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Bioenergy Europe’s Statistical Report has been enriched each year with new figures and information, collecting unique data on the developments of the European bioenergy market from a growing number of international contributors.

Bioenergy Europe develops detailed reports that aid industry leaders, decision makers, investors and all bioenergy professionals to understand the situation of bioenergy in Europe.

With more than 150 graphs and figures, readers of Bioenergy Europe’s Statistical Report can get accurate and up-to-date information on the EU-28 energy system such as the final energy consumption of biomass for heat and electricity, the number of biogas plants in Europe, the consumption and trade of pellets, the production capacity of biofuels and other key information to help break down and clarify the complexity of a sector in constant evolution.

In 2017, the report was rewarded by the European Association Awards for being the ‘best Provision of Industry Information and Intelligence’, a recognition after a decade of collective work.

In 2017, the Report was rewarded by the European Association Awards for being the ‘best Provision of Industry Information and Intelligence’, a recognition after a decade of collective work.
OUR ACTIVITIES

Bioenergy Europe carries a wide range of activities aimed at supporting its members on the latest EU and national policy developments. Bioenergy Europe works to voice their concerns to EU and other authorities, including advocacy activities in key policy areas as well as the organisation of dedicated working groups.

Working Groups

Bioenergy Europe's working groups act as a platform for members to discuss common issues and exchange information on the state of play of bioenergy.

There are currently 7 active working groups:

- Agrobiomass & Energy Crops;
- Biopower & CHP;
- Competitiveness;
- Domestic Heating;
- Sustainability;
- Pellets;
- Wood Chips.

Certification Schemes

Thanks to the experience and authority acquired over the last 20 years, Bioenergy Europe has successfully established three international certification schemes to guarantee high quality standard for fuels, namely, ENplus®, GoodChips® as well as the latest edition in the certification for sustainable bioenergy: SURE.

Networks

Bioenergy Europe is the umbrella organisation of both the European Pellet Council (EPC) and the International Biomass Torrefaction Council (IBTC). These networks have been created thanks to the dynamics of Bioenergy Europe members. Today, these networks bring together bioenergy experts and company representatives from all over Europe and beyond.

The European Pellet Council (EPC), founded in 2010, represents the interests of the European wood pellet sector. Its members are national pellet associations or related organisations from over 18 countries.

EPC is a platform for the pellet sector to discuss issues relating to the transition from a niche product to a major energy commodity. Issues include the standardisation and certification of pellet quality, safety, security of supply, education and training, and the quality of pellet-using devices. EPC manages the ENplus® quality certification.

Launched in 2012, the International Biomass Torrefaction Council (IBTC), aims to build the first platform for companies that have common interests in the development of torrefied Biomass markets. Currently, the IBTC initiative is supported by more than 23 companies worldwide.

IBTC's objective is to promote the use of torrefied biomass as an energy carrier and to assist the development of the torrefaction industry. In this respect, IBTC's key activities are to undertake studies or projects, and to commonly voice its members' concerns to third parties to help to overcome barriers of market deployment.

For further information on Bioenergy Europe's Networks & Certification Schemes visit www.bioenergyeurope.org
As the common voice of the bioenergy sector, Bioenergy Europe, aims to develop a sustainable bioenergy market based on fair business conditions and does so by bringing together national associations and companies from all over Europe – thus representing more than 4000 indirect members, including companies and research centres.

*Members as of June 2020.
Resource efficiency, flexibility and clean solutions are the key for success in changing energy markets. Based on our decades-long experience, we have the know-how to deliver the best solutions based on biomass, waste or on a mixture of different fuels.

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1. Biogas in Europe

The gross inland energy consumption of biogas has tremendously increased since 1990 and has been multiplied by a factor of 25. This increase was supported by the fast development of advanced technologies, resulting in higher plant efficiency, cheaper digesters and upgrading units used for the conversion of raw biogas to biomethane of natural gas grade. The use of digestate as an organic fertiliser also offers a sustainable and locally produced alternative to mineral fertilisers and can provide an additional source of income to farmers as the market matures.

Nevertheless, in 2018 biogas provided a marginal share of the total gross inland energy consumption of the EU28, (only 1%), representing 11% of the bioenergy, the equivalent of around 4% of natural gas consumed across Europe in 2018. Those figures show that there is a real need to promote biogas as one of the reliable solutions for a low-carbon energy transition.

**Figure 1** Evolution of the gross inland energy consumption of biogas and natural gas (right axis) in EU28 (in k toe)

![Graph showing the evolution of gross inland energy consumption of biogas and natural gas in EU28 from 1990 to 2018.](image)

*Source: Eurostat*

**Figure 2** Biogas gross inland energy consumption by end-use in 2018 in EU28 (in k toe and %)

- Transformation input - electricity and heat generation
- Final energy consumption - agriculture and forestry
- Final energy consumption - commercial and public services
- Transformation input - for blended natural gas
- Final energy consumption - industry sector
- Energy sector within the energy sector*
- Final energy consumption - households
- Final energy consumption - transport sector
- Distribution losses

![Pie chart showing the distribution of biogas consumption by end-use in 2018 in EU28.](image)

- Transformation input - electricity and heat generation: 868 k toe (5%)
- Final energy consumption - agriculture and forestry: 778 k toe (5%)
- Final energy consumption - commercial and public services: 634 k toe (4%)
- Transformation input - for blended natural gas: 604 k toe (4%)
- Final energy consumption - industry sector: 510 k toe (3%)
- Energy sector within the energy sector*: 83 k toe (0%)
- Final energy consumption - households: 153 k toe (1%)
- Final energy consumption - transport sector: 306 k toe (2%)

*Mainly the biogas consumed as energy for support operations in biogas gasification plants (485 k toe)

*Source: Eurostat*
Figure 3 Share of biogas within the total bioenergy gross inland consumption in 2018 (in %)

Source: Eurostat

Almost one third of biogas final consumption is directly used within different sectors (commercial and services, agricultural, industrial and residential). Transport represented only 2% of the final usage of biogas in 2018 (in the form of biomethane). Germany, Italy, and the United Kingdom are the leaders in biogas production within Europe. These three countries consume respectively 52%, 11% and 8% of the gross final energy consumption of biogas within Europe.

Figure 4 Gross final energy consumption from biogas by end-use in EU28 in 2018 (in %)

Source: Eurostat

* In agriculture, industry, commercial, households & others.
The biogas sector is expanding and has experienced major improvements in the last decade in terms of efficiency (physical and economic) due to research and innovation. Germany is the European leader in biogas and its number of biogas plants increased in 2018 by 113 installations compared with 2017. On their side, the United Kingdom and France have also registered significant increase in the number of new plants in operation (+102 and +35 respectively).

In EU28, landfill and sewage gas accounts for around 24% of total biogas production while most of the biogas is produced from anaerobic fermentation of agricultural feedstock.

Table 2: Primary Energy Production of biogas by type in EU28 Member States in 2018 (in ktoe)

<table>
<thead>
<tr>
<th>EU28</th>
<th>Total Biogas</th>
<th>Landfill gas</th>
<th>Sewage sludge gas</th>
<th>Other biogases from anaerobic fermentation</th>
<th>Biogases from thermal processes</th>
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<tr>
<td>EU28</td>
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<td>1.26T</td>
<td>1.14T</td>
<td>11.30T</td>
<td>1158</td>
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<tr>
<td>Growth rate (2017-2018)</td>
<td>0%</td>
<td>-4%</td>
<td>3%</td>
<td>0%</td>
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<td>Growth rate (2017-2018)</td>
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</tr>
<tr>
<td>UK</td>
<td>2.20T</td>
<td>1.10T</td>
<td>360k</td>
<td>1.273k</td>
<td>n.a.</td>
</tr>
</tbody>
</table>
In Europe, up to 72% of the feedstocks used for biogas production come from the agricultural sector such as energy crops, manure, as well as other agricultural residues. The utilisation of agricultural residues such as manure is particularly important in countries such as Denmark, France and Italy. This underlying growth in synergies between animal farming and biogas provide a profitable manure management solution. Energy crops such as maize, silphium or sorghum are largely used in Germany, Austria or Latvia. It can be noted that with inter-cropping schemes there is the possibility to avoid the land-use competition between food and energy. The organic waste (municipal – included in figure 5 in “other”, or industrial – from food and beverage industries) still has the potential to be developed for use in biogas production as it is currently underrepresented except in some countries (e.g. Finland, Belgium or Poland).
2. Biomethane in Europe

Biomethane is defined as methane produced from biomass, with properties close to natural gas. The initial product is raw biogas, containing 40-60% methane, which is purified (upgraded) to reach a high methane content (usually >96%) which can then be used in the gas grid or as a fuel for transport.

The number of biomethane plants has more than tripled from 2011 to 2018 showing the fast development of this sector. For more information on the biomethane plans in Europe, see the GIE - EBA Biomethane Map.

Figure 9 Evolution of the number of biomethane plants in Europe *

*EU28 + Switzerland + Norway + Iceland
Source: EBA

Between 2017 and 2018 the biomethane sector expanded significantly with a growth of biomethane plants of 13%. In 2017, 70 new biomethane plants were constructed in Europe. Germany reached 200 biomethane plants in 2018. The United Kingdom follows with 93 plants. In France, 32 additional plants were installed in 2018, reaching a total of 76 biomethane plants. Finally, Belgium (1 plant), Estonia (2 plants) and Ireland (1 plant) reported their first biomethane production plants in 2018.
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As our sponsor for the Statistical Report, you will be able to have the highest level of visibility. In addition to having full-page adverts for all 7 statistical reports, you will also have logos placed on publications, policy briefs, content-driven tweets, as well as LinkedIn posts, amongst a variety of additional advantages.

In relation to the 2020 European Bioenergy Future conference (17th-19th of November 2020), you will be able to benefit from the 'Main' sponsorship or 'Break Dinner' sponsorship package where you can decide how conspicuously your organisation is presented during this event.

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*Bioenergy Europe Members recieve a 50% discount on this sponsorship package