



GREEN DEAL PROJECTS SUCCESS STORIES



FOOD AND HEALTH WORKING GROUP

TRANSFORMING THE FOOD SECTOR: MITIGATING EMISSIONS THROUGH INNOVATION

May 2024



project

The ENOUGH project is at the forefront of tackling emissions in the food sector, contributing to the EU's climate-neutral food business goals.

It encompasses initiatives like the Retail Roadmap, which guides food retailers towards decarbonisation, dairy demonstrators in Austria and Norway that promote sustainable dairy processing, and a transport demonstrator in Italy focused on eco-friendly refrigeration in food transport.

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ABOUT THE ENOUGH PROJECT

The ENOUGH project is a comprehensive initiative aimed at addressing and mitigating emissions in the food sector, contributing directly to the EU's Farm to Fork strategy's goal of achieving climate-neutral food businesses. The project encompasses initiatives like: a Retail Roadmap, which guides food retailers towards decarbonisation; dairy demonstrators in Austria and Norway that promote sustainable dairy processing; and a transport demonstrator in Italy focused on eco-friendly refrigeration in food transport.



DESCRIPTION OF SUCCESS

The ENOUGH project has marked significant successes across its diverse initiatives, showcasing innovative approaches to reduce emissions within the food sector:

Retail Roadmap: The project developed a comprehensive roadmap for food retailers, detailing strategies for decarbonisation and achieving net-zero emissions. This roadmap is backed by an independent review of 95 technologies and strategies for the reduction of carbon emissions and energy consumption, covering Scope 1 and 2 emissions. Mathematical modelling provided insights into potential impacts up to 2050, taking into account global warming effects and grid carbon conversion factor changes.

Dairy demonstrators: In Austria, ENOUGH highlighted innovative approaches to reducing emissions in dairy processing. The project introduced a high-temperature heat pump that leverages waste heat from chilling processes for cleaning-in-place processes, leading to significant CO₂ savings.

Research and
Innovation

Similarly, in Norway, a CO₂ refrigeration system was successfully implemented, substantially reducing energy consumption and contributing to the goal of a zero-emissions dairy industry.

Transport demonstrator for short distances: In Italy, the project introduced an efficient refrigeration unit that uses natural refrigerants and electric power, significantly reducing greenhouse gas and other pollutant emissions in food transportation.



HIGHLIGHTS

ENOUGH's pioneering Retail Roadmap offers a strategic blueprint for food retailers to decarbonise and achieve net-zero emissions. This initiative is underpinned by a thorough review of 95 technologies and strategies, showcasing the potential for significant reductions in energy consumption and carbon emissions.

The dairy demonstrators in Austria and Norway have shown the potential for substantial energy savings and CO₂ reductions through the adoption of innovative cooling and heating technologies. These successes highlight the practical applicability and effectiveness of sustainable technologies in dairy processing.

The transport demonstrator in Italy has shown the feasibility and efficiency of using natural refrigerants and electric power in refrigerated transport units, marking a significant step towards reducing greenhouse gas emissions in food transportation, and offering a scalable model for cleaner, more sustainable logistics in the food industry.



IMPACT

The ENOUGH project's implementation of the Retail Roadmap and technological demonstrators across Europe marks a pivotal advancement in the sustainability of the food sector. The project showcases how the strategic application of reviewed technologies meets current environmental challenges and sets a precedent for future industry standards. By equipping food retailers and transport operators with effective tools for emission reduction, ENOUGH substantiates the critical role of technology in achieving net-zero goals. The demonstrated success in dairy processing and food transportation underscores the scalability of these innovations, promising significant environmental benefits as these practices are adopted more widely. This initiative thereby contributes to a more sustainable future, reinforcing the importance of integrated strategies to environmental sustainability in the food industry.

Read more about this success story online

[Transforming the food sector: mitigating emissions through innovation](#)

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