



EBA Statistical Report 2021

Brussels, 30/11/2021



Poll question 1

Share of biogas and biomethane in Europe's gas demand

4.6% in
2020

- 🌱 The combined biogas and biomethane production can cover today **4.6% of EU gas demand**.
- 🌱 This is already higher to the natural gas consumption of **Belgium**.

11% in
2030

- 🌱 The gas for climate consortium calls for a **binding target of 11% renewable gas by 2030 with an 8% subtarget for biomethane**.
- 🌱 This is confirmed to be feasible by EBA calculations.

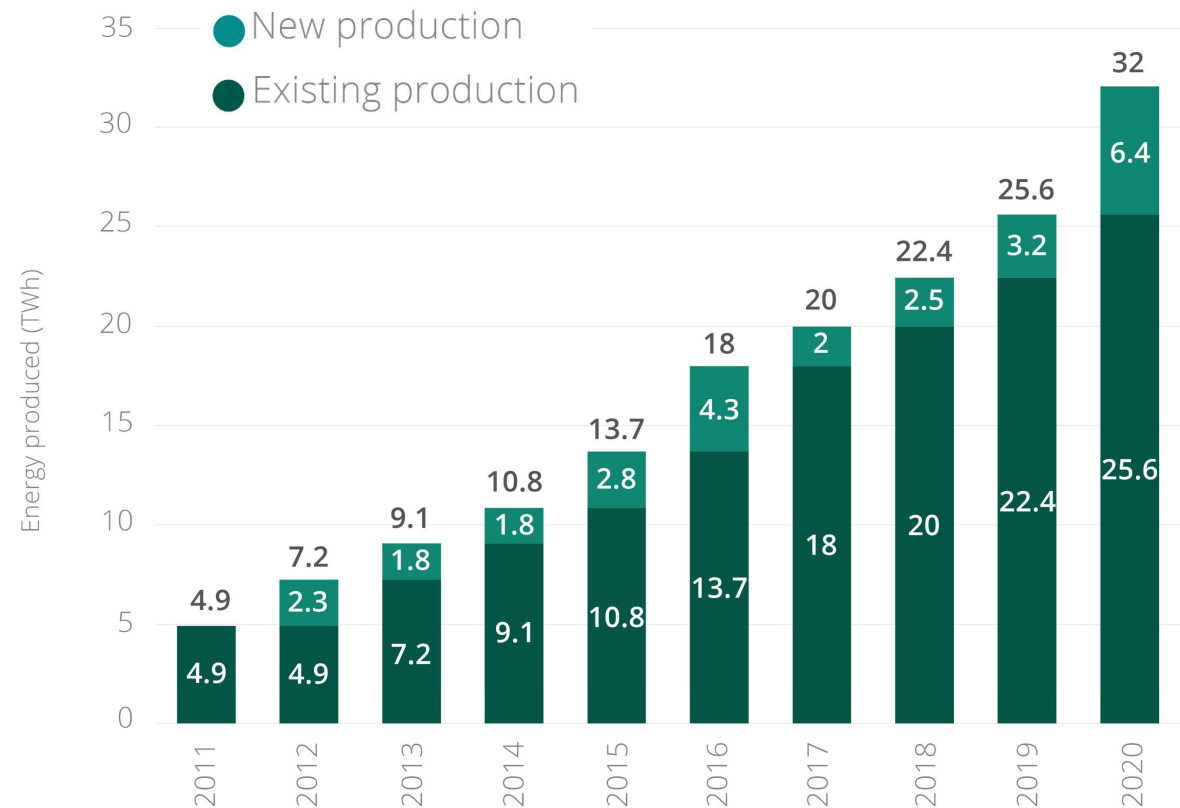
30 – 40%
in 2050

- 🌱 Taking into account **decreasing gas demand**, biomethane can cover **30 – 40% of the gas demand** by 2050.

Growth of Europe's biomethane production

The combined biogas and biomethane production in Europe in 2020 was **191 TWh**.

Especially the **share of biomethane is steeply increasing**. Growth in 2020 was double the growth of 2019.

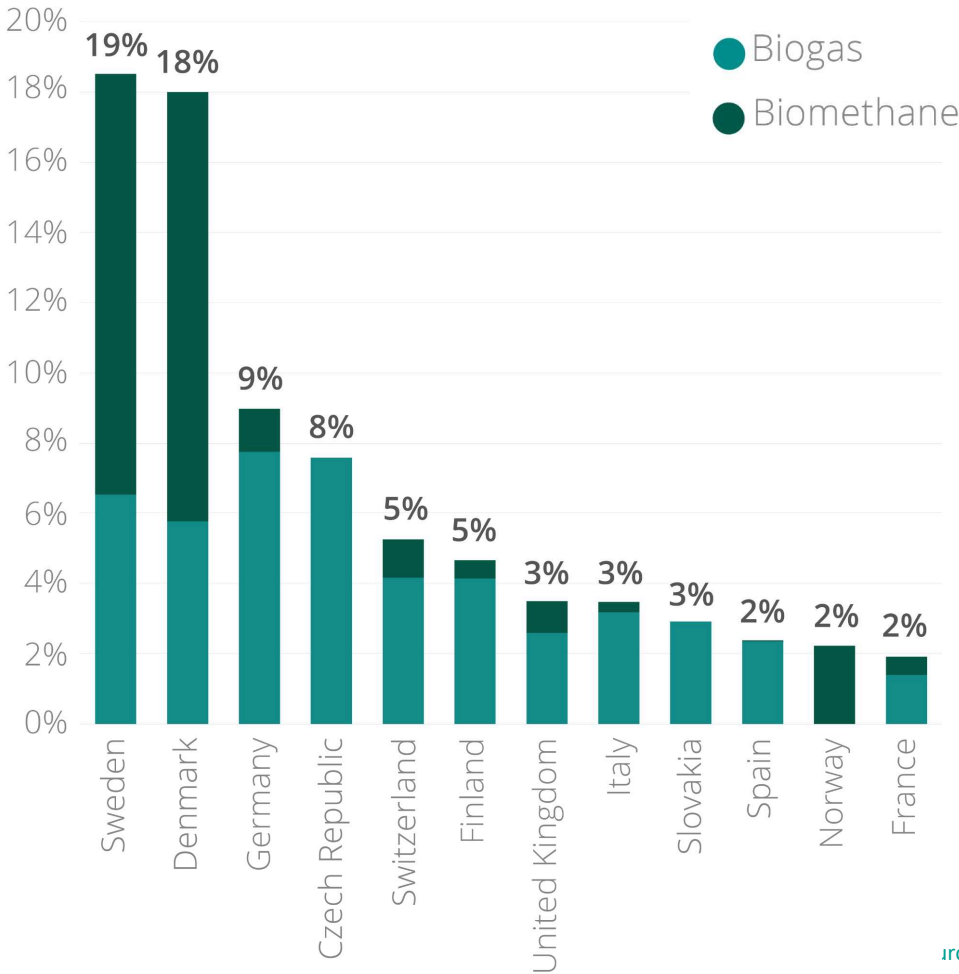


Production in relation to the country's total gas demand

This graph shows the percentage of the gas consumption which could be covered with biomethane **if all biogas were upgraded**.

For several countries significant shares are already reached.

Energinet reports **Denmark already reaches 25%** by October 2021.



Biomethane potential per feedstock type

Apart from total potentials, most studies distinguish between various feedstock types.

Not all studies consider all feedstock types.

When the averages per feedstock type are summed up, the total biomethane potential reaches **1,673 TWh**.

	Average
Sequential crops	459
Agricultural residues	295
Manure	246
Food waste	119
Industrial wastewater	142
Sewage sludge	30
Gasification	383
Total	1,673

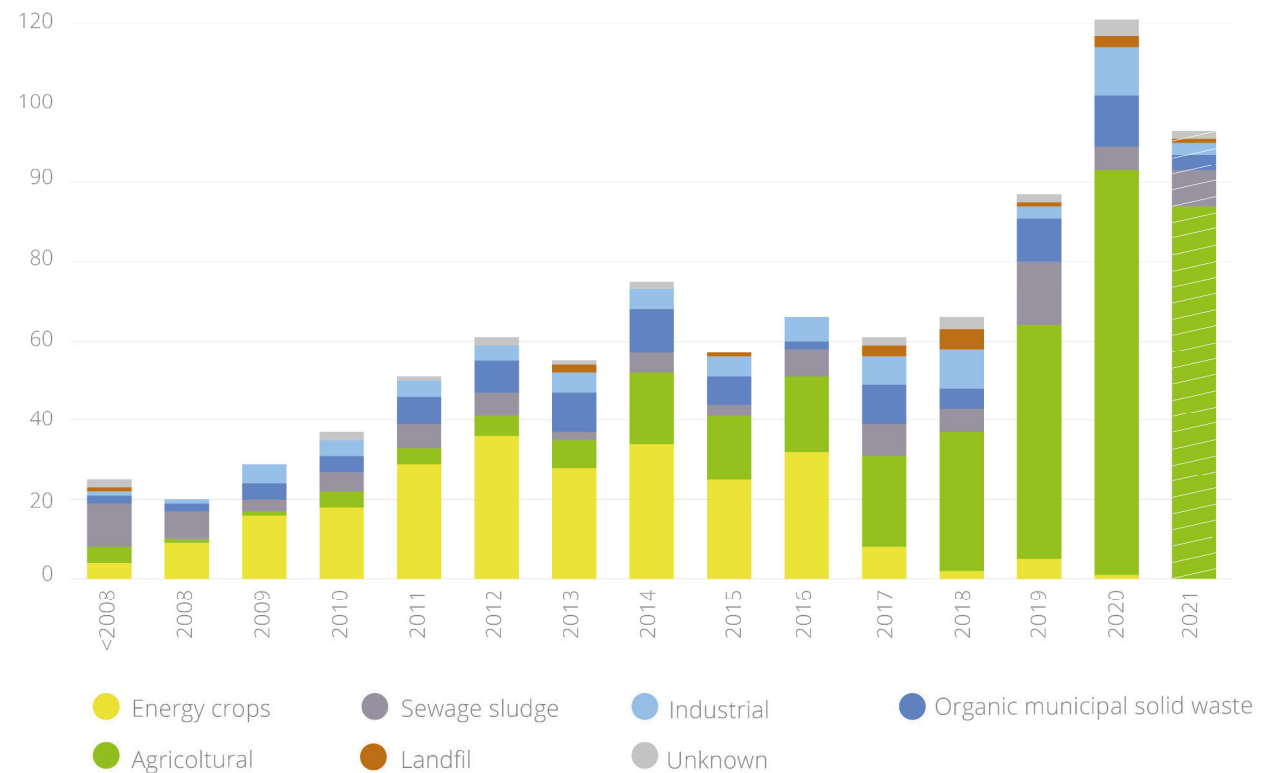
Poll question 2

Trends in feedstock usage for biomethane production

Figure shows the number of newly installed biomethane plants each year.

2013 saw the beginning of a move away from energy crops, **towards agriculture substrates, municipal waste and sewage sludge.**

Almost no new plants on energy crops since 2017.



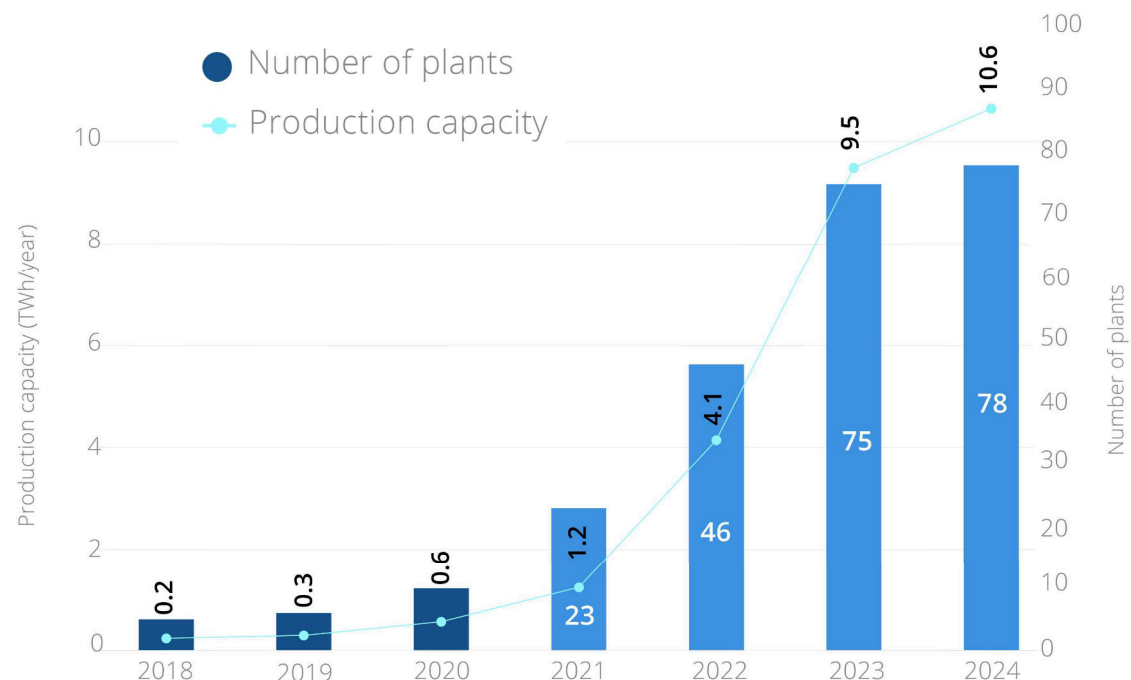
Poll question 3

Bio-LNG production capacity in 2024

The Bio-LNG production capacity by **2024**, considering only confirmed plants, adds up to **10.6 TWh per year**.

With this volume, almost **25,000 LNG trucks** can be fuelled year-round.

In comparison, NGVA expects increase in LNG trucks from **12,000 today** to **280,000 by 2030**.

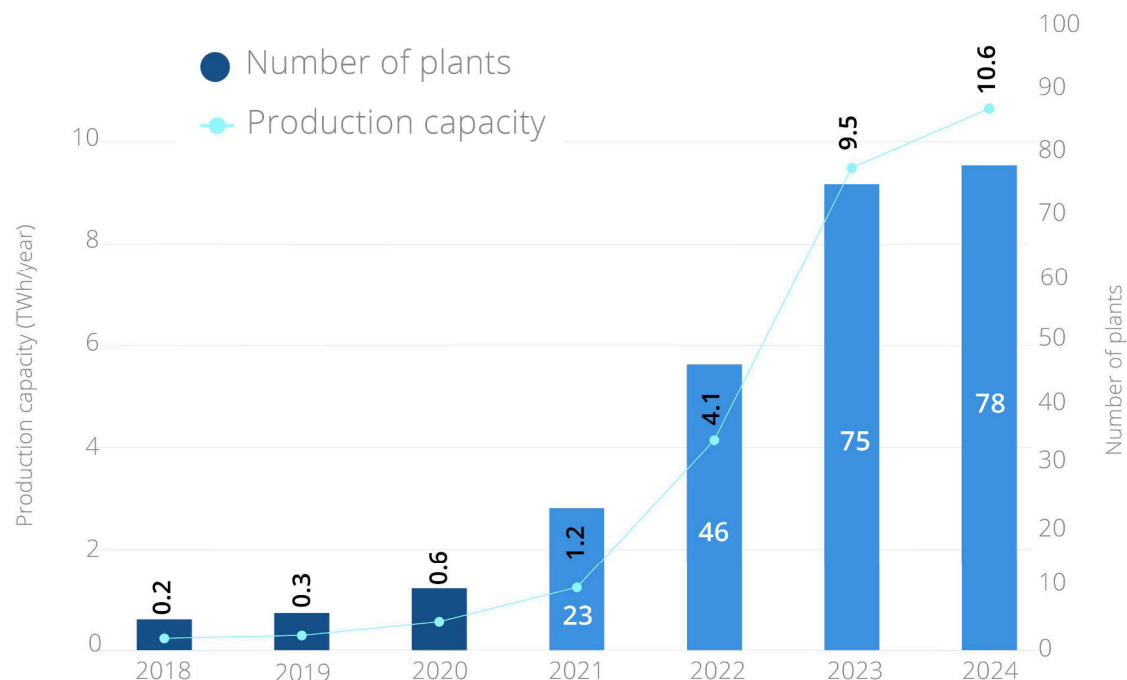


Bio-LNG production capacity in 2024

All Bio-LNG production use **sustainable feedstocks**, mainly agriculture residues and municipal waste.

One plant is already using the **Bio-CO₂ stream for further application** and another 13 plant are planning to do so.

Germany, Italy and **the Netherlands** are expected to be the leading Bio-LNG producers in the years ahead.



Bio-CNG and Bio-LNG infrastructure

An **extensive network of CNG and LNG filling stations is already in place** in Europe and a large portion delivers Bio-CNG and Bio-LNG.

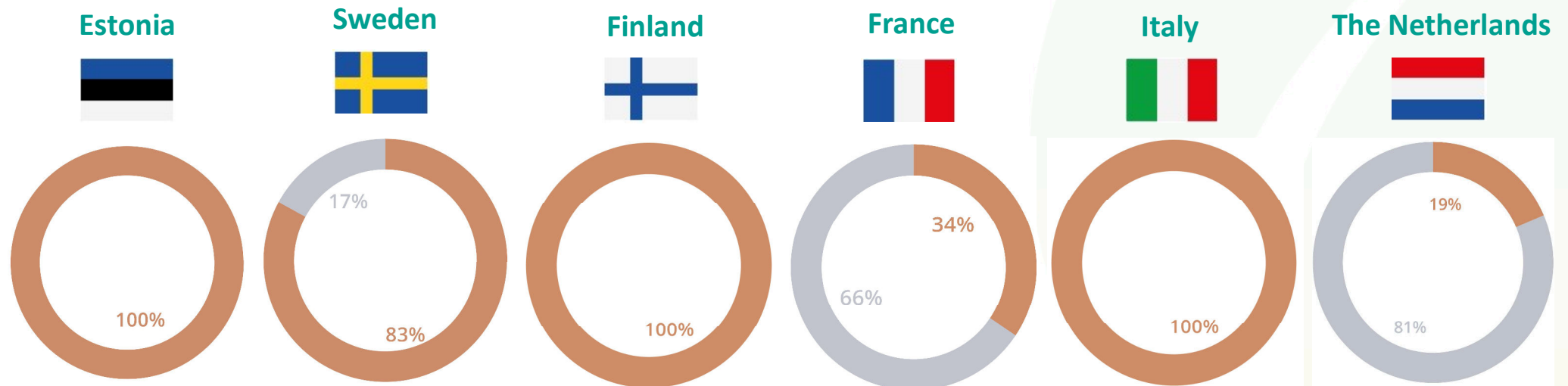
Either via direct **physical delivery or via GOs.**

There are 4,056 CNG and 441 LNG filling stations in service in Europe of which it is estimated **1,500 provide Bio-CNG and 100 Bio-LNG.**

Country	Bio-CNG and Bio-LNG filling stations	CNG and LNG filling stations
Sweden	265 Bio-CNG stations 23 Bio-LNG stations	265 CNG stations 25 LNG stations
Italy	Unknown	1,466 CNG stations 103 LNG stations
Germany	533 Bio-CNG stations 15 Bio-LNG stations	810 CNG stations 86 LNG stations
Norway	9 Bio-CNG stations 1 Bio-LNG stations	26 CNG stations 3 LNG stations
Finland	67 Bio-CNG stations 11 Bio-LNG stations	67 CNG stations 11 LNG stations
Estonia	23 Bio-CNG stations no Bio-LNG stations	23 CNG stations 2 LNG stations

Countries dedicated to biomethane use in transport

Several countries specifically **encourage the use of biomethane in transport**



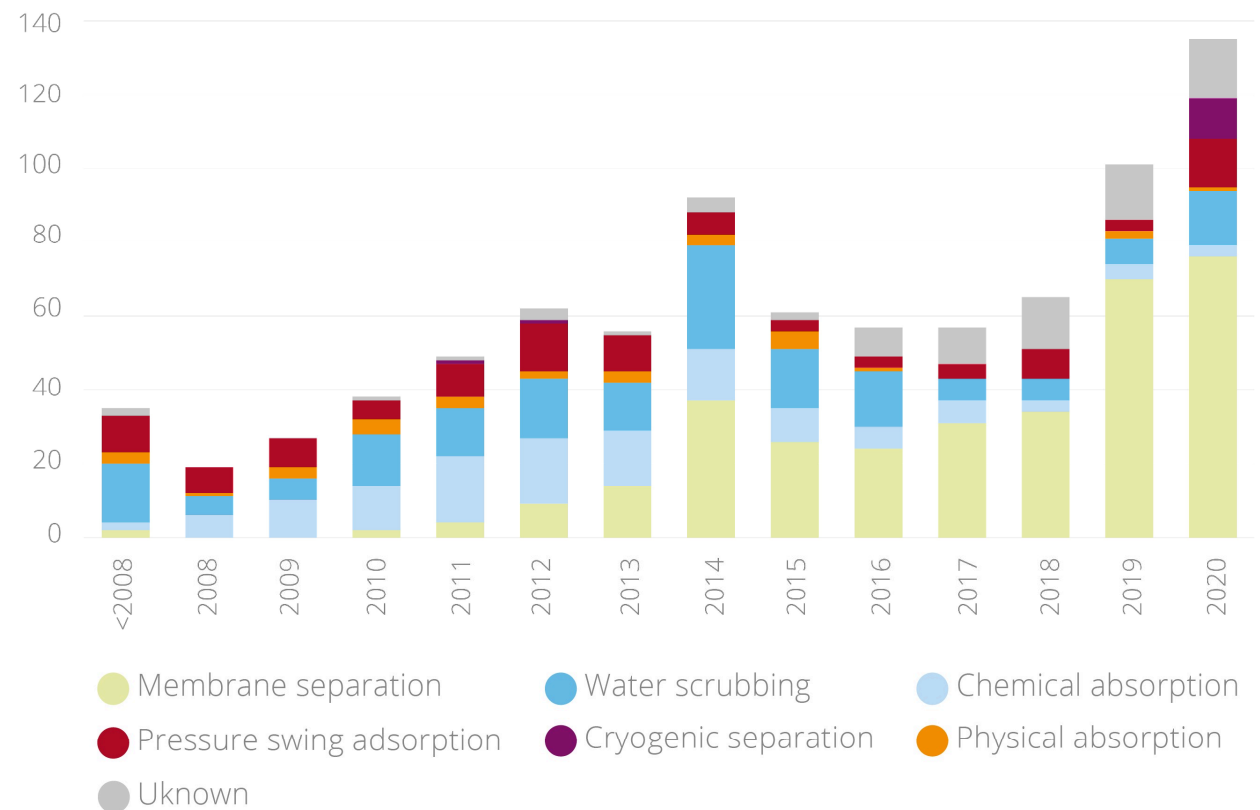
Poll question 4

Trends in upgrading technologies

Figure shows the number of newly installed biomethane plants each year.

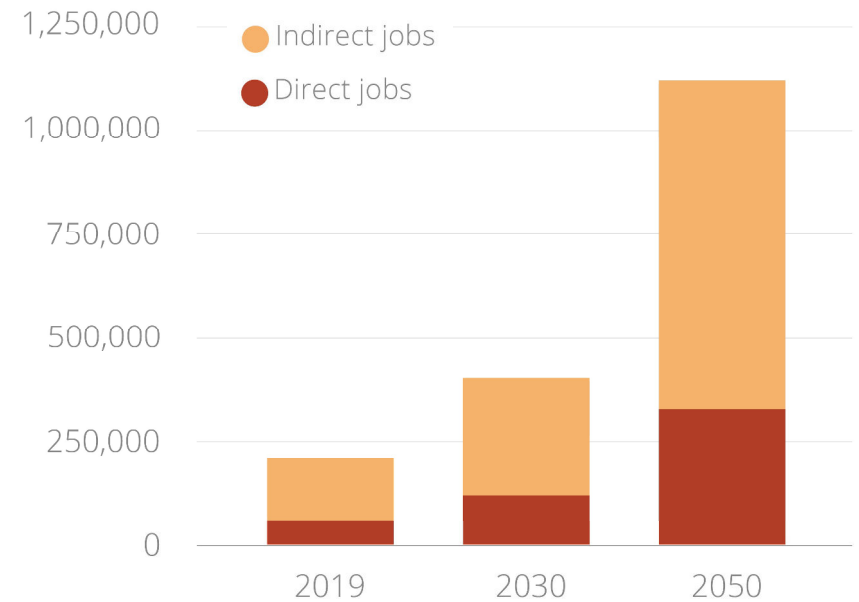
Membrane separation is the most installed upgrading technology in recent years.

Pressure swing adsorption and **cryogenic separation** are gaining importance as well.



Creating local green jobs with producing green gas

Taking the weighted average from different studies and estimates it is calculated that our sector is expected to create **420,000 jobs by 2030** and **over one million jobs by 2050**.



	Biogas and biomethane production (GWh)	Direct jobs	Indirect jobs	Total jobs
2020	190,891	61,398	147,635	216,717
2030	370,000	119,005	286,157	420,059
2050	1,020,000	328,069	788,865	1,158,000

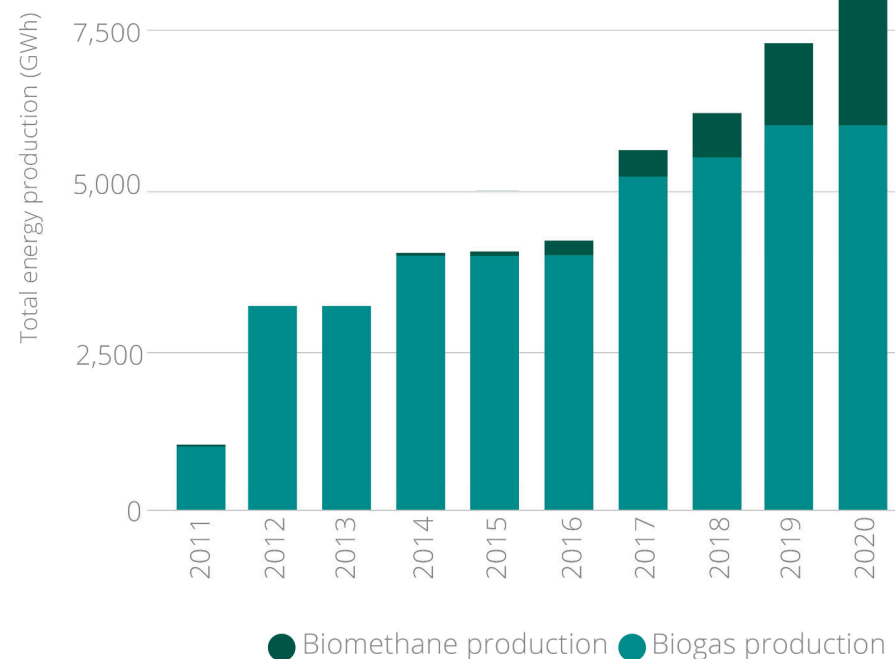
Country analysis France

Biogas production: 6,083 GWh

Biomethane production: 2,207 GWh

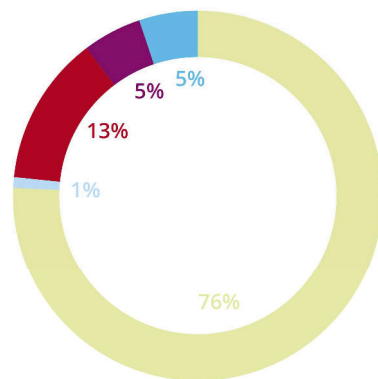
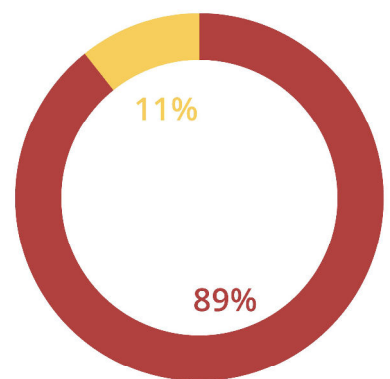
France is home to **Europe's fastest growing biomethane market**. 91 plants started operation in 2020 while another 81 plants were installed between January and July 2021.

A further **950 projects are in various stages of development** with a combined production capacity of **22.6 TWh/year**.

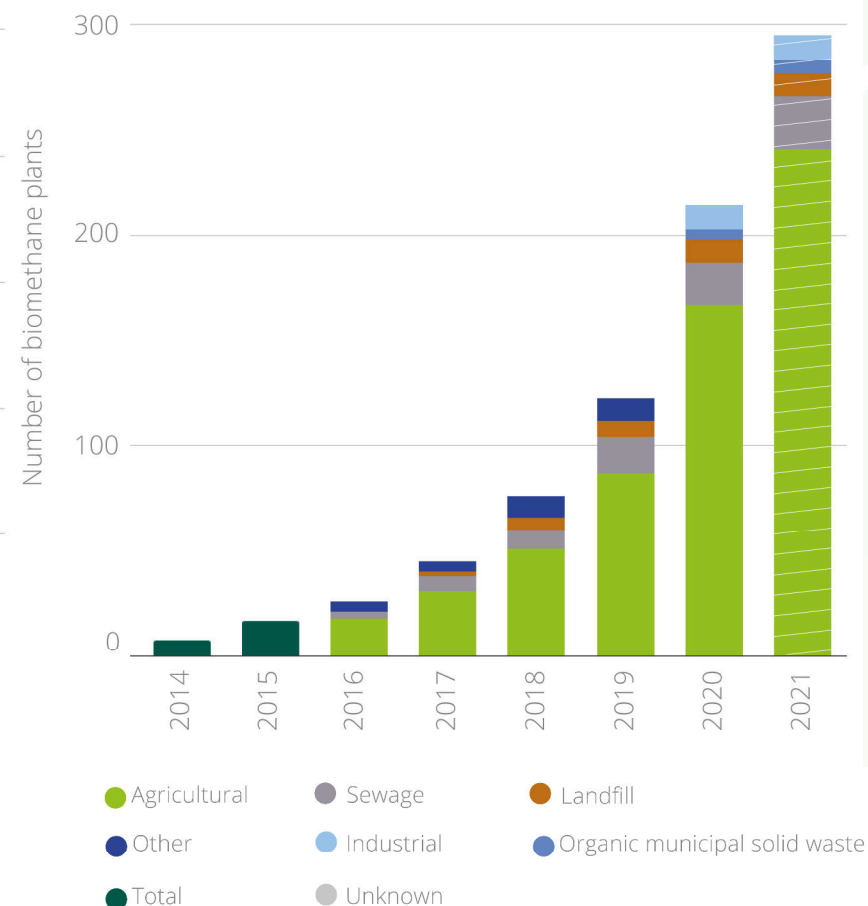


Country analysis France

Most biomethane plants are **agricultural based**. **89%** of the biomethane plants is connected to the **distribution grid** and **11%** to the **transport grid**. The most often used upgrading technology is **membrane separation**.



- Transport grid
- Distribution grid
- Pressure swing adsorption
- Chemical absorption
- Cryogenic separation
- Membrane separation
- Water scrubbing



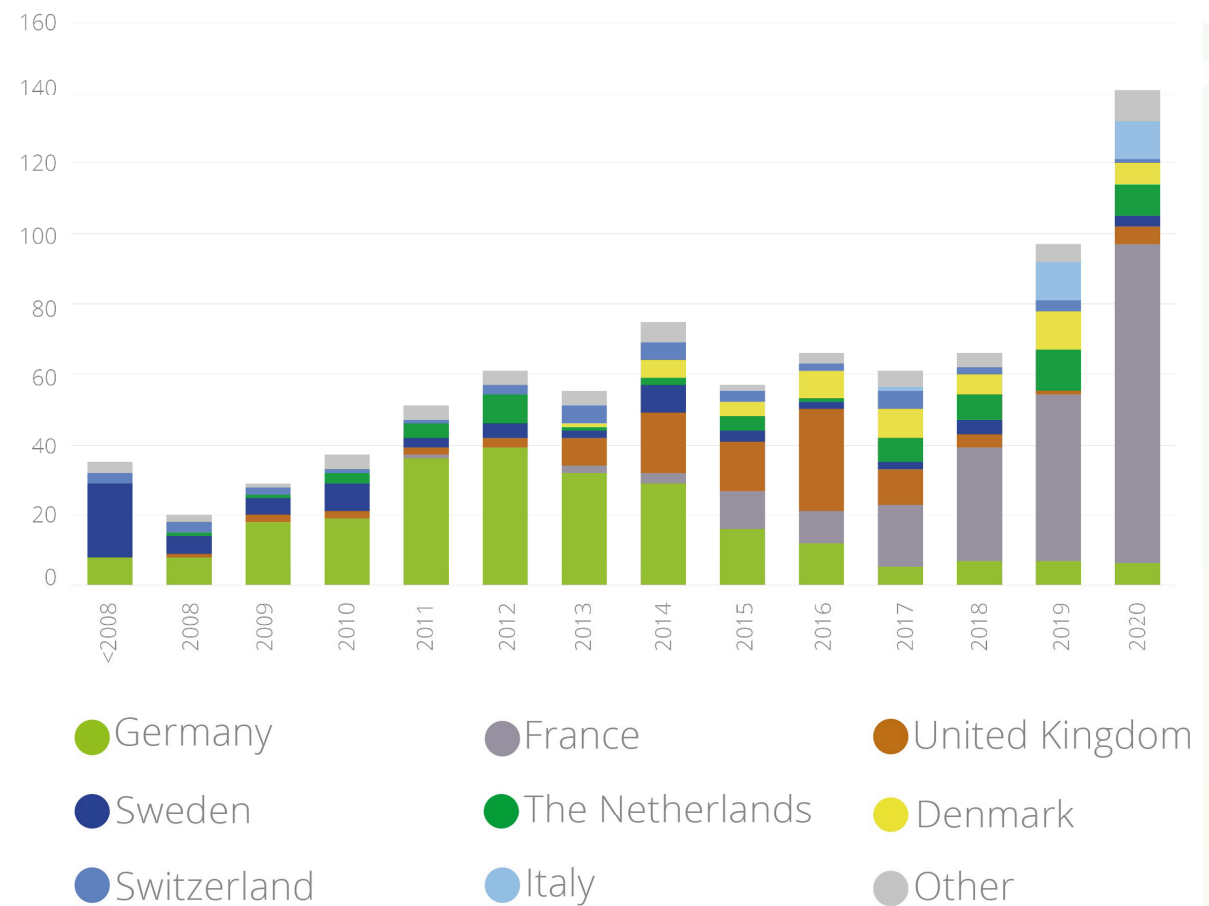
- Agricultural
- Sewage
- Landfill
- Other
- Industrial
- Organic municipal solid waste
- Total
- Unknown

Biomethane growth per country

Germany led Europe's biomethane market for almost a decade.

France is market leader since 2017.

After France, the countries which saw most growth were **Italy**, **Denmark**, **Germany** and **the Netherlands**.



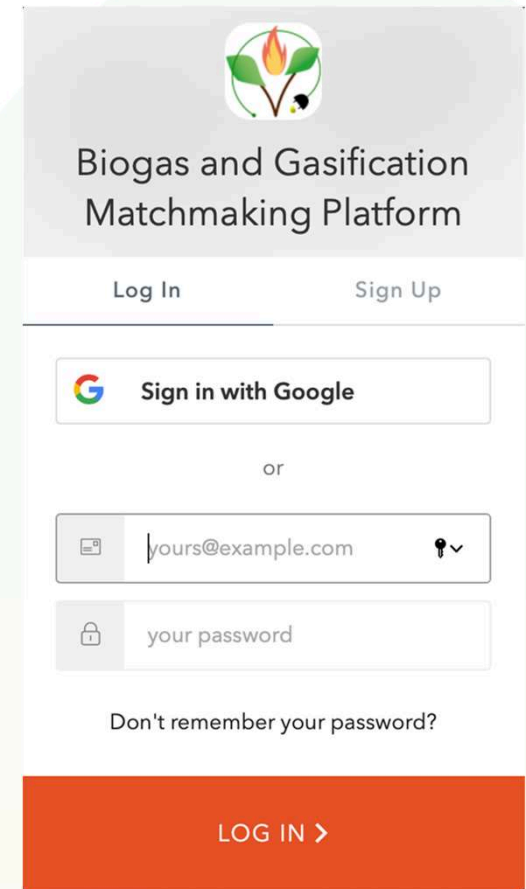
Biogas and Gasification Matchmaking Platform



Digital global
Biogas
Cooperation

= online and **free** platform which facilitates **worldwide networking** and is considered as an **additional marketing option** for EU companies and for stakeholders in countries of the global south to get in contact and connect with each other

- **Database** of biogas and gasification related stakeholders from EU and non-EU companies
- **B2B Matchmaking** feature
- **Marketplace** to promote business opportunities
- **Information hub** on available biogas and gasification technologies and services



The screenshot shows the login interface for the Biogas and Gasification Matchmaking Platform. At the top, there is a logo and the platform's name. Below this are links for 'Log In' and 'Sign Up'. A 'Sign in with Google' button is present, followed by an 'or' separator. There are two input fields: one for an email address (pre-filled with 'yours@example.com') and one for a password (pre-filled with 'your password'). A link for 'Don't remember your password?' is located below the password field. At the bottom, there is a large orange 'LOG IN >' button.

Any questions?

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- 🌱 Free for EBA members
(download via the EBANET)
- 🌱 For sale for non-members
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Thanks to:

