



The Signpost Programme

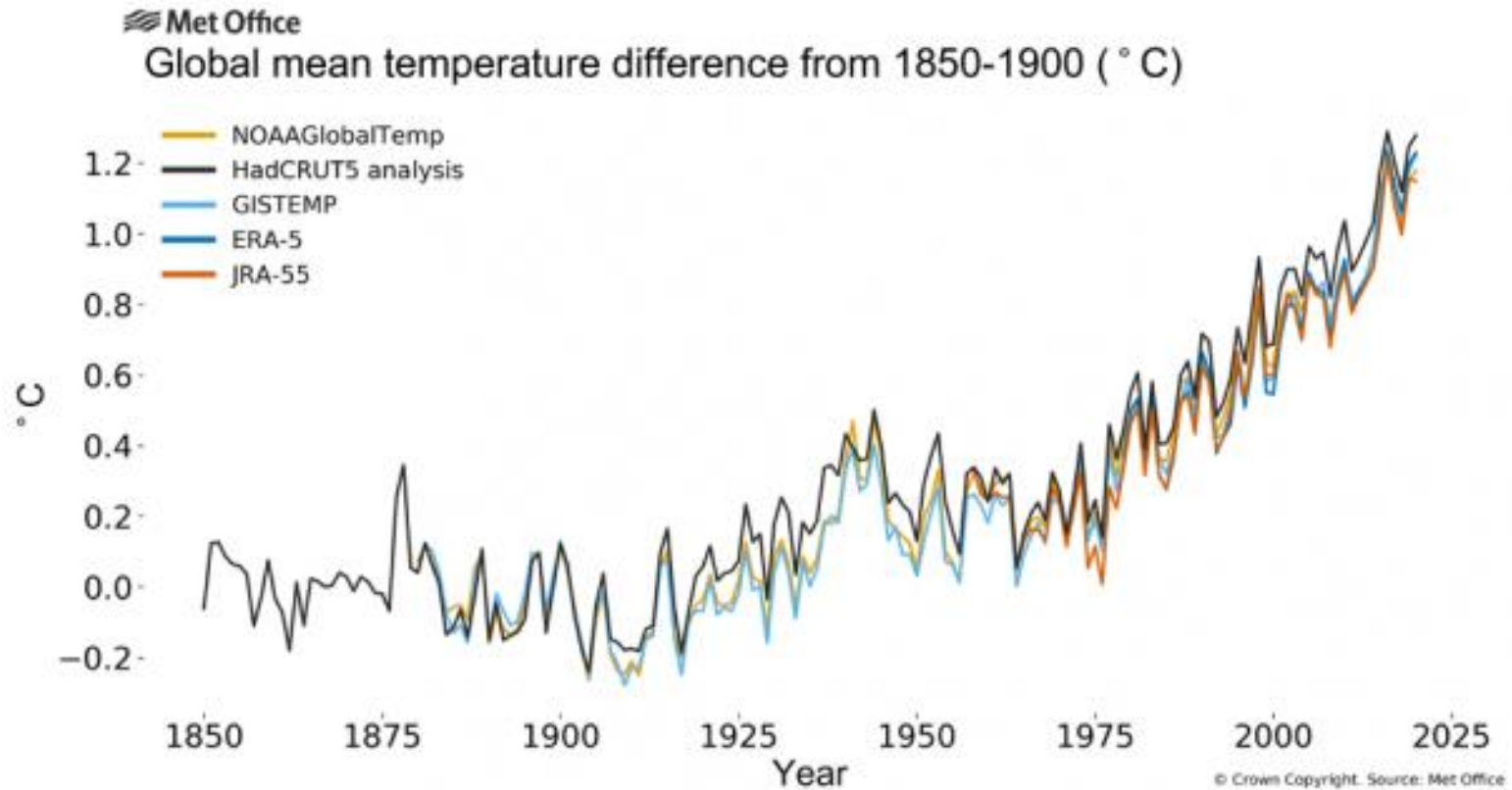
Leading climate action by Irish farmers



Overview

1. Background
2. Proposal
3. The Signpost Programme
 - Signpost Farms
 - Signpost Advisory
 - Farm Sustainability Plan
 - The National Agricultural Soil Carbon Observatory
4. Next steps

Our planet is getting warmer

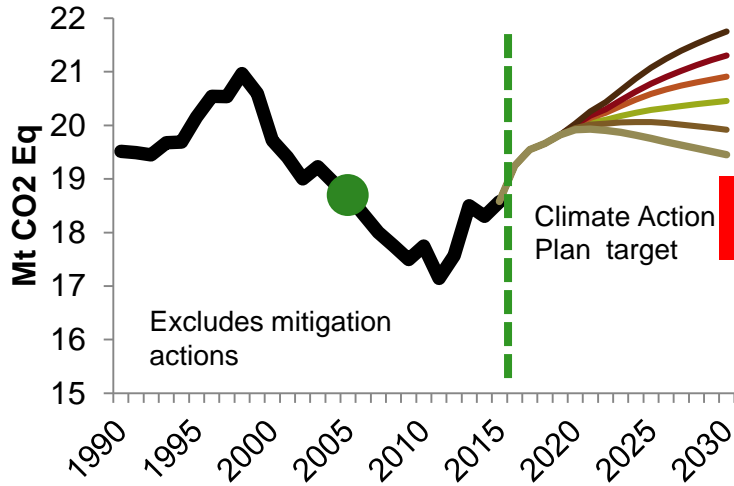


Climate events 2020

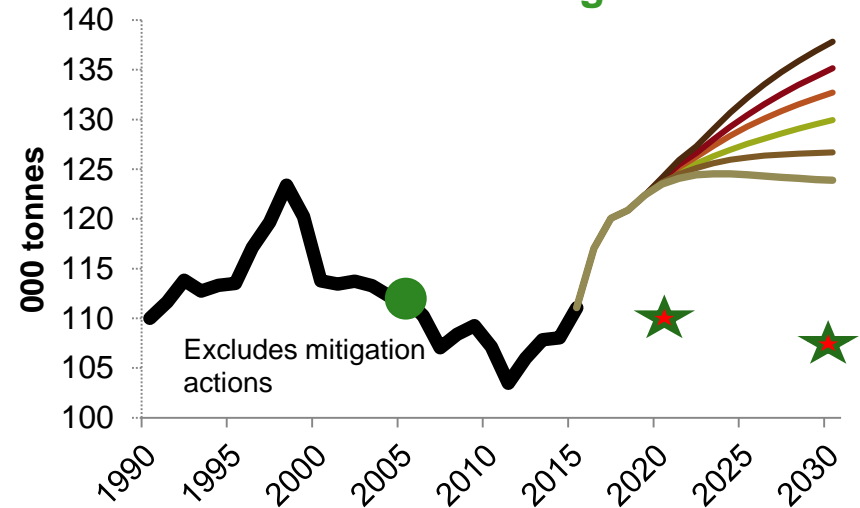


The new normal?
Huge cost...
not to mention loss of life

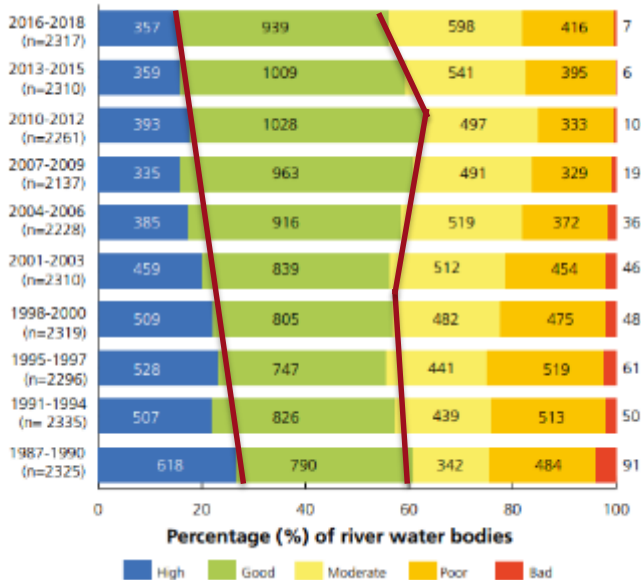
GHG emissions are expected to increase



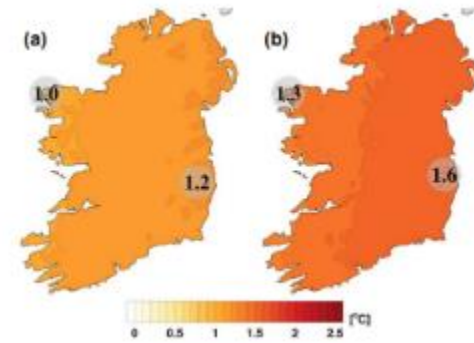
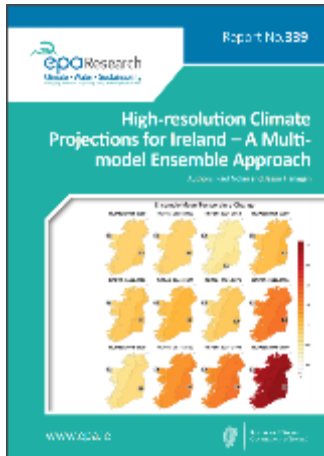
Ammonia emissions have already breached our national ceiling



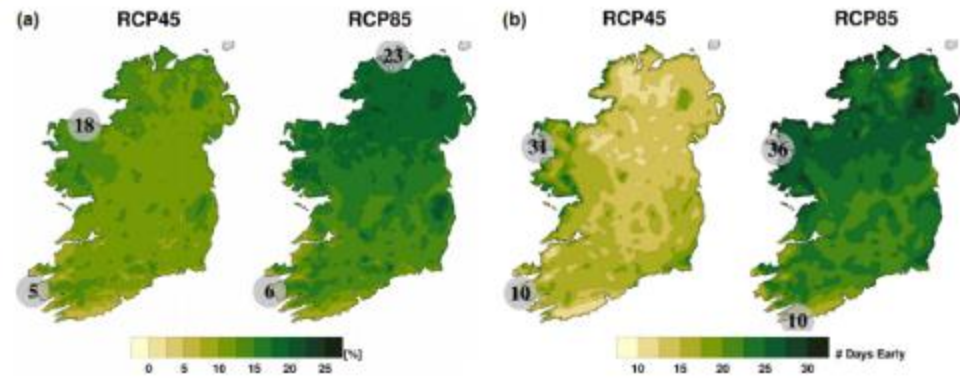
Water quality has declined since 1990



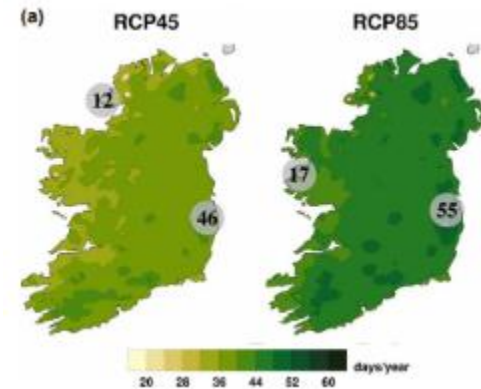
There has been a loss of biodiversity



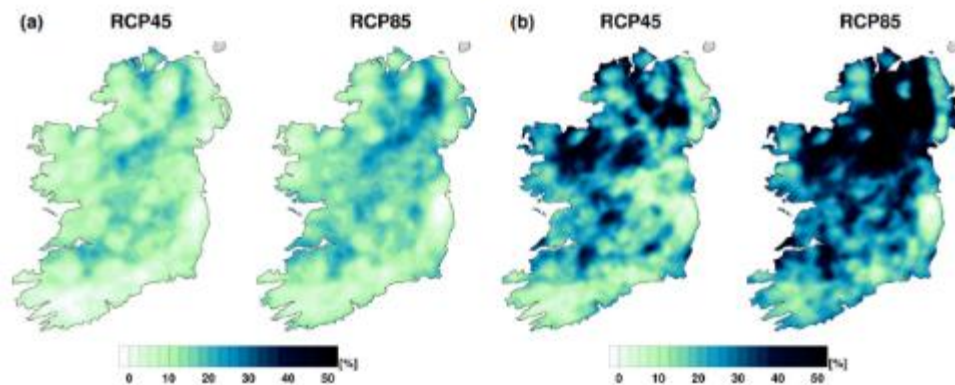
Ensemble of mean temperature changes (2041 – 2060)



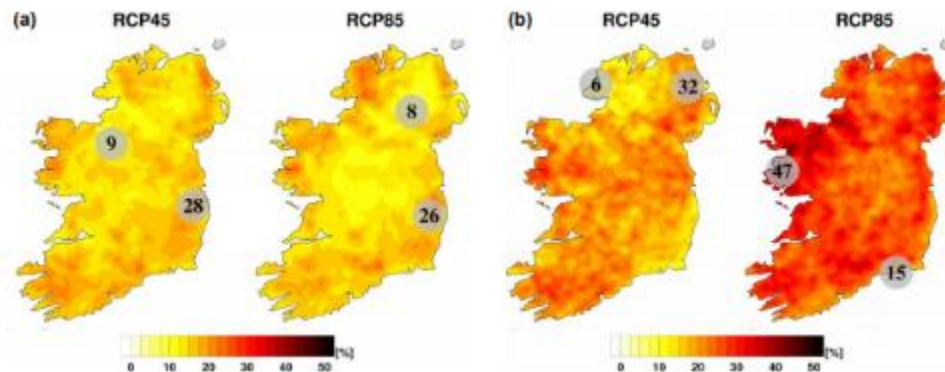
Length (a) and start of growing season (b)



Length of the grazing season

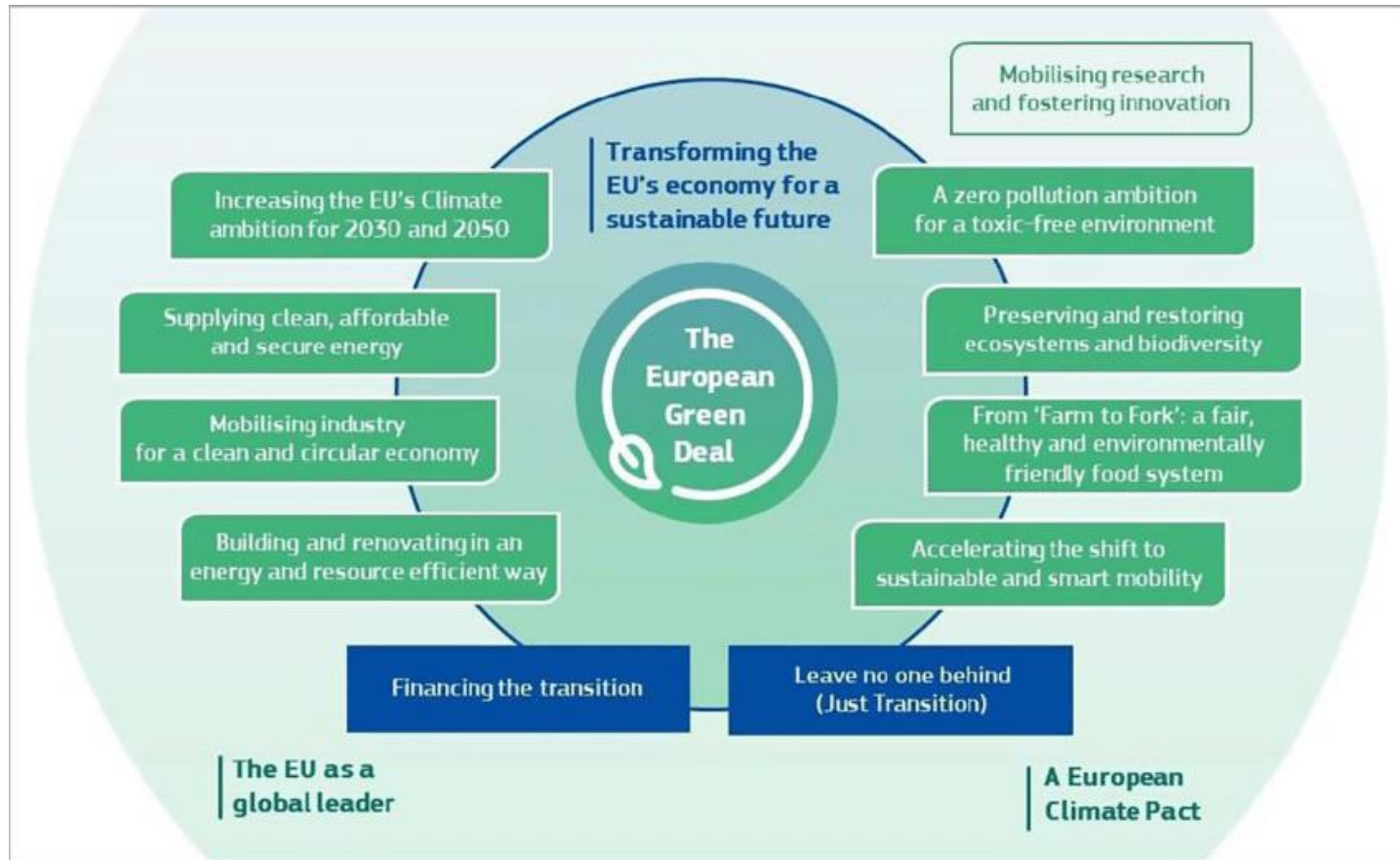


Projected changes in (a) wet days and (b) very wet days

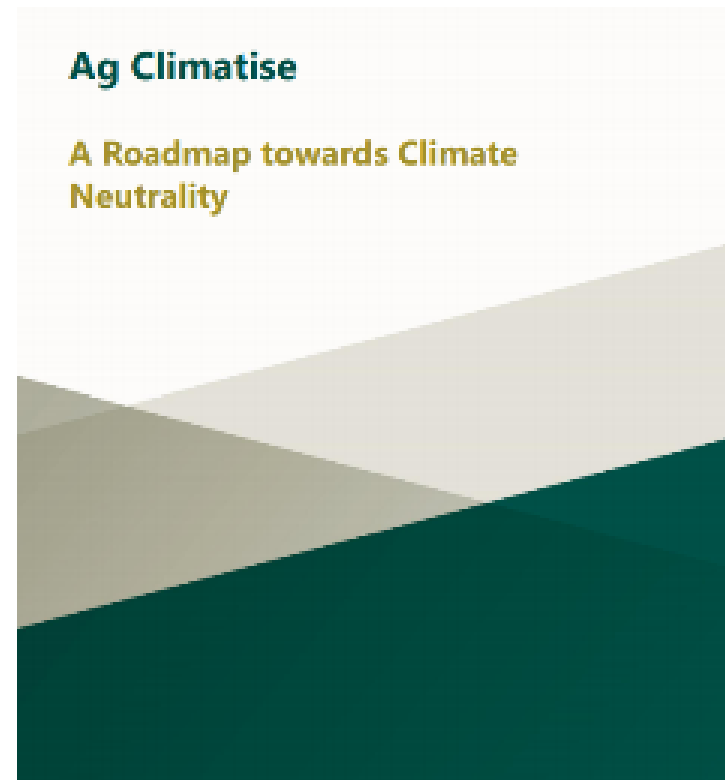
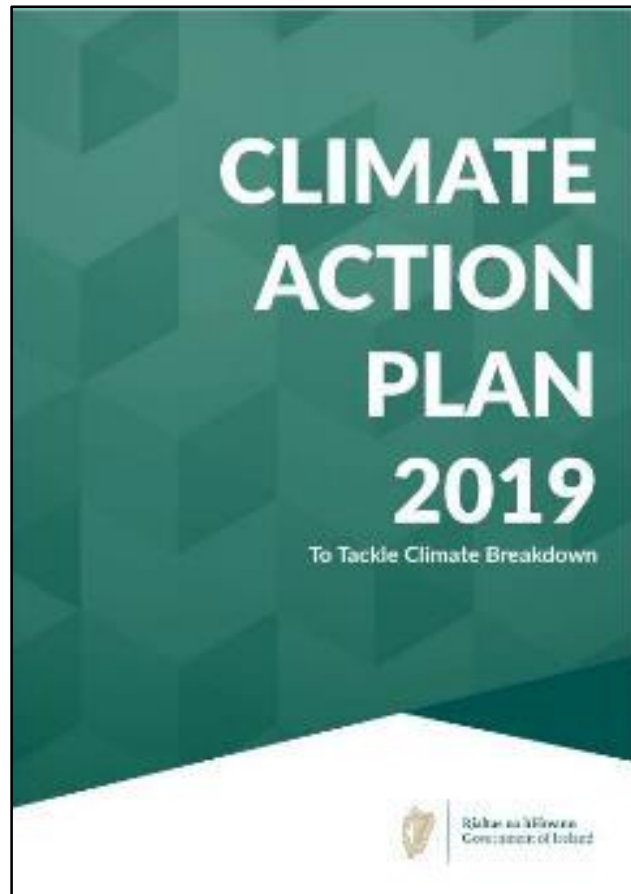


Projected changes in number of dry periods (a) annually and (b) in summer

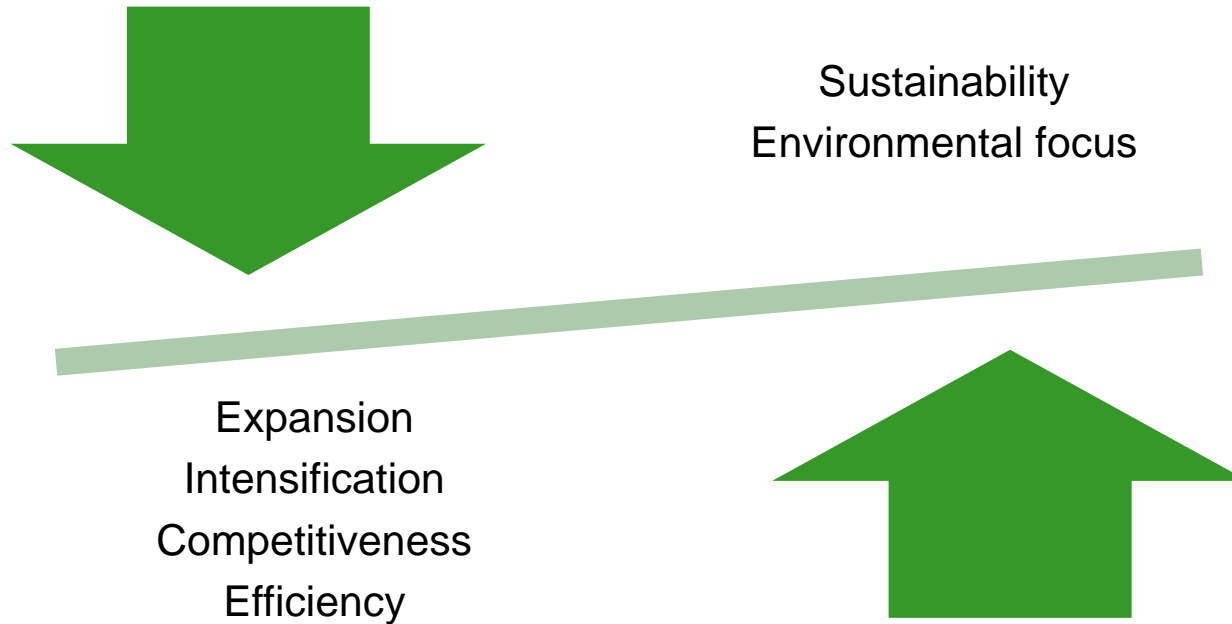
A changing policy environment...at EU level



...and in Ireland



Re-balancing the focus

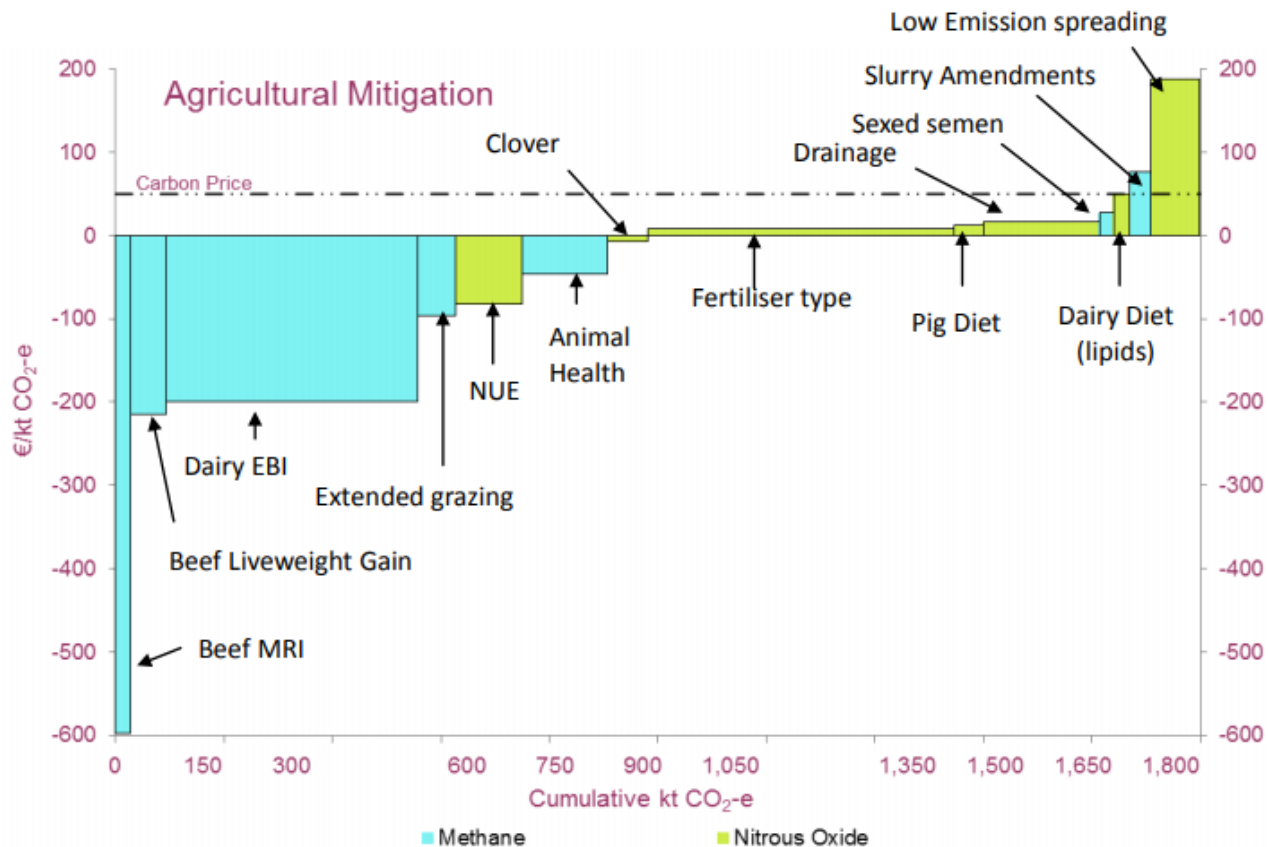


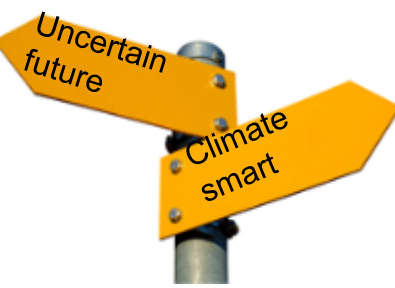
Proposal

- A national campaign to lead climate action, achieving early progress in reducing GHG emissions
- With a core of 100 Signpost demo farms at its heart
 - co-design/ living lab approach
 - participants in C network
- Central to the Signpost Advisory campaign
 - mainstream sustainability messages
- Two guiding principles
 - whole of industry alignment
 - build on existing initiatives, while avoiding duplication



Teagasc GHG MACC - Agriculture

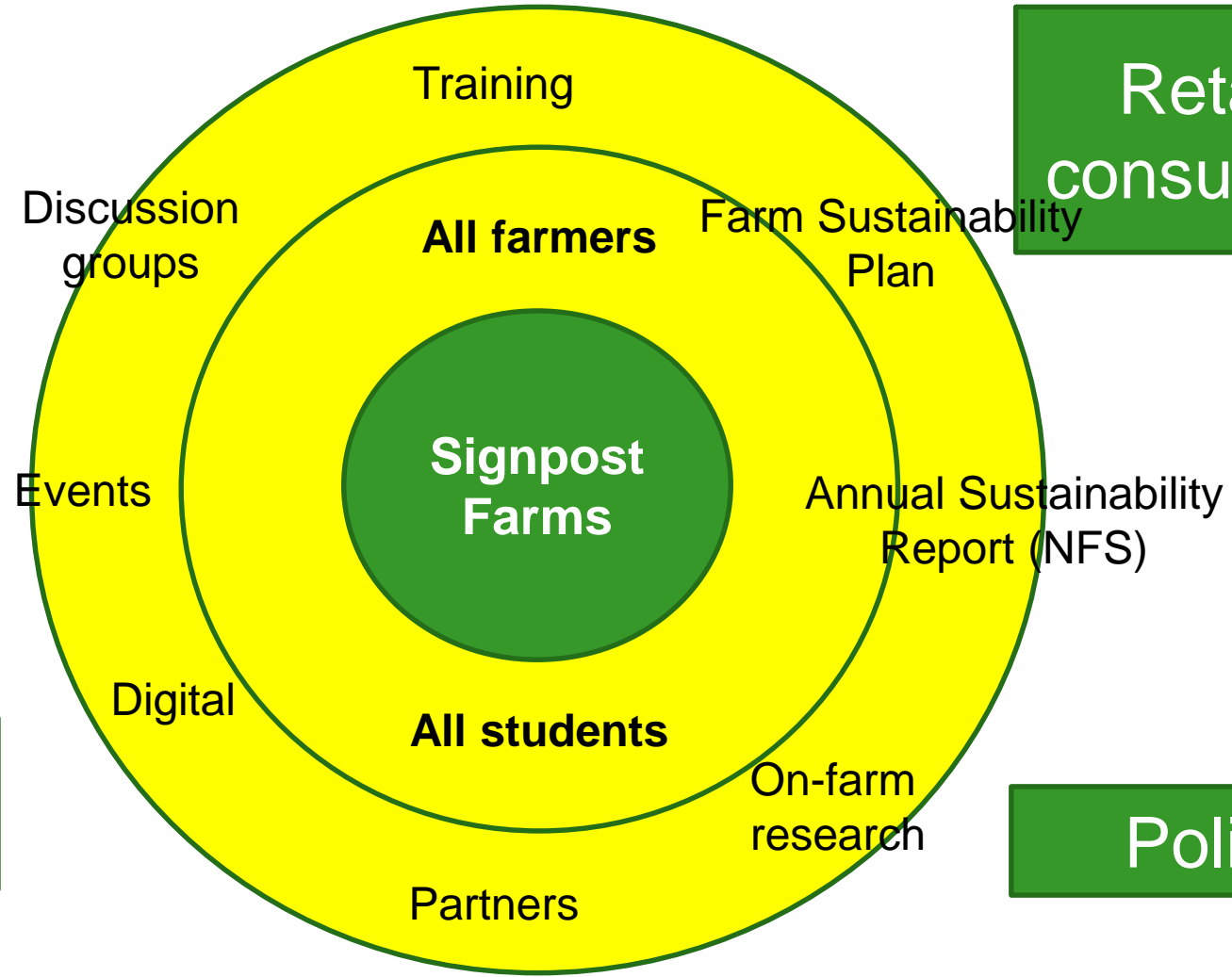




Signpost Programme

Campaign for climate action

New CAP



Retail/
consumers

Policy



Objectives

Signpost Farms

- Showcase the science based technologies which can reduce agricultural emissions
- Act as “hubs” for the Signpost Advisory campaign
- Create a national network of farms where carbon sequestration in grassland and hedgerows can be examined

Signpost Advisory

- Mobilise all advisers (Teagasc, private and industry) to engage with all farmers, using a combination of channels, in climate action
- Scale up the messages from our experiences with the Signpost Farmers to all farmers

Signpost Farmers

Demo farmers have a major role to play in the:

1. application of scientific findings and new technologies; and
2. spreading of best practices and innovative farming approaches
(*AgriDemo project*)

What will it mean to be a Signpost Farmer?

- We want the Signpost Farmers to be champions for climate action
 - Recognise the need for change...and the direction to go
 - Embrace and integrate science based solutions
 - Farm smarter to use fewer inputs
 - Use bio-based solutions to displace fossil fuels
 - Work in partnership with their farm support team
 - Innovate
 - Share the possible...to shape positive change

Farmers learn from other farmers



We want the Signpost Farmers to be the change that we want to see...to point the way to a better climate.

What KPI's will we enable Dairy Signpost Farmers achieve?

GHG emissions	<ul style="list-style-type: none">• Contribute to the national reduction of GHG emissions from farming• Reduce GHG emissions per kg FPCM by 40% to 0.7 kg CO_{2e} per kg FPCM
Pasture productivity & stocking rate	<ul style="list-style-type: none">• Target an increase of 2 tDM/ha pasture utilised over 5 years• Ensure that the farm is appropriately stocked: < 250 kg org. N/ Ha (whole farm)
Reduced fertiliser use	<ul style="list-style-type: none">• Reduce chemical N fertiliser usage by 10% over 5 years• Increase sward clover content to 20% over 5 years• Spread 50% of chemical N as protected urea and all slurry using LESS
Optimum soil fertility	<ul style="list-style-type: none">• 90% of soils to have optimum soil fertility status• Adhere to NMP to correct soil deficiencies
Adequate slurry storage	<ul style="list-style-type: none">• 16, 20, 22 weeks slurry storage to be available for all livestock (location dependent)
Replacement rate	<ul style="list-style-type: none">• Target 18-20% for stable herd• Target 4.5 lactations herd average lactation number• Increase EBI by €10 per year
Concentrate CP%	<ul style="list-style-type: none">• Reduce concentrate CP% to 14% (main grazing season)
Biodiversity	<ul style="list-style-type: none">• Target 10% of high value biodiverse area per farm• Increase quantity and quality of biodiversity on the farm

We will work with farmers to achieve these targets.



Engaging all farmers

- Primary focus for our advisers and teachers
- Tailored advice – Farm Sustainability Plan
- Blended approach – traditional and digital
- Leverage existing channels, work with partners
- Targeted communications
- Partnership with Bord Bia

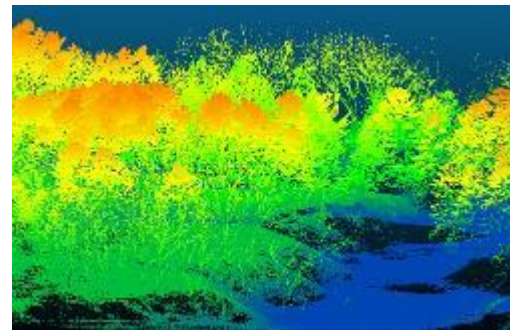
Farm Sustainability Plan

- Primary focus on reduction of GHG and ammonia emissions
- But will integrate advice on water quality, bio-diversity and economic sustainability also
- Climate actions identified and agreed by the farmer
 - informed by Bord Bia SDAS Farmer Feedback report



National Agricultural Soil Carbon Observatory

- All Signpost farms will be part of the NASCO
- Deep soil sampling (1m) – soil C
- LiDAR analysis – above ground C stocks
- Model soil C sequestration across all sites
 - will include farm specific data plus data from C Flux towers



Progress and next steps

- Currently working on confirming partners
 - Positive engagement with milk and meat processors to date
- Also working on the identification and selection of Signpost farmers
- Recruitment
 - To fill out the Signpost team
- Commencement of data collection
 - Deep soil sampling, baseline farm data
- Development of Farm Sustainability Plan
- Roll-out of Signpost Communications

Thank you

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<https://www.teagasc.ie/environment/climate-change--air-quality/signpost-programme/>