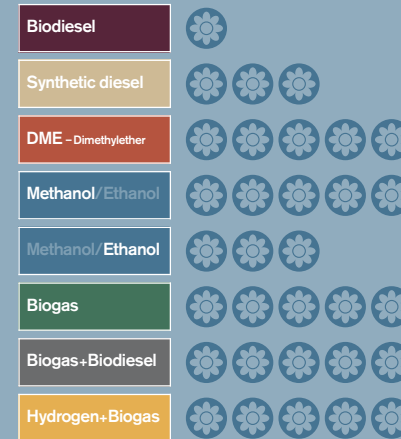
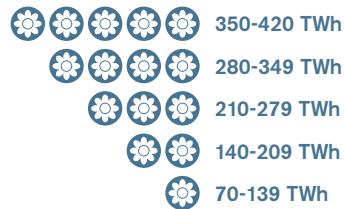


The availability of raw material and the choice of production process determine the amount of fuel that can be produced.

While some processes can use many different feedstocks and complete crops, others are limited to parts of individual crops. Competition from food production is a general problem with feedstocks derived from agricultural products.

According to a study by EUCAR/CONCAWE/JRC, the potential availability of waste wood, farmed wood, and straw in the EU in 2012 will be approximately 700 TWh (Terawatt-hours) per year, while that of sunflower oil and rapeseed oil will be an estimated 80 TWh per year. The amount of fossil fuel that can be replaced by biomass varies depending on the efficiency of the fuel production process and the end use.

Since biomass potential in the EU in 2012 will not be sufficient to replace fossil fuels, further initiatives and dedicated measures will be required to increase the proportion. In the longer term, it will be possible to replace fossil fuels in significant quantities provided that the right options are chosen. Importing biomass from regions with better cultivation conditions is a further possibility.



The 350-420 TWh range is equivalent to approximately 10-12 percent of the predicted demand for petrol and diesel in the EU in 2015.

DME, methanol, biogas, biogas+biodiesel and hydrogen+biogas receive the highest rating.

Synthetic diesel, DME, methanol, and biogas can all be produced from complete crops, wood feedstocks or other biological materials; however, synthetic diesel has a lower energy efficiency and yields a lower proportion of fuel for vehicle use. Household refuse and sewage can also be used in the production of biogas.

Ethanol can be produced from a number of feedstocks, including waste wood and other biological materials containing cellulose, although at a relatively low efficiency.

Biodiesel, which has the lowest rating, is produced from vegetable oils, such as rapeseed oil and sunflower oil. Its availability is limited since rapeseed can only be grown on the same land every fourth or sixth year, while only the oil in the seeds can be used as fuel.

Source: EUCAR/CONCAWE/JRC and AB VOLVO