Positioning for Growth: Unlocking the UK's Chemicals Ecosystem

Innovate UK Business Connect

Chair: Chris Hawkins
Knowledge Transfer Manager – Sustainable Chemicals

20th May 2026

UKRI Innovate UK

Introduction to Innovate UK Business Connect

Debra Jones

The UK Modern Industrial Strategy

Michael Burnett

Sustainable Chemicals Innovation Network

Chris Hawkins

Critical Materials

Fiona Coomer

Engineering Biology for the Chemicals Sector

Dana Heldt

Call to action and current funding opportunities

Chris Hawkins

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Positioning for Growth: Unlocking the UK's Chemicals Ecosystem

Introduction to Innovate UK Business Connect and the Chemistry and Industrial Biotechnology Team

Debra Jones
Head of Chemistry and Industrial Biotechnology

Debra.jones@iukbc.org.uk

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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.

UKRI Innovate UK | Business Connect

Innovate UK Business Connect

Chemistry and Industrial Biotechnology Team



Debra Jones
Interim Head of Chemistry
& Industrial Biotechnology



Catherine Mort
KTM
Industrial Biotechnology



Chris Hawkins
KTM
Sustainable Chemicals



Fiona Coomer
KTM
Critical Materials



Dana Heldt
KTM
Engineering Biology



Matthew Reeves
KTM
Critical Materials



Allen Trusty
KTM
Sustainable Aviation
Fuel



Michael Burnett
KTM
Process Manufacturing



Rajesh Mistry
KTM
Industrial Biotechnology

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The UK Modern Industrial Strategy

Chemicals & the Industrial Strategy Sectors

Michael Burnett
Knowledge Transfer Manager – Process Manufacturing

Michael.burnett@iukbc.org.uk

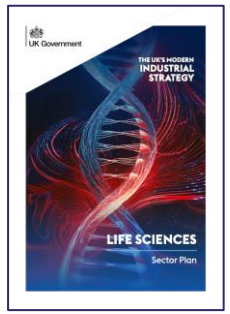
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The UK's Modern Industrial Strategy

Policy Paper



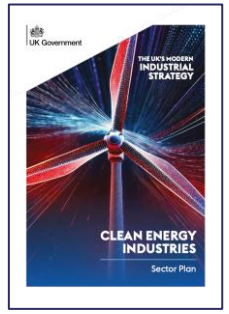
Industrial Strategy Sector Plans (IS8)



Life Sciences



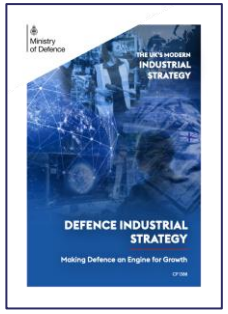
Digital Technologies



Clean Energy Industries



Advanced Manufacturing



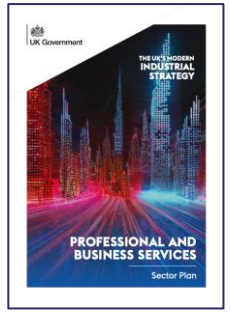
Defence



Creative Industries



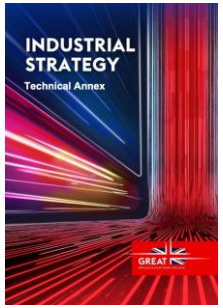
Financial Services



Professional & Business Services

Technical Annex & Industrial Strategy Sector Definition List





Ref: www.gov.uk/official-documents

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The UK's Modern Industrial Strategy

Figure 3: Outcome of frontier industry identification process

This process identified over 30 subsectors within the IS-8 sectors (see the sector definitions list for the technical definitions of Industrial Strategy sectors and the frontier industries).

Advanced Manufacturing	Clean Energy Industries	Creative Industries	Defence
• Advanced materials • Aerospace • Agricultural technology (Agri-tech) • Automotive • Batteries • Space	• Carbon capture, usage, and storage (CCUS) • Heat pumps • Hydrogen • Nuclear fission • Fusion energy • Wind (onshore, offshore, and floating offshore)	• Advertising and marketing • Film and TV • Music, performing, and visual arts • Video games	Subsectors subject to final agreements, published in the Defence Industrial Strategy later in 2025. • Autonomous systems • Combat air • Complex weapons • Directed energy weapons • [Land military vehicles] • Maritime capabilities • [Nuclear submarines] Also included in digital and technologies or advanced manufacturing: • Advanced connectivity technologies • Artificial intelligence • Cyber • Engineering biology • Quantum technologies • Semiconductors • Space

Digital and Technologies	Financial Services	Life Sciences	Professional and Business Services
• Advanced connectivity technologies • Artificial intelligence (AI) • Cyber security • Engineering biology • Quantum technologies • Semiconductors	• Asset management and wholesale services • Capital markets (including retail investment) • FinTech • Insurance and reinsurance markets • Sustainable finance	• Pharmaceuticals • Medical technologies (MedTech)	• Accountancy and tax • Legal services • Management consultancy

Ref: Industrial Strategy Technical Annex, June 2025, P22, www.gov.uk/official-documents.

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The UKs Modern Industrial strategy

Frontier Industries (Advanced Manufacturing):

Automotive
Batteries
Aerospace
Space
Advanced Materials
Agri-Tech

Frontier Technologies (Digital Technologies):

Advanced Connectivity Technologies (ACT)
Artificial intelligence
Cyber Security
Engineering Biology
Quantum Technologies
Semiconductors

Foundational Industries (Advanced Manufacturing (P13), Technical Annex, Sector Definitions):

- build resilience, reducing supply-side barriers
- develop and build consortia for sustainable UK chemical supply chain project
- anchor the advanced manufacturing supply chain
- chemicals are at the core of advanced manufacturing
- chemicals are key inputs to Clean Energy, Advanced Manufacturing and Life Sciences
- critical minerals are key inputs to advanced manufacturing, clean energy industries, defence, and digital technologies
- critical minerals are essential for electric vehicle batteries

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Chemicals: Unseen, Essential, Everywhere

Potential application areas for chemicals

Industrial Strategy

Advanced Manufacturing

- Polymers, resins, composites, pigments, coatings, adhesives and speciality materials
- Chemicals for use in electronics and semi-conductors
- Coatings, adhesives, lubricants and catalysts

Defence

- Energetic materials (explosives, propellants)
- Advanced materials and protective systems (composites, coatings, corrosion inhibitors)
- Chemicals for detection and decontamination

Clean Energy

- Hydrogen production (electrolysers, ammonia, fuel cells)
- Carbon Capture Storage and Utilisation (solvents, absorbents)
- Battery Manufacture (electrolytes)

Life Sciences

- Pharma & Biopharma (API's, solvents, excipients)
- Medical technology (polymers, reagents)

Circular Economy & Critical Materials

- Recycling and material recovery from waste
- Critical materials
- Green chemistry

Sector Plan

Foundational Inputs

The strategic role of chemicals:
Chemicals manufacturing underpins the supply chains of strategic industry sectors.

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Sustainable Chemicals Innovation Network

Chris Hawkins
Knowledge Transfer Manager – Sustainable Chemicals

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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 and and across national and regional activities
  - understanding challenges and opportunities for the sector.
  - being a focal point to disseminate funding opportunities



Focus:

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

Our aim is:

- To develop new resilient supply chain projects (within new and existing UK supply chains) that enable growth in the key IS sectors
- Build consensus on the needs of SMEs to be able to scale and deploy innovations in sustainable chemicals within in the UK(SCIP)

SusChemIN Website

Innovate UK

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**

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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

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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 viability of what is available and how to access it

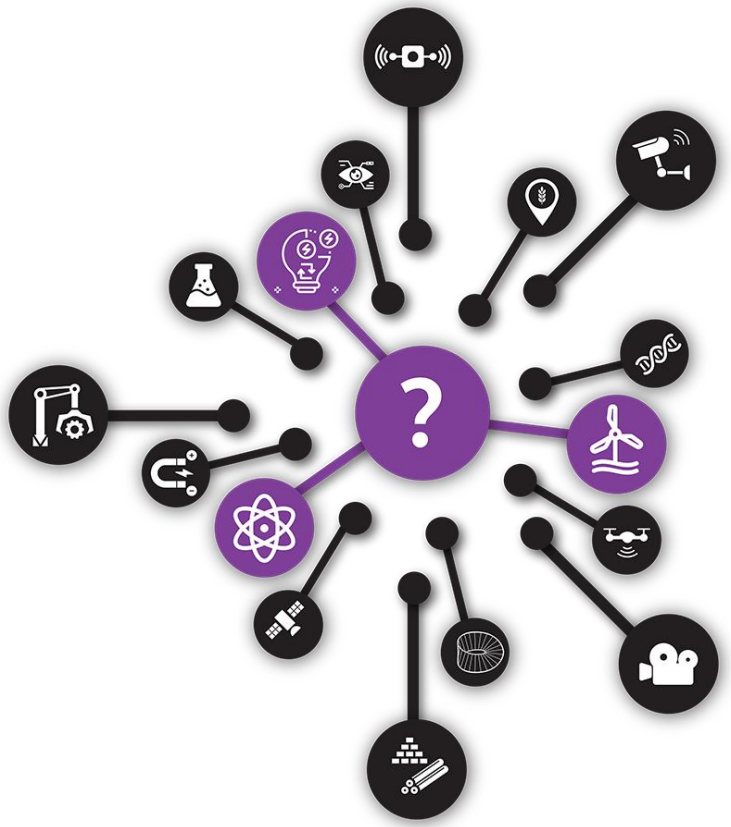
Information obtained being used to influence future Innovate UK programmes

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Innovation Exchange (iX)

Call for challenge holders !

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



Innovate UK Business Connects **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.

Connecting challenge holders with innovative solution providers

Innovation Exchange (iX) Challenges – Past Examples

Connecting challenge holders with solution providers

Stellantis: Valorisation of Bio-oil

Stellantis is seeking solutions to convert bio-oil they have produced from biochar pyrolysis, into value-added materials, such as polymers, for automotive applications.

The focus is on achieving CO_2 permanence and commercial viability, with the goal of developing sustainable materials that can be integrated into the automotive sector.

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

M&I wanted to find innovators who can provide alternative sustainable hydrocarbon feedstock sources suitable for the use in the manufacture of speciality **vacuum greases**.

Selected solutions will be trialled in pilot studies within M&I's current vacuum grease manufacturing process, with the possibility of further adoption upon successful trials.

M&I MATERIALS

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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

Online drop-in for challenge holders:
27 May, 2:30–3:30pm

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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

R3V Chemicals: Advancing Circular Solutions for Biofuel Waste Valorization

C3 Biotech: Biomanufacturing of commodity chemicals



watch webinar recordings here:

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Critical Materials

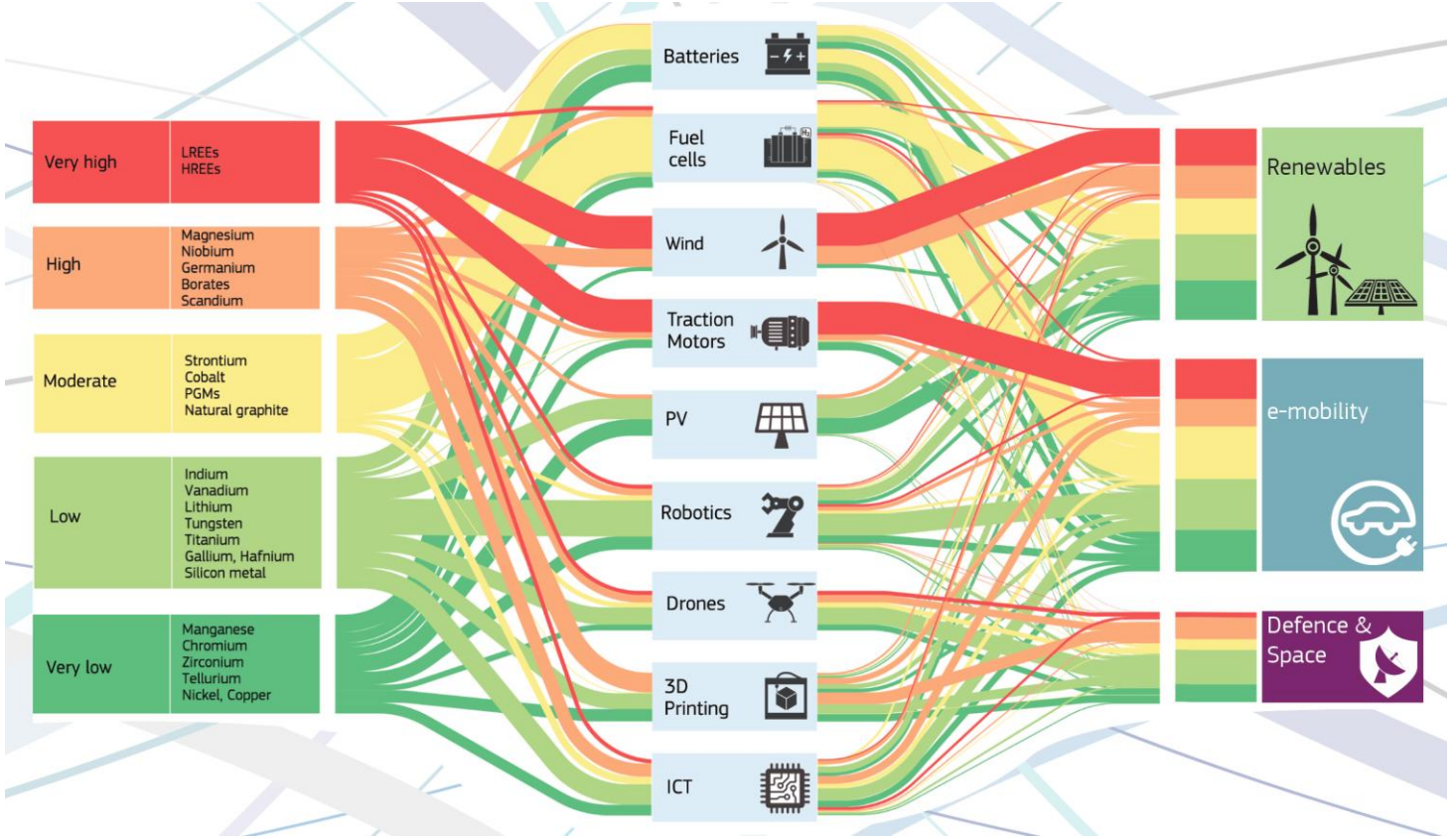
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Knowledge Transfer Manager – Critical Materials

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Increasing demand for Critical Materials

Almost everything we do to communicate, get around, work and to play is increasingly based, directly or indirectly, on critical minerals.

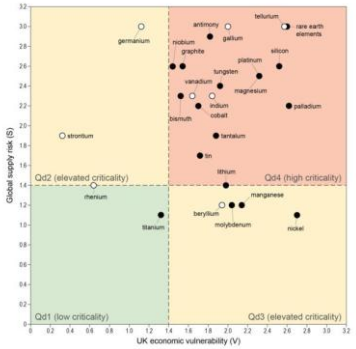


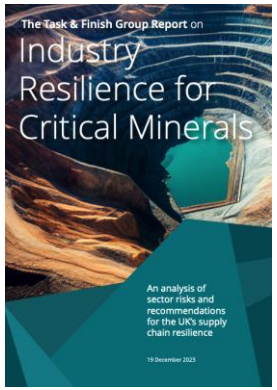
https://ec.europa.eu/docsroom/documents/42881/attachments/1/translations/en/renditions/native European Commission, Critical materials for strategic technologies and sectors in the EU - a foresight study, 2020 p10

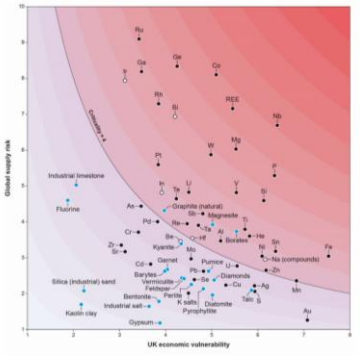
Innovate UK

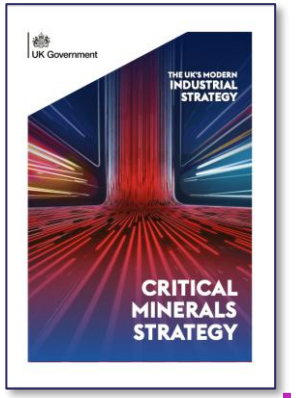
UK Critical Minerals policy development









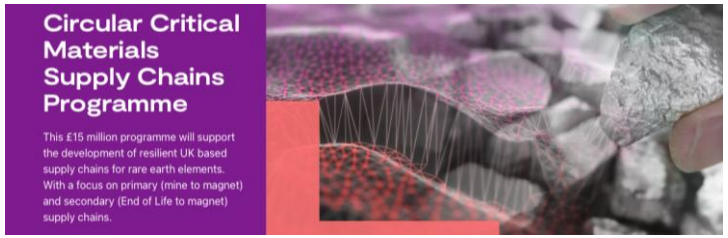


Critical Minerals	Critical & Growth Minerals		Growth Minerals
• Bismuth • Borates • Indium • Iron • Magnesite • Magnesium • Niobium • Phosphorus • Sodium compounds • Tellurium • Vanadium • Zinc	• Aluminium • Antimony • Cobalt • Gallium • Germanium • Graphite (natural) • Hafnium • Helium • Manganese	• Nickel • PGMs* • REEs • Rhenium • Silicon • Tantalum • Tin • Titanium • Tungsten • Lithium	• Beryllium • Chromium • Copper • Uranium • Graphite (natural & synthetic)

2022 2023 2024 2025 2026

UK Critical Minerals Intelligence Centre

Delivered by: British Geological Survey



Critical Materials Supply Chains Innovation Network

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Circular Critical Materials Supply Chains

The **CLIMATES** programme

£15 million investment over 2 years

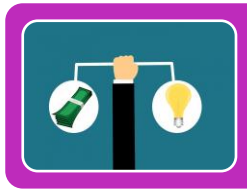
Initial focus on **Rare Earth Elements**

Aim to seed growth of **UK capability**

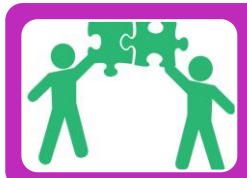
Delivery headlines



38 R&D projects awarded to **52** unique project partners



£18.1m total R&D project value



5 Innovation Exchange (iX) challenges delivered, connecting SMEs with B2B or R2B solution providers



Innovation landscape reports across the 5 themes, identifying the opportunities to direct future R&D support



1500 School children received mine-to-magnet workshop through partnership, with Xplore Science and Less Common Metals



Identified priority areas for future standards development



Investor engagement activities that have included a “barriers to investment” report & **3** Investor networking events



Investor readiness programme to prepare SMEs to raise investment



International benchmarking to identify a priority list of potential future bilateral partners



Bilateral activities with Canada, including an outbound mission with 12 UK SMEs and a funding competition

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Programme Impact

Innovation-driven growth

Indicative
co-investment of
> £250 million



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Critical Materials Supply Chains Innovation Network

Building on the success of CLIMATES



Engagement & Leadership

- Share resources and insights
- Run networking& information events
- Keep the community informed and engaged
- Establish as clear entry point to UK CM ecosystem

Innovation

- Identify new opportunities & partnerships
- Signpost funding opportunities
- Deliver Innovation Exchange (iX) opportunities

Investment

- Connect organisations to funding & investment
- Run an Investor Readiness Programme – training innovators to attract private investment
- Publish outcomes of CM investment deep dive

International

- Share findings of CLIMATES discovery visits
- Support cross-border collaboration
- Identify new global collaboration opportunities

Skills, Policy & Regulations

- Support skills roadmap development
- Identify barriers in community

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The ambition

Critical Materials Supply Chains Innovation Network

- Our ambition is to **expand the materials scope** of the programme
- **Enable investment** in innovative products, processes & services across the critical materials value chain to **grow UK capability**
- Create **supply security** and **supply chain resilience** of critical materials through circular approaches
- Make the UK a **world leader in recycling** of critical materials



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iX: Innovation Exchange

HyProMag

- HyProMag used iX process to explore coating technologies for recycled magnets.
- The flexible, fast-moving nature of iX allowed the company to test multiple approaches with different suppliers.

"The flexibility of Innovate UK's iX is one of its biggest strengths... It allowed us to explore different suppliers and approaches quickly, and test ideas that would not have been possible otherwise. One iX connection has already developed into a likely long-term partnership – the impact of iX has only been positive."

Rob Arnold
Senior Metallurgist, HyProMag.

"Without Innovate UK funding, we simply would not be where we are... It gives manufacturers the focus and freedom to invest in innovation – and that's what turns long-term ambition into something real."

Nick Mann
Managing Director, HyProMag

HYPROMAG
Magnet Recycling

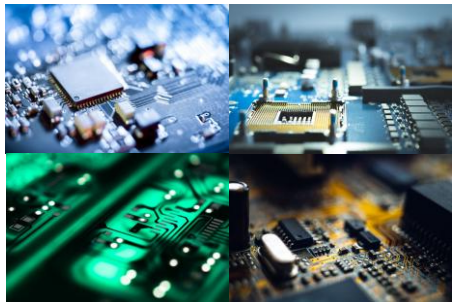
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iX: Innovation Exchange

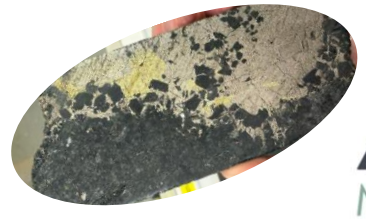
Critical Materials Challenges

Metal recovery from wastewater integrated hydrogen production systems

Critical material recovery from e-waste recycling process by-products



Novel processing methods to extract and refine nickel, copper and cobalt products from sulphide mineral concentrates



ABERDEEN MINERALS

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In summary

Critical Materials Supply Chains Innovation Network

- Critical materials **underpin** high-value manufacturing
- They are fundamental to realising **Net Zero**
- CLIMATES has **seeded supply chain growth** for a domestic source of rare earth elements
- Circular economy approaches can enable the UK to have **security of supply** and **increased supply chain resilience** for rare earth elements


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Engineering Biology for the Chemicals sector

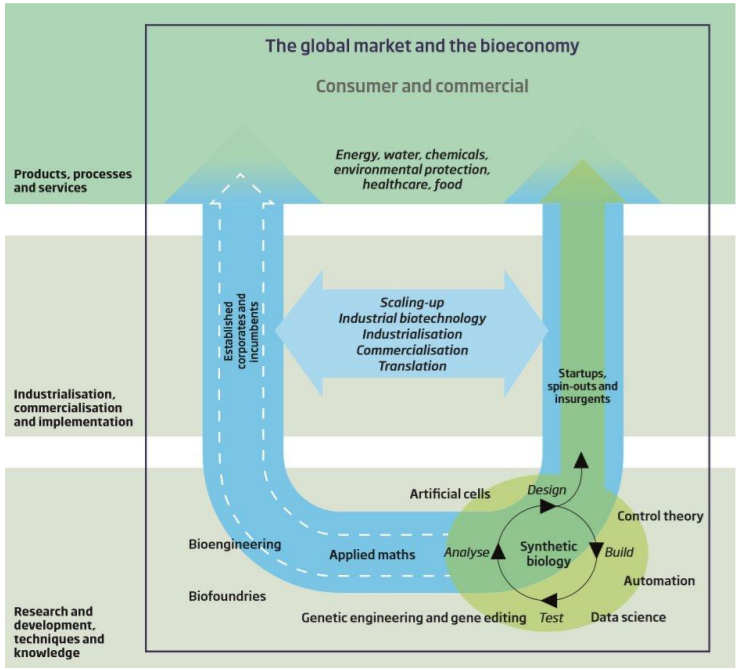
Dana Heldt
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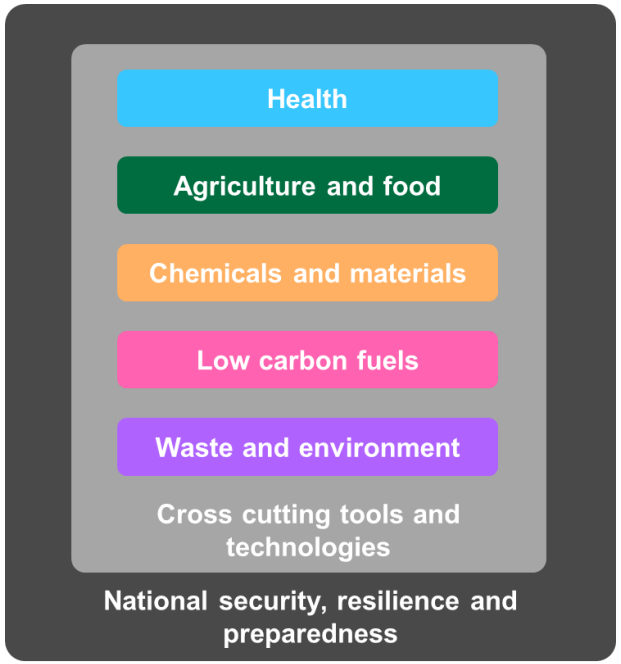
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Engineering biology: critical technology for growth

Definition



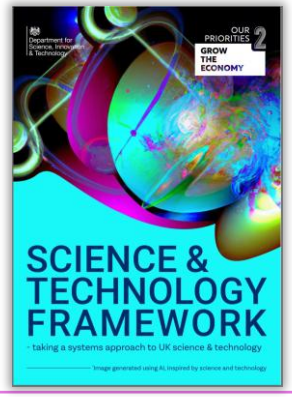
Application

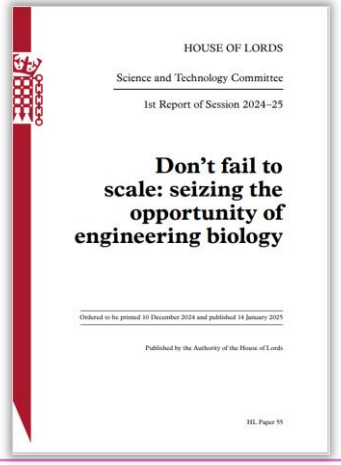


Government priority









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How Engineering Biology is changing the chemical value chain

Inputs & feedstocks

- renewable carbon sources
- biomass
- waste streams
- CO_2
- circular feedstocks
- locally sourcing

Manufacturing & processing

- low temperature, energy
- mild conditions
- less toxic
- high specificity → fewer side reactions & by-products
- easier separation
- scalable, continuous bioprocessing

Products & markets

- biodegradable
- bio-based chemicals
- novel molecules
- functional materials
- biofuels
- greener consumer products
- circular products (designed for reuse / breakdown)

Engineering Biology Innovation Network

Vision: Build a globally leading UK Engineering Biology sector that delivers economic impact for the UK.

Mission:
Connect innovators with the right opportunities, partners and expertise that accelerate ideas into high growth opportunities across all EngBio application sectors.



Focus Areas

- Agriculture and food
- Materials and chemicals
- Health
- Environmental solution, including waste recycling
- Energy and low carbon fuels
- Tools

Activities

- Connecting Innovators
- Consortia Building
- Company visits and Insights gathering
- Knowledge and expertise sharing
- signposting opportunities
- Informing UKRI, DSIT, DBT& other gov. departments about community needs

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Contact

Engineering Biology Innovation Network webpage

Engineering Biology Community LinkedIn Group

Get in touch

Dana Heldt, (KTM Engineering Biology – Dana.Heldt@iukbc.org.uk

https://www.linkedin.com/in/danaheldt/

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Call to action and current funding opportunities

Chair: Chris Hawkins
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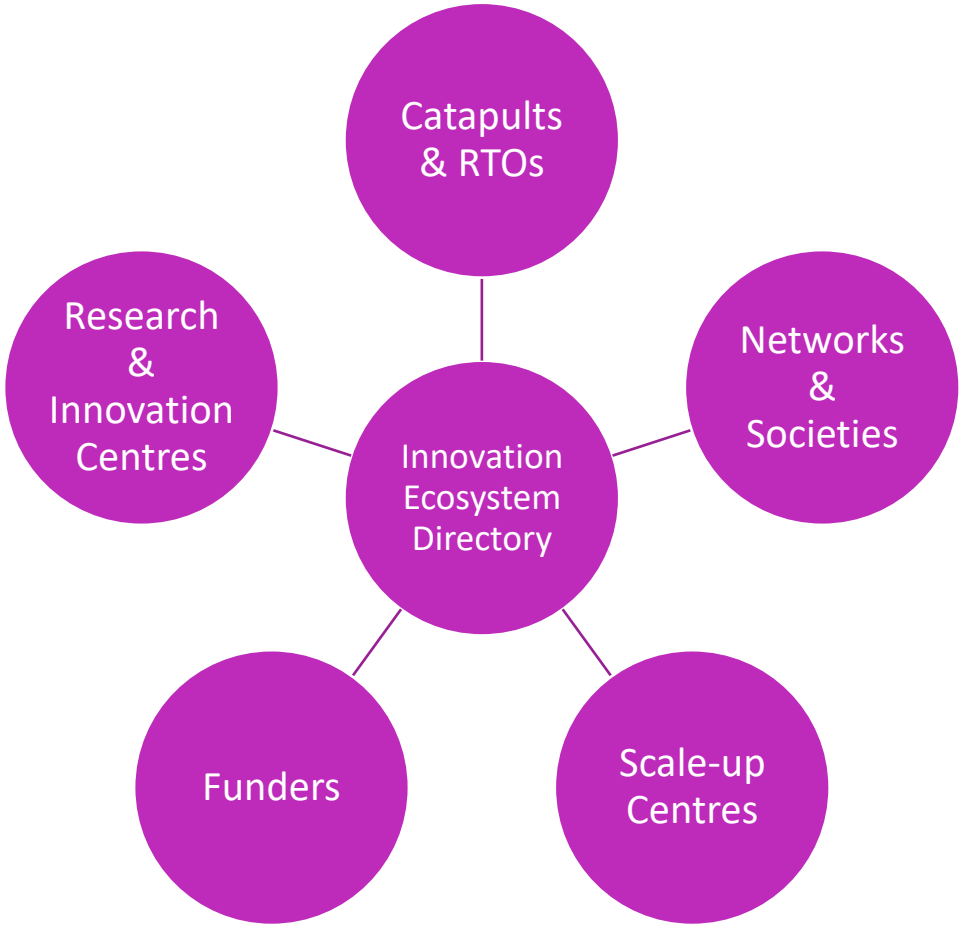
UK Sustainable Chemicals Innovation Ecosystem Directory

Showing national and regional organisations supporting innovation

Aim:
To create an innovation ecosystem directory of organisations that are actively engaged in sustainable chemicals. Organisations will include scale-up & innovation centres, networks, societies, and funders.

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

Launching in June!



UKRI Innovate UK

Webinar:

Navigating the Sustainable Chemicals Innovation Ecosystem – 9 June 2026



Scan the QR code to find out more

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Funding Opportunities

Innovate UK Funding

1

Advanced manufacturing supply chain innovation: CRD

Opens: 27th April 2026
Closes: 10th June 2026

2

National Materials Innovation Programme: Feasibility studies

Opens: 4th May 2026
Closes: 24th June 2026

3

Innovate UK Venture Builder Pilot Expression of Interest

Open: 22nd April
Closes: No deadline

4

Knowledge Transfer Partnerships (KTP)

Open: 20th April 2026
Closes: 24th June 2026

5

Growth Cohort: Next generation low carbon concrete cohort entry

Open: 20th April 2026
Closes: 8th July 2026

6

Frontier AI Benchmarking Datasets

Opens: 21st April 2026
Closes: 29th May 2026

7

Frontier AI discovery

Open: 14th April 2026
Closes: 10th June 2026

8

Battery Innovation Competitions

Open: 9th April 2026
Closes: 27th May 2026

9

Clean Maritime Demonstration Competition(s) 7

Open: 11th March 2026
Closes: 15th July 2026

Visit for more IUK information

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Advanced manufacturing supply chain innovation

Collaborative Research & development (£250,000 - £1,000,000)

supporting collaborative industrial research projects to explore innovative ways of making supply chains more productive, resource efficient and resilient.

Your project must apply one of the competition themes to at least two of the Advanced Manufacturing frontier industries.

Your project must focus on one of the following themes:

- measurement, sensing and instrumentation
- additive manufacturing
- digital manufacturing and industrial AI
- robotics and intelligent automation
- power electronics

Advanced Manufacturing Frontier Industries

- automotive
- aerospace
- advanced materials
- batteries
- agri-tech
- space



Opens: 27th April 2026
Closes: 10th June 2026

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National Materials Innovation Programme

Feasibility Studies (£50,000 - £100,000)

speed the translation of advanced materials innovations in three prioritised high growth themes and one strategic opportunity theme.

Materials innovation in the context of this competition are activities directed towards:
improving functionality of existing materials for example, polymers, metals, ceramics, composites
developing and deploying completely new materials, for example, emergent advanced materials
deploying existing materials in a novel or innovative way to address a major technical barrier

Your project must:
demonstrate the expected improvement in performance, efficiency, competitiveness or environmental benefits
demonstrate an end use application and support from one of the Industrial Strategy 8 high growth sectors

Competition Themes:
Future healthcare solutions including biocompatible materials
Sustainable structural systems including circularity in fibre reinforced polymer composites
Power electronics and connectivity
Metamaterials and metasurfaces

Opens: 4th May 2026
Closes: 24th June 2026

UKRI Innovate UK

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Thank you for Listening.

Any Questions?

