



SARAH SIMPSON
CO-AUTHOR

The Dairy Sector Climate Change Group Report

The Group

5 Farmer-Led Climate Change Groups appointed by ScotGov

- Suckler Beef (Feb 2020)
- Arable (Nov 2020)
- Scottish Pig Industry Leadership Group (Nov 2020)
- Hill, Upland and Crofting (Jan 2021)
- Dairy (Jan 2021)

12 members of the Dairy Group

10 weeks to report

The Challenge

- Scotland net zero by 2045
- Scottish agriculture to reduce emissions by 31% by 2032
- Global demand for food to double by 2050
- Improve emissions efficiency
- Reduce absolute emissions

Establishing the Baseline



Establish baseline with consistent, whole-industry carbon footprinting



Standardisation of existing carbon footprinting tools



Improvement in the 'smart inventory'

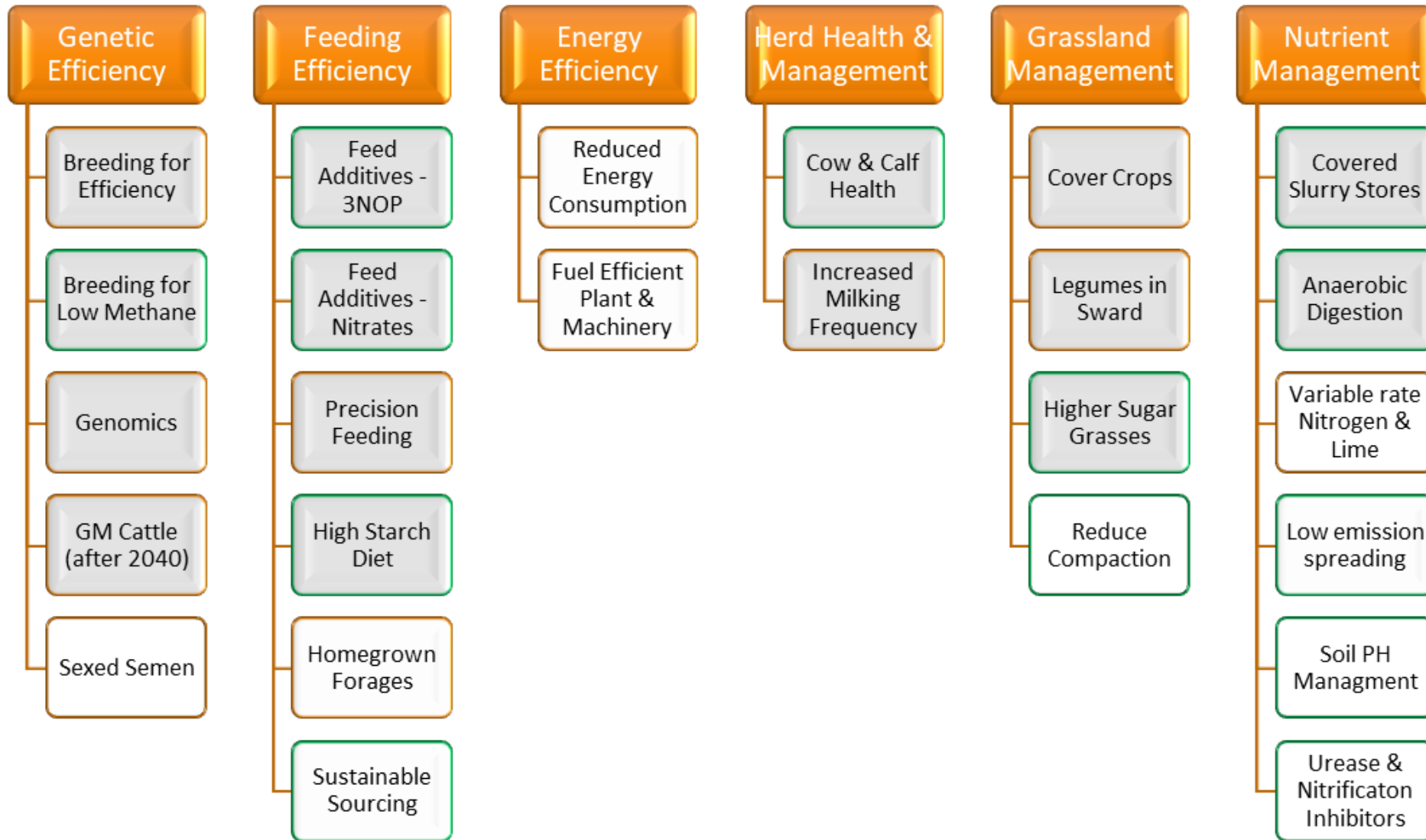


Develop scenario planning functionality within the tools





Mitigation and Abatement



Genetic Efficiency

Consideration of support for genomic testing as part of a breeding programme

Prioritised research into breeding selection for GHG emissions including examination of any barriers to using breeding indices

Feeding Efficiency

Capital support for
feeding efficiency
measures

Robust research into
feed additives for
reduced methane
emissions in Scottish
herds

Prioritise research into
alternatives to maize
such as whole crop or
other varieties suitable
to Scotland

Energy Efficiency

Capital support for energy
efficiency investments

Removal of barriers to
renewable energy investment
on farm

Herd Health and Management

Capital support for health and fertility improvement measures

Capital support for robotic milking systems and parlour improvements to allow 3x milking

Development of key performance indicator matrix and collation to inform inventory and measure improvements

Grassland Management

Research

Research and demonstration of best grassland management practice within different dairying systems in Scotland

Capital

Capital assistance for equipment needed

Nutrient Management



Capital support for increased slurry storage, slurry store covers, low emission spreading equipment, variable rate application equipment, flexible tyres etc



Support for soil sampling to enable field mapping and soil carbon measurement



Capital support for the removal of barriers to anaerobic digestion for slurry and establishment costs



Sequestration

Soil Carbon

Demonstration of best practice in soil carbon management and soil health

Funding for restoration and protection of peat soils (where applicable)

Prioritisation of research into soil sequestration measurement and improvement techniques on farm

Afforestation

Greater incentivisation of smaller scale tree and hedgerow/corridor planting with the sequestration captured in carbon audits and inventory for agriculture

Demonstration and practical advice for planting, for both biodiversity and carbon sequestration benefits

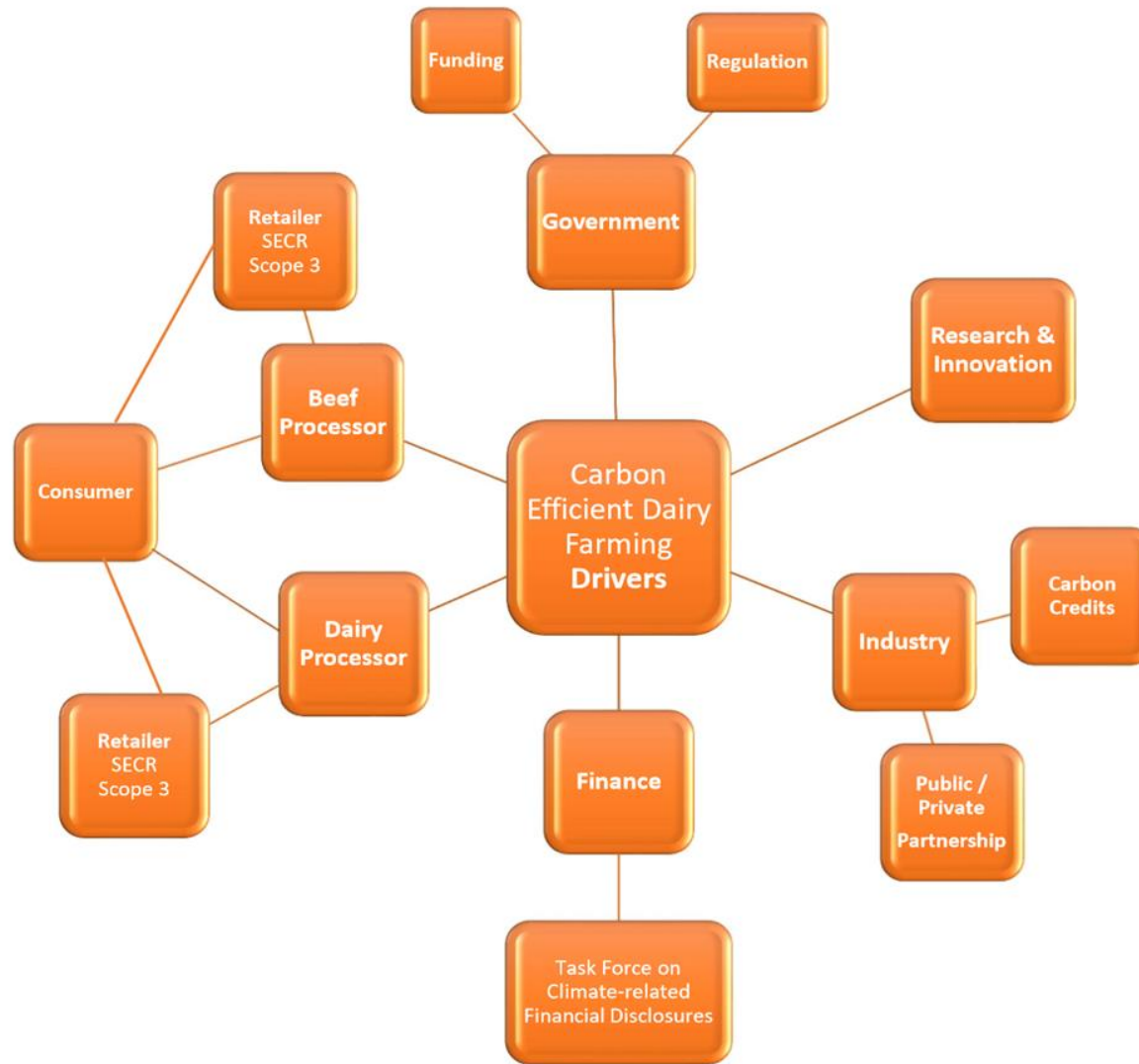
New Technologies

Research into the viability of the use of Biochar in Scotland for climate change mitigation

Participation in international efforts to explore new and develop existing carbon capture technologies

Opportunity and Innovation

- GWP¹⁰⁰ vs GWP*
- Low emission export opportunities
- Carbon Credits Scheme and Trading Platform
- Community/Regional Processing



Drivers for Change

Collaboration



Processors
and Retailers



Financial
Sector



Farm Suppliers
and Advisers



Public Private
Partnerships



Centre of
Excellence

Delivering Change



Capability

Knowledge
Advice



Opportunity

Basic Annual Payments
Capital Grants
Implementation



Motivation

Market Drivers
Reward Innovation and Success

Progress

- **Agriculture Reform Implementation Oversight Board (ARIOB)**
 - All FLGs represented, plus others
 - Co-chaired by Mairi Gougeon MSP & Martin Kennedy (NFUS)
- **National Test Programme - £51M 2022-2024**
 - Carbon Audits, Nutrient Management Plans
 - Conditionality Test Programme
 - Livestock Data Performance Feedback Scheme, Active Livestock Management Initiative
- **More integrated approach needed**
- **Post-2024**