

# Challenge Convention Briefing

## Background

In March 2025, Agri-TechE convened a discussion to “Challenge Convention”, intended to stimulate fresh thinking and approaches based on the premise that untapped potential across UK agri-tech remains still to be harnessed.

This briefing summarises some of the thinking emerging from the Challenge Convention workshop, by delegates from across the agri-tech innovation ecosystem including farmers and growers, tech developers and researchers, supply chain experts and entrepreneurs, as well as technical and professional service providers.

While “agri-tech” – especially in the UK – has been a broad success story, there remain some challenges that are stifling widespread commercial adoption of technology, restricting analysis of data, and delivering an effective, equitable and sustainable agri-food supply chain with associated nature recovery.



## Key Themes

Several key themes and recommendations emerged from the workshop:

Ø **Adopt** a “Mission-Led” approach to tech development and adoption. Too many innovations are not addressing the real-world needs of farmers – once the missions are agreed, intuitive “user-centred” technology design and delivery is needed.

Ø **Agree** clear, long-term, cross governmental priority areas for “agri-tech” development and deployment, which play to the UK’s unique, differentiated strengths and capabilities. Do not try to do *everything* - do *some* things very well and promote that message on a global stage.

Ø **Create** the world’s largest set of test-and-trial farms to attract global innovators and prioritise on-farm innovation.

Ø **Increase** the efficiency of government funding spend around a mission-led approach, including deploying “kill milestones” associated with commercial viability.

Ø **Ensure** a dynamic, responsive regulatory system which harnesses expertise across different government departments, in line with the agreed priorities.

There was much positivity about what has been achieved over the last decade of agri-tech, however there was an acknowledgement that with a global decline in private investment in recent years, the risk of tech-fatigue among farmers, and a reduction in public funding, there is an opportunity to “re-boot” UK agri-tech.

As George Freeman MP (Chair of the All-Party Parliamentary Group of Science and Technology in Agriculture) pointed out: “A major re-set of UK agricultural policy is needed, the current orthodoxy within government should align with the global opportunities.”

## Caveat and disclaimer

We are aware of the constraints associated with implementing ideas and suggestions emerging from the Challenge Convention. Some of those constraints may be impossible to lift, others may be part of UK statute around how R&D is funded, and others will be subject to [Green Book](#) and other associated HM Treasury guidance around public spending.

This report should not be taken to represent the views of all Agri-TechE members, nor (necessarily), Agri-TechE or its employees.



# Vision

In groups of 6-9 people, delegates were asked to articulate a vision for UK agri-tech for the next decade.

Key elements included the need for a **mission-led approach**. The UK should aim to be the global destination for innovation across a subset of **specific, priority thematic areas**. Additionally, to create an internationally recognised “test-bed” **with the world’s largest collection of test farms** that harness the diversity of farm ecosystems across the UK.

Delegates also called for a long-term, cohesive approach involving industry, government, and research to deliver change.

They highlighted the need to draw inspiration from innovation systems in other markets (such as the Netherlands, Northern Ireland, Eire, Denmark, and the USA) that have a more integrated approach to their agri-tech journey, with better coordination in grants, investment, and overall strategy.



## What do we need?

Delegates were invited to comment on priorities for the future in order to realise the visions.

### **1. Clear Guidance on the direction of travel for the wider industry. An agreed, adopted strategy for UK agriculture and horticulture.**

Coherent, long-term, cross-party policies for growth are needed, harnessing the Industrial Strategy, the new Food Strategy (in development), and the Land-Use Framework. Delegates called for agreed priorities around which all actors (within government and beyond) can focus.

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### **2. A thematic approach to priorities, harnessing best-in-class excellence and celebrating the UK's globally differentiated capabilities.**

The genuine, world-leading strengths of UK agri-tech need to be honestly and robustly examined, celebrating its real “super-powers”, and leveraging them to garner international investment and collaborations. Understanding and identifying the UK's unique offerings in comparison with other markets is key to developing that narrative.

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### **3. A genuine understanding of wider risks for themes and priorities, rather than project-by-project considerations.**

Proper risk analysis is needed across the industry, looking at the areas of actual and potential failure over the coming decade.

This is different to a generic project-based “risk register” completed for grant awarding bodies, that focus on what can be managed, not the factors which will really challenge adoption; the scale of risks is also generally poorly understood.

We need a mindset that focuses on the success of the overall theme or priority area, not of the individual companies providing it. A number of companies could (and indeed will!) fail, if just one is a global success.

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#### **4. Reduce the reliance on government funding and make more efficient use of public investment.**

The current public funding system is geared around strict project plans, with success measured by compliance and adherence to the pre-approved 'plan' rather than its real-world impact. This rigid approach can limit innovation, as projects are rarely given the flexibility to "tweak" or adapt to new insights or changing conditions.

A more dynamic approach - a funding model that allows for adjustments and values learning from setbacks and "failures" - could generate beneficial insights for others to build on, leading to greater long-term success.

Projects should also contain "**kill milestones**" to avoid prolonging industrial projects that lack commercial viability. This would encourage a "fail fast, move on" mindset, ensuring resources are directed toward the most promising innovations.

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#### **5. An investment climate that fosters businesses and technological growth.**

For companies looking to invest in the UK, the experience should be as "frictionless" as possible. The UK may be a relatively small market globally, but it already has a strong reputation for nurturing business growth. It is important to understand and clearly communicate the factors that make the UK an attractive destination for investment and business expansion.

Equally important is an enabling regulatory environment. Regulation needs to be dynamic and responsive to keep pace with the rapidly changing innovation landscape.

To build private investment confidence, we need policy certainty and a commitment to long-term government finance that builds on private funding. Projects often take many years of continuous effort, supported by diverse forms of capital. Time horizons should extend to 10 - 20 years, incorporating not only grants, but also loans and equity – so stakeholders can be confident that both the commitment and the investment is enduring.

Additionally, matched equity funding would help leverage more private investment.

**“ Innovation needs patience, rather than just looking for “quick wins.”**

***This applies to government and investors, but also extends across a business, where the appetite for change may not be consistent.***

**”**

## 6. A workforce capable of embracing challenges and opportunities.

A commitment to education throughout the life course should be adopted across government. This includes developing relevant skills to meet future demands.

There needs to be a shift in our view of what education should look like, which will likely require curriculum change. Additionally there should be a stronger focus on public outreach – with an emphasis on life-long learning.



*Mario Caccamo, CEO Niab; George Freeman MP; Belinda Clarke, Director Agri-TechE*



*Discussions from across the [Agri-TechE ecosystem](#) including farmers, technology developers, researchers and investors.*



## An Action Plan

Delegates were positive about the achievements of agri-tech to date in the UK.

“ *We are looking at “evolution”, not “revolution.” There are clear steps that need to be taken but these are incremental steps, not ripping up everything and starting again.* ”

### 1. A common data platform



Access to publicly available data is a foundation needed for the industry to grow. This has been a limiting factor to date and is frustrating businesses. The plethora of publicly funded data should be brought into a common, safe, trustworthy platform to act as a major USP for the UK. Inter-operability will be key.

The UK seafood sector has united itself around a [carbon emissions profiling tool](#) – an agreed methodology has been developed and adopted and is being deployed across the entire industry, and going global. Agri-tech needs to aspire to something similar.

### 2. A structured and accessible journey for technology developers



There are many geographical sites of excellence in agri-tech around the UK – previous attempts to develop a “roadmap” to signpost the areas / site of excellence for a specific expertise have largely failed in the past. Independent analysis of the areas of nationally differentiated excellence is needed, with a clear roadmap of “who does what” in the UK.

We need a roadmap for people as well, so that tech developers can access the right end-users (in particular, farmers) with the ability to test and develop, iterate, fail fast and pivot if necessary.

For research and tech developers, a mechanism is needed which properly resources the long-term participation of the end-users and key actors in the process.



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***We need deep and profound institutional innovation to deliver proper integration, not just lip service, but integration of the right players, to properly accelerate innovation through the Technology Readiness Levels (TRLs).***

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### **3. Become the global “go-to” place to test and trial agri-tech**



The UK could comprise the world’s largest collection of test farms across a diversity of agricultural zones and soil types. A business model should incentivise farmers to become a network of test, trial and validation sites which can be centrally coordinated for innovators to easily identify sites of choice.

### **4. A “foundry” approach to developing industry-led solutions**



Academic research can, and should, be more effectively commercialised. This is not unique to agri-tech, it is a well-documented issue across the UK. This could be achieved by adopting a commercialisation-led, or “CATS” model, rather than being – as has been the case historically – research-led (Collison, 2025). A research-led strategy risks answering “yesterday’s problems”, with weaker commercialisation potential, delivering a poorer return on investment for the tax-payer.

Strategically building teams from across the ecosystem, bundling disparate research and technologies around key priority areas would help stay focussed on delivering targeted, scaleable commercial solutions, rather than relying on “lucky” collaboration encounters.

That said, we shouldn’t (just) rely on commercialisation of academic research to grow big agri-tech companies. Making the UK more attractive for deployment and adoption should go alongside commercialisation efforts.

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***New innovations won’t all be “bottom up” from entrepreneurial academics – they can be “top down” as well, with the industry identifying significant problems and the teams and tech being then identified to solve them.***

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## Contributors

With thanks to the Challenge Convention speakers:

- George Freeman MP – Chair, All Party Parliamentary Group for Science and Technology in Agriculture
- James Green – Group Director of Agriculture, G's Fresh
- Greg Colebrook – Director, Greens of Soham
- Susannah Bolton – Vice Principal, Enterprise and Knowledge Exchange, SRUC (until March 2025)
- Simon Pearson – Founding Director, Lincoln Institute for Agricultural Technologies
- Fernando Auat Cheein – Professor of Agricultural Engineering, Harper Adams University
- Martin Collison – Founder, Collison & Associates
- Jessica Burt – Associate, Food Law, Mills & Reeve
- Sean Butler – CEO, Cambridge Agritech



## About Agri-TechE

[Agri-TechE](#) is a not-for-profit, independent membership organisation dedicated to advancing agricultural innovation and sustainability.

We take pride in our decade-long commitment to transforming the agricultural landscape through cutting-edge research and technology.

Agri-TechE works for its [members](#). We work with farmers and growers to articulate the real-life problems they face. We consolidate funding streams and opportunities and facilitate connections to accelerate the application of the most cutting-edge research and tech developments. Through our events and communications, we raise the profile of our industry and our members.

- As an independent and not-for-profit entity, we operate without government funding, ensuring our focus remains solely on the needs and interests of our members.
- With ten years of expertise and our award-winning legacy in [impact](#) and [agri-technologies](#) we have established ourselves as a cornerstone of the agri-tech industry, providing a stable and trusted platform.
- Although our roots began in the East, our work has a national and global reach, bridging the needs of our membership with broader industry trends. We rebranded in 2018 to become Agri-TechE as our work and membership expanded nationally and our remote team with it.



# Agri-TechE