

HIGH STEAKS

PART
2

Taking methane from animal farming out of its blindspot



EXECUTIVE SUMMARY

Reductions in methane (CH₄) emissions – the second most important greenhouse gas (GHG), responsible for about 0.5°C of warming today¹ – give us a clear and immediate pathway to slow the rate of global heating. The President of the European Commission, Ursula Von der Leyen, referred to methane reductions as ‘the lowest hanging fruit of climate policies’ at the launch of the Global Methane Pledge at COP26 in Glasgow.² The Pledge obliges its signatories to reduce methane emissions by 30% by 2030.

Agriculture, and in particular the livestock sector, is by far the largest source of anthropogenic methane in the EU, responsible for 53% of methane emissions.³ However, under a business-as-usual scenario (i.e. with only existing measures in place), livestock methane is expected to drop by a mere 3.7% by 2030.⁴ Recently, Bloomberg reported that a leaked paper from the European Commission warned that the EU will not meet the reductions that it has committed to under the Pledge unless it increases the focus on methane reductions in agriculture.⁵

This confirms the findings of our earlier study,⁶ carried out by consultancy CE Delft, which showed that the EU is on track to achieve only around a 17% methane reduction with existing measures and recently proposed policies. The study also showed the EU has significant potential to cut its methane emissions – by 49–68% – if it implements methane reduction measures across all three sectors covered in the report, and by as much as 36% by focusing solely on the agricultural sector.

This briefing, prepared by Changing Markets Foundation, with contributions from the Institute for European Environmental Policy (IEEP), identifies current and future policies that could impact on methane reductions in the EU by 2030. The overall assessment demonstrates that there is a policy vacuum to tackle methane emissions from livestock farming. While methane emissions in the energy sector are being addressed by a dedicated regulation proposed by the European Commission in December 2021, methane emissions in the agricultural sector are addressed only by a set of patchy measures spread across a wide range of policies. Overall, these fail to enforce mitigating measures that will reduce methane emissions in the livestock sector:

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- The Common Agriculture Policy (CAP), the cornerstone policy dealing with agricultural matters, was found to have very limited impact on livestock emissions (particularly in the countries with the highest emissions);
- The Effort Sharing Regulation, whose purpose is to set targets for Member States for the period 2021–2030 for non-CO₂ emissions in a variety of sectors including agriculture, fails to set specific targets for agricultural methane emissions and contains potential loopholes that may limit GHG reductions in agriculture;
- There is still room for improvement with policies under revision, most notably the Industrial Emissions Directive (IED), which is currently going through a co-decision process;
- The upcoming Sustainable Food System (SFS) Law (2023) could also provide important leverage, encouraging a shift to healthier diets, which is the single measure with the highest potential for methane reductions.

The European Commission has traditionally been biased towards policies that protect the interests of the agri-food industry rather than the climate and environment. Our research on the influence of the farm lobby on the decisions around IED has shown that, in the two years up to April 2022, the Commissioner for Agriculture and/or his cabinet met with agri-food industry and industrial farming representatives almost three times more than with civil society organisations. This undue influence resulted in the IED proposal being watered down just days before its publication. Such bias must be rectified, particularly as the agricultural sector and food production in general are highly dependent on a stable climate and would therefore benefit from more ambitious climate policies.

This policy briefing clearly shows that the EU must ramp up actions to achieve the necessary methane reductions, especially in the agriculture sector. The European Commission should propose a specific methane reduction target, as suggested by the European Parliament in its report on the Effort Sharing Regulation.⁷ The target should be set for 2030 and align with the general cimate ambition of the EU and with the Global Methane Pledge.

Table 1: Potential contribution of different measures and policies towards EU livestock and overall methane emissions reductions

Individual measure	Relevant EU policy	Reduction potential by 2030 (% of EU livestock methane) (Source: 2022 CE Delft study)	Reduction potential by 2030 (% of overall EU methane emissions) (Source: 2022 CE Delft study)
Setting a (livestock) methane reduction target	Effort Sharing Regulation (ESR)	N/A	Dependent on the level of the target
Healthier consumer diets	SFS Law	29–37%	15–19%
Animal feed changes and additives	Feed additives framework; CAP; IED	1–12%	0.5–6%
Selective breeding	CAP	3–8%**	
Animal-health management	CAP	0–3%	
Anaerobic digestion of manure	CAP; IED; REPower EU	2–3%	1–1.5%
Other manure management	CAP; IED	2–4%	1–2%
Total (agriculture)	N/A	38–67%	21–36%*

*Calculations conducted for the waste and energy sectors found potential for reductions of 23–26% and 4–6% respectively.

** It was unclear whether this measure would lead to emissions reductions by 2030.

1. INTRODUCTION – THE METHANE EMERGENCY AND THE EU

It is becoming increasingly clear that climate policies should prioritise tackling methane – the second most important GHG after carbon dioxide (CO₂) – in addition to cuts in carbon dioxide emissions. Because methane is a very potent but short-lived gas, a swift reduction in methane emissions is a key opportunity to slow the rate of warming.^{8,9} A recent study found that cutting short-lived but potent pollutants, such as methane, could cut the rate of global heating by half between 2030 and 2050, significantly improving the chances of keeping temperature rises below the 1.5°C goal.¹⁰

EU decision-makers are well aware of the opportunity presented by methane and have placed the reduction of methane emissions high on the environmental policy agenda. The Impact Assessment of the EU’s 2030 Climate Target Plan concluded that stepping up the level of ambition for reductions in GHG emissions to at least 55% by 2030, which is the current EU reduction target, would require an accelerated effort to tackle methane emissions.¹¹

BOX 1: EU AT THE FOREFRONT OF GLOBAL EFFORTS TO REDUCE METHANE

The EU, alongside the United States, spearheaded the launch of the Global Methane Pledge at the 2021 UN Climate Conference (COP26). This aims to ‘reduc[e] global methane emissions by at least 30% from 2020 levels by 2030’.¹² Currently, 122 countries have committed to the Pledge. In her speech, the President of the European Commission, Ursula Von der Leyen, described methane reduction as ‘the lowest hanging fruit of climate policies’.

In the EU, methane emissions from domestic anthropogenic sources amount to 15.2 megatonnes (Mt) per year. The majority (around 95%) of methane emissions come from three sectors: 13% from the **energy sector**, 27% from the **waste sector** and a disproportionate 53% from the **agricultural sector**

(largely from meat and dairy production, with cattle contributing the majority these emissions) – or 8Mt of methane from agriculture in 2019. While this may sound abstract, converting this amount of methane into CO₂ equivalent over 100 years translates into the total emissions of 50 coal-fired power plants.^A Yet, if we calculate methane over a 20-year time frame, when it is assumed to be around 80 times more powerful than CO₂, the emissions become equivalent to more than 160 coal-fired power plants.¹³

As a result, the EU adopted a methane strategy in 2020¹⁴ that sets out plans to cut emissions across all three key sectors (energy, agriculture and waste) and address gaps in methane reduction policies so as to meet the EU’s climate commitments. This strategy was desperately needed because, under a business-as-usual scenario, the EU’s methane emissions would fall by just 13.4% by 2030.¹⁵ The European Parliament called on the European Commission to propose a fair, comprehensive and clear legislative framework, setting binding measures and methane reduction targets across all sectors.¹⁶

The 2020 EU Methane Strategy sets out both legislative and non-legislative actions in all three sectors. Regarding policy change in the agricultural sector, the highest-emitting sector for methane in the EU, the strategy highlights the importance of the following legislative actions:

- Review of the ESR to increase reduction targets, providing for greater incentives to reduce methane emissions;
- Encouragement of Member States to include methane reduction schemes in their strategic plans for the next CAP funding period (2023–2027) by rewarding farming practices that contribute to the objective of climate neutrality;
- Assessment of whether the role of the IED in preventing and controlling methane emissions could be enhanced by: 1) expanding its scope to cover sectors that it does not yet include; 2) focusing more on methane during reviews of Best Available Techniques (BATs) Reference Documents (BREF);
- Shifts in production and consumption habits facilitated by the EU’s Farm to Fork (F2F) Strategy.

This briefing summarises the main findings of a policy review undertaken by the IEEP of recent changes to the policy framework outlined above, as well as other relevant EU policies, such as the Land Use, Land Change and Forestry (LULUCF) Regulation, in facilitating the necessary changes to livestock production practices and emissions in order to reduce CH₄ emissions in line with the EU’s climate commitments.

A This was calculated through the United States Environmental Protection Agency’s (EPA) website, which uses a 100-year conversion factor of the Global Warming Potential (GWP) 25 – from the Intergovernmental Panel on Climate Change’s (IPCC) Fourth Assessment Report. This is less than the current IPCC understanding of methane (GWP 27–30), and is considered to be a very conservative estimate. Furthermore, it makes more sense to calculate methane emissions on a 20-year basis, as this is the crucial time frame for climate action. For more information, see: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

2. EXISTING POLICIES IN THE EU ARE FAILING TO REALISE THE FULL POTENTIAL OF LIVESTOCK METHANE REDUCTION

2.1. Lack of targets for methane reduction in agriculture

The review points out that the ESR, which sets targets for non-CO₂ GHG emissions from sectors not included in the EU Emission Trading Scheme (ETS) – including transport, building, industry small enough to fall outside the ETS, waste and agriculture – for each Member State, was unable to incentivise methane reduction in the agricultural sector due to a lack of specific targets.

Although the Regulation sets legally binding targets on the basis of Member States’ relative economic wealth for the period 2021–2030, it fails to make these targets specific to methane or to the agricultural sector, meaning that, in practice, Member States could make these reductions in sectors other than agriculture. According to the European Environment Agency (EEA), emissions covered under the ESR declined by ~11% between 2005 and 2018. However, emissions from agriculture (which is the third largest source of emissions in ESR sectors) reduced by only 1%, despite contributing over 17% of GHG emissions in ESR sectors.¹⁷ Furthermore, it is clear that governments are not planning significant emissions reductions in the agricultural sector by 2030, instead focusing their efforts on other ESR sectors.¹⁸

Although the 2022 revision of the ESR for the period 2026–2030, which aims to align the overall target to the ‘Fit for 55%’ target, would have been an opportunity to address this shortcoming, individual targets per sector and per GHG remain absent from the European Commission proposal. In its report

on the proposal, the European Parliament took a step in this direction, calling for the Commission to establish, by July 2023, Union-wide targets for the reduction of non-CO₂ emissions by 2030.¹⁹

2.2. Loopholes offered to Member States to avoid methane reductions in their livestock sectors

There are also serious concerns that relevant regulations leave room for significant loopholes for Member States to avoid methane reductions in their livestock sectors. Under the ESR, Member States are allowed certain flexibility mechanisms, such as banking, borrowing and using credits generated under the ETS and LULUCF Regulation, in meeting their annual emissions allocations. These flexibilities were designed with the aim of allowing targets to be met more cost-effectively. However, these flexibilities allow more GHG emissions to be emitted in the ESR sectors and have led to accusations of loopholes that can be exploited by Member States in meeting the mandated targets under this Regulation.

This will possibly grow worse from 2031 as the revised version of the LULUCF Regulation proposed by the European Commission intends to merge the LULUCF sector and non-CO₂ emissions from agriculture within the Regulation's accounting system by 2031, creating the agriculture, forestry and other land use (AFOLU) sector. The plan to merge the accounting of LULUCF sector emissions and non-CO₂ emissions in the agricultural sector has been criticised by environmental NGOs for its potential to allow these emissions to be 'hidden' behind increases in carbon sinks in other sectors (i.e. forestry).

The current inventory shows GHG emissions of 136Mt of CO₂ equivalent (CO₂e) for the LULUCF sector, and removals amounting to -410MtCO₂e for a net sink of -274MtCO₂e. The agricultural sector's emissions amount to 435MtCO₂e. If the 2030 LULUCF net sink target of -310MtCO₂e is achieved, this will leave a deficit of 125MtCO₂e of emissions in the AFOLU sector, which will not be 'removed' by any sink.

2.3. Failure to encourage significant reductions in methane emissions at farm level

One of the European Commission's key strategies to reduce agricultural emissions is to incentivise (or, in the case of the IED, mandate) certain best practices at the farm level. These are often referred to as technical measures, and encompass actions targeting the animals themselves, and their food, housing and manure management. In the EU Methane Strategy, both the IED and the CAP are highlighted as the main legal instruments that would allow such reductions to be achieved. We investigated what the current state of these policies is likely to mean for potential methane reductions by 2030.

2.3.1. The Common Agricultural Policy

The latest CAP, the cornerstone of the EU's agricultural policy framework, was renegotiated with supposedly improved mechanisms to incentivise the adoption of greener practices after it was found that, for most Member States, livestock emissions did not change during the 2014–2020 funding period. The exceptions were Greece, Croatia and Lithuania, where decreases were associated with lack of competitiveness, rather than the results of targeted mitigation policies under the CAP. Ireland, Hungary and Poland, on the other hand, experienced substantial increases in livestock emissions.

The CAP 2023–2027 funding period incorporates a new set of objectives, including 'contributing to climate change mitigation and adaptation' and 'a new "Green Architecture"' with higher environmental

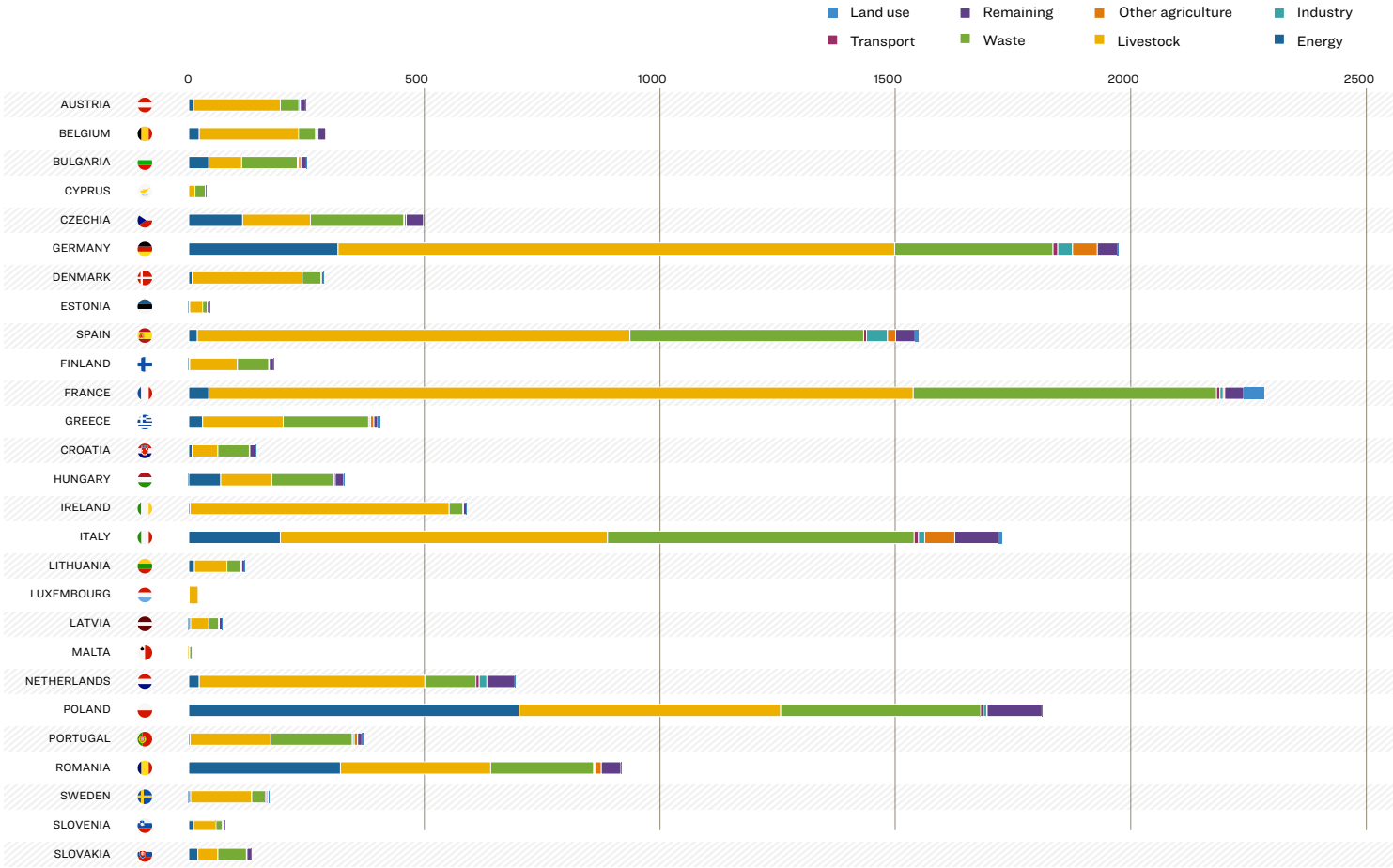


Figure 1: Methane emissions in the EU in 2019, by country

requirements in Cross Compliance ('enhanced conditionality') and voluntary 'eco-schemes'^B replacing the obligatory but ineffective 'Greening' measures in the first pillar of the previous funding period. For the new funding period, ring-fencing rules on spending have been introduced: 40% of the CAP budget should be climate-relevant, with at least 25% of the budget in the first pillar to be allocated to eco-schemes, and at least 35% of funds in the second pillar to be allocated to measures supporting climate, biodiversity, environment and animal welfare.

Member States were obliged to send the European Commission their CAP Strategic Plans (CSPs) to demonstrate how they will deliver tangible results in relation to EU-level objectives, and how their targeted interventions will contribute to the ambitions of the European Green Deal. Updated CAP legislation established a set of common indicators (impact indicators, result indicators and output indicators) as part of a new performance, monitoring and evaluation framework. One indicator that is particularly relevant to climate-change-related measures is R.13: 'share of livestock units under support to reduce emissions of greenhouse gases and/or ammonia, including manure management'.

Initial analyses of the CSPs indicate that most Member States meet the climate-related budgetary requirements (25% in pillar one, and 35% in pillar two). However, the Commission has observed in a summary overview of the initial submissions that, with a few exceptions, overall the proposed plans ignore the importance of actions to reduce methane emissions from livestock.²⁰ This is reflected in the fact that only 8^C out of 28 CSPs set the relevant target (R.13), ranging from 1% (Luxembourg) to 27%

B These schemes for the climate, environment and animal welfare are fully funded by the EU and are paid on a yearly basis to farmers who voluntarily enrol. The aims of the eco-schemes are to reward farmers who manage land in a nature- and climate-friendly way, and to incentivise the adoption of on-farm practices with higher environmental benefits. The CAP regulation requires each eco-scheme to cover at least two areas of action for the climate (mitigation and adaptation), the environment (protection or improvement of water quality, reduction of pressures on water resources, prevention of soil degradation, soil restoration, improvement of soil fertility and nutrition management, protection of biodiversity, conservation, restoration of habitats or species, reduced or sustainable use of pesticides), animal welfare and anti-microbial resistance.

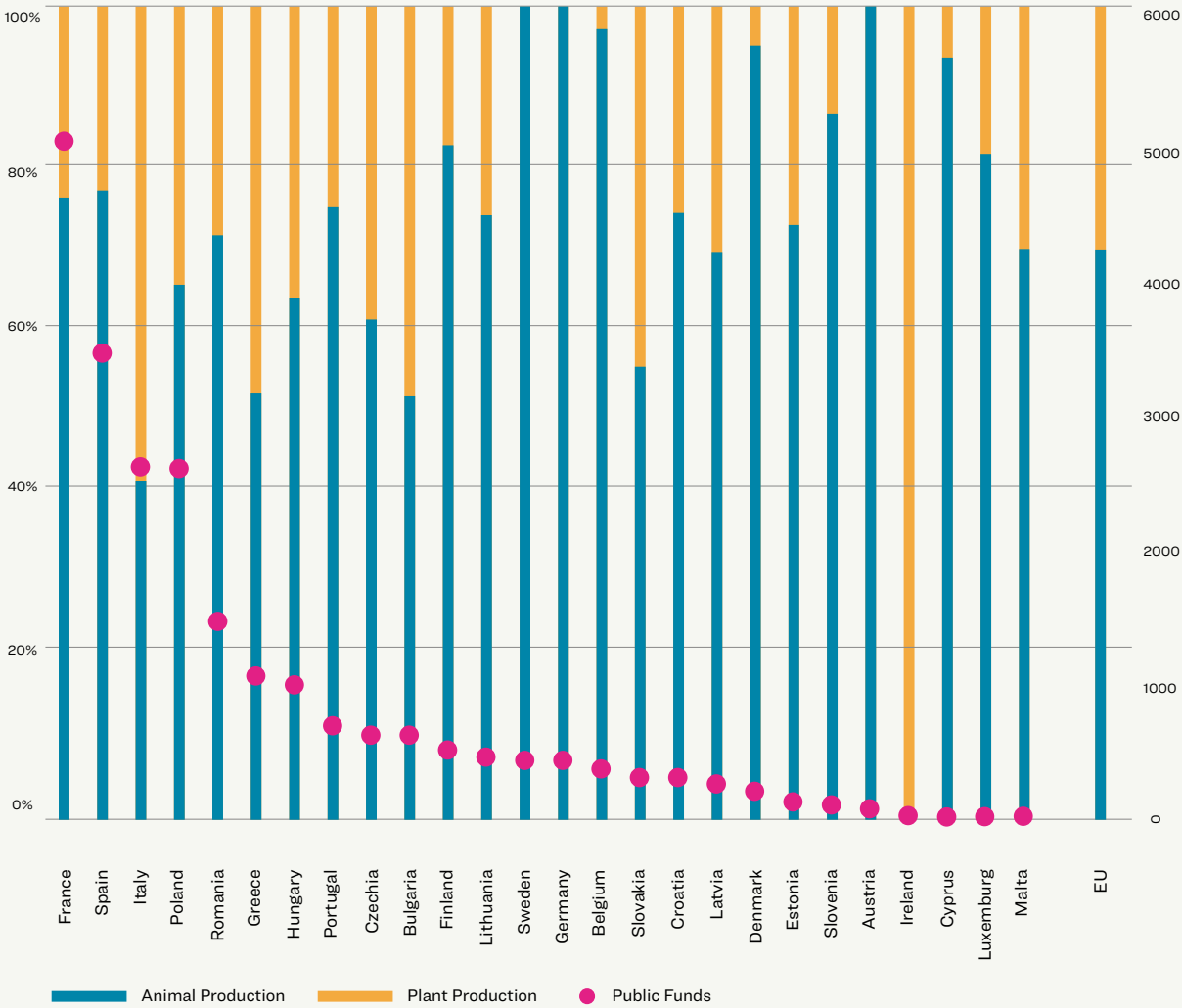
C Luxembourg, Austria, Latvia, Slovakia, Finland, Belgium (Flanders only), Spain and Portugal.








(Austria), in relation to livestock units (LSUs) under commitments for ammonia or GHG reductions. Crucially, four out of the five largest livestock methane-emitting countries (France, Germany, Spain, Italy and Poland) have failed to address target R.13 at all (see Table 2).

In addition to the lack of measures targeting methane emissions from livestock, most CSPs have proposed a large share of coupled income support^D for animal production (see Figure 2). Around 70% of coupled payments are planned for animal production, and 30% for crop production, with some Member States (Germany, Austria and Sweden) using coupled payments exclusively for animal production. Most of the funds are earmarked for cattle farming, followed by dairy farming, and some more extensive variants. Support for the livestock industry is justified by the financial difficulties faced by livestock farmers, often due to rising production costs combined with stagnant farm incomes (excluding dairy), as well as the fact that livestock farms are an essential part of the economy in many regions, including marginal rural areas. A potential problem stemming from this income support is that it may provide incentives to increase livestock production.

Figure 2: Planned public funding for coupled income support by designation
Source: Thunen Institut (2022)



^D Since the 1990s, the link between CAP income support payments and the production of agricultural goods has been progressively uncoupled to avoid overproduction of certain goods and to tie agricultural production to market demand. However, specific agricultural sectors may face income difficulties and therefore voluntary coupled income support funds are available under the CAP to limit abandonment of production.

Country	Livestock methane emissions in 2019 - 21 (kilotonnes – kt)	Indicator R.13	Share of LSUs under supported commitments to reduce GHG emissions	Notes from the European Commission's observation letters on the CSPs
 Austria	184	Yes	27%	<p>In its observation letter, the Commission notes:</p> <ul style="list-style-type: none"> — Eco-scheme 31-04 relating to better pasture management; — European agricultural fund for rural development (EAFRD) measure 31-04, relating to animal welfare and pasture (increased space and move to bedding combined with solid manure composting, which will contribute to climate mitigation).* — *The Commission observed that the CSP's contribution to reducing livestock emissions seems insufficient, and recommends that it include practices such as emission-reducing feed mixes, low emission techniques for manure storage and application, and the use of precision farming. The Commission also recommends that Austria include density limits to encourage extensive grazing.
 Denmark	233.5	No	N/A	<p>In its observation letter, the Commission notes:</p> <ul style="list-style-type: none"> — The CSP does not sufficiently address the emissions resulting from livestock production; — While Denmark does have a target for reductions in agricultural GHG emissions (55–65% by 2030), it should clarify and explain how this target will be reached and what contribution the plan is expected to make to its achievement, based on the proposed intervention strategy.
 France	1495.7	No	N/A	<p>In its observation letter, the Commission notes:</p> <ul style="list-style-type: none"> — The plan does not focus on the problem of livestock GHG emissions, nor does it mention the need to shift consumption patterns even though France's national mitigation strategy mentions this (-25% in dairy and -33% in mixed or meat farms); — The CSP does include limits on livestock density for coupled income support but does not explain how such support will not generate negative climate impacts (when most coupled support is for livestock); — There are no specific measures to reduce emissions from enteric fermentation and manure.
 Germany	1181.7	No	N/A	<p>In its observation letter, the Commission notes:</p> <ul style="list-style-type: none"> — The plan fails to identify the main sources of relevant GHGs, including enteric fermentation; — It is unclear how the proposed measures will contribute to reductions in livestock emissions; — Although the target for reductions in agricultural GHGs has been updated, Germany is unlikely to achieve this by 2030; — Two sectoral interventions, in the form of coupled income support for livestock, do not include any upper limits on stocking densities.
 Ireland	548.9	No	N/A	<p>In its observation letter, the Commission notes:</p> <ul style="list-style-type: none"> — It is doubtful whether the proposed measures are sufficient, considering that the Irish dairy herd has been growing in recent years; — While the proposed Suckler Carbon Efficiency Programme is welcome, Ireland needs to ensure that support provided under this programme will lead to the necessary reductions in emissions.
 Italy	694.9	No	N/A	<p>In its observation letter, the Commission notes:</p> <ul style="list-style-type: none"> — The plan only assigns a 'qualifying' level of importance to reducing GHGs from livestock, while there is no indication as to how interventions as part of the CSP will contribute to the expected reduction in these emissions; — While €70 million of investment in manure management is planned, it is mainly aimed at reducing ammonia emissions; — There are no livestock density limits for coupled income support, in particular for interventions intended for intensive animal production.

Country	Livestock methane emissions in 2019 - 21 (kilotonnes – kt)	Indicator R.13	Share of LSUs under supported commitments to reduce GHG emissions	Notes from the European Commission's observation letters on the CSPs
 Luxembourg	18.5	Yes	0.9%	<p>In its observation letter, the Commission notes:</p> <ul style="list-style-type: none"> — The Support to Reduce the Load of Cattle (2.02.550) intervention encourages a reduction in livestock density and directly supports a reduction in livestock numbers on some farms.
 Netherlands	478.5	No	N/A	<p>In its observation letter, the Commission notes:</p> <ul style="list-style-type: none"> — There are no interventions targeting the reduction of livestock emissions; — Although the plan refers to national instruments to reduce emissions from pig livestock, it does not provide a clear description of how these will lead to a reduction in CH₄ emissions; — The CSP's eco-scheme does not include any practice for reducing livestock density, and it is unclear how any progress from the previous funding period is to be achieved.
 Poland	555.4	No	N/A	<p>In its observation letter, the Commission notes:</p> <ul style="list-style-type: none"> — Although a reduction in GHG emissions is being given the highest priority in the needs assessment, the plan fails to acknowledge (and address) emissions from the livestock sector; — There is no plan or target for reducing emissions from enteric fermentation; — It is recommended that interventions for manure management and slurry storage, and support for low emission animal housing should be established.
 Portugal	170.8	Yes	10.34%	<p>In its observation letter, the Commission notes:</p> <ul style="list-style-type: none"> — The 'animal feed efficiency' eco-scheme focuses on feeding plans for beef and veal, improving the reproductive management of dairy cattle, and improving the health of animals; — The effect of livestock dietary manipulation techniques (diet formulation and feed additives) on GHGs varies greatly between different techniques. Therefore, techniques need to be carefully selected to achieve the desired reduction; — This eco-scheme could encourage intensification and result in an overall negative effect by incentivising higher livestock numbers without appropriate safeguards to keep emissions down.
 Spain	918.4	Yes	0.12%	<p>In its observation letter, the Commission notes:</p> <ul style="list-style-type: none"> — Although the plan references actions being taken place outside the CSP to address livestock emissions, the plan itself does not address the need to reduce livestock emissions; — The CSP mentions the intention to develop mitigation measures for the livestock sector to reduce pollutants from installations but fails to explain the relationship between this proposed action and the need to reduce livestock emissions; — It is recommended that Spain add investments in manure management or other measures to reduce GHG emissions from enteric fermentation.

Table 2: Focus on the CAP Strategic Plans of the EU's largest livestock methane emitters²² (France, Germany, Spain, Italy, Poland, Ireland, Netherlands, Luxembourg, Austria, Portugal, Denmark)

For the Member States with the highest livestock methane emissions (either total amount or per capita), there is a lack of focus on live-stock emissions reductions. Table 2 shows which measures the 11 Member States included under indicator R.13 ('share of livestock units under support to reduce emissions of greenhouse gases and/or ammonia, including manure management') - if any - and what share of their LSUs are included.

Source: European Commission (2022) Observation letters on CAP Strategic Plans. [ONLINE] Available at: https://agriculture.ec.europa.eu/cap-my-country/cap-strategic-plans_en#:~:text=Observation%20letters%20on%20CAP%20strategic%20plans,-By%20the%20end&-text=The%20letters%20identify%20elements%20of,comment%20on%20their%20observation%20letter

2.3.2. The Industrial Emissions Directive

The IED is the main EU legislation regulating the environmental impacts of industrial production, including those of large agro-industrial sources. The IED aims to lower emissions by regulating the conditions under which an industrial installation can operate. All installations conducting activities listed in IED Annex I must operate in accordance with certain requirements to receive a permit from the competent authority in the relevant Member State. The requirements cover all environmental aspects of an installation's operating activities, including emissions of pollutants to air, water and soil, waste generation, resource use, noise, odour, prevention of accidents and restoration of the site upon closure. Permit conditions must be based on BATs, which are the most environmentally effective of the economically viable techniques available.

Proposed updates to the IED (which is undergoing revision at the time of writing) will expand coverage to additional livestock farming and industrial activities. The updated Directive, for which a proposal was published by the European Commission in April 2022, will include larger-scale cattle farming for the first time, while thresholds for pig and poultry farms will be lowered so that more installations fall under its scope. When all cattle, pig and poultry farms with over 150 LSUs are covered by the new IED, it will apply to ~13% of the EU's largest livestock farms: 10% of cattle farms, 18% of pig farms and 15% of poultry farms.

BOX 2: THE IED (LAST-MINUTE) LOWERED THRESHOLD

Originally, the Commission considered various thresholds in its impact assessment, which estimated the potential of introducing the cattle sector into the IED, as well as lowering the thresholds for pigs and poultry. The Commission considered the impacts of setting thresholds at 50, 100, 150 etc. LSUs. Based on the results of the impact assessment, the Commission intended to apply the IED to installations with 100 LSUs but changed this threshold to 150 LSUs just a few days before publishing its proposed updates. Although the Commissioner for Agriculture, Janusz Wojciechowski, subsequently explained that it was his decision, it is understood that this last-minute change was due to pressure from the farm lobby, as the cost-benefit analysis in the Commission's impact assessment was favourable for lower thresholds on farm size, especially for the cattle sector, which has on average smaller farms, but high potential for methane reductions.²³ During the two years leading up to the publication of the IED on 5 April 2022, Commissioner Wojciechowski and/or his cabinet had nearly three times as many meetings with agri-food industry and industrial farming representatives^E as with NGOs and civil society groups: 81 meetings with the former, 28 with the latter. What's more, Commissioner Wojciechowski alone met with Copa-Cogeca and/or their member groups twice as often as he met with NGOs and civil society groups: 20 meetings with the former, 11 with the latter. Copa-Cogeca have always been very outspoken in their disagreement with the threshold. As early as April 2020, Copa and Cogeca (and member groups like Dutch Copa member Boerenbond) were strongly opposing the revision of IED and its potential extension to cover cattle or smaller farms (i.e. a lower LSU threshold), as responses to the public consultation show. In a letter newly obtained under freedom of information law, dated 4 April 2022, the day before the IED publication, Copa-Cogeca complained about the 'envisaged' LSU thresholds (presumably the 100 LSUs mentioned in the leaked draft of 29 March), and requested that the thresholds be reconsidered due to their 'unbearable' economic and administrative burdens. Even though the Commission weakened its proposal by increasing the LSU threshold from 100 to 150, Copa-Cogeca were still unsatisfied. On 6 April 2022, they issued a press release²⁴ saying that the 150-LSU threshold was 'arbitrary', 'shocking' and 'shows a profound disconnection with farm realities on the ground', and complaining that it would 'severely hit the European model of family farming with additional costs and bottlenecks'.

Lowering the threshold to include farms with 50–100 LSUs would have substantially increased the IED's coverage of livestock farms, especially for cattle (see Table 2). In terms of numbers, it represents a reduction from 163,000 cattle farms (for <100 LSUs) to only 84,000 farms (for <150 LSUs).

	% of farms with >50 LSUs (% animal heads)	% of farms with >100 LSUs (% animal heads)	% of farms with >150 LSUs (% animal heads)
Cattle	39% (80%)	20% (62%)	10% (40%)
Pigs	37% (94%)	24% (89%)	18% (80%)
Poultry	32% (98%)	20% (95%)	15% (87%)

Table 3: IED coverage of farms (%)
Source: European Commission (2022) Commission staff working document impact assessment report. [ONLINE] Available at: https://www.astrid-online.it/static/upload/swd_/swd_2022_111_2_en_impact_assessment.pdf

Farms covered by the proposed updates to the IED are responsible for 43% of the EU's livestock methane emissions. Based on a report conducted by Ricardo, which assessed the potential impacts of modifications to the IED with regard to aspects of intensive agriculture, the proposed expansion of the IED – to include cattle and with a threshold at 150 LSUs – will result in a reduction of 265kt/year in overall methane emissions. According to the Commission's impact assessment of the IED, as cattle farming (as opposed to other livestock) is the largest source of methane, it would provide the largest reductions (184kt/year) if all emission control technologies were implemented. This represents 1.1% of EU agricultural sector emissions. In contrast, a lower threshold would have allowed greater savings – a reduction of 275kt/year in the cattle sector alone. As it stands (with the 150-LSU threshold), and if all measures considered in the model used by the impact assessment are implemented by 2030, the IED could potentially achieve reductions in sectoral methane emissions of only 2–4%.²⁵

While the broadening of the IED's scope to include cattle (the largest methane polluter) is a welcome move, there are serious concerns that the Directive has been watered down as it applies to livestock farming in general.

Rather than having to operate under the existing permit regime, the proposal suggests that livestock farms – even the most intensive operations – will be able to benefit from a 'lighter permit regime'. Under this regime, the basic obligations on operators seeking a permit are significantly weakened, with no obligation to apply BATs (except for manure spreading) or comply with Environmental Quality Standards. The proposal does not suggest any mandatory pollution reduction measures as part of the IED itself. It leaves all requirements and standards to be set in future Operating Rules – rather than current BATs – which will be adopted two years after the Directive comes into force, with compliance only to be achieved three and a half years thereafter. There is far too little to guarantee that the measures will be ambitious enough, and the 2030 timeline poses serious questions for the European Commission's methane reduction ambitions under the IED, and its ability to meet its overall commitments under the Global Methane Pledge.

E Including agri-business, agri-chemical and agri-food lobby groups as well as Copa-Cogeca and its member groups.

In addition, the proposed changes to the IED will not bring GHG emission limits into the scope of the Directive. Environmental organisations had advocated in favour of setting GHG emission limit values (ELVs) through binding BATs. Instead, the proposed changes only ask operators to chart a path to climate-neutral operations by 2050.

To make matters worse, the lighter permit regime could be circumvented altogether as a new provision could also enable Member States to create a ‘registration system’ for livestock operations (i.e. a derogation of the requirement to have a permit) without any stipulations of what such a registration system should entail, therefore offering a major loophole.

3. CONCLUDING REMARKS AND THE WAY FORWARD

It is clear that the policy avenues highlighted in the EU Methane Strategy to reduce methane from the livestock sector fall short of the commitments made under the Global Methane Pledge. The analysis demonstrates that:

- The EU is failing to set specific livestock methane targets that would incentivise Member States to tackle emissions in the sector. Current regulations are also offering loopholes to avoid reductions and potentially hide emissions caused by the agricultural sector;
- Member States, and particularly the high-emitting ones, are failing to channel agricultural subsidies available through the CAP to fund concrete measures to reduce methane emissions from the livestock sector;
- The IED would, in the best-case scenario, achieve a reduction in livestock methane emissions of a mere 2–4%, but it is unlikely that its rules will be enforced before 2030, if at all, given how significantly the European Commission’s proposal was watered down.

This represents a missed opportunity, especially as Changing Markets’ original High Steaks report showed that there is significant potential for methane reductions in the livestock sector: implementing all available measures could reduce the EU’s methane emissions by as much as 36% by 2030.²⁶

As such, improvements can still be made. The rest of this section outlines avenues for the EU to achieve or exceed its commitments under the Global Methane Pledge.

3.1. Improvements of regulations undergoing revision

3.1.1. Technical measures

While some of the policies discussed in this briefing are being finalised at the time of writing (ESR and LULUCF are in trilogues, while the 2023–2027 CSPs will be approved by the Commission by the end of 2022), the European Commission has published a proposal for a revised IED which is still

being reviewed by co-legislators at the time of writing. We are calling on MEPs and Member States to strengthen the Commission proposal in the following ways:

- Reject the provision of a new and vague ‘registration system’ that offers a major loophole to Member States;
- Include a higher percentage of farms by revising the threshold back to 100 LSUs rather than 150 – increasing reductions in methane emissions associated with the cattle sector from 184kt/year to 275kt/year;
- Ensure that permits are granted based on compliance with existing environmental standards, and strengthen minimum permit conditions;
- Ensure that basic obligations (i.e. operating requirements attached to permits) apply to all operators, including those in the livestock sector;
- Clarify the content of the future Operating Rules in the Directive by setting out a list of minimum technical measures and obligations, to bring certainty.

An ambitious IED with clear and enforceable Operating Rules could have a bigger impact. The environmental consultancy CE Delft investigated the methane reduction potential of various technical measures in livestock agriculture, all of which have been identified in the scientific literature. These measures, most of which were also covered in the Commission’s impact assessment of the IED, have been divided into two categories: measures related to feed and animal-health management, and measures related to manure.

The first category could yield reductions of 6–37% in methane emissions from livestock agriculture.^F This wide range of estimates is largely a reflection of the level of uncertainty about the effectiveness of the measures in question.²⁷

Measures related to manure management (including anaerobic digestion – the process by which manure to be converted into biogas) could lead to reductions of 8–14%.^G

3.1.2. Measures to drive healthier and more sustainable diets

Other policies relevant to methane and other GHG reductions in the farming sector have been promoted under the F2F Strategy, designed to mainstream sustainability in the EU food sector. Because the strategy is still in the development, there is no impact assessment to tell us what level of reductions such measures could achieve. The F2F Strategy does not directly address livestock emissions, despite recognition in communications of the substantial contribution of livestock to overall GHG emissions in Europe. There are no targets for reducing the overall number of animals, only indirect measures that will impact this through a potential shift to more sustainable consumer diets.

F Potential reductions decrease to 4–23% if interactions with other measures (especially the reduction of livestock numbers due to healthier consumer diets) are taken into account. Despite this decrease, the methane reductions from the overall package would actually be higher because the biggest reduction potential comes from reducing the number of animals.

G Potential reductions decrease to 4–7% if interactions with other measures (especially the reduction of livestock numbers due to healthier consumer diets) are taken in account.

A key piece of the F2F Strategy, due to be published in 2023, is the European Commission’s proposal for an SFS Law. If ambitious enough, this overarching framework could transform our food systems, and also contribute to a significant reduction in agricultural GHGs, including methane. Crucially, the SFS Law should set some clear, time-bound and legally binding targets, including a target to cut non-CO₂ emissions (such as methane) from agriculture by 45% in 2030 and 60% in 2050. To achieve these targets, cutting emissions from agriculture and reducing the consumption of animal protein should be set as clear pathways in a central plank of the proposal. To do this, the proposal should take a ‘food environment’ approach, rather than relying on ‘consumer responsibility’, and give clear guidance on how Member States could implement their national dietary guidelines.

The importance of this approach cannot be overstated. The CE Delft study found that the most promising path to reducing methane emissions from livestock involves policies that drive a switch to healthier consumer diets. This does not mean a vegetarian or vegan diet, but rather a diet with reduced meat and dairy consumption.^H If EU consumers on average halved their consumption of pork and beef, and reduced their milk consumption by 25%, it could lead to a 29–37% reduction in the agricultural sector’s methane emissions – a reduction of 15–19% of the EU’s total methane emissions (assuming no variation in EU meat and dairy imports and exports).²⁸

3.2. An emission trading scheme for agriculture?

There are potential benefits in introducing a new policy framework that would involve pricing agricultural sector GHG emissions. Addressing the lack of progress in reducing GHG emissions under the current policy framework, the Court of Auditors, in its report assessing the inconsistent application of the polluter pays principle across EU environmental policies, recommended the Commission should assess the potential to apply the polluter-pays principle to emissions from agricultural activities, as well as reward farmers for long-term carbon removals.²⁹

One potential option for a carbon pricing scheme in agriculture would be an ETS that would apply to the agricultural sector. The first country that is moving ahead with a similar system for agriculture is New Zealand, although the proposal has been criticised by NGOs as unlike a ‘traditional’ ETS which only rewards actors for avoiding emissions; the scheme’s additional very large payouts to farmers will not necessarily lead to proportionally large reductions in methane emissions.³⁰

Potential options should consider: the scope of GHGs to be included (CH₄, N₂O, CO₂); how emissions are priced and whether there should be a split-gas approach (pricing short-lived methane emissions differently from N₂O and CO₂); which sectoral levels will be covered under the ETS (croplands, livestock producers, mixed farms); where the point of obligation will be (farmers/land owners, fertiliser producers, agri-food processors); the use of rebates in the system; how revenue from the system will be used; and whether the system will include rewards for on-farm sequestration which could offset some of the cost of an emissions levy.

However it is designed, the objective of an agricultural sector GHG pricing system should be to motivate and reward actions that reduce emissions. Change among livestock producers can be influenced by a number of factors including awareness of the issue, knowledge, motivation, confidence and support. An emissions pricing system can be one part of a broader funding framework to support the process of change outside the CAP. An agricultural ETS or a similar emissions pricing or taxation system can raise funds for emissions sequestration and support farmers to reduce emissions.

H The required reduction is based on an average calculated using EU Member States’ national dietary health guidelines and EU consumers’ current intake of meat and dairy products (in calories).

CONCLUSION

This briefing shows that it is crucial to implement new policies, which include an EU-wide agricultural methane target. Under current policies, methane emissions in the EU caused by animal farming will only be reduced by 3.7%, although more ambitious policies – if implemented now – could deliver reductions of as much as 36%. The lack of focus on methane from agriculture will cost the EU its commitment under the Global Methane Pledge.

The European Commission needs to maintain its commitments to the European Green Deal and its international partners, which requires more coherent and ambitious policies aimed at reducing live-stock methane. In addition to increasing the ambition of policies undergoing revisions (such as the IED), the EU should propose an overall methane reduction target, rather than the current marginal and scattered measures.

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