



chemelot

The chemical innovation community

Chemelot as engine of international clusters supporting green chemicals industries

Frank Schaap

Brussels, February 27th, 2014

What will be presented?

- Chemelot as mini cluster
- Chemelot and green chemistry related clusters
 - Biobased Economy Limburg
 - Biobased Economy South Netherlands
 - BIG-C, Bio Innovation Growth (mega) Cluster
- Scaling up cluster development; lessons learned

Chemelot: hot spot for chemistry and materials **chemelot**

- One of the largest Chemistry & Materials communities in Europe
- Open innovation ecosystem combining education, research and business
 - start-ups, SMEs, multinationals, universities and knowledge institutes
- Many global leaders in their product market combination
- Attractive environment for students and professionals
- Ambitious growth target in performance materials



Chemelot: many global leaders



Chemelot: open innovation ecosystem

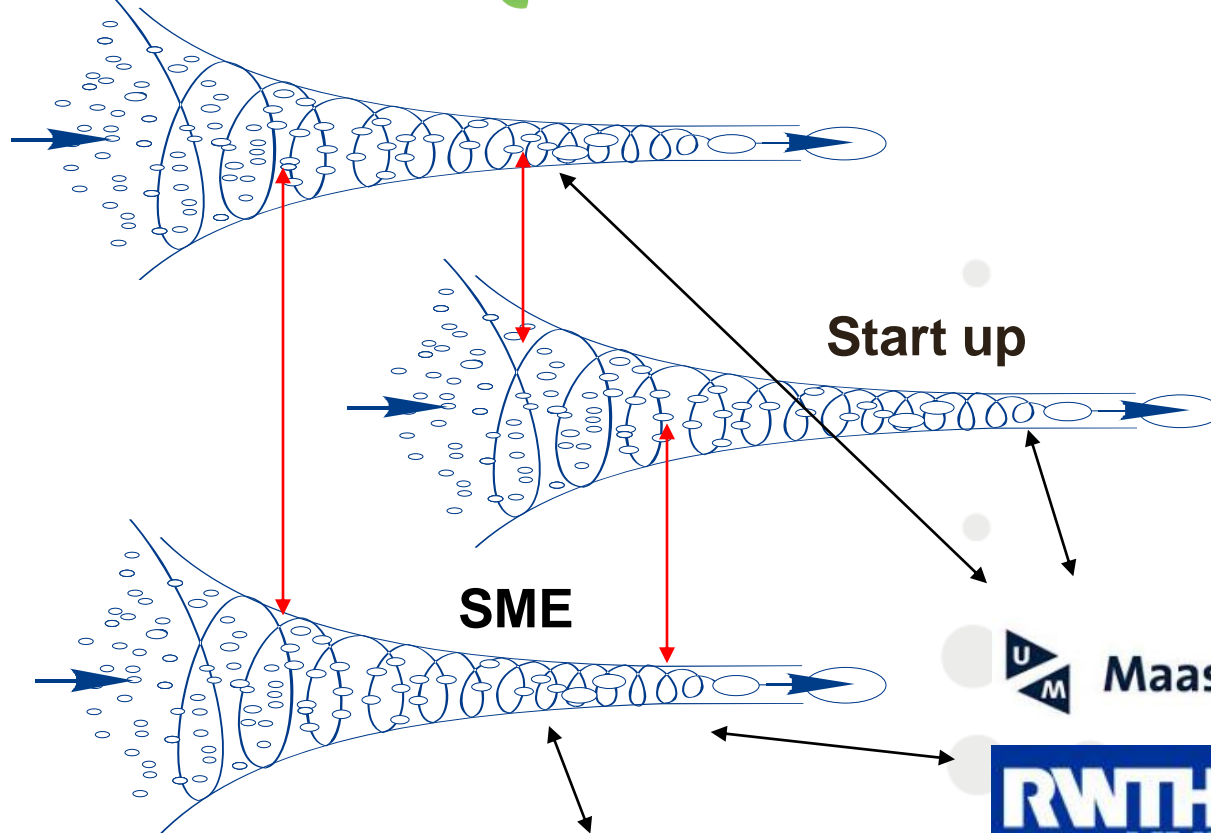
Concentrated mini cluster



LANXESS
Energizing Chemistry

سابک
sebic

DSM
BRIGHT SCIENCE. BRIGHTER LIVING.



 **Maastricht University**

RWTHAACHEN
UNIVERSITY

Chemelot Innovation and Learning Labs

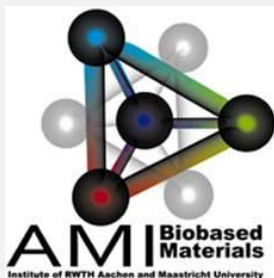


TU/e Technische Universiteit
Eindhoven
University of Technology

Chemelot: multiple global networks.....



Chemelot: green chemistry related knowledge Institutes



Aachen-Maastricht Institute for Biobased Materials

- Maastricht University, RWTH Aachen and Fraunhofer Institute

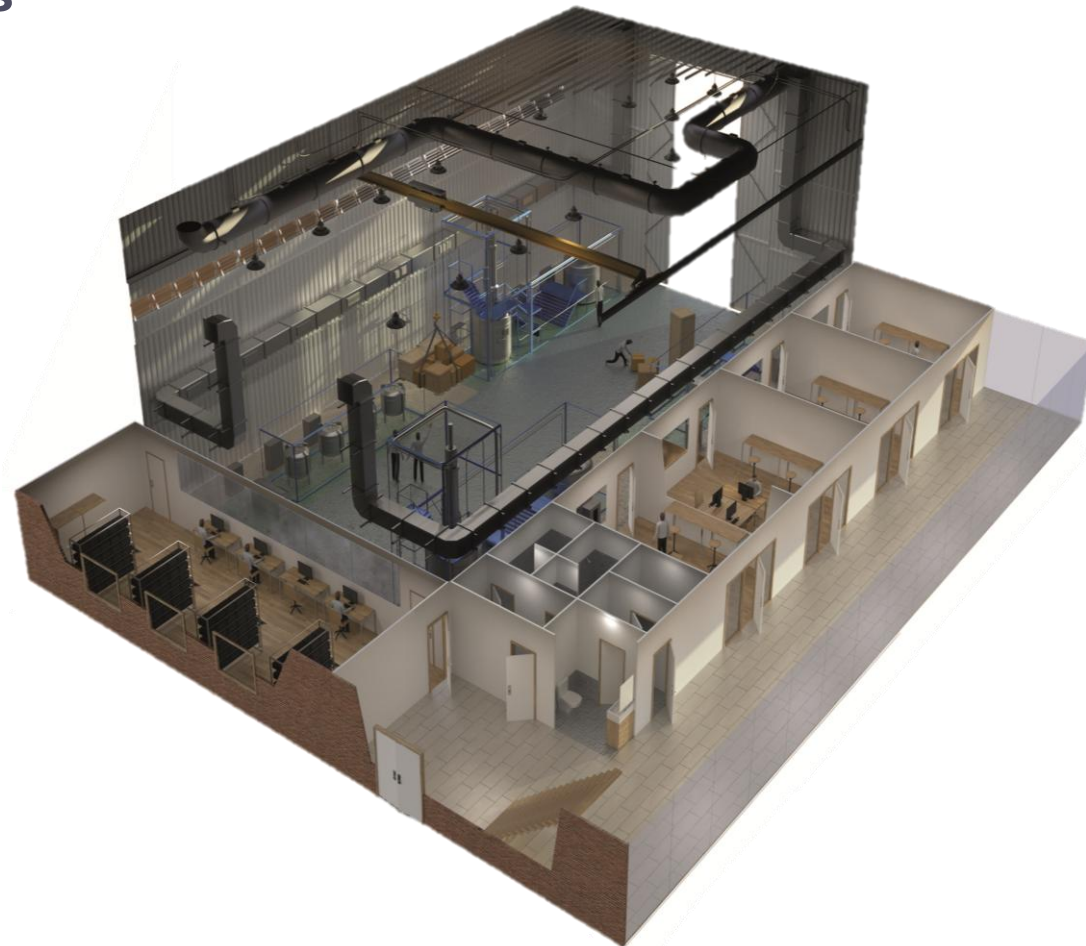
Chemelot Institute for Science & Technology



- Maastricht University, Eindhoven University of Technology, DSM and Chemelot Campus
- R&D, Education & Valorisation

Chemelot: shared infrastructure example

The biobased pilot facility is a full service infrastructure to pilot biobased technologies and processes, open to InSciTe partners and third parties



Chemelot Innovation and Learning Labs



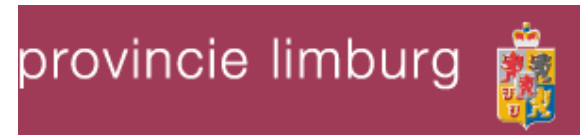
Contract research lab by students (3 levels) under professional guidance

- Synthesis Lab (with micro reactor equipment)
- Molecular Diagnostics Lab
- Material Lab
- Coating Lab



Chemelot Campus: Triple Helix ownership

- Dutch Province of Limburg



- DSM Nederland



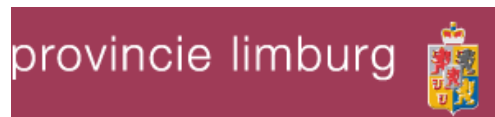
- Maastricht University/Maastricht UMC+



Common goal:

Euregional economic growth by accelerated growth of Chemelot Campus

Biobased Economy Limburg



Biobased Economy South Netherlands



BIG-C

Bio Innovation Growth (mega) Cluster



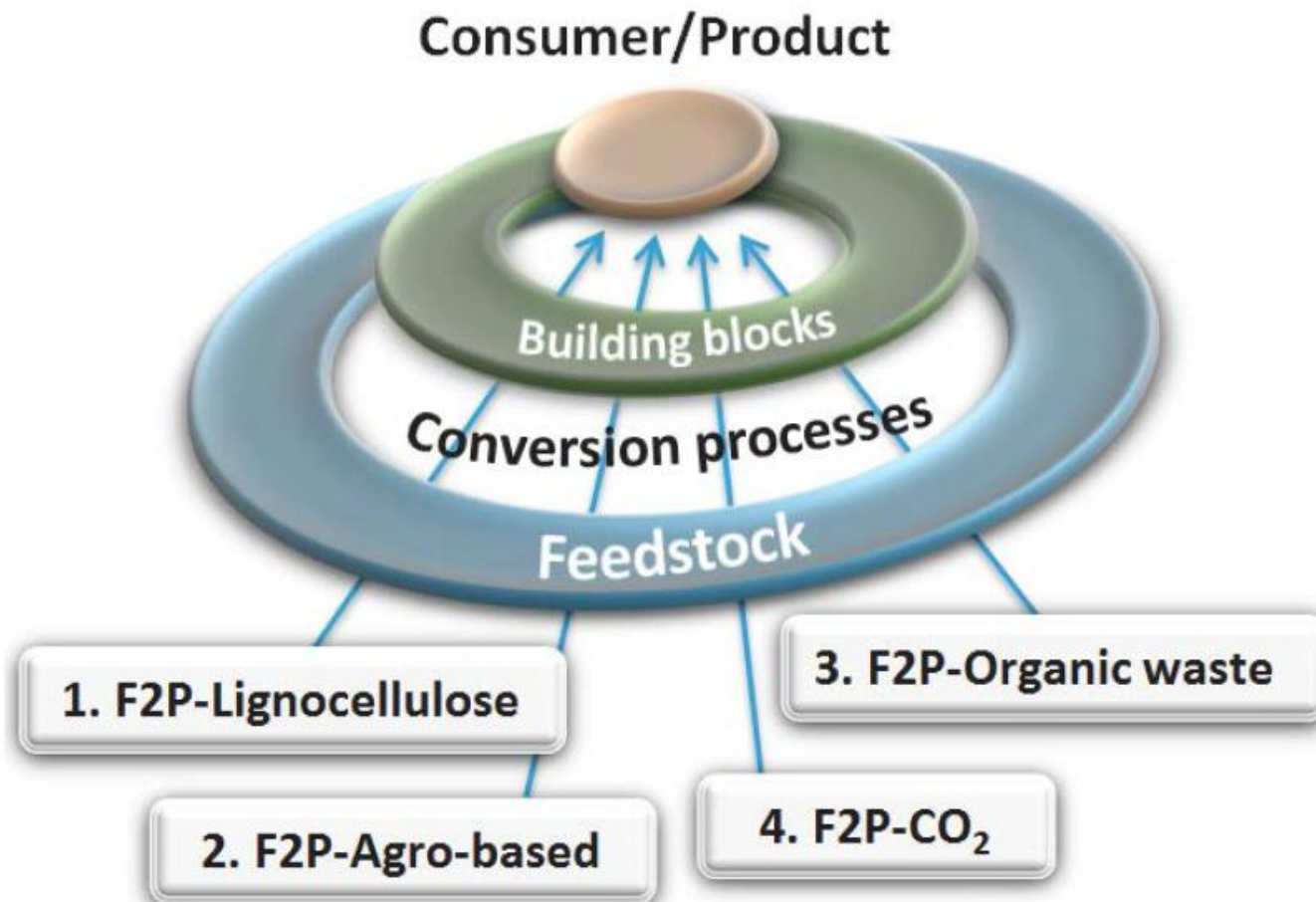
BIG-C

Bio Innovation Growth (mega) Cluster



BIG-C

Bio Innovation Growth (mega) Cluster



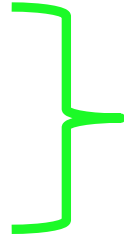


Clusters = people working together



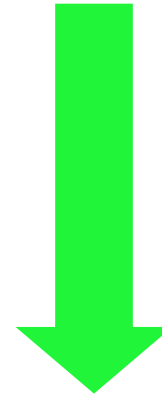
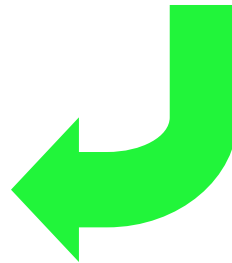
Scaling up cluster development

- Company
- Campus
- Region



What lessons could be applied to scale up cluster development to larger international level?

- Smart international region
- Europe



- **Dedicated cluster development teams (senior level, triple helix)**
- **Focus on truly unique strengths**
- **Initiate bottom up cooperation's between parties based on 1+1>3**
- **Focus on true engagement of key people (organizations)**

Chemelot

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