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## TEXTS ADOPTED

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### **P9\_TA(2021)0436**

#### **An EU strategy to reduce methane emissions**

##### **European Parliament resolution of 21 October 2021 on an EU strategy to reduce methane emissions (2021/2006(INI))**

*The European Parliament,*

- having regard to Article 192 of the Treaty on the Functioning of the European Union (TFEU),
- having regard to the agreement adopted at the 21st Conference of the Parties (COP21) to the UN Framework Convention on Climate Change (UNFCCC) in Paris on 12 December 2015 (the Paris Agreement),
- having regard to Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action<sup>1</sup>,
- having regard to Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (‘European Climate Law’)<sup>2</sup>,
- having regard to the Commission communication of 20 May 2020 on an EU Biodiversity Strategy for 2030: bringing nature back into our lives (COM(2020)0380),
- having regard to the Commission communication of 20 May 2020 on a Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system (COM(2020)0381),
- having regard to the Commission communication of 14 October 2020 on an EU strategy to reduce methane emissions (COM(2020)0663),
- having regard to its resolution of 28 November 2019 on the climate and environment emergency<sup>3</sup>,

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<sup>1</sup> OJ L 328, 21.12.2018, p. 1.

<sup>2</sup> OJ L 243, 9.7.2021, p. 1.

<sup>3</sup> OJ C 232, 16.6.2021, p. 28.

- having regard to its resolution of 15 January 2020 on the European Green Deal<sup>1</sup>,
  - having regard to its resolution of 10 February 2021 on the New Circular Economy Action Plan<sup>2</sup>,
  - having regard to its resolution of 25 March 2021 on the implementation of the Ambient Air Quality Directives: Directive 2004/107/EC and Directive 2008/50/EC<sup>3</sup>,
  - having regard to the International Energy Agency report of October 2018 entitled ‘The Future of Petrochemicals: Towards more sustainable plastics and fertilisers’,
  - having regard to the UN Environment Programme’s Emissions Gap Report of 26 November 2019 and its first synthesis report on fossil fuel production of 20 November 2019,
  - having regard to the UN Environment Programme report of 6 May 2021 entitled ‘Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions’,
  - having regard to the International Energy Agency report of 18 May 2021 entitled ‘Net Zero by 2050: A Roadmap for the Global Energy Sector’,
  - having regard to the European Environment Agency report of 23 November 2020 entitled ‘Air quality in Europe – 2020 report’,
  - having regard to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) 2019 Global Assessment Report on Biodiversity and Ecosystem Services and 2020 Workshop Report on Biodiversity and Pandemics,
  - having regard to the scientific opinion of March 2020 by the Group of Chief Scientific Advisors to the Commission entitled ‘Towards a Sustainable Food System: Moving from food as a commodity to food as more of a common good’,
  - having regard to Rule 54 of its Rules of Procedure,
  - having regard to the opinions of the Committee on Industry, Research and Energy and the Committee on Agriculture and Rural Development,
  - having regard to the report of the Committee on the Environment, Public Health and Food Safety (A9-0277/2021),
- A. whereas methane is a powerful greenhouse gas, over 80 times more potent than carbon dioxide (CO<sub>2</sub>) over a 20-year period, making it the second most important greenhouse gas, as well as a precursor pollutant to ground-level ozone (O<sub>3</sub>) contributing to about a quarter of the global warming experienced today<sup>4</sup>; whereas methane accounts for 10 %

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<sup>1</sup> OJ C 270, 7.7.2021, p. 2.

<sup>2</sup> Texts adopted, P9\_TA(2021)0040.

<sup>3</sup> Texts adopted, P9\_TA(2021)0107.

<sup>4</sup> Myhre, G., D. Shindell, F.-M. Bréon, W. Collins, J. Fuglestvedt, J. Huang, D. Koch, J.-F. Lamarque, D. Lee, B. Mendoza, T. Nakajima, A. Robock, G. Stephens, T. Takemura and H. Zhang, ‘Anthropogenic and Natural Radiative Forcing’, *Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report*

of total greenhouse gas emissions in the EU; whereas pathways modelled by the 1,5°C Special Report of the Intergovernmental Panel on Climate Change (IPCC), the IPCC Sixth Assessment Report and the 2021 Global Methane Assessment of the UN Environment Programme (UNEP) that limit global warming to 1,5°C with no or limited overshoot involve deep reductions in methane emissions; whereas according to the UNEP, reducing human-caused methane emissions by as much as 45 % will avoid nearly 0,3°C of global warming by the 2040s and complement all long-term climate change mitigation efforts;

- B. whereas in its report entitled ‘Net Zero by 2050: A Roadmap for the Global Energy Sector’, the International Energy Agency states that methane emissions from fossil fuels should be reduced by 75 % between 2020 to 2030 in the net-zero emissions scenario;
- C. whereas a large number of the most cost-effective methane emissions savings can be achieved in the energy sector; whereas according to the UNEP’s Global Methane Assessment, methane emissions can be reduced by 45 % by the end of this decade and rapid and significant reductions in methane emissions are possible using existing technologies and at a very low cost; whereas the International Energy Agency’s Methane Tracker estimates that around 40 % of energy-related methane emissions can be abated at no-net cost, mainly by fixing methane leaks and eliminating vents in the fossil fuel sector;
- D. whereas its Directorate-General for Parliamentary Research Services has noted the fact that methane emissions come from a wide range of sectors, namely agriculture, waste and energy, and that, once in the atmosphere, methane blends well with other gases, making it difficult to measure and report it; whereas uncertainty about methane emissions data is typically much greater compared to CO<sub>2</sub> emissions when excluding forest and other land-use-related emissions; whereas recent studies have estimated that global anthropogenic fossil methane emissions are underestimated by about 25 to 40 %<sup>1</sup>;
- E. whereas there is no policy in the EU to specifically set measures to reduce methane emissions in a cross-sectoral way;
- F. whereas methane is a precursor gas for harmful ground-level ozone (O<sub>3</sub>) and contributes to air pollution; whereas air pollution is the single biggest environmental health risk in Europe<sup>2</sup>, with ground-level ozone contributing to nearly 20 000 premature deaths every year<sup>3</sup>; whereas tackling methane emissions is therefore not only an environmental and climate priority but also necessary to protect the health of EU citizens;

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*of the Intergovernmental Panel on Climate Change*, Chapter 8, Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 2013, p. 714.

<sup>1</sup> Hmiel, B., Petrenko, V.V., Dyonisius, M.N. *et al.*, ‘Preindustrial <sup>14</sup>CH<sub>4</sub> indicates greater anthropogenic fossil CH<sub>4</sub> emissions’, *Nature*, Vol. 578, 2020, pp. 409-412, among others.

<sup>2</sup> World Health Organization, *Ambient air pollution: a global assessment of exposure and burden of disease*, 2016.

<sup>3</sup> European Environment Agency, *Air quality in Europe – 2020 report*, p. 7.

- G. whereas increases in methane emissions have an impact on biodiversity and even food security; whereas reducing methane emissions can bring multiple benefits in addition to its cooling effects, including higher crop yields and food security;
- H. whereas EU legislation that helps to provide information on methane emissions already exists, including Regulation (EC) No 166/2006 on the European Pollutant Release and Transfer Register<sup>1</sup> and Directive 2010/75/EU on industrial emissions<sup>2</sup> (Industrial Emissions Directive (IED)), but there is currently no policy in the EU that is aimed specifically at reducing methane emissions;
- I. whereas the European Climate Law commits the EU to reaching climate neutrality by 2050 at the latest with increased emissions reductions of at least 55 % by 2030 in line with the Paris Agreement; whereas addressing energy-related methane emissions is a key component of the European Green Deal as the sector where the more cost-effective methane emissions savings can be achieved; whereas measures in the agricultural and waste sectors are also necessary for achieving the EU's climate targets; whereas the EU strategy to reduce methane emissions notes that the EU should also play a leading role in ensuring methane emissions reductions at a global level, as the largest global importer of fossil fuels and a significant player in the agriculture sector; whereas the EU should develop effective methods for monitoring, reporting and reducing these emissions within the appropriate international forums, while making use of import regulations; whereas according to the European Environment Agency and based on data reported from the Member States to the UNFCCC, in the EU 53 % of anthropogenic methane emissions come from agriculture, 26 % from waste and 19 % from energy;
- J. whereas over 80 % of the fossil gas, 90 % of the oil and 40 % of the coal consumed in Europe is imported and whereas most methane emissions resulting from EU consumption of fossil fuels occur outside the EU, making the EU the world's largest importer of fossil gas and an important driver of global methane emissions; whereas methane leakage during the production and transport of fossil gas is a significant contributor to methane emissions in the energy sector; whereas improving leakage detection and repair and strict rules on routine venting and flaring are essential measures to reduce methane emissions from the energy sector;
- K. whereas fugitive emissions from leaking equipment, infrastructure or closed and abandoned sites, as well as emissions from venting and the incomplete combustion of methane, represent the majority of methane emissions in the energy sector;
- L. whereas the reduction of methane emissions is indispensable in the fight against climate change and must be pursued at global and European levels, as indicated in the impact

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<sup>1</sup> Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC (OJ L 33, 4.2.2006, p. 1).

<sup>2</sup> Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (OJ L 334, 17.12.2010, p. 17).

assessment for the 2030 climate target plan<sup>1</sup>, which states that the greenhouse gas emissions reduction target of at least 55 % by 2030 requires methane emissions to be tackled in line with the goals of the Paris Agreement; whereas methane emissions contribute to air pollution and it is therefore necessary to tackle these emissions in order to protect the health of EU citizens and avoid negative effects on crops and the stability of ecosystems; whereas excessive administrative burdens when regulating methane both as a greenhouse gas and an air pollutant must be avoided;

- M. whereas landfills of municipal solid waste have been identified as significant sources of methane and whereas in some Member States EU landfill regulations are not applied to a satisfactory degree, especially as regards controlling the accumulation and migration of landfill gases;
- N. whereas according to the UNEP's Global Methane Assessment, 'reducing human-caused methane emissions is one of the most cost-effective strategies to rapidly reduce the rate of warming and contribute significantly to global efforts to limit temperature rise to 1,5°C'; whereas cutting methane emissions can have a major and quicker impact on slowing the rate of global warming than reducing CO<sub>2</sub> emissions, since methane is a short-lived climate forcer with an atmospheric lifetime of about 12 years before being ultimately degraded to inter alia CO<sub>2</sub>; whereas cutting methane emissions can produce the quickest cooling effect; whereas these measures must be complementary to the efforts that we must continue to make to reduce CO<sub>2</sub> emissions across all the sectors affected in order to achieve a climate-neutral economy by 2050;
- O. whereas many of the measures that can be taken at farm level to slash methane are also effective in reducing ammonia, and thus constitute a double win for air quality;
- P. whereas similarly to CO<sub>2</sub>, there is no difference between the molecules of biogenic and fossil methane;
- Q. whereas more than half of global methane emissions stem from human activities in three sectors: fossil fuels (35 %), waste (20 %) and agriculture (40 %); whereas in the fossil fuel sector, oil and gas extraction, processing and distribution account for 23 % and coal mining accounts for 12 % of global anthropogenic methane emissions respectively; whereas in the waste sector, landfills and waste water make up about 20 % of global anthropogenic methane emissions; whereas in the agricultural sector, livestock emissions from manure and enteric fermentation represent roughly 32 % and rice cultivation 8 % of global anthropogenic methane emissions respectively<sup>2</sup>;
- R. whereas there are plans to establish an international methane emissions observatory in collaboration with the UNEP, the Climate and Clean Air Coalition and the International Energy Agency;
- S. whereas the intensity of methane emissions in the EU varies widely according to the degree of dependency on fossil fuel sources in the energy mix; whereas gas is only of a

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<sup>1</sup> Commission staff working document of 17 September 2020 accompanying its communication entitled 'Stepping up Europe's 2030 climate ambition: investing in a climate-neutral future for the benefit of our people' (SWD(2020)0176).

<sup>2</sup> UNEP Global Methane Assessment 2021.

transitional nature taking into account the EU's dependency on third countries for its energy supply;

### *Cross-sectoral actions*

1. Welcomes the cross-sectoral approach outlined in the EU strategy to reduce and mitigate methane emissions; calls on the Commission to propose a fair, comprehensive and clear legislative framework, setting binding measures and methane reduction targets covering all sectors, leading to a significant reduction of methane emissions in the EU by 2030, in line with the Paris Agreement and with the modelled pathways that limit global warming to 1,5°C from the IPCC 1,5°C Special Report, the IPCC Sixth Assessment Report and the UNEP Global Methane Assessment, in order to achieve the EU's environmental and climate objectives in synergy with European and international business;
2. Highlights the importance of achieving immediate and rapid reductions in methane emissions this decade as one of the most effective measures for EU climate action, paying attention to economic and social sustainability; notes that methane emissions reductions complement the necessary reductions in CO<sub>2</sub> emissions and that many of the emissions cuts required by the Paris Agreement could already be achieved with low-cost and technically feasible methane mitigation; calls on the Commission and the Member States to suggest and negotiate a binding global agreement on methane mitigation at the COP26 meeting in Glasgow in line with the modelled pathways that limit global warming to 1,5°C from the IPCC 1,5°C Special Report, the IPCC Sixth Assessment Report and the UNEP Global Methane Assessment; notes that the UNEP Global Methane Assessment quantified the global benefits for all market and non-market impacts to be approximately USD 4 300 per tonne of methane reduced and that approximately 1 430 annual premature deaths could be prevented per million tonne reduced; believes that an impact assessment accompanying the upcoming legislative proposal should therefore consider the costs of the proposed actions as well as the costs of inaction or delayed action;
3. Considers it of the utmost importance that all methane-emitting sectors reduce their emissions; acknowledges the need to ensure a just transition for sectors wherein methane emission reductions may have socioeconomic impacts;
4. Underlines the importance of adopting mandatory monitoring, reporting and verification (MRV) for all methane-emitting sectors, including through the adoption of rules, standards and methodologies; underlines the importance, moreover, of adopting mandatory leak detection and repair (LDAR) programmes covering the entire supply chain in the energy and petrochemical sectors; calls on the Commission to seek effective tools to improve the quality of measurement and reporting of these emissions in all sectors concerned; stresses that reporting data on methane emissions should be public or, in the case of sensitive information, available to the competent authorities and independent verifiers; stresses, nevertheless, that a lack of data is no reason not to proceed with action to reduce and mitigate anthropogenic methane emissions;
5. Underscores the need to revise EU climate and environmental legislation in a coherent manner to reflect enhanced ambition in line with the goals of the Paris Agreement; calls on the Commission to propose an overarching and binding legislative framework on methane emissions, to avoid unnecessary overlaps between the legislation, to ensure the

consistency of the National Emission Reduction Commitments Directive<sup>1</sup> with meeting the EU's objectives on air quality, its 2030 climate goals, and its objective of achieving climate neutrality by 2050 at the latest, as enshrined in the European Climate Law and, accordingly, to revise the National Emission Reduction Commitments Directive as soon as possible; underlines that the binding emissions reduction targets for Member States in the Effort Sharing Regulation<sup>2</sup> is one of the key legislative tools to reduce methane emissions as part of overall greenhouse gas reductions, together with the upcoming revision of the IED and other legislation;

6. Believes that as part of the overall review of applicable legislation to reach the targets set out by the European Climate Law, it is appropriate to adopt binding EU methane reduction targets; notes the proposal in the Methane Strategy to review the National Emission Reduction Commitments Directive and welcomes the inclusion of methane among the regulated pollutants; calls on the Commission, furthermore, to include methane in the list of polluting substances laid down in Annex II to the IED and to expand the scope of the IED to better cover the methane-emitting sectors; believes that national targets under the Effort Sharing Regulation as regards methane emissions must be designed with full regard for the higher short-term climate impact of methane and the potential of reducing methane in the atmosphere to contribute to climate neutrality by 2050 at the latest;
7. Stresses the importance of developing an EU inventory of best practices and available technologies to promote the wider uptake of innovative mitigating actions across all the relevant sectors; underlines that such practices and technologies should require a robust scientific basis and should be in line with environmental objectives and that differences in access for operators to these practices and technologies need to be studied;
8. Points out that according to the UNEP Global Methane Assessment, the reduction of food waste and loss, combined with the shift to renewable energy and more energy efficiency, can reduce global methane emissions by 15 % by 2030, and would also bring complementary benefits such as helping to alleviate the pressure on ruminant and crop production;
9. Stresses that the upcoming regulatory measures on methane should strive to achieve significant emissions reductions swiftly and as cost effectively as possible and provide incentives and support for companies to achieve performance standards in an optimal manner, while fully respecting the polluter pays principle; underlines the fact that according to the UNEP Global Methane Assessment, approximately 60 % of the targeted measures available in the energy, waste and agriculture sectors are low cost, while 50 % have negative costs;
10. Recognises the importance of and the need to support voluntary industry initiatives aimed at reducing methane emissions; underlines, however, that there are limits to what

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<sup>1</sup> Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC (OJ L 344, 17.12.2016, p. 1).

<sup>2</sup> Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (OJ L 156, 19.6.2018, p. 26).

can be achieved through voluntary action alone and that regulatory measures are now needed to step up the reduction of methane emissions necessary to achieve the climate objectives of the Paris Agreement; considers that regulatory initiatives should take into consideration best practices from existing voluntary actions and must be preceded by thorough impact assessments, involve all the stakeholders in order to ensure the feasibility and effectiveness of the proposed regulatory initiatives and take into account the economic, social and environmental cost of both action and inaction, as well as environmental, human and animal health and effectively applying the ‘do no significant harm’ principle;

11. Calls on the Commission to analyse the implications for policies and measures of using a 20-year time horizon for global warming potential, as a complement to the 100-year timeframe currently used in accordance with the UNFCCC guidelines on greenhouse gas inventories; notes that more transparency about the short-term global warming implications of methane emissions would help to better inform EU climate policies; stresses that the use of such a complementary metric should by no means be used to delay necessary action to also drastically and rapidly reduce CO<sub>2</sub> emissions;
12. Calls on the Commission to include methane in the zero-pollution monitoring framework;
13. Points to the lack of global leadership on the mitigation of methane emissions, with very little action being taken on methane internationally; calls on the Commission to make methane emissions reduction a top priority in its climate diplomacy and to take action, notably through a UN-based pathway, within the framework of the EU’s diplomatic and external relations in order to spearhead an international agreement on methane mitigation, promoting coordinated action to reduce methane emissions, as well as updating methane mitigation requirements;
14. Calls on the Commission to support the establishment of an independent international methane emissions observatory in partnership with the UNEP, the Climate and Clean Air Coalition and the International Energy Agency, which should be tasked with collecting, reconciling, verifying and publishing anthropogenic methane emissions data at a global level and developing a methane supply index; welcomes the fact that the Commission wishes to spearhead this initiative, including by mobilising funding; believes that independent, comparable, verifiable and transparent emissions data is key to acquiring knowledge about the size of the emissions problem and to combating the underestimation of the size and quantity of leaks; believes that such an observatory should look at methane emissions across all relevant sectors; stresses that the availability of detailed emissions data should lead to governments and regulators being able to enforce the polluter pays principle;

### ***Energy***

15. Welcomes the new EU Strategy for Energy System Integration<sup>1</sup>;
16. Notes that almost 20 % of EU methane emissions derive from the energy sector, including oil and gas extraction, production, processing, transport, storage, transmission

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<sup>1</sup> Commission communication of 8 July 2020 entitled ‘Powering a climate-neutral economy: an EU Strategy for Energy System Integration’ (COM(2020)0299).

and distribution; acknowledges that imports account for over 80 % of the oil and gas consumed in the EU and that most methane emissions associated with oil and gas occur outside the EU; recognises that fossil fuels have no long-term role in the Union's energy mix and calls on the Member States, in cooperation with the Commission, to adopt national plans in order to phase out all fossil fuels as soon as possible in order to reach climate neutrality by 2050 at the latest, in tandem with a transition to a highly energy efficient and highly renewables-based energy system within the Union; believes that this should be linked to reviewing and updating the national energy and climate plans and that the Commission should evaluate these plans as part of the assessment stage;

17. Reiterates its call from its resolution of 9 June 2021 on the EU Biodiversity Strategy for 2030<sup>1</sup> urging the Member States – on the basis of the precautionary principle and the principle that preventive action should be taken, and taking into account the risks and the negative climate, environmental and biodiversity impacts involved in hydraulic fracturing for the extraction of unconventional hydrocarbons – not to authorise any new hydraulic fracturing operations in the EU and to halt all existing operations;
18. Calls for a halt to EU support for the expansion of fossil fuel infrastructure; recalls that according to the International Energy Agency's last report on achieving net zero by 2050, there is no need for investment in new fossil fuel supplies under its net zero pathway, a conclusion shared by the Commission in its proposal for a regulation to amend the guidelines for trans-European energy infrastructure<sup>2</sup>;
19. Notes that a significant number of gas wells that have ceased production continue to emit methane into the atmosphere; calls on the competent authorities to adopt policies to ensure that those wells, where ownership can be documented, are capped or filled to stop methane leakage and to ensure that those responsible for the leaks are paying the costs;
20. Notes that some non-EU countries have already introduced a ban on venting and flaring; calls on the Commission to propose legislation for the energy sector with binding rules on MRV, building on the methodology of the Oil and Gas Methane Partnership (OSGMP) Framework 2.0 and mandatory LDAR, including on imports, which should be built on best practices and applied right across the supply chain; believes, furthermore, that leak detection should be followed by sound recordkeeping and a requirement to repair potential leaks within a clear timeframe; welcomes the consideration of rules covering the whole supply chain to ban routine venting and flaring in the energy sector up until the point of production, except in exceptional cases necessary for safety reasons; considers that feedstock uses of fossil gas and oil, including for non-energy purposes such as to produce petrochemicals, should be included in such a proposal;
21. Notes that fossil gas and oil are used in the energy and petrochemical sectors and that both sectors therefore contribute to the methane emitted at fossil gas and oil well pads and processing plants; notes that according to the International Energy Agency, petrochemicals account for 8 % and 14 % of total primary demand for fossil gas and oil

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<sup>1</sup> Texts adopted, P9\_TA(2021)0277.

<sup>2</sup> Commission proposal for a regulation of 15 December 2020 on guidelines for trans-European energy infrastructure and repealing Regulation (EU) No 347/2013 (COM(2020)0824).

and that these shares are bound to increase; calls on the Commission to ensure that MRV and LDAR obligations and routine venting and flaring rules apply equally to fossil gas and oil used in the petrochemical sector;

22. Invites the Commission, when preparing its future legislation on methane emissions, to properly take into account that the investments undertaken by infrastructure operators to tackle methane leaks should be recognised within the scope of regulated activities as a signal of the importance of both safety and of sustainable activities, which might be incentivised by regulatory authorities;
23. Stresses that not only is the production and transportation of liquefied natural gas extremely inefficient owing to energy losses through liquefaction and cooling, it also adds disproportionately to methane emissions from the oil and gas sector; notes with concern the uptake of liquefied natural gas as a transport fuel in the shipping sector;
24. Acknowledges that imports comprise over four fifths of the oil and gas consumed in the EU and that most methane emissions associated with oil and gas occur outside the EU, thereby contributing to significant methane emissions worldwide; calls on the Commission to make all fossil fuel imports into the Union conditional on their compliance with EU regulations on MRV and LDAR and the rules on venting and flaring, applicable to the entire fossil fuel supply chain, up to and including production; believes that a credible system has to be put in place to ensure that imports are compliant with EU requirements and that the Commission should therefore develop a robust independent methodology to assess the compliance of imports with EU requirements; stresses that these rules should enter into force as soon as possible, while paying due regard to energy security; calls on the Commission, moreover, to support the establishment and use of a third-party verification system in conjunction with other monitoring methods as a possible solution to verifying emissions data across the supply chain, including in relation to imports; supports, moreover, the establishment of an independently audited and globally applicable certification system that would provide a credible assessment of the methane emissions performance of all fossil gas production around the world; believes that this certification should be audited and verified by an independent third party and based on a uniform approach to measurement based on detailed information from the relevant facilities, assets and countries;
25. Calls on the Commission to adopt specific measures to identify and address methane leaks from super-emitters in all sectors, and not limited to the energy sector, including through the use of the international methane emissions observatory;
26. Stresses the importance of the Copernicus programme and its Atmosphere Monitoring Service in detecting and monitoring global super-emitters, as well as smaller scale sources;
27. Underlines that aerial monitoring is equally key in targeting venting, flaring and leak detection; highlights that satellite data allows independent verification of a company's footprint and facilitates engagement on mitigation; strongly supports the sharing of information and technologies among stakeholders in the Union and at global level, and with the public, in order to act as a catalyst for abatement efforts;
28. Welcomes the Commission's initiatives on the mitigation of methane from coal mines, including closed and abandoned sites; expresses its strong support for mandatory MRV

and LDAR for coal mine methane emissions, including the requirement for companies that own closed sites or Member States (for abandoned mines where no existing owner is liable) to effectively close and seal all abandoned sites in the EU as soon as possible and to adopt the same MRV and LDAR measures as for operating sites; appeals to the Commission to take appropriate action to ensure that Member States address the ownership of abandoned sites and support coal mine methane mitigation; calls on the Commission to adopt measurement equipment standards and impose a measuring requirement for all mines; stresses that the European Pollutant Release and Transfer Register should follow the new reporting to ensure policy coherence;

29. Stresses the importance of clean-up works aimed at preventing and eventually eliminating methane emissions from closed sites; calls on the Commission to develop a specific programme to address methane emissions from closed and abandoned coal mines by providing incentives to former coal mines to address their methane emissions, without this leading to the promotion of benefits or neglect of the responsibilities of the owners responsible for their sealing, in line with the polluter pays principle, as enshrined in Article 191(2) TFEU, and to support the just transition of coal regions in developing alternative activities which are in line with the objective of climate neutrality by 2050; calls on the Commission and the Member States, moreover, to consider a specific programme or other actions, including financial support on MRV and emissions mitigation in abandoned oil and gas sites without known ownership, while having full regard for the polluter pays principle; highlights the importance of adequate decommissioning of such infrastructure;

### *Agriculture*

30. Expresses its concern that agriculture represents the largest share of anthropogenic methane emission sources in the EU; underlines, however, that the EU's greenhouse gas emissions from European agriculture (including livestock) saw a reduction of 22,2 % between 1990 and 2018 in the EU-28, due to a reduction in agricultural emissions of methane by 21 % (enteric fermentation by 22 % and manure management by 17 %); notes, however, that there has been a slight increase in methane emissions in the last five years due to increased herd sizes; notes that although agriculture offers the second-highest overall methane-emission reduction potential of any sector, as demonstrated in the Commission communication on the EU Methane Strategy, its methane-emission sources can be diffuse and therefore potentially challenging to monitor, report and verify; notes, however, that the existing monitoring system based on Tier 2 methodology allows action to be taken; stresses that methane emissions in agriculture are primarily driven by livestock numbers, particularly ruminants; calls on the Member States to introduce effective and sustainable measures to address those emissions in their national strategic plans and calls on the Commission to analyse these thoroughly before approving the plans with the aim of ensuring policy coherence; stresses that tightening the framework conditions for methane emissions in the agricultural sector, in particular the livestock sector, should not entail production being shifted abroad;
31. Points out that in agriculture a significant share of global methane emissions originates from outside the EU and calls on the Commission to ensure that food continues to be produced in the most environmentally sustainable locations; emphasises the need for the EU to take the lead in exchanges of best practices with its third countries' trading partners with the aim of reducing methane emissions from agriculture; stresses the importance of international cooperation for reducing methane emissions;

32. Welcomes the Commission's objective on multilateral engagement and supports active cooperation with international partners in the framework of the UNFCCC Koronivia Joint Work on Agriculture and the Climate and Clean Air Coalition, which provide essential multilateral platforms to exchange best practices and to encourage our global partners to reduce methane-emitting agricultural production and to support their sustainable transition;
33. Recalls that a significant amount of methane emission in the agri-food sector is due to imports; calls on the Commission to ensure a level playing field for EU producers by insisting that imports from third countries meet the same high standards as in the EU;
34. Calls on the Commission to estimate the contribution of imported agri-food products to EU anthropogenic methane emissions through the EDGAR-FOOD database;
35. Stresses that future policy decisions need to provide a clear framework for the livestock sector to ensure a degree of predictability;
36. Takes note of the study on the status of new genomic techniques under Union law and in light of the Court of Justice ruling in Case C-528/16 (SWD(2021)0092), and of the Commission's announcement that it plans to initiate a regulatory policy action including an impact assessment and public consultation on plants derived from certain new genomic techniques, aimed at maintaining a high level of protection of human and animal health and the environment, while reaping potential benefits from science and innovation, in particular to contribute to sustainability and to the sustainability goals of the European Green Deal and the Farm to Fork Strategy; highlights the precautionary principle and the need to ensure transparency and freedom of choice to farmers, processors and consumers, and stresses that this policy action should include risk assessments and a comprehensive overview and assessment of options for traceability and labelling with a view to achieving proper regulatory oversight and providing consumers with relevant information, including for products from third countries in order to ensure a level playing field;
37. Notes that while extensive livestock production may result in lower methane emissions from farms, it increases the emissions per unit of product produced; calls on the Commission and the Member States to take into account the effects of mitigation strategies on global methane emissions;
38. Emphasises the importance of agriculture in capturing and storing carbon; notes the important role of a wider circular economy and that the uptake of progressive CO<sub>2</sub> emissions removal and the increased circularity of carbon should be incentivised, while avoiding additional pressure on the price of agricultural land, which would be to the detriment of young farmers; urges that any measures taken must not hamper the EU's competitiveness;
39. Calls on the Commission, in accordance with the European Climate Law, to explore the development of a regulatory framework for the certification of carbon removals on the basis of robust and transparent carbon accounting that takes into account the differences between greenhouse gases, and to verify the authenticity of carbon removals and reward farmers for their mitigation efforts;

40. Welcomes the Commission's announcement of the establishment of an expert group with the aim of analysing the life cycle methane emissions matrix;
41. Urges the Commission to support Member States in the collection of data regarding the carbon sequestration potential of grassland in order to allow for a more targeted approach to climate policy;
42. Acknowledges that animal production is the key activity on permanent grassland, allowing for the survival, economic stability and existence of rural farms in hill and mountain regions, thus preventing the overgrowth of such areas; calls on the Commission to focus investment efforts on funding innovation in methane inhibitors, including those for pasture-based systems, and to collaborate with third countries involved in similar research;
43. Notes the methane emissions generated from rewetted peatlands; underlines the fact that according to research, however, the warming effect reaches a plateau after rewetting because of the break in CO<sub>2</sub>/N<sub>2</sub>O emissions from rewetted peatlands and the short atmospheric lifetime of any methane that is emitted<sup>1</sup>; highlights that this is not the case for the continued CO<sub>2</sub> emissions from drained peatlands, which causes further warming; calls for peatlands to be rewetted without delay in order to ensure the most beneficial cooling effects;
44. Notes that according to the Farm to Fork Strategy, most Europeans' diets are not in line with recommendations on healthy eating, and that a population-wide shift in consumption patterns is needed towards more healthy foods, diets and lifestyles, including increased consumption of sustainably produced plants and plant-based foods, such as fresh fruits and vegetables, whole grains and legumes, and to address the overconsumption of meat and ultra-processed products, which will also benefit the environment, i.e. through reduced methane emissions and animal welfare, and secure a more resilient economy; emphasises that EU-wide science-based recommendations, including clear objectives, for sustainable, healthy and more balanced diets, taking into account the cultural and regional diversity of European foods and diets as well as consumers' needs, would help and encourage consumers and inform Member States' own efforts to integrate sustainability elements in national dietary advice; calls on the Commission to develop such recommendations and specific actions to effectively promote healthy, sustainable and more balanced diets;
45. Stresses that technologies and practices to limit methane emissions from agriculture, including sustainable livestock management practices, are developing at a fast pace and should be advanced and implemented as soon as possible; calls on the Commission to ensure that proven effective and cost-efficient innovations that mitigate methane measures in agricultural production are quickly implemented in the EU and that those already available are utilised by EU producers in order to continue to reduce methane emissions within the framework of the common agricultural policy (CAP) and the national strategic plans, including through specific, dedicated eco-schemes and carbon farming initiatives under the CAP and through other private or public funding streams; believes that farmers should receive financial incentives to adopt mitigation practices

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<sup>1</sup> Günther, A., Barthelmes, A., Huth, V., Joosten, H., Jurasinski, G., Kobesch, F. and Couwenberg, J., 'Prompt rewetting of drained peatlands reduces climate warming despite methane emissions', *Nature Communications*, 11, 1644 (2020).

through the Horizon Europe programme and Economic Resilience Initiative Funds; recognises, however, that farmers are unlikely to solve the emissions problems associated with animal agricultural production on their own; notes that structural differences in agriculture between the Member States and national specificities will affect the cost of taking up these techniques;

46. Highlights that there are already well demonstrated practices in place to help reduce emissions from manure management; notes that these practices also reduce the level of ammonia released by the agriculture sector; calls on the Commission to propose regulatory measures to ensure the uptake of these techniques, with realistic and ambitious targets and timelines; stresses, furthermore, that nitrogen-based fertilisers are responsible for a large amount of methane emissions; calls on the Commission to take appropriate action to reduce associated emissions as part of the Farm to Fork Strategy;
47. Underlines the key role that the EU should play in supporting research, innovation and development, as well as in scaling up new sustainable technologies and practices to help reduce methane emissions from all sectors including livestock agriculture, including by improving MRV of methane emissions in the sector in order to track progress towards these targets and by applying technologies that are already available, such as MRV-related technologies; believes that methane mitigation measures should be developed for grazing animals so as to respect animal health and welfare and in line with the precautionary principle; points, in particular, to the need for multigenerational studies on feed additives and calls on the Commission to ensure the timely revision of the Feed Additives Regulation<sup>1</sup>;
48. Considers that the use of agricultural waste and residues for biogas production can be a driver for the circular economy and stresses the value-added use of agricultural residues, provided that the cascading use principle is adhered to and the appropriate sustainability criteria are applied; points out that biogas production from agricultural residues and other organic waste can reduce methane emissions in the agricultural sector and incentivise the ‘prosumer’ (producer and consumer) model; calls for better coordination and improved infrastructure between farmers and renewable energy producers in order to enable the uptake of locally connected production of sustainable biogas and considers that the CAP should incentivise the mitigation and reduction of methane emissions and support measures in this regard; calls on the Commission, accordingly, to ensure full coherence between the European Climate Law, the CAP and the Methane Strategy;
49. Welcomes the Methane Strategy’s acknowledgement that biogas derived from food or feed crops increases methane emissions and can therefore undermine any mitigation benefits, and that biogas developments should be based primarily on waste or residues; calls on the Commission to develop a robust, independent certification of origin scheme for biogas production methods and feedstock; stresses that biogas production should be based on a local, circular economy model to avoid transport-related emissions and costs; emphasises that no support should incentivise the intensification of livestock agriculture;
50. Notes that the development of the circular and bio-economy can create more jobs in primary production and stresses that the bio-economy requires new skills, new

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<sup>1</sup> Regulation (EC) No 1831/2003 of the European Parliament and of the Council of 22 September 2003 on additives for use in animal nutrition (OJ L 268, 18.10.2003, p. 29).

knowledge and new disciplines to be developed and/or integrated further in training and education in this sector in order to tackle bio-economy-related societal changes, promote competitiveness, growth and job creation, meet the needs of the sector and ensure that skills and jobs are better matched;

## *Waste*

51. Calls on the Commission to further analyse methane emissions from sludge and waste water and to revise the Sewage Sludge Directive<sup>1</sup> and Urban Waste Water Treatment Directive<sup>2</sup> in 2022, which should also address air pollutant and greenhouse gas emissions, notably methane; calls on the Commission, furthermore, to be ambitious and to integrate a strong focus on methane emissions in the 2024 review of the Landfill Directive<sup>3</sup> and the upcoming revision of the IED; highlights the need for measures to require landfill sites to use the bio-methane they produce until its energy content drops below a useful value and, once it is no longer viable to use the bio-methane produced at a landfill site, for the use of bio-oxidation and other technologies in hot spots in order to reduce the remaining methane emissions; recalls, in this regard, that methane emissions from the waste sector partly originate from leaks from biogas plants; calls on the Commission to publish guidelines on the best methods to build and operate biogas plants to address leaks due to poor maintenance, operation and design; further recalls that the IED has successively contributed to reducing pollution from industrial activities; highlights, however, that landfill disposal is not covered by any best available techniques reference documents (BREFs);
52. Underlines that landfill disposal, which sits at the bottom of the waste hierarchy, is the most polluting way to manage waste both in terms of greenhouse gas emissions and other pollutants to air, soil and water; calls on the Member States to fully comply with the existing requirements of the Landfill Directive and calls for the directive to be aligned with the overarching principles of the Circular Economy Action Plan, including the objective for 2016, by which date the amount of biodegradable waste landfilled was to be reduced to 35 % or less compared to 1995 levels; calls on the Commission to develop a comprehensive strategy to ensure that Member States that are not in compliance with that target take corrective measures and actions; calls on the Commission to support Member States in their efforts to move away from landfills; expresses its concern, moreover, that in 2017 15 Member States were not fully meeting the obligation laid down in the directive to treat waste before landfilling; reiterates, in this regard, its call from its resolution of 10 February 2021 on the new Circular Economy Action Plan to bring the Landfill Directive into line with the overarching principles of the Circular Economy Action Plan and to focus the future revision of the relevant directives on prevention and capping residual waste generation, and to improve the 10 % landfill target by defining a landfill cap in kg/person/year in order to deliver the best environmental results from the combined effects of reduction, reuse, recycling and composting, while minimising landfilling of residuals; considers, furthermore, that

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<sup>1</sup> Council Directive 86/278/EEC of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture (OJ L 181, 4.7.1986, p. 6).

<sup>2</sup> Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment (OJ L 135, 30.5.1991, p. 40).

<sup>3</sup> Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste (OJ L 182, 16.7.1999, p. 1).

a key improvement would be to ensure that the methodology for accounting for greenhouse gases from landfills is more robust and harmonised across the EU;

53. Calls on the Commission, in the light of the above:
- to set binding EU targets for commercial and industrial waste, as there are still no specific targets on this;
  - to propose targets to cap the generation of residual waste in the planned review of the Waste Framework Directive<sup>1</sup> and Landfill Directive in 2024;
  - to align the Landfill Directive with the EU's overall climate change and greenhouse gas emissions reduction objectives, following an in-depth analysis to better address greenhouse gas-related issues;
  - to produce a BREF document for landfilling, including provisions on methane;
54. Calls on the Commission to monitor the Member States' progress regarding the separate collection of bio-waste, a rule due to be implemented by 2023; recalls that in accordance with the hierarchy of waste treatment, Member States are legally required to take measures to encourage the recycling of bio-waste, which include composting and digestion of bio-waste, bearing in mind that bio-waste is usually collected and treated at a local level; stresses, therefore, that the Commission should encourage further cooperation between the regions and the Member States and harmonisation through the exchange of best practices;
55. Reiterates the new Circular Economy Action Plan's objectives of achieving significant circularity and avoiding greenhouse gases, in particular methane emissions from escaping the closed loop; understands that genuinely integrated waste management should be promoted to successfully implement the waste hierarchy and to give greater priority to the treatment of waste;
56. Emphasises that closure and after-care procedures for landfill cells are key to reducing leakages, taking into account the entire life cycle of landfill sites; calls on the Commission to provide support suited to the conditions of each Member State in order to ensure full application of the waste hierarchy, emphasising waste prevention, the achievement of the 31 December 2023 target for source separation and separate collection of bio-waste, including by encouraging cooperation between the public and private sectors to secure a high degree of separate collection, recycling and recovery of biodegradable waste, so as to ensure efficient diversion from landfill without providing EU funding for incineration; highlights that there should always be a feasible biological treatment option, such as composting or anaerobic digestion; acknowledges, in this regard, the potential of anaerobic digestion from biodegradable waste, which allows the production of bio-methane; stresses, in line with the waste hierarchy, that incineration is only at the second lowest step in the waste hierarchy and recalls its positions on incineration set out in its resolution of 10 February 2021 on the New Circular Economy Action Plan;

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<sup>1</sup> Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3).

57. Highlights that reservoir surfaces are a globally significant source of greenhouse gas emissions, including methane owing mainly to sediment accumulation in impoundments, and that dam removal can help to significantly reduce emissions from impounded areas; calls on the European Environment Agency to collect information on this subject in order to inform the assessment of potential policy measures;

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58. Instructs its President to forward this resolution to the Council and the Commission.