Structural Funds for Sustainable Energy
Present and Future

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RENEWABLES IN NEW EU MS

	RE % of PE in 2001	Large hydro %	Biomass %
Cyprus	**1,8**	0	21,5
Czech Republic	**1,5**	28,1	71,9
Estonia	**11,5**	0,1	99,9
Hungary	**1,6**	3,9	94,3
Latvia	**34,9**	16,2	83,8*
Lithuania	**8,5**	4,1	95,9
Malta	**0**	0	0
Poland	**4,5**	4,9	95,0
Slovakia	**3,9**	58,4	40,4
Slovenia	**10,7**	44,6	55,4
EU 15	**5,8**		
*more than 400 % increase during last 10 years.			

	RES-E % in 2001	RES-E excl. large hydro	RES-E % 2010
Cyprus	0.05	**0.05**	6.0
Czech	3.8	**0.7**	8.0
Estonia	0.2	**0.2**	5.1
Hungary	0.7	**0.3**	3.6
Latvia	42.4	**0**	49.3
Lithuania	3.3	**n.a.**	7.0
Malta	0.0	**0**	5.0
Poland	1.6	**n.a.**	7.5
Slovakia	17.9	**0.5**	31.0
Slovenia	29.9	**0.7**	33.6
EU 10	**5.6**		**11.0**
EU 25	**13.0**		**21.0**
IEA stat.2002			

Barriers and gaps

„heritage" from the past

Availability of production capacity using fossil fuels
(centralized energy systems rely heavily on fossil fuels)

Overcapacity for energy production.

Cheap indigenous fuels
(Estonia – more than 90% oil shale, Poland – coal).

Domestic fuels = energy at a lower price, more affordable by the society , employement and social issues, subsidies still in place.

Legislation. Lack of clear signals for long-term guarantees for return on investment in RES projects. It is unlikely to attract investors in short-term (most of CEE countries).

RE Policy Drivers

EU 15: environmental goals,
commitments to mitigate climate change,
energy security,
trading opportunities.

CEE: job creation,
need to modernize obsolete production capacities,
energy security (resources and distr.),
EU pressure (Directives).

Cyprus is almost totally dependent on oil imports for its energy supply accounting for 91% of the primary energy supply.

The burden of cost of energy imports on the economy of Cyprus is considerable.

3.6% energy is provided by solar thermal.

92% of all houses and 50% of the hotels have solar water heaters.

Most solar collectors per capita in the world.

Governmental grants (30-40% of investments) for investments in wind energy systems, solar thermal, PV, biomass, landfill and sewage waste using RES.

There is a fixed purchase price for RES-E

Wind: first five years: 9,2 € cents/kWh ,

PV up to 5 kW: 20,4 € cents/kWh

The Czech Republic

RE-E Law (May, 2005) – based on DE,ESP - model for new EU MS

Target 8% RE-E in 2010 (now 3,8%).
Minimum feed-in-tariffs guaranteed for 15 years .

Tarriffs set by the regulator on annual basis.
Annual reduction of tarriffs max. 5%.

RE operator can take **„green bonus“** (diff. between market price and feed-in tarrif) instead of purchased price.
Co-firing is also the subject for „green bonus“ (gains for large coal, grain burning ?).

Power grid operators (distributors) are obliged to connect RE operators (if tech. req. are fullfiled).
Detailed regulations will be published this year.

Large hydro is in (CEZ lobby), RE heat is out.
Wind farms with more than 20 MW are out.
Gas from closed coal mines is also in.

The Czech Republic

Minimum prices in 2003:

Wind :	9.6 € ct/kWh
Biomass & biogas:	8 € ct/kWh
Small Hydro:	5 € ct/kWh
PV:	19.2 € ct/kWh

Tax relief up to five years

Low VAT rate (5% instead of 22%) for small facilities (hydropower: 0.1 MW, wind: 0.075 MW, all solar and biomass units).

SLOVENIA

Promotion of RE via tax incentives.

CO_2 tax introduced in 1996 amounts to 15 €/t CO_2.

	Feed-in tariffs:
Hydro up to 1 MW:	6.11 €c/kWh;
Hydro 1 to 10 MW:	5.89 €c/kWh;
Biomass up to 1 MW:	6.98 €c/kWh;
Biomass above 1MW:	6.76 €c/kWh;
Wind up to 1 MW:	6.33 €c/kWh;
Wind above 1 MW:	6.11 €c/kWh;
Geothermal:	6.11 €c/kWh;
Solar up to 36 kW:	27.85 €c/kWh;
Solar above 36 kW:	6.11 €c/kWh.

LATVIA

(49,4 % of RES-E in 1997)

1996 - 2002 significant growth of RE based on so-called double tariff, phased out the 1st January 2003.

Tariff was double the average electricity price for a period of eight years after grid connection for wind and small hydro power plants (less than 2 MW).

Annual production at small hydropower plants increased from 2.5 to 30 GWh,
Output from windpower plants increased to about 50 GWh.

Now the purchase tariff for small hydro power and power plants using waste or biogas is set at the average electricity sales tariff .
Wind tariffs approved on a case-by-case basis by the regulator.

Poland

Electric utilities should maintain a renewable energy portfolio of at least 2.4 percent in 2001 (2.5% in 2002; 2.65% in 2003, etc., 7.5% in 2010.

Target of 7.5% of primary energy production from RE by 2010 and 14% by 2020.

Targets have not yet been enforced, discouraging large scale renewable development .

HUNGARY

70% of the total energy demand is imported.

Investment incentives in force.

Feed-in tariffs : between 7 and 11 € cents/kWh.

SLOVAKIA

Energy imports = 85% of energy supply

Negligible support for RE, no tax incentives,

Discouraging feed-in tariffs (3 € cents/kWh).

Target for RES-E 19 % recently re-negotiated (originally 31 %).

STRUCTURAL FUNDS and RE

SF = DG REGIO

Funds for energy projects = DG TREN and DG RESEARCH

The door is open, sufficient publicity is a problem (also in EU 15).

The UK's allocation of SF is EUR 16,6 billion (2000-2006).

3,2 million EUR grant aid to RE projects in Wales.

Implementation of RE projects is low.

Dialogue between energy and development experts is poor.

Development experts are not aware of the potential of RE for the development.

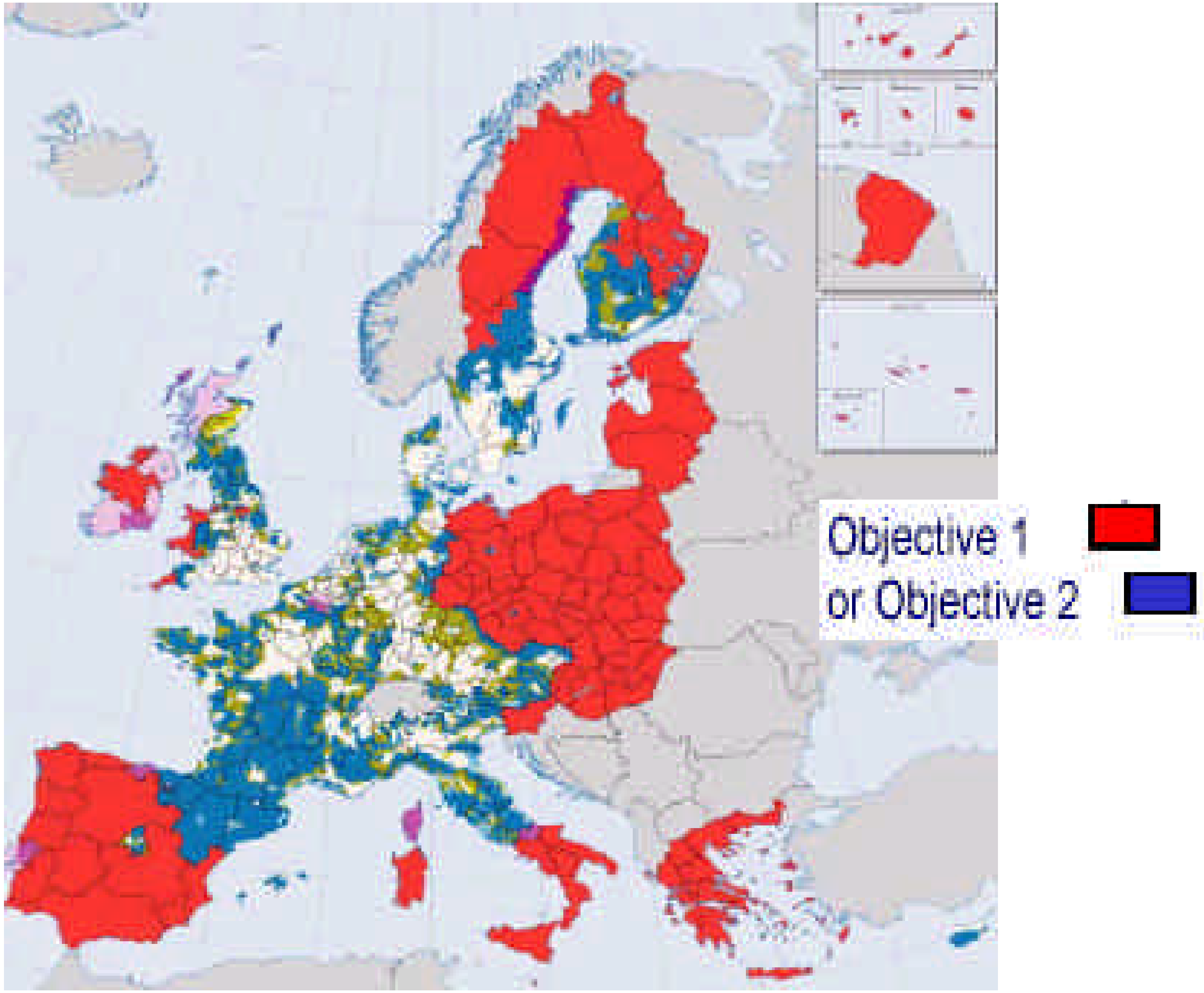
The current objectives of the Structural Funds 2000-06

- Objective 1: less developed regions
- Objective 2: regions with structural problems (industrial decline and rural areas)
- Objective 3: education, training and employment

FINANCIAL RESOURCES

About EUR 233 bn representing 1/3 of the EU´s total budget or 0,45 % of EU´s GDP

49.5% of the population in EU25 live in areas covered by Objectives 1 and 2


Objective 1
or Objective 2

Cohesion policy

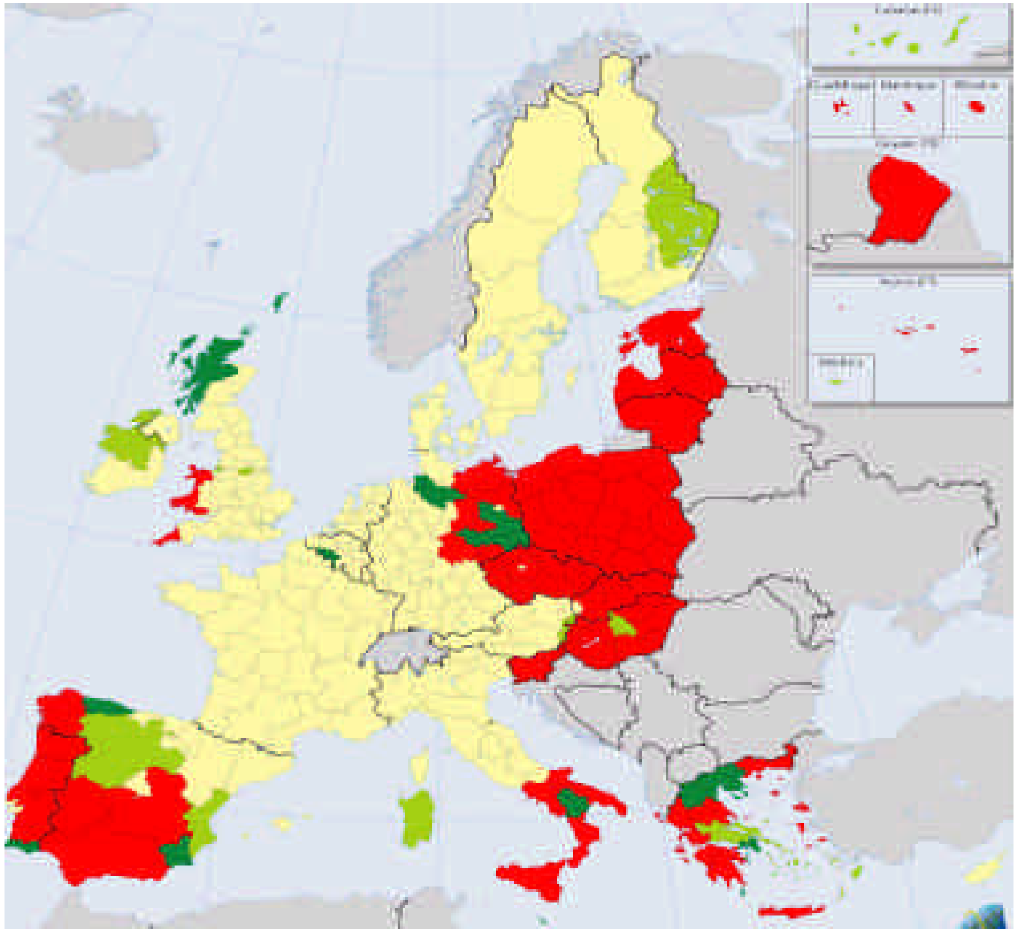
Geographical concentration

Regions below or close to 75% threshold

GDP/head average 2000-2001-2002

- **below 75% in EU25**
- **statistical effect below 75% in EU15 above in EU25**
- **"naturally" above 75% because of growth**
- **other regions**

Index EU 25 = 100



Cohesion policy 2007-13

- 1/3 of the EU budget (suggested is €336 billion at 2004 prices)
- +/- 0.41% of EU GNI
- More or less 50-50 between old and new Member States

Beg. 2006:	Council adopts strategic guidelines on cohesion
2006:	Preparation of programs for the period 2007-13
1 Jan 2007:	Implementation

New programming period 2007-2013.

National Strategy Plans - harmonisation with EU strategy (2005).

Schedule for Slovakia:

- Analysis of current state (March 2005),
- National vision on social and economical development until 2015 (May 2005),
- Setting of priorities, investments and co-funding resources etc (June 2005),
- Final Strategy Plan for Slovakia (December 2005).

- Slovakia priorities : Growth of GDP , market reforms
- Role of NGOs – Wales model?