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Economics of Irish Agriculture

Industrial Hemp: Opportunities for Agriculture and Other Sectors in Ireland

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Teagasc
Agriculture and Food Development Authority

Overview



- Rationale
- Overview of the economics of Irish agriculture
- The role for diversification in Irish agriculture

What are the drivers of economic sustainability / diversification?

- **Agronomic/baseline natural resource conditions**
  - Dairy versus other systems



- **Market** based drivers
  - Changes in relative costs and prices received
- **Policy** Reform
  - EU Enlargement, WTO Reform, Quota Abolition, Brexit, CAP Reform
- **Structural** drivers
  - Farm size, generational renewal

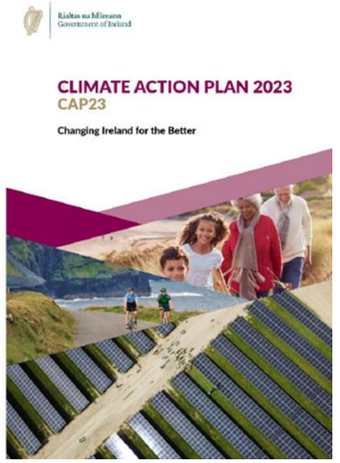
What is Economic Sustainability in Terms of Policy ?

- Now 10 CAP **objectives**
  - 3 Economic, 3 Environmental, 3 Social, 1 Innovation
  - Of these the economic objectives are most established
- The **economic objectives of the CAP** 2023-27
  1. Ensure a fair income for farmers
  2. Increase competitiveness
  3. Improve the position of farmers in the food chain
- Economic dimension relatively **well established**
  - Overlapping between dimensions



Farm level and policy context

- **Farm Level context**
  - Economic sustainability: Economic Output
  - Environmental sustainability: Ecosystem Services: Water, Carbon, Nitrogen, Biodiversity
  - Social sustainability: Employment, viability
- **Climate Change Policy**
  - 2030: Farm to Fork
    - Reduction Chemical Fertiliser, Crop protection
  - 2030: Climate Action Plan
    - Reduction 25% Green House Gas (GHG) Emissions
  - Diversification Opportunities
    - High-value crops, opportunities for the primary producer in new bioeconomy efforts
  - Tillage Area Targets – Food Vision Tillage Recommendations



Overview



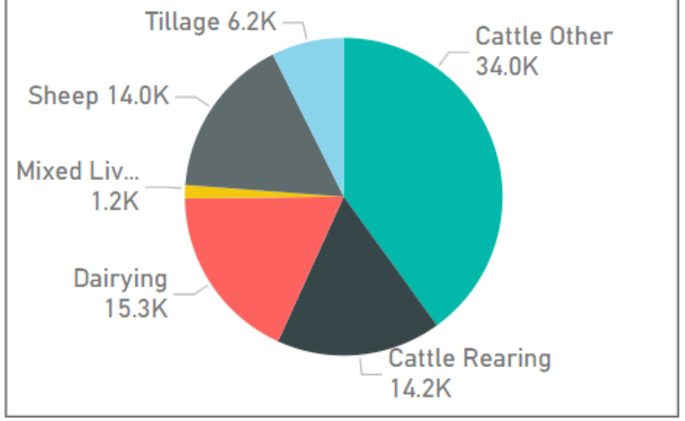
Rationale

Overview of the economics of Irish agriculture

The role for diversification in Irish agriculture

What are the differences in farm performance ?

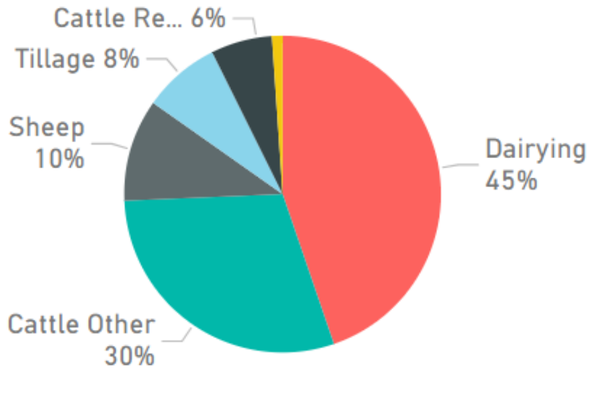
Farm Population 2023 (N = 84,929)



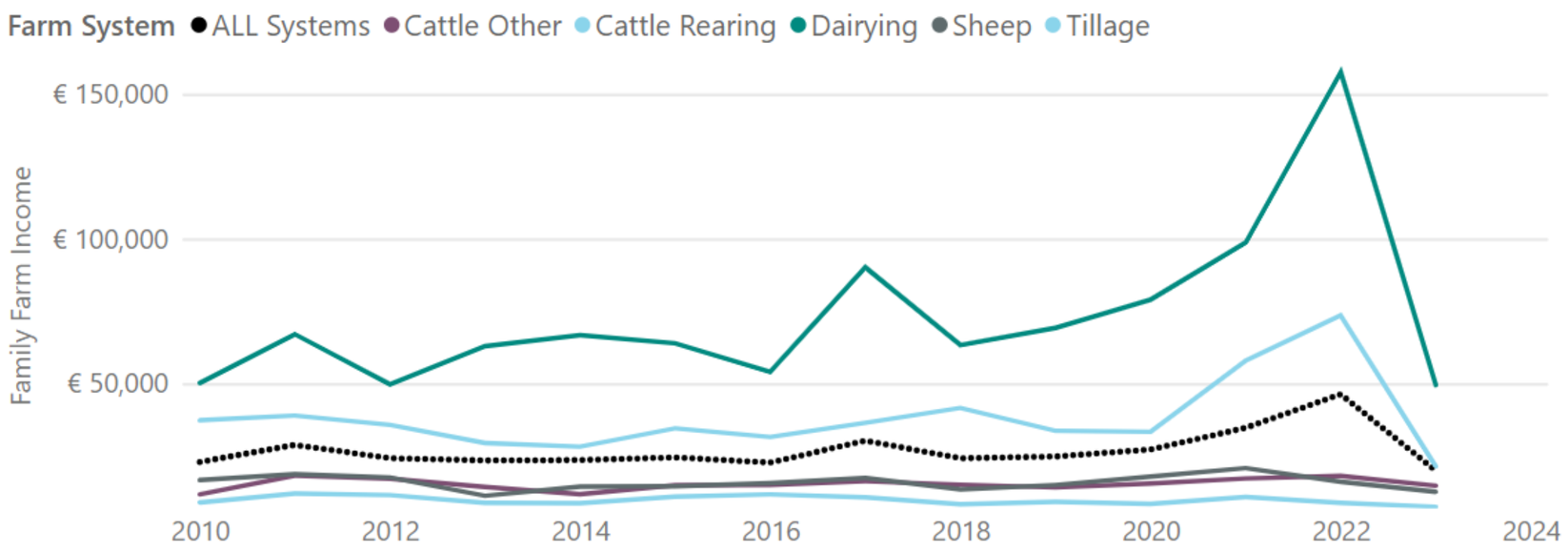
Average FFI by System 2023

Farm System	Family Farm Income
ALL Systems	€ 19,925
Cattle Other	€ 14,735
Cattle Rearing	€ 7,425
Dairying	€ 49,432
Sheep	€ 12,625
Tillage	€ 21,399

Aggregated FFI % 2023



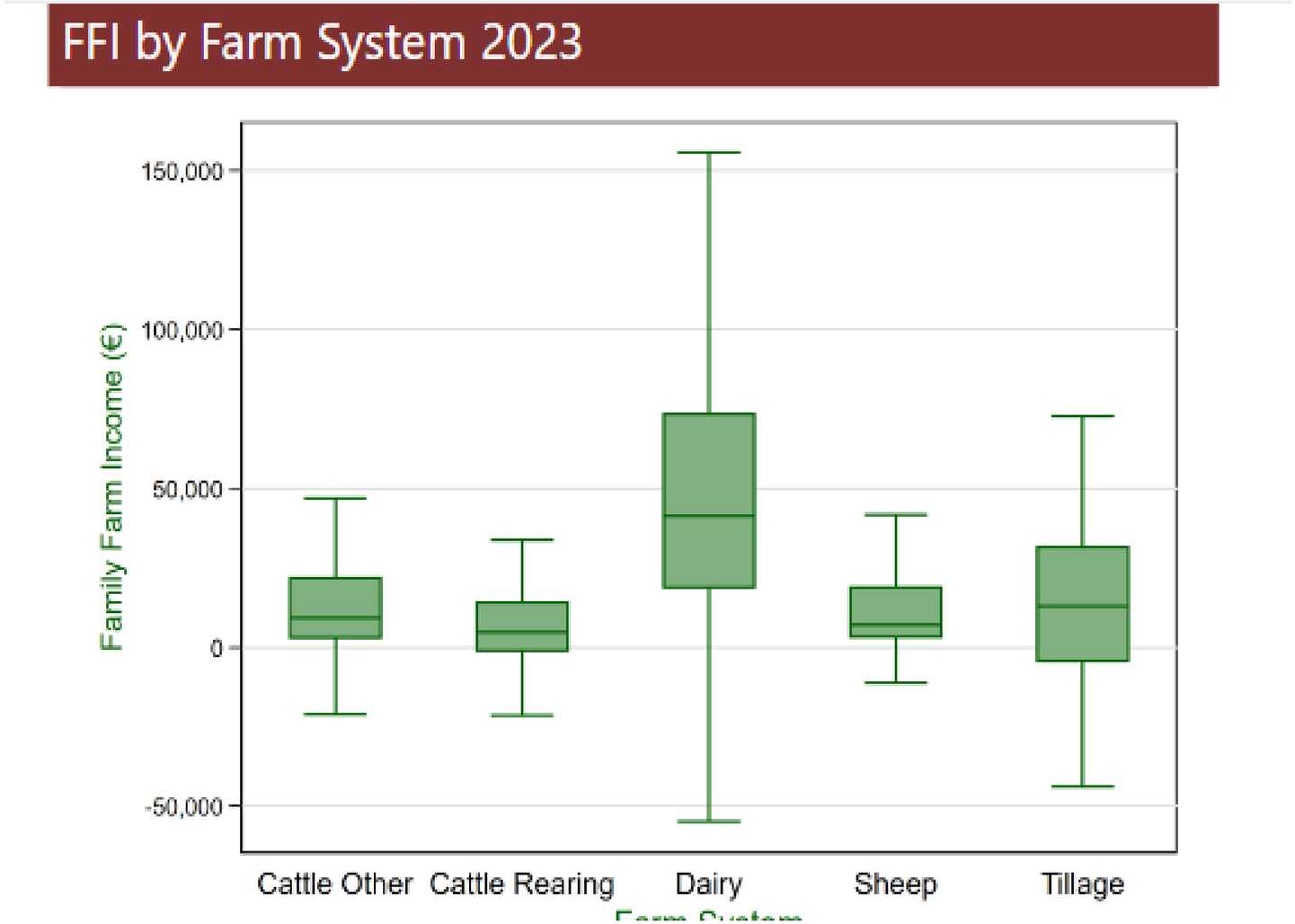
Family Farm Income 2010 - 2023 € per farm



Average Family Farm Income 2023

€ 19,925

What are the differences in farm performance - distribution ?



What are the differences in farm performance - distribution ?

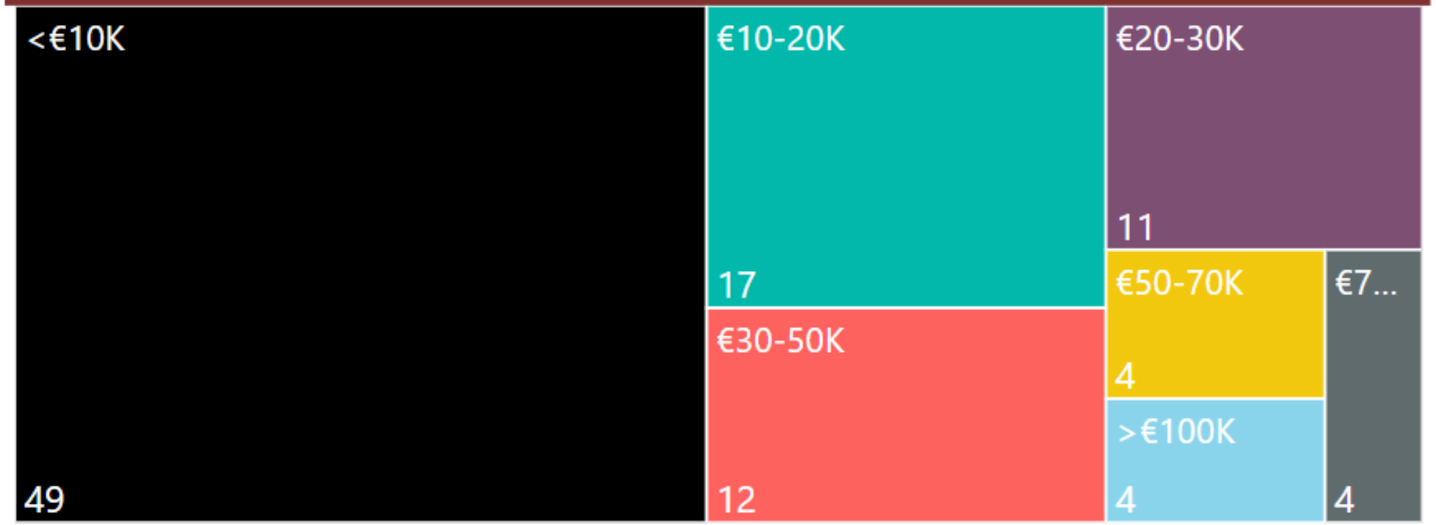
Family Farm Income Distribution 2023

49% earn less than €10,000

4% of farms earn in excess of €100,000

Major differences across Farming Systems

Distribution of Family Farm Income - % of farms by FFI Bracket




Focus on Tillage
NEW HOLLAND
TX65

Focus on Tillage



Tillage System Results National

FFI 2023 - € per farm

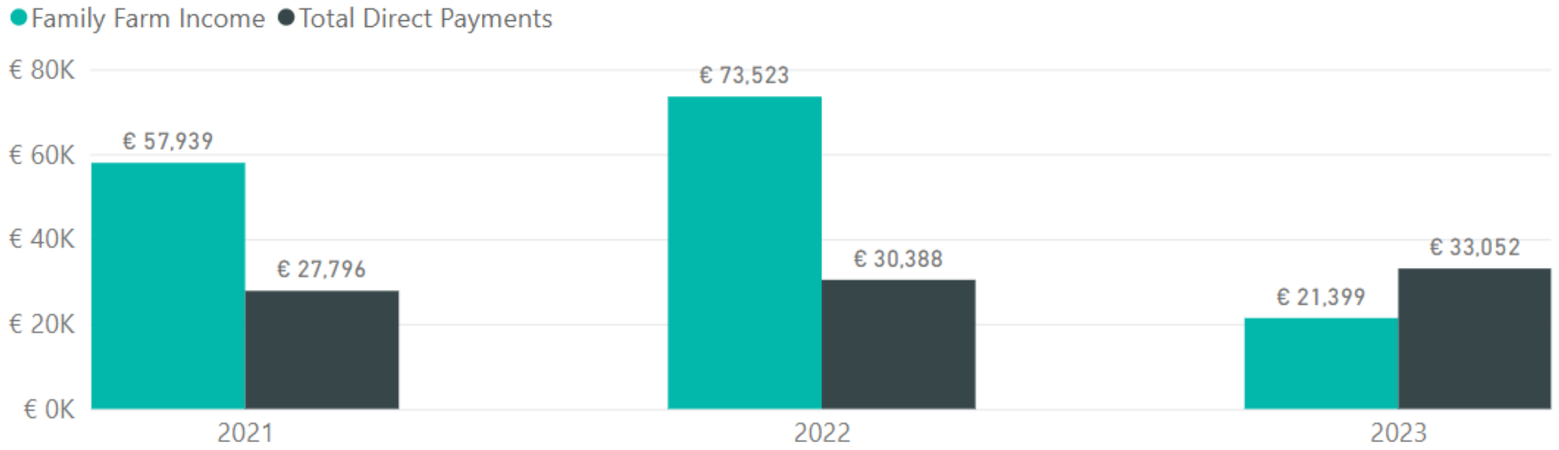
€ 21,399



Income Drivers

- Gross Output -20%
- Direct payments +9%
- Direct Costs +8%
- Overheads Costs +9%
- FFI - 71%

Average Tillage Farm Income 2021 - 2023



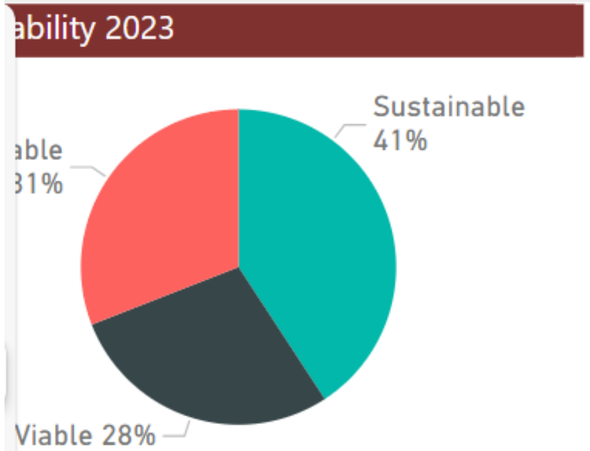
Farm Characteristics 2021 - 2023

Year	Farmer Age	Area Owned (ha)	UAA (ha)	FFI per ha	Tillage Area (ha)	Cereal Area (ha)	Total Livestock Units	Gross Margin per ha (€)
2021	58.4	55.9	67.9	€ 853	44.28	38.12	34.98	€ 1,622
2022	58.4	54.2	69.9	€ 1,052	48.53	40.04	30.22	€ 1,975
2023	55.3	55.5	73.3	€ 292	50.35	40.87	32.28	€ 1,254

Farm Population Classification

- **Classify the farming population according to:**
  1. Economic Viability
  2. Sustainability
  3. Economically Vulnerable
- **Definition: Economic Viability**
  - A farm is economically viable if it can:
    - Remunerate family labour at the average agricultural wage, and provide a 5 per cent return on non-land assets
  - Economically Sustainable:
    - Non Economically Viable farms can be sustainable
    - If there is another income in the farm household, i.e. either farmer or spouse works off farm
  - Economically Vulnerable:
    - The farm business is not viable and the farm household is not sustainable

Focus on Economic Viability



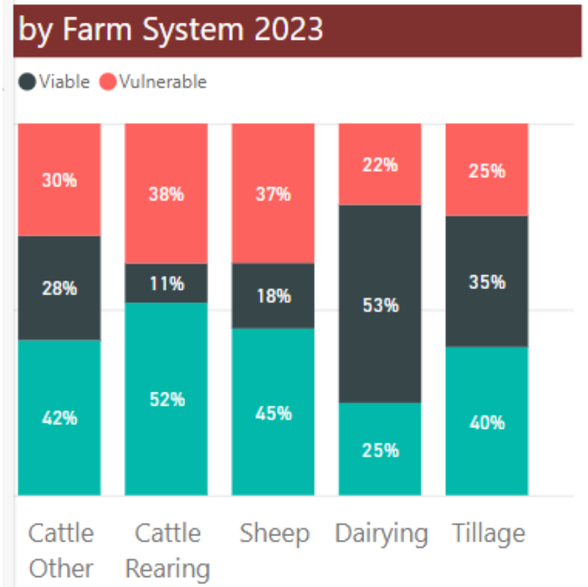
Viable A farm business is viable if the farm income can remunerate family labour at the minimum agricultural wage and provide a 5% return on the capital invested in non-land assets.

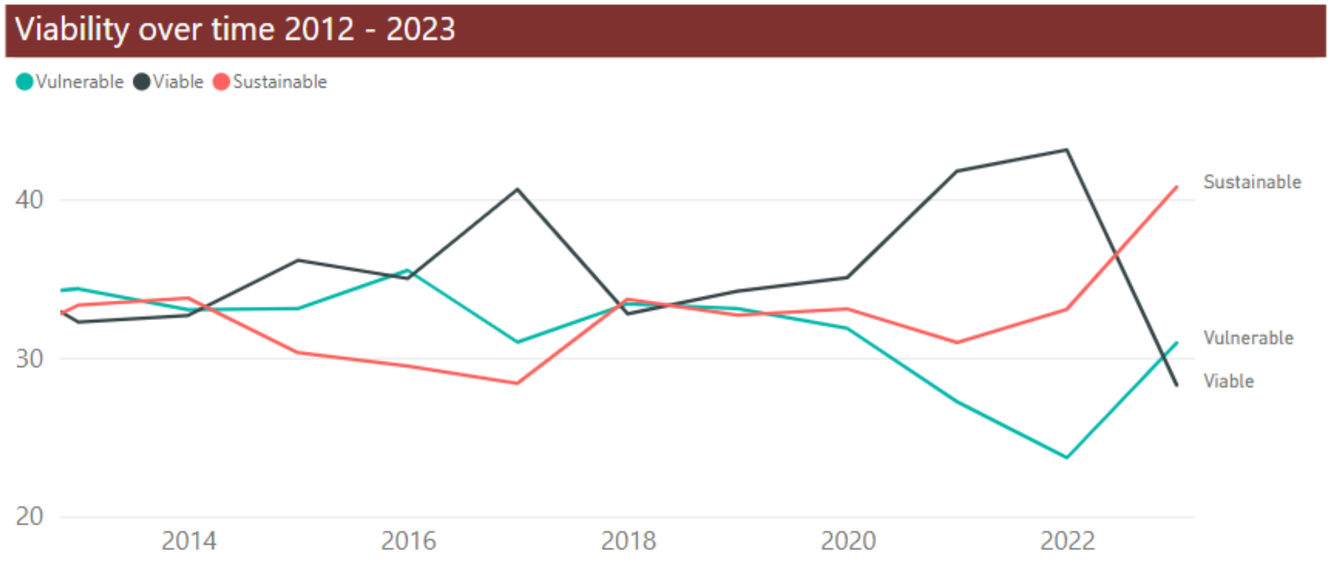
Sustainable If the farm business is not viable the business is still considered sustainable if the farmer or spouse has an off-farm income.

Vulnerable A farm business is considered to be economically vulnerable if the farm business is not viable and if neither the farmer nor spouse work off the farm.

Region

National





Overview



Rationale

Overview of the economics of Irish agriculture

The role for diversification in Irish agriculture

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Diversification

Diversification aims to develop alternative land uses and rural businesses that offer viable economic returns that have lower emissions than traditional ruminant-based agricultural systems.

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Role for hemp in diversification …



What are the opportunities for Irish farming arising from the **circular bioeconomy**?
Eg. How can diversification be incorporated at farm level?

What is the role of **system changes** such as forestry, organics, horticulture, alternative plant proteins, valorisation of food waste streams, hemp in diversification?

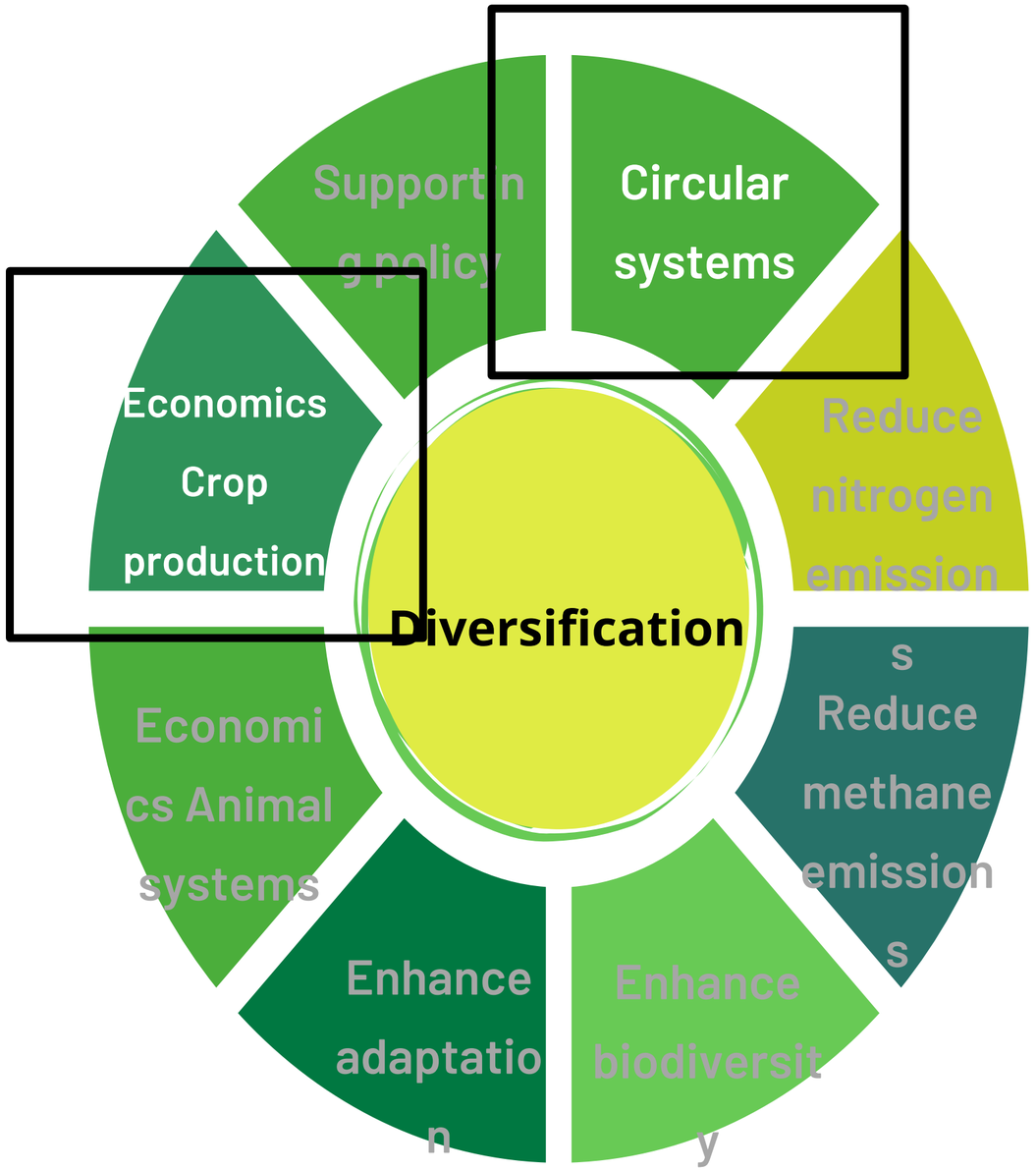
How can **technologies** such as manure processing, biosolids, biorefining, biomethane, alternative crops be used to increase circularity in agri-food systems?

Data Gaps and Research Needs



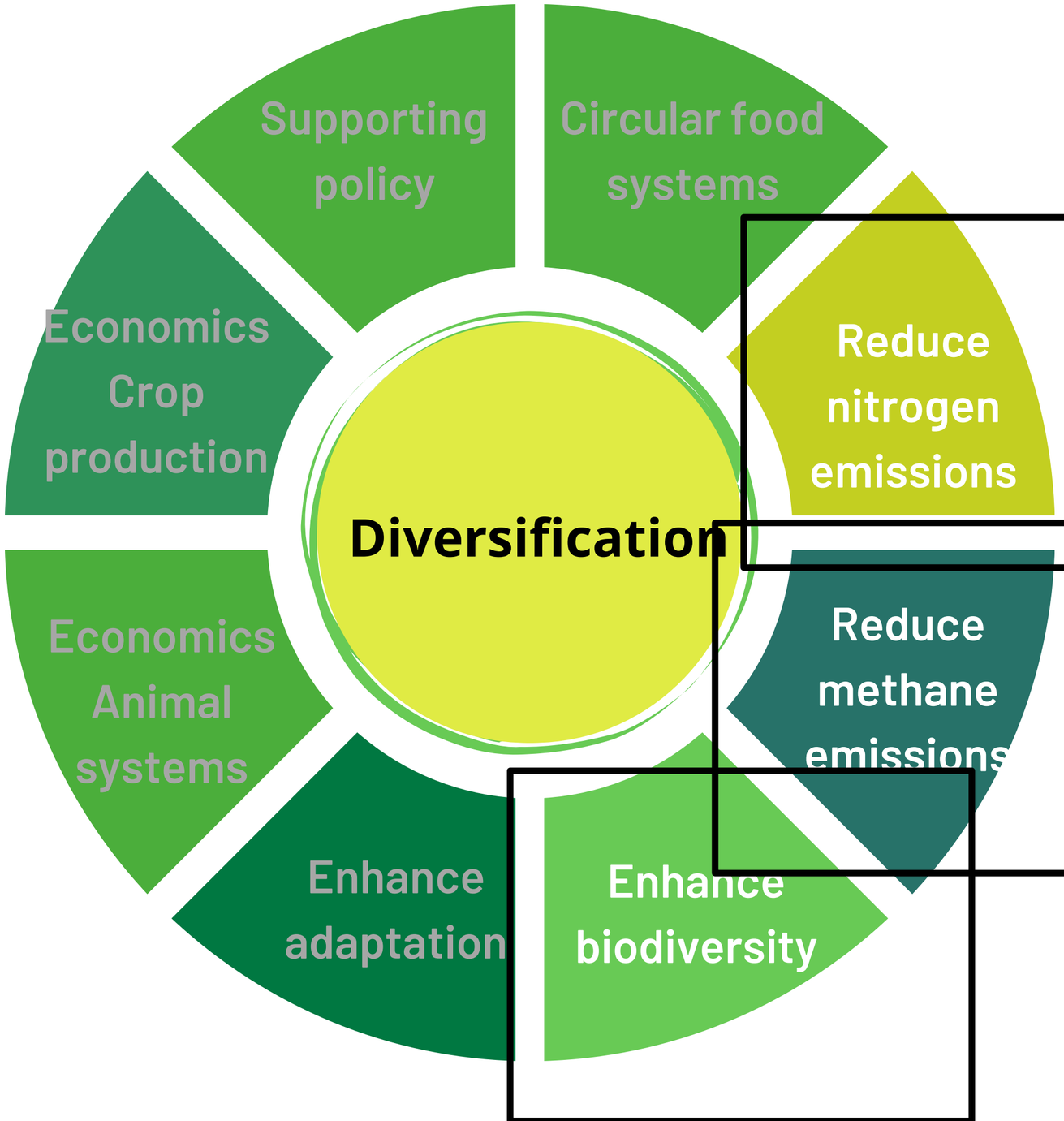
Data Gaps and Research Needs

- **Economic Potential of Hemp Cultivation**
  - Potentially lower input costs
- **Diverse Applications**
  - Versatility of use
  - Multiple revenue streams
- **Market Growth**
  - Trade statistics
  - Potential for market growth for hemp products



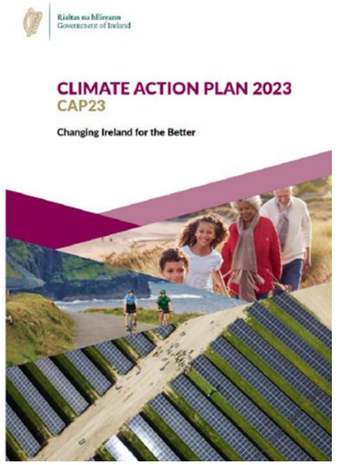
Data Gaps and Research Needs

- **Potential Environmental Benefits**
  - Potential to improve soil health
  - Carbon sequestration
  - Phytoremediation



Take Home Messages

- **Rationale**
  - **Farm Level context**
    - Economic, environmental and social sustainability
  - **Climate Change Policy**
    - Diversification Opportunities
- **Economic viability issues within agriculture sub sectors**
- **Diversification is crucial to Climate Change Policy targets**
  - Hemp just one example of a possible diversification opportunity
  - Data gaps and research needs identified



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