

## BB-REG-NET Bio-Barometer Survey: REA response, 07/02/2025

### Bio-Barometer Survey

#### Bio-Barometer Survey: Shaping the Future of Bio-Based and Biodegradable Solutions

The global demand for sustainable solutions has never been greater, and bio-based and biodegradable chemicals and materials are at the forefront of this transformation. These innovations have the potential to revolutionise industries, reduce reliance on fossil-based resources, and significantly contribute to global sustainability goals.

To better understand the opportunities and challenges facing this critical sector, we are launching the **Quarterly Bio-Barometer Survey**. This initiative aims to gather insights from key stakeholders across the value chain, including manufacturers, policymakers, researchers, and consumers.

Your input will help shape the future of bio-based and biodegradable solutions by identifying emerging trends, barriers to adoption, and areas for policy support and investment. By participating, you'll play a vital role in steering the development and commercialisation of sustainable materials that not only meet market demands but also contribute to a cleaner, greener future.

**Your voice matters. Take the Bio-Barometer Survey today and help us pave the way for a more sustainable tomorrow.**

\*\*\*Quarterly survey results will be published, but all responses will be anonymised\*\*\*



## About You

1

Full name \*

Emily Nichols

2

Organisation \*

REA

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Size of organisation \*

- ☐ Micro (1-9 employees)
- ☒ Small (10-50 employees)
- ☐ Medium (51-250 employees)
- ☐ Large (251+ employees)

4

Job Title \*

Technical Manager, Organics and Natural Capital

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Email address \*

emily@r-e-a.net

Please select the category which reflects your main business sector \*

- ☐ Healthcare products
- ☐ Personal Care products
- ☐ Speciality Chemicals
- ☐ Commodity Chemicals
- ☐ Food products (alternative proteins, ingredients)
- ☐ Plastics/Fibres products
- ☐ Academic
- ☐ Laboratory services provider
- ☐ Scale-up facility provide
- ☐ Certification or standards provider
- ☐ Policy Maker, civil servant
- ☒ Supporting professional services e.g. Solicitor, consultant, Patent Attorney, Trade Association, Society

\* Required

## Innovation function

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Effective innovation systems are considered to be based on the efficient performance of several functions. However the importance of each function varies depending on the maturity of the innovation space. In respect to the UK and your current bio-based and/or biodegradable innovation space, please rate the following functions in terms of importance for your UK development activities. \*

- 1 Support for knowledge generation (research and development)
- 2 Ensuring the legitimacy (as a positive change for good) of bio-based and/or biodegradable sector and Bioeconomy development
- 3 Clarity in the UKs policy framework direction of travel for your innovation space
- 4 Access to resources (skills, infrastructure, capital, etc.)
- 5 Ensuring effective and efficient knowledge diffusion from knowledge generators to users
- 6 Support for entrepreneurial activity (business creation and development)
- 7 Development of a UK market for your processes or products

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Please expand on your reasons for your answers to the above question if you wish to.

Enter your answer

9

How much of a barrier are the below areas to the Adoption of Bio-based and/or Biodegradable products in the UK? \*

	Not at all significant	Not very significant	Somewhat significant	Hugely significant	Don't know
Cost/profitability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Market appetite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Uncertainty around feedstock availability	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uncertainty around feedstock price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Long-term government strategy and policy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Product Performance issues	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supply chain integration	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feedstock sustainability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental impact uncertainties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
End-of-life Infrastructure and management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Lack of standardised terminology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Consumer understanding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

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When talking to stakeholders, which of the following, if any, are coming up as concerns for Bio-based and Biodegradable products? \*

- ☒ Formation of microplastics
- ☒ Increased risk of littering
- ☒ Concerns over best use of biomass
- ☒ Opinion that products are 'single-use'
- ☒ Insufficient standards and certification schemes
- ☒ Contamination of recycling streams
- ☒ Unintended consequences (e.g. detrimental land use changes, increased water consumption etc.)
- ☒ Life Cycle Analysis
- ☒ Issues with End-of-Life management

## Knowledge Generation

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We are interested in the UK's ability to generate new knowledge (R&D) in your business area. From your perspective how would you rate the UK's ability to generate new knowledge supporting your bio-based and/or biodegradable innovation space? (rate from 1 to 5, with 1 being poor and 5 being excellent). \*



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Would you say that your ability to access expertise and generate knowledge is currently better, worse, or about the same compared to 12 months ago? \*

- ☐ Worse
- ☒ About the same
- ☐ Better

13

In relation to the last question can you point to a specific change which influenced your answer?

Enter your answer

14

How would rate the performance of UK's research and translational ecosystem at the various stages of technology development in your area of the bio-based and/or biodegradable sector? \*

	Very poor	Poor	Fair	Good	Excellent
Fundamental Research TRL 1-3	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Industrial Research TRL 4-6	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pilot/Demonstration TRL 7-9	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Access to resources

15

We are interested in the availability/accessibility of the resources required for effective innovation in the UK. From your perspective how would you rate the availability/accessibility of resources in the UK? (rate from 1 to 5, with 1 being poor and 5, being excellent) \*



16

Would you say that your ability to access the resources you need is currently better, worse, or about the same compared to 12 months ago? \*

- ☐ Better
- ☒ About the same
- ☐ Worse

17

In relation to the last question can you point to a specific change which influenced your answer?

IUK's Smart Sustainable Plastics Challenge funding has been useful in terms of level of project budget, project timescale and a requirement for businesses to part-fund their project. R&D funding challenges in future could beneficially include a lower budget range and lower funding contribution percentage required from the business / each business in a project bid. Specialist consultancy assistance for businesses/consortia who are: 1) developing bids for funding, 2) beginning their projects (e.g. support with contract set-up and on-line financial reporting to the funder), 3) progressing projects (e.g. may want to discuss a Project Change Request idea) and 4) completing projects (e.g. getting an independent audit of their project income and expenditure) is very useful, consequently advance information about such assistance and budgeting for it is important when promoting and R&D funding challenge/programme]

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How big a challenge is accessing the below resources required for innovation in your area of the bio-based and/or biodegradable sector? \*

	Not at all significant	Not very significant	Somewhat significant	Hugely significant	Don't know
Access to suitable R&D facilities	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to suitable scale-up facilities pilot scale	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to suitable scale-up facilities demonstration scale	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Access to experts from universities	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to talent and skills	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to R&D funding at appropriate scale	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Access to appropriately targeted R&D funding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Access to equity finance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Access to debt finance (loans)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Access to international resources for collaboration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

19

Have you, in the last 5 years, chosen to utilise R&D, or scale-up facilities outside of the UK? \*

- ☐ Yes
- ☐ No
- ☒ Not applicable



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If you answered 'yes' relation to the last question can you point to a specific reason as to why?

Enter your answer

21

Have you, in the last 5 years, chosen to manufacture your bio-based and/or biodegradable product outside of the UK? \*

- ☐ Yes
- ☐ No
- ☒ Not applicable

22

If you answered 'yes' relation to the last question can you point to a specific reason as to why?

Enter your answer

## Policy and Regulatory Environment

23

We are interested in how UK policy, strategies and regulations are supporting or hindering market formation in your area of the Bio-based and/or Biodegradable Sector. From your perspective, do UK Government policies support market formation/development in your area? (rate from 1 to 5, with 1 being hindered and 5 being very supported) \*



24

Would you say that the Policy and Regulatory Environment in the UK is currently better, worse, or about the same compared to 12 months ago? \*

- ☐ Better
- ☐ About the same
- ☒ Worse

25

In relation to the last question can you point to a specific change which influenced your answer?

A CURRENT UNCERTAINTY: WRAP is currently reviewing its guidance on compostable plastic packaging has included consultation on the current six product formats that are identified as suitable and approx 7 further product formats; at the time of responding to BB-REG-NET's Bio-Barometer Survey WRAP's review is still in progress. A RECENT DEVELOPMENT IN REGULATION/GUIDANCE THAT HAS MADE MATTERS WORSE: Turning to the pEPR system, the government's Recycling Assessment Methodology (RAM) was published on 23rd December 2024. 'In due course it will apply high modulated fees to compostable flexible plastic packaging (allocated a Red code) that is disposed or likely to be disposed in household bins or in 'public' bins. The 'Recyclability assessment methodology: stages of recyclability and definitions' discourages the collection and organic recycling of compostable flexible plastic packaging from household sources; the RAM makes it difficult to move such packaging up to an Amber or Green rating and thus to qualify for lower modulated fees in future. The RAM sets high thresholds for their wide collection for their limited collection and for their collection via takeback schemes. Such high thresholds are understandable for household packaging item types that are compatible with local authorities' dry recyclable materials collections but these thresholds represent a barrier in the parts of the organic recycling sector that can and do currently compost them. As an example, the RAM in effect will make it more expensive for companies to place certified compostable lightweight plastic carrier bags on the UK market; they can be last used as kitchen caddy liners / food bin liners as they are suitable for in-vessel composting (along with the food waste inside them). Organic recycling of such bags has been in place in a number of localities for some time.

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Please rate the following areas as to how much of a barrier they are to you in your area of the bio-based and/or biodegradable sector? \*

	Not at all significant	Not very significant	Somewhat significant	Hugely significant
Regulatory barriers	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Standardisation barriers	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Certification barriers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Policy barriers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

### Legitimacy of Bio-based and Biodegradable Sectors and Bioeconomy

27

We are interested in the legitimacy (the acceptance of new technology as positive change for good) of the Bio-based and Biodegradable Sectors in the UK. From your perspective, how would you rate the perception of key stakeholders (policymakers, politicians, citizens) to your area? (rate from 1 to 5, with 1 being very negative and 5 very positive) \*

★ ★ ☆ ☆ ☆

28

17. Would you say that the legitimacy of the Bio-based and Biodegradable Sectors in the UK is currently better, worse, or about the same compared to 12 months ago? \*

- ☐ Better
- ☐ About the same
- ☒ Worse

29

In relation to the last question can you point to a specific change which influenced your answer?

Worse in terms of the number of concerns expressed by one or more government departments to the BBIA, although it is not clear whether some of the topics on their list became concerns in the last 12 months or had been concerns longer ago that weren't expressed and/or clear to the BB-materials industry/trade associations. Bio-based, biodegradable and compostable raw materials, chemicals, additives, intermediate materials and final products potentially spans a huge range, so in conversations and in documents it is important to be clear on which parts of this range are relevant to specific topics and to take care when summarising challenges, opportunities and recommendations, and when devising road maps.

30

Which stakeholders do you consider the most important in determining the legitimacy of Bio-based and Biodegradable innovations in your innovation space? (1 being the highest importance, and 6 being the lowest) \*

- 1 Other
- 2 Policy Makers
- 3 Academics
- 4 Politicians
- 5 NGO's / Charities
- 6 Citizens

## Entrepreneurial activity

31

We are interested in the ability and effectiveness of the UK to support entrepreneurial activity in your area of the Bio-based and/or Biodegradable sector. From your perspective, how effective is the UK in stimulating and supporting entrepreneurial activity (start-ups, spin-outs etc.)? (rate from 1 to 5, with 1 being poor and 5 being excellent) \*



32

Would you say that the entrepreneurial environment in your sector is currently better, worse, or about the same compared to 12 months ago? \*

- ☐ Better
- ☒ About the same
- ☐ Worse

33

In relation to the last question can you point to a specific change which influenced your answer?

There appears to be more government interest in bio-based chemicals and materials than 12 months ago although there are concerns to address in order for the policy environment to change.

## Communication and Dissemination

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We are interested in the UK's ability to communicate and disseminate knowledge and build effective relationships between research communities relevant to your business area. From your perspective how would you rate the UK's effectiveness in networking, building research collaboration, communicating and discussing research, and disseminating research outputs? (rate from 1 to 5, with 1 being poor and 5 being excellent) \*



35

Would you say that your ability to access research knowledge and build research collaborations is currently better, worse, or about the same compared to 12 months ago? \*

- ☒ Better
- ☐ About the same
- ☐ Worse

36

In relation to the last question can you point to a specific change which influenced your answer?

Some government-funded and government part-funded research projects relevant to compostable products have taken place and the research findings have been useful.

37

What communication and dissemination activities do you consider important? \*

	Not important	Slightly important	Moderately important	Important	Very important
Collaborative R&D projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Conferences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Newsletters	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Networking focused events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Knowledge exchange projects (e.g. KTPs, NIBB Business Interaction projects)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Prizes and awards	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business and National Press Coverage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

## Final Thoughts

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How important do you think the bio-based and/or biodegradable sectors and the bioeconomy is to the UK achieving its ambitions for clean growth and a greener future over the next 10 years. 

- ☐ Extremely important
- ☒ Very important
- ☐ Somewhat important
- ☐ Not so important
- ☐ Not at all important

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Please provide any other thoughts you would like to share, in regards to the UK Bio-based and Biodegradable Sector.

As part of the BB-REG-NET project, the range covered by BB-Materials should be divided into appropriate categories and associated opportunities, challenges, evidence, evidence gaps and recommendations.