



Impact of changes

Sheep Ireland Industry Meeting
11th December 2025



Updates for 2026

1. Economic and carbon values

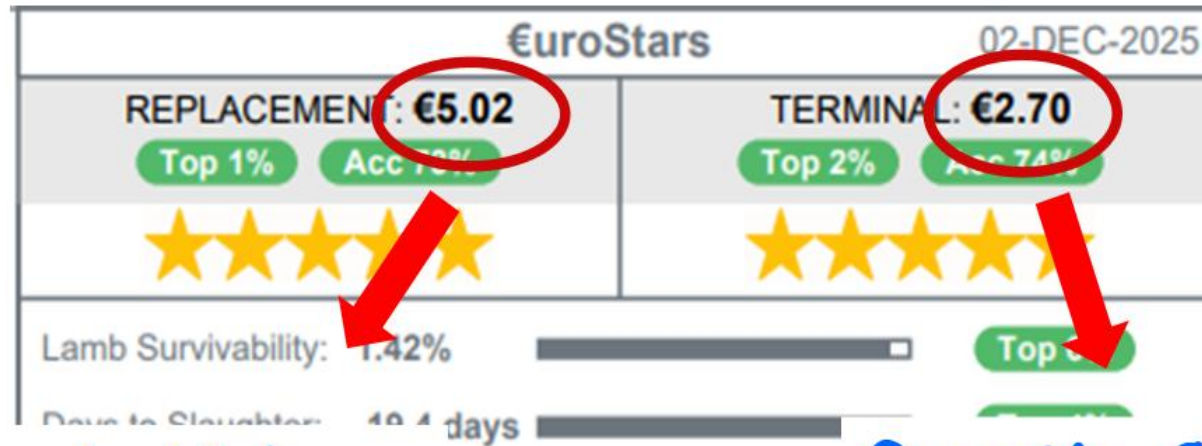
- Update current costs and prices in the bio-economic model
- Added carbon value to some traits

2. Addition of new traits

- FEC
- Methane

Updates

€uro-Star indexes



Economic Value

Genetic Component

€

Breeding Values



Updates

Trait Group	Objective trait	Unit	Current	New
Maternal	Number of lambs born	lamb born	39.76	53.62
	Ewe mature weight	kg	-0.54	-0.54
	Ewe barrenness	%	-0.35	-0.69
Lambing	Lambing difficulty single	%	-0.27	-0.60
	Lambing difficulty single - maternal	%	-0.25	-0.58
	Lambing difficulty multiple	%	-0.30	-0.51
	Lambing difficulty multiple - maternal	%	-0.27	-0.48
	Lamb survival to birth	lamb surviving at birth	54.84	86.93
	Lamb vigour	score 1 to 5	2.43	3.00
	Mothering ability	score 1 to 5	1.63	2.12
Production	Days to slaughter	days	-0.25	-0.42
	40 day weight (milk)	Kg	1.88	3.25
	Carcass conformation	Grade E to P	3.70	4.56
	Carcass fat (under)	score 1 to 5	-	-2.46
	Carcass fat (over)	score 1 to 5	-0.84	-4.10
Health	Lameness ewe	%	-0.24	-0.32
	Lameness lamb	%	-0.08	-0.11
	Dag score	score 1 to 5	-0.34	-0.43
Carbon	FEC	eggs per gram	-	-0.22
	Methane	gram per day	-	-0.65

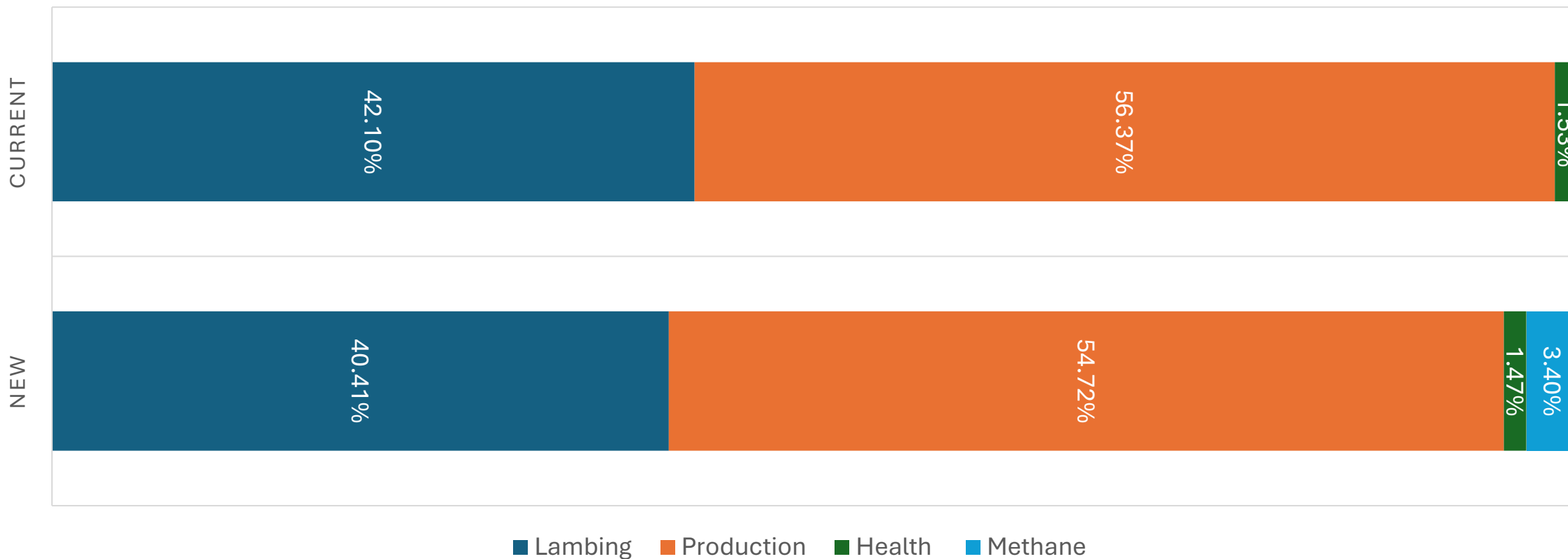
Update economic & carbon

New traits

Relative Emphasis

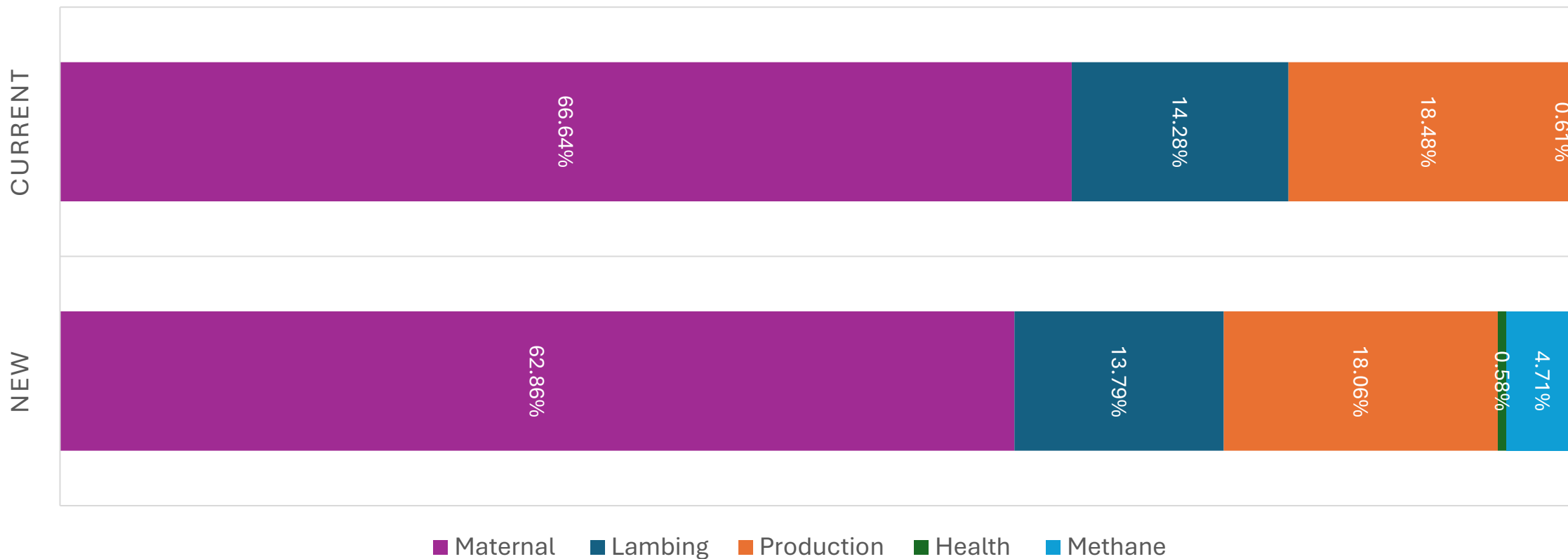
Impact on indexes

€URO-STAR TERMINAL INDEX



Impact on indexes

€URO STAR REPLACEMENT INDEX

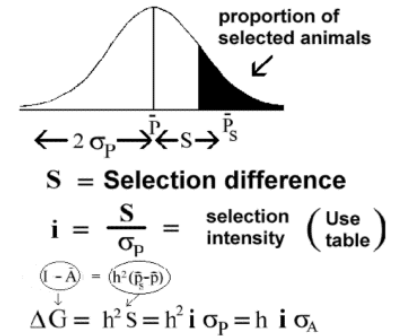


Impact of changes to industry

Response to selection

What will selecting on the indexes do for future performance

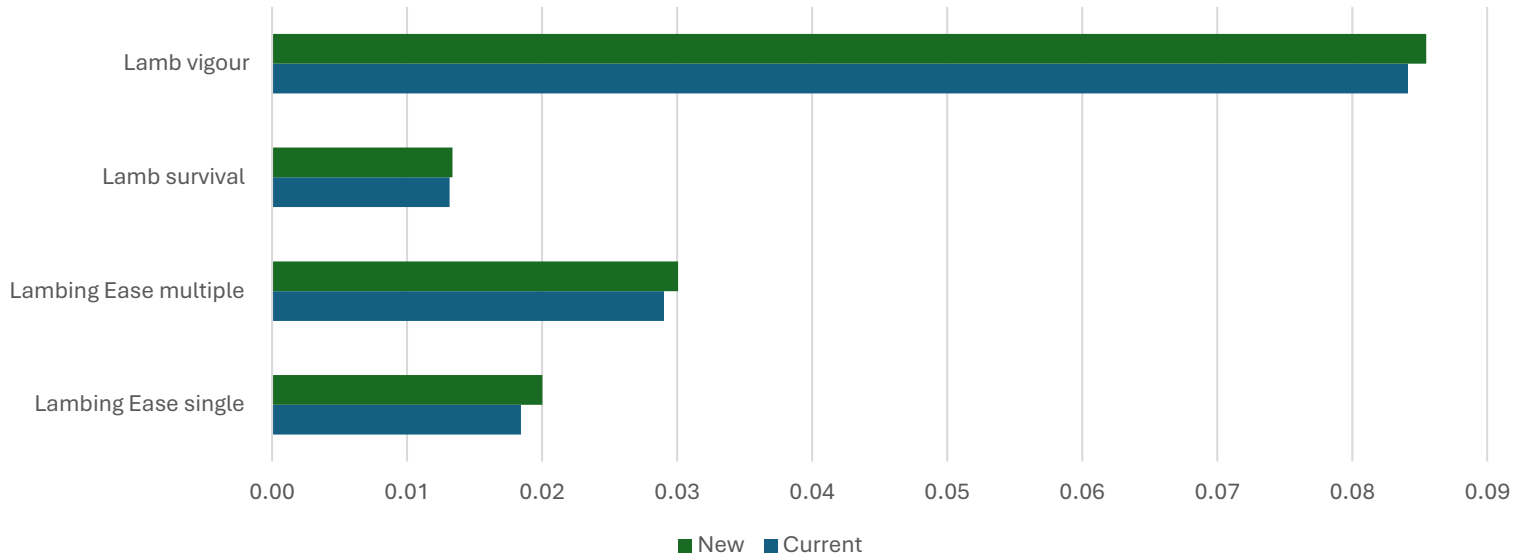
- Compare current index versus new index
- Break it down into the key traits



Where will we be in 10 years time by selecting on this index?



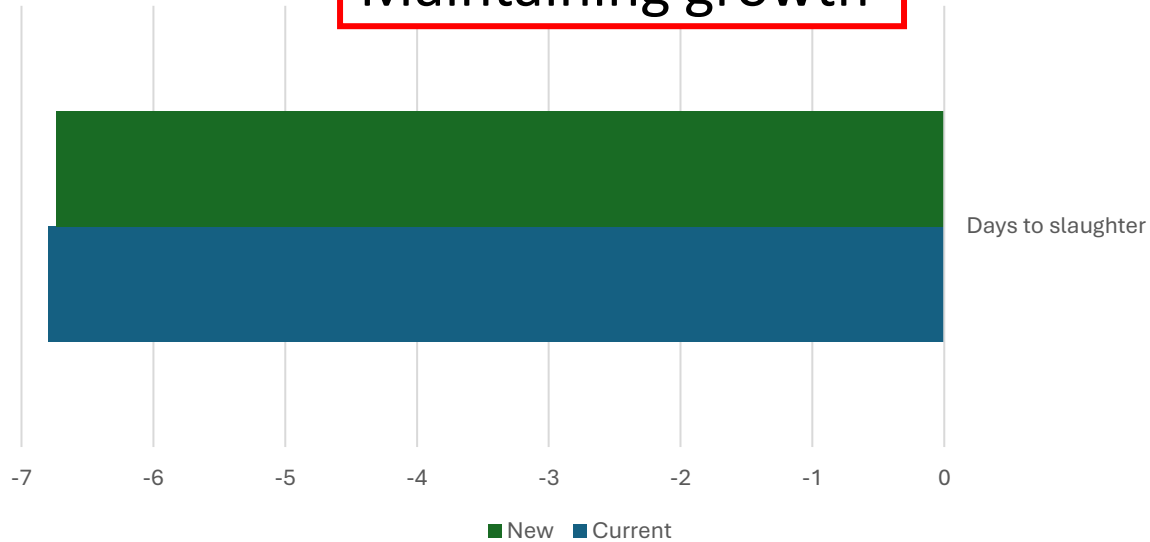
Terminal Index



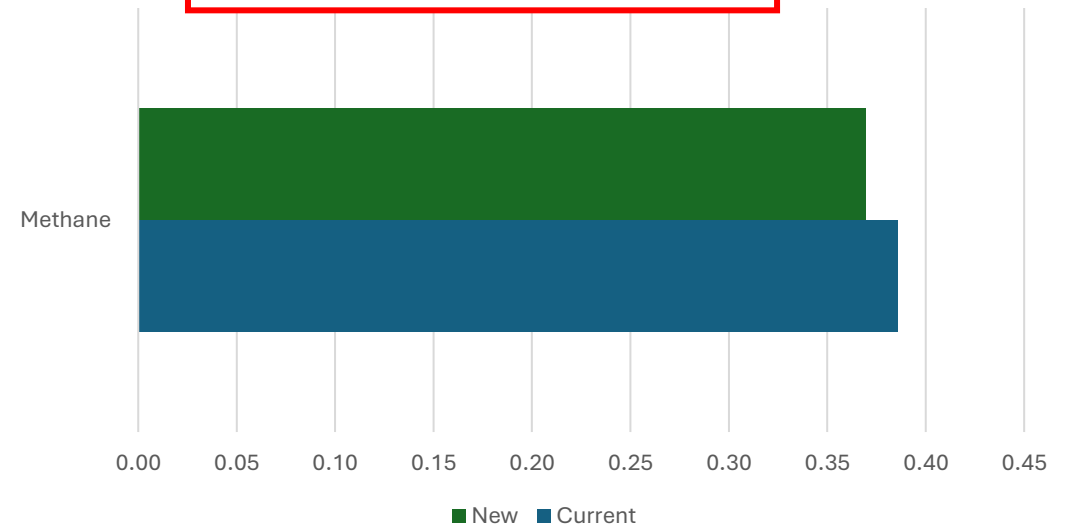
Faster progress in:

- Lamb Survival
- Lambing Ease
- Lamb vigour

Maintaining growth



Slowing methane



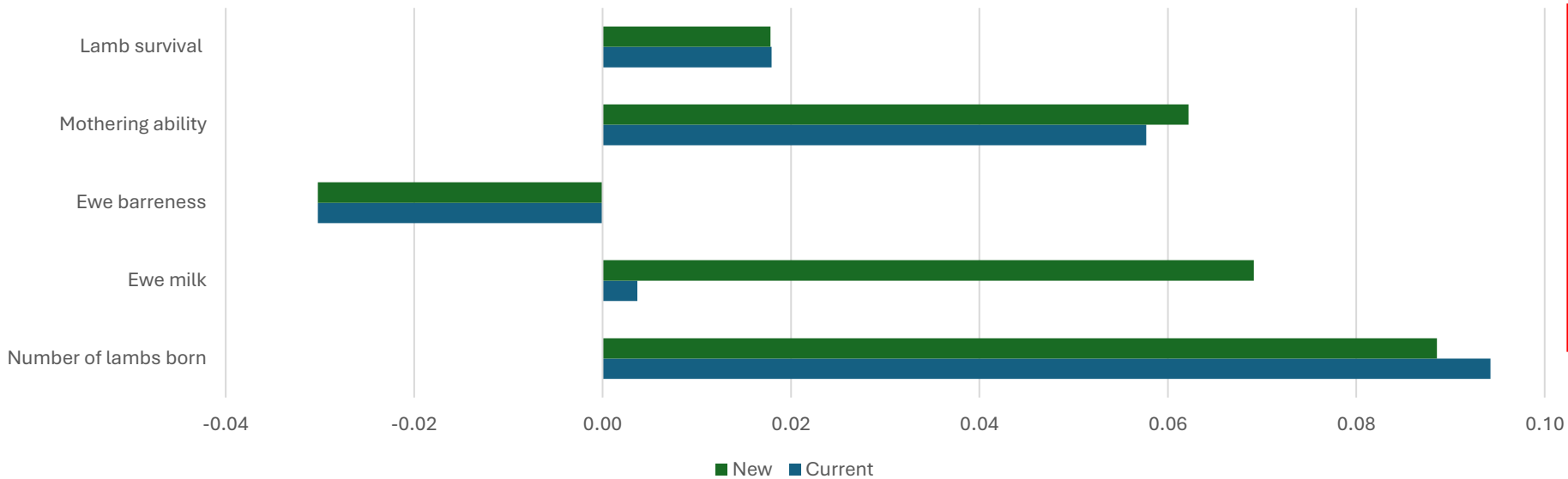
Future ★★★★★ Terminal Ram

1. More lambs (more survival)
2. Less handling of ewes at lambing
3. More lambs that get up and go at lambing
4. Faster finished lambs
5. Producing less methane



Additional profit to
industry
~€15 million

Replacement Index

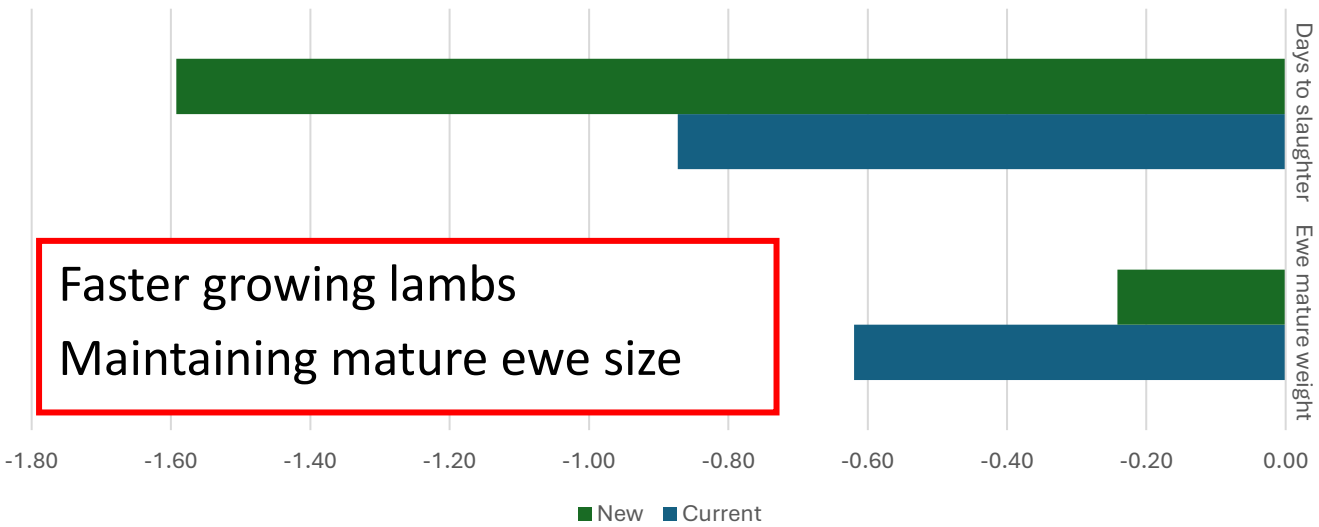


Improving:

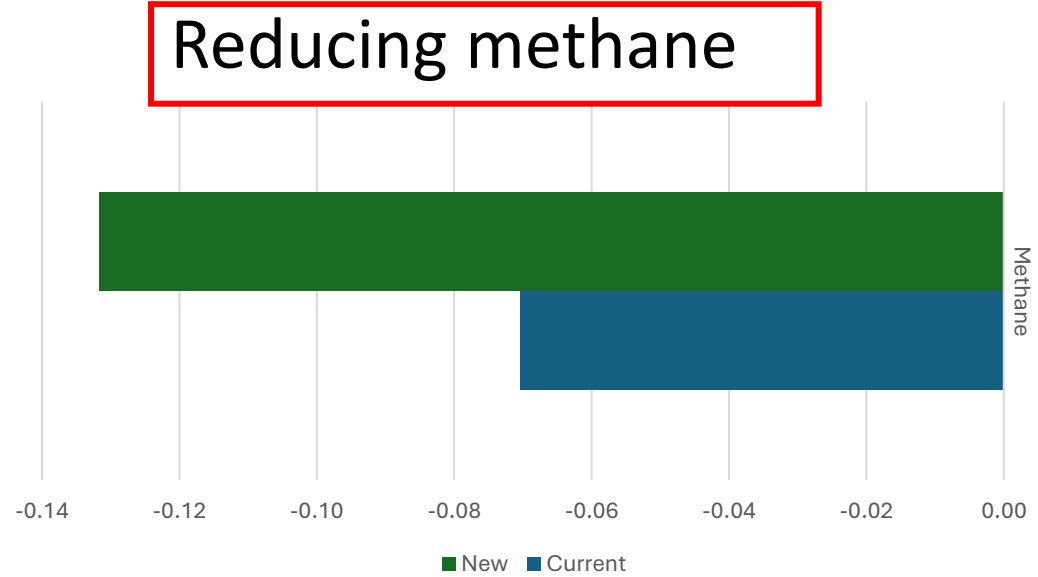
- Ewe milk
- Mothering ability

Maintaining:

- NLB



Faster growing lambs
Maintaining mature ewe size



Reducing methane

Future ★★★★★ Replacement Ram

1. More lambs (more survival and NLB)
2. More productive ewes – less barren & better mothers
3. More milk (faster early growth)
4. Faster finished lambs
5. Maintaining ewe mature size
6. Producing less methane



Additional profit to
industry
~€20 million

International perspective

SRDI Farm Advisory Service

Livestock Crops and soils Environment Rural Business Advice & Grants Problem Solver

Low Emissions Livestock Breeding – The What and the Why

8 July 2024

This article is part of the Climate Change & Carbon Research Briefings series. More articles in the series can be found below:

- Understanding Natural Capital Markets
- Collecting On-Farm Biodiversity Data with Bioacoustics
- Faba Beans for Alternative Protein and Reducing Monogastric Carbon Footprint



Related articles

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COOL SHEEP PROGRAMME

Reducing methane emissions in New Zealand's national sheep flock through genetic selection – The Cool Sheep® Programme.

This ground-breaking and world first project aims to give every sheep farmer in New Zealand the opportunity to use genetic selection to reduce greenhouse gas emissions from our national flock.

Selecting for more methane efficient sheep

SEPTEMBER 21 2023



Expression of Interest: Terms of Reference

Emissions Avoidance Partnership (EAP) – Selecting for more methane efficient sheep

Date: 26th August 2023

MLA Program: Emissions Avoidance Program

Project Leader: Julius van der Werf sheepmethane@une.edu.au

Home → All the news → Genetic selection: a lever for sheep farming with less environmental impact

CLIMATE CHANGE AND RISKS 3 min share

Genetic selection: a lever for sheep farming with less environmental impact

The European project GrassToGas involving scientists from seven countries, including those from the Genetics, Physiology and Livestock Systems (GenPhysE-INRAE/INP ENSAT/ENVT) laboratory at the INRAE Occitanie-Toulouse centre, has come to an end after 5 years of research into greenhouse gas (GHG) emissions from pasture-raised sheep. Here is a summary of the main results.

International perspective

EPA press releases for 2025

Press releases issued by the Environmental Protection Agency for the year 2025



Ireland's Greenhouse Gas Emissions decrease by 2 per cent in 2024

Date released: July 03, 2025

- Ireland's greenhouse gas emissions decreased by 2 per cent (-1.1 Mt CO₂eq) in 2024.
- All sectors, except heating of homes and buildings, saw reductions in 2024:
 - Energy industries emissions decreased by 8.9 per cent (-0.7 Mt CO₂eq)
 - Agriculture emissions decreased by 1.7 per cent (-0.4 Mt CO₂eq)
 - Transport emissions decreased by 1.2 per cent (-0.1 Mt CO₂eq)
 - Industry emissions decreased by 4.6 per cent (-0.3 Mt CO₂eq)
 - Heating of homes and buildings increased by 5.6 per cent (+0.4 Mt CO₂eq)

Agriculture (sheep) emissions decreased by XX% due to sheep breeding

Key messages

- **Two main updated for 2026**
 - Update economic and carbon values
 - Adding new traits: FEC & methane
- **Trait emphasis**
 - Small changes to emphasis on individual traits overall
- **Win : win**
 - Updates will improve performance whilst reducing methane
- Similar research underway in all major sheep producing countries

Acknowledgements



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Food and the Marine

