

# ENOUGH

EUROPEAN FOOD CHAIN SUPPLY  
TO REDUCE GHG EMISSIONS BY 2050







# Policy interventions for a sustainable food supply chain - WP7

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Inmaculada Martinez-Zarzoso

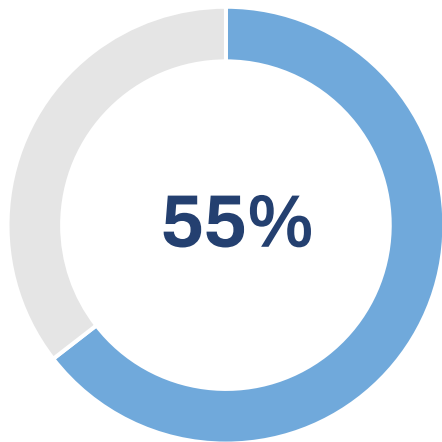
[www.enough-emissions.eu](http://www.enough-emissions.eu)



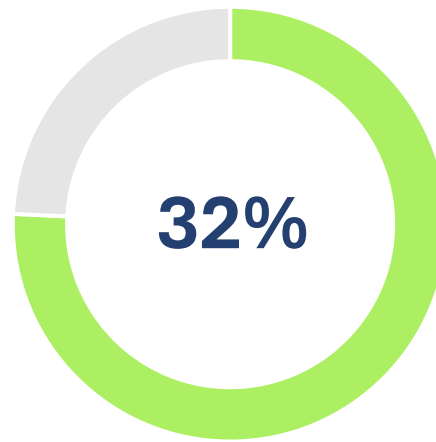
The present work was developed under the EU project ENOUGH funded by the European Union's Horizon 2020 research and innovation programme

**By 2030**

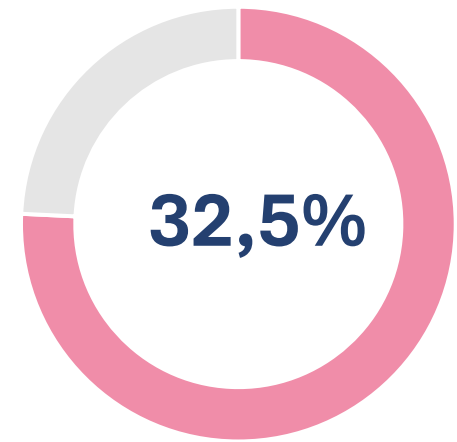
## ENERGY GOALS



**Net GHG reduction of 55% when compared to 1990 levels**



**Increase renewables in gross final energy consumption**



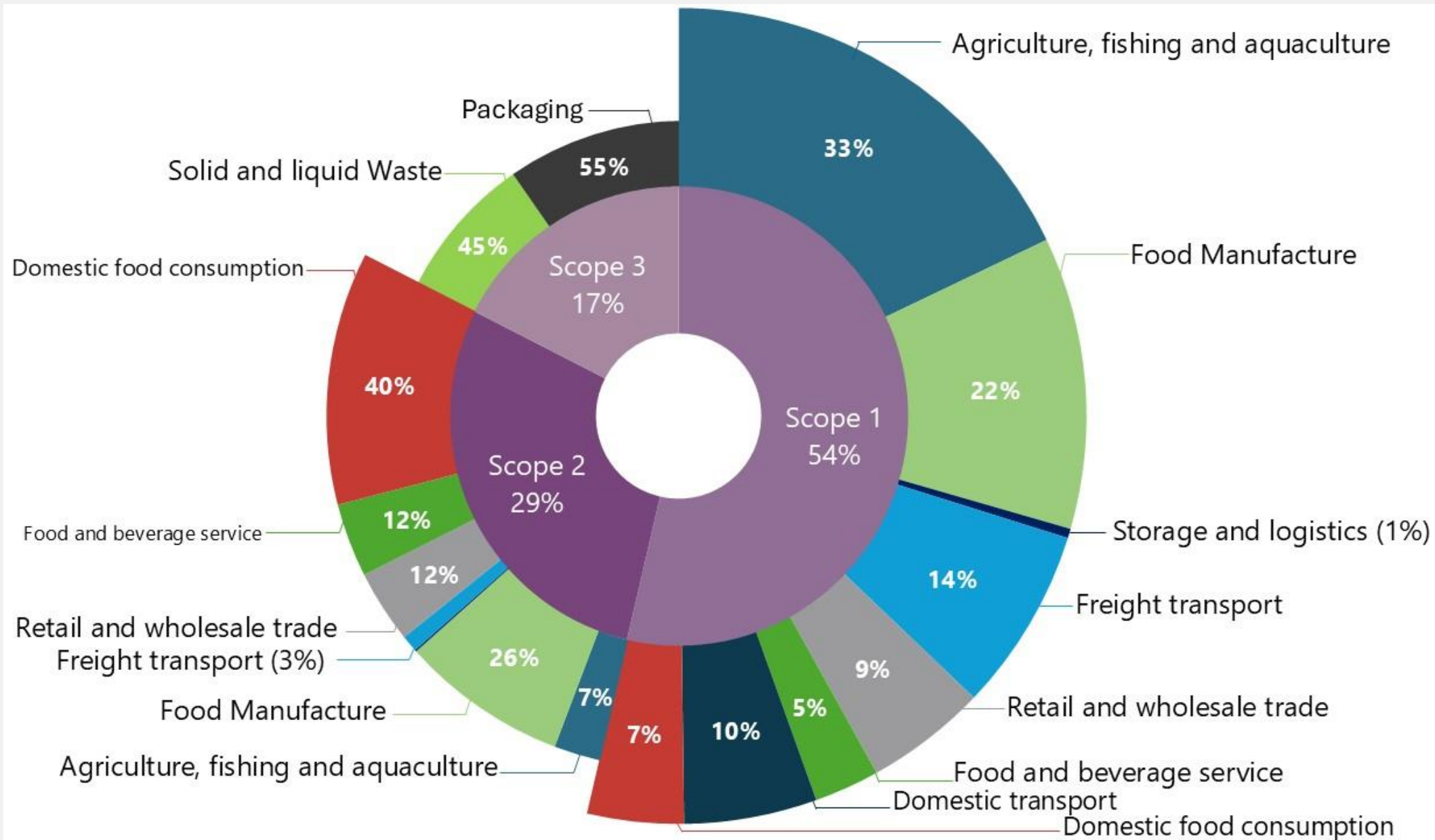
**Increase energy efficiency by 32,5%**

*Source: [Climate / European Environment Agency \(europa.eu\)](https://europea.eu)*

# Net-zero

**A problem that  
markets generally  
fail to solve without  
the assistance of  
public policy**

**Ambitious policy  
measures to  
achieve them are  
still not fully  
aligned**



Breakdown of Scope 1,2, and 3 GHG emissions by sectors of the food supply chain in ten European countries (Norway, Germany, United Kingdom, Italy, France, Belgium, Lithuania, Austria, Poland, Hungary) for the base year 2019. Based on ENOUGH emissions inventory

# Commission Priorities

## 1 New Life-science Strategy

EU competitiveness – Green Digital Transition – Social well-being

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## 2 New Initiative on Biotechnology

Boost innovation – Stimulate market demand – investment

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## 4 Vision for Agriculture and Food

Growth, innovation, societal – competitiveness and attractiveness

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## 4 Vision for Agriculture and Food

Growth, innovation, societal – competitiveness and attractiveness

## 5 Biotechnology Strategy

Unlock bioeconomy innovations – green market – green jobs



# Net-zero

Decarbonizing food  
supply chains

# Three main pathways

1



Feasible Policies

2



Consumers' attitudes

3



Marketplace



# Feasible Policies

What is desirable and possible to be achieved



Make the EU food system more sustainable has failed in the past

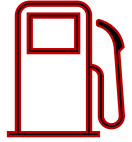
Lack of policy integration across FSC stages

Socioeconomic

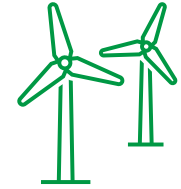
Cultural

Environmental

# Feasible Policies



Technical knowledge integrated with governmental capacity



Monitoring Production systems

Processes

Demand

Impact

Policy and regulations tailored  
according to economic conditions  
and for capacity building



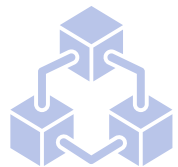
# Consumers attitudes

Eurobarometer – over 27 thousand EU respondents

*Perceptions and attitudes towards food sustainability*

- Consumers with higher levels of education and wealth more likely to consider environmental concerns when buying food
- Pro-environmental concepts are not efficiently communicated across consumer groups
- Consumer engagement remains modest and unequal across EU members. Need to improving initiatives outreach - long-term educational programs

# Marketplace



**Green marketplace tool:** enabling businesses adopt environmentally and socially responsible practices



To track and report food businesses scope 3 emissions



Allows FSC stakeholders to assess essential data needed to comply CBAM and CSDDDD

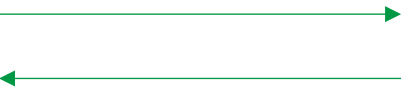


# Current work

## Policy gaps and synergies



Research and  
innovation Policy



Technological  
innovation

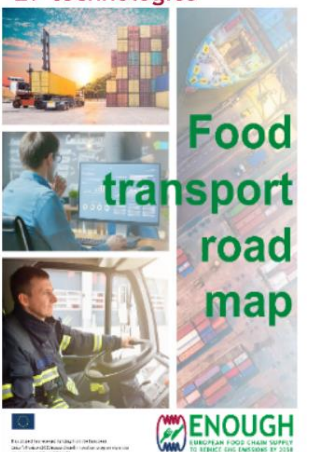
95 technologies



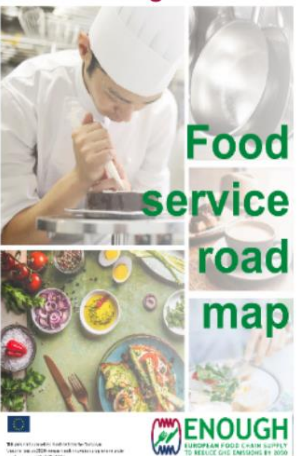
30 technologies



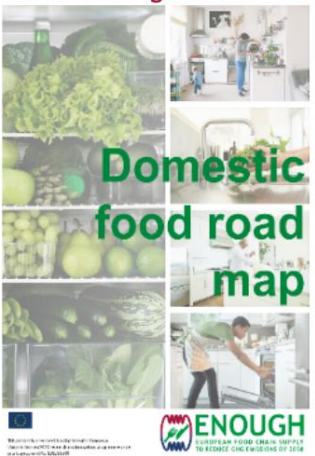
29 technologies



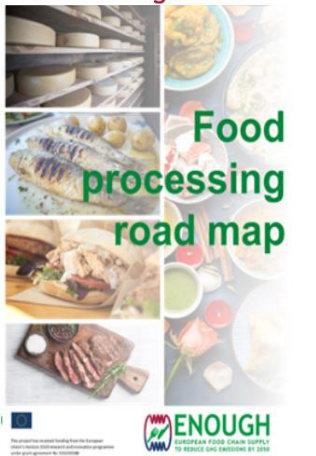
60 technologies



54 technologies

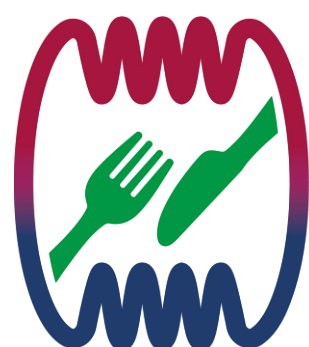


61 technologies





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## THANK YOU!

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[enough-emissions.eu](https://enough-emissions.eu)



Url: <http://80.211.239.115:8080/?refresh=s>

## TRANSPORTER SIMULATOR - Communication Mode: SQLITE-DB

## TRANSPORT PLANNER



Order ID

191

Delivery Date

03/07/2024 10:30:00

Weight (Kg)

1125

Pickup Location

Kernielerweg 59, 3840 Borgloon, Belgio

Destination

Frankfurter Str. 56, 97082 Würzburg,  
Germania

## Routes calculated

Route [1]: 436 km - [OPTIM.

Route [2]: 443 km

Route [3]: 464 km

## Data for Route 2

Distance: 443 km

Duration: 4 hr and 46 min

## Available Vehicles:

Peugeot Partner - (Diesel - 170 g/Km)  
Fiat Ducato - (Gas - 160 g/Km)  
Opel Movano - (Diesel - 210 g/Km)  
Iveco Daily - (Diesel - 200 g/Km)  
Nissan NV200 - (Gasoline - 180 g/Km)  
Hyundai Kona Electric - (Electric - 14 g/Km)  
Chevrolet Bolt - (Electric - 16 g/Km)  
Mercedes-Benz Sprinter - (Diesel - 180 g/Km)  
Renault Kangoo - (Gasoline - 160 g/Km)  
Volkswagen Golf - (Gasoline - 140 g/Km)

Select a route and a suitable vehicle

Code: WX5678

**Unsuitable**Refrigerated: No  
Max weight: 1000 KgAverage CO2 Emission: 160 g/Km  
CO2 Emission per Freight: 0.05 g/(KgKm)  
Refrigeration CO2 Emission: N/A

Code: IJ9012

**Unavailable**Refrigerated: No  
Max weight: 1300 KgAverage CO2 Emission: 180 g/Km  
CO2 Emission per Freight: 0.05 g/(KgKm)  
Refrigeration CO2 Emission: N/A

Code: UV1234

**Unsuitable****Unavailable**Average CO2 Emission: 170 g/Km  
CO2 Emission per Freight: 0.05 g/(KgKm)  
Refrigeration CO2 Emission: 75 g/hour

Code: YZ9012

Type: Van  
FuelType: Diesel  
Refrigerated: Yes  
Max weight: 1200 KgAverage CO2 Emission: 210 g/Km  
CO2 Emission per Freight: 0.05 g/(KgKm)  
Refrigeration CO2 Emission: 50 g/hour

Back