



Animal Task Force

*Fostering knowledge-based innovation
for a sustainable and competitive
livestock sector in Europe*





How to use ClickMeeting

Browser: choose to attend the webinar with Chrome or Firefox or Opera.

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Presentation and recording: the presentation of the webinar will be available later on the internet, as well as the recording of the webinar.

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ATF

A European Public-Private Partnership



A European Public-Private Partnership

Industry & farmers representative organisations



Knowledge providers



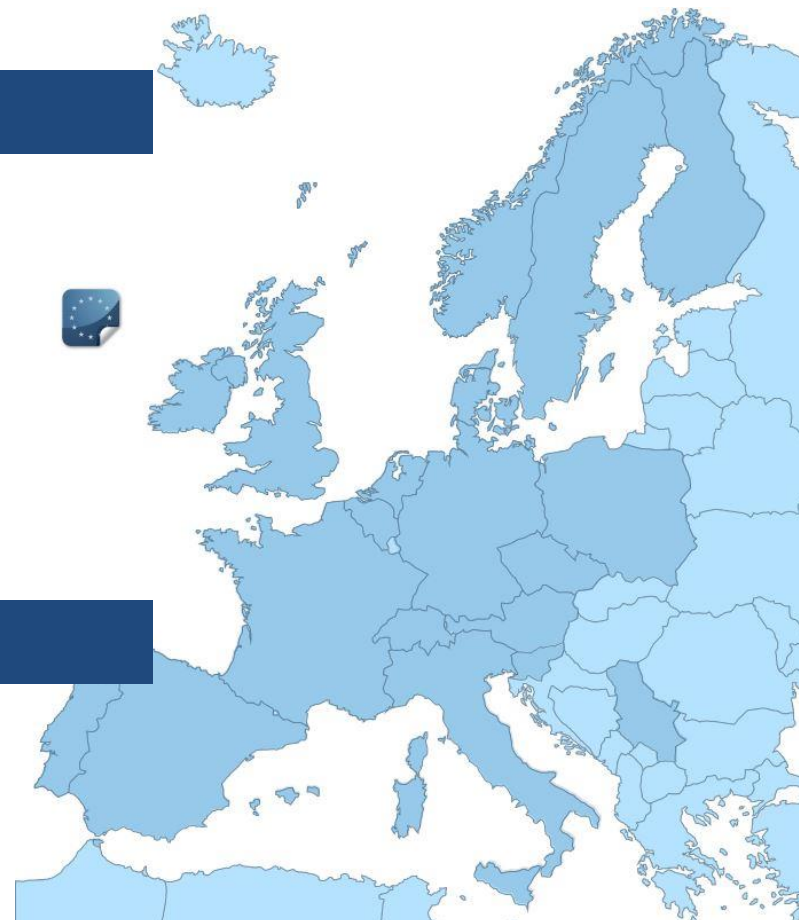
Norwegian University of Life Sciences



Partners

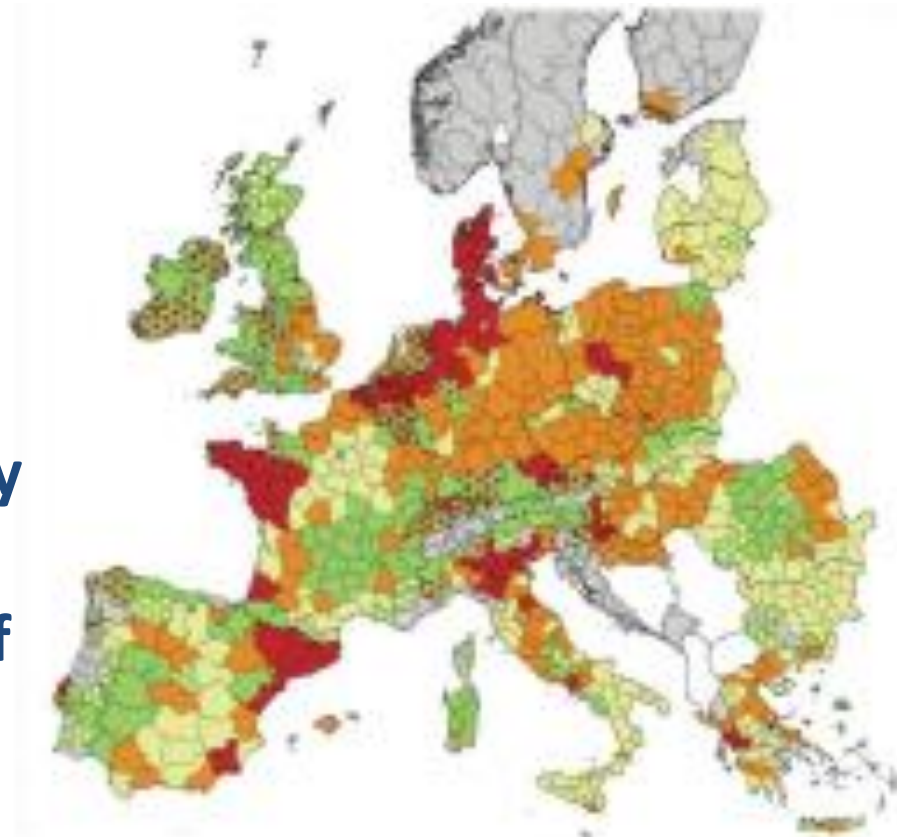


European Livestock and Meat Trades Union





- **ATF promotes interdisciplinary R&I bringing together researchers with complementary expertise & multi-actors of agri-food chains and territories**
- **Fostering the sustainability of a wide diversity of European production systems to improve the resilience of our EU agrifood systems (ie. intensive, low input systems, organic, agroecological systems...)**
- **Holistic agricultural approaches will link more closely livestock & plants to better use and protect the qualities of agroecosystems and maximize the use of biomass through recycling/cascading approaches**





HORIZON
2020



Providing input for EU research and innovation agenda

(Horizon 2020, Horizon Europe, JPI FACCE&HDHL, SCAR, position papers)

Arranging dialogue on sector innovation with key stakeholders in EU

(EC, Members of Parliament, industry organisations, NGOs, scientific community)

Enhancing cooperation in EU research & innovation

(Reinforce an innovative and efficient research in livestock sector)

Enabling knowledge exchange and act as a source of expertise

(workshops, events, website, ad hoc expertise)

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2 events in 2022 on



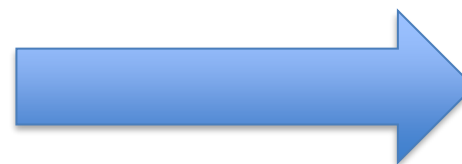
“Livestock emissions and the COP26 targets”

2nd One-day symposium of the ATF & EAAP Commission on Livestock Farming Systems

EAAP Annual Meeting
Porto, Portugal - Sept. 2022

12th ATF Seminar

Brussels - Nov. 2022



Now available !



Livestock emissions
and the COP26 targets



Methane – a greenhouse gas

Second largest contributor to warming after CO₂ (about 30% of increase in global temperature)
GWP100 is not a good metric to assess its contribution to warming because of its short half life
(≈ 10 years)

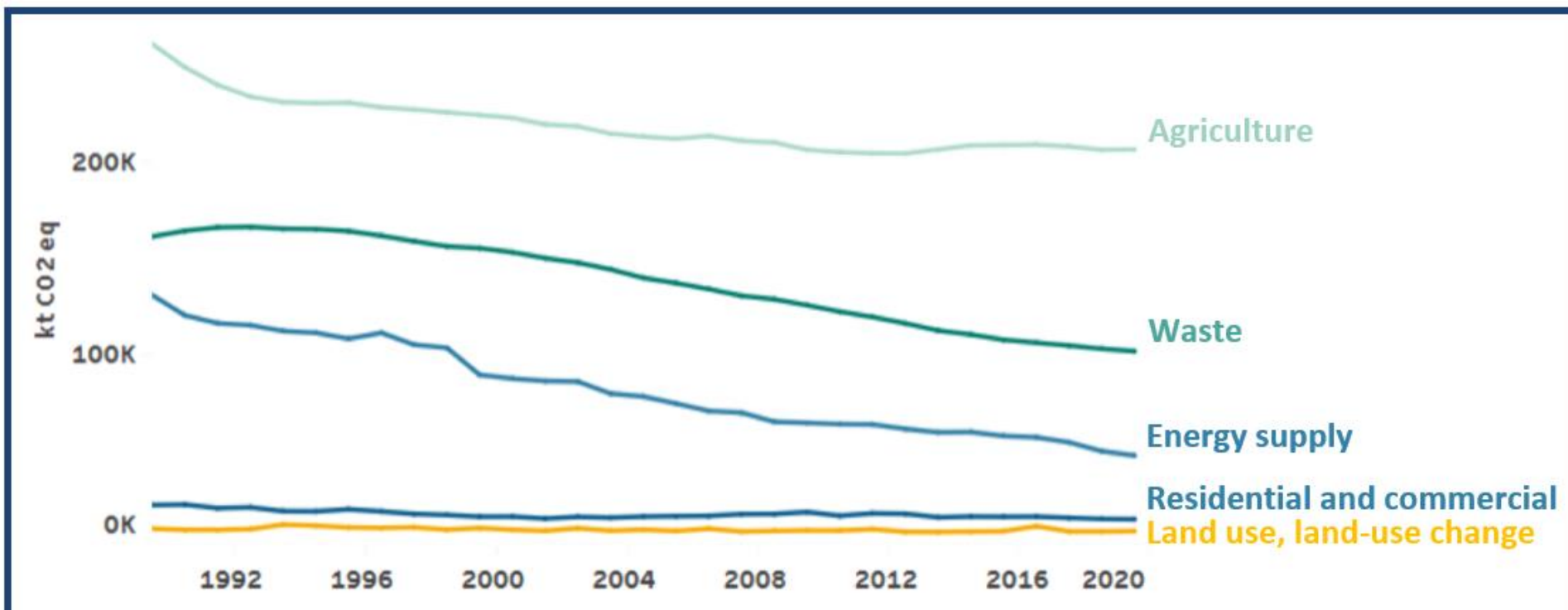
TABLE 1. SOURCES OF GLOBAL AND EU ANTHROPOGENIC METHANE EMISSIONS (%)

	Global*	EU**
Energy	37	19
Waste	19	26
Agriculture	44	53
<i>Enteric fermentation</i>	29.5	43.3
<i>Manure management</i>	3.4	9.5
<i>Rice cultivation</i>	10.7	0.11
<i>Agric. waste burning</i>	0.5	0.02

*Janssens-Maenhout et al. (2017) ; **EU Methane Strategy



EU methane emissions have fallen while global methane emissions have risen



Change: 2019 vs 1990

Globally¹ + 23%

EU² - 39%

Source: ¹Our World in Data;

²EUNIR, 2021

Change in EU since 1990

Energy - halved

Waste - down by 1/3

Agric - down by 1/5

Source: EU Methane Strategy

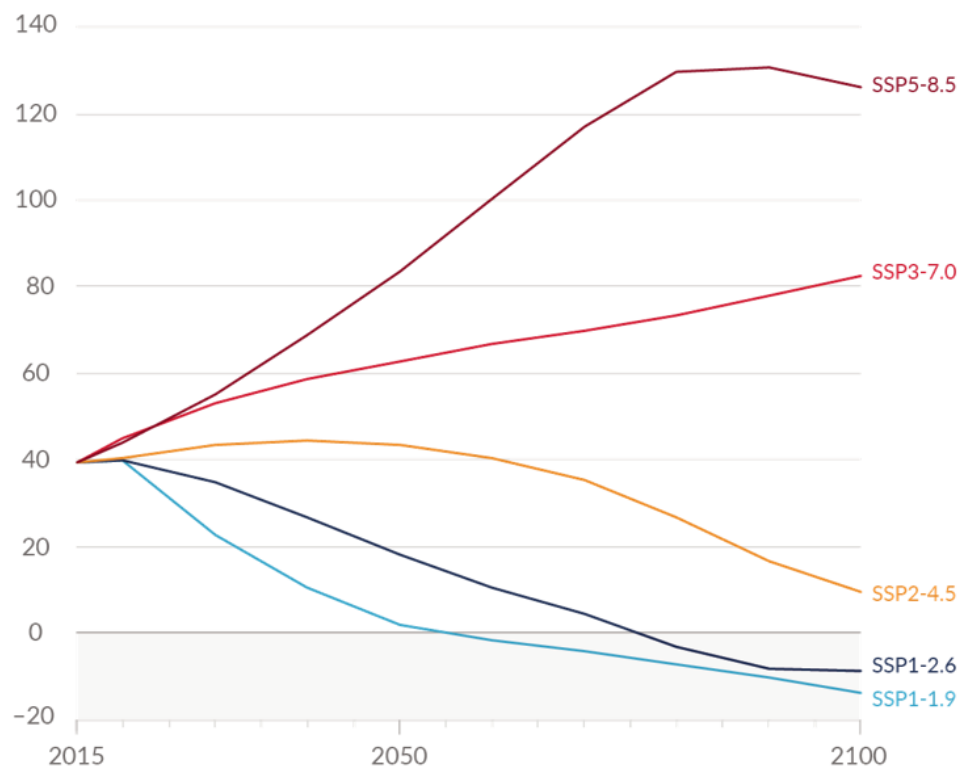
FIGURE 1. TRAJECTORIES OF EU METHANE EMISSIONS (Source : [Forlin V., 2022. EAAP meeting - https://animaltaskforce.eu/Portals/0/ATF/2022/EAAP2022_S02_04_Forlin_Pilzecker_FINAL.pdf](https://animaltaskforce.eu/Portals/0/ATF/2022/EAAP2022_S02_04_Forlin_Pilzecker_FINAL.pdf))



IPCC scenarios (SSP) of GHG missions with different temperature outcomes

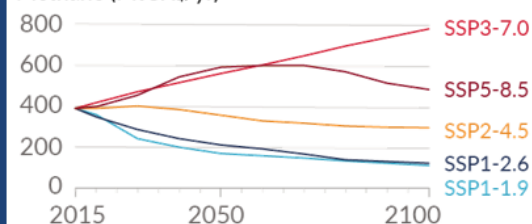
(a) Future annual emissions of CO₂ (left) and of a subset of key non-CO₂ drivers (right), across five illustrative scenarios

Carbon dioxide (GtCO₂/yr)

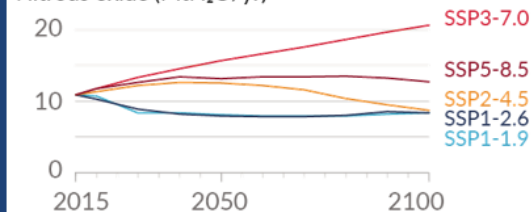


Selected contributors to non-CO₂ GHGs

Methane (MtCH₄/yr)

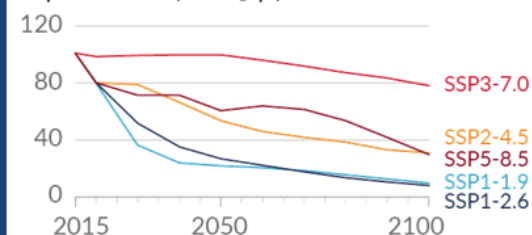


Nitrous oxide (MtN₂O/yr)



One air pollutant and contributor to aerosols

Sulphur dioxide (MtSO₂/yr)

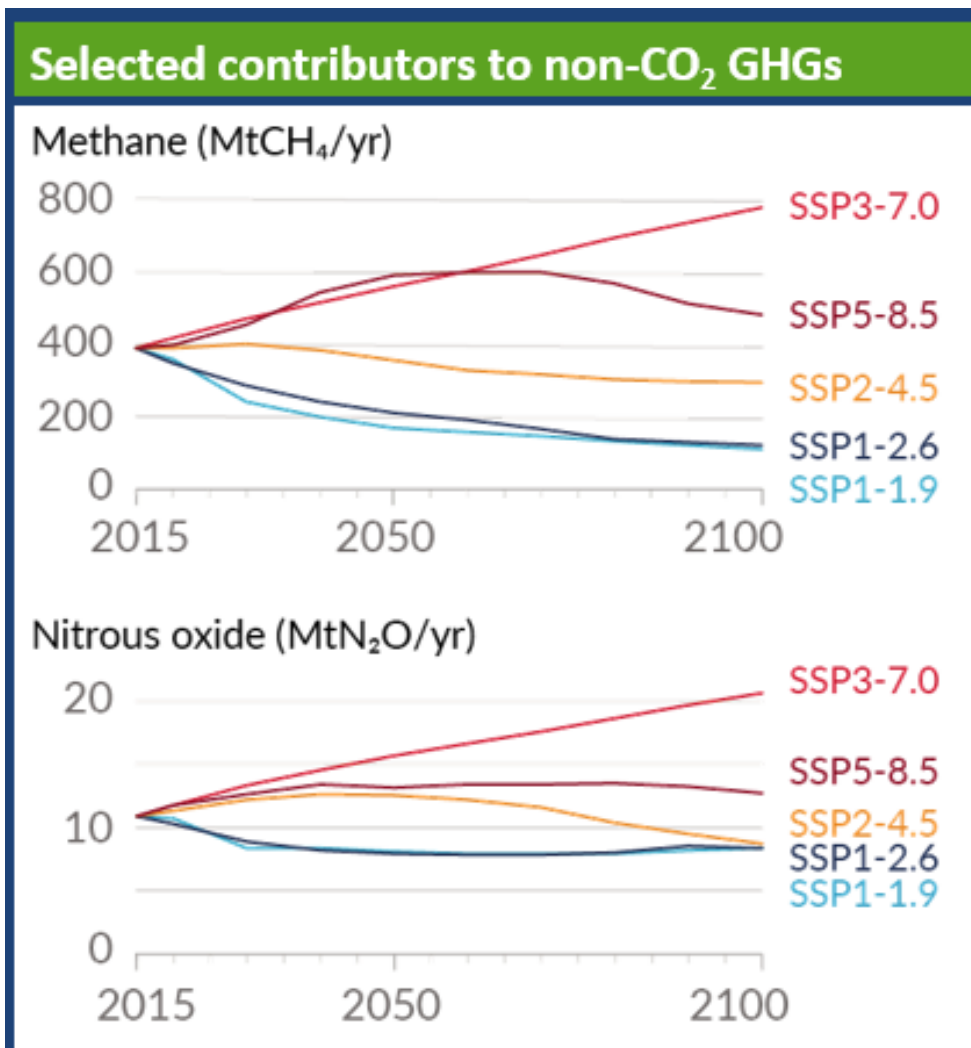


SSP 1 – 1.9 is the only scenario with a strong likelihood of keeping temperature rise within the 1.5°C target of the Paris Agreement

CO₂ is the key gas in terms of warming and must get to net zero ASAP



Focus in on methane (and nitrous oxide)

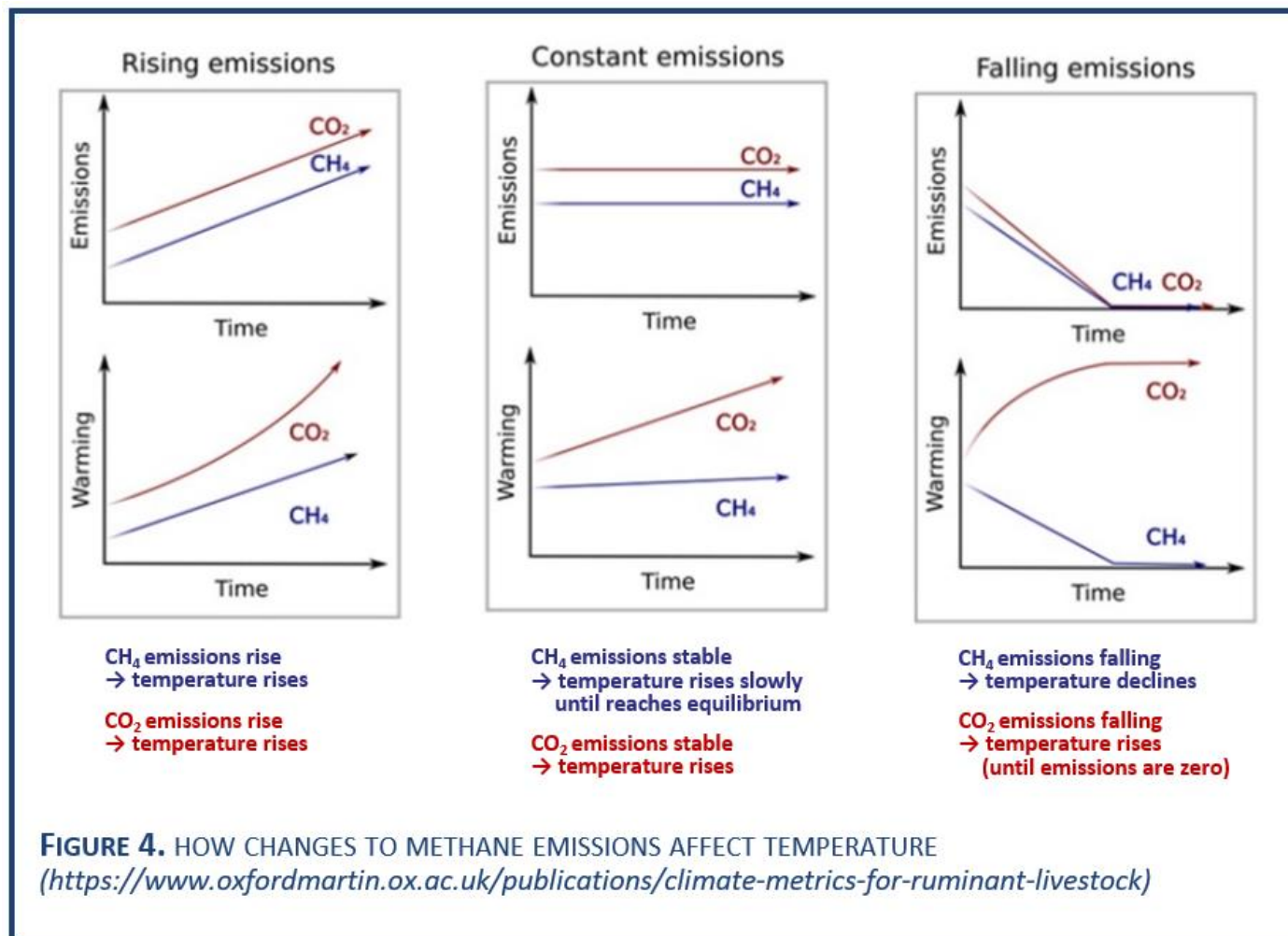


In SSP1-1.9, in 2050,

- CO₂ must be at net zero
- methane emissions are about 50% of 2015 level
- N₂O emissions remain at 70-75% of 2015 levels
- Clearly separate targets are needed



Why does CO₂ need to get to net zero while methane doesn't?

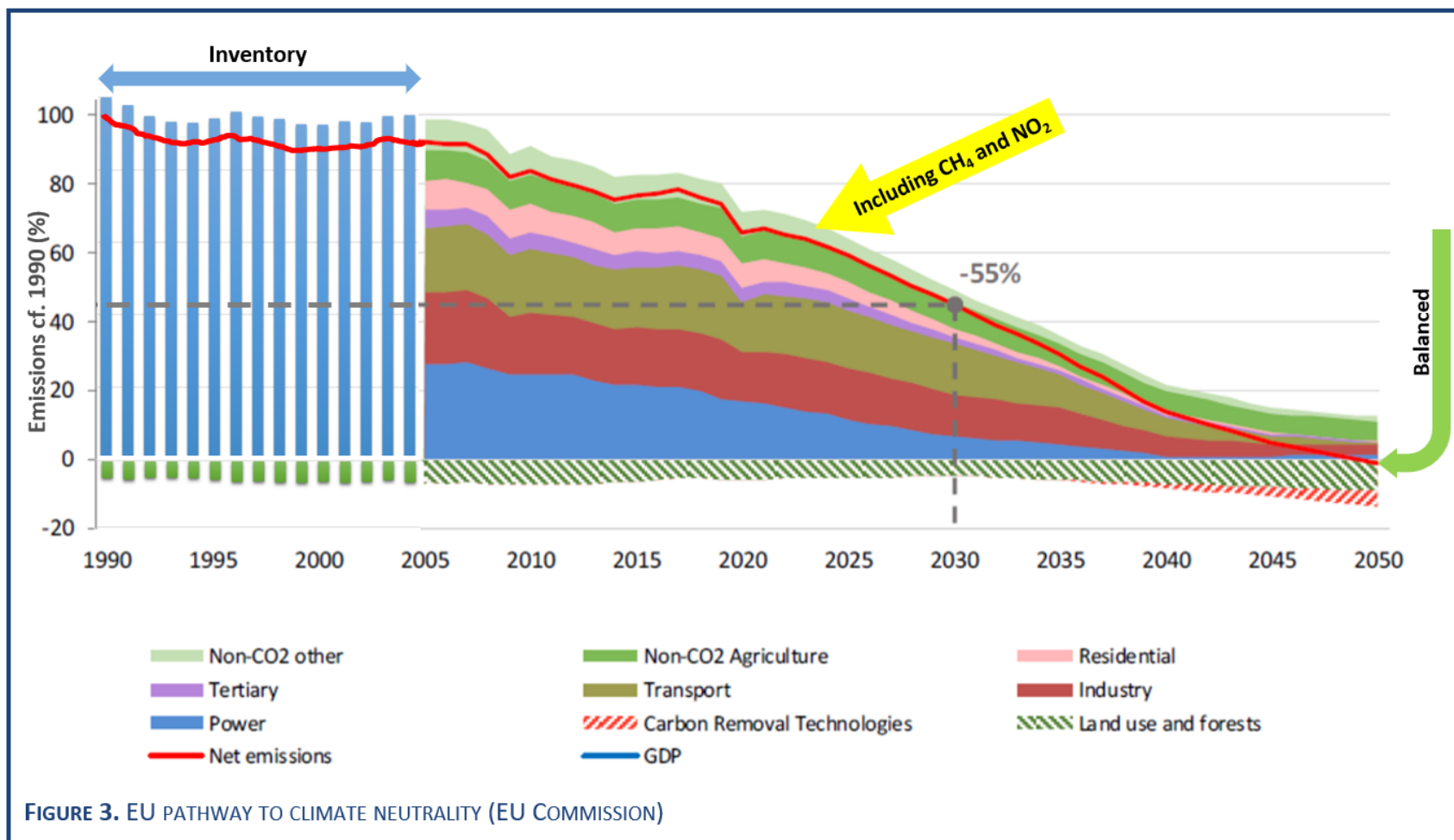


Methane has a short half life whereas CO₂ remains in the atmosphere for a very long time

If methane emissions fall by 3% per decade, its impact on warming is roughly constant



EU policy bundles all gases together (GWP100) and requires all to be at net zero



Even though residual emissions of non-CO₂ gases remain in 2050, they have to be balanced by CO₂ removals.

No need to do this if methane emissions are not contributing to warming (i.e. decreasing by 3%/decade)

FIGURE 3. EU PATHWAY TO CLIMATE NEUTRALITY (EU COMMISSION)



Reducing methane emissions – where to start

- Methane from energy should be tackled first – can be cut the quickest and with least cost (EU Methane Strategy)
- Minimising biodegradable waste going into landfill should be a priority
- Agricultural emissions should be reduced as much as possible, but some methane emission from livestock are unavoidable (unique ability to convert fibre to food)
 - Low emitting animals, lifetime efficiency, diet, additives, manure management, animal health



Key implications

- Reductions in methane emissions are very important for limiting human-induced warming. But methane emissions do not need to reach net zero by 2050 to keep within the Paris Agreement.
- This is in contrast to CO₂ emissions which do need to be reduced to net zero. The implication of this is that separate targets are needed for methane, nitrous oxide and CO₂.
- Methane from agriculture should also be reduced as much as possible, keeping in mind that some methane emissions are unavoidable because it results from the unique ability of ruminants to convert non-edible feed materials into highly nutritious food products and grassland areas must be maintained as much as possible for the ecosystem services they provide.
- Reductions in methane from energy and waste sectors should be prioritised as *this is where methane emissions can be cut the quickest and with least costs with available technology.*
- Livestock farming has the potential to increase soil carbon sequestration thus reducing its net emission from better management of forage systems and grassland.
- Best practices and technologies (including animal health), feeding strategies including feed additives, and breeding are the most promising strategies to reduce enteric methane emissions. *For methane emissions from manure management, production of biogas and manure amendments must also be considered.*



Recommendations

- **RECOMMENDATION 1**

The appropriate reduction target for methane, particularly agricultural methane, should be assessed using the scientific basis that accounts for the short-lived nature of methane.

- **RECOMMENDATION 2**

Developing and deploying methane mitigation options should be high priorities for EU research and innovation activity. The Expert Group on methane emissions to promote the uptake of innovative mitigation actions should be re-activated.

For latest news and upcoming activities: www.animaltaskforce.eu



'SUSTAINABLE LIVESTOCK SYSTEMS' - what does this mean?



Sustainable livestock systems
what does this mean?

[READ MORE](#)

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Save the Date

13th ATF seminar

15 November in Brussels (morning)

On “Sustainable livestock systems
– what does this mean?”

The Animal Task Force, for a sustainable and competitive livestock sector in Europe

The Animal Task Force is a European Public-Private Partnership of research organisations and farmer and industry organisations, working together on a sustainable and competitive European livestock production sector by fostering knowledge development and innovation in the whole animal production chain.

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Events

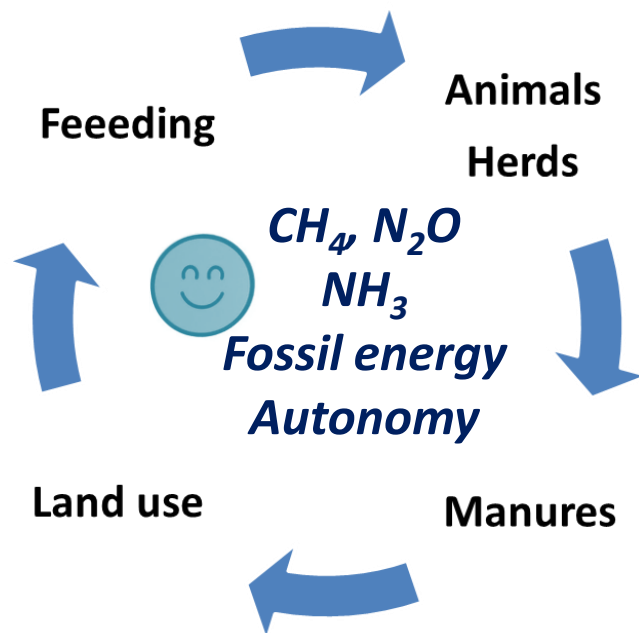


Efficiency for CH₄ mitigation: a priority for EU research

*30% reduction in emission intensity is possible by 2030 with positive trade-offs:
an issue for the ATF Strategic Research and Innovation Agenda*

- Forage quality, grazing
- Forages legumes
- Low C compound feeds
- Precision feeding

- Grasslands
- Agroforestry
- Crop diversification



- Low emitting animals
- Animal robustness
- Meat from milk,
- Slaughter age
- Feed additive

- Manure management vs mineral fertilizers
- Biogas production

