

# EEA LULUCF group: role and supporting activities

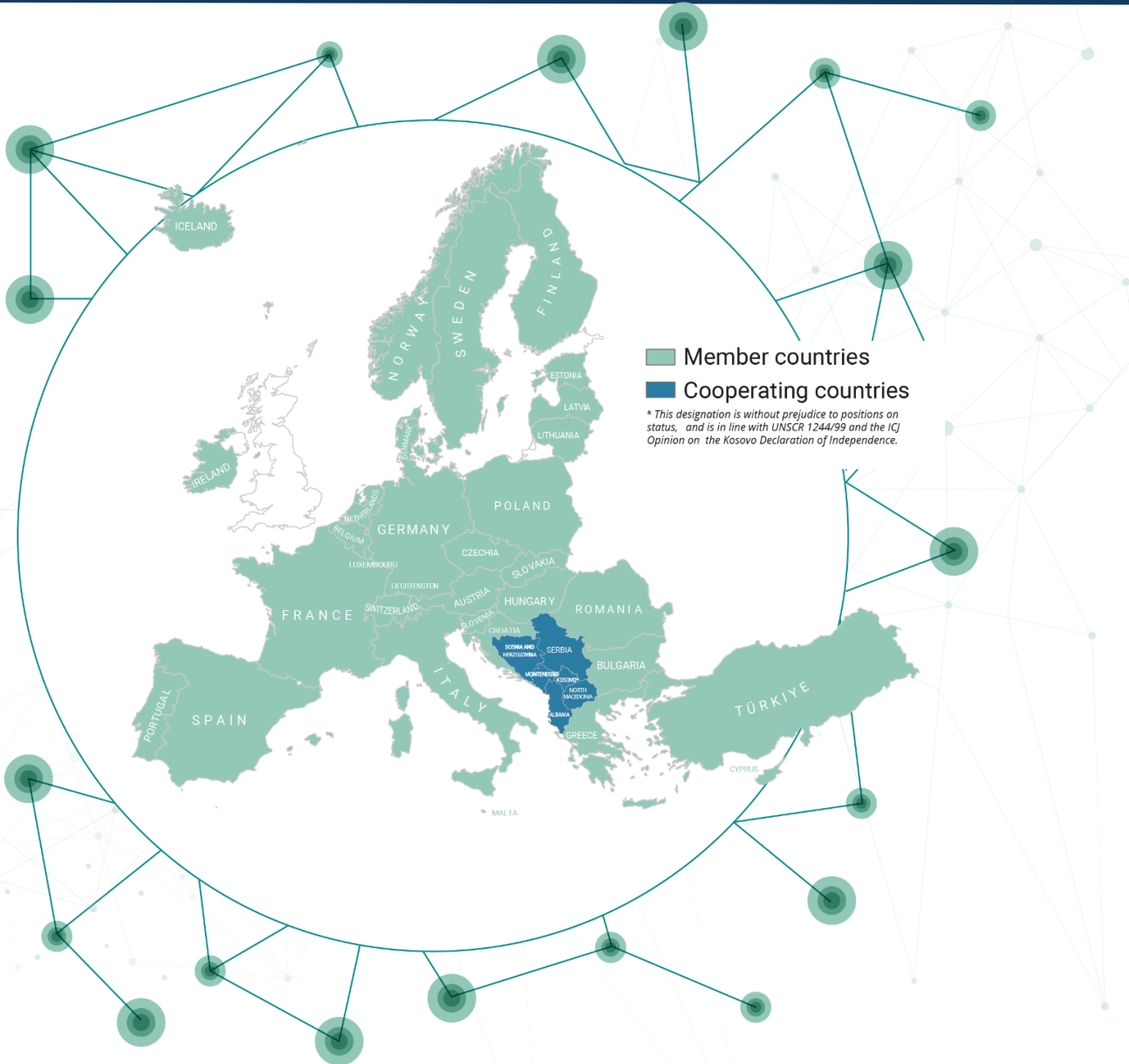


John Van Aardenne - EEA  
EO for Monitoring, Reporting, and Verification of Carbon Removals  
Copenhagen 8-11 October 2024

# The EEA is ...

- An independent Regulatory EU agency
- Analysing, assessing and providing information for policy and citizens
- An interface between science and policy
- Dependent upon strong networks and partnerships to carry out its work





## Who we are

**38 countries**

More than **400 institutions**

Around **2,000 experts**

Organised in **12 Eionet groups**

Supported by experts in **7 European Topic Centres**

EEA Regulation –  
establishing the EEA  
and Eionet

## What we do

Delivering **data, information and knowledge**

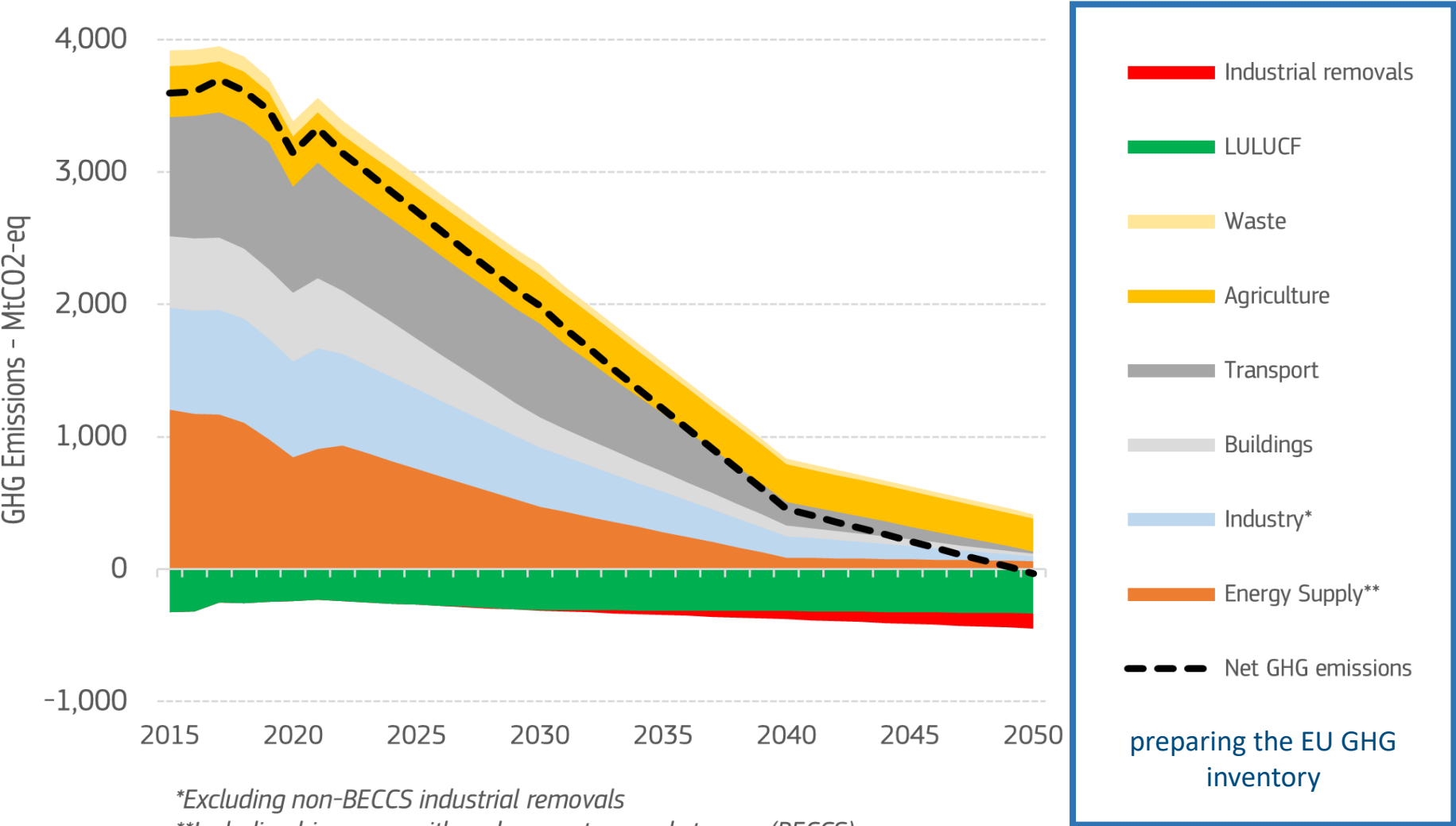
**The European environment – state and outlook**

Support for **EU and National policy**



# Activities of the carbon emissions and removals monitoring group (“LULUCF” group)

Historical and projected sectoral greenhouse gas emissions in the period 2015-2050



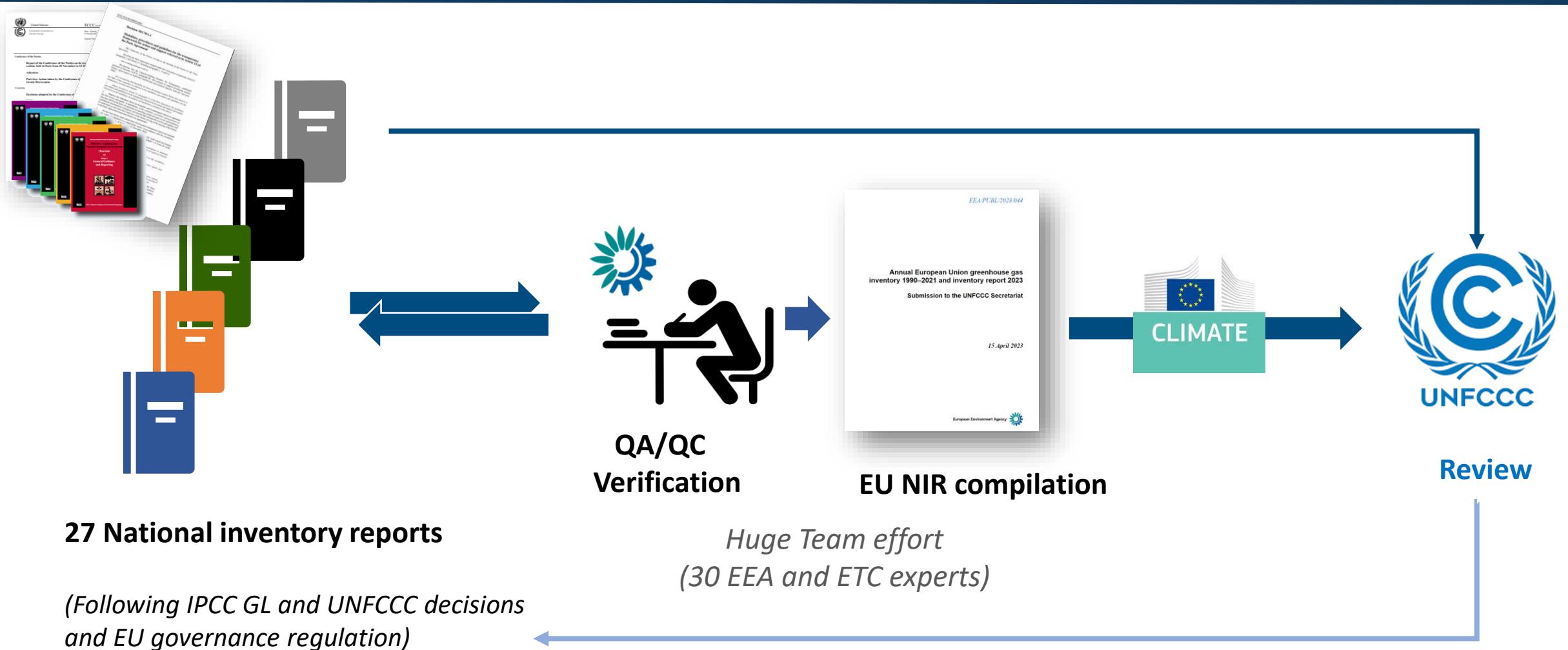
\*Excluding non-BECCS industrial removals

\*\*Including bioenergy with carbon capture and storage (BECCS)

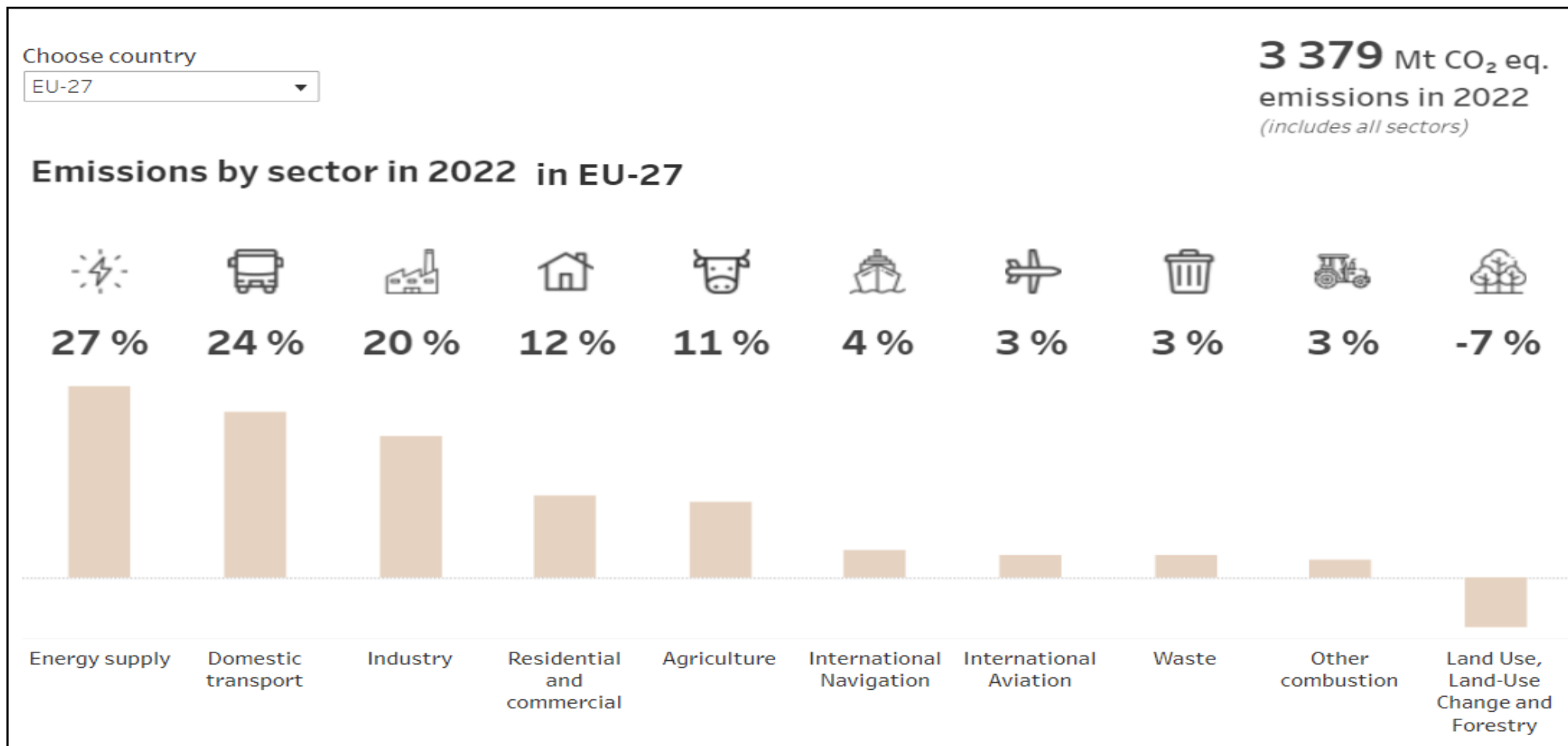
preparing the EU GHG inventory



# EEA prepares the European Union GHG inventory report



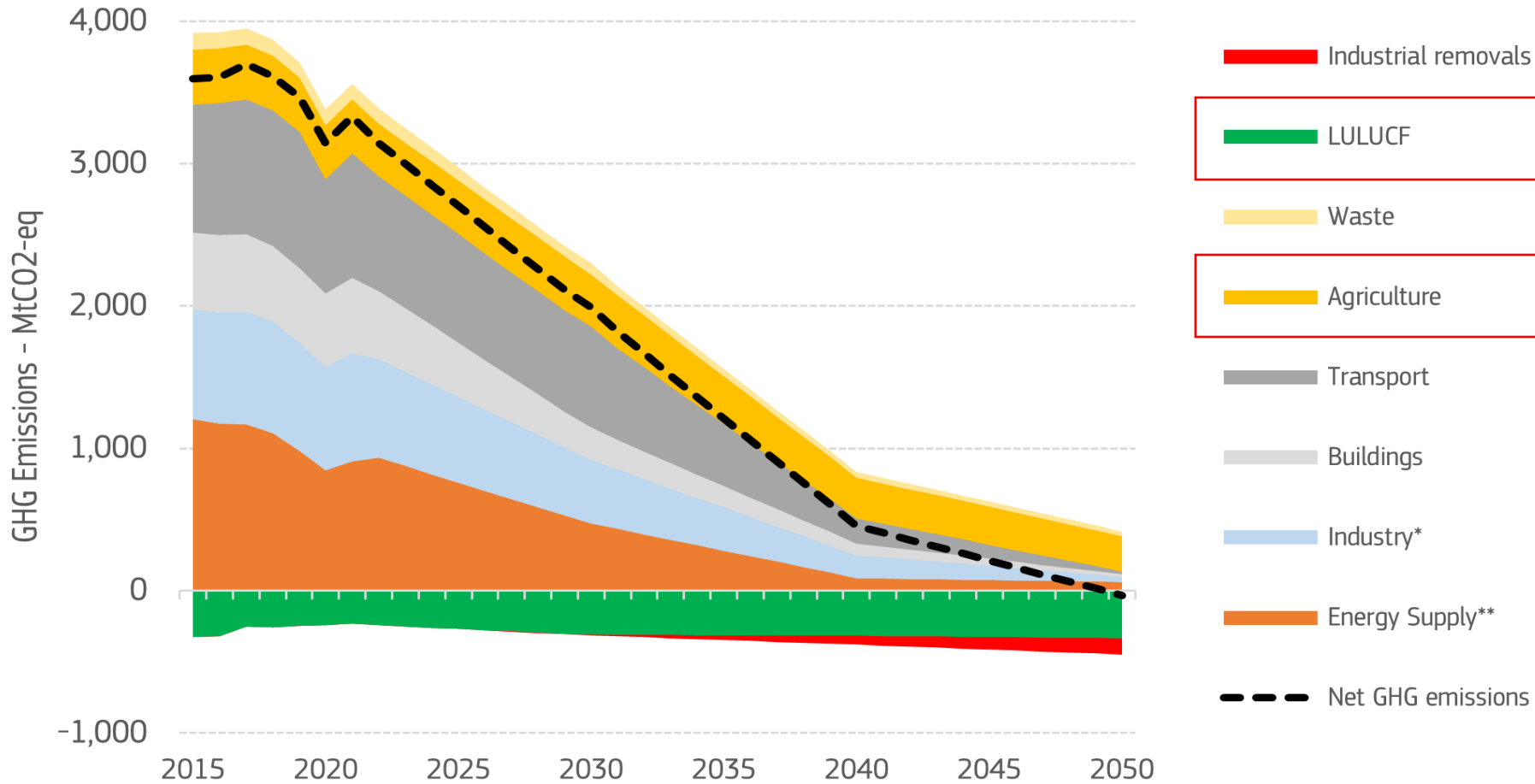
# EU EMISSION BY SECTOR (2022)



**Energy supply and transport remain the largest sources of emissions**

# EEA supporting implementing EU policies on carbon removals

Historical and projected sectoral greenhouse gas emissions in the period 2015-2050



\*Excluding non-BECCS industrial removals

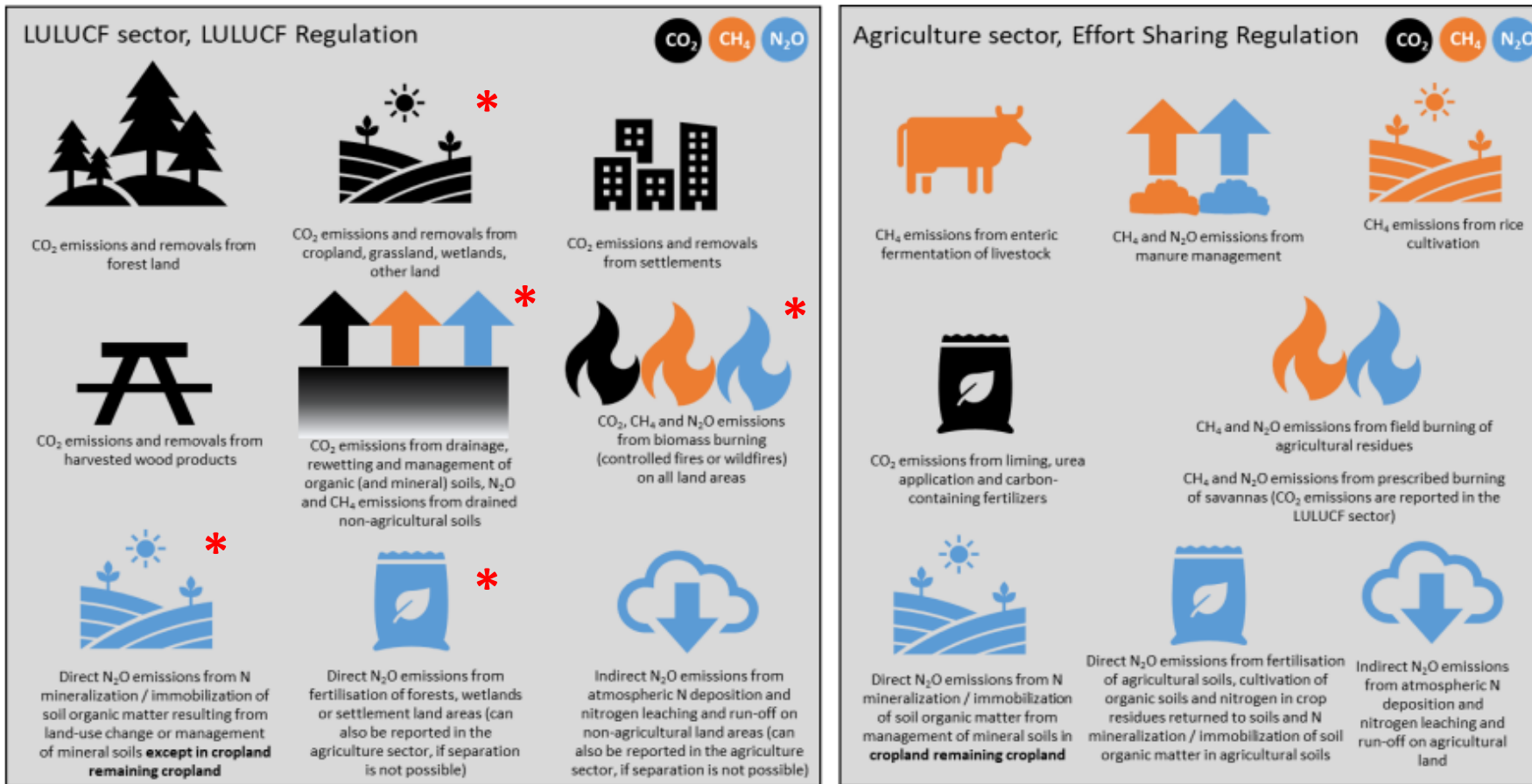
\*\*Including bioenergy with carbon capture and storage (BECCS)

Support the implementation of the Effort Sharing Regulation (ESR)

Land Use, Land Use Change and Forestry (LULUCF) Regulation

setup and implementation of the Carbon Removal Certification Framework (CRCF) Regulation

# detailed information needed for greenhouse gas reporting and verification (in land sector)



Carbon removal certification:



Source: LULUCF handbook

# Dissemination activities

CLIMATE AND ENERGY IN THE EU

**Handbook on the updated LULUCF Regulation EU 2018/841 - Guidance and orientation for the implementation of the updated regulation - Version 2**

**Authors:**

**Hannes Böttcher, Cristina Urrutia, Anke Herold, Sabine Gores (Oeko-Institut); Colas Robert, Etienne Mathias (Citepa); Valentin Bellassen; Stephanie Wegscheider, Amelie Lindmayer (GAF); Karin Attström (Ramboll)**

**The handbook aims to:**

- **Explain all elements of the LULUCF Regulation**
- **Enable an increase in the quality of GHG E/R in the LULUCF sector**
- **Disseminate knowledge and experience**

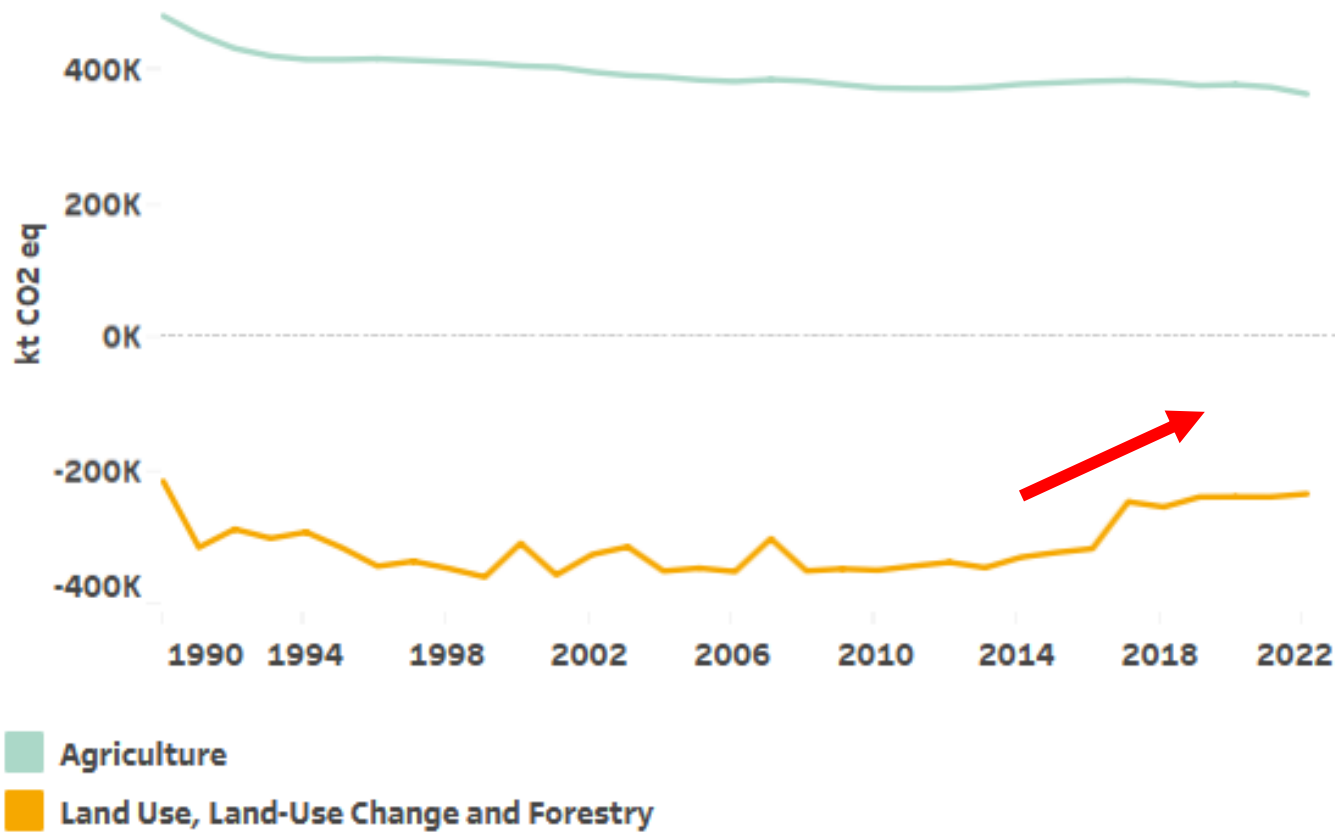
Link: [Climate and Energy Portal](#)

European Environment Agency



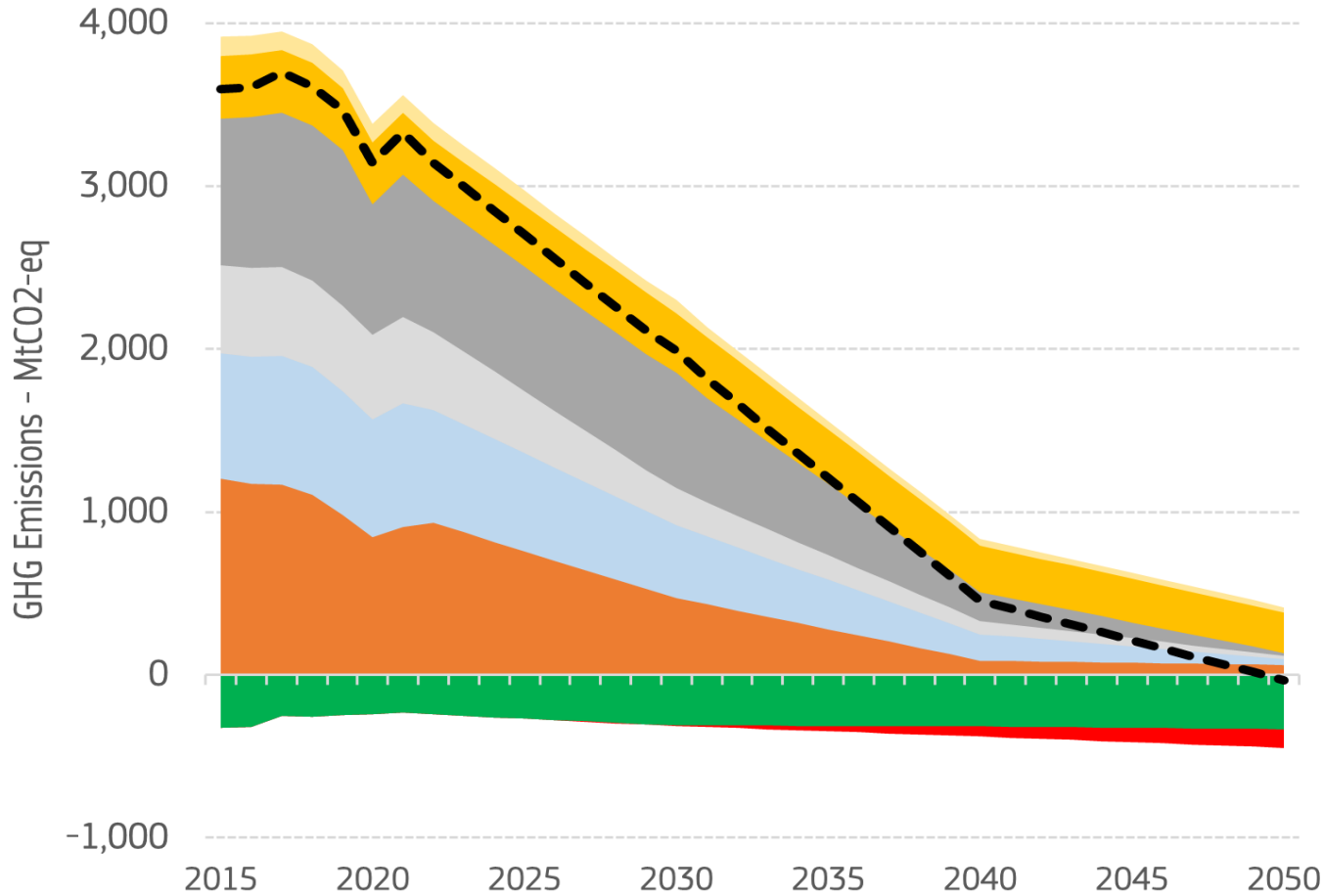
# Latest trends of greenhouse gas emissions and carbon removals - concerning

## Trends by aggregated sectors in EU-27



# EEA supporting implementing EU policies on carbon removals

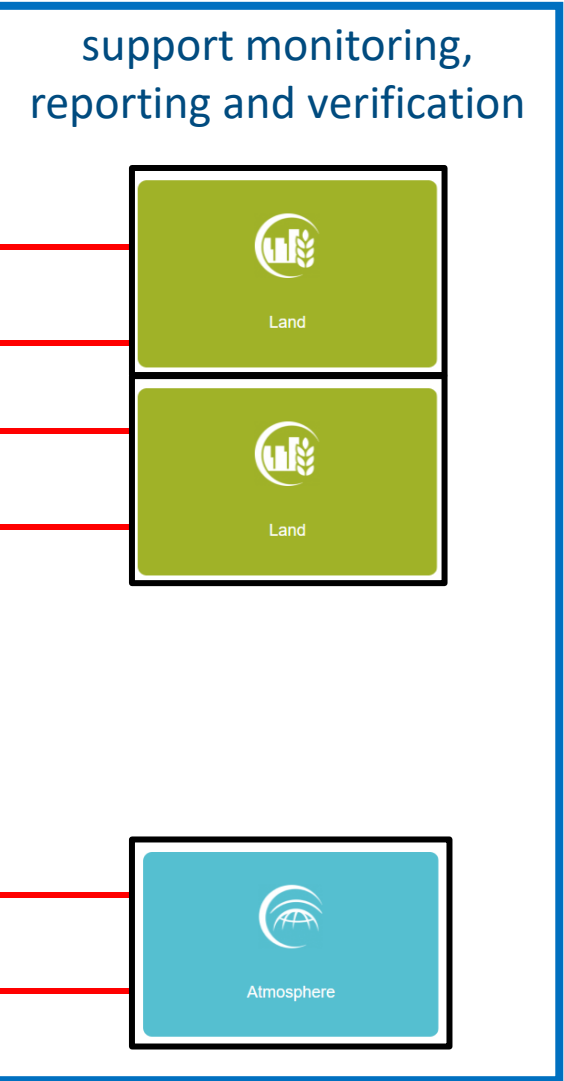
Historical and projected sectoral greenhouse gas emissions in the period 2015-2050



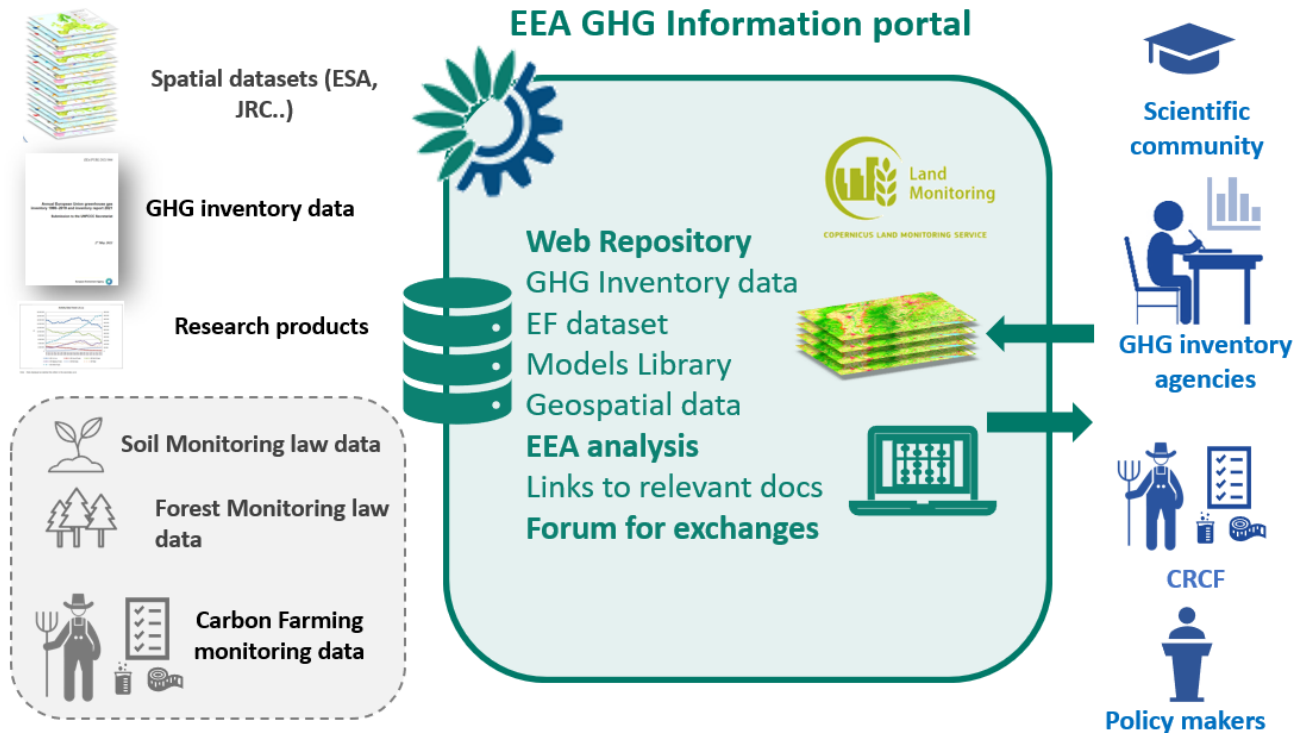
\*Excluding non-BECCS industrial removals

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- █ Industrial removals
- █ LULUCF
- █ Waste
- █ Agriculture
- █ Transport
- █ Buildings
- █ Industry\*
- █ Energy Supply\*\*
- - - Net GHG emissions



# On line information portal and capacity building



The EEA Portal is an online knowledge hub to facilitate the access of relevant data to improve the MS GHG inventories

## Data types

- **Inventory related data** such as estimation methodologies and emission factors
- **Geospatial data coming from different sources (links and metadata info):** e.g. Copernicus; EEA CCI biomass data
- **Links to relevant scientific project/reports**

# EEA GHG Information portal



Scientific community



GHG inventory agencies



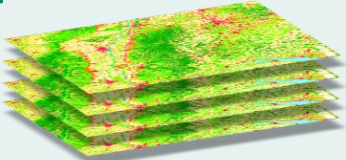
CRCF



European Environment Agency  
Policy makers



**Web Repository**  
GHG Inventory data  
EF dataset  
Models Library  
Geospatial data  
**EEA analysis**  
Links to relevant docs  
**Forum for exchanges**



Spatial datasets (ESA, JRC..)

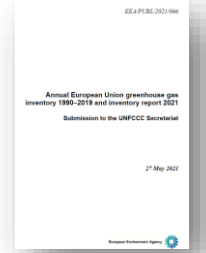
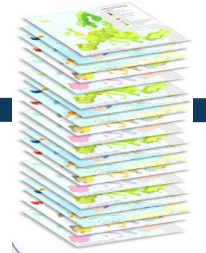
GHG inventory data

Research products

Soil Monitoring law data

Forest Monitoring law data

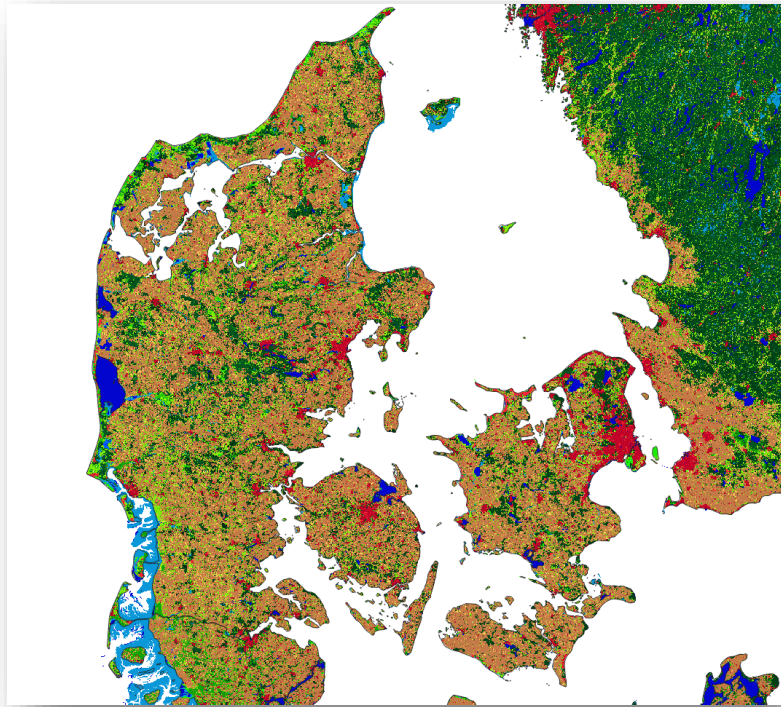
Carbon Farming monitoring data



Soil Monitoring law data

Forest Monitoring law data

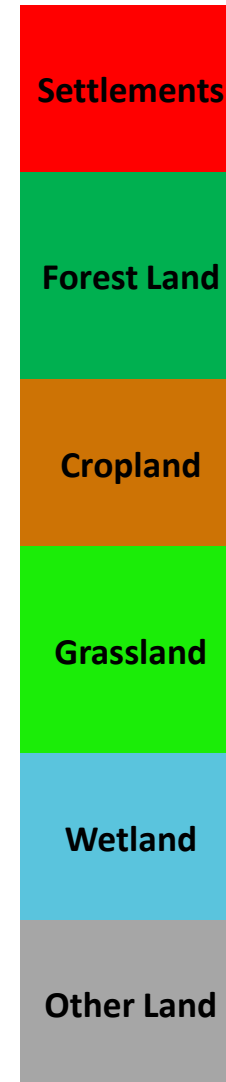
Carbon Farming monitoring data



## Output: LULUCF Instance

- Spatial coverage: EU-27
- Temporal coverage: 2018 & 2021 (from 2021 on yearly update)
- Raster with 100m grid
- 6 main LULUCF categories & 26 sub-classes

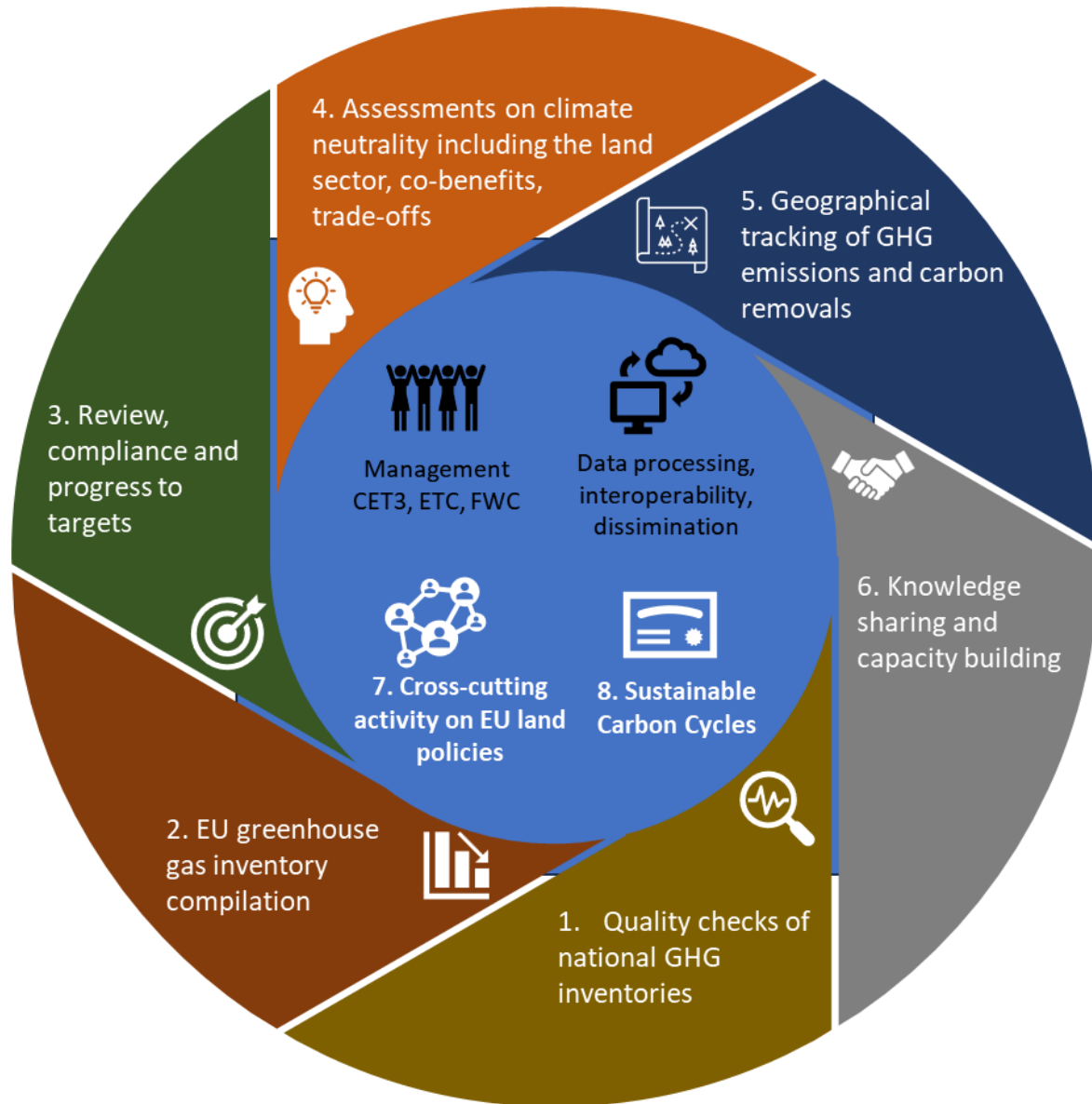
## LULUCF categories & sub-classes:



- 11 S Burnt areas
- 12 S Settlements
- 13 S Green urban areas
- 14 S Other settlements
- 21 FL Burnt areas
- 22 FL Transitional woodland
- 23 FL Deciduous trees
- 24 FL Coniferous trees
- 25 FL Other forestland
- 31 CL Burnt areas
- 32 CL Annual crops
- 33 CL Perennial crops
- 34 CL Other cropland
- 41 GL Burnt areas
- 42 GL Pasture
- 43 GL Shrubs
- 44 GL Natural grassland
- 45 GL Other grassland
- 51 WL Wetland managed
- 52 WL Wetland unmanaged
- 53 WL Water managed
- 54 WL Water unmanaged
- 61 OL Bare soil and rocks
- 62 OL Permanent ice and snow
- 63 OL Lichens and mosses
- 64 OL Other otherland
- 254 Unclassified, clouds
- 255 Outside area

- **2021** final version: June 2024
  - **2022** final version Q4/2024
  - **2023** final version: Q1/2025
- Will be shared with LULUCF compilers and together with info on training options

# How we organise our work? In areas of work and project teams



**Quality checks** of MS GHG inventories and compilation of the EU GHG inventory

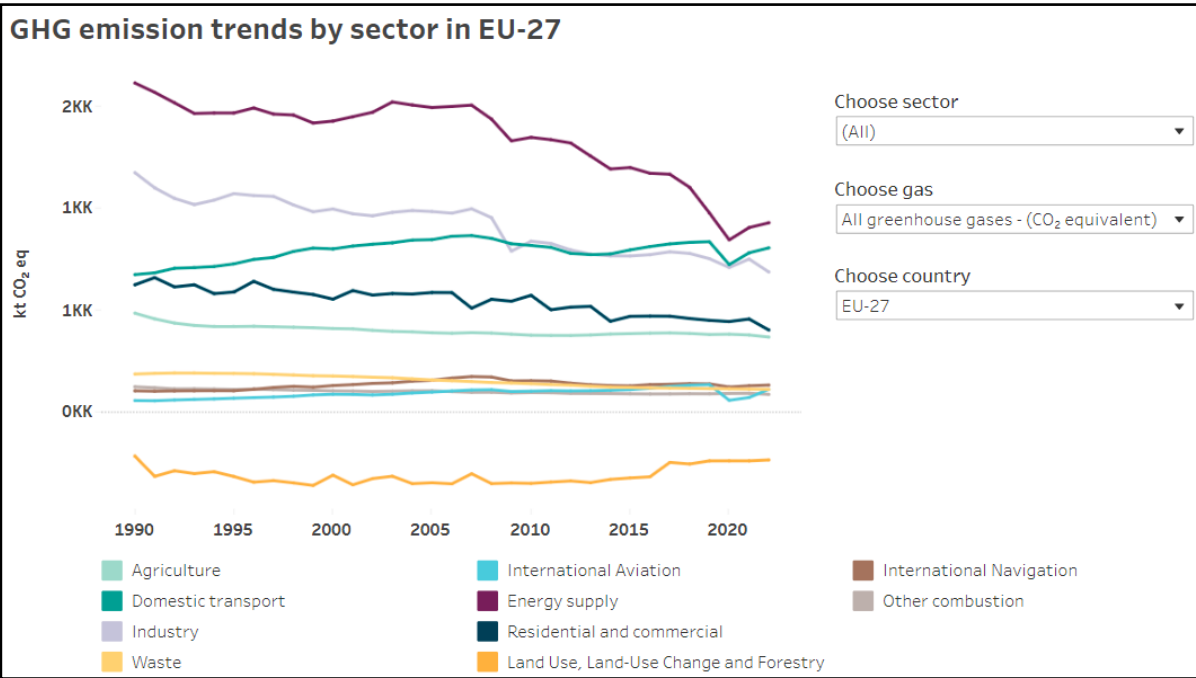
Support implementing LULUCF regulation by **comprehensive reviews, compliance check and progress to targets**

**Knowledge sharing and capacity building** with Member States for improved and annual geographic tracking of greenhouse gas emissions and carbon removals by

**Support MS with the gradual improvement of GHG inventories** through methodological guidance, facilitating access to inventory activity data and emissions factors, expert training and facilitating good practice exchanges between inventory compilers.

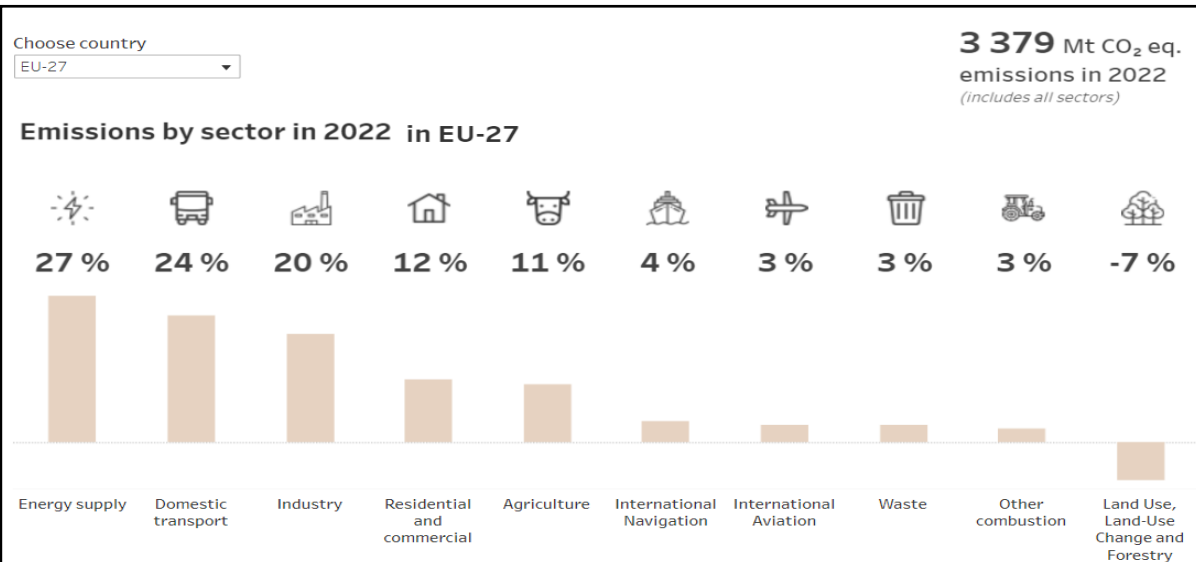
**Provide knowledge to policy makers** on progress to climate change mitigation in the agriculture, forestry and land use sector

# Latest GHG inventory data available, 1990-2022



## Useful links with data by MS, GHG and sector:

- ✓ [EEA GHG data viewer](#) (user friendly)
- ✓ [EEA GHG data viewer & database](#) (expert use)
- ✓ [Climate & Energy in the EU](#) (website)



Thank you



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