



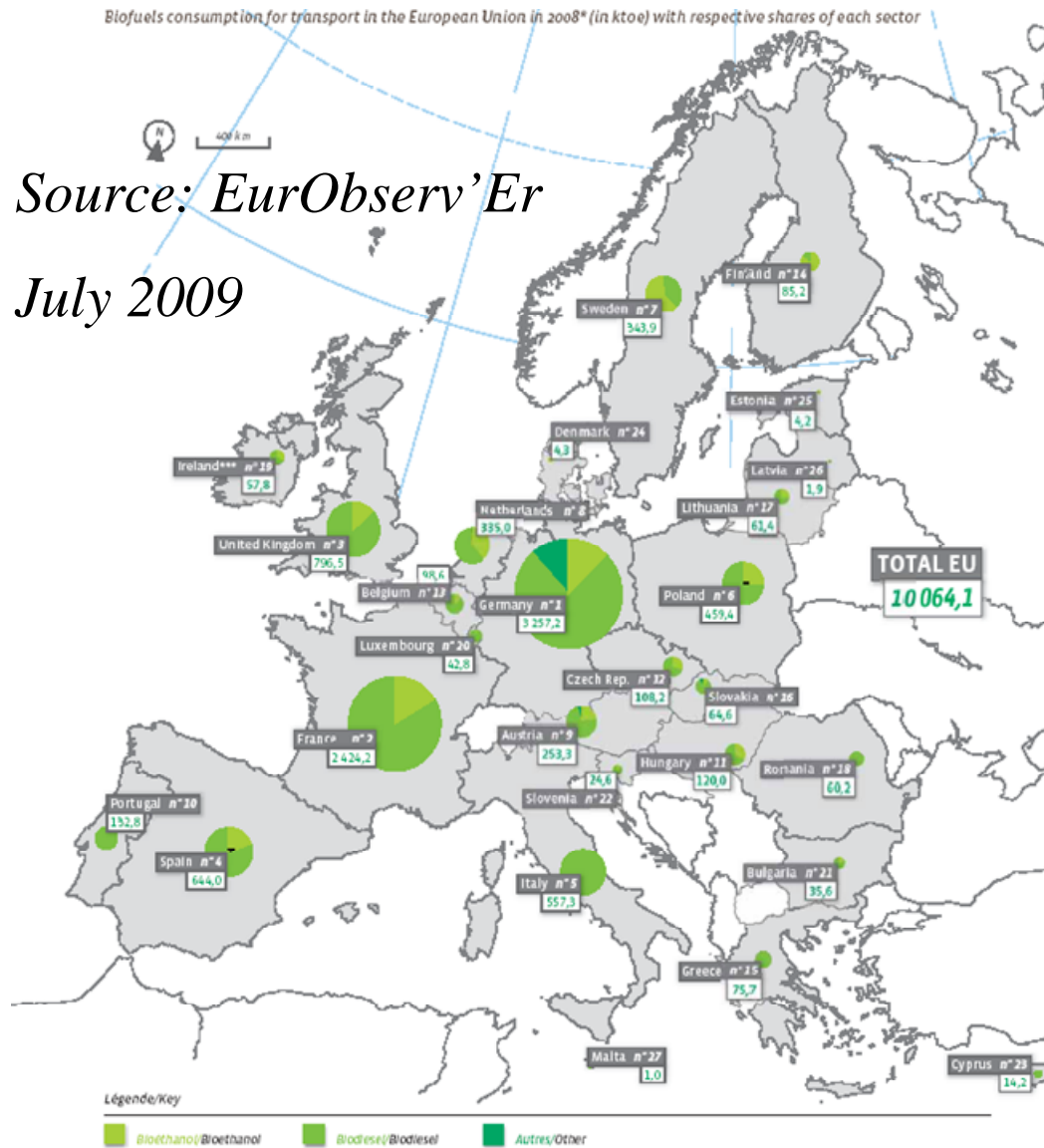
Implementation of 2009/28/EC directive in Poland and sustainability criteria for biofuels

Magdalena Rogulska
Institute for Fuels & Renewable Energy

Andrzej Kulczycki
Institute for Technics & Special Technologies Ltd



Polska Platforma Technologiczna Biopaliw i Biokomponentów



2008 Biofuels
consumption in PL

Bioethanol
118 794 ktoe

Biodiesel
340 560 ktoe



Poland

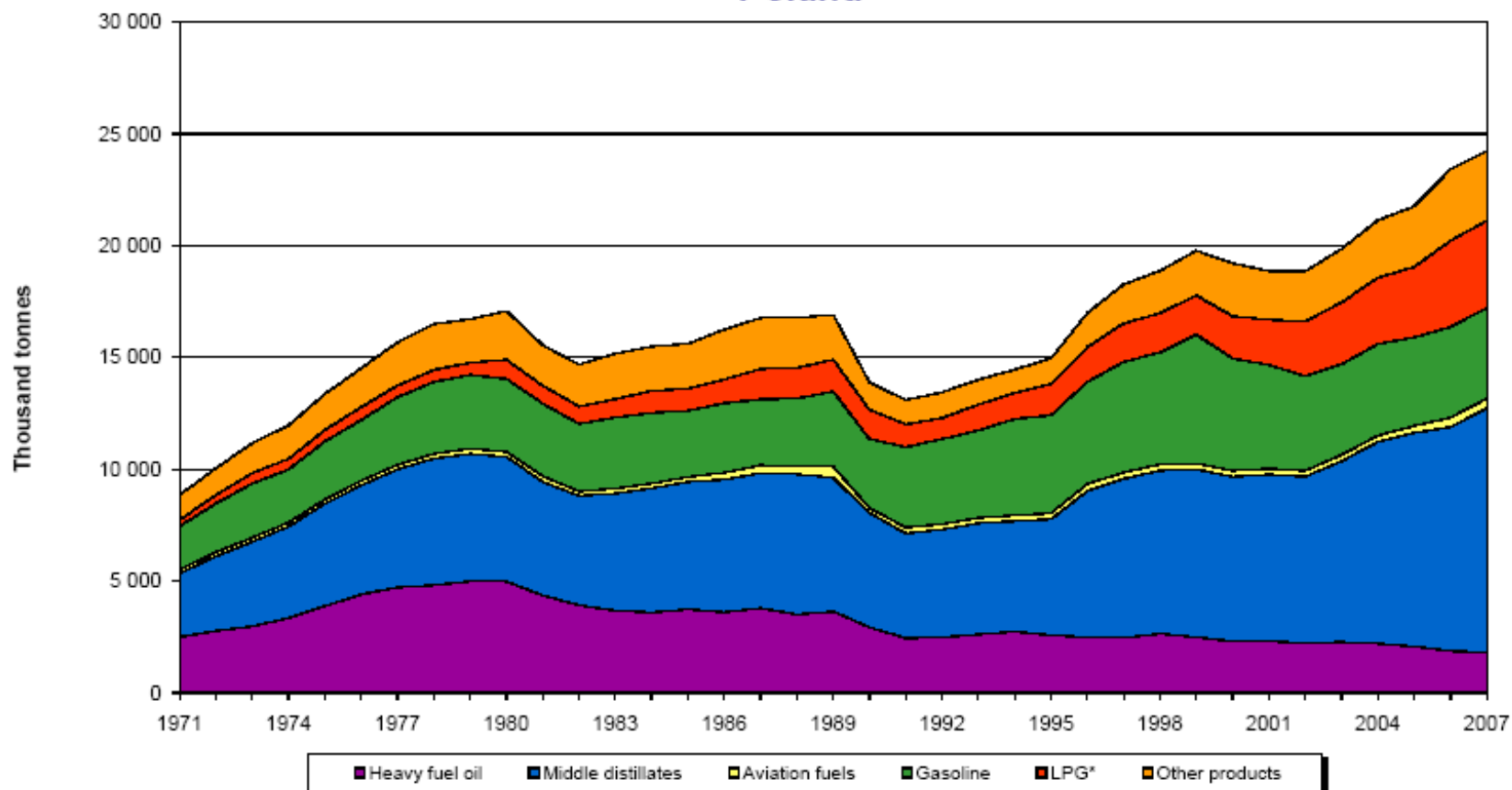
- Targets in **Polish Energy Policy till 2030**: 15% of RES in final energy consumption in 2020 and 20% in 2030
- 10% of renewable energy in transportation fuels in 2020, implementation of 2nd generation biofuels
- Sustainable biomass production from agriculture and forestry (not in conflict with food production and protection of forest resources from intensive exploitation for energy)
- Potential of biogas production from agriculture is large. The development of biogas production in agriculture is listed among the activities that have to be undertaken to reach the renewable energy targets.
- National program for development of biogas production from agriculture for energy purposes (mainly electricity and heat, but also injection to grid) is almost ready.



IEA Energy Statistics

Statistics on the Web: <http://www.iea.org/statist/index.htm>

Consumption of oil products *Poland*



* Includes LPG, NGL, ethane and naphtha.

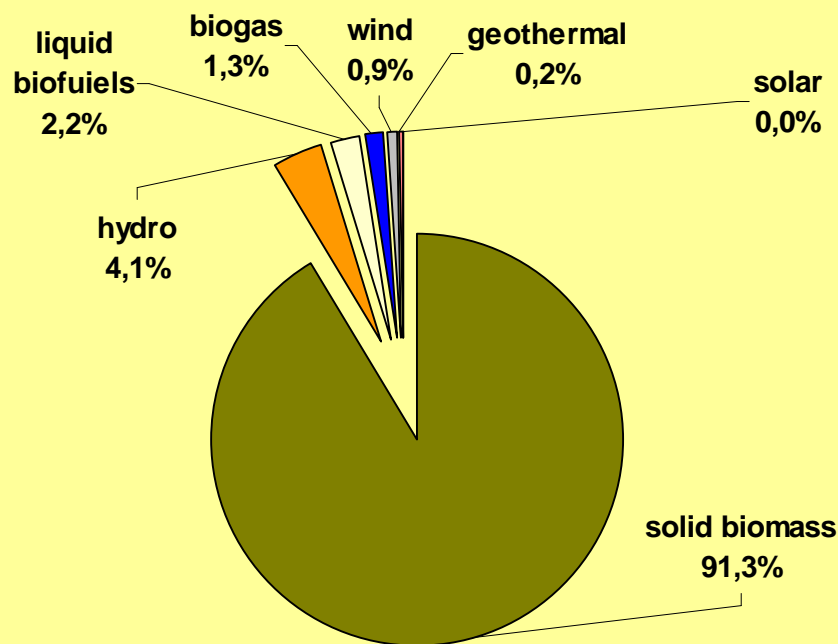
© OECD/IEA 2009

For more detailed data, please consult our on-line data service at <http://data.iea.org>.

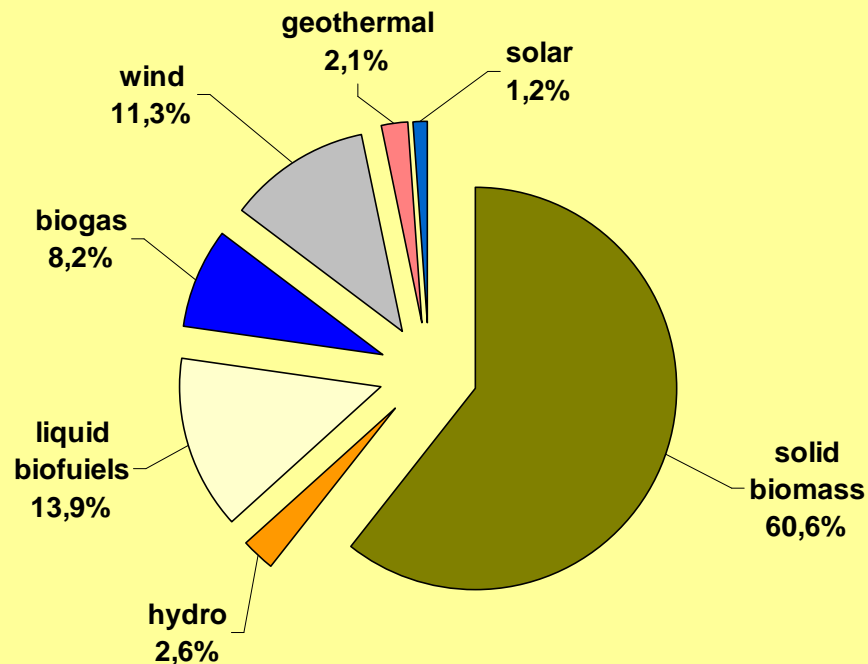


RES target for 2020: 15%

Structure of RES production in 2007



Structure of RES production in 2020 - projection from *Energy Policy up to 2030*



208,7 PJ in 2007



434,8 PJ in 2020



Biofuels- Polish approach

Poland is one of the countries which have developed biofuels in a significant way. Bioethanol was first used at the beginning of the 1990s, and biodiesel was introduced in 2006.

- **up to 5% of biocomponents in traditional fuels**
- **common availability of particular kinds of biofuels:
B20, B100**

E85 (in future)

- **designated fleets**
- **possibility of producing liquid biofuels by farmers for own use**
- **obligation of minimal share of biocomponents**



The situation before 2008 (energy content) was following:

	Consumption	Targets
2000	0.35%	-
2001	0.46%	-
2002	0.57%	-
2003	0.49%	-
2004	0.29%	-
2005	0.47%	0.50%
2006	0.92%	1.50%
2007	0.60%	2.30%



Implementation via obligation

Polish Governmental regulations:

- B20, B100 Quality Standards for Fuels, Biofuels and Biocomponents for open market
- Quality Standards for Fuels, Biofuels and Biocomponents: BX, E85, E95 (capture fleets) i B100 (self utilization)
- Tax reduction: fuel for Gasoline Engine (1,5 PLN/liter EtOH), fuel for Diesel Engine (1,0 PLN/liter FAME), pure biofuel 100% of tax 1680 PLN/1000 liter.
- Fuel Station Markers and System of Certification

New Tax Rates governmental regulations from May 2007 - 19% CIT

- Pure biofuels with 0,00 PLN fuel taxation
- Draft of new regulation for E85 and its distribution for open fuels



National Indicative Target

In June 2007, the Polish Government announced the adoption of following mandatory targets for the next 6 years in energy content:

2008	3.45%
2009	4.60%
2010	5.75%
2011	6.20%
2012	6.65%
2013	7.10%



The main factors, which determine development of fuels / biofuels market :

- Market demand on biocomponents / biofuels in relation to National Indicative Target
- Fuels quality requirements including maximum level of biocomponents concentration
- Sustainability criteria including GHG emission
- Development of biofuels technologies
- Fuel markets needs



Challenges

- Development of sustainable biomass production on agriculture land not in competition with food
- Wider implementation of waste to energy projects
- Strategy from 1st to 2nd generation biofuels
- Adjustment of vehicles to new kinds of fuels, further development of biofuels standardisation
- Promotion of new environmental-friendly lifestyle of the society
- Life Cycle Assessment and CO₂ reduction



End users - some questions

- **Green image - what benefits are companies getting from that?**
- **First runners - are they winners or losers?**
- **Sustainability certification system - it will be supporting the biofuels market (and in which part of the whole chain) or causing higher price of the products?**
- **Is society ready to pay for sustainable products?**



Activity of Polish government in implementation of Directives 2009/28/EC & 2009/30/EC

- National Action Plan: Pathways for renewable energy development till 2020
- Proposal was worked out in December 2009, now under discussion in Ministry of Economy, next days - public consultancy will be opened
- Polish government works out legislative documents implementing directives into national acts (e.g. last December amendment to Energy Law was published)



Conclusions

1. Polish government working out new legal regulations should:
 - take into account technical aspects of biofuel production including realistic scenario of new biofuels technologies development
 - prepare effective system of biofuels certification in aspect of quality and sustainability including GHG emissions
2. Legal and economic support is necessary for Polish biofuels producers; they should invest to be more competitive (GHG emission)
3. Oil industry is responsible for National Indicative Target and reduction of GHG emissions. Without legal and economic support it will be difficult to reach Directive 2009/30/EC requirements.



Final remarks

- Sustainable bioenergy production - production with minimal negative impact on environment and society - are believed to be of a great importance, considering the bioenergy potential in CEEC
- It is worth considering that the regulations on sustainable biomass production and processing are incorporated into the regulations stimulating bioenergy sector development - important for public perception on bioenergy sector
- CEEC have the opportunity to learn from the elaborated schemes on biomass sustainability (NL, UK, DE) and actively join to on going discussion and work on implementation of certification system.



THANK YOU FOR YOUR
ATTENTION!

Questions? More information needed?

Contact:

Magdalena Rogulska

mrogulska@ipieo.pl