

Main trends in methane emissions in the EU

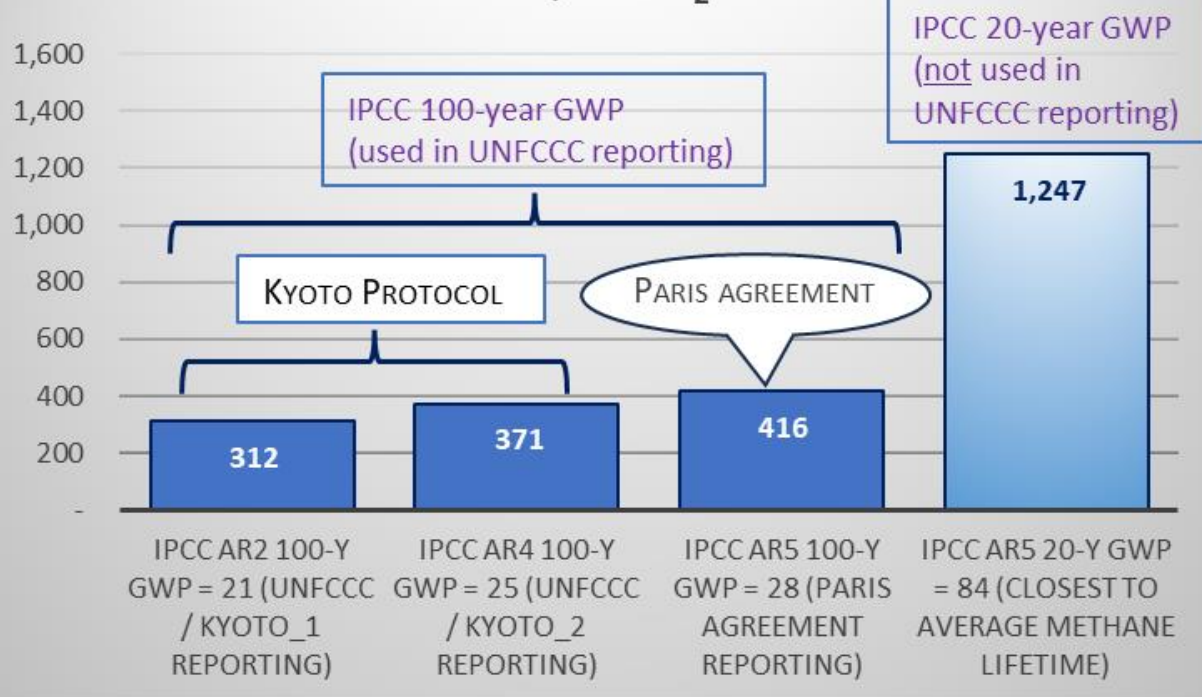
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Structure of the Presentation

- 1. IPCC metrics in UNFCCC reporting**
- 2. Main sources of methane & EU trends**
- 3. The international dimension**
- 4. Summary & conclusions**

1. IPCC metrics in UNFCCC reporting

EU methane emissions in 2021 with updated IPCC metrics, MtCO₂e

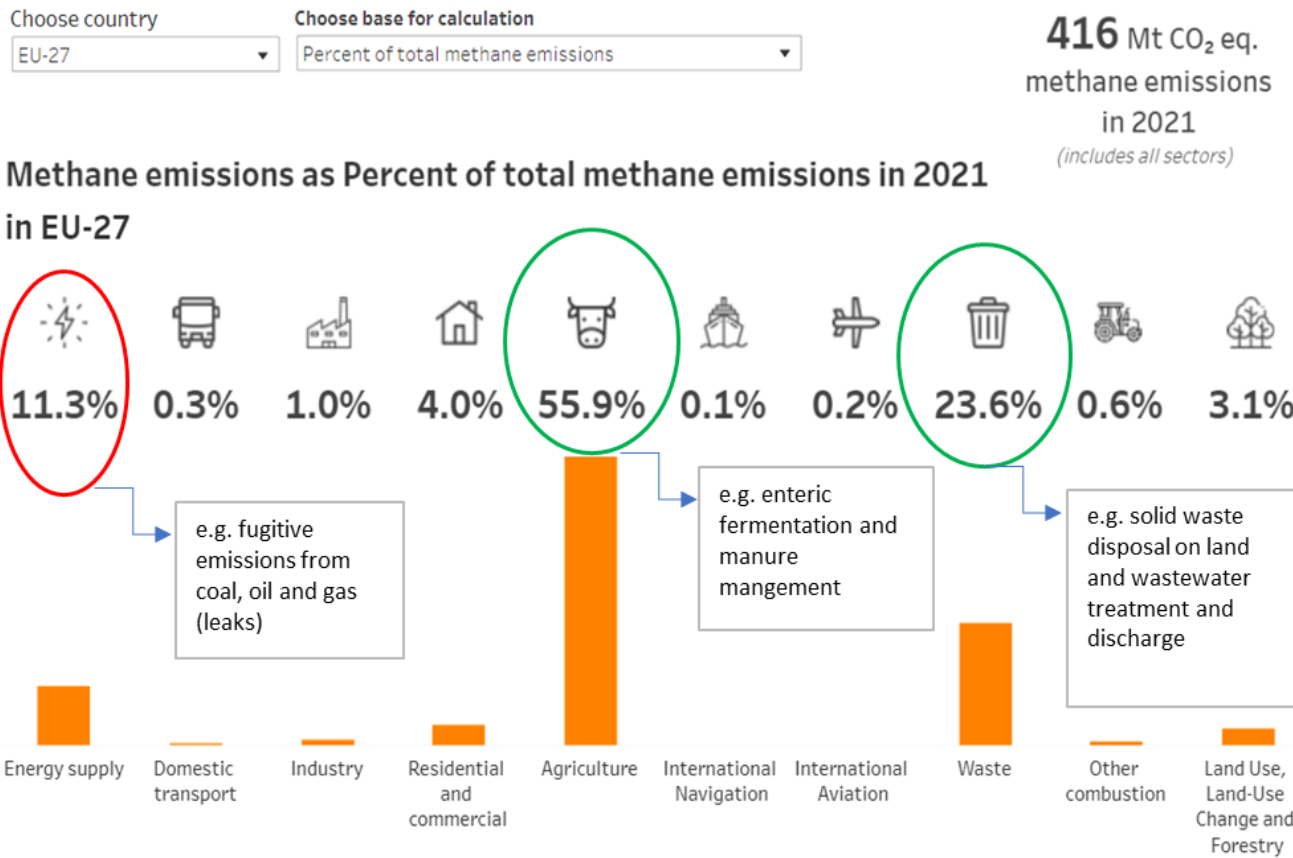


- IPCC 100-year GWP agreed by consensus –other metrics can be reported in addition
- CH₄ short average lifetime implies rapid climate & air pollution mitigation benefits in the short term
- EU Climate Law: all sectors & gases to contribute to climate neutrality – but contribution can vary

Note: IPCC (Intergovernmental Panel on Climate Change); AR (Assessment Report); GWP (global warming potential); the values (21, 25, 28, 84) correspond to the radiative forcing ('strength') of CH₄ relative to CO₂ over a period. CO₂equivalent is a metric measure that compares emissions from different greenhouse gases based on their GWP.

Source: EEA

2. Main sources of methane & EU trends: Key sources (% of total, 2021)

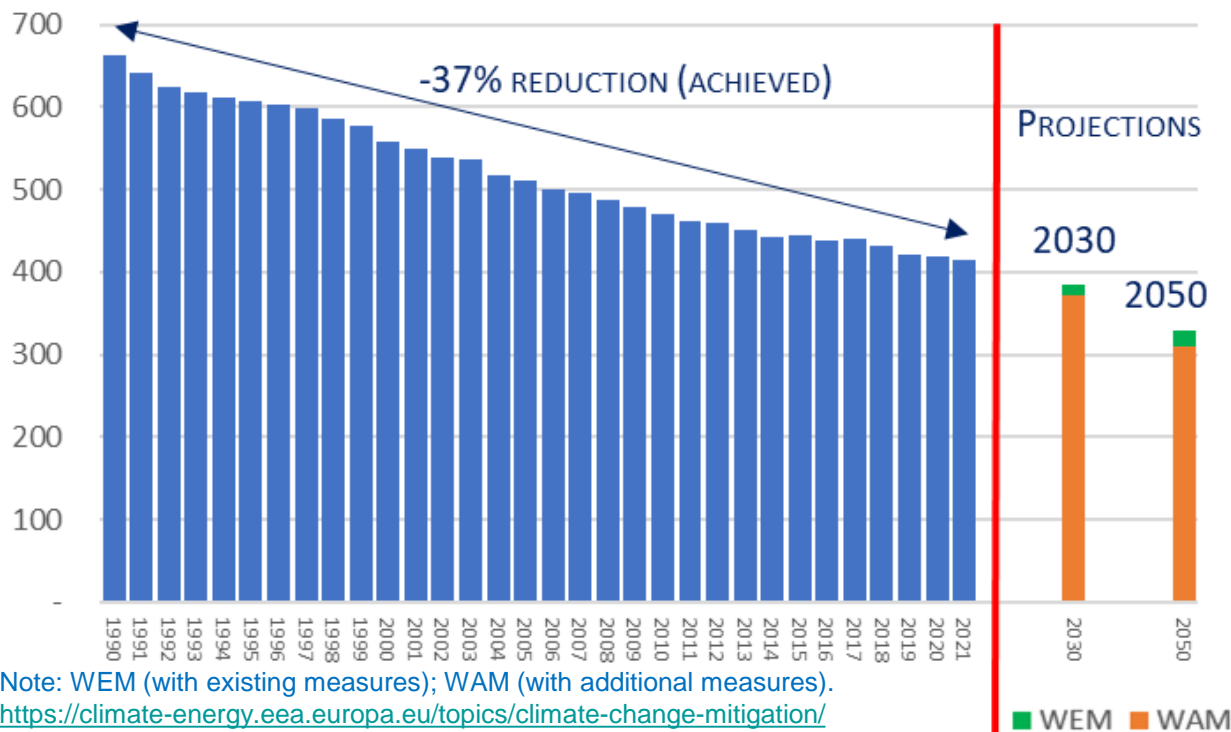


- EU emitted 14.8 Mt CH₄ in 2021 (416 Mt CO₂e)
- Three main CH₄ sources: energy, waste & agriculture
- The agriculture share in total CH₄ has & will increase –even with lower emissions
- Most CH₄ regulated by the EU Effort Sharing Legislation

Source: <https://climate-energy.eea.europa.eu/topics/climate-change-mitigation/greenhouse-gas-emissions-inventory/data>, EEA

2. Main sources of methane & EU trends: Overall trends (all sectors)

Total past and projected methane emissions
in the EU, Mt CO₂e (1990-2050)

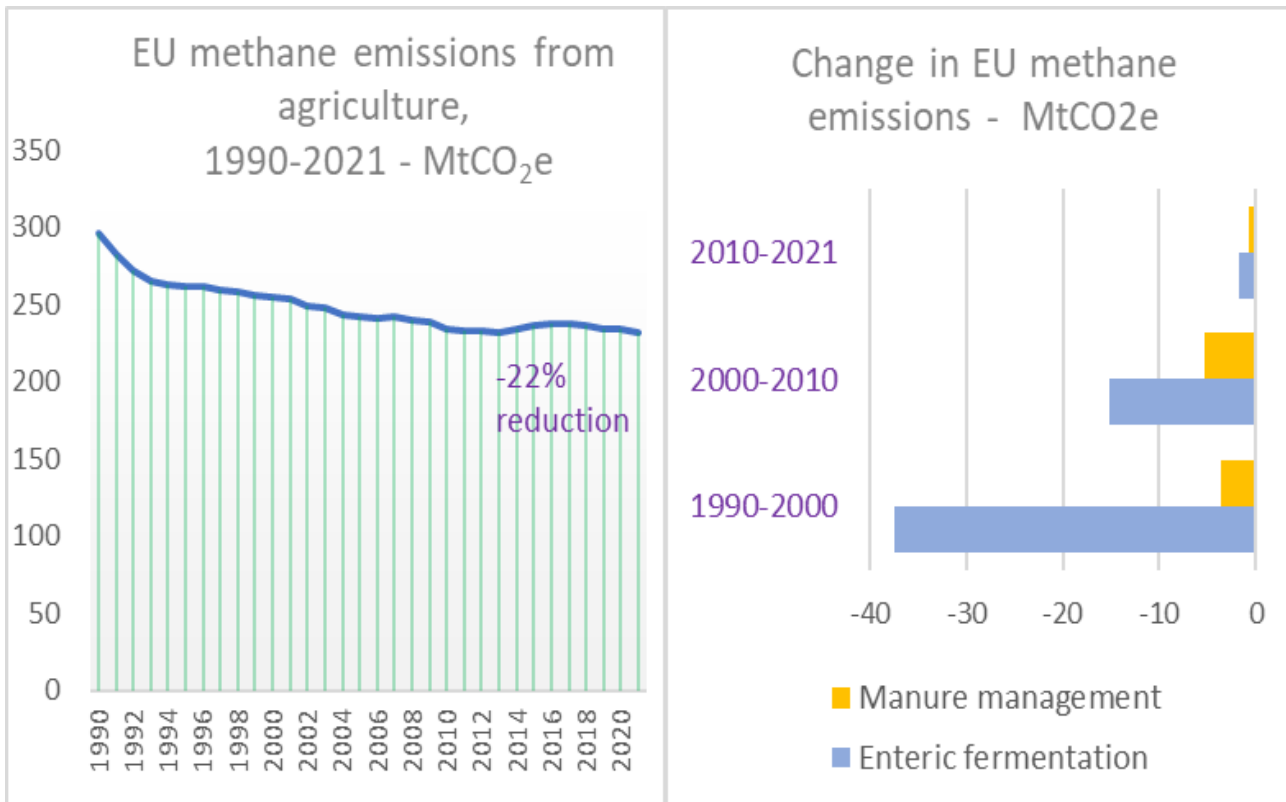


Note: WEM (with existing measures); WAM (with additional measures).
<https://climate-energy.eea.europa.eu/topics/climate-change-mitigation/>
Source: EEA

- Substantial CH₄ reductions achieved:
1990-2021 = - 37%
(8.8 Mt | 247 Mt CO₂e)
- Less-rapid CH₄ reductions projected:
2021-30 = -7% | -11%
2021-50 = -21% | -25%
- Member State' targets under Effort Sharing:
MS decide policies and measures

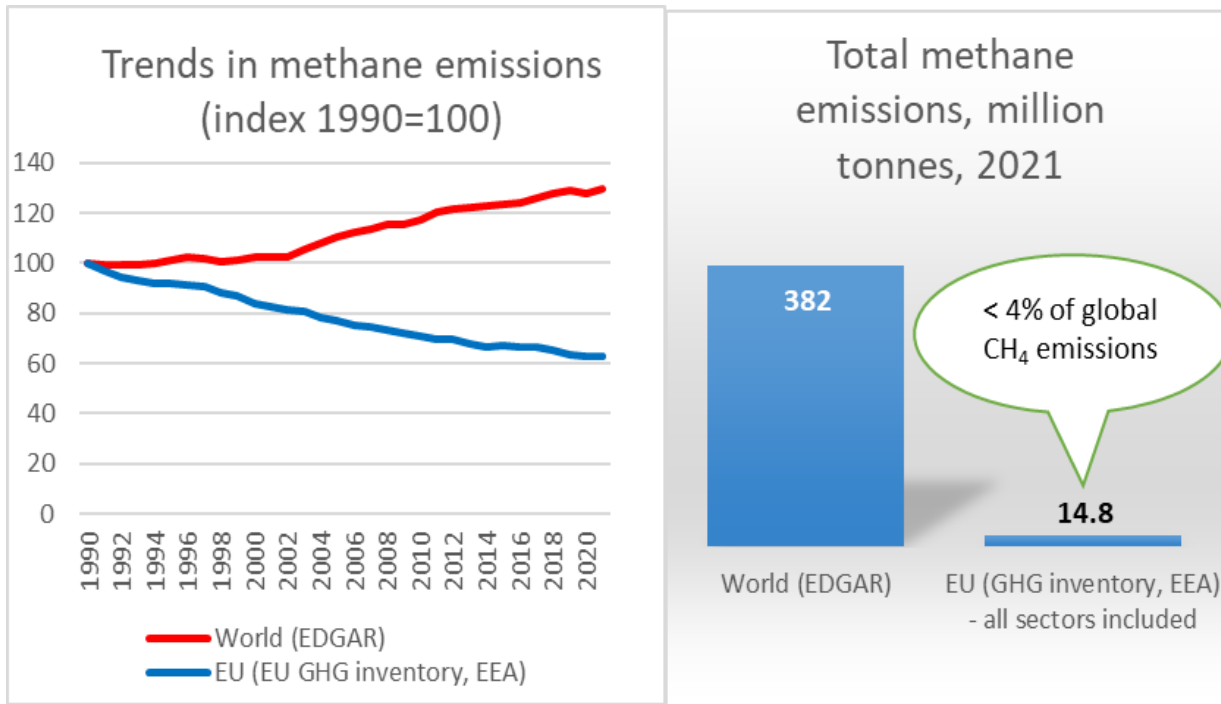
2. Main sources of methane & EU trends: Agriculture sector

- CH₄ decreased by 22% since 1990, mostly from enteric fermentation and manure management
- CH₄ emissions stable since 2010 - in parallel with higher milk production
- Projections indicate less-rapid decreases
2021-30 = -3% | -8%
2021-50 = -6% | -13%



Source: <https://climate-energy.eea.europa.eu/topics/climate-change-mitigation/greenhouse-gas-emissions-inventory/data>, EEA

3. The international dimension



Source: [EEA](#), [EDGAR](#)

- EU CH₄ emissions down since 1990. World's up
- EU represents 4% of methane globally
- CH₄: +0.5 C of net +1.1 C global warming 2010-2019 relative to 1850-1900 levels [[IPCC AR6](#)]

- Mitigation by largest emitters, besides EU, is essential
- COP26: 'to consider further actions to reduce by 2030 non-CO₂ GHG emissions, including CH₄'
- International cooperation important ([Global Methane Pledge](#))
- EU Council call for economy-wide NDCs (all sectors & gases) by major economies

4. Summary & conclusions

1. Because CH₄ is short-lived, reducing methane emissions leads to the largest climate mitigation benefit in the short-term
2. EU CH₄ emissions have decreased and are projected to decrease. World emissions increase & EU's global CH₄ share is 4%
3. Global ambition, including EU, and international cooperation are essential to reducing CH₄ emissions and keeping 1.5 C within reach
4. Common IPCC GWP-100 metrics in Paris-UNFCCC reporting were decided by consensus; other metrics can be reported in addition
5. The contribution of gases & sectors to NDCs* and climate neutrality objectives is an individual decision by Parties (countries)

** Nationally Determined Contributions (NDCs) are countries' self-defined national climate targets under the Paris Agreement, to be updated every five years and will reflect the highest possible ambition. The EU's current NDC is to reduce its (economy-wide) net GHG emissions by at least 55% by 2030 compared to 1990 levels.*

Thank you!