



Bio Base Europe Pilot Plant

Regional Data Analysis: Key Findings & Insights



SYMBIO online technical workshop

20 February 2025 / 14:00-17:15



Bio Base Europe
Pilot Plant



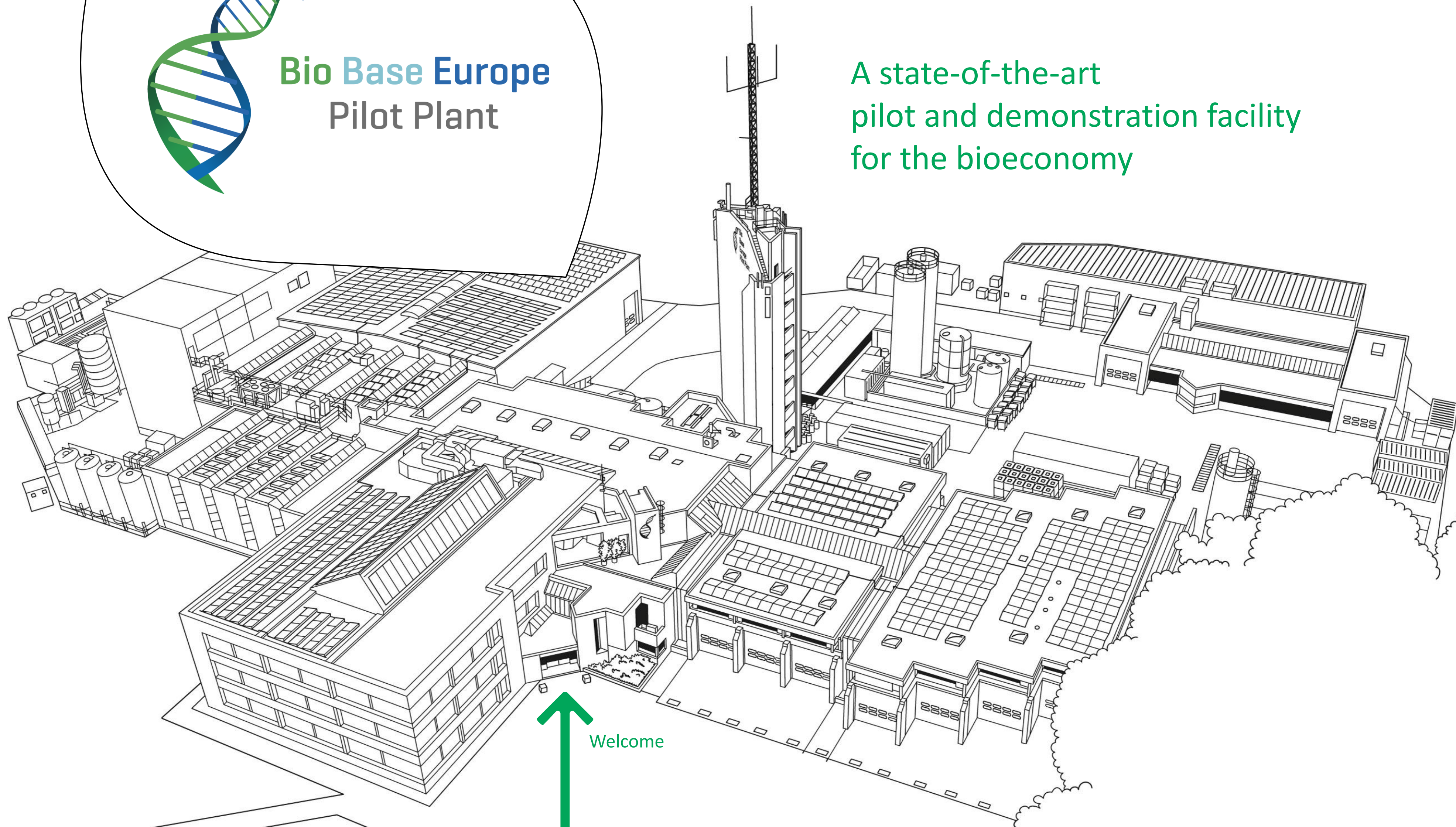
Bio Base Europe
Pilot Plant

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Bio Base Europe
Pilot Plant

A state-of-the-art
pilot and demonstration facility
for the bioeconomy



Welcome

Public
projects

Applied Research &
Technology Transfer



ShapingBio

The bioeconomy of the future

SHAPING the future **BIOeconomy**



across sectoral,
geographical and
governmental
levels

Map and analyse
initiatives, structures, policy
instruments and
key gaps related to:

- policy and governance
- applied R&D and
tech transfer
- collaboration
- financing

Across
EU-macroregions
and different
sectors

Outcome:

**Recommendations for
better policy alignment
and stakeholder actions**



Public projects



Frame Setting
TRL 4 - TRL 7

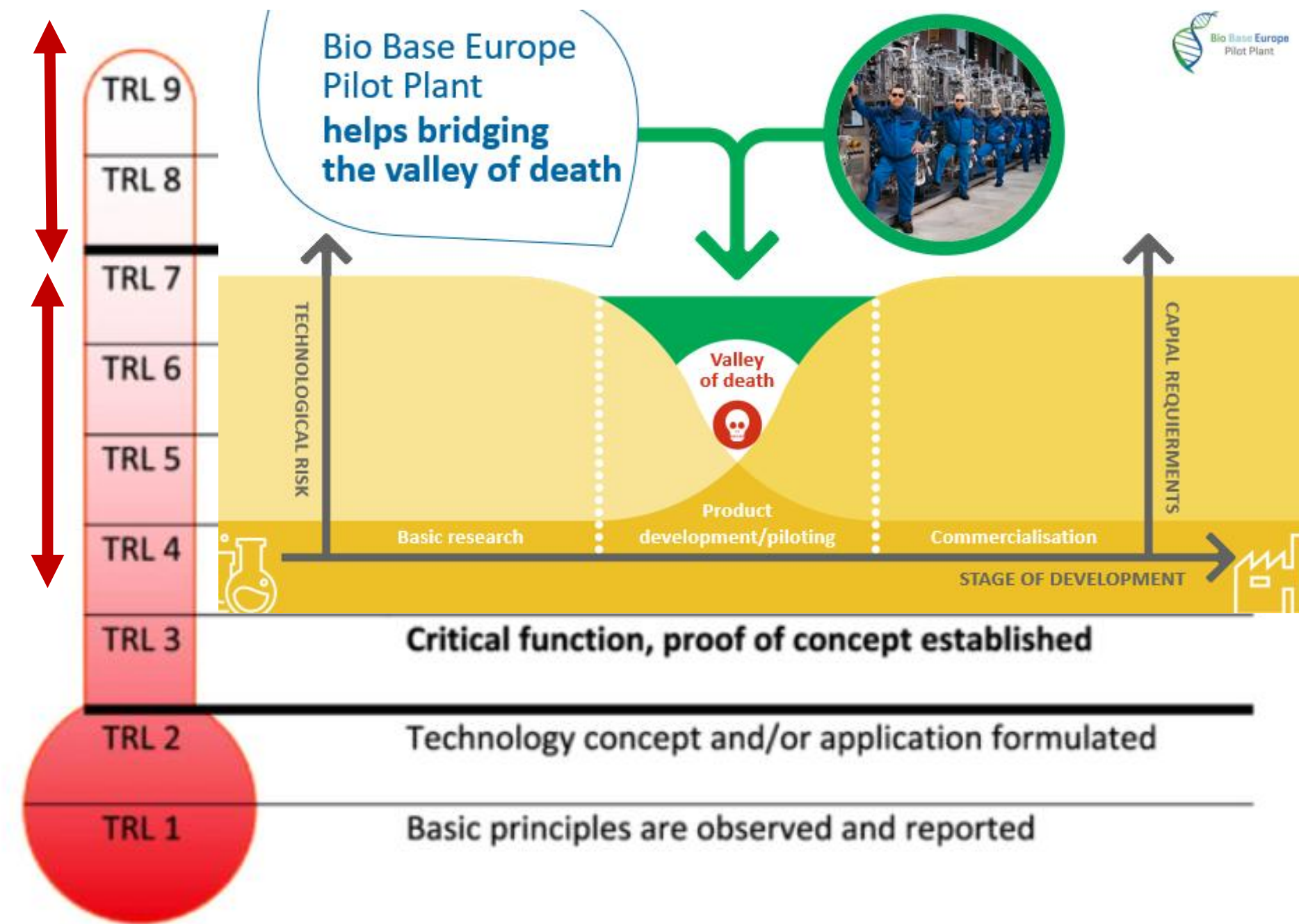
Demo cases: >7

Pilot 4-5 / Demo: 6-7

Applied R&D: 3-4

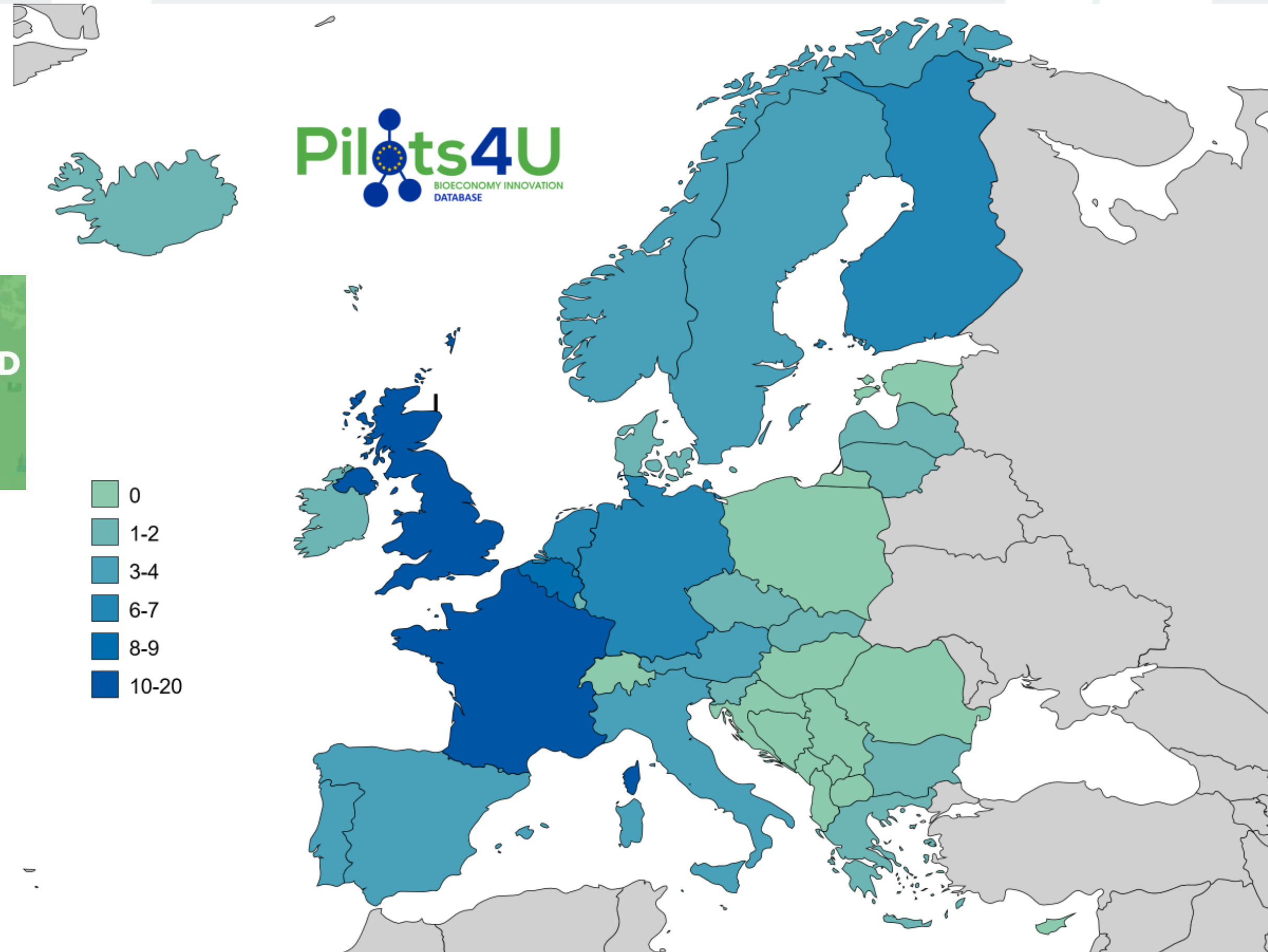
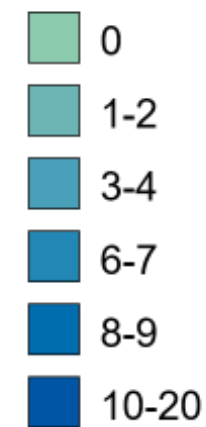


ShapingBio
The bioeconomy of the future



Pilots4U as a basis for this exercise

THE EUROPE-WIDE NETWORK & DATABASE
OF OPEN ACCESS MULTIPURPOSE PILOT AND
DEMO INFRASTRUCTURES FOR THE
EUROPEAN BIO-ECONOMY



Open Access
Pilot Plants
in Belgium



Points of Attention

Pilot demo level

**In preparation -
Publicly available in March 2025**



Link: <https://www.shapingbio.eu/resources/>



Industrial symbiosis

[Article](#) [Talk](#)

From Wikipedia, the free encyclopedia

Industrial symbiosis^[1] a subset of [industrial ecology](#). It describes how a network of diverse organizations can foster eco-innovation and long-term culture change, create and share mutually profitable transactions—and improve business and technical processes.



Securing local supply chains via the development of new **M**ethods to assess the circularity and symbiosis of the **B**io-**A**sed industrial ecosystem enhancing the EU competitiveness and resource independence



This Project has received funding from the European Union's Horizon Research and Innovation Programme under Grant Agreement N. 101135562



Industrial
symbiosis

AmphiStar
BIOSURFACTANTS



 **PMVmag.**

**"Biotech
moet een
belangrijke
rol spelen in
de omslag
naar een
circulaire
economie"**

Sophie Rebelants (AmphiStar)

**Van afvalstof naar
grondstof**

0 CO₂ maakt CO₂ en aanstof
van CO₂.

**Groen: energie voor
cruireschepen**

Deze waterstofcellen in
Zebruggen

Digitale skills voor morgen

IT&BI van de toekomst
in Zebruggen



Industrial symbiosis

Attracting foreign
investments

TripleW is expanding to **#NextGenDistrict** in Antwerp! 🙌 It is a global leader in circular biochemistry technology and with its groundbreaking process, it transforms food waste into high-value lactic acid, a key feedstock for production of biodegradable plastics and an ingredient for applications in the food, homecare, and cosmetics industries

TripleW will be the first player to establish itself in NextGen Demo, setting a milestone for innovation, circularity and the future of waste valorization.



**Public
projects**



Video

Waste2Func:

From Waste to Wonders.

**The technology is ready,
are we?**

Industrial Symbiosis

Steelanol -
Bio-CCU Plant

Converts blast furnace gas into ethanol using
bacteria

Technology developed by LanzaTech, validated at
BBEPP in 2012

CAPEX: > 195 million euro

Production: > 70 kta ethanol

The first cargo of 500 tonnes, loaded at the
Rodenhuizedok, is destined for [LanzaTech](#) for further
processing into perfume and personal care products. 🍷

This is an important step in our sustainable strategy. 🌱
A big thank you to the teams who made this happen! 🙌

[#Steelanol](#) [#Sustainability](#) [#Innovation](#) [#LanzaTech](#)



Public projects

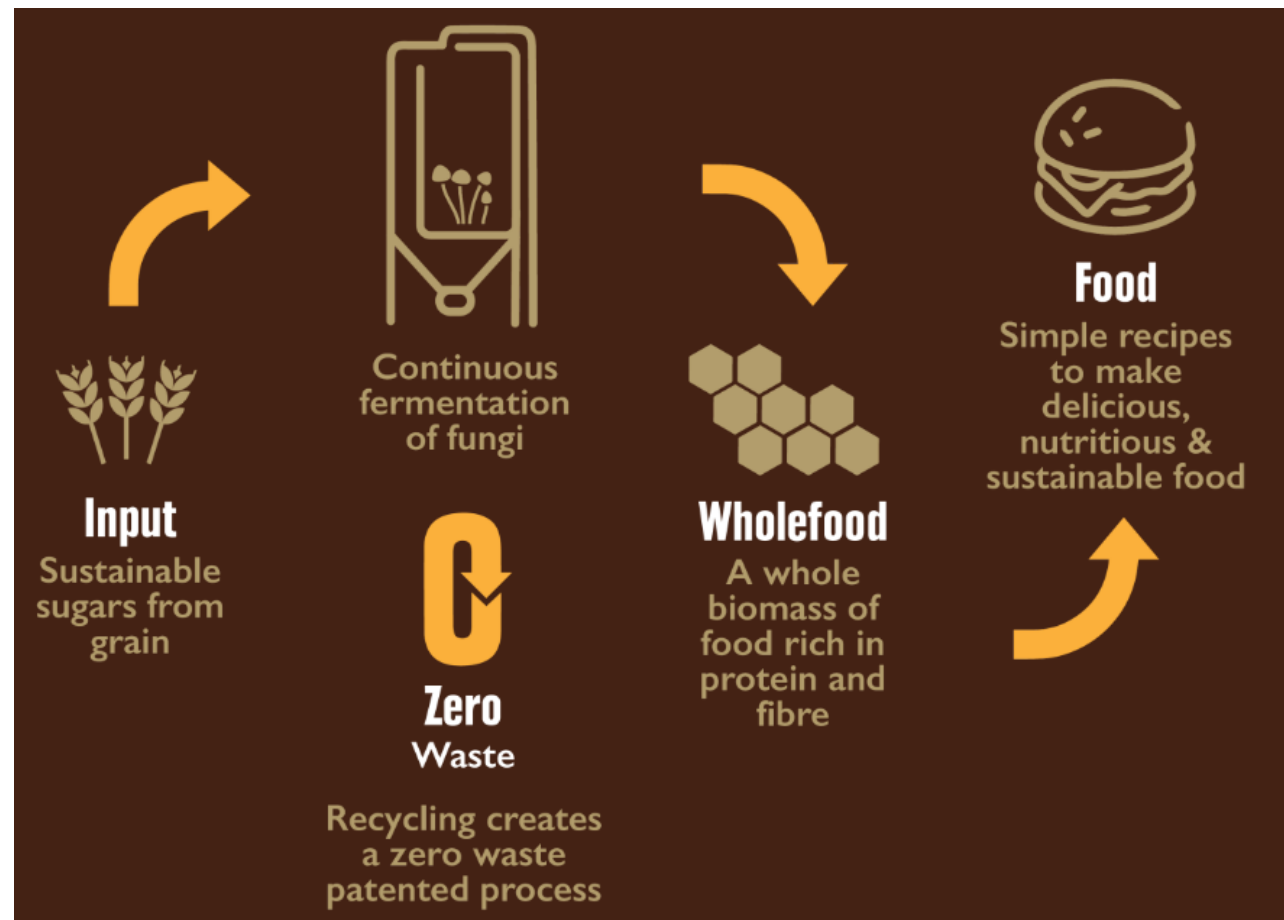
CEMPA

Conversion of carbon and Ethanol and upgrading to Microbial Proteins for Aquaculture



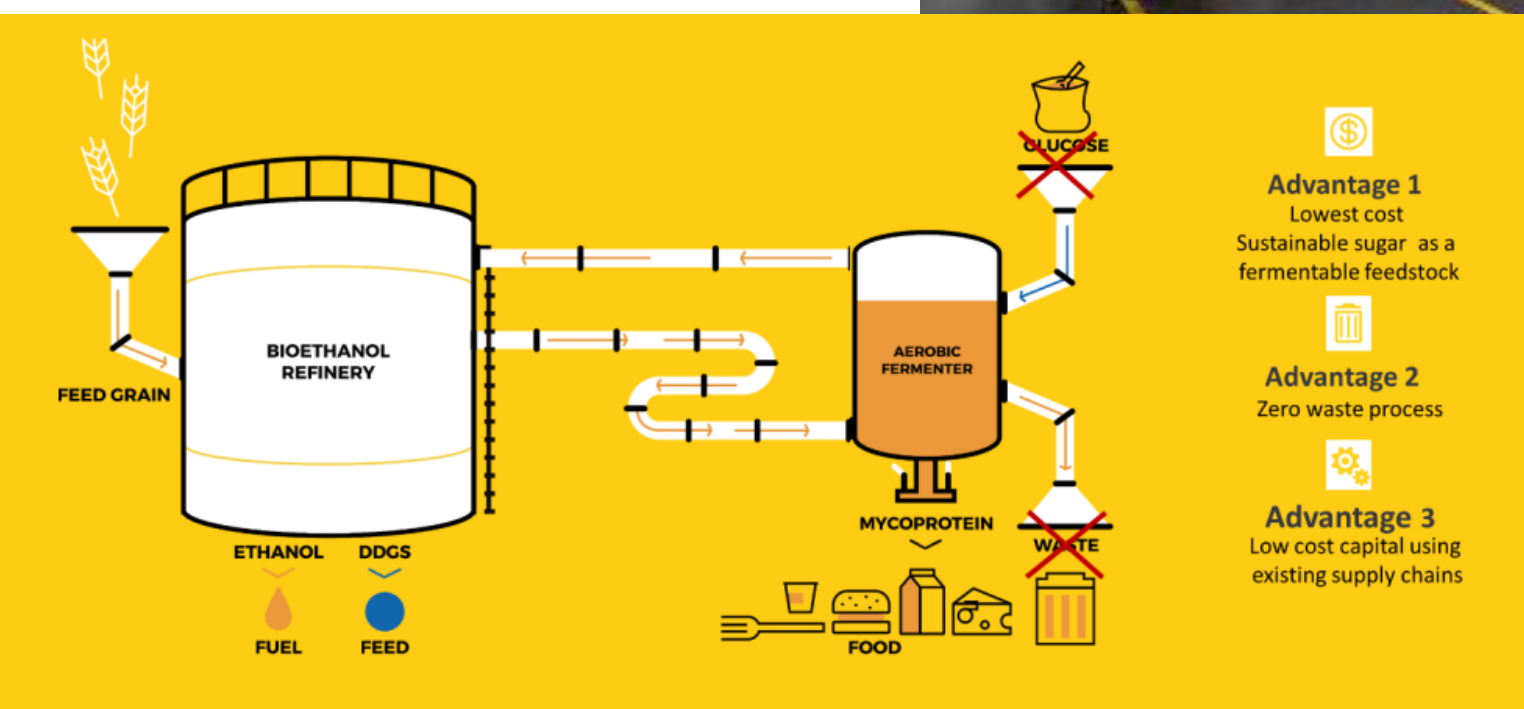
Industrial Symbiosis

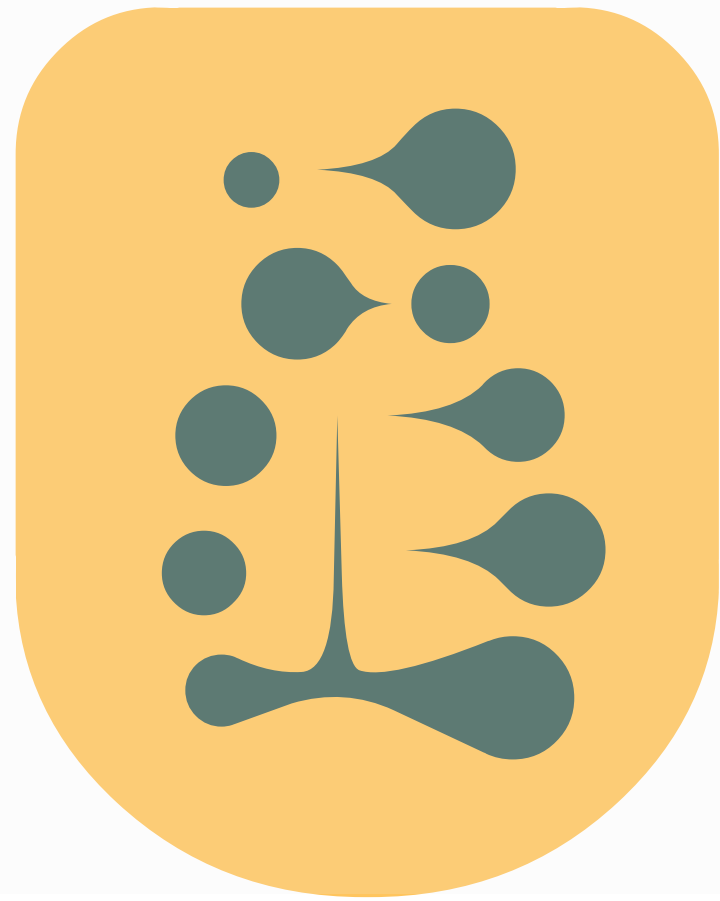
ENOUGH[®]



In a nutshell

- Scottish-Dutch food tech company
- Focused on sustainable protein production
- ABUNDA mycoprotein: a protein made from fungi
- Production process uses significantly fewer resources compared to traditional meat production, including 97% less feed and 99% less water than red meat.
- Scale up from batch operation at lab scale (7 L) to continuous operation at demonstration scale (15.000L) at BBEPP
- Built first commercial plant in Sas v Gent, co-located alongside Cargill
- Zero-waste fermentation process: integrated process with bio ethanol refinery





#PROTEINCLUB

Enabling innovative value chains for fermentation-based proteins



Founding Organisations + Members



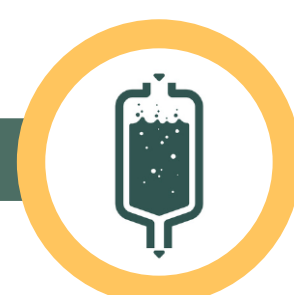
RAW MATERIALS



PRODUCTION



END PRODUCTS



Overview Belgian biosolutions companies



Food and nutrition

animab ABInBev Those Vegan Cowboys euro-silo BOLDER FOODS Cargill Enzybel inbiose Puratos paleo PF Biotech BIOLYNX BIO BREW aplasol maash MYCELIA European Biosolution Coalition

Cosmetics, personal care, and cleaning

REALCO Amphistar s-biomedic

Biochemicals

oleon NovelYeast B3ET alcobiofuel B4PLASTICS B-COS Steelanol TECTERO TripleW3

Agriculture

biotalys biocsol Protealis APHEA bio Avecom Scientia Terrae

Health

animab ExeVir TAKE AIR

Test and scaling

Bio Base Europe Pilot Plant VIB GHENT UNIVERSITY LIÈGE université Gembloux Agro-Bio Tech CEN TEX BEL FOOD PILOT ILVO Certech BioLizard CAPTURE

Fall 2024



Bio Base Europe
Pilot Plant

Let's connect

ME



BBEPP



Contact us:

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www.bbeu.org



Scan the code
for a direct link
to our website,
equipment
& expertise folder



[https://www.youtube.com/
@biobaseeuropепilotplant7757](https://www.youtube.com/@biobaseeuropепilotplant7757)

