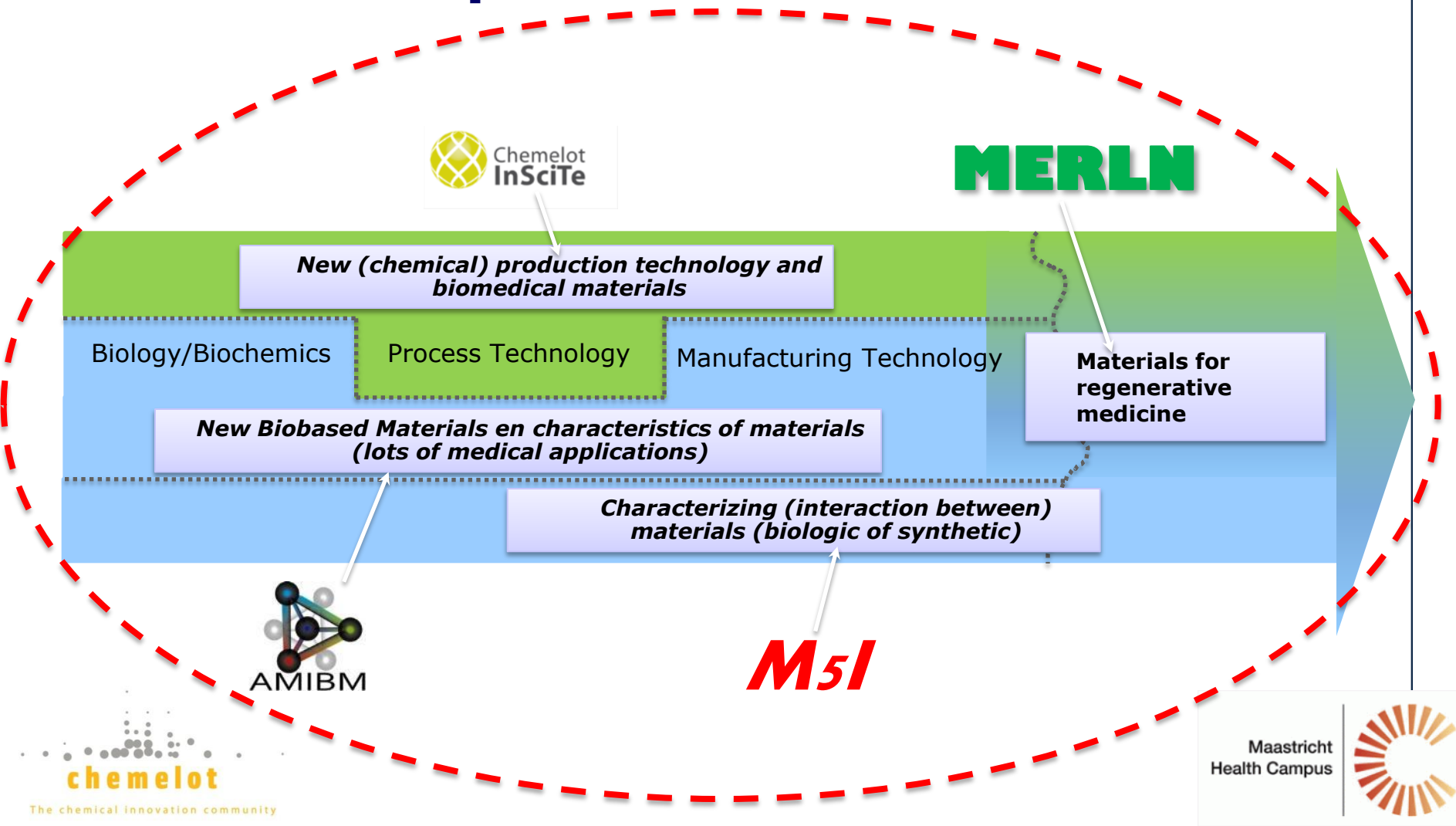
Application

Medical/Technical/Consumer

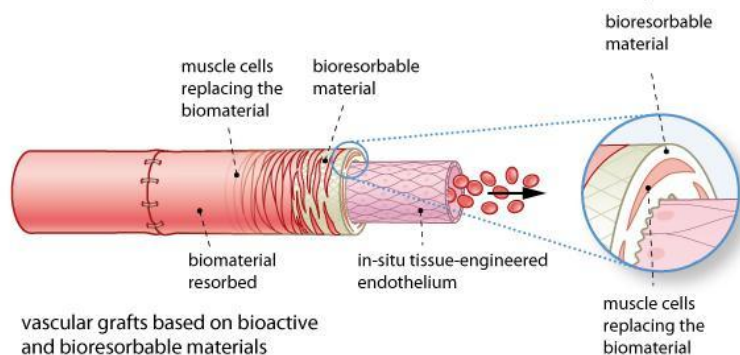
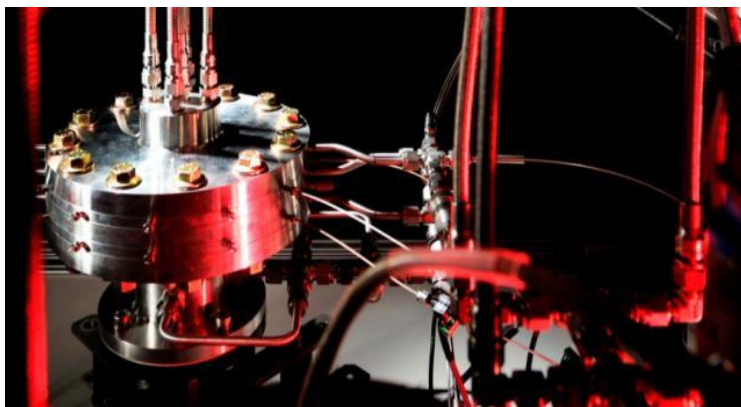
Biobased Economy

Circular use of (non-petrochemical) resources: production-use-recycling

AMIBM and partner institutes



InSciTe: Biomedical- and Biobased Materials



Making Smarter Materials:

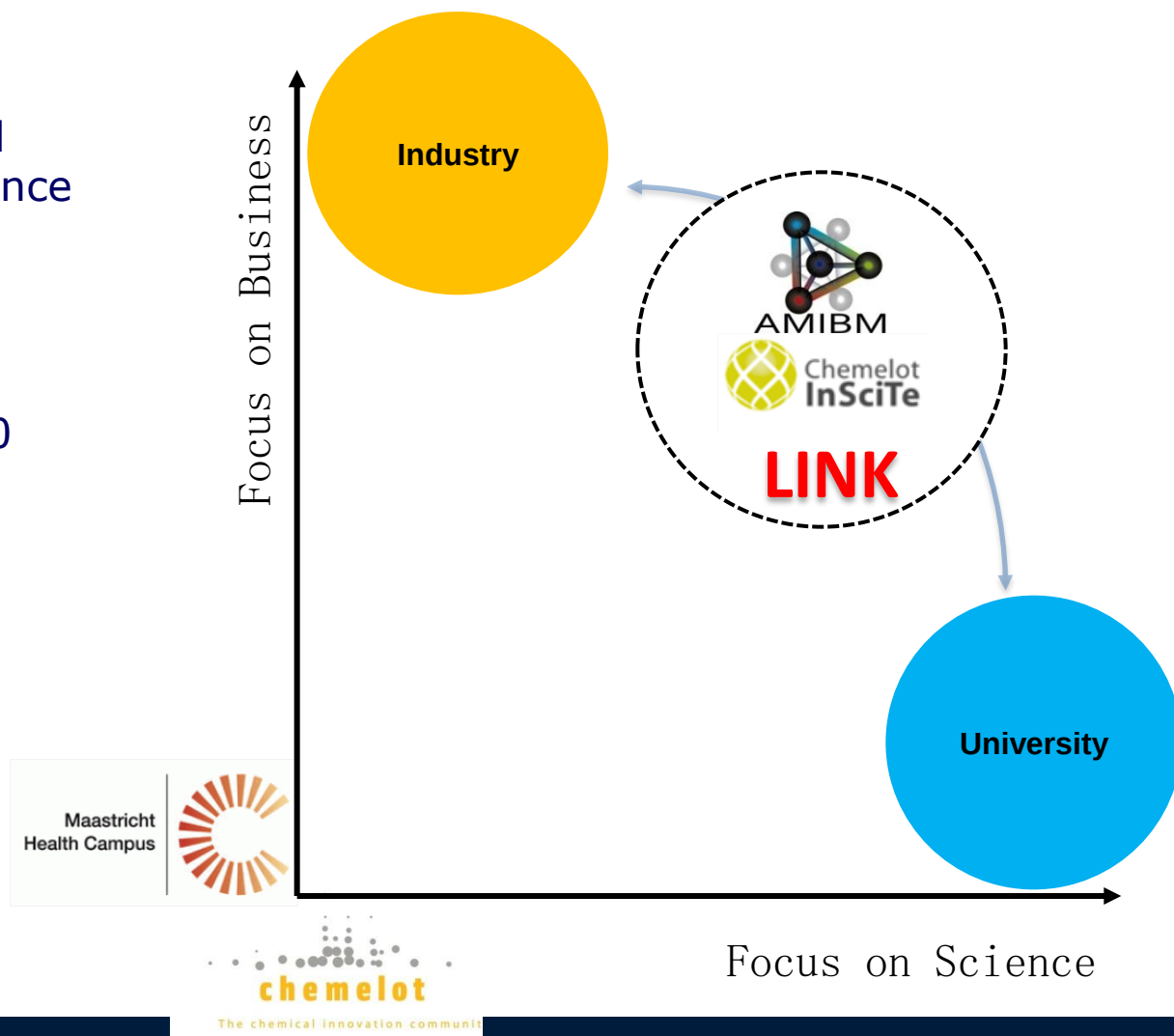
By development of biomedical materials for health care;
Resulting in better treatment and affordable healthcare

Smarter Making of Materials:

Development of conventional (chemical) processes to produce materials from bio-based resources resulting in a decreased usage of fossil resources and a reduction of CO₂ emission

Research on Campuses

- Thematically focussed
- Balance business/science
- Input for education
- Attractor for new investments
- New employability
- Part of Brainport 2020 targets
- Relevant for Grand Challenges, H2020



R&D facilities

Real Estate

**Enabling
Technologies**

**Pilot &
Mini Plant
Facilities**

Real Estate

- ***Brightlands Center Court – Central Facilities/Multi Tenant***

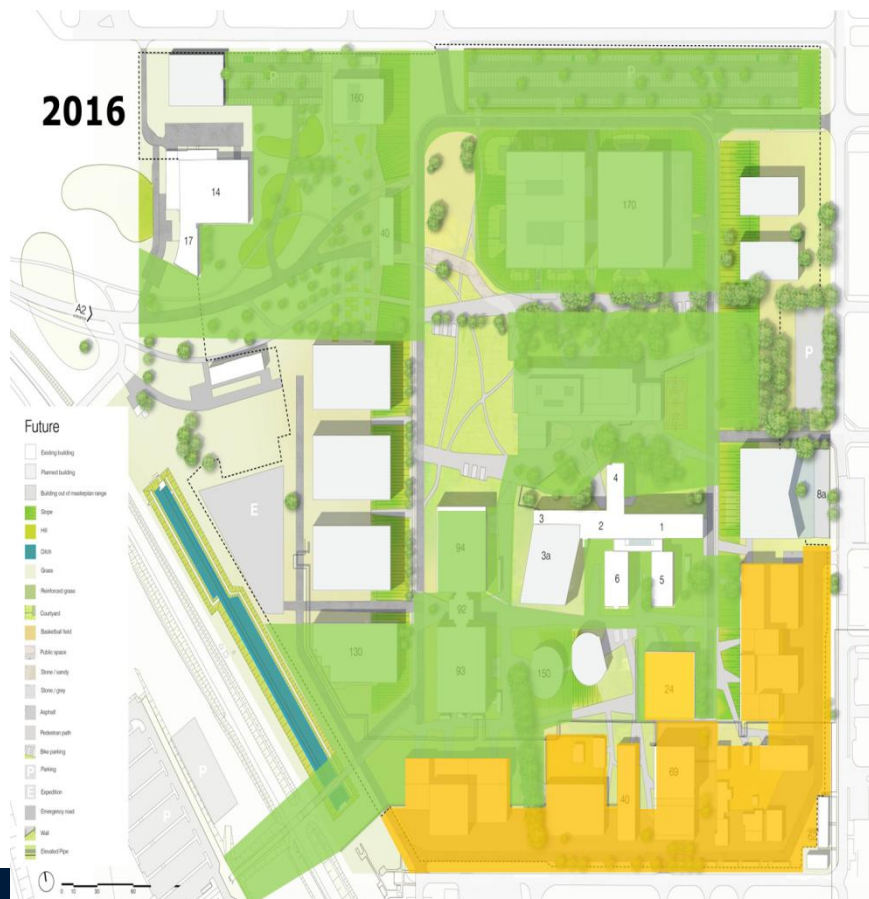


- Start H2-2014
- Completion summer 2016
- 14.000 m2 central facilities, offices & labs
- 52 M€ (subsidies ca. 12 M€)

Pilot- and miniplants

Pilot plants:

- Knowledge -> valorisation
- Strong position: permits, utilities



Projects:

- Multipurpose pilotplants
- Biobased
- Clean room facilities
- Additive Manufacturing (3D printing)
- Central gas purification unit (polyolefins)



startupbootcamp

Smart Materials

The first smart material accelerator
in the world



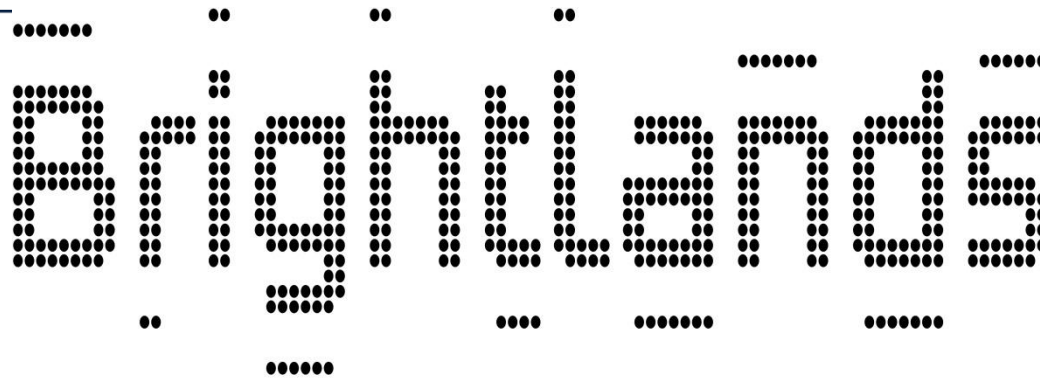
Concluding Remarks

- The key to success:
 - Commitment to long-time engagement.
 - Invest collectively rather than engaging unilaterally.
 - Thematic instead of broad focus.
 - Build upon economic and scientific potencies of the region.
 - Regional realisation of top-sector concepts.

The Future

- Strengthening Brightlands campuses and link between Brightlands campuses.
- Focus on (cross-over) concepts: Life Sciences & Health, Food, (Biobased/Smart) Materials and Smart Services.
- Improving position in Brussels and The Hague with an eye to increasing the acquisition capacity of Limburg parties (also MKB) in national and European grand/subsidy programmes.
- Responding to societal challenges (such as aging, health, sustainability, sustainable care) and opportunities.
- National and international cooperation.





Knowledge crossing borders

***'Brightlands is
committed to facilitate its partners
to the max in their successes in
innovation'***

Brightlands



Thank you for your attention!