Reaching Carbon Net Zero by 2050
SDT Spring Conference
April 2022
Moments in history

Average global temperature since 1880.

Global biodiversity since 1970.

Source: NASA

Source: Living Planet Index (WWF & ZSL)
Source UN: Population estimated to grow to "9.7 billion in 2050 and could peak at nearly 11 billion around 2100"
Changing Demographics

Young Children and Older People as a Percentage of Global Population: 1950-2050

Age <5
Age 65+
The Global Story of Dairy

1 billion
people strong

600 million
people living on farms

400 million
additional people are supported by
the full time jobs that are created in
support of dairy farming

240 million
people are employed, directly or
indirectly, in the dairy sector

133 million
dairy farms

37 million
farms led by women, 80 million
women employed in dairying
Dairy and the SDGs
UK Progress Over the Years

- Dairy Processor Achievement: 20% Improvement in Energy Efficiency
- Dairy Farmers Care About Our Land
- Dairy is Shifting Towards Renewables
- Dairy Has Improved Its Water Efficiency by More Than 20%
- 95% of Solid Waste from Dairy Processing is Reprocessed
- Dairy Pledges to Maximise Packaging Recyclability
Consumer beliefs: Diet & human health

- Majority opinion in favour of diets containing animal based foods for health and nutrition
- Understanding that balanced and varied diets are key to getting nutrients
- Are we seeing a move away from vegetarian diets to flexitarian instead?
- Only a relatively small number believe veganism healthiest diet option
Consumer beliefs: Diet and planetary Health

- Clear majority opinion in this age group that cutting down/out on animal based foods is better for sustainability.

- This is contrary to beliefs on nutrition and health, where Gen Z believe omnivorous diets are healthier.

- A generation willing to sacrifice nutrition for the sake of the planet?

- Flexitarian diets present an opportunity for dairy.

- Key to protecting the sector will be persuading this group that cutting out dairy products isn’t a magic bullet to stopping climate change.
Policy Lines NFS P2

- The food system of the future must meet these goals: (1) make us well instead of sick; (2) be resilient enough to withstand global shocks; (3) help to restore nature and halt climate change; (4) meet the standards the public expects, on health, environment, and animal welfare.

- Changes needed to the national diet by 2032
- Mandatory interventions more impactful than voluntary much more impact

- The food system is the largest contributor to the destruction of nature, and second only to energy in terms of GHG emissions. It argues to properly disincentivise these impacts, the true cost of these impacts must be accounted for. True cost of food

- Talks about methane emissions from livestock, protein transition, shifting how we use land, tackling waste, trade
Pathways to Net Zero Dairy

The global dairy community is coming together to accelerate climate action and help reduce the sector’s impact on the planet.

This is a vibrant, growing movement, the first of its kind in the world. It brings together dairy farms of every size and type, as well as organizations throughout the dairy supply chain. No matter where you are or how you contribute to the dairy production system, there is a pathway for you towards Dairy Net Zero.

Join us to raise dairy’s climate ambition. Together we will amplify the efforts and initiatives already in place and support action to reduce dairy’s emissions over the next 30 years.

By optimizing productivity and reducing emissions, our efforts today will safeguard nutrition security and sustain a billion livelihoods for tomorrow, while helping secure a future for us all.
Pathways to Net Zero Dairy

Principles
- Mitigation
- Greenhouse Gas Removals
- Avoidance & Adaptation
- Insets & Offsets
- Measurement & Monitoring
- Overall Support

Reporting
Pathways to Net Zero Dairy

Source: GLEAM 3, unpublished 2015 data
The Dairy Roadmap

Represents a commitment by the entire dairy sector to improve sustainability.

AIMS:
1. Improve the environmental footprint of the entire dairy supply chain.
2. Strive for environmental best practice, innovation and compliance.
3. Maximise the social and economic benefits for the UK dairy sector from these improvements.
Dairy Roadmap

DAIRY FARMERS
• Climate Change & Energy
• Water
• Waste
• Biodiversity
• Soil
• Air Quality

DAIRY PROCESSORS
• Climate Change & Energy
• Water
• Landfill
• Plastic & Packaging
• Food Waste
• Biodiversity
Recent Additions to Targets

**CLIMATE AMBITION** – limit global warming to below 1.5°C by setting GHG emission targets for the sector:

- Net zero carbon dioxide emissions by 2050.
- Sustained reduction in methane and nitrous oxide emissions.
- Eliminate F-gases where feasible.

**PLEASE NOTE:**

- All farmers carbon foot-printing
- 30% reduction in methane emissions by 2030.

**FOR AGREEMENT:**

- Adopt the commitments from the UK Soy Manifesto.
Deliverables Working Group Priorities

**Baseline Data**
- Animal Health.
- Carbon Foot-prints.
- Biodiversity.
- Feed Measures.
- Fertiliser/Manure Use.

**Best Practice**
- Prioritised messaging to farmers using the RESET methodology.

**Research**
- Prepared an overview of research needs and priorities.
Carbon Foot-printing Working Group Priorities

Problems:
• Diverse methodology.
• Unreliable data.
• Scope for improvement over short timeframes

Aim:
Work out the best method(s) for carbon foot-printing based on available data, ease of use and relevant output.
Best Practice Working Group Priorities

- Develop consistent position on industry KPIs.
- Increase communications with farmers to support move towards Net Zero Agriculture:
  - Explain GWP*, the importance of carbon foot-printing and methane.
  - Promar best practice report.
  - Release a position statement on soy in the dairy supply chain.
Research Working Group Priorities

A prioritised list of key research areas has been prepared and potential funding sources are now being explored. The two highest priority projects will cover:

• Role of feed additives to reduce methane emissions from digestion.

• Ability to directly select genetics based on emission factors.

These projects should help the industry to meet the objectives of the Climate Ambition.
What about consumers
What about consumers
Reaching Carbon Net Zero by 2050

• Everyone in the supply chain needs to see the benefit - especially in tough times like now.

• It will ongoing and committed collaboration.

• It must be science led – if we give into emotion, we won’t succeed.

• UK dairy can lead the way towards net zero.