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# The Fit for 55 Package proposed by the EU Commission

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REA Green Gas Meeting – 09 December 2021 – Online

# About the European Biogas Association

41 national biogas associations

152 companies, research institutes, financial institutions


36 countries in Europe and beyond and over 7,000 stakeholders covering the whole supply chain

Representing the biogas industry in Brussels since 2009

# The European institutions set new ambitious targets to deliver on the implementation of the Paris Agreement

## GHG emission reductions

New: - 55% in 2030 (compared to 1990 level)

New: Climate neutrality in 2050

## Renewable energy

Increase: At least 40% (32% in current RED)

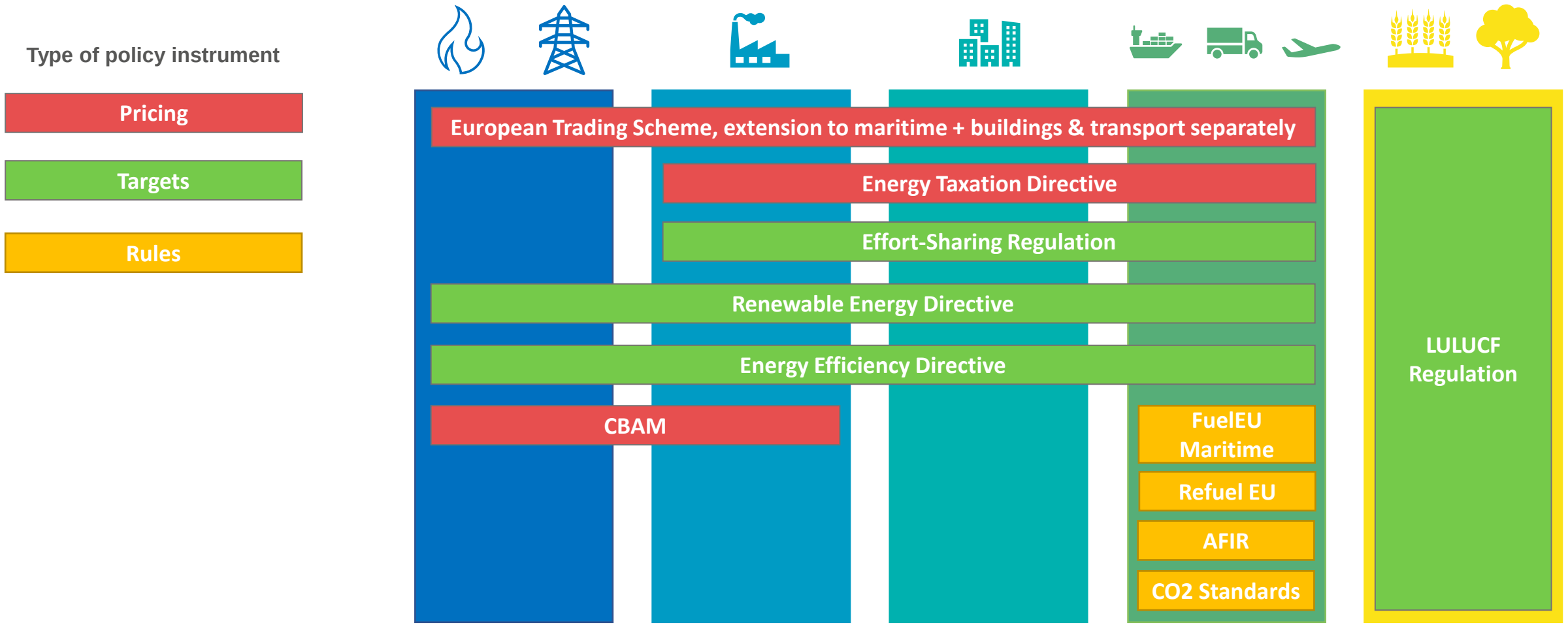
## Energy Efficiency

Increase: 39% on primary energy

## Carbon removals from land

New: 310 Mt

# The Fit-for-55 Package is a comprehensive regulatory framework aimed to enable the EU to reach -55% of GHG emissions in 2030



# Biogas and biomethane production

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# Limited but significant changes are proposed regarding the production and trading of biogas/biomethane

## Sustainability rules

- **Application of GHG emission savings requirements extended to existing installations** (not only new ones as in the current RED) – end of the "grandfathering provision".
- **New and existing biogas and biomethane installations should achieve a reduction in GHG emissions of 70% until 31/12/2025** and of at least 80% from 01/01/2026

## Guarantees of origin

- **Member States cannot deny anymore the granting of a GO to a producer because the latter benefits from a support scheme.**
- For electricity, Member States are no longer allowed to exempt GOs for renewable electricity production benefitting from a support scheme

## Union Database

- **Wider scope of the Database:**
  - recycled carbon fuels now included, in addition to all liquid and gaseous renewable fuels
  - **All end-use sectors** (≠ transport sector only in current RED II)
- Voluntary or national schemes will have to verify the accuracy and completeness of the information entered in the database (confirmation of a current provision)

## Funding opportunities

- **Innovation Fund based on ETS revenues**
  - Enlarged revenues allocated to the Fund. The funding rate of the Innovation Fund can be increased through carbon contracts for difference (CCfDs)
  - Bridge the gap between level of demonstration and the level of tech and commercially-readiness
- **National funding for projects/activities related to climate change mitigation**: Member States must use all the auction revenues, to the extent they are not attributed to the Union budget, for climate-related purposes

# Our assessment

## Assessment

**Targets**

**Welcomed increase of the RE target: a likely push for biomethane production driven by increasing demand**

**No cross-sector renewable gas target**

**Rules**

**High risk to exclude many existing biogas installations from the accounting of "renewable energy" consumed, because requirements of GHG emission savings extended to existing installations** (RED II) **without uncertain financial support** (State aids rules) for improvement

**GO**

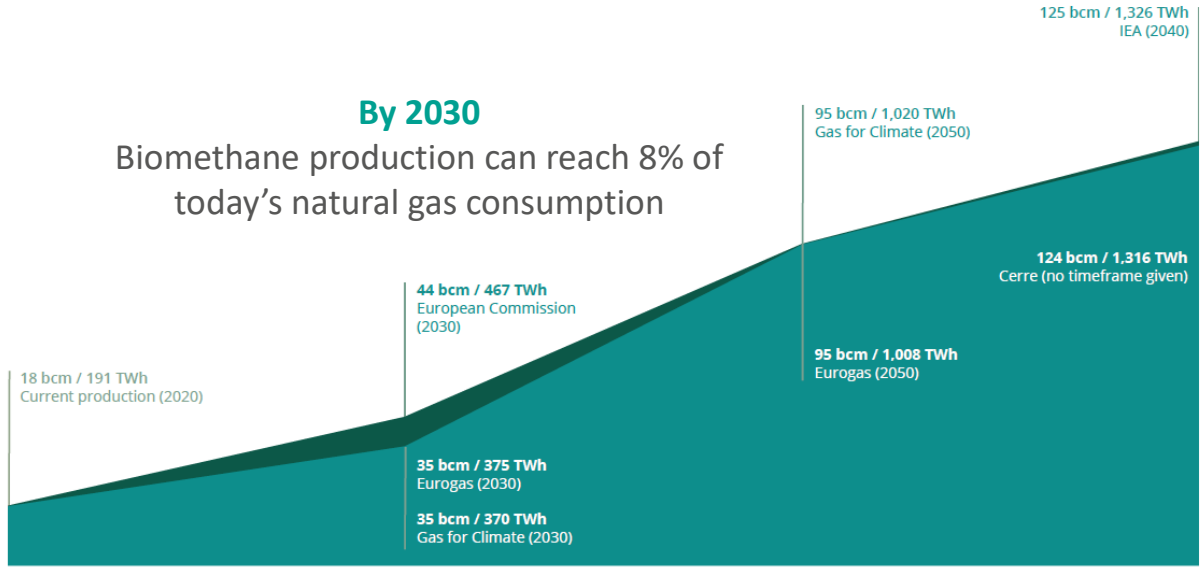
**Unclear trading and tracking of renewable fuels** through the Union Database (RED II and implementing acts)

**No link between GOs and sustainability certificates**

## Potential of production

**By 2030**

Biomethane production can reach 8% of today's natural gas consumption




**A range of studies concurred with the substantial amount of biomethane that can be produced in 2050.**

**But not all studies consider all feedstock types. When the averages per feedstock type are summed up, the total biomethane potential reaches 1,673 TWh.**

# Biogas consumption in heating sector

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# The Package sets more ambitious targets for heating production and supply in terms of RE, efficiency and GHG emissions

## Renewable energy (RED)

### Heating & Cooling

↗ National annual target: from 1.3 to **1.5 percentage pt** + **made binding**

\+ **Indicative national top-ups** are introduced

### Buildings

49% of renewable energy share, as a **new EU-level indicative target**

### Industry

1.1 pt of percentage of annual increase, as a **new indicative target** for Member States

50% **of hydrogen used must be green hydrogen** (RFNBO)

## Energy efficiency (EED)

### Buildings

3% **of annual renovation rate** (no change)

***- An extended scope:*** all public bodies at all administration levels (and not only central government)

***- Near-Zero Energy Building (NZEB) standard is to be met***

## GHG emissions reduction (ESR and ETS)

**Non-ETS industry and fuel combustion in buildings is part of the emissions reduction target under the Effort-Sharing Regulation**

40% **Of reduction in GHG emissions in "non-ETS sectors"** (transport, agriculture, waste management, non-ETS industry, buildings)

**EU binding target**

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# To drive the necessary change, the Package sets out pricing tools

**PRICING**

**Renewable energy**

**Lowest minimum tax levels for renewable fuels (ETD)**

**Energy Efficiency**

**GHG Emissions Reduction**

**Increased pressure on energy-intensive industry & fuel supply to buildings (ETS)**

| **Minimum tax rate as from 2023 (with an increase in 2033) with levels dependent on 4 biogas categories** | **Except where the minimum level will be 0 in 2023 + yearly increase over a transition of 10 years** | **Except in some cases where there may be exemption** |
|---|---|---|
| | heating fuel for households and charities | heating fuel for vulnerable households |

| EUR/GJ | **As of 2023** | **Transitional period** | **As of 2033** |
|---|---|---|---|
| **Non-sustainable biogas** | 0.6 | +10%/year | 0.9 |
| **Sustainable food and feed crop biogas** | 0.45 | +10%/year | 0.9 |
| **Sustainable biogas** | 0.45 | | 0.45 |
| **Advanced sustainable biogas** | 0.15 | | 0.15 |

## Tighter ETS for energy-intensive industry

- **4,2 % = new annual linear reduction factor (2,2 % today) + with a one-off downward adjustment**
- Target = Emission reductions of 61 % by 2030 compared to 2005 (43% in current ETS)

## Separate ETS for buildings

- Fuel suppliers to buy/trade allowances from 2026
- No free allocation
- **Annual linear reduction factor of 5,15%** and 5,43 % from 2028
- Target = Emission reductions of 43 % in 2030 for the sectors of buildings and road transport

***Emission factor of RED-II compliant biogas is 0 under current MRR***

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# New and revised rules are also used to accelerate the greening of buildings and energy networks

Member States shall require the **use of minimum levels of RES in new and existing buildings alike**

(whereas in current RED II only new buildings and existing buildings "under substantial renovation" are within the scope of this obligation)

## District Heating and Cooling & maximisation of the use of waste heat

- **Minimum requirements of RE and waste heat** to be deemed "**efficient DHC systems**" (with increasing thresholds until 2050)
- Regulatory incentives to convert power-only installation to **CHP** and to maximise use of **waste heat** from industrial installations & data centres

## Gas networks

- The **energy efficiency first principle** must be applied in gas network **planning, network development and investment decisions**

**RULES**

**Extended scope of minimum use of RE in buildings (RED)**

**Requirements for district H&C and gas networks (EED)**

**Renewable energy**

**Energy Efficiency**

# Our assessment

## Assessment

**Targets**

- **Increased targets are a potential driver for biomethane**
- **50% of green H2** in industry may be unrealistic, and **an extension of the target to all renewable gases should thus be considered**
- **Risk** on the accounting of biomethane supplied through gas grids and off-grid delivery in targets for renewable energy in H&C

**Pricing**

- **In ETS, opportunity fuel switching to biomethane by industries**
- **Uncertain impact of the separate ETS for buildings on fuel switching of consumers**
- **Uptake of biomethane in the ETS remains hampered** by uncertainty of the proof of purchase that must be used for carbon reduction claims

**Rules**

- **No specific positive provision for the use of biomethane in buildings** that remains dependent on other reforms (Energy Performance of Buildings Directive, Eco-design Directive, Energy Labelling Regulation)
- **High risk of EE constraints depending on new eco-design and eco-labelling rules on gas and hybrid heating appliances**
- **Risk of technical constraints if the upcoming EPBD sets CO2 limits based on direct emissions**

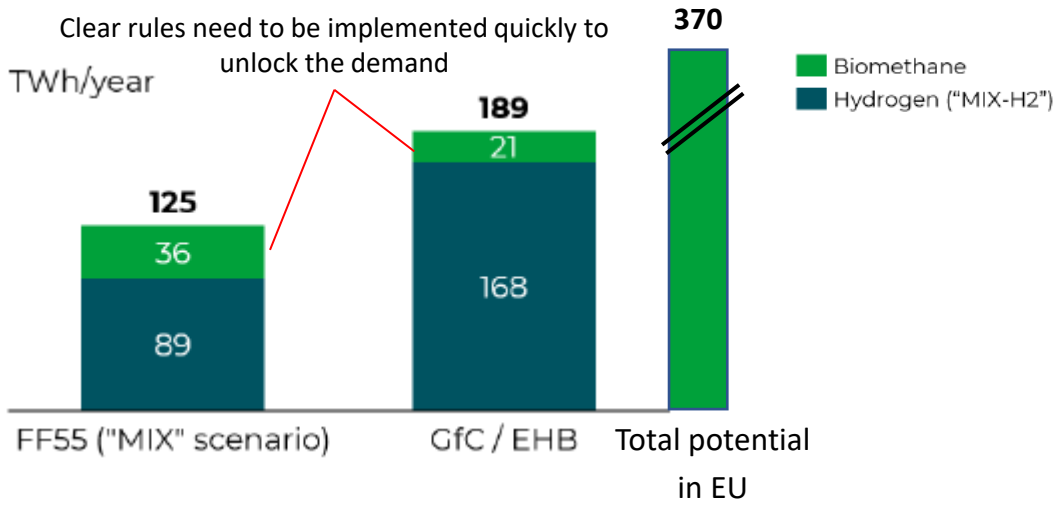
## Potential of usage

### Buildings

**185 TWh of biomethane in 2050 in hybrid heating setups in 100 million buildings (37% of the building stock) (Gas for Climate, 2019)**

**65 – 130 TWh of biomethane for space heating in 2030 (Gas for Climate, 2020)**

### Industry




**Comparison of biomethane and hydrogen use in industry between the Commission's MIX (MIX-H2 for hydrogen) scenario and GfC scenarios**

# Biomethane consumption in transport

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# A revision of targets is proposed to drive the uptake of renewable energies in the transport sector

**GHG Emissions Reduction**

**Change of target type!**

13%

**of GHG intensity reduction** from the use of renewable electricity and renewable fuels

**Set on fuel suppliers**

**Renewable energy (RED II)**

At least 2.2%

**of advanced biofuels and biogas in 2030**

At least 2.6%

**of green hydrogen** (RFNBO)

**New!**

**Energy Efficiency (EED)**

**National target in the public sector**

1.7%

**of energy savings per year**

**New!**

**Calculations rules**

**Multipliers deleted**

**Except** when they are supplied to the **aviation and maritime transports:**

**X 1,2 time their energy content**

7% limit to biofuels & biogas from food and feed crops extended to the maritime and aviation

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# Pricing measures are likely to drive the fuel switching effect

**Renewable energy**

**Energy Efficiency**

**GHG Emissions Reduction**

## PRICING

**Lowest minimum tax levels for advanced renewable fuels (ETD)**

**Increased pressure on energy-intensive industry & fuel supply to buildings (ETS)**

**Minimum tax rates as from 2023**

| EUR/GJ | As of 2023 | As of 2033 |
|---|---|---|
| **Sustainable food and feed crop biogas** | 5.38 | 10.75 |
| **Sustainable biogas** | 5.38 | 5.38 |
| **Advanced sustainable biogas** | 0.15 | 0.15 |

**Except in some cases where the minimum level will be 0 for ten years (for "advanced biogas" only !)**

- intra-EU aviation (non-business and non-pleasure flights)
- intra-EU waterborne navigation (regular service navigation, fishing and freight transport)

**Except in some cases where there shall be exemption (for "advanced biogas" only !)**

- Intra-EU cargo-only flights (shall be exempted)

**Separate ETS for road transport and buildings from 2026**

Target = Emission reductions of 43 % in 2030 for the sectors of buildings and road transport

***Emission factor of RED-II compliant biogas is 0***

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# The proposed rules are biased towards renewable electricity and hydrogen, except in maritime transport

## Member States

- Intention to ensure a rapid and coherent development towards a dense, widely-spread network of recharging infrastructure in all Member States.
- Only a limited targeted policy for **LNG** infrastructure: **remaining gaps to be filled by 2025**
- **No target for CNG infrastructure** (network considered mature enough)

## Shipping companies
(EU Fuel Maritime Regulation)

Increase of the share of renewable and low-carbon fuels in the fuel mix

**Well-to-wake approach**

**GHG emissions reduction:**

- **6% from 1 January 2030**
- **26% from 1 January 2040**
- **75% from 1 January 2050**

## Car and van makers
(CO2 Performance Standards Regulation)

- **Tailpipe approach**
- No crediting scheme to incorporate the contribution of renewable fuels to the targets
- 2030: -55% of emissions for cars ; -50% for vans
- **A 100% CO2 reduction target by 2035 =** a ban on sales of new cars and vans based on ICEs

## RULES

**Limited extension of gas refuelling infrastructure required from States (AFIR)**

**Renewable energy**

**Stringent obligation of GHG reduction for car-makers and shipping companies**

**GHG Emissions Reduction**

# Our assessment

## Assessment

### Targets

- Opportunity for biomethane in countries with little shares of renewable electricity supplied to the transport sector
- Overall lack of ambition for biomethane in transport (sub-target for "advanced biofuels and biogas") including in maritime transport (see Commission's scenario) and heavy-duty road transport

### Pricing

- Combined effect of ETD and separate ETS for road transport: very likely fuel switching effect towards renewable fuels
- Unclear social impact on consumers and their ability to switch
- Taxation: Lack of level playing field reflecting environmental performance of fuels and of electricity sources

### Rules

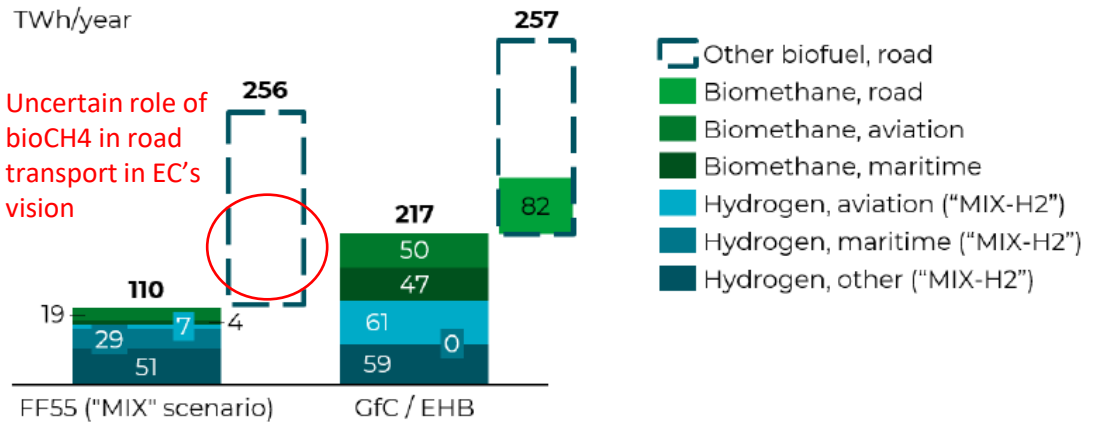
- Strong regulatory incentive to the use in the maritime sector
- Uncertainty of the medium and long-term ambition for road LNG refueling stations (Alternative Fuels Infrastructure Regulation)
- Exclusion of biomethane from light road vehicles from 2035
- No more support to CNG stations as well as lack of ambition for LNG stations not matching with the potential for heavy-duty vehicles

## Potential of usage

### A recent trend towards bio-LNG

Based on confirmed projects known in 2021, bio-LNG production capacity by 2024 adds up to 10.6 TWh/year, the equivalent of almost 25,000 trucks fuelled year-round.

### The Commission's and the Gas for Climate's visions compared




Comparison of biogas and hydrogen use in transport between the Commission's MIX (MIX-H2 for hydrogen) scenario and GfC scenarios

# Next steps

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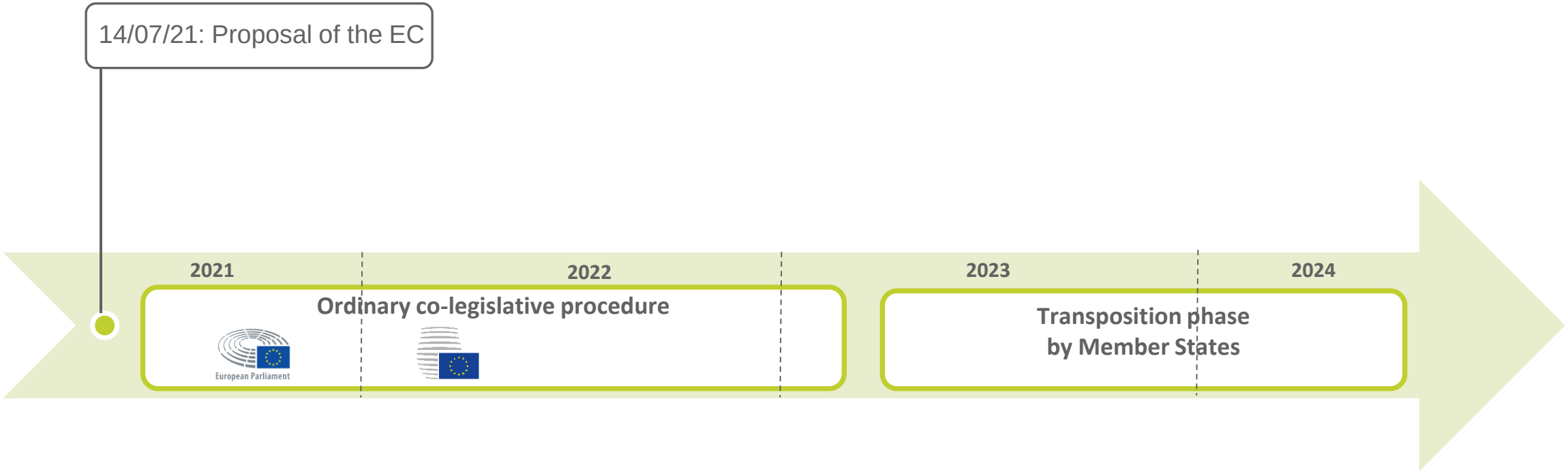
# The upcoming legislative process is likely to take around 12 to 24 months depending on the rank of priority given to the different files



# Upcoming initiatives complementary to the Fit-for-55 Package

**14/12/21: Publication of the Gas Package**

**14/12/21: Revision of the Directive of Energy Performance of Buildings**

**14/12/21: Publication of a roadmap towards certification of EU carbon removals (Sustainable Carbon Cycle Communication)**

**2022: Implementation of the Renewable Energy Directive**

- Implementing act on voluntary certification scheme and the Union Database
- Delegated act establishing a methodology by which to assess the GHG savings from RFNBOs and from recycled carbon fuels in order to ensure that credits from GHG savings are given only once

# Conclusion

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The voice of renewable gas in Europe


# Thank you

**EBA Statistical Report 2021 available!**

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