Brightlands Chemelot Campus Scale up innovations in the chemical and biomedical industries





Safety instructions

In the event of a siren alarm:

Go to the reasonably airtight room/ toxic shelter



In the event of an evacuation of the building:

Go to the dedicated assembly point





In the case of an emergency: Call +31 (0)46 47 66666

SHE&S / Brightlands Safety, Health, Environment & Security O Chemelot one in safety



ILM

Brightlands

One community Four areas of expertise



497 companies



16.020 jobs

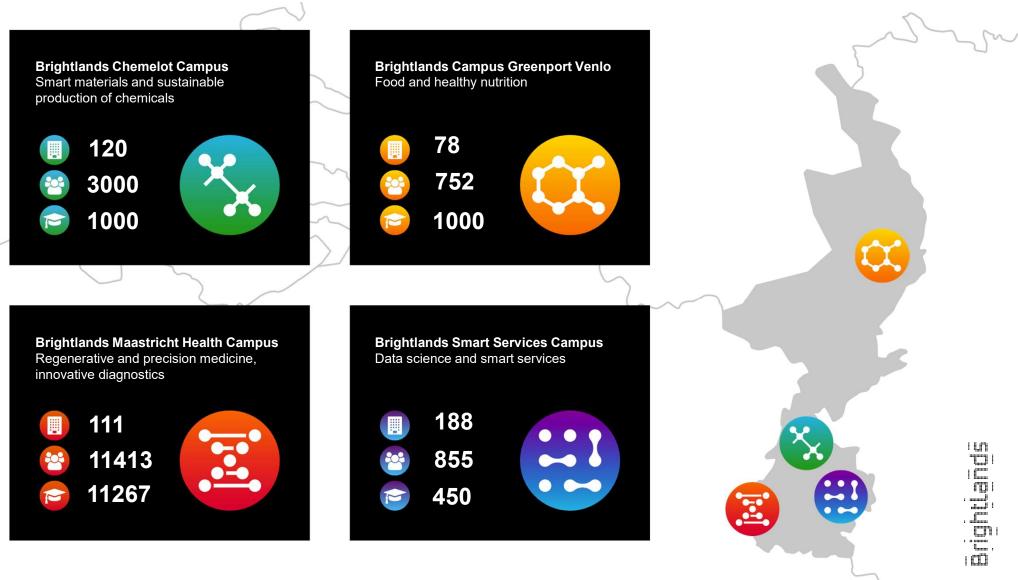




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Location

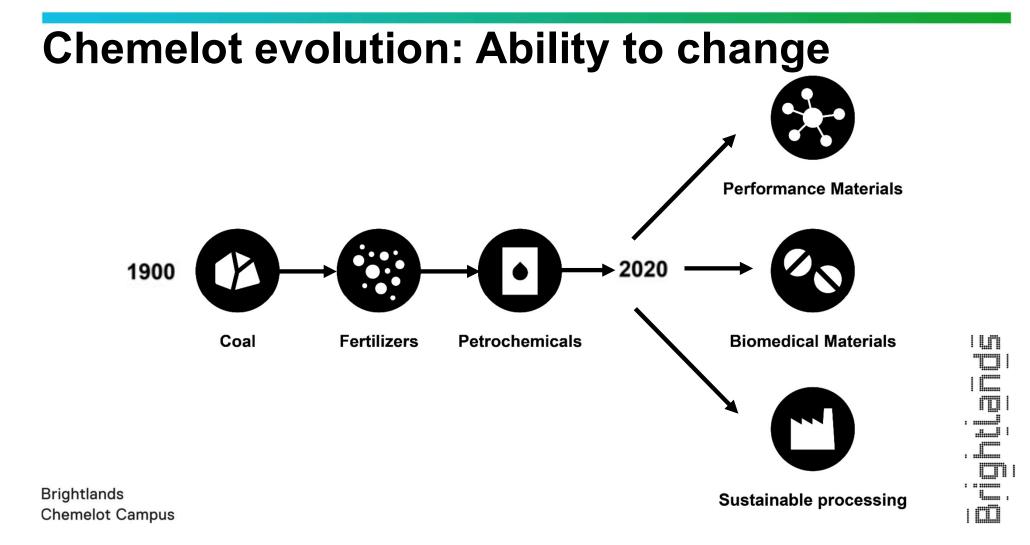
Located at the Chemelot

- Second largest chemical industrial park in Europe
- Industrial park (5500 workers) and Brightlands Chemelot Campus (3000 workers and 1024 students)
- 8km², 8500 workers
- 1 naphta cracker, 2 ammonia plants
- Polyethylene, polypropylene, EPDM, caprolactam, acrylonitril and fertilizers



chemelot

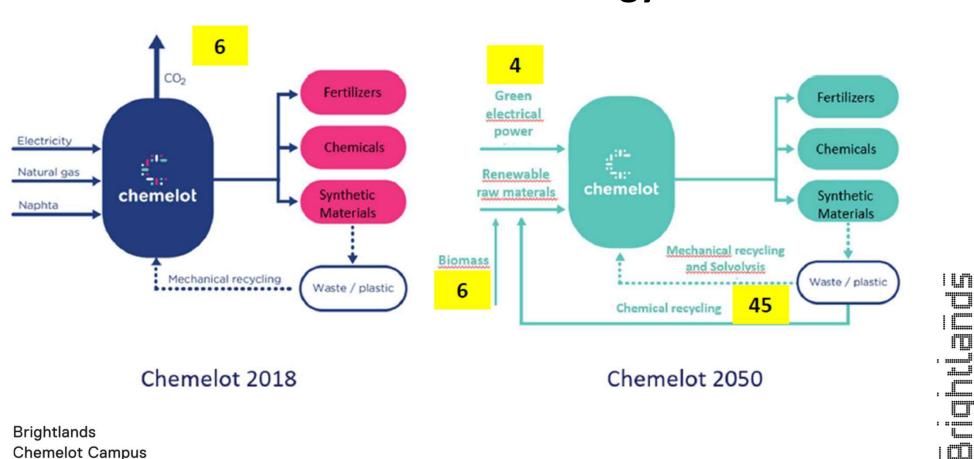
for today's future



Chemelot Industrial Park Canal **Highway A2** 770 ha 100+ companies 5.500 FTE • Integrated chemical park with 60 production Campus plants Brightlands Chemelot Campus Railway Industrial Park 20 ha . 107 companies & knowledge institutes . 3.000 FTE • ILM 1.024 Students • **Open Innovation Campus** ٠ Highway A76 Brightlands Circular Space 10 ha Brightlands **Chemelot Campus** m

Present at Industrial Park



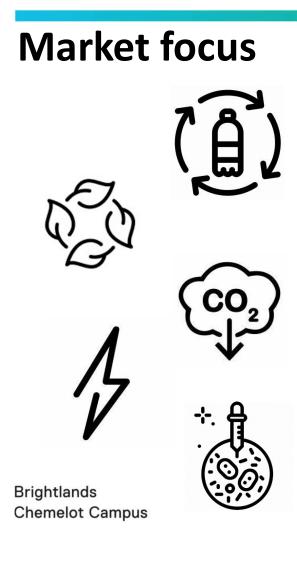


Chemelot 2050: Materials and energy transition

Chemelot Campus

Brightlands Chemelot Campus

Open innovation around chemistry Income and jobs for the region Buildings, plots, facilities, financing, community, education Strategic cooperation of Province of Limburg, DSM and Maastricht University



Circular materials

- Plastic recycling
- Design to recycle
- Sustainability driven applications
- Additive manufacturing
- Supply chain tracability/blockchain

Sustainable processes

- · Biobased and recycled raw materials
- Electrification/high temperature heat
- Hydrogen
- Carbon Capturing Utilisation
- Increase productivity & efficiency/AI & Big data
- E-waste & battery recycling
- Textile recycling

Biomedical Materials & Devices

- Cell therapy
- Gen therapy
- Materials
- Devices

Materials Innovation

- Aachen-Maastricht Institute for Biobased Materials (AMIBM)
 - Specialized in fibers
- Brightlands Materials Centre (BMC)
 - A.o. packaging, 3D-printing, thermoplastic composites, construction materials
- Chemelot Innovation & learning labs
 - Plastic converter facilities, lab & pilot & analytics
- New polymer discovery and development
 - Avantium (PEF), Envalior (Stanyl, Arnitel), Avient (Dyneema), Covestro
- New formulations discovery and development
 - Yparex, Niaga (recyclable carpet), Sabic (insulation materials, caps & closures)
- Material development infrastructure
 - Intertek (testing & certification), Sustainable Analytics Group (polymer analysis), Innosyn (synthesis)







Process Innovation

- Brightsite Institute
 - upscaling process technology with circular raw materials and carbon-free energy, transition of chemical cluster via system approach
- Non-fossil energy
 - Uniper (H2 from wood waste), Coolbrook (electrified steam cracking)
- Recycling of plastics
 - Ioniqa (chemical recycling of PET), Plastic Energy/Sabic (chemical recycling of polyolefins), QCP (mechanical recycling of polyolefins), Niaga (mechanical recycling of PET), Itero (waste plastic pyrolysis)
- Biobased Materials
 - Vertoro (lignin to BTX), Isobionics (fermentation), Sappi, Avantium (PEF), Syclus (bio-ethylene), Uniper (biobased syngas)
- Process Technology and engineering
 - InnoSyn (synthesis, microreactors), Technoforce (separation), Metgen (enzymes), Sitech (engineering)
- Chemical labs & analytics

lyondellbasell

- CHILL

loniga







empowering

tomorrow's talent Technoforce offers Multiple Effect Evaporator (MEE) systems with a stripper, therma compressor, axial flow pump and sludge dryer. Our objective is to save your operating and disposal casts, and minimize scaling in

Sabic wil afvalplastic gaan kraken' in Geleen

Biomedical innovation

- Upscaling to first-in-man: Medace
- Cell-therapy
 - Lonza (EU center for cell therapy upscaling), Neuroplast (nerve tissue)
- Vaccines and farmaceuticals:
 - Bisping (cardiology products), Basic Pharma (develop & produce pharmaceuticals in registration phase),
 Lonza (Covid-19 vaccine)
- Implants and devices
 - Xilloc (3D-printing of medical implants), Triplemed (aneurism repair), Vacis (hemodialytic access),
 Fortimedix (minimally invasive surgery devices)
- Biolabs
 - CHILL & analytics



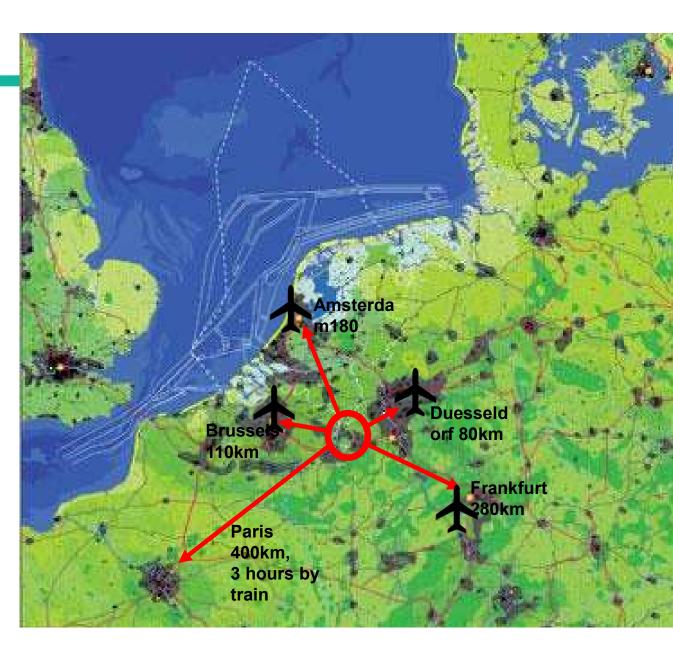
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Key benefits Brightlands Chemelot Campus

- 1. A unique environment to scale up From bench to full-scale, for chemical and medical, with all supporting competences
- 2. A unique plastic materials ecosystem Design, synthesis, characterization, certification, application competences on the spot
- 3. Acces to talent from multiple language communities French, German, Dutch natively spoken within commuting distance
- 4. Operation within the fence of a major chemical site all permits, utilities and infrastructure available
- 5. We will build for you No need to invest scarce funds in real estate We will provide the building competence



Well connected to the whole of Europe



Brightlands Chemelot Campus

brightlands.com

