BBIA Representation to Autumn Budget 2026

Executive Summary

The Bio-based and Biodegradable Industries Association (BBIA) represents more than 100 organisations across the UK bioeconomy and engineering biology, spanning bio-based chemicals, materials, polymers and products, alongside investors, researchers, technology providers and organisations supporting their commercialisation.

Manufactured chemicals and materials underpin modern life, from plastics, textiles and food to batteries, medicines and defence products. Yet almost all remain dependent on fossil oil and gas, contributing around 10% of global greenhouse gas emissions. Replacing fossil-derived products with bio-based alternatives could avoid or remove more than 4 gigatonnes of CO_2 annually – equivalent to the European Union's annual emissions.

Reducing this dependence is also an economic and strategic imperative. The energy price shock following Russia's invasion of Ukraine cost the UK an estimated £183 billion over four years, demonstrating the exposure created by reliance on volatile global fossil markets. Building domestic manufacturing around renewable, recycled and captured carbon can strengthen economic resilience and supply-chain security while creating new industries, investment and exports.

The opportunity is substantial. The UK's Modern Industrial Strategy identifies engineering biology as one of six frontier technologies capable of transforming the production of fuels, chemicals, materials, food and medicines. Globally, the bioeconomy could exceed £30 trillion by 2050. The UK's bio-based chemicals and materials sector already comprises more than 1,200 businesses, generating £12.5 billion in annual revenue, £5.1 billion in GVA and over 20,000 jobs, while the bio-based chemicals sector alone could exceed £204 billion annually by 2050.

Government has committed £2 billion over ten years to engineering biology and the wider bioeconomy. The challenge now is to convert that investment into economic value. Fewer than 10% of publicly funded bio-based innovations reach commercial production in the UK. Despite world-leading capabilities in engineering biology, biotechnology, chemistry and materials science, UK companies face a difficult transition from innovation to industrialisation: limited access to affordable demonstration infrastructure, high first-of-a-kind capital costs, weak early markets and fiscal and regulatory frameworks that can favour incumbent fossil-derived products.

The UK risks funding the innovation while other countries capture the manufacturing, jobs, exports and tax revenues that follow. Autumn Budget 2026 provides an opportunity to change this. BBIA proposes five linked interventions designed to bridge the gap between UK innovation and UK manufacturing, maximise the return on existing public investment and crowd in private capital.

BBIA recommends five priority actions:

1. **Expedite the £186 million Engineering Biology Infrastructure Programme (EBIP)**, opening the competition without further delay and publishing a clear timetable for awards and deployment.
2. **Introduce targeted fiscal incentives for first-of-a-kind UK biomanufacturing**, making the UK internationally competitive as a location for commercial-scale investment.
3. **Correct fiscal disadvantages faced by renewable carbon**, including reviewing the treatment of highly bio-based and biodegradable materials under the Plastic Packaging Tax.
4. **Evolve packaging taxation** from recyclability alone towards overall sustainability, ensuring Extended Producer Responsibility (EPR) rewards genuine environmental outcomes.
5. **Use public procurement to create early markets for UK biomanufacturing**, providing the demand signals needed to unlock private investment.

Together, these measures create a coherent pathway from innovation to industrialisation: EBIP demonstrates commercial economics; fiscal incentives convert proven technologies into UK factories; coherent carbon and packaging policy creates competitive market conditions; and public procurement provides the early demand needed to unlock private investment.

The objective is simple: technologies invented in Britain should not be publicly funded here, scaled here and then manufactured elsewhere. They should be invented, scaled and manufactured in the UK - creating factories, exports, skilled jobs and long-term tax revenues here.

Introduction

Manufactured chemicals and materials underpin modern life, from plastics, textiles and food to batteries, medicines and defence products. Yet almost all are made from fossil oil and gas, contributing around 10% of global greenhouse gas emissions. Replacing fossil-derived products with bio-based alternatives could avoid or remove more than 4 gigatonnes of CO_2 annually - equivalent to the European Union's annual emissions. Beyond climate, dependence on fossil carbon also creates major economic and geopolitical risks: the energy price shock following Russia's invasion of Ukraine cost the UK an estimated £183 billion over four years.

The UK's Modern Industrial Strategy identifies engineering biology as one of six frontier technologies that can drive sustainable production of fuels, chemicals, materials, food and medicines from renewable biological resources. Globally, the bioeconomy could be worth more than £30 trillion by 2050. In the UK, the bio-based chemicals and materials sector already comprises more than 1,200 businesses, generating £12.5 billion in annual revenue, £5.1 billion in GVA and over 20,000 jobs, while the bio-based chemicals sector alone could exceed £204 billion annually by 2050.

The UK Government has recognised this opportunity by committing £2 billion over ten years to engineering biology and the wider bioeconomy. However, fewer than 10% of publicly funded bio-based innovations reach commercial production in the UK. The challenge is therefore no longer simply generating excellent science: it is creating the conditions in which that science can be scaled, financed, manufactured and sold from the UK.

Five interconnected barriers currently prevent this. First, companies struggle to access the pilot and demonstration infrastructure needed to bridge the gap between laboratory development and commercial manufacturing. The Government's £186 million commitment to engineering biology infrastructure provides an immediate opportunity to address this, but the funding must be deployed rapidly and effectively.

Second, first-of-a-kind biomanufacturing facilities face high capital costs and significant technology and market risk. Without targeted fiscal support, the UK risks developing technologies that ultimately attract investment and manufacturing elsewhere.

Third, parts of the tax system continue to disadvantage renewable carbon relative to fossil carbon. This includes the treatment of highly bio-based materials under the Plastic Packaging Tax, where renewable feedstocks can face financial penalties despite reducing dependence on virgin fossil resources.

Fourth, environmental policy does not always reward the outcomes Government is seeking. Packaging EPR, for example, is predominantly driven by recyclability rather than the wider environmental performance of a material or product. This can create perverse incentives where fossil-derived materials receive more favourable treatment than alternatives offering benefits across carbon, resource use, environmental fate or other sustainability measures.

Finally, emerging biomanufacturing technologies need credible demand signals. Government is one of the UK's largest purchasers of goods and services, yet public procurement remains an underused mechanism for creating early markets for innovative UK-manufactured bio-based products. Strategic procurement could provide the offtake confidence needed to unlock private investment and accelerate commercial-scale manufacturing.

BBIA Recommendations for Autumn Budget

BBIA therefore recommends five priority actions:

1. Expedite the £186 million Engineering Biology Infrastructure Programme

BBIA welcomes the Government's commitment of £186 million to engineering biology infrastructure and scale-up. The immediate priority should now be deployment.

BBIA recommends that HM Treasury, working with DBIST and UKRI, expedites the opening of the Engineering Biology Infrastructure Programme competition and provides industry with a clear timetable for funding decisions and deployment.

Policy rationale: The UK has world-leading engineering biology science, intellectual property and a growing base of innovative SMEs, but too few processes outside human-health biomanufacturing are yet economically viable at industrial scale. The corporate base required to finance and sustain the necessary national scale-up infrastructure has therefore not yet fully developed. This is precisely the market failure the £186 million allocation should address. The challenge is

not simply a shortage of physical capacity. UK innovators need access to the right infrastructure, expertise and scale-up support at the right price, enabling them to close the remaining unit-economics gap between promising technology and commercial viability. Demonstration at scale is also a critical point at which UK processes can move offshore. Private investors are understandably reluctant to finance major commercial manufacturing facilities before the economics have been demonstrated. Without an affordable route to demonstrate those economics in the UK, the country risks losing the subsequent investment, manufacturing, supply chains and high-value employment. Delay therefore has a direct economic cost. Companies and investors are making scale-up and location decisions now. The £186 million has already been committed; the priority must be to move rapidly from commitment to competition and deployment.

Value for money and Exchequer implications: The principal advantage of this recommendation is that no new funding allocation is being requested. The £186 million has already been committed. The Budget opportunity is to ensure that this existing public expenditure is deployed rapidly and in a way that maximises its economic return. EBIP should use public funding to leverage private capital from the outset, de-risk scale-up and close the economics gap for promising UK engineering biology processes, with a focus on achieving commercial viability within the three-to-five-year horizon of the spending commitment. The programme should support a limited number of open-access demonstration hubs focused on defined industrial priorities, alongside the scale-up projects running through them. These should combine infrastructure with embedded bioprocess-engineering expertise, industrial demand and market pull. Importantly, EBIP should not default to constructing new infrastructure. Existing UK fermentation and processing capacity may currently be inaccessible, unaffordable, unsuitable or insufficiently visible to SMEs. The programme should prioritise unlocking and upgrading/retrofitting existing assets where this represents better value for money, with new-build infrastructure supported where there is a clearly evidenced capacity or capability gap. Success should be measured through economic and commercial outcomes rather than simply physical capacity installed. Metrics should include private capital leveraged per pound of public investment, processes reaching commercial viability, cost reductions achieved during scale-up, subsequent UK manufacturing investment, commercial offtake secured, facility utilisation and skilled employment created. The fundamental value-for-money question is therefore not whether to spend the £186 million, but how to maximise the economic return generated by that expenditure.

2. Introduce Fiscal Incentives for First-of-a-Kind UK Biomanufacturing

Successfully demonstrating a process does not guarantee that the resulting commercial manufacturing facility will be built in the UK.

First-of-a-kind plants combine high capital requirements with technology and market risks that make conventional finance difficult and expensive. At this stage, companies are also internationally mobile and can compare the fiscal support, capital incentives, energy costs and industrial infrastructure available across competing jurisdictions.

Policy recommendation: HM Treasury should develop a targeted, time-limited fiscal incentive for qualifying first-of-a-kind UK biomanufacturing facilities and associated productive infrastructure. Options should include an enhanced capital allowance or targeted investment tax credit, with the appropriate mechanism and rate determined following economic modelling and comparison with competing international jurisdictions. Eligibility should be tightly linked to productive UK capital investment, additionality and demonstrable private-sector commitment. The objective should be straightforward: where technology has been developed and demonstrated in the UK, the fiscal environment should make the UK internationally competitive as the location in which it is first manufactured at commercial scale.

Economic rationale and value for money: This measure would complement EBIP directly. EBIP helps prove the economics; fiscal incentives help convert demonstrated economics into UK factories. Support should be targeted at the investment stage where the location of manufacturing is genuinely contestable and should be time-limited to avoid subsidising investment that would have occurred anyway and prevent long-term dependence on public support and avoid permanent subsidy. Fiscal support would have near-term Exchequer implications through increased allowances or tax relief. However, these costs should be assessed against the appropriate counterfactual: UK-developed technologies being manufactured overseas. Where that occurs, the UK receives little of the subsequent economic return through corporation tax, PAYE, National Insurance, business rates, supply-chain expenditure or export revenues despite potentially having supported the underlying R&D and technology development. HM Treasury should therefore assess any incentive against the additional productive investment it generates and the resulting long-term UK tax base, rather than considering the initial tax expenditure in isolation. The Budget should announce development of the measure, with HM Treasury undertaking detailed modelling of eligibility, rates, additionality, international competitiveness and Exchequer impact before implementation.

3. Correct Fiscal Disadvantages Faced by Renewable Carbon

The tax system should better recognise the fundamental distinction between fossil carbon extracted from geological reserves and renewable biogenic carbon circulating within the contemporary carbon cycle.

Current policy frameworks can create contradictory incentives. Bio-based materials can face costs through packaging taxation and Extended Producer Responsibility despite displacing virgin fossil resources and delivering wider lifecycle environmental benefits. This contrasts with areas such as transport fuels, where the Renewable Transport Fuel Obligation (RTFO) already provides a policy mechanism that recognises and rewards the use of qualifying renewable fuels, subject to sustainability and carbon-saving criteria. The RTFO demonstrates that Government can differentiate between fossil and renewable carbon while using robust certification, traceability and sustainability safeguards to ensure genuine environmental benefit.

Policy recommendation: BBIA recommends a cross-government review of the fiscal and regulatory treatment of fossil, recycled, captured and sustainably sourced biogenic carbon, with the objective of developing a coherent framework that rewards genuine reductions in virgin fossil-resource consumption and lifecycle environmental impact. Existing mechanisms such as the RTFO should be considered as useful policy precedents for how renewable carbon can be recognised and incentivised without compromising environmental integrity. As an immediate step, HM Treasury should review the treatment of bio-based and biodegradable plastics under the Plastic Packaging Tax, including consideration of an exemption for certified compostable plastics. The objective is not to advantage bio-based materials irrespective of their environmental performance, but to remove unintended fiscal distortions and ensure competing materials are assessed against comparable environmental outcomes.

Exchequer and compliance implications: Any change to the Plastic Packaging Tax would require detailed HM Treasury and HMRC costing. Given the currently limited domestic market for bio-based and biodegradable plastics, BBIA expects the immediate Exchequer impact of a tightly defined measure to be relatively limited. The economic objective is to remove an unintended barrier to market development and investment, enabling the UK market, and potentially the associated manufacturing and tax base, to grow. Any reform should also minimise administrative and compliance costs. Eligibility should therefore be based upon independently verifiable bio-based carbon content and/or compostability, using recognised standards and certification rather than requiring an entirely new reporting system. As demonstrated by the RTFO, sustainability criteria, certification and chain-of-custody requirements can provide a credible framework for incentivising renewable carbon while protecting against unintended environmental outcomes. The Budget should initiate a formal review of the issue, including modelling of revenue implications, environmental additionality, eligibility and appropriate safeguards.

4. Ensure Packaging Taxation Rewards Overall Sustainability

Extended Producer Responsibility should progressively evolve from a narrow assessment of recyclability towards a broader assessment of packaging sustainability.

The current Recyclability Assessment Methodology principally asks whether packaging can be recycled through the existing UK system. While recyclability is important, it is not synonymous with environmental sustainability. This can create an economic distortion by rewarding compatibility with incumbent infrastructure rather than necessarily rewarding the lowest overall environmental impact. It may also weaken incentives for investment in new materials, collection systems, recycling technologies, organic recycling and end markets.

Policy recommendation: Government should develop a Sustainability Assessment Methodology (SAM) that considers recyclability alongside factors including actual reuse, recycled and renewable content, lifecycle greenhouse-gas emissions, resource consumption, environmental persistence, ecotoxicity and end-of-life impacts. The objective should be to evolve EPR from principally asking: "Can this packaging be recycled through the current UK system?" towards asking: "What is the overall environmental performance of this packaging, and how should the financial incentive reflect that performance?" This would provide stronger incentives for innovation and avoid situations in which materials delivering lower overall environmental impacts are financially penalised simply because they do not fit established waste-management infrastructure. EPR should become not only a mechanism for funding waste management but an industrial and environmental policy tool capable of stimulating investment in better materials, collection systems, recycling, organic recycling and end markets.

Exchequer and implementation implications: This reform need not require additional public expenditure and should initially be designed to be broadly revenue-neutral at aggregate level. Its purpose would be to improve the distribution of financial incentives, not increase the overall tax burden. Further technical development and consultation would be required before implementation. Government should therefore commission development and piloting of a SAM framework, working with industry, PackUK and relevant technical experts. The pilot should specifically assess environmental effectiveness, producer data requirements, administrative costs and potential unintended consequences. Where possible, SAM should use information already collected through EPR, the Plastic Packaging Tax, recognised certification schemes and existing environmental standards. Additional producer reporting should be introduced only where necessary and proportionate. This approach would allow Government to test the methodology before making legislative or regulatory changes and minimise disruption to producers.

5. Use Public Procurement to Create Markets for UK Biomanufacturing

Scale-up support alone will not create a sustainable UK biomanufacturing sector if companies cannot secure markets for their products.

Government is one of the UK's largest purchasers of materials and manufactured goods and can therefore provide an important demand signal without creating permanent production subsidy.

Early customers and credible offtake are particularly important for first-of-a-kind manufacturing projects because investors need confidence that commercial demand will exist once a facility begins production.

Policy recommendation: Government should progressively incorporate requirements or preferences for renewable, recycled and other sustainable carbon within appropriate categories of public procurement, including the NHS and wider public estate. Where products demonstrate appropriate performance, safety and value for money, procurement frameworks should recognise whole-life environmental and economic value, including lifecycle emissions, fossil-carbon displacement and UK manufacturing benefits. Measures should initially focus on categories where public-sector purchasing power is sufficiently large to create meaningful early markets and where credible UK alternatives exist or are approaching commercialisation.

Economic rationale and value for money: Public procurement can provide an important bridge between technology development and self-sustaining commercial markets. Early procurement commitments and credible offtake can provide the revenue certainty needed for companies to secure private investment in first commercial manufacturing facilities. In this way, relatively targeted demand-side intervention can potentially leverage substantially greater private capital investment. This should not mean requiring public bodies to purchase products irrespective of price, performance or safety. Procurement decisions should continue to demonstrate value for money but should assess whole-life value rather than purchase price alone where appropriate. Measures should, wherever possible, be incorporated into existing procurement frameworks rather than creating a parallel procurement system, limiting additional administrative costs.

Economic Rationale: The UK's principal challenge in engineering biology and the wider bioeconomy is increasingly not invention, but industrialisation. Public investment has helped create world-leading science, intellectual property and innovative companies. However, without intervention the UK risks maintaining a model in which taxpayers support early-stage research and company formation while competing economies capture the substantially greater economic value associated with commercial manufacturing.

The five measures proposed in this representation address specific barriers along a single commercialisation pathway:

- EBIP addresses the demonstration and scale-up gap.
- Fiscal incentives improve the UK's competitiveness when companies decide where to locate first commercial manufacturing.
- Reform of renewable-carbon taxation and packaging policy removes market distortions and provides clearer long-term investment signals.
- Public procurement helps establish early demand and provides the revenue confidence needed to unlock private investment.
- Private capital should remain central throughout. Public intervention should be targeted at specific risks or market failures that private investors cannot efficiently absorb at the current stage of sector development, enabling substantially greater private investment to follow.

Value for Money and Exchequer Implications

The package has deliberately been designed to maximise the economic return from existing public investment while limiting the requirement for additional public expenditure.

The largest direct expenditure identified – the £186 million EBIP allocation – has already been committed. The immediate ask is therefore not for additional expenditure, but for its rapid and effective deployment.

EBIP should be competitively allocated and designed to maximise additionality, private-sector leverage and measurable progress towards commercial viability.

Fiscal incentives for first-of-a-kind manufacturing would have a direct Exchequer implication and should therefore be subject to detailed Treasury modelling before implementation. Eligibility should be targeted at genuinely additional productive investment and structured to minimise deadweight.

Reforming the Plastic Packaging Tax for qualifying renewable materials may reduce receipts from those materials. The scale of this impact should be established by HMRC, but the currently limited market suggests the initial impact is likely to be relatively modest. The longer-term objective is to remove an unintended barrier to investment and enable the associated UK manufacturing and tax base to grow.

Reform of EPR towards overall sustainability could initially be designed to be broadly revenue-neutral.

Public procurement measures should focus on whole-life value for money and categories where government demand can provide a meaningful market signal.

Across the package, Government should assess interventions against the appropriate economic counterfactual: not simply the cost of intervention, but the cost of UK-funded technologies being industrialised overseas and the resulting loss of productive investment, employment, exports and future tax revenues.

Growth and Macroeconomic Impact

Biomanufacturing aligns strongly with the Government's growth and industrial objectives because it combines high-productivity science and engineering with physical manufacturing, capital investment and domestic supply chains.

The UK's bio-based chemicals and materials sector already comprises more than 1,200 businesses, generates approximately £12.5 billion in annual revenue and £5.1 billion in GVA, and supports more than 20,000 jobs. The potential market is substantially larger.

Increasing the proportion of UK-developed technologies that are manufactured domestically would support business investment, productivity, exports and the development of high-value industrial supply chains.

It would also improve economic resilience. Greater use of renewable and circular domestic feedstocks can reduce exposure to imported fossil resources and associated global commodity and energy-price volatility.

The package therefore supports both the immediate objective of increasing productive business investment and the longer-term objective of building a more resilient, competitive and technologically advanced UK industrial base.

Employment, Sectoral and Regional Impact

Biomanufacturing creates skilled employment spanning biological sciences, chemistry, chemical and biochemical engineering, process engineering, manufacturing, operations, supply chains and associated professional services.

It also provides opportunities to redeploy skills, infrastructure and supply chains from conventional chemicals and process industries into growing markets based increasingly on renewable and circular feedstocks.

The economic opportunity extends across chemicals, materials, food and ingredients, packaging, agriculture and feedstocks, industrial biotechnology and associated manufacturing supply chains.

Importantly, the benefits need not be concentrated in London and the South East. Biomanufacturing facilities can locate close to feedstocks, chemicals clusters, ports, existing process-industry infrastructure and sources of industrial carbon. This creates opportunities across Scotland, the North East, North West, Yorkshire, the Midlands and other industrial regions.

Supporting first-of-a-kind and subsequent commercial manufacturing in these locations could therefore contribute simultaneously to national growth, regional productivity and the renewal of established industrial clusters.

Distributional Impact

The proposals are principally targeted at productive business investment rather than household subsidy. Measures should be designed to avoid unnecessarily increasing costs for consumers or placing disproportionate compliance burdens on SMEs.

Competitive allocation of EBIP funding, targeted eligibility for fiscal incentives, revenue-neutral design of EPR reform and continued value-for-money requirements in procurement would provide safeguards against unnecessary public or consumer cost.

Particular attention should be given to SME accessibility. Engineering biology is characterised by innovative smaller companies that may not have the balance sheets required to finance demonstration infrastructure independently. Ensuring proportionate access to scale-up infrastructure is therefore important if public investment is to support competition and innovation rather than primarily benefiting established companies.

Environmental Impact

Bio-based chemicals and materials can reduce dependence on virgin fossil carbon, provide alternative routes for difficult-to-decarbonise products and, where appropriately designed, enable circular biological or technical material flows.

Globally, replacing fossil-derived products with bio-based alternatives could avoid or remove more than 4 gigatonnes of CO_2 annually. However, policy should focus on measurable environmental outcomes rather than predetermined material or technology preferences.

A lifecycle approach considering greenhouse-gas emissions, resource consumption, circularity, persistence, ecotoxicity and end-of-life impacts would help ensure that fiscal and regulatory incentives support technologies delivering genuine environmental improvements.

This principle underpins BBIA's recommendations on both renewable-carbon taxation and the transition from a Recyclability Assessment Methodology towards a broader Sustainability Assessment Methodology.

Administrative, Legislative and Operational Requirements

The proposals have deliberately been designed to build upon existing policy and delivery mechanisms, limiting the requirement for new institutions or significant administrative infrastructure.

EBIP can be deployed through established UKRI mechanisms, working with industry and existing UK scale-up organisations.

A first-of-a-kind biomanufacturing fiscal incentive could build upon existing capital allowance or investment incentive frameworks, although detailed Treasury and HMRC design and costing would be required before implementation.

Any reform of the Plastic Packaging Tax should minimise additional compliance requirements. Bio-based carbon content should be demonstrated through recognised standards and independent certification wherever possible.

Reform of EPR towards a Sustainability Assessment Methodology would require further technical development, consultation and appropriate changes to the existing regulatory framework. BBIA therefore recommends development and piloting before implementation, with particular attention to data requirements, compliance costs and unintended consequences.

Public procurement measures can largely be incorporated into existing central government, NHS and wider public-sector procurement frameworks.

The principal cross-government requirement is stronger coordination between HM Treasury, DBIST, Defra, DESNZ, Cabinet Office and other relevant departments so that innovation funding, industrial policy, taxation, procurement and environmental regulation reinforce rather than contradict one another.

Actions for Autumn Budget 2026

BBIA recommends that Autumn Budget 2026 takes three immediate actions:

1. First, deploy existing investment: confirm the rapid opening of the £186 million EBIP competition and publish a clear timetable for funding decisions and deployment.
2. Second, incentivise productive investment: announce the development of a targeted, time-limited fiscal incentive for qualifying first-of-a-kind UK biomanufacturing, supported by Treasury modelling of international competitiveness, additionality and Exchequer impact.
3. Third, address renewable-carbon taxation: initiate a formal review of the treatment of bio-based and biodegradable plastics under the Plastic Packaging Tax, including the fiscal and environmental case for an exemption.

Alongside these immediate fiscal actions, Government should initiate two longer-term reforms: development and piloting of a Sustainability Assessment Methodology for packaging EPR, and incorporation of sustainable carbon and whole-life value into appropriate public procurement frameworks.

Conclusion

The UK does not lack bioeconomy innovation. It lacks a sufficiently strong bridge from innovation to industrial-scale manufacturing. Autumn Budget 2026 provides an opportunity to build that bridge.

The £186 million engineering biology infrastructure commitment provides the most immediate opportunity. Rapid and effective deployment can help UK companies demonstrate industrial economics and unlock private capital without requiring a new spending commitment.

But demonstration alone is insufficient. The UK must also be internationally competitive when companies decide where to build their first commercial facilities; ensure that the tax and regulatory system does not unintentionally favour virgin fossil carbon; create environmental policies that reward genuine sustainability; and use the purchasing power of the state intelligently to establish early markets.

These are not five isolated interventions. Together they create a pathway through which decades of UK investment in bioscience and engineering biology can translate into productive private investment, factories, exports, skilled employment, regional growth and long-term tax revenues.

The objective should be simple: Technologies invented in Britain should not merely be proven here and manufactured elsewhere. They should be invented, scaled and manufactured in the UK.

BBIA would welcome the opportunity to work with HM Treasury and relevant departments on the detailed design, eligibility criteria, economic modelling and implementation of these proposals.