



# Agri-Food Tech Innovation in The Kingdom of Saudi Arabia (KSA)

Global Insights and GBIP Applicant Briefing



The UK's innovation agency

# Housekeeping

- Please note that this session is being recorded and will be available on the Innovate UK Business Connect website
- All attendees will be muted and cameras will be off
- Please feel free to use the Q&A tab to ask any questions
- Should you have any technical issues during the webinar please let us know in the chat box or email [anita.onwuegbuzie@iukbc.org.uk](mailto:anita.onwuegbuzie@iukbc.org.uk)

# Agenda

## 1. Welcome

Syed Ahmed, GEM Programme Lead, Innovate UK Business Connect

## 2. Overview of Innovate UK Global Programme and UK-KSA MoU

Peter Dirken, Global Missions Programme Manager, Innovate UK

## 3. Overview of KSA Market and Innovation Ecosystem

Cristina Paca, KSA Country Lead, STN

Edward Gilbert, Regional Agriculture, Food and Drink Counsellor, DBT

## 4. Agri-Food Insights and Opportunities in KSA

Tom Jenkins, Deputy Director – Transforming Food Production /Farming Innovation Programme, Innovate UK

Myriam Pacho, Innovation Lead – Farming Innovation Programme, Innovate UK

## 5. Agri-Tech Global Business Innovation Programme

Angelina Markousi, Project Manager, Innovate UK Business Growth

Janice Sanon, Senior Innovation & Growth Specialist, Innovate UK Business Growth

## 6. Q&A

# Innovate UK Global Programme and UK-KSA MoU

Peter Dirken, Global Missions Programme Manager, Innovate UK





# Innovate UK's role in fostering International Partnerships

- With 95% of global R&D and innovation conducted outside of the UK, international engagement is vital for the growth of innovative UK businesses.
- Organisations with access to strategic markets and global partners are more productive, resulting in faster innovations to market.
- **Innovate UK's** global programmes help businesses thrive internationally by breaking down barriers to overseas growth. We connect UK businesses with valuable opportunities abroad - from new markets and supply chains to R&D partnerships and investment.
- We are a trusted partner and convener for both UK and overseas organisations with established global partnerships in more than 20 countries across diverse sectors such as agri-food, energy, healthcare, life sciences, and materials.

# MoU between the UK and KSA

- The Governments of UK and KSA signed an MoU in 2024 to strengthen research links and collaboration in science and technology.
- The agreement lays the foundation for deeper cooperation between the two countries addressing global challenges in food security, water and clean energy.
- Agri-Food Tech sector has been highlighted as a priority in the MoU with a dedicated Deputyship in the Ministry of Environment, Water and Agriculture (MEWA) to oversee the research and innovation in KSA.

# Overview of KSA Market and Innovation Ecosystem

Cristina Paca, KSA Country Lead, STN

Edward Gilbert, Regional Agriculture, Food and Drink Counsellor, DBT



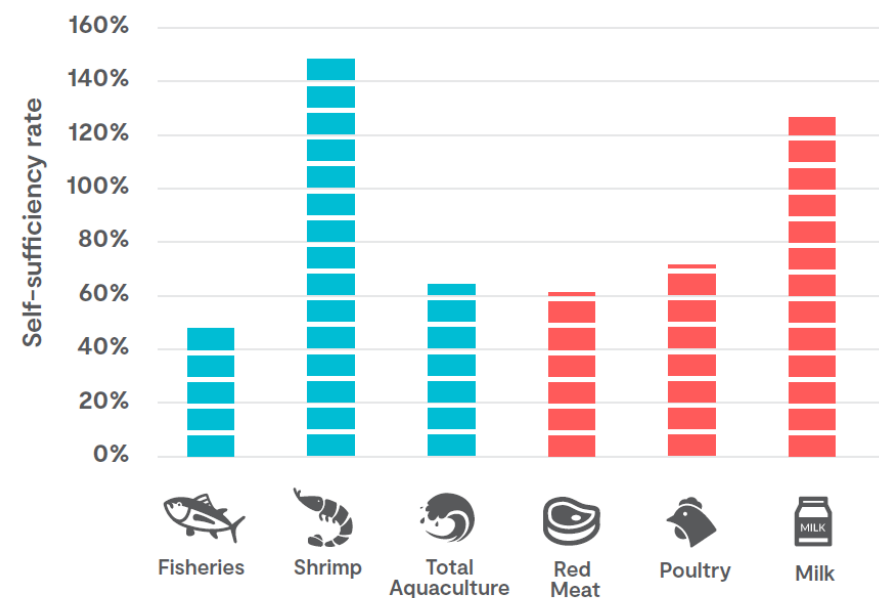
# Agri-food sector in KSA

## Overview

- Central to KSA's Vision 2030 agenda to reshape and diversify its economy
- 4.3% of non-oil GDP, 350,000 workforce
- Food security while combating land degradation & desertification
- Water scarcity and harsh terrain but substantial agriculture production
- Overall self-sufficiency rate: 30%
- Conventional agricultural practices for staple crops + modern initiatives

35.3 million  
inhabitants  
Approx. 60%  
under 30

Self-sufficiency rate of the aquaculture  
& dairy sectors in KSA





## AL-JOUF PROVINCE

NADEC's *Al Jouf Project* – the largest olive farm in the world with over 5mn olive trees



## NORTHERN BORDERS

Small, often family farming of goats and sheep



## HAIL PROVINCE

Pivot irrigation farms used to grow staple crops (particularly wheat), using ground water. This type of farming has been commonplace for decades. NADEC, partly owned by SALIC, operates farming here

## TABUK AND NEOM

Conventional agriculture (e.g. potatoes) grown by companies established in the early 80s, alongside ambitious agri projects (vertical farm, glasshouses) in NEOM



## MAKKAH PROVINCE

Naqua shrimp farming: One of the biggest aquaculture farms in the world. Naqua also produces Baramundi and fish feed, part owned by SALIC



## AL-BAHA, ASEER, JAZAN PROVINCES

Favourable growing conditions for coffee (e.g., Saudi Coffee Company), tropical fruits, honey



## RIYADH PROVINCE

Almarai's dairy farm in Al Kharj, with 35,000 Holstein cows (the company has 180,000 cows in total, and is the largest vertically integrated dairy company in the world, also mass-producing poultry and other food products like juices).



# Agri-food innovation

## KSA national priorities

Decrease the withdrawal of non-renewable water by 90% and the cost of desalinated water production by 50% by 2035



- Increase irrigation and water use efficiency
- Substitute groundwater consumption with alternative sources
- Develop water efficient species through biotech

Develop technologies in food for sustainable and resilient food systems to achieve more than 50% self-sufficiency by 2040



- Increase production and efficiency of food outputs
- Farming productivity improvements, new farming paradigms
- Increase alternative foods production
- Reduce food loss and waste through recovery and recycling

**Source:** [RDIA-MEWA Joint Innovation Outlook](#); MEWA technology deployment roadmap: [Agriculture](#); [Water](#)

# Agri-food innovation

## Key stakeholders

### Ministry of Environment, Water & Agriculture



- Dedicated national development programmes
- Deputyship for Research & Innovation
  - Technology development roadmaps
  - Entrepreneurship & incubation programmes
  - Saudi Agri-Food Tech Alliance ([SAFTA](#))

### Research, Development and Innovation Authority



- National RDI priorities
- Associated innovation grants programme

### National labs



### Public research centres (incl. in gov't entities)



### Innovation centres, incubators



### Higher Education Institutions



### Private sector



### Funding & investment



وزارة الاستثمار  
Ministry of Investment



# Agri-Food Insights and Opportunities in KSA

Tom Jenkins, Deputy Director – Transforming Food Production /Farming Innovation Programme

Myriam Pacho, Innovation Lead – Farming Innovation Programme



# Overview of KSA-UK Partnership Opportunities

- '2030 Vision' gives a clear path forward for the food sector to increase domestic production. UK Agri-Tech companies have an opportunity to identify how their solutions could fit this vision through planned follow-up engagement activities.
- Many of the Agri-Tech challenges relate to food and water security. The UK's innovation ecosystem is well placed to address these challenges through earlier investment in programmes like: Transforming Food Production, Farming Innovation Programme, and Novel Low Emission Food Production Systems.
- Meetings during the GEM identified a clear willingness across the KSA AgriFood sector to engage with UK stakeholders, with a view to explaining their current challenges and how UK-derived solutions can address these.

Priority areas identified with the greatest potential for partnerships include:

- **Aquaculture**
- **Controlled Environment Agriculture and Precision Breeding**
- **Livestock**
- **AgriFood Waste Valorisation and Circular Economy**
- **Alternative Proteins including Plant, Fermentation and Cultivated Meat**

# Focus areas for GBIP in October 2025

- **Aquaculture**
- **Controlled Environment Agriculture and Precision Breeding**
- **Livestock**
- **AgriFood Waste Valorisation and Circular Economy**



# Aquaculture

Insights and opportunities



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# Insights and opportunities

- Aquaculture is the fastest growing food sector in KSA. There is a demand for international support and solutions to achieve scale-up ambitions for the sector.
- There are particular requirements for support around vaccines, feed efficiency, selective breeding, genetics and precision breeding, species development, and fish processing and packaging.
- Opportunities also exist for UK expertise and innovation in micro and macroalgae cultivation and processing, restorative aquaculture, and coastal habitat restoration.

## Opportunities for collaboration

Advanced and precision breeding

Solutions for circularisation of aquaculture supply chain including alternative proteins and lipid sources for feed and uses for aquaculture waste from land and contained marine systems

Health diagnostics and AI-enhanced fish monitoring with application to fish health and feed management



# Controlled Environment Agriculture & Precision Breeding

Insights and opportunities



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# Insights and opportunities

- Opportunity for KSA technology adoption from UK innovations - especially around plant disease detection and robotics.
- UK opportunities to demonstrate proof-of-concept technology in KSA could form part of an incubator approach with partners in country.
- Precision breeding opportunities around pest / disease resistance and abiotic stress in crops, as well as commercial varieties suited to growing conditions in KSA.

## Opportunities for collaboration

Automation including precision robotics for harvesting

Sensors for crop monitoring

Technologies to improve water use efficiency

Precision breeding of new crop, tree nurseries and fruit varieties suitable for the KSA climate

Integrated pest management



# Livestock

Insights and opportunities



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# Insights and opportunities

- There is potential for UK-led technologies to bring positive impacts to the KSA livestock sector, which is dynamic and looking at future growth opportunities.
- Large livestock producers are often vertically integrated, with opportunities for UK innovators to help these companies increase productivity, efficiency, sustainability, animal health and welfare through precision farming approaches.

## Opportunities for collaboration

Precision livestock technology for dairy and poultry production (e.g. sensors and imaging, data integration and analytics)

Management of health and disease (e.g. diagnostics, vaccinations, heat stress management)

Fertility and reproduction technologies (in dairy production)

# AgriFood waste valorisation and circular economy:

Insights and opportunities



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# Insights and opportunities

- Interest was noted by KSA agriculture and food producers around opportunities to valorise co-product streams.
- There is an awareness of circular economy to 'up-cycle' through approaches like insect farming (e.g. BSF) and interest to pilot systems in KSA.
- UK innovators operating in the circular economy may benefit from any future webinars or opportunities to meet KSA companies and producers – GBIP may be a good vehicle for these types of introductions for future partnerships.

## Opportunities for collaboration

Utilisation of agricultural and food waste streams (e.g. manure, or fruit and vegetable waste) in circular economy approaches, adding value, and improving sustainability

Examples include: bioplastics, food packaging, bioenergy production, biochar and composting

# Focus areas for potential future GBIP: Novel Foods

- The Alternative Protein (novel foods) sector, while nascent at present in KSA, has enormous potential for growth in the next decade.
- Drivers for growth include a shift in consumer eating habits and government priorities towards food security.
- Plant-based alternatives and precision fermentation are key areas of focus for the KSA market.



# Alternative Protein including Plant, Fermentation and Cultivated Meat

Insights and opportunities



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# Current market dynamics: KSA Novel Foods

- Opportunities exist to increase consumer engagement and knowledge around the benefits, opportunities and variety of alternative protein products, particularly for meat alternatives.
- The drive for food security has meant a focus on dramatically expanding meat and dairy production within the country, focusing attention, budget and production away from meat and dairy alternatives.
- The first iterations of many alternative protein products launched in KSA were considered poor quality and did not meeting consumer needs. Future products will need to appeal to consumers and deliver on taste, texture and cost.

# Programme Scope

**We would welcome applications from businesses developing innovative solutions within the following areas:**

## **Crops**

- Advanced and precision plant breeding - Precision robotics for harvesting - Integrated pest management - Diagnostics and sensors for crop monitoring - Technologies to improve water use efficiency

## **Livestock and aquaculture**

- Precision livestock technology in dairy and poultry production - Management of health and disease in dairy and poultry production - Advanced and precision breeding, health diagnostics and AI enhanced fish monitoring with application to fish health and feed management.

## **Circular economy**

- Utilisation of agricultural and food waste streams e.g. for conversion to higher value product streams
- Improving sustainability through circular economy approaches to agriculture / aquaculture / food production



## Global Business Innovation Programmes

Cohort of c.15 innovative high growth businesses exploring opportunities and building collaborations and partnerships in specific countries and technology and sector areas.

Programme over 9-12 months with 3 phases.

- Get ready
- Visit the market
- Exploit the opportunity



# Key dates, Programme Itinerary & Application Process

Angelina Markousi – Delivery Manager  
Innovate UK Business Growth





# Key dates KSA GBIP 2025



Under the Patronage of  
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Ministry of Environment Water & Agriculture



# 42<sup>nd</sup> Saudi Agriculture

EDITION

**Incorporating:** Farming, Agro & Organic Food • Poultry •  
Livestock & Dairy • Mills & Feed • Aquaculture • Food Processing  
& Packaging • Animal Health & Veterinary Services

## 20-23 OCTOBER 2025

Riyadh International Convention & Exhibition Center  
Riyadh, Kingdom of Saudi Arabia





# Applications

All applications are made [online](#)

**Company information:** Is your company currently engaged with global markets? What are your plans for growth, relevant to agri-food tech?

**Scope:** How does your application fit with the scope of the GBIP?

**Product Innovation:** What is the innovation? Why is it innovative? What is the stage of development? Who is the ideal collaborator?

**Experience & aims:** What does the company hope to gain from participation in the programme? How will this support your growth strategy in terms of building partnerships & collaborations?

**Market:** Why specifically the KSA market? What is your understanding of the competitive landscape? How will working with KSA further develop or exploit your innovation?

**Capacity:** Do you have the capacity within your team to exploit the programme? What is the scalability of your business model?





# Expectations

Be part of a delegation – You will attend the in-person workshop, travel to KSA and join in-market activities as a group.

Be committed – be involved in all parts of the programme and play an active role. All programme stages and activities are mandatory.

Maximise your chances – work closely with the advisors on the programme.

Demonstrate sufficient investment – ensure that you have the resources to participate effectively in the programme.

Develop and implement an impact focused strategic development plan –working closely with your adviser on the programme.

Represent UKRI at the highest standards at all times



# Costs

**Innovate UK will fund and organise flights, accommodation, in-market travel, and conference fees for successful applicants, this includes:**

International flight – Group return economy travel from the UK to KSA

Group hotel accommodation

Group hotel transfers

Group travel within the international market

Group subsistence

Event or conference fees

Participation on the programme

## **Companies will fund:**

Programme commitment fee - £1000; returned in full after programme completion

Travel within the UK

Border entry and Visa documentation

Travel and medical insurance



# Introduction to Innovate UK Business Growth

Janice Sanon - Senior Innovation & Growth Specialist  
Innovate UK Business Growth







# Innovate UK Business Growth

*Tailored support that accelerates the growth of ambitious innovation-focused businesses*

Over 400 innovation and growth specialists nationwide, supporting clients to make the best strategic choices and access the right resources to grow and scale.

We focus with you on the following priorities:

Honing  
your  
growth  
strategy

Innovation strategy inc. IP & access to infrastructure

Funding & finance strategy inc. investment readiness

International markets & partnerships strategy inc. via EEN

Inspire. Involve. Invest.

# Who do we work with?

- Innovation-focused businesses with new-to-market offerings nationwide, whether grant funded by Innovate UK or not
- Established and UK registered with up to 250 employees
- Targeted at later stage startups onwards with 20%+ compound average growth rate or potential, through to scaling businesses with a 50%+ CAGR
- Management committed to business growth



Innovate  
UK

Business  
Growth

# How do we work with you?

- Bespoke 1:1 advisory support tailored to an individual business' needs that assists with setting a strategic direction and supporting clients to develop their own long-term innovation and growth plans
- Facilitating access to valuable resources and opportunities that are part of the Innovate UK system and beyond, from regional to international
- Working closely alongside you as a trusted partner at critical junctures as you grow



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Growth



# International Markets & Partnerships Strategy

Strategic support to:

- Explore and enter global markets
- Pursue international collaborations
- Accelerate global growth and scaling

Support initiatives:

- [Enterprise Europe Network](#) access: the world's largest business collaboration network
- Support to develop global innovation partnerships via Innovate UK initiatives e.g. [Global Incubator Programme](#)
- Access to focused brokerage activities
- Support accessing **Eureka** and **Horizon Europe** via Innovate UK's [Horizon Europe Pump Priming Initiative](#)



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“Innovate UK Business Growth helped me grow my innovation-led business so we can create a new era of AI-enabled healthcare.” **Peter Mountney, Odin Vision**

# Thank you and Questions?



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