

## http://www.ecofys.com/en/publication/biofuels-baseline-2008/

this an extremely long and complex document (more than 500 pages). The tables are a bit complicated but do contain lots of useful data.

Ecofys is a leading consultancy in renewable energy, energy & carbon efficiency, energy systems & markets and energy & climate policy.

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Use of biofuels in the EU

Table 3. Total biofuel and all fuel consumption in road transport in the EU from 2005 – 2009 [Eurostat nrg 1073a; nrg 102a; tsdcc3401<sup>1)</sup>.

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	2005	2006	2007	2008	2009
Biodiesel (Mtoe)	1.4	2.3	4.2	6.8	9.1
Biogasoline (Mtoe)	0.6	0.8	1.2	1.8	2.3
Other liquid biofuels (Mtoe)	1.2	2.3	1.2	0.9	0.5
Total biofuels in road transport (Mtoe)	3.1	5.5	6.6	9.5	11.9
Total fuels consumed in road transport (Mtoe)	295.5	298.7	301.6	295.1	287.7
Share calculated	1.04%	1.81%	2.16%	3.12%	3.96%
Share Eurostat		2.00%	2.60%	3.50%	

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Table 4. EU Biofuel consumption in road transport in 2007 - 2009 expressed as absolute volume (ktoe). Growth of this consumption from 2007 to 2009.

Ranked according to 2008 market size [Eurostat nrg\_1073a].

Country	2007	2008	Growth	2009	Growth
	Volume	Volume		Volume	
Germany	2722	2506	-8%	2781	9%
France	1447	2272	57%	2454	8%
United Kingdom	346	790	128%	968	27%
Italy	141	754	435%	1180	62%
Spain	385	619	61%	1073	83%
Poland	106	441	316%	663	46%
Austria	308	385	25%	483	26%
Sweden	285	344	21%	361	7%
Netherlands	277	287	4%	373	36%
Hungary	29	165	469%	123	-25%
Portugal	133	128	-4%	201	58%
Slovakia	91	126	38%	168	48%
Czech Republic	30	110	267%	195	74%
Romania	40	107	168%	163	48%
Belgium	87	101	16%	286	184%
Finland	1	85	8400%	90	9%
Greece	85	69	-19%	78	3%
Lithuania	53	61	15%	52	3%
Ireland	22	54	145%	75	52%
Luxembourg	35	37	6%	41	21%
Slovenia	14	25	79%	30	40%
Cyprus	1	14	1300%	15	7%
Denmark	6	5	-17%	9	91%
Bulgaria	2	4	100%	4	1%
Latvia	2	2	0%	4	161%
Malta	0	0	0%	0	0%
Estonia	0	0	0%	0	0%
Total EU	6648	9491		11870	

See page 182 of original document for values on

Use of biofuels in road transport in Europe (in tonne oil equivalent - toe). production of biofuels in road transport in Europe (in tonne oil equivalent - toe).

See pg 150 on fo pages on countries – could pick out main biofuel crops or land used to grow biofuels

Table 12. Origin of biofuels consumed in the EU in 2008. Note: this table does not yet take into account the origin of the feedstock, which is discussed in the next sections.

	Biodiesel			Bioethanol	
	Volume (ktoe)	Fraction		Volume	Fraction
EU	5,622	83.0%	EU	1,402	76.9%
USA	780	11.5%	Brazil	289	15.9%
Argentina	133	2.0%	Pakistan	33	1.8%
Indonesia	165	2.4%	Bolivia	19	1.1%
Malaysia	35	0.5%	Egypt	14	0.8%
Singapore	16	0.2%	El Salvador	13	0.7%
Other countries	18	0.3%	Peru	13	0.7%
			Guatemala	11	0.6%
			Other countries	27	1.5%

Table 10. Feedstock<sup>1)</sup> of bioethanol produced in EU Member States in 2008. For reference, 2007 and 2009 composition for the EU as a whole is presented at the bottom of the table.

	Wheat	Maize	Barley	Rye	Triticale	Beet	Wine	Other <sup>2)</sup>	Unknown <sup>3</sup>
Austria	53%	38%				9%			
Belgium	100%								
Bulgaria									
Cyprus									
Czech Republic	12%					88%			
Denmark									
Estonia									
Finland									
France	36%	16%				38%	10%		
Germany	21%	9%	5%	11%	2%	26%		4%	21%
Greece									
Hungary		36%				64%			
Ireland									
Italy						61%	39%		
Latvia	100%								
Lithuania	6%			47%	47%				
Luxembourg									
Malta									
Netherlands	100%								
Poland	33%	33%		33%					
Portugal									
Romania									
Slovakia		100%							
Slovenia									
Spain	20%	49%	9%				15%		8%
Sweden	15%		1%				2%	2%	80%
United Kingdom						100%			
EU 2008	23%	18%	3%	5%	1%	25%	7%	1%	17%
EU 2007	30%	7%	7%	6%	1%	21%	7%	2%	19%
EU 2009	30%	23%	4%	5%	1%	32%	3%	1%	

Agra CEAS calculations. The feedstock composition of EU produced biofuels is not known from previous studies or official data. The EU fuel ethanol feedstock composition estimates are based on Agra CEAS analysis of plant capacity data from F.O. Licht; feedstock supply balance (industrial use)

Agra CEAS analysis of plant capacity data from F.O. Licht; feedstock supply balance (industrial use) estimates from industry sources; and wine alcohol for fuel ethanol tender results.

2) Other sources for ethanol can be e.g. whey (Ireland), paper pulp (Sweden), brewery waste (Finland, Germany), or fruit waste (Germany).

3) In Germany, Spain and Sweden, part of the ethanol produced according to Eurostat statistics cannot be confirmed by industry data. It is likely that this part of the ethanol is not really produced in these countries; it may have been imported under trade codes that do not directly link to ethanol.

Table 7. EU Biofuel<sup>1)</sup> production in ktoe in 2007- 2009 and average annual growth of this production between 2007 and 2009. Ranked according to

market size 2008 [Eurostat nrg\_1073a].

Country	2007	2008	2009	Growth '07-'09
Germany	3987	3878	3843	-2%
France	1127	1952	2213	40%
United Kingdom	384	283	211	-26%
Italy	180	703	1119	149%
Spain	380	372	887	53%
Poland	110	296	429	97%
Austria	260	278	305	8%
Sweden	430	456	557	14%
Netherlands	120	121	290	55%
Hungary	17	162	154	201%
Portugal	162	153	230	19%
Slovakia	59	139	150	59%
Czech Republic	90	105	195	47%
Romania	20	82	75	94%
Belgium	161	288	353	48%
Finland	0	12	69	0%
Greece	83	63	71	-8%
Lithuania	32	68	108	84%
Ireland	15	22	57	95%
Luxembourg	0	0	0	0%
Slovenia	4	7	6	22%
Cyprus	0	6	6	0%
Denmark	63	89	78	11%
Bulgaria	2	11	11	135%
Latvia	15	32	49	81%
Malta	:	:	:	0%
Estonia	0	0	0	0%
Total EU	7701	9578	11466	22%

Biofuels are defined as biodiesels, biogasolines and other liquid biofuels, they are suitable for and mainly used in transport, but since the end-use is not documented, it is possible that the biofuels have been used in sectors other than transport, such as for the production of heat and electricity. This may occur, for example, with pure plant oil (other liquid biofuels category), but is less likely with biodiesels and biogasolines.