Green Chemistry Campus Accelerating Biobased Business



GREEN CHEMISTRY CAMPUS A business accelerator for biobased innovations on the cutting edge of agro and chemistry. The Green Chemistry Campus boosts your chances of biobased business success by offering:

- 1 World-class facilities
- 2 Open innovation in the value chain
- 3 Market-driven business support
- 4 Financial engineering
- 5 A stimulating and inspiring community

At the Green Chemistry Campus B2B entrepreneurs – both large companies and SMEs, knowledge institutions, and the government work closely together in an open innovation environment to develop new biobased technologies and products with a focus on performance materials, chemicals and coatings. By using waste streams as a resource we create sustainable and profitable chemical intermediates and products that appeal to both industry and society.

Accelerate your biobased business!

The Green Chemistry Campus has got years of experience in facilitating and accelerating biobased innovations. By establishing your company on the Campus, you will easily come across opportunities that can help you as an entrepreneur.

Whether your main driver for biobased innovation is the urge to contribute to a sustainable world, staying ahead of the competition or reasons of compliance, the Green Chemistry Campus can help you to achieve your company's goals.

Creating biobased building blocks for the chemical industry

We facilitate innovative entrepreneurs to develop performance chemicals from biomass with a focus on sugars and fibres. At the Campus you can further develop your concept to prepare it for testing in a pilot plant, demo facility and eventually market introduction. The Green Chemistry Campus not only offers material facilities

in the fields of business development, financing and PR.

We work with large industrial parties in the region to coach entrepreneurs on market-driven biobased applications and technology. Furthermore you can join thematic clusters - including biobased aromatics, colouring, fibres, bioplastics, green packaging and building materials - in which collaborate along open innovation lines.



Biorizon

The way to aromatics

Enable commercial production of bio-aromatics for the chemical industry by 2025

Ever since 2013, the Green duce on a multi-kilogram Chemistry Campus is home to Shared Research Center Biorizon that aims to enable commercial production of biobased aromatics for the chemical industry by 2025. Biorizon is well on its way since it has filed several patents and is now developing skids to pro-





NNRG

Locally valorizing elephant grass on wasteland

NNRGY Crops grows elephant grass on wasteland and processes the cellulosis and lignin into paper, biobased building materials and bioplastics. The company is located at the Green Chemistry

Campus since 2014. "The Green Chemistry Campus points me towards interesting business opportunities.", says Jan-Govert van Gilst of **NNRGY Crops.** "Recently I successfully set up

a project to produce **3D-printed lightweight** concrete objects out of elephant grass. The Campus provided support to fund the project and to find suitable partners."



ten

Mobile pyrolysis plant to locally produce oil out of wood

Nettenergy's Pyroflash technology converts waste biomass to liquid fuels and bio chemicals. Its unique pyrolysis plant is scalable, local and energy self-sufficient. "We want to enable

scale." Jan Harm Urbanus, **Chief Technology Officer** at Biorizon explains: "Aromatics are one of the main raw materials used by the chemical industry: 40% of all chemicals are aromatic by nature. Aromatics are currently extracted from oil. Biorizon, initiated

by TNO, VITO, ECN and Green Chemistry Campus, together with partners develops technologies to convert biomass residues into aromatics. This reduces dependency on oil, leads to lower CO₂-emissions, and provides profitable and sustainable prospects for the chemical industry."

municipalities, forest managers and farmers to convert their biomass into renewable energy resources like oil, gas, wood vinegar and bio char", founder Rob Vasbinder explains.

Since the company has established itself on the Campus in 2013 it has successfully started collaborations with partners in USA, Ukraine, India and Australia.

Located in the Biobased Delta: global chemical sweet spot

The Southwest Netherlands is at the European forefront of biobased innovations. This region, called Biobased Delta, is known for its vibrant and thriving ecosystem that drives open innovation. In the Biobased Delta the Green Chemistry Campus, Nieuw Prinsenland and Moerdijk form a biobased corridor that facilitates biobased entrepreneurs along the entire value chain. If your company is located in one of these locations you can also benefit from the facilities of the other locations. According to Deloitte nowhere in the world is a region as suitable as the Biobased Delta for valorizing sugars into chemical building blocks for the chemical industry. Biomass is widely available, the logistic connections are excellent and the market is close by because the region is part of the largest chemical cluster of the world.



Please contact us to discuss how to accelerate your biobased business!



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