



Final practice abstract WP3: Energy, behaviour, finance

The ENOUGH project developed practical strategies to decarbonise the European food supply chain by analysing both technological and financial pathways.

An energy roadmap was developed to quantify energy use in the sector and identify opportunities to transition away from fossil fuels, showing that oil and gas consumption could be reduced by more than 80% by 2050, with electricity becoming the dominant energy source. Refrigeration and cold chain technologies are among the most energy-intensive operations in the sector. Upgrades such as CO₂-based refrigeration, high-efficiency fans, variable speed drives, vacuum insulation, and smart controls can reduce electricity use by 15-17%.

In addition, existing business models such as servitisation and performance-based approaches were examined, and financing mechanisms including concessional loans, blended finance, and public-private partnerships were explored. The analysis focused on removing barriers to technology adoption, especially for small and medium-sized enterprises.

The key recommendations emerging from the work are: to prioritise energy-efficient and low-emission technologies in critical sectors such as refrigeration, heating, and transport; to adopt servitisation and performance-based business models that lower upfront costs and enable broader access to clean technologies; and to implement supportive regulatory measures, including minimum energy performance standards, fiscal incentives, and simplified access for small and medium-sized enterprises. Achieving the EU's 2030 and 2050 climate goals will require coordinated action across technology deployment, financing, and governance.



¹FAOSTAT Analytical Brief 50: GHG emissions from agrifood systems: Global, regional and country trends.

