

Biotechnology driven low emission food and feed production systems

European
Innovation
Council

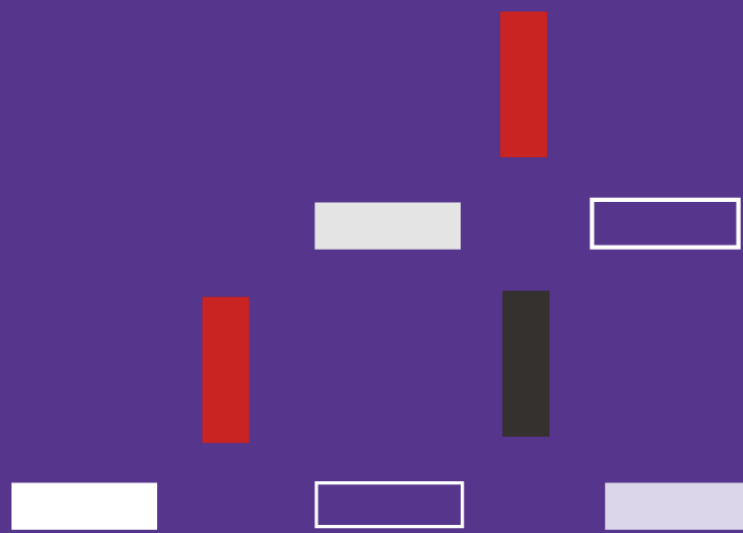


EIC Info Day, Brussels – 6. Nov. 2024

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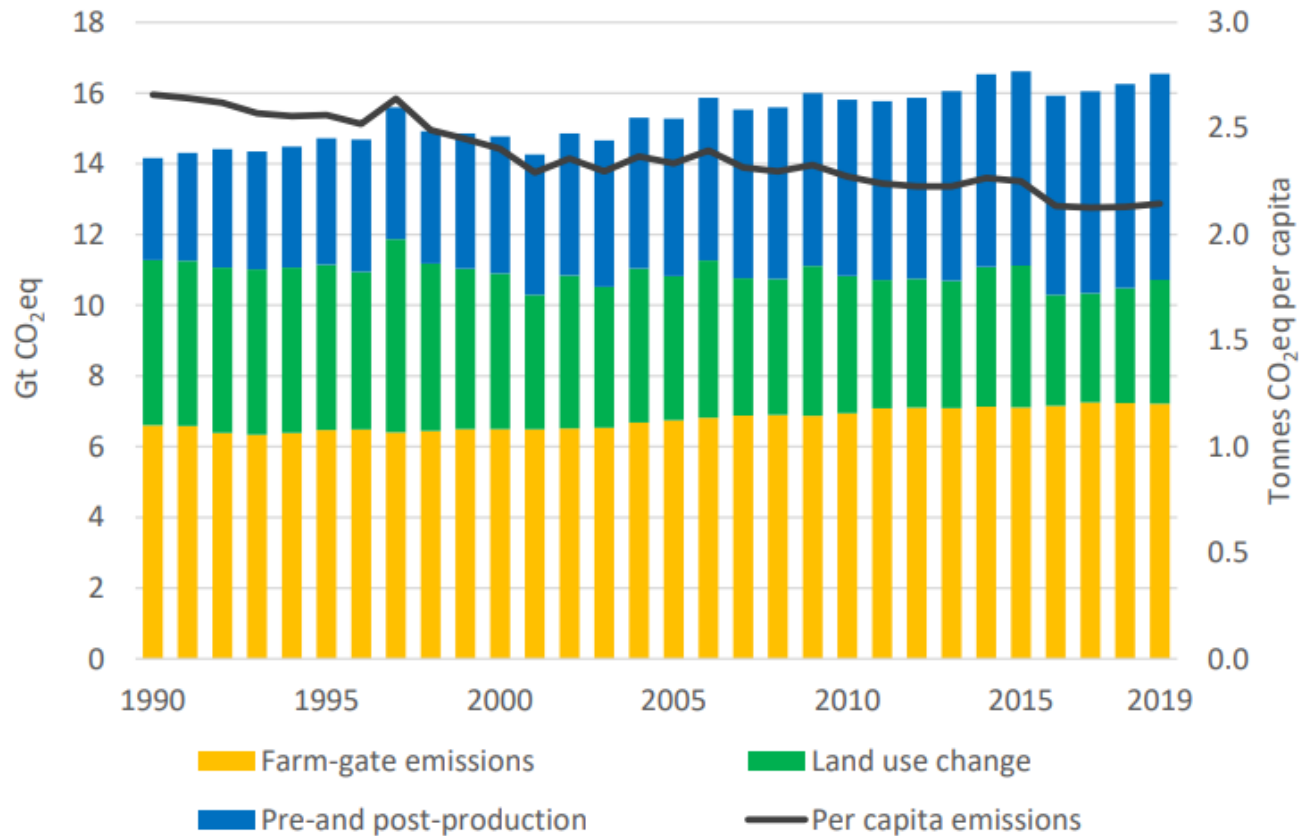
EISMEA



1. Background and scope



Global agri-food system GHG emissions by life-cycle stage, and per capita emissions

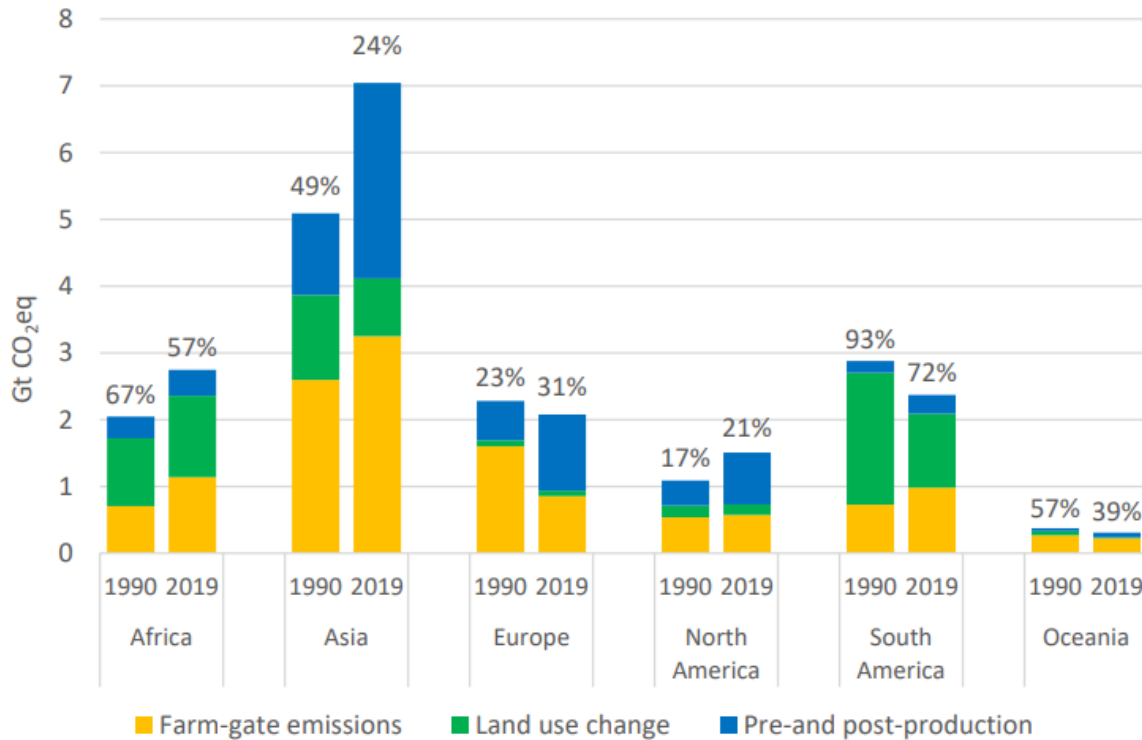


Source: FAOSTAT ANALYTICAL BRIEF 31 The share of agri-food systems in total greenhouse gas emissions Global, regional and country trends 1990–2019

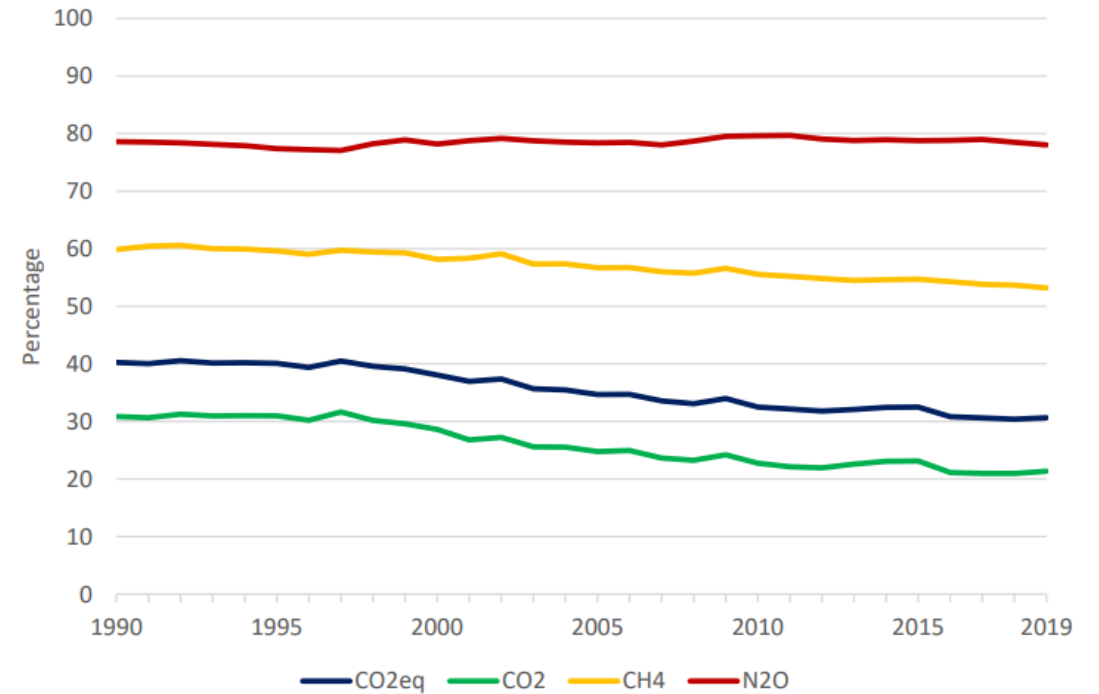
2. Background and scope



Agri-food systems emissions by region and life-cycle



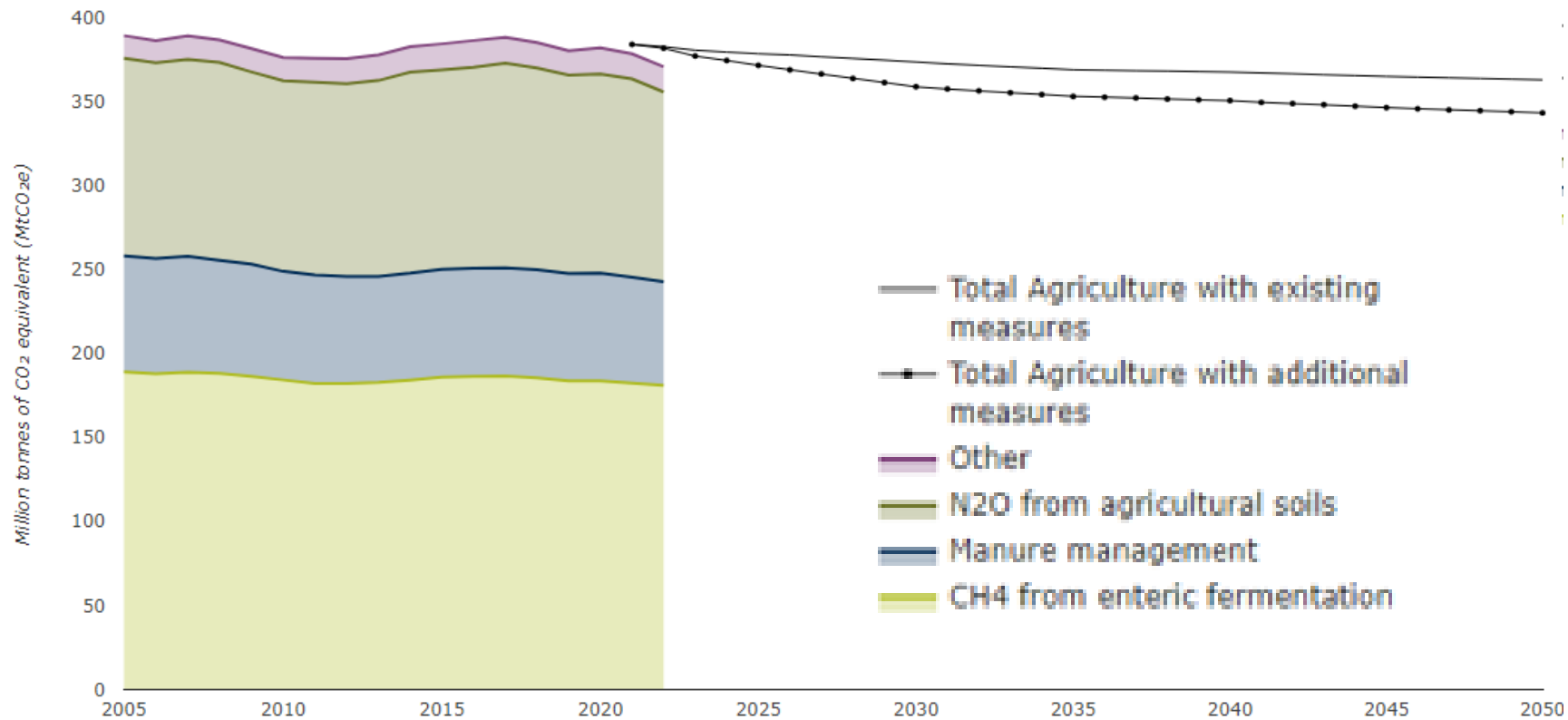
Global agri-food systems GHG emissions shares by gas



Source: FAOSTAT ANALYTICAL BRIEF 31 The share of agri-food systems in total greenhouse gas emissions Global, regional and country trends 1990–2019

3. Background and scope

EU agricultural emissions by source and projected emissions



Source: European Environment Agency

3. Scope



This Challenge focuses on supporting novel biotechnology driven solutions in four areas, which can in combination offer a GHG mitigation potential of nearly 1.5 billion tons (tCO₂e) , through approaches that:

- Replace fossil fuels in the production of pesticides and fertilizers used in agriculture.
- Achieve efficiency in resource use and support the deployment of climate smart agriculture (including livestock) technologies for sustainable food and feed production.
- Mitigate enteric methane emissions from ruminants and reduce the environmental impact associated with traditional agriculture and animal farming.
- Expand conventional food and feed production.



4. Specific objectives

- 1. Biotechnology for biopesticides, bio-stimulants, and biofertilizers**
- 2. Biotechnology to support precision crop and livestock farming**
- 3. Biotechnology for ruminant methane mitigation**
- 4. Biotechnology for feed and food production**

5. Important



- Regardless of the specific area addressed, companies are encouraged to leverage digital tools such as AI.
- All projects must provide a lifecycle assessment considering environmental, social and economic considerations.
- Proposals are also expected to consider regulatory aspects alongside issues surrounding consumer acceptance.
- Articulate suitable strategies to support market entry within and beyond the EU.

6. Expected Outcomes and Impact



- This Challenge aims to improve the sustainability and resilience of the European agri-food sector by helping it overcome challenges linked to climate change and environment stresses including biodiversity loss and pollution.
- Breakthrough solutions developed within the challenge will also support Europe's future strategic autonomy and enhance the efficiency and competitiveness of Europe's agricultural sector.
- Support of the Commission strategic initiatives and programs in building the future with nature.



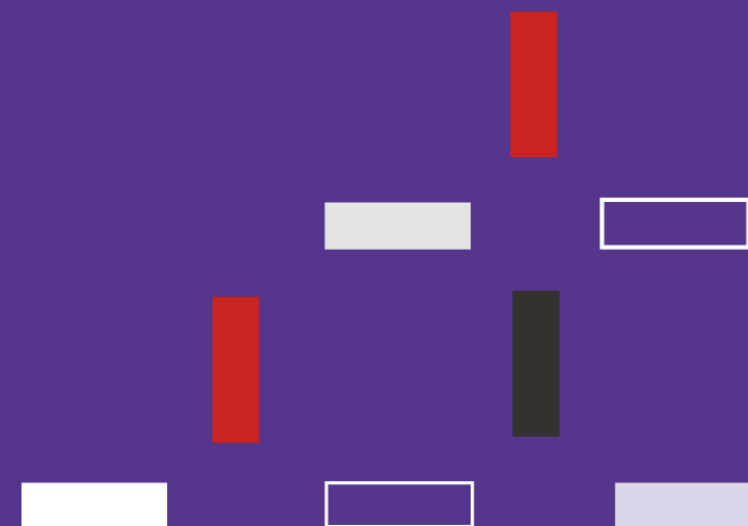
Thank you !

@EUeic #Eueic

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Key links:

- [Biotechnology driven low emission food and feed production systems](#)
- [Info Day recording](#)
- [Challenge promotional video](#)
- Cut-off date(s): 12 March 2025; 1 October 2025
- Indicative budget: € 50 Million
- [EIC Work Programme 2025 Challenge link, at page 83](#)