

Enabling bioeconomy innovation through value chain creation

A specialist business consultancy with over 13 years of bioeconomy experience



We view bio-based technologies as key components of the low carbon economy delivering economic, social and environmental benefits.

A management team with over 60 years of bioeconomy expertise



Director
Feedstock



Director
Bioenergy



CEO
Biofuels



Director
Bio-based
Products

We help organisations understand the opportunities and navigate the challenges presented by the bio-based economy



NORTH ENERGY

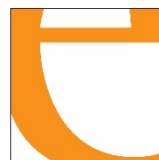
Bio-based reality looking for growth



Borregaard



genomatica
sustainable chemicals



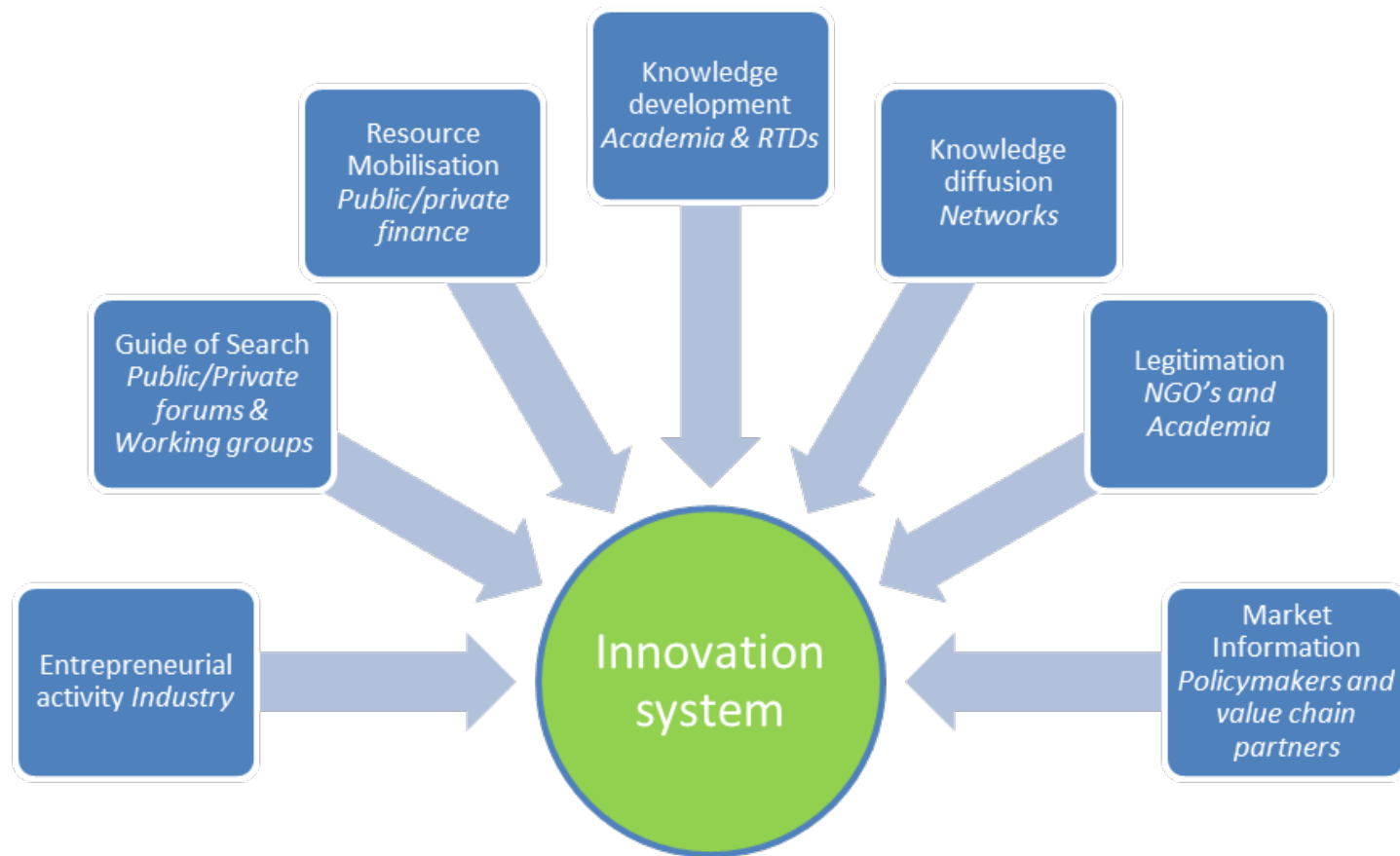
evolve



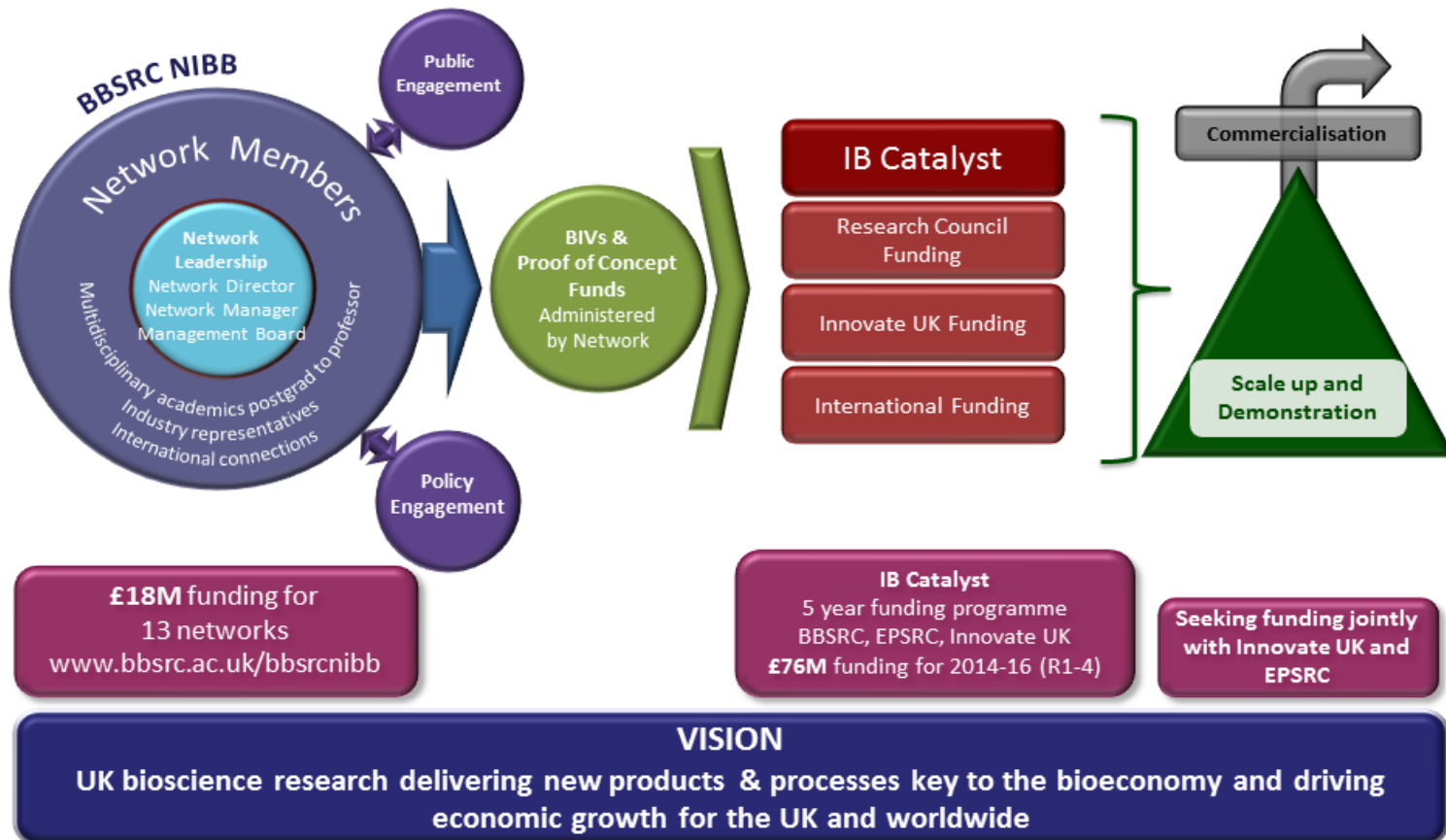
Braskem

AVABIOCHEM

Innovation – More than just invention and technology development



A UK bioeconomy built from a base of bioscience excellence



Creating community



Biocatalysis



Novel Chassis



HVC/Natural Products



Cross Cutting



Biorefining



Bioprocessing



Biohorizons

Horizon Scanning the European Bioeconomy



Hodgson, E., *et al.* Biofuels, *Bioprod. Bioref.*, 10: 508–522. doi:10.1002/bbb.1665

<http://onlinelibrary.wiley.com/doi/10.1002/bbb.1665/full>

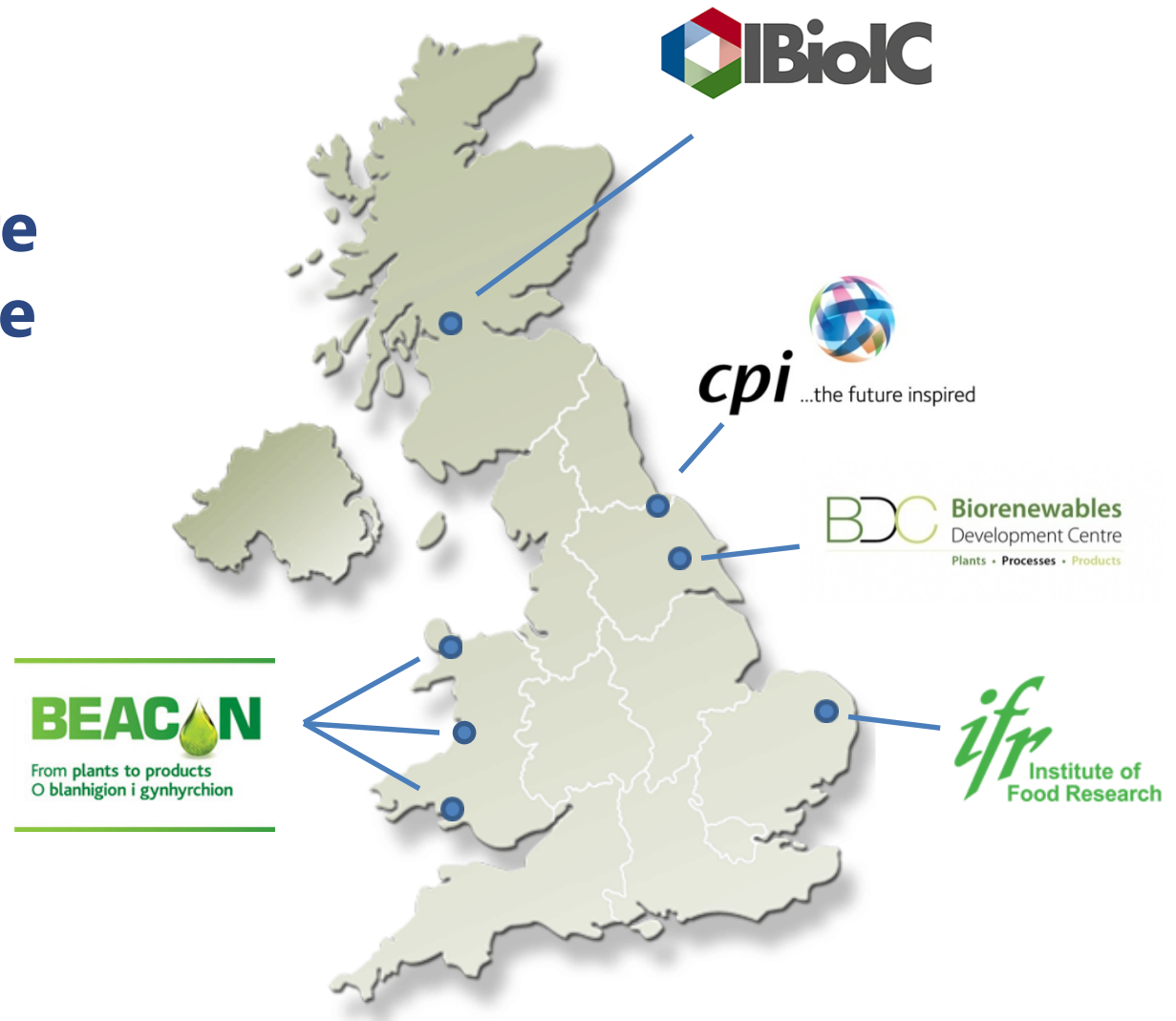
Recommendations to build investor confidence and support growth in the European bio-based economy:



- ❖ **Stimulate industrial symbiosis at all points through the value chain.**
- ❖ **Actively promote and demonstrate new bio-based technologies and products.**
- ❖ **Improve provision of financial support particularly for scaling-up production.**



Access to scale up infrastructure and expertise



Vision

The UK as a global leader in biorefining technology development and bio-based product manufacture within a sustainable high-value bioeconomy.

Mission

Provide a stable, integrated, cost-effective pilot and process development service linked to the higher education (HE) sector for the benefit of UK bio-based industries and the bioeconomy.

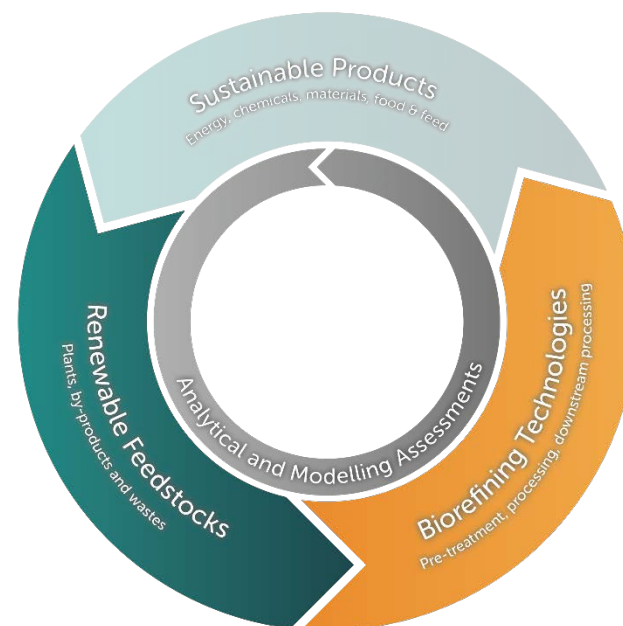
Work collectively and internationally to increase UK knowledge and capabilities in biorefining and industrial biotechnology (IB).

Nurture the development of SMEs and larger companies to support the growth of UK bio-based value chains.



BioPilotsUK

The Alliance of Open Access
Biorefining Centres





Bio Base NWE

Innovation and training
for the biobased economy

Investing in Opportunities



This project has received
European Regional
Development Funding
through INTERREG IV B.



INTERREG IVB



Video courtesy of Celtic Renewables and Bio Base Europe

Interreg North-West Europe BioBase4SME



European Regional Development Fund

- AC3A (France)
- Bio Base Europe Pilot Plant (Belgium)
- CLIB2021 (Germany)
- Ghent Bio-Economy Valley (Belgium)
- Materia Nova (Belgium)
- NNFCC (UK)
- REWIN (NL)
- TCBB Resource (Ireland)

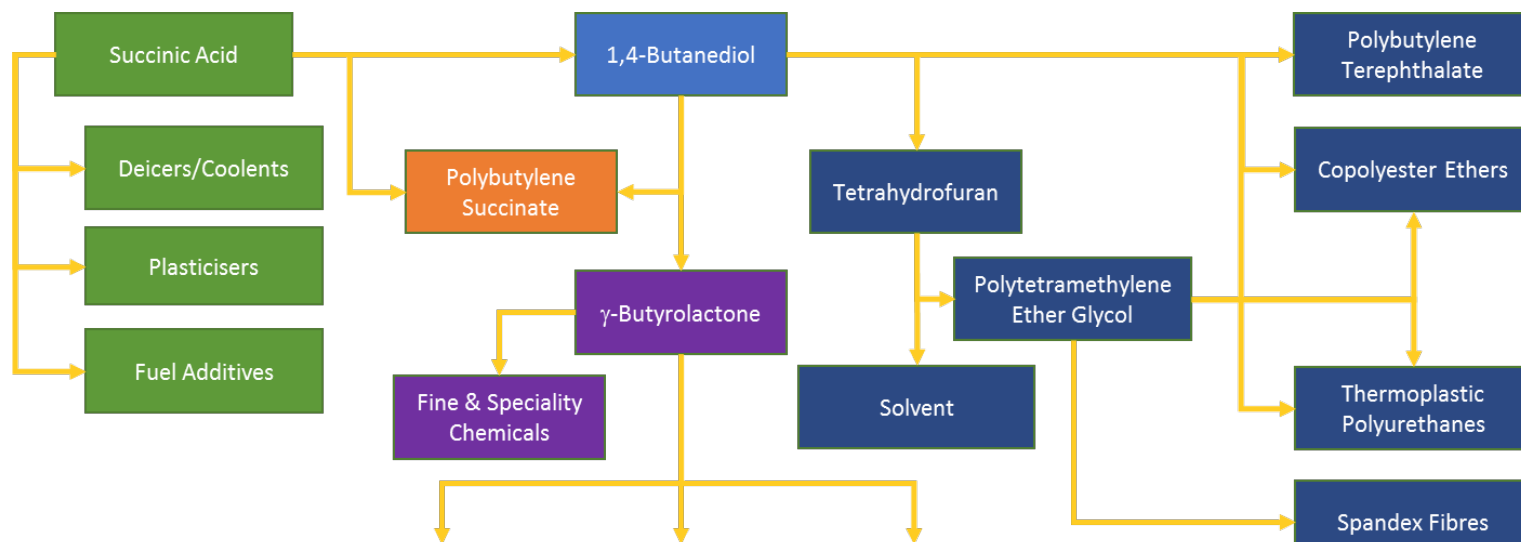
Training,
mentoring and
innovation support
for start-ups and
SMEs

Pilot-scale process trials
Life Cycle Assessment
Techno-economic evaluation
Market research & Feedstock analysis
Social acceptance
Business planning and business plan support

Ethanol value chain



Succinic acid value chain



Where's the value in bio-based?

Business to Business

$$Price = \text{functional benefit} / \text{monetary cost}$$

Business to Consumer

$$value = \text{functional benefit} + \text{emotional benefit} / \text{monetary cost} + \text{psychic cost}$$

Bringing value chains together allows both drivers and barriers to be identified.

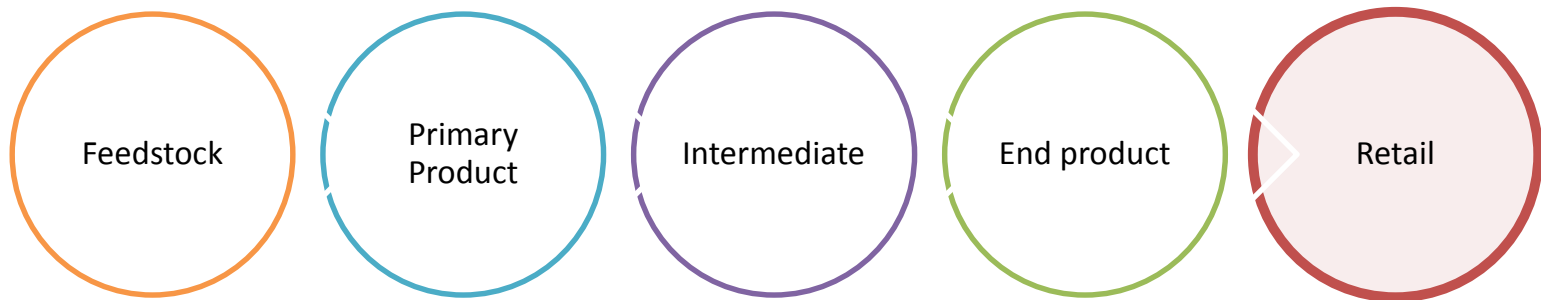


**SUpport and PartnERship
for the development of
multiple sustainable and
market ready value chains
in the BIO-based
economy**

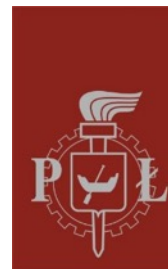


SuperBIO is funded by the research and innovation programme 'Horizon 2020' of the European Union under the Grant Agreement no. 691555 for the period from 01.06.2016 to 31.11.2018

- Bringing value chains in the bio-based economy closer to market
 - New, innovative, disruptive value chains
 - Cross border and cross sectoral
- Addressing value chain concerns and questions



Cluster organisations driving value chain development and support



Lodz University of Technology



Experienced service providers delivering
business solutions



10 different innovation services

75% funded by the project



Scale up and proof-of-concept
Bio Base Europe Pilot Plant



Techno-economic evaluation
nova Institute, NNFCC



Feedstock analysis
nova Institute



Life Cycle Assessment (LCA)
nova Institute



Access to investors
BCNP



Innovation capture and
patent filing
Gill Jennings & Every



Market research
nova , NNFCC, BCNP



Sustainability and regulatory
appraisal
NNFCC



Business Planning
BCNP, NNFCC



Subsidy and grant strategy
Biotech Subsidy

An SME can select multiple services with a maximal total value of €60 000

Process and requirements

- Efficient, collaborative application process
- Requirements
 - SME status
 - Three value chain partners (incl. SME)
 - Two eligible countries
 - Innovative idea
 - Plausible business opportunity



For more information and to apply
see website



www.h2020-superbio.eu

Summary

- 🌱 UK's networks in IB and bioenergy bringing together academic/industrial communities are free and open access.
- 🌱 BioPilotsUK brings together UK's open access pilot facilities – providing process development expertise and scale-up/pilot facilities.
- 🌱 SuperBIO and BioBase4SME providing funded professional services to SMEs developing bio-based products.

Thank you

Please keep in touch

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@biobasedchem

SOME THINGS ARE BEST LEFT UNDERGROUND



MOLES



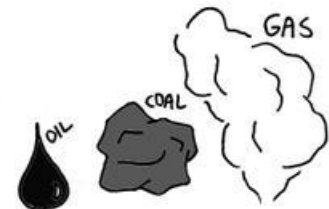
LAVA



UNEXPLODED
ORDNANCE



CORPSES



FOSSIL FUELS

@CARTOONRALPH

13 years of Bioeconomy development

NNFCC is an international bioeconomy consultancy, based in the UK.

We provide strategic, biobased business consultancy; analysing, explaining and de-risking the bioeconomy for our clients.

We help industry solve complex business challenges and provide vital evidence for policy makers.



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