



**An Roinn Talmhaíochta,
Bia agus Mara**
Department of Agriculture,
Food and the Marine



Meeting the Climate Change Challenge in Agriculture

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The Climate Change Challenge



GHG Emissions

> 30% of GHG emissions from Agriculture

EU agricultural emissions are approx. 10%

GHG Targets

**20% emissions reduction by 2020;
30% by 2030**

Both GHG and ammonia emissions projected to increase by 2030

Renewable Energy Targets

16% of energy demand from renewable by 2020

32% EU target by 2030

Energy Efficiency Targets

20% Energy Efficiency by 2020

32.5% Energy Efficiency by 2030





Sustainability is key





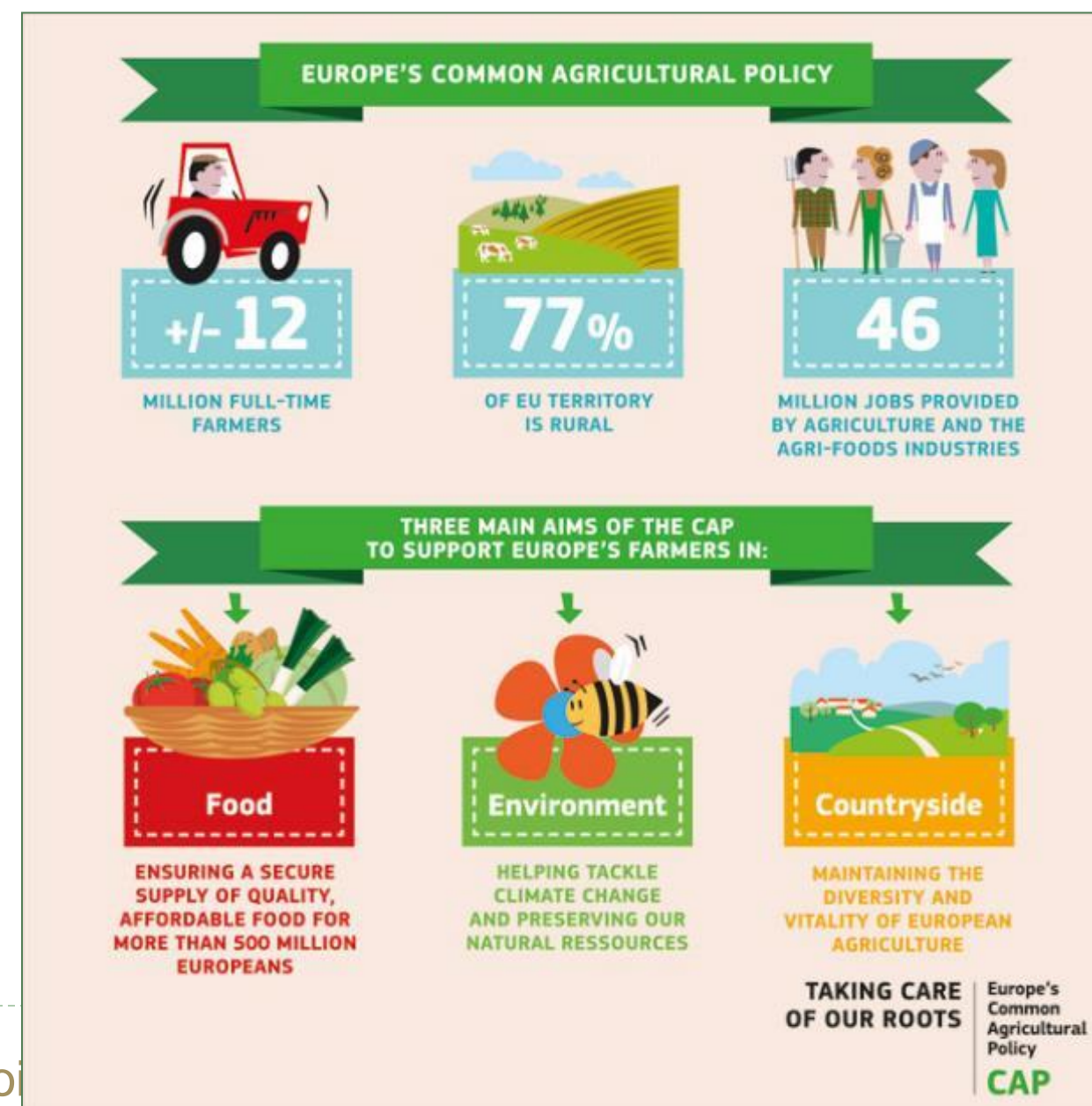
Current CAP & the Reform of CAP

Current CAP

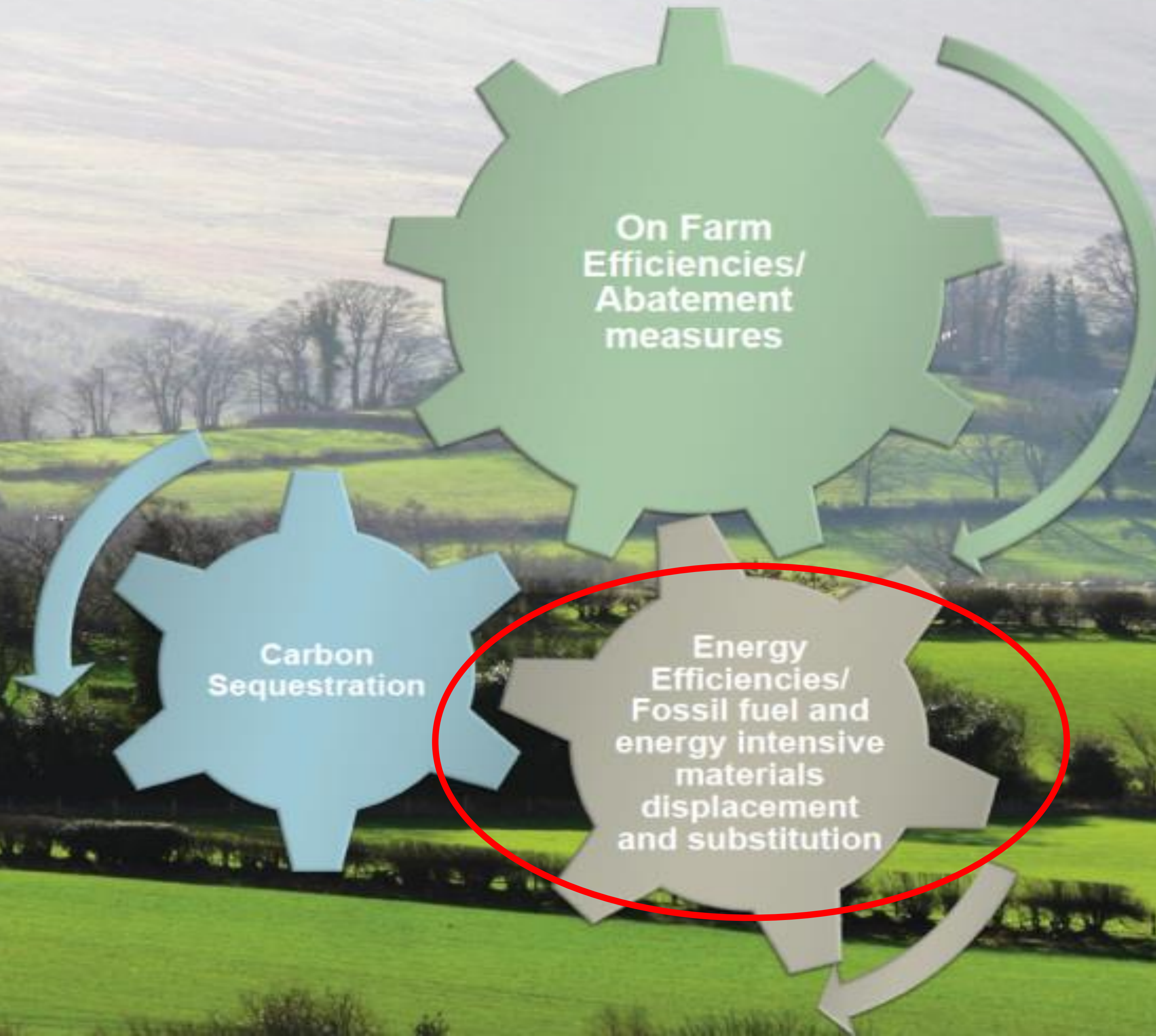
- ▶ **Pillar I –**
Direct payments to farmers on an annual basis
- ▶ **Pillar II –**
Infrastructure, Environment and Development Support

CAP POST 2020

- ▶ Simplifying and modernising the policy
- ▶ More targeted, result and performance based support
- ▶ Fairer distribution of direct payments
- ▶ Enhancing environmental and climate ambition
- ▶ 40% of CAP's budget is expected to contribute to climate action



Steps to reducing emissions from Agriculture



Climate Friendly Farming

GLAS



BDGP



RDP 2014-2020
(CAP Pillar II payments)

TAMS



Nitrates



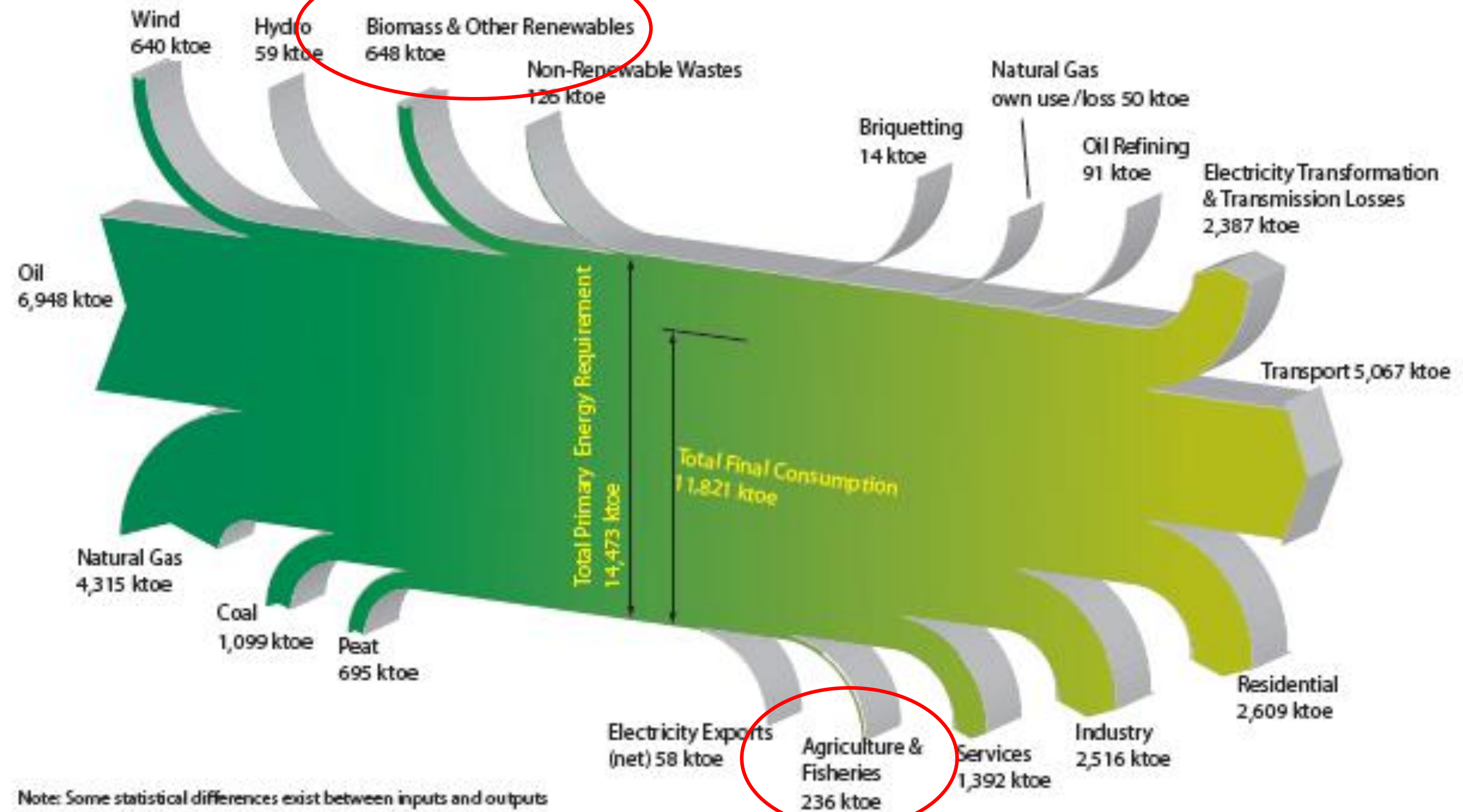
European Innovation Partnerships



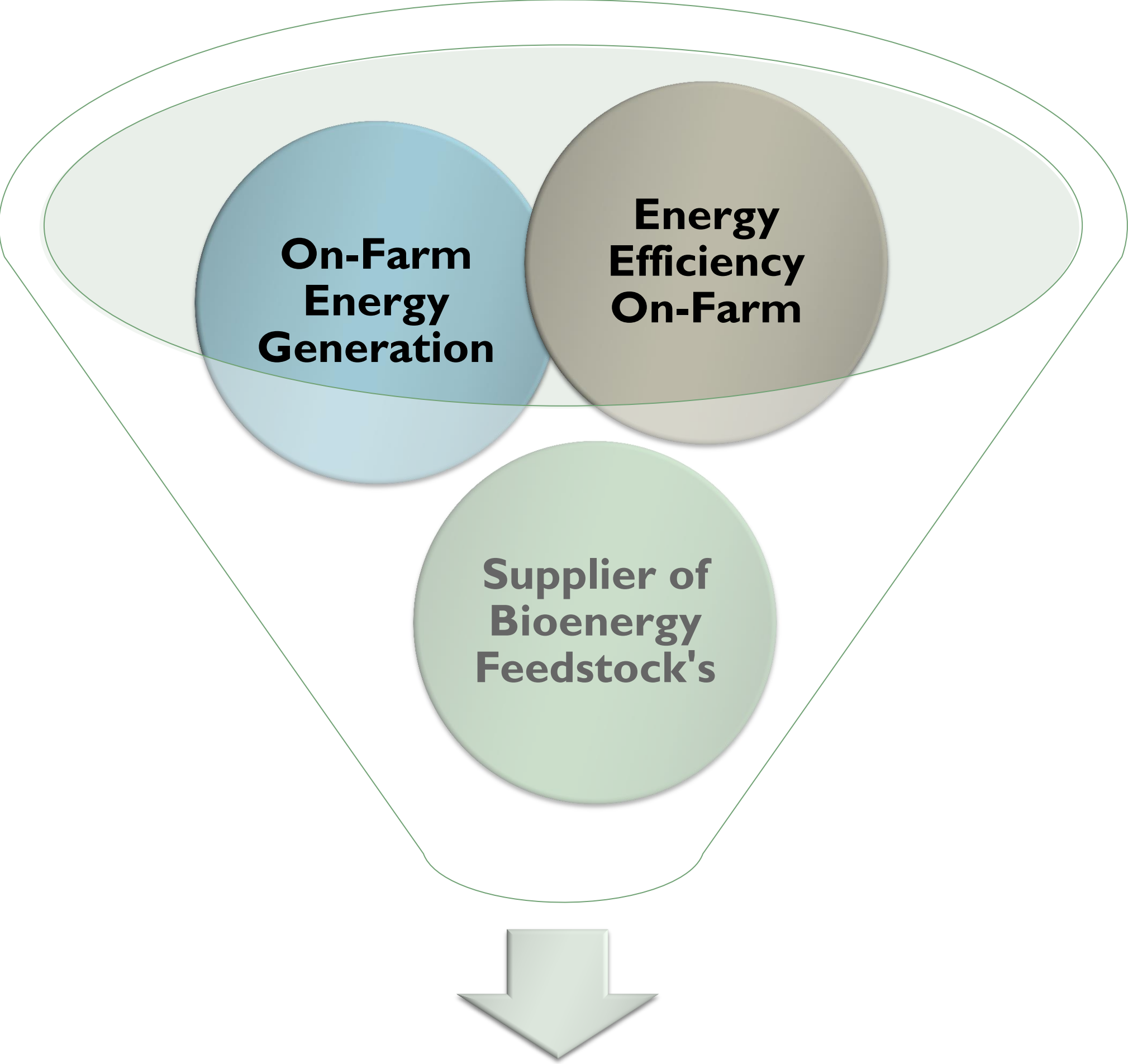
Knowledge Transfer Programmes



Role of Agriculture in Energy Production and Energy Use

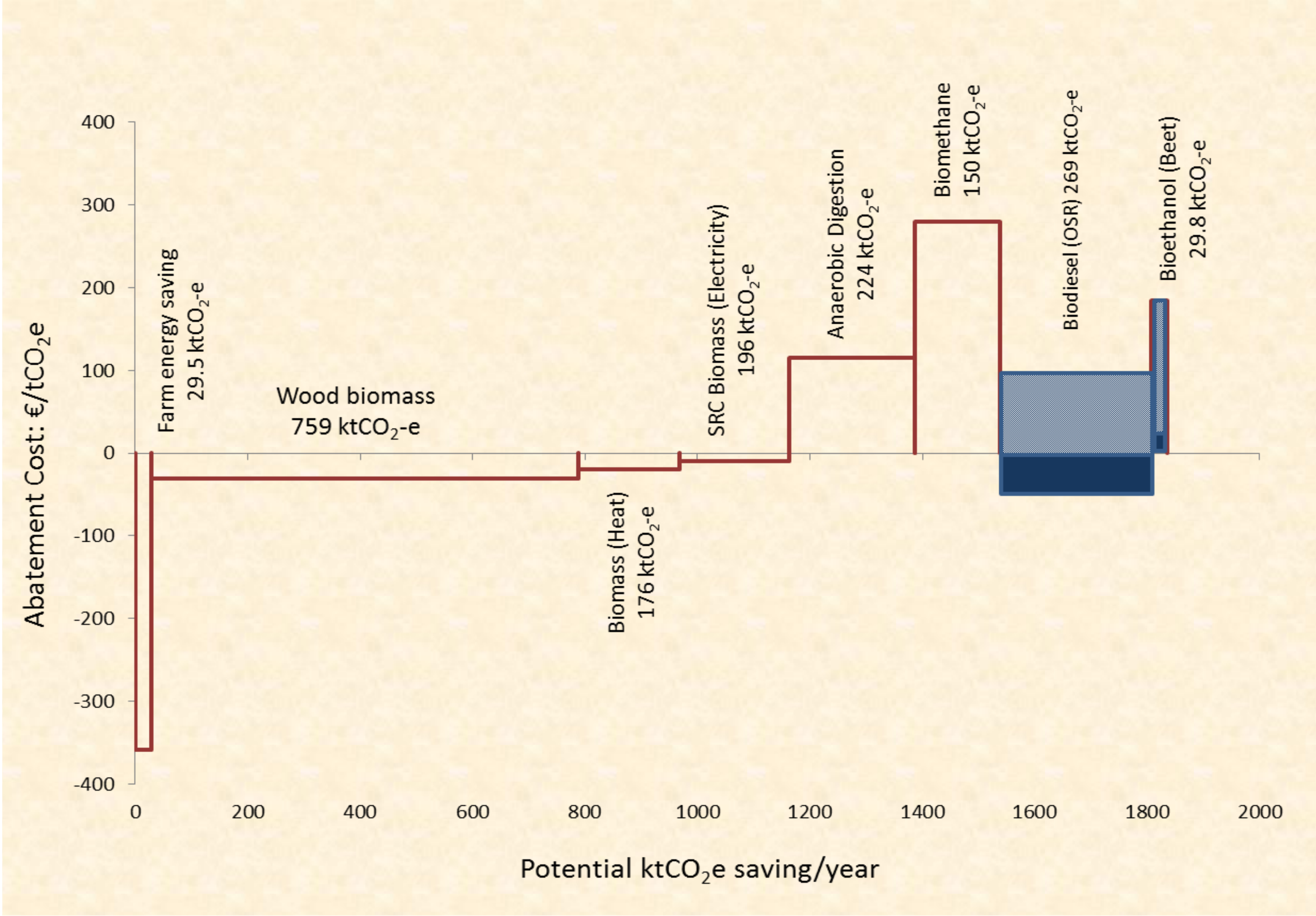


Energy & Agriculture



**Sustainable Energy
Agriculture Sector**

Energy MACC



Forestry



- ▶ > 300,000 ha planted since 1990 and €2.5 billion of state investment to date
- ▶ Contributes €2.3 billion to GDP, 12,000 employed
- ▶ Irish Round harvest was approximately 3.54 million cubic metres in 2017
- ▶ Nearly 4 million cubic metres of roundwood harvested each year. This will more than double to 8 million cubic metres by 2035
- ▶ Irish forests have sequestered about 3.8 million tonnes of CO₂ per year from the atmosphere (2007-2016)
- ▶ Demand for forest products is expected to increase by 20% by 2030 across Europe

Forestry: Challenges & New Incentives



- ▶ Low afforestation rates: ~ 4,000 ha in 2018
- ▶ Small plantations, average private grant aided 8.8 ha
- ▶ Road construction in private estate
- ▶ Bioeconomy and biomass supply shortfall
- ▶ Potential wood fibre available in RoI for energy, wood based panels and other uses to increase from ~1.9 million m³ in 2018 to ~ 4.2 million m³ in 2035



Afforestation

Forest Roads

Woodland Improvement

Neighbourwood

Knowledge transfer groups

Forest Certification

Management Plans

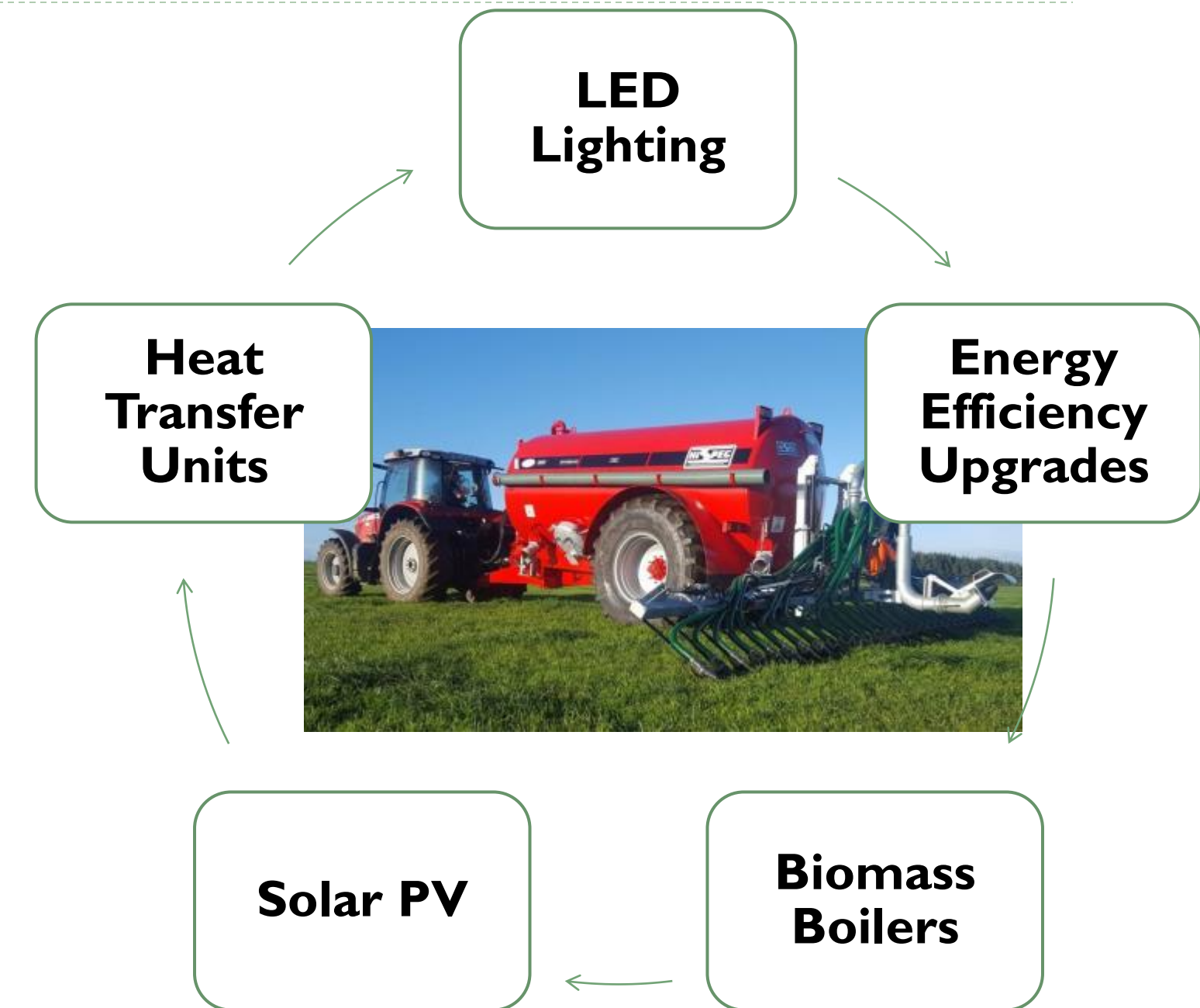


Energy Efficiency & Renewable Energy Supports

Targeted Agriculture Modernisation Scheme

Energy Efficiency Measures

Renewable Energy Technology Supports



Horticulture Programmes

Producer Organisation Scheme

Commercial Horticulture Scheme



Energy Efficiency & Renewable Energy Supports

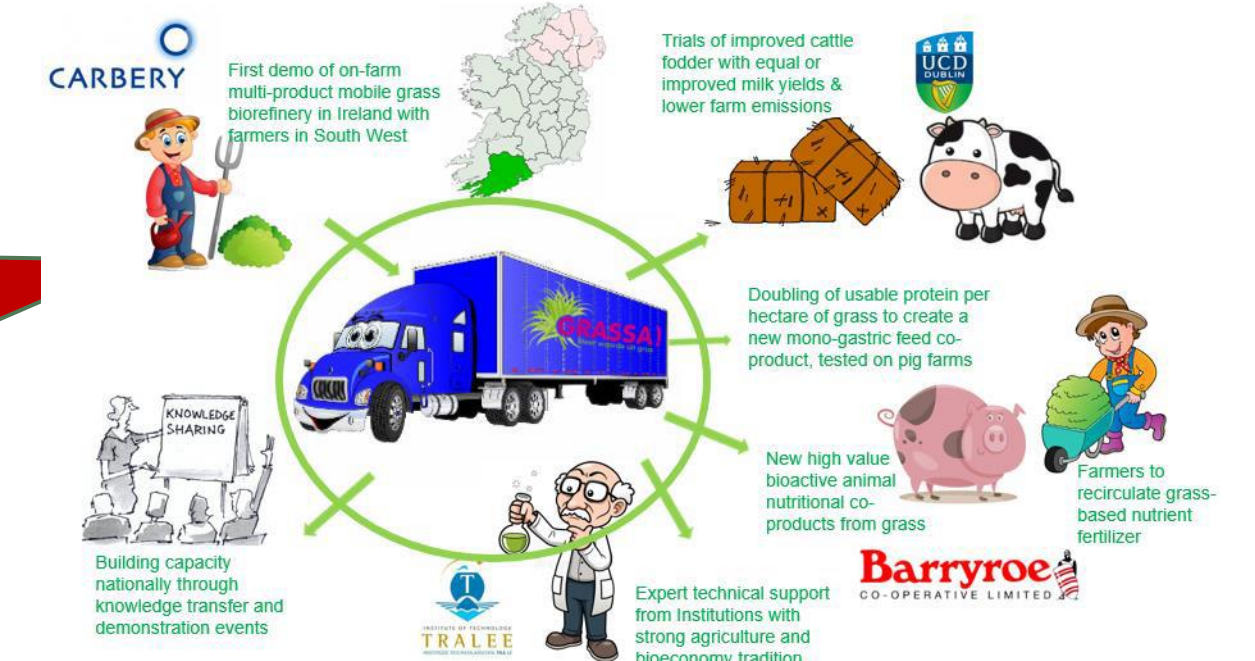
EIP Projects

Small Biogas Demonstration Programme

Biorefinery Glas Project

Irish Biochar Cooperative Society

Total investment of €3 million

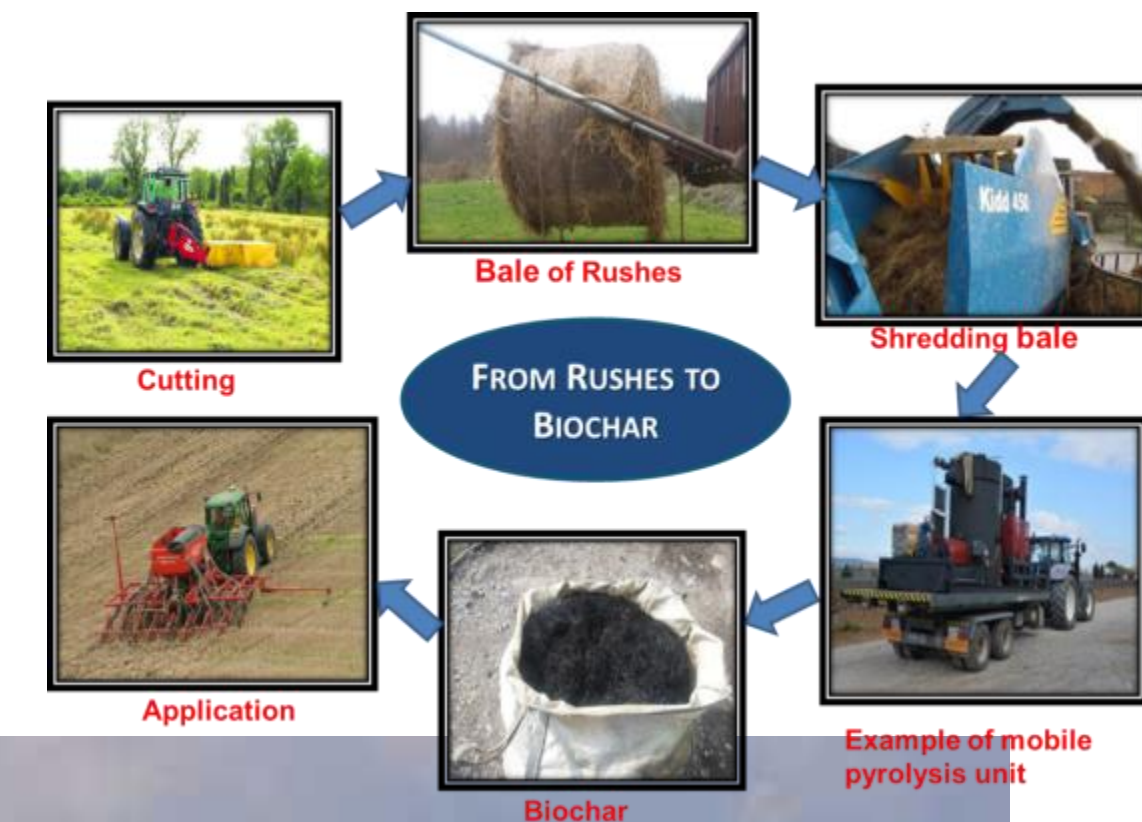


Animal-By Product Regulations

To encourage alternative safe domestic disposal outlets including the safe use of ABP as a feed stock in biogas plants

Environmentally friendly, sustainable process

10 biogas plants under DAFM regulation operation with 2 additional plants shortly





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Energy in Horticulture





Producer Organisation (PO) Scheme

Producers getting together:

- Concentration of supply : larger supply base
- Greater bargaining power

Operation Programme:

- Covers planning of production, quality, marketing, R&D, crisis prevention management and **environmental actions**
- Eligible for 50% support
- Progress is monitored against pre-set targets and performance indicators



Environmental actions

- At least 2 environmental actions or 10% of the programme expenditure
- National Environmental Framework
 - Climate change
 - Nature and Biodiversity
 - Natural resource and waste





Climate Change

- Must achieve at least 15% energy use reduction
- Reducing emissions by replacing burner /boiler
- Reducing Energy requirement by insulation or installation of combined heat and power (CHP)
- Using Renewable energy such as biomass burner/boiler, Solar Panels, PV panels, wind turbines, geothermal systems, LED, Pumps and fans with variable speed drives.





Nature & Biodiversity

- Use of natural pest control agent
- Use of inherent disease resistance
- Use of physical weed control
- Targeted application of pesticides
- Organic production





Natural Resources & Waste

- Re-use of organic waste production.
- Capture and re-use of water in growing systems
- Capture and treatment of rain water from rooftops





Grant aid scheme for commercial Horticulture

- Competitive scheme €6 M budget 2019
- 40% grant aid rate
- Objectives of the scheme
 - Promote diversification
 - Improve quality
 - Improve work conditions
 - Facilitate environmental friendly practices



Grant aid scheme for commercial Horticulture

- Thermal Screen/insulation
- More efficient Boiler/burner
- LED
- Re-usable nets and fleece
- Capture, storage and use of rain water
- Precision Agriculture



Meeting our Climate Change Targets

- Need to establish a base line
- Survey on energy use
- Put in place targets

