

Sustainable Chemicals Innovation Network

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Sustainable Chemicals Innovation Network

Purpose:

- Launched in 2025, the network brings together industry, researchers and innovators to discover new opportunities for collaboration across the supply chains by:
 - being a key strategic linker across government, national and regional activities
 - understanding challenges and opportunities for the sector.
 - being a focal point to disseminate funding opportunities

Focus:

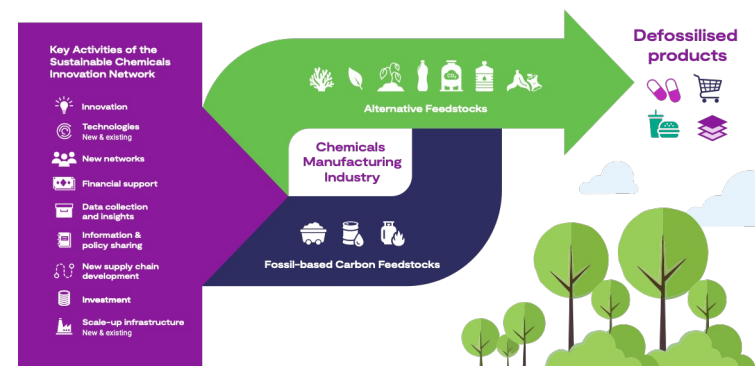
- Defossilisation of chemicals -2025-2026
- Sustainable Chemicals Incubator Plus (SCIP) - 2025- Ongoing
- Sustainable Chemical Supply Chains & the Industrial Strategy – 2026- Ongoing

The Sustainable Chemicals Innovation Network



Goal

The UK chemical industry is working to transition to a net-zero future by reducing its reliance on virgin-fossil carbon as a feedstock, creating new resilient value chains for defossilised chemical products. This is set out in the Sustainable Carbon Ambition which underpins the focus of the Sustainable Chemicals Innovation Network.



SusChemIN
Website



Industrial Strategy and Sustainable Chemicals



Life Sciences

- Pharma & Biopharma
- Medical technology

Clean Energy

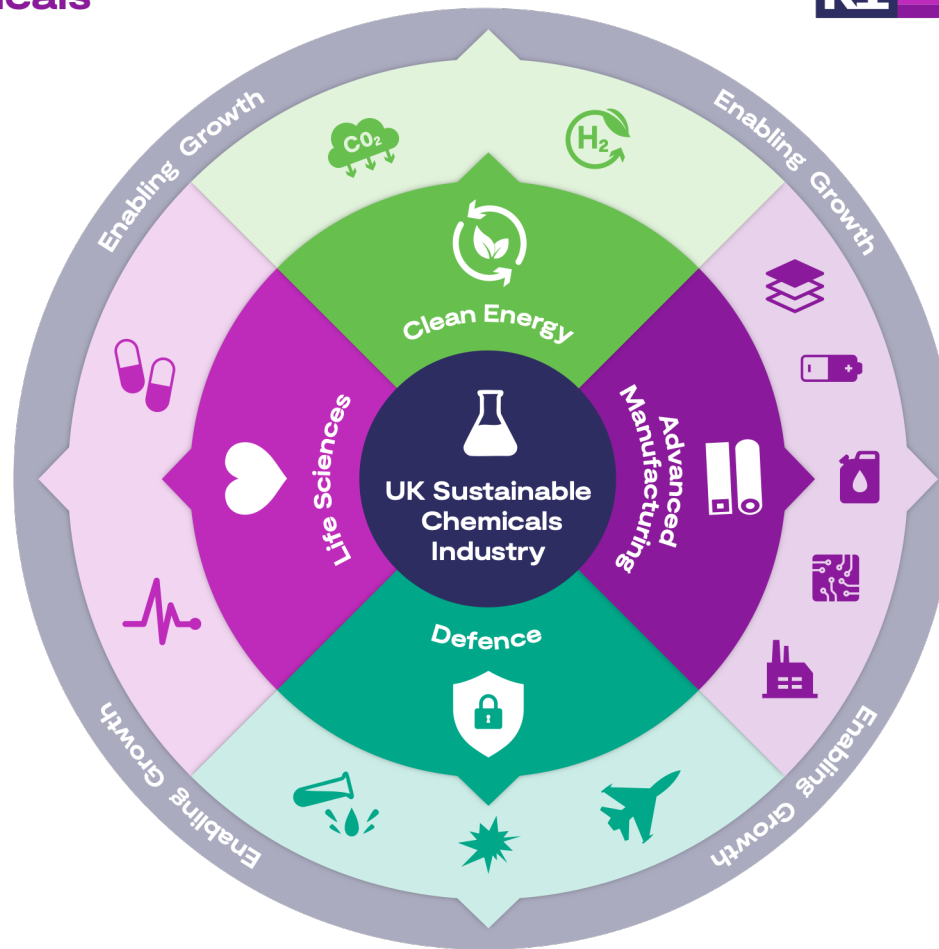
- Hydrogen production
- Fuel cells
- Carbon capture storage and utilisation

Advanced Manufacturing

- Battery manufacture
- Advanced materials including; coatings, adhesives, lubricants, catalysts, polymers, resins

Defence

- Advanced materials and protective systems
- Chemicals for detection and decontamination
- Explosives and propellants



Sustainable Chemicals Incubator Plus (SCIP)

SME scale-up and deployment in line with the industrial strategy

Purpose:

Explore how UK SMEs can rapidly scale and deploy innovations that support the UK's Industrial Strategy and provides supply chain resilience

- Moving higher TRL companies towards commercial implementation
- Identifying actionable IUK interventions that support innovative SME to grow from higher TRLs towards commercialisation

Activities:

- Benchmarking exercise explored scale-up support around the world (Optimat)
- Workshops explored opportunities and identified types of intervention (IUKBC)



4 Workshops in
February 2026 with
123 attendees

- Falkirk
- Teesside
- London
- Manchester

Workshop Aims

Identify Challenges

Clearly defined challenge/problems that are stopping Higher TRL SMEs from scaling and deploying innovation successfully

Identify Intervention(s) and Impact

Determine actionable interventions within the scope of IUK that will unlock progress

Develop Key Messages

Agree key messages for IUK

Aim:

Build consensus on the business challenges of SMEs to be able to scale and deploy innovations in sustainable chemicals within in the UK

Identify interventions to support SMEs business and technical growth from higher TRLs towards commercialisation

Wider Business Support/ Facilities/ Supply Chains/ Funding/ Technical Support

Sustainable Chemicals Incubator Plus (SCIP)

High level workshop Findings

Wider Business Support

- Lack a **joined-up**, easily **navigable** support ecosystem
- Requirement for midlevel TRL **wrap around support** including help with policy, logistics, connections, professional services etc.
- National and Regional Co-ordination

Facilities

- Difficulty **identifying** and **accessing** suitable facilities for growth and scale up
- **Shortage** of suitable facilities (at all scales)
- **Co-ordination** of existing facilities, improved access, more **affordable** options and long-term strategic investment required

Supply Chains

- Significant **barriers** in understanding, accessing and establishing supply chains
- Connectivity of value chains required
- Credibility and invest-ability support needed

Funding

- Lack of funding **continuity**, **suitability** and **flexibility** to support across the growth journey
- Minimal support at higher TRL
- Continuity and **stage gated** support required in chemicals

Technical Support

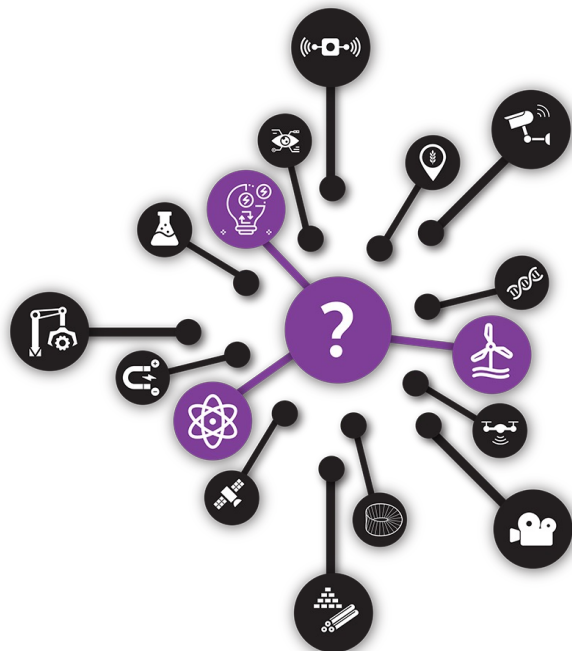
- Lack of clarity to what is needed
- Difficulty **accessing** right capabilities and **embedding** back into business
- Need for increased **visibility** of what is available and how to access it

Information obtained being used to influence future Innovate UK programmes

Innovation Exchange (iX)

Call for challenge holders !

We connect **innovators, funders and collaborators** to transform ideas into solutions



Innovate UK's **Innovation Exchange** programme connects companies with specific challenges to innovators who are already working on the solutions. Our unique cross-sector approach connects businesses with opportunities beyond their existing thinking.

Come and talk to the team about your innovation challenge or submit an Expression of Interest using the QR code

(deadline: 15th June)



Past examples of Sustainable Chemicals Innovation Exchange (iX) Challenges

Connecting challenge holders with solution providers



Stellantis: Valorisation of Bio-oil



M&I Materials: Sustainable raw materials for the manufacture of speciality vacuum greases



Catalyst Recycling for Sustainable Hydrogenation Processes



Call for Industry Challenge Holders

Sustainable Chemical Supply Chains and Engineering Biology Innovation Exchange

- For **UK-based organisations** with real industrial challenges
- Shape your challenge and access **cross-sector and engineering biology solutions**
- Facilitated introductions and routes to **collaboration**
- **Non-funded, in-kind support** from Innovate UK Business Connect

EOI closes: 15 June 2026



Case Studies

The network is currently showcasing a selection of companies whose innovations demonstrate how sustainable chemicals can deliver both environmental impact and commercial value.

Featured case studies include:

- **17Cicada** - Developing innovative methods to convert waste streams into valuable products, 17Cicada has progressed its technologies through multiple Innovate UK–supported projects.
- **Revive Eco** - A UK-based team of innovators, scientists, and sustainability problem-solvers transforming waste into opportunity. Their work focuses on converting used coffee grounds into high-value, sustainable ingredients.
- **ErebaGen** - Using cutting-edge biology to transform how chemicals are made, enabling more sustainable and efficient production methods.
- **Holiform** - Developing sustainable biosurfactants: eco-friendly, biodegradable, and non-toxic surface-active agents produced by microorganisms such as yeast or bacteria using renewable feedstocks rather than petrochemicals.

SusChemIN Virtual Café Series

Demonstrating UK Innovation

Café Highlights:

- Floreon:** Advanced plant-based PLA bioplastics delivering high performance and circularity.
- CataNiTek:** Nickel-based catalysts replacing palladium in pharma and agrochemicals.
- Eutechtics:** Turning carbon dioxide into added-value chemicals
- RV3 Chemicals:** Advancing Circular Solutions for Biofuel Waste Valorization
- C3 Biotech:** Biomanufacturing of Commodity Chemicals



Look out for Future Learning and Insight Activities

watch past
events here



Innovate UK Business Connect

Thank you for listening. Any Questions?



Navigating the Sustainable Chemicals Innovation Ecosystem

Innovate UK Business Connect

Chair: Catherine Julia Mort
Knowledge Transfer Manager – Industrial Biotechnology

9th June 2026



Welcome And Housekeeping

- **Cameras and microphones are turned off during the main session**
- **You can switch them on when you are in the break-out rooms**
- **I will be sharing several QR codes, please keep your phones near by!**
- **There will be no questions from the presentations, you will have chance to ask questions during the relevant break-out sessions**

Aim of this webinar:

- Highlights of the Sustainable Chemicals Innovation Network
- Introduce you to The Sustainable Chemicals Innovation Ecosystem Directory
- Here from key innovators from the sustainable chemicals space
- Open discussion with key organisations within the ecosystem
- **Have your say!** Input into network activities

AGENDA

10.00 -10.05 Welcome

10.05 – 10.20 Highlights of SUSCHEM IN

10.20 – 10.30 Introduction to the Sustainable Chemicals Innovation Ecosystem Directory

10.30 – 11.00 Innovator Show Case – Innovation journey Case Studies and shared best practise

11.00 - 11.30 Break out Session 1 – Opportunity to join key organisations that can help support with your innovation journey. To include scale up facilities, innovation centres, incubators and funding experts.

11.30 – 11.40 Menti Meter Survey

11.40-11.45 - What's coming next for the network

11.40 - 11. 55 Break out Session 2 - Have your say! Open discussion to help us shape the next phase support actions for the SUSCHEM IN.

11.55 – 12.00 – Close



About Us

Innovate UK Business Connect exists to connect innovators with new partners and new opportunities beyond their existing thinking – accelerating ambitious ideas into real-world solutions.



Innovate
UK

Business
Connect

B2Match – Networking opportunity!



Call to action!

- Please make sure you have added your profile to the **B2Match platform** so you can connect with other delegates.
- This platform will be open until March 31st 2027!
- If you would like a facilitated introduction after the event, please contact catherine.mort@iukbc.org.uk

Sustainable Chemicals Innovation Network

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UK Sustainable Chemicals Ecosystem Directory

*Showing national and regional organisations
supporting innovation*

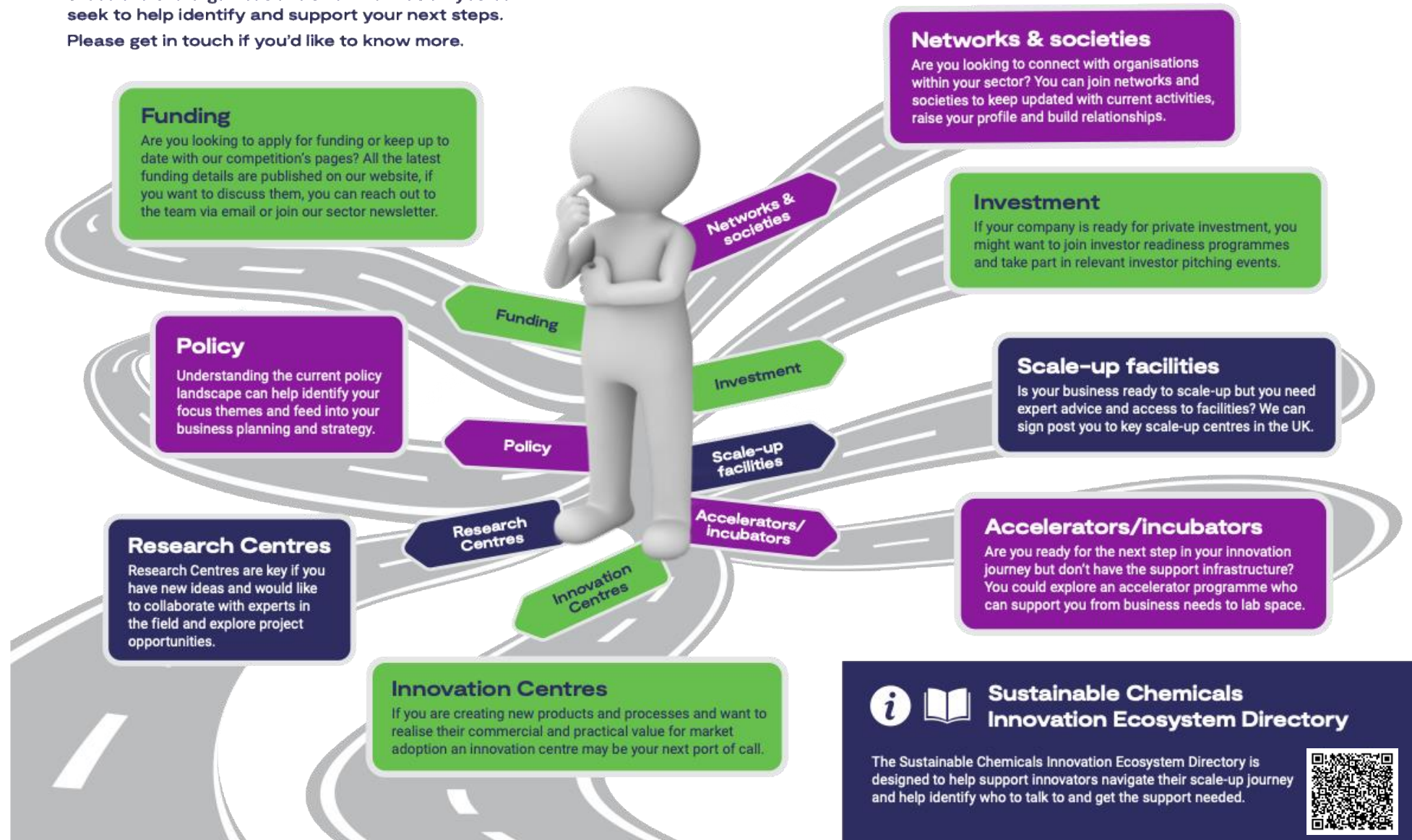


The Innovator's Journey



As an innovator embarking on your scale-up journey, these are the organisations and information you can seek to help identify and support your next steps.

Please get in touch if you'd like to know more.



UK Sustainable Chemicals Innovation Ecosystem Directory

Showing national and regional organisations supporting innovation

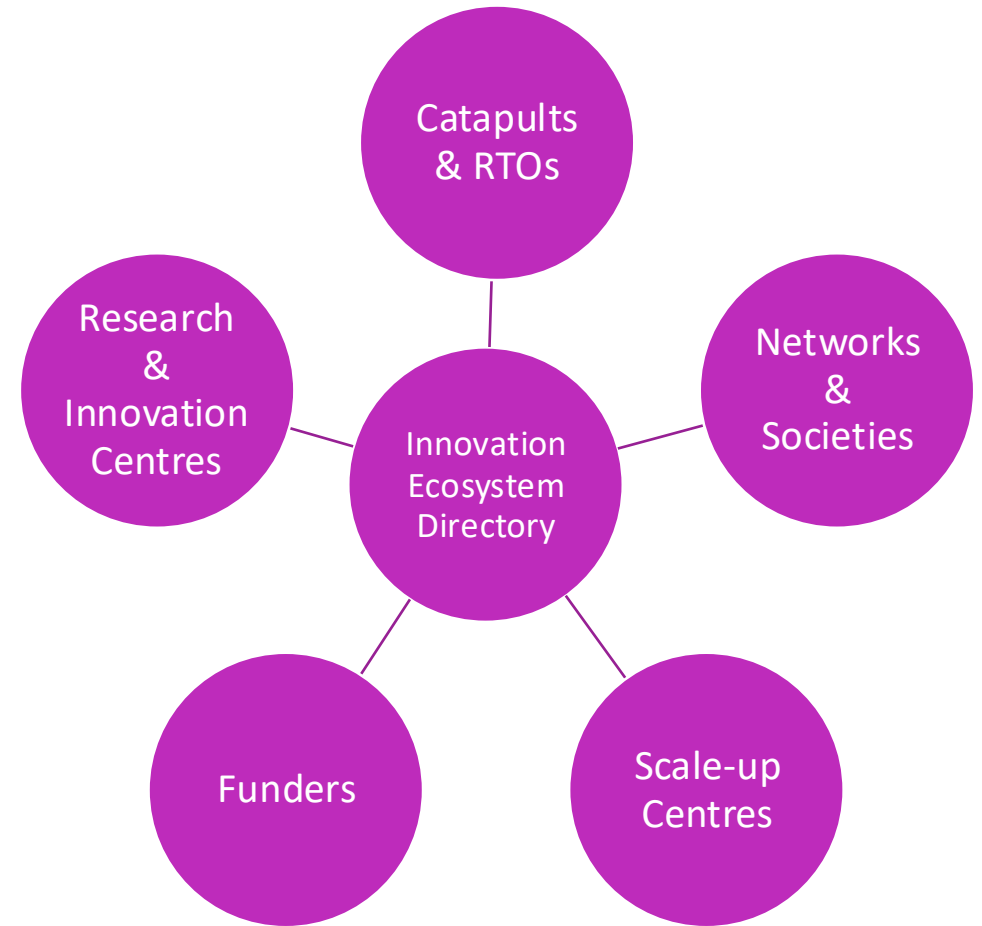
Launches today!

Aim:

To create an innovation ecosystem directory of organisations that are actively engaged in sustainable chemicals.

Purpose:

To support companies and innovators in understanding who is supporting innovation and scale-up within the chemicals sector.



Sustainable Chemicals Innovation Ecosystem Directory

Our directory is designed to support businesses across different sectors looking to understand the sustainable chemicals innovation ecosystem and connect with key organisations. This network of experts can support all TRL (Technology Readiness Level) stages from TRL 3 businesses looking to develop a proof of concept to those further along the scale seeking private investment or commercialisation support.

Search for organisations specialising in scale-up, policy and strategy, funding or investment. You can also find networks, societies, incubators, accelerators and innovation centres to support you on your innovation journey. Fill out the form within the Additional Information section of an organisation to request an introduction through Innovate UK Business Connect.

Organisation Type



Business Region



Organisation/Initiative	Organisation Type	Business Region	Full Details
Biobased and Biodegradable Industries Association (BBIA)	Trade Association	East of England	More Info
BioIndustry Association (BIA)	Trade Association	Nationwide	More Info

Innovator Presentations:

- *Holiform, 17Cicada and Revive Eco*
- **Keep your questions** for the 'meet the innovator' break-out room!

Break-out session 1

- Please chose the room you would like to join for a discussion
- You can also move to other break-out rooms if you please.

Break-out room 1

**Great British Chemicals
(Incubator/Accelerator)**

Break-out room 2

IBioiC and BDC (Scale-up)

Break-out room 3

CPI (Scale-up)

Break-out room 4

RSC (Incubator/Accelerator)

Break-out room 5

IUK (Funding)

Break-out room 6

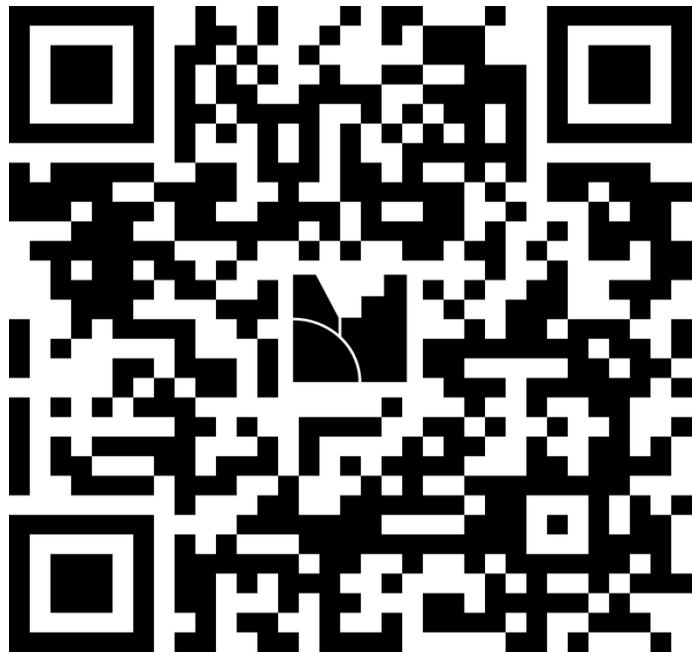
**Revive Eco, Holiform, 17Cicada,
(Meet the Innovators)**

Break-out room 7

**Engineering Biology and
Sustainable Chemicals
Innovation
Network**

Menti Meter Survey – Interactive session!

Help us help you! We invite you to input into the future activities of the network..



Sustainable Chemicals Insights and Learning series:



Funding Application Guide 101 Webinar

14 July 2026
11:00-12:00

Join the Sustainable Chemicals Insights and Learning Series, part of the [Sustainable Chemicals Innovation Network](#). This is the first event in the series and is designed to support innovators in the sustainable chemicals community as they navigate the Innovate UK funding landscape.

The webinar aims to support those who are early in their innovation journey and may have limited experience with Innovate UK funding. It will help demystify the application process, explain the requirements, and encourage applications from organisations that have not engaged before.

Break-out session 2

Have your say!

A chance for you to discuss the Menti Meter results in more detail with Innovate UK Business Connect!

Innovate UK Business Connect

Thank you for listening.





Company Introduction

Vicky De Groof
Principal Innovation Engineer



2026

Holiferm vision

To work together to create a world where better value and sustainable biochemicals eliminate the need for petrochemicals.

- Founded in 2018, Holiferm now have >50 employees
- Producing sophorolipid biosurfactants from manufacturing site in Wallasey (NW England)
- Manufacturing to ISO 9001:2015 standards
- As part of realising our vision, Holiferm is working to bring new biosurfactants (MELs & others) to market



Company history



A changing surfactant market

Traditional



Improvements



True Sustainability

Petrochemical

Partially Bio-based

Bio-based

Biosurfactants

Process



Feedstock



LOCAL

Market Examples

Alcohol ethoxylates

Cocomidopropyl
betaine

Alkyl polyglucoside
(APG)

Sophorolipids
Rhamnolipids

Sustainability Issues

Fossil fuel feedstock
CO₂ footprint

Fossil fuel feedstock
Tropical oil feedstock
CO₂ footprint

Tropical oil feedstock
CO₂ footprint

Industrial-scale
production only
recently realised



Overview



Sophorolipids can improve overall formulation **performance**



More **sustainable**, save up to 50% of CO₂/tonne vs petrochemical & bio-based



Two product launches (lactonic and hydrolised form for diversified applications)



Better **appearance** (lighter in colour and clearer than market sophorolipids)



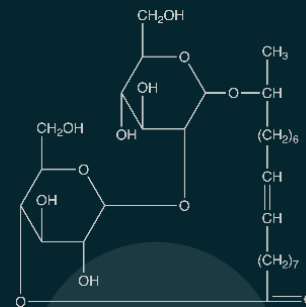
Growing pipeline of multiple differentiated biosurfactant products



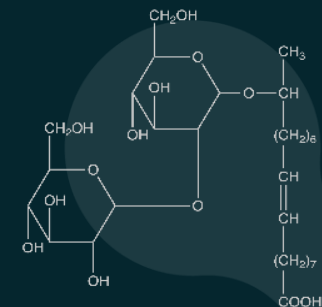


Performance

- Effective in home and personal care, oilfield and agricultural applications
- Performance benefits in hard-surface cleaning, liquid laundry, deodorant, anti-acne creams and more (benchmarked against existing surfactants)
- Excellent surfactant properties plus additional functionality as antimicrobial (anti-dandruff and -acne), antibiofilm and moisturiser



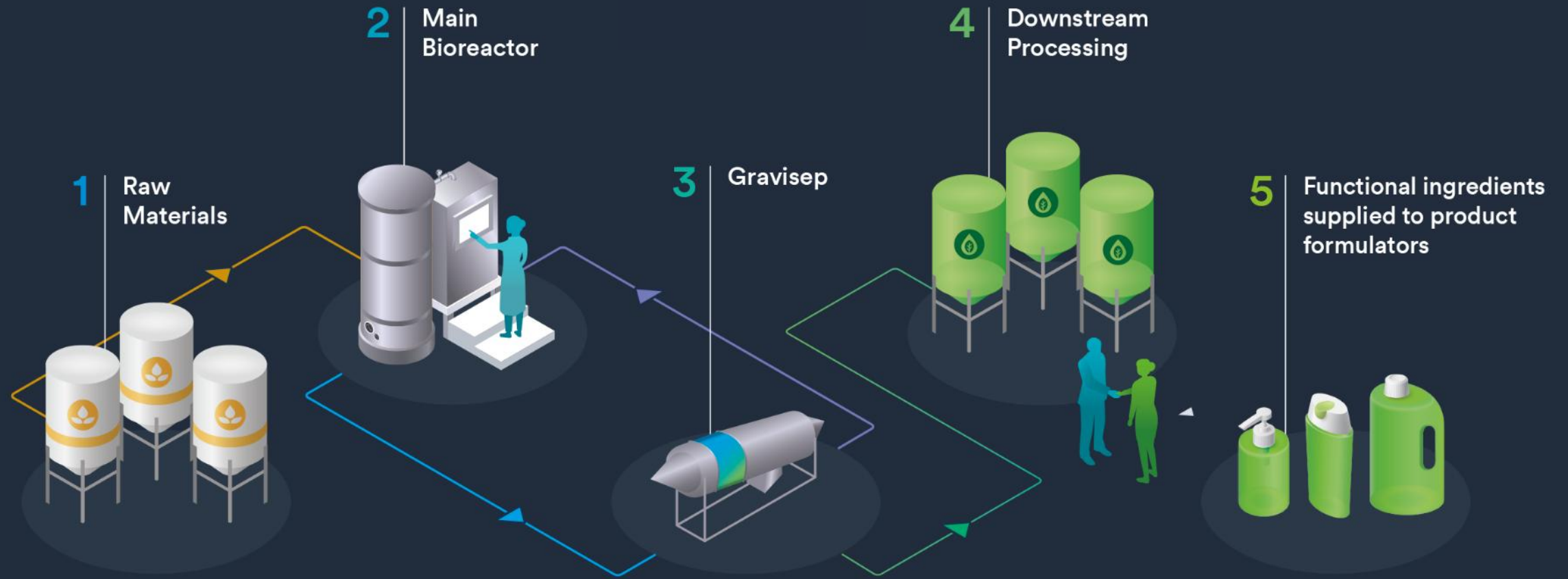
Lactonic sophorolipid



Acidic sophorolipid



Holiferm technology



Sustainability – Environment



- Produced by fermentation with **minimal processing** and **no solvent usage**
- Carbon reduction vs petrochemical surfactants **up to 50% of CO₂ reduction** for each 1 tonne of sophorolipid produced
- **Innovation programme** to switch to waste, non-food substrates.



Biodegradable



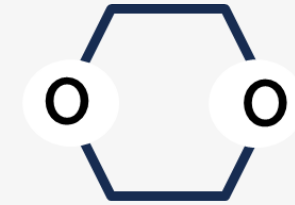
Health & Sustainability Claims



Sulphate-free surfactant



COSMOS approved surfactant



1,4-dioxane free

1,4-dioxane free

Senate Bill 4389-B approved new usage limits of 1,4-dioxane: 1 ppm for all rinse-off personal care and home care products by December 31, 2023.



Suitable for VEGAN formulations



Suitable for Cruelty-free formulations

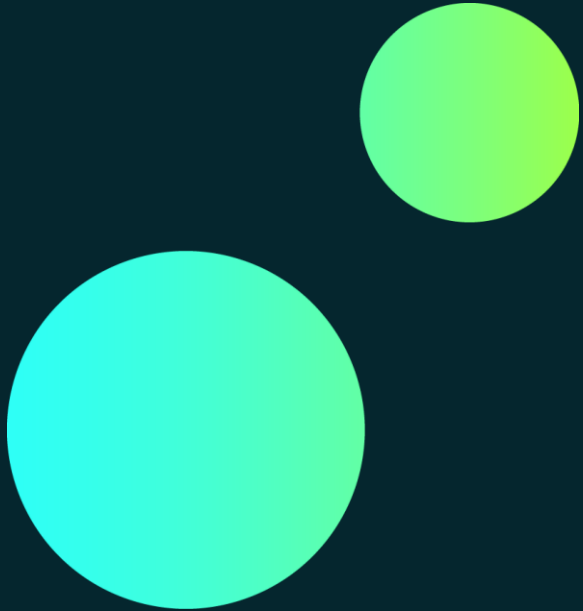


Palm-free surfactant



Non-GMO process & raw materials





Bio-engineering our future



17 CICADA

Turning Waste into Value

**Renewable building blocks for
high-performance plastics**



The University of
Nottingham



UK Research
and Innovation

Experienced Team, Complementary Skills



Dr Peter Knight

CEO - startup formation,
tech transfer experience



Dr Samantha Bryan

CTO - industrial
microbiology expertise



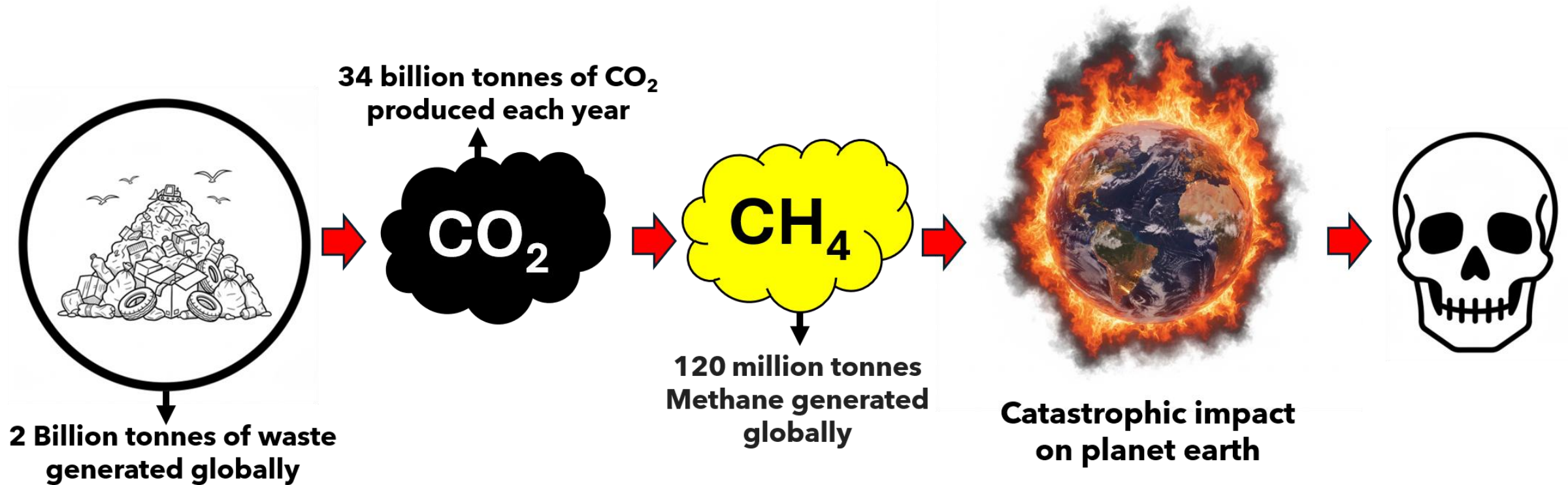
Andrew Rogan

CCO - commercial, finance
and partnerships expertise



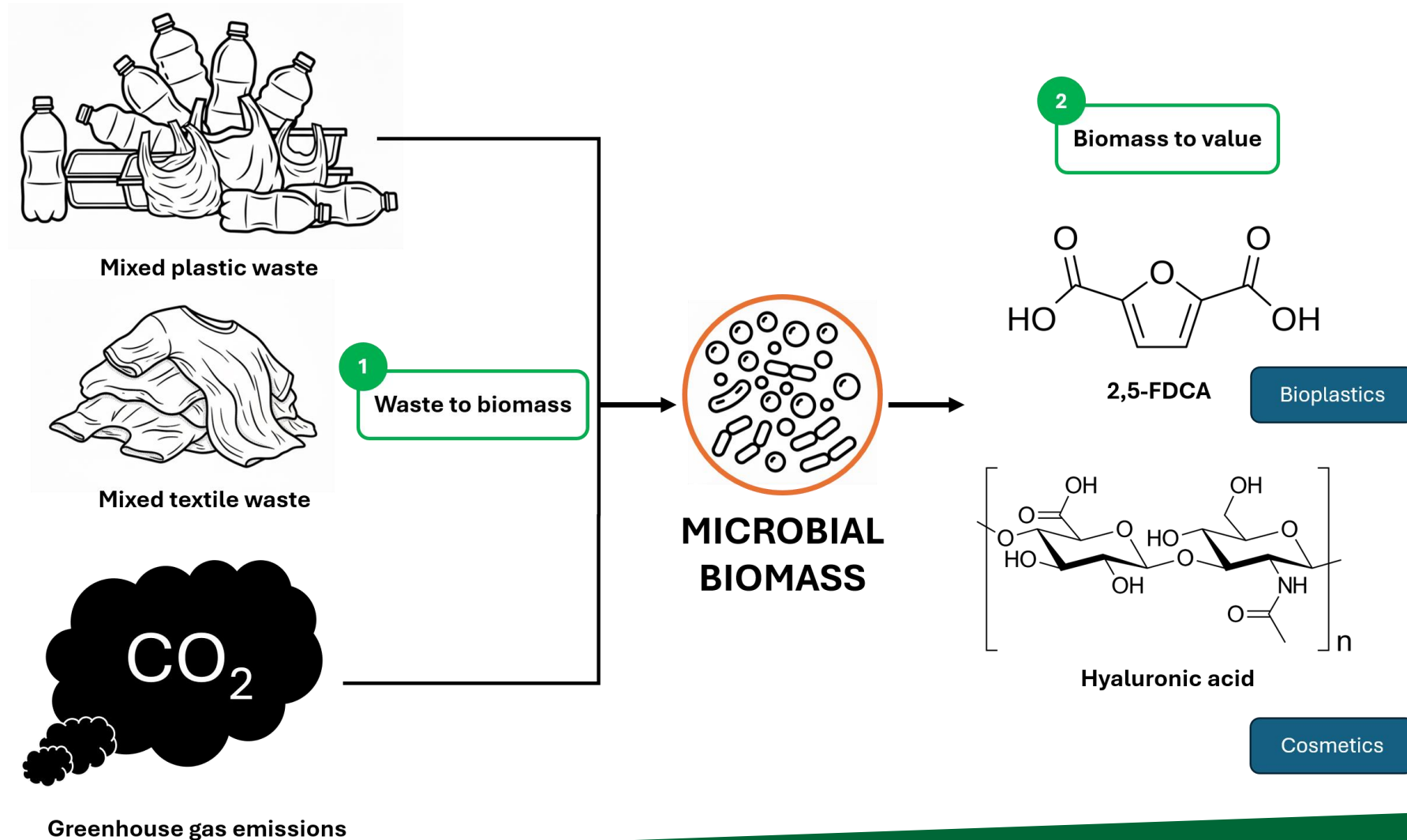
Deep biotech, startup execution, and commercial leadership

The Global Crisis: Over 80% of Waste is Landfilled or Mismanaged.



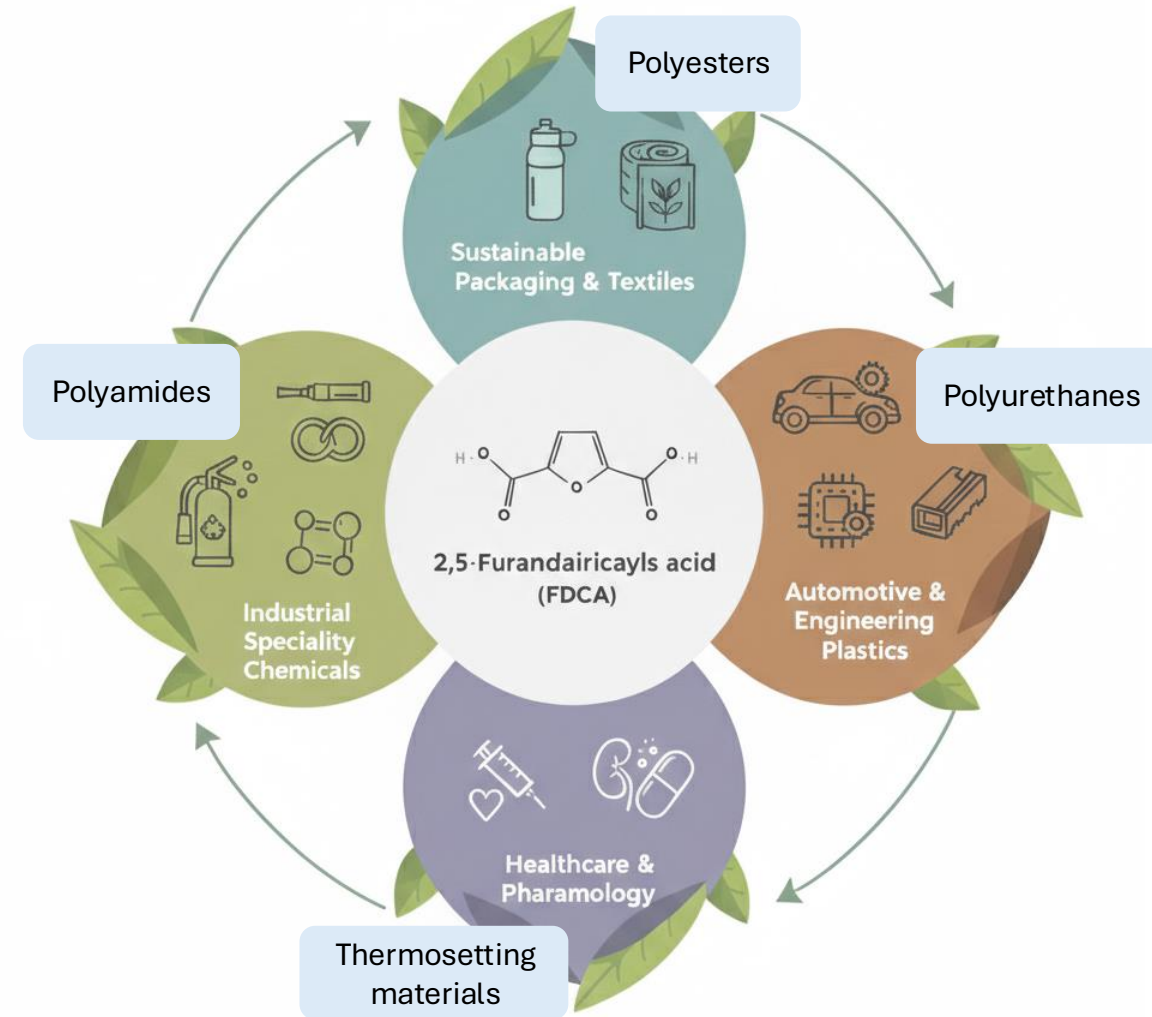
¹⁷CICADA Turns Waste into Value

Solution: 17 Cicada's Platform Technology



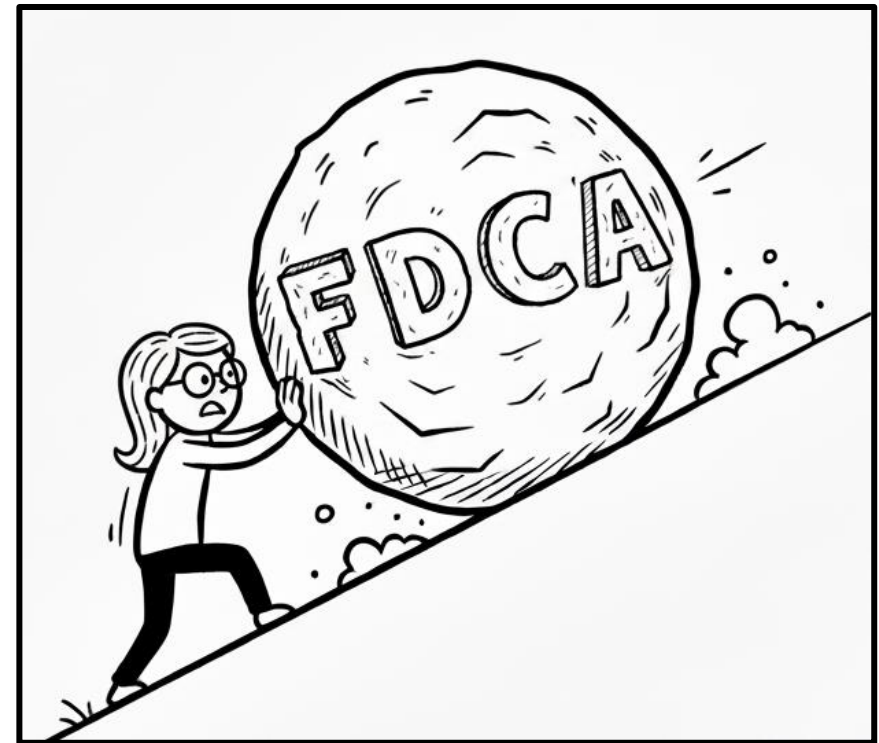
First to Market FDCA: A Green Chemical Building Block

- **Market Opportunity:** The bioplastics market is valued at \$15.7 Billion with a 19.5% CAGR - driven by demand for green solutions.
- **Strategic Importance:** FDCA is recognized by the U.S. DOE as one of the 12 key building blocks for the green chemicals industry.
- **Application:** FDCA is a core monomer used to create advanced biopolymers like PEF, PBAF. It is also used in Polyamides, Polycarbonates, Plasticizers and Polyester Polyols.
- **Why?** It has superior thermal and mechanical properties compared to fossil-based counterparts.
 - PEF has superior gas barrier properties, thermal stability, and mechanical strength, rendering it well-suited for packaging applications such as bottles, textiles, and films.



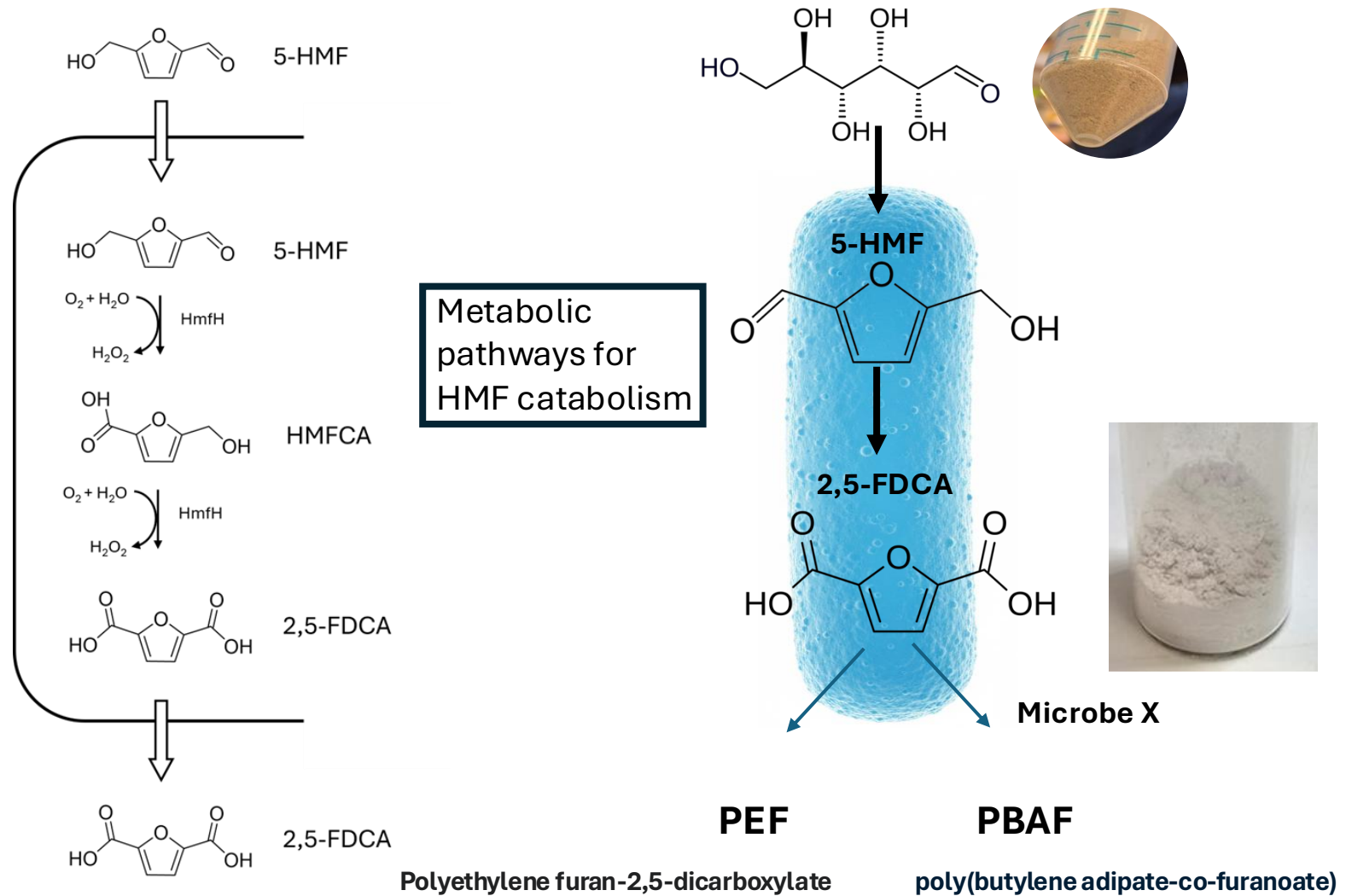
FDCA: The Challenge

- **High production costs/limited scale:** few thousand metric tons annually, in contrast to over 70 million metric tons for petroleum-based TPA.
- **Severe reaction conditions:** high temperatures, high pressures, and hazardous solvents, environmentally unfriendly and economically inefficient.
- **HMF instability:** unstable, prone to degradation, and difficult to purify.
- **Multistep synthesis:** multistep process involving several intermediates such as 5-hydroxymethyl-2-furancarboxylic acid (HMFCFA), 2,5-diformylfuran (DFF), and 5-formyl-2-furancarboxylic acid (FFCA).
- **Humin formation:** reduce overall yield and cause reactor fouling.
- **All processes to date need sugar:** expense, sustainability-market for sugar derived biochemicals projected to reach 113 million tons by 2050.



17 Cicada: Bio-Based FDCA

- **The Innovation:** Our **unique process** utilizes Microorganism X to generate FDCA directly from a feedstock.
- No need for 5-HMF.
- Use waste as a feedstock-not reliant on sugars. Conversion-lignocellulose-glucose-fructose.
- A simpler, efficient, and potentially more cost-effective route.
- Operating at TRL4-99% purity.
- **IP Protection:** Patent Filed.



¹⁷CICADA

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