



# Supporting renewables and energy efficiency with Cohesion Policy

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1. The 2007-13 support of cohesion policy for energy
2. Energy in the proposal for the 2014-2020 cohesion policy
3. Innovation in energy: smart specialisation strategies
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# The 2007-13 support of Cohesion Policy for energy





**Cohesion  
Policy 07-13**  
(€ 347 billion)

**European Regional  
Development Fund  
(ERDF)**

**Cohesion Fund**

**European Social Fund  
(ESF)**

**DG REGIO**

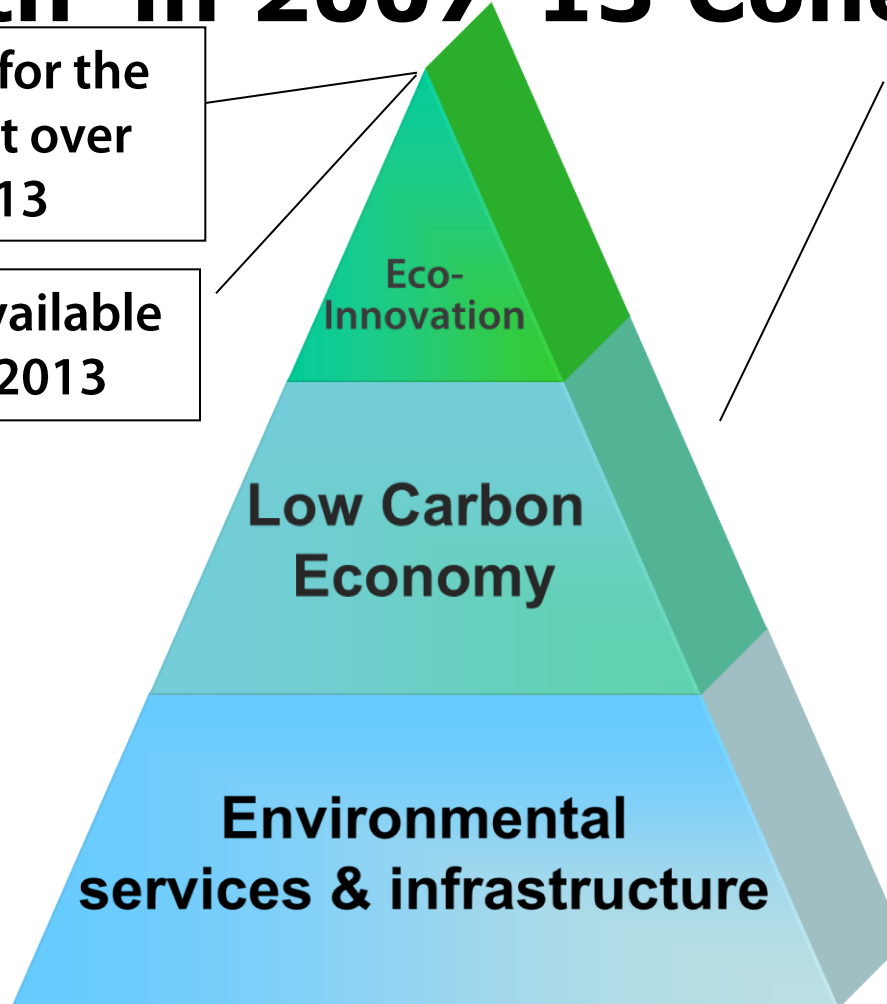
**DG EMPLOYMENT**



# Investments into 'sustainable growth' in 2007-13 Cohesion Policy

€ 105 billion for the environment over 2007-2013

30% of total available funding 2007-2013

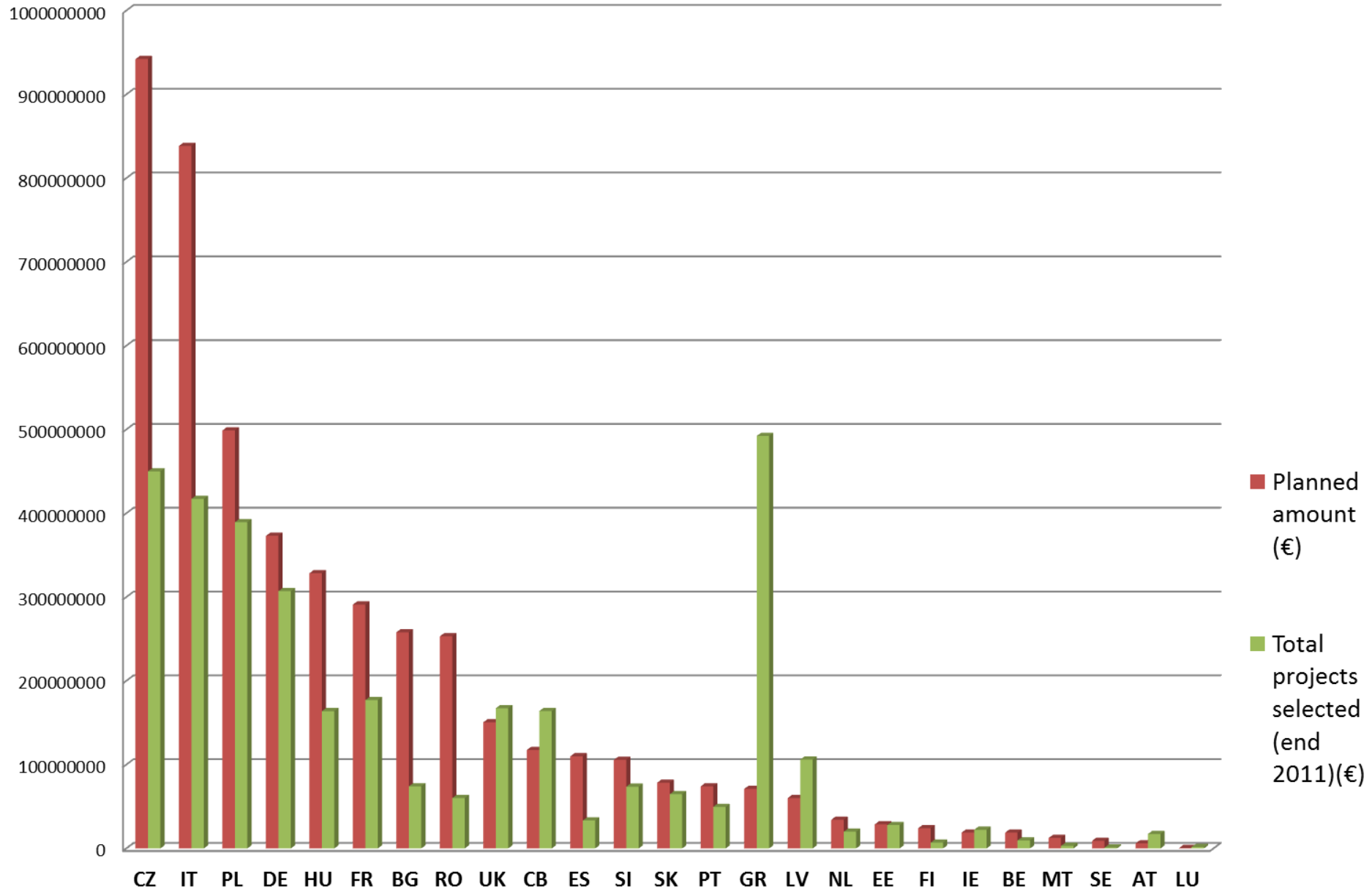


- € 3 B on eco-innovation in SMEs
- € 48 B on 'low-carbon': clean transport, energy efficiency & renewables
- € 54 B on 'environmental services': waste & water management, nature & biodiversity protection, risk prevention

# Allocations to EE & RES 2007-2013

- Total of **EUR 10 Billion**
- EE: € 5.1 billion (*increased from EUR 4.2 billion initially planned in 2007*)
- RES: € 4.9 billion
  - Biomass: EUR 1.8 billion
  - Solar: EUR 1.2 billion
  - Hydroelectric, geothermal, other: EUR 1.2 billion
  - Wind: EUR 0.6 billion

# Allocation and use of cohesion and structural funds for energy efficiency (by end 2011 - EU average selection rate = 75%)



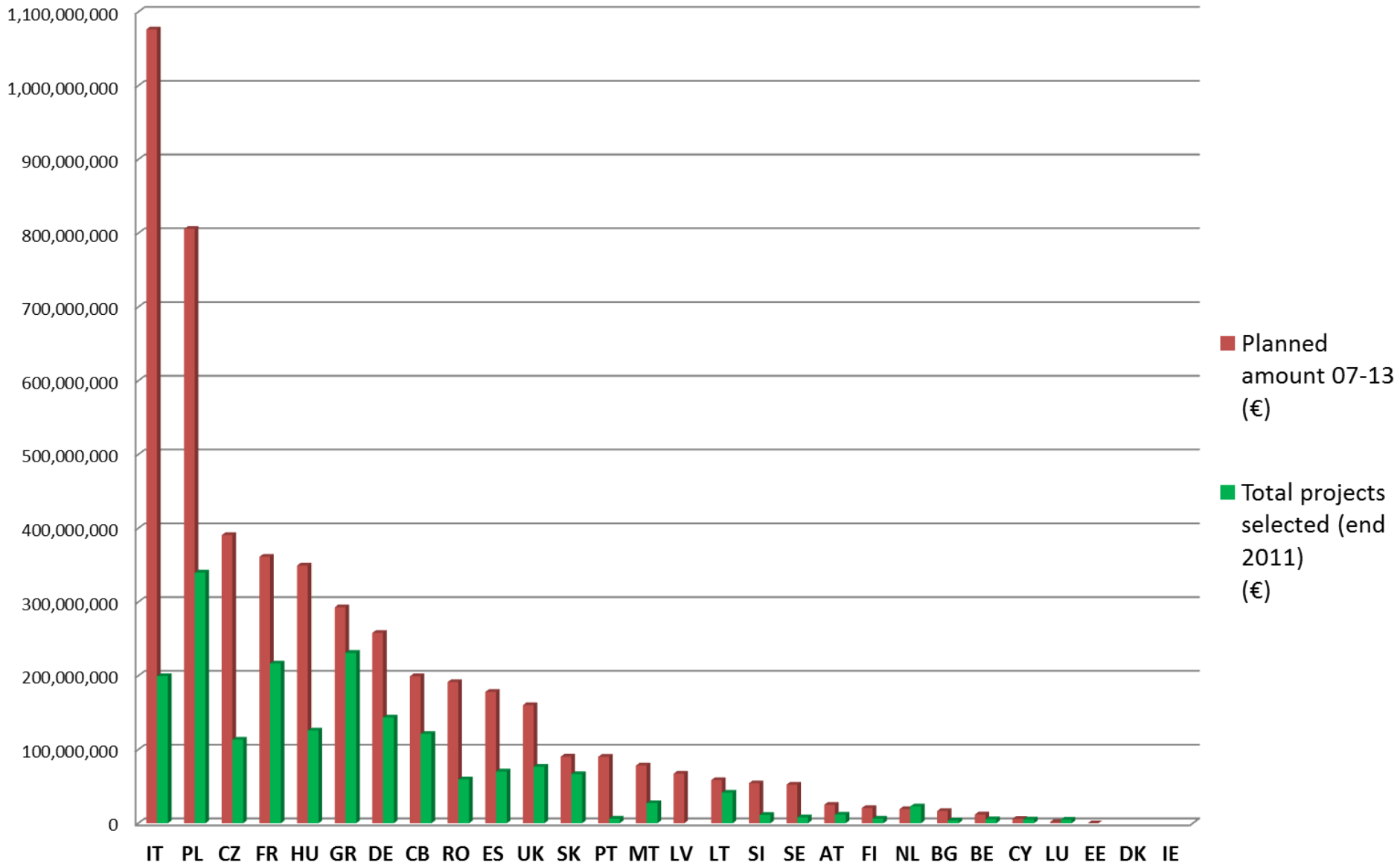


European  
Commission

MS	EU Allocated amount (€)	Total projects selected (last AIR) EU Amount (€)	Rate of selection %	MS	EU Allocated amount (€)	Total projects selected (last AIR) EU Amount (€)	Rate of selection %
AT	6,156,013	17,383,781	<b>282.40%</b>	LU	504,873	1,744,838	<b>345.60%</b>
BE	18,976,147	9,675,338	<b>51.00%</b>	LV	60,220,000	106,078,878	<b>176.20%</b>
BG	258,104,621	74,144,427	<b>28.70%</b>	MT	12,550,000	3,096,758	<b>24.70%</b>
CY				NL	34,250,000	19,917,049	<b>58.20%</b>
CZ	942,214,473	450,120,153	<b>47.80%</b>	PL	499,012,133	389,379,855	<b>78.00%</b>
DE	373,182,646	307,047,003	<b>82.30%</b>	PT	74,200,883	49,599,067	<b>66.80%</b>
DK				RO	253,241,727	60,131,969	<b>23.70%</b>
EE	28,760,241	27,844,967	<b>96.80%</b>	SE	9,173,788	1,057,737	<b>11.50%</b>
ES	110,048,101	33,326,165	<b>30.30%</b>	SI	105,700,000	73,707,906	<b>69.70%</b>
FI	24,243,917	6,926,847	<b>28.60%</b>	SK	78,584,184	64,760,737	<b>82.40%</b>
FR	291,167,688	177,008,914	<b>60.80%</b>	UK	150,657,204	167,360,699	<b>111.10%</b>
GR	71,170,000	492,363,482	<b>691.80%</b>	CB	117,594,385	164,027,992	<b>139.50%</b>
HU	328,531,227	163,856,263	<b>49.90%</b>	<b>EU 27</b>	<b>5,076,344,632</b>	<b>3,739,513,064</b>	<b>73.70%</b>
IE	19,000,000	22,346,186	<b>117.60%</b>	<i>EU 15</i>	<i>2,021,323,492</i>	<i>1,723,062,222</i>	<i>85.20%</i>
IT	838,592,232	417,305,116	<b>49.80%</b>	<i>EU 12</i>	<i>2,937,426,755</i>	<i>1,852,422,850</i>	<i>63.10%</i>



## Allocation and use of cohesion and structural funds in RES (by end of 2011- EU average selection rate = 40%)





EU allocated decided amount		European						Last Annual Implementation Report selected projects					
Categories/ MS	SF Community amount (€) (A)	Wind	Solar	Biomass	Hydro, geothermal, other	Planned amount 07-13 (€)	Intensity of total % (B) / (A)	Wind	Solar	Biomass	Hydro, geothermal, other	Total projects selected (end 2011) (€)	Rate of selection % (C) / (B)
IT	27,957,849,976	87,035,068	354,385,559	370,472,510	264,485,562	1,076,378,699	3.9%	327,474	111,743,359	57,533,288	29,955,908	199,560,029	18.5%
PL	67,185,549,244	227,948,537	95,382,354	340,649,070	141,662,058	805,642,019	1.2%	179,722,622	59,255,403	80,882,635	19,894,124	339,754,784	42.2%
CZ	26,539,650,285	8,229,963	50,438,733	221,625,064	110,330,944	390,624,704	1.5%		5,905,210	74,856,445	32,664,160	113,425,815	29.0%
FR	13,449,221,051	28,581,569	122,171,494	149,427,441	60,970,631	361,151,135	2.7%	15,952,460	81,983,541	100,514,304	18,094,781	216,545,087	60.0%
HU	24,921,148,600	24,073	70,991,610	205,594,756	72,700,338	349,310,777	1.4%		26,296,381	72,111,931	27,358,354	125,766,666	36.0%
GR	20,210,261,445	81,840,000	35,260,000	27,310,000	148,430,000	292,840,000	1.4%	123,557,956	100,606,539	1,122,085	5,682,746	230,969,327	78.9%
DE	25,488,616,290	27,366,669	72,390,352	83,418,627	74,863,800	258,039,448	1.0%	48,414,528	35,222,439	41,129,867	18,667,951	143,434,786	55.6%
CB	7,905,148,128	38,075,053	39,067,568	81,372,614	40,797,539	199,312,774	2.5%	8,378,798	13,418,707	65,834,972	33,464,925	121,097,402	60.8%
RO	19,213,036,712	57,462,783	19,154,261	47,885,653	67,039,914	191,542,611	1.0%	26,600,000	12,330,000	1,860,000	18,570,000	59,360,000	31.0%
ES	34,655,269,981	3,436,208	111,914,867	56,038,769	6,680,544	178,070,388	0.5%	67,028	47,968,107	21,883,972	147,030	70,066,137	39.3%
UK	9,890,937,463	39,038,257	26,603,048	42,186,945	52,348,663	160,176,913	1.6%	8,268,501	175,172	22,026,013	46,150,636	76,620,321	47.8%
SK	11,498,331,484		24,457,405	24,547,405	41,247,406	90,252,216	0.8%		25,929,668	25,564,688	15,029,814	66,524,170	73.7%
PT	21,411,560,512	722,971	48,890,081	4,196,600	36,378,900	90,188,552	0.4%		2,932,457	530,906	2,774,148	6,237,512	6.9%
MT	840,123,051	18,750,000	52,550,000	6,900,000		78,200,000	9.3%	90,621	27,189,313			27,279,933	34.9%
LV	4,530,447,634	10,000,000		24,680,000	32,500,000	67,180,000	1.5%						
LT	6,775,492,823			58,485,290		58,485,290	0.9%			41,456,570		41,456,570	70.9%
SI	4,101,048,636		27,086,553	21,300,000	5,800,000	54,186,553	1.3%			11,182,757		11,182,757	20.6%
SE	1,626,091,888	12,351,349	10,835,795	17,706,773	11,449,032	52,342,949	3.2%	1,752,257	300,667	4,682,798	1,250,698	7,986,420	15.3%
AT	1,204,478,581	65,000	6,037,555	18,366,689	568,164	25,037,408	2.1%		264,924	11,326,693	119,705	11,711,322	46.8%
FI	1,595,966,044	796,879	787,530	13,210,281	5,887,557	20,682,247	1.3%	1,355,727	106,480	4,078,139	725,703	6,266,049	30.3%
NL	1,660,002,737	4,540,400	3,240,400	6,521,400	4,880,400	19,182,600	1.2%	1,848,218	2,596,541	4,317,857	14,031,689	22,794,305	118.8%
BG	6,673,628,244		16,710,959			16,710,959	0.3%		3,698,693			3,698,693	22.1%
BE	2,063,500,766		11,851,495			11,851,495	0.6%		4,184,381	1,350,213		5,534,594	46.7%
CY	612,434,992		5,950,000			5,950,000	1.0%		5,222,562			5,222,562	87.8%
LU	50,487,332	252,437	504,873	504,873	504,873	1,767,056	3.5%	0	0	4,875,000	0	4,875,000	275.9%
EE	3,403,459,881	0		0		0	0.0%						
DK	509,577,239												
IE	750,724,742												
<b>EU27 + cross-border</b>	<b>346,724,045,761</b>	<b>646,517,216</b>	<b>1,206,662,492</b>	<b>1,822,400,760</b>	<b>1,179,526,325</b>	<b>4,855,106,793</b>	<b>1.4%</b>	<b>416,336,191</b>	<b>567,330,545</b>	<b>649,121,133</b>	<b>284,582,372</b>	<b>1,917,370,241</b>	<b>39.5%</b>
<b>EU 15</b>	<b>162,524,546,047</b>	<b>286,026,807</b>	<b>804,873,049</b>	<b>789,360,908</b>	<b>667,448,126</b>	<b>2,547,708,890</b>	<b>1.6%</b>	<b>201,544,150</b>	<b>388,084,608</b>	<b>275,371,135</b>	<b>137,600,996</b>	<b>1,002,600,890</b>	<b>39.4%</b>
<b>EU 12</b>	<b>176,294,351,586</b>	<b>322,415,356</b>	<b>362,721,875</b>	<b>951,667,238</b>	<b>471,280,660</b>	<b>2,108,085,129</b>	<b>1.2%</b>	<b>206,413,243</b>	<b>165,827,230</b>	<b>307,915,026</b>	<b>113,516,451</b>	<b>793,671,950</b>	<b>37.6%</b>

Selection rate per technology:

Wind:64%; Solar: 47%; Biomass: 36%; Hydro, geoth.& oth.:25%

# Energy in the proposal for the 2014-2020 Cohesion Policy



# New Cohesion Policy: mission & goals

- Mission:
  - strengthening economic, social and territorial cohesion
  - contribute to the Union Strategy of smart, sustainable and inclusive growth – strong link with EU2020
- Goals:
  - Investment for growth and jobs
  - European Territorial Cooperation
- Need to increase the performance & impact of the Funds:
  - **Ex-ante conditionality**
  - Thematic concentration of funds: 11 thematic objectives linked to 'Europe 2020'

# Thematic Objectives

Europe 2020

smart

sustainable

inclusive

1. **Research and innovation**
2. **Information and Communication Technologies**
3. **Competitiveness of Small and Medium-Sized Enterprises (SME)**
4. **Shift to a low-carbon economy**
5. **Climate change adaptation and risk management & prevention**
6. **Environmental protection and resource efficiency**
7. **Sustainable transport**
8. Employment and support for labour mobility
9. Social inclusion and poverty reduction
10. Education, skills and lifelong learning
11. Increased institutional capacity and effectiveness of public administration

# Investment priority on sustainable energy

- **Supporting the shift towards a low-carbon economy in all sectors:**
  - Promoting the production and distribution of RES
  - Promoting EE and RES use in SMEs
  - Supporting EE and RES use in public infrastructures and in the housing sector Developing smart distribution systems at low voltage levels
  - Promoting low-carbon strategies for urban areas

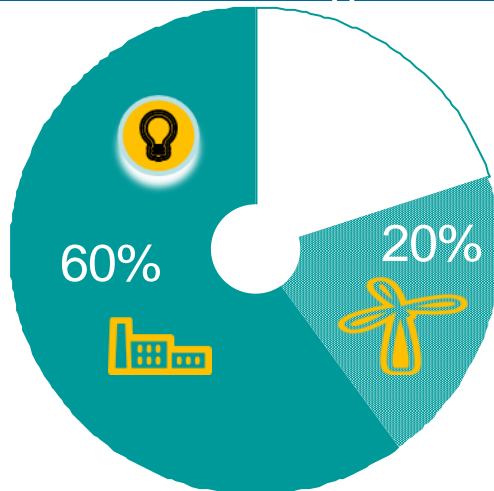
# Concentration of ERDF

 Research and Innovation

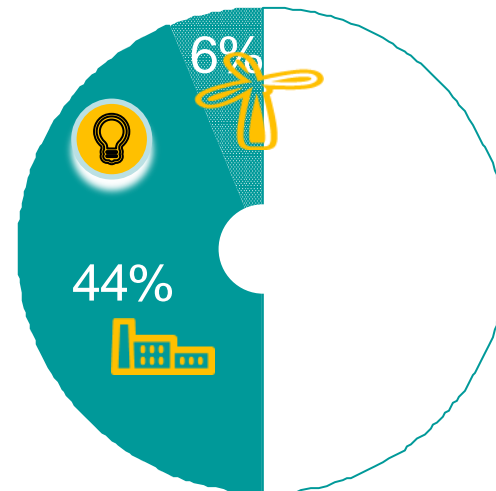
 SMEs competitiveness

 **Energy efficiency and  
renewable energy**

Developed regions &  
transition regions



Less developed regions



No more ceiling for investing in EE in housing  
(currently maximum 4% of ERDF)

⇒ Potential minimum € 17 bn for LCE in 2014-2020

# Implementation principles

- Ensure that **public funding complements private investment**, leveraging it and not crowding it out
- EE: creating **value for energy savings through market mechanisms** before public funding (ESCOs...)
- **Financial instruments** to be used where potential for private revenue or cost savings is large
- Grants to be used primarily:
  - **to address market failures**
  - **support innovative technologies**
  - **investments beyond cost-optimal** EE performance: ensure energy savings and GHG emission reductions above "business as usual"!



# Key actions for investments

- Wider use of **Energy Performance Contracting** in public buildings & housing sectors
- **Energy efficiency and renewable heating & cooling**
  - in public buildings,
  - in particular demonstration of 0-emission & positive-energy buildings,
  - deep renovation of existing buildings to beyond cost-optimal level
- **Innovation** in RE technologies

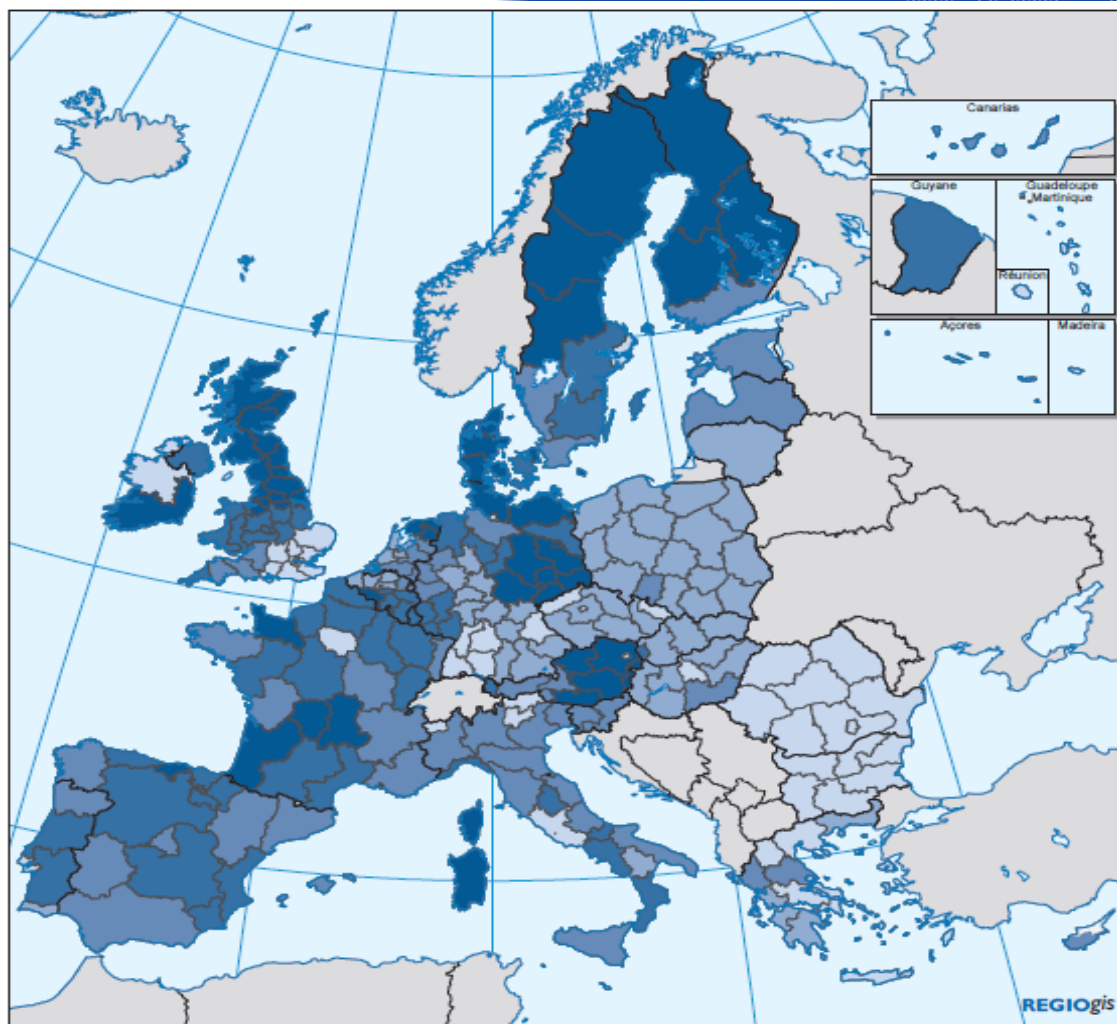




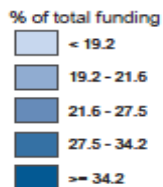
# Cohesion Policy funding for R&I 2007-2013

Innovation support vs. total aid:

- 4% in 89'-93'
- 7% in 94'-99'
- 11% in 00'-06'
- 25% in 07'-13' (€ 86 Billion)



Planned investments of Cohesion Policy in RTD, innovation, enterprise environment, 2007-2013

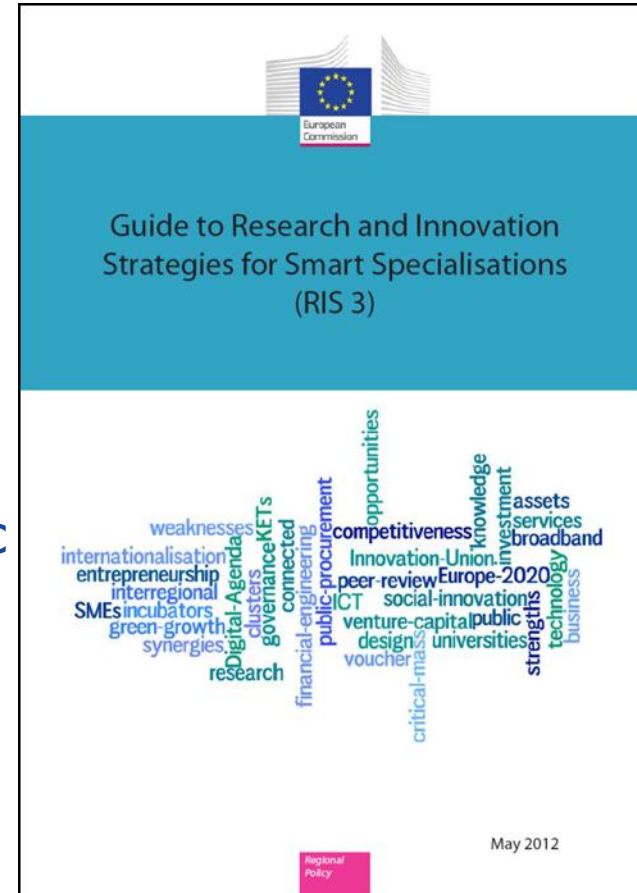


EU27 - 23.0  
Funding for RTD, innovation and enterprise amounts to some €79 billion  
Source: DG REGIO

0 500 Km

# Smart Specialisation ?

- Problems in innovation policies:
  - innovation policy suffering of '**picking winners syndrome**': no priorities are identified
  - '**copy-paste**' **not successful**: need for a sound analysis of the assets of the region
  - Need to include all regions with a public strategic intelligence approach to **avoid the 'agglomeration effect'** = cause economic, social and territorial problems
- **Ex-ante conditionality in 2014-20 cohesion policy on existence of a national or regional research and innovation strategy for smart specialisation**



<http://s3platform.jrc.ec.europa.eu/home>

# Innovation for Sustainable Growth

- Smart & Sustainable = 2 sides of same coin
- Future cohesion policy: ex-ante conditionality on '**National or regional research and innovation strategies for smart specialisation (RIS3)**'
- Research & Innovation needed in RES & EE
- Include energy into forthcoming Innovation Strategies (RIS3)

# Possible areas for investments

- Along priorities in the Strategic energy Technology Plan (SET Plan)
- R&D&I, pilots & demonstrations projects in RES:
  - **Marine energy:** wave, tidal, current, floating wind mills...
  - **Bioenergy:** 2<sup>nd</sup>/3<sup>rd</sup> generation biofuels...
  - **Offshore wind:** Testing and manufacturing infrastructures
  - **Solar:** innovation in photovoltaic & Concentrated Solar Power (CSP)
  - **Social innovation:** community based renewable energy production
  - **Smart grids & metering**

# Possible areas for investments

- **Energy efficiency:**
  - New insulation materials
  - Innovation in building techniques & materials
  - Innovation in industrial processes, manufacturing, SMEs
  - Plus energy houses
- **ICT & ICT-related:**
  - Mapping, geographic information system, satellite use...
  - Thermography
- **Energy in cities:** innovative plans, approaches, methodologies



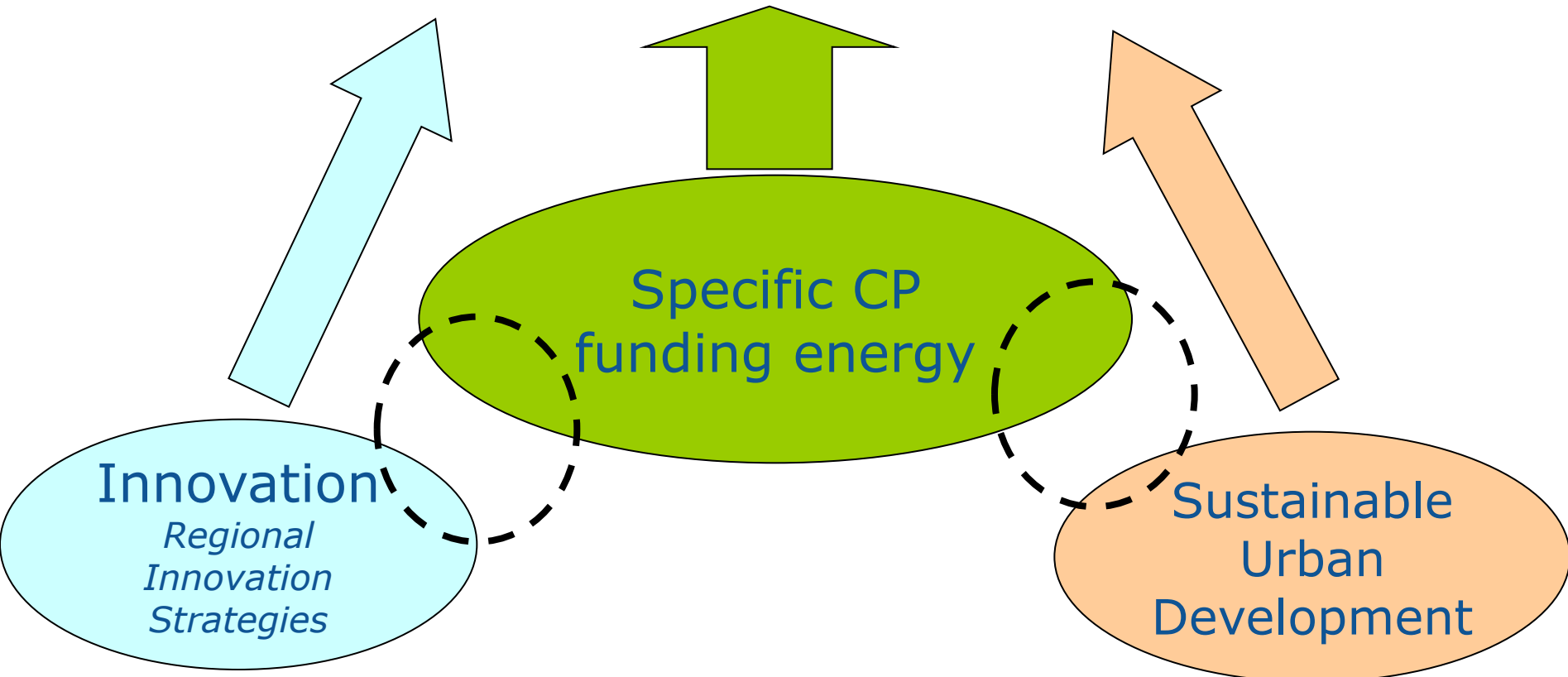


# Sustainable Urban Development

- Aim = support integrated actions to tackle the economic, environmental, climate and social challenges affecting urban areas
- ERDF = increased focus on sustainable urban development:
  - to be achieved through earmarking of a minimum of 5% of national ERDF resources for SUD



# Investments in sustainable energy for socio-economic development through Cohesion Policy



# Synergies & other EU funding

- Other Common Strategic Funds (CSF):
  - Rural Development Fund (EAFRD)
  - Maritime fund (EMFF)
- FP 7 & Horizon 2020
- Intelligent Energy Europe (IEE) Programme
- Further synergies with 'Covenant of Mayors' initiative
- Further synergies with developments of EIB, EBRD...

# Example



# Smart Specialisation in cleantech: case of Styria (AT)

- Cleantech cluster ECO WORLD STYRIA set up in 2005: **specialise in energy & environmental engineering** & develop a world level 'Green Tech Valley'
- PPP driven by a **triple-helix cluster** (research-industry-government): shareholders + funds from business, science, public
- 179 cluster partner in biomass, solar, hydro, recycling
- 5/2007 – 3/2012 with 50% of ERDF (€ 444 000)
- Global, unique „ECO Future Radar“ provided **50 cleantech biz trends** to 500 companies developing innovative business models
- Website: [www.eco.at](http://www.eco.at)



# Smart Specialisation in cleantech: case of Styria (AT)

- Nearly doubled concentration of businesses
  - Green tech turnover from 5% to 9% in regional growth
- Green tech turnover growth of av. 18%/a vs. world markets at av. 11%/a
- **5.500 new green tech jobs were created within 5 years: av. +10%/a**
- Styrian products of last 5 years saved ~40 Mio. t CO<sub>2</sub>/a around the globe (2.5\* Styrian emissions)
- Share of **self-finance** grew from close to zero to **> 40 %**
- More self-finance until 2015 due to tripled company funds + clear strategic focus



A graphic featuring several satellite dishes of various sizes in the foreground. In the background, a faint world map is visible. The text 'Opportunities for your entrepreneurial future in green technology 2012-2015' is positioned to the right of the map. Below the map, there is a vertical list of menu items: '50 TRENDS BY 50 EXPERTS', 'MARKET EFFECTS', 'CHALLENGES', 'OPPORTUNITIES', and 'PLUS STRATEGY TOOL'. At the bottom, there are logos for 'ECO ECO WORLD STYRIA', 'GCCA GLOBAL CLEANTECH GROWTH STRATEGY', and 'ECO FUTURE RADAR'.

## JESSICA fund in Lithuania

JESSICA Holding Fund amounts to € 227 million:

- **€ 127 million ERDF**
- **€ 100 million national co-financing**
- **Expected later: some funds by commercial bank**

Implementation started June 2010

Number of eligible apartment blocks: 24 000

Estimated cost to renovate one apartment block (60 apartments @ 50 m<sup>2</sup>): 290 000 Euro

After the modernization, one house would halve energy consumption and save 125 MWh a year

This example:

- **45 apartment multi-family building**
- **Insulated external walls and roof**
- **Windows replaced**
- **Glazing of balconies**
- **Modernization of heating substation & heating systems**
- **Energy efficiency improvement of 60 %**



# Conclusion

- Current framework already enables for significant investments in EE & RES
- **Future cohesion policy & CSF funds to further support RES & EE** based on local/regional situations & needs
- **Focus on innovation**, technological & non-technological (social innovation)
- Need for cross-cutting approaches, engaging all stakeholders (quadruple helix)





# More information

## **Cohesion Policy Project Examples:**

[http://ec.europa.eu/regional\\_policy/projects/stories/index\\_en.cfm](http://ec.europa.eu/regional_policy/projects/stories/index_en.cfm)

## **Policy Learning Database:**

[http://ec.europa.eu/regional\\_policy/cooperation/interregional/ecochange/studies\\_en.cfm?nmenu=5](http://ec.europa.eu/regional_policy/cooperation/interregional/ecochange/studies_en.cfm?nmenu=5)

## **Expert Evaluation Network reports on RES and EE in housing:**

[http://ec.europa.eu/regional\\_policy/information/evaluations/index\\_en.cfm#1](http://ec.europa.eu/regional_policy/information/evaluations/index_en.cfm#1)

## **COCOF technical meeting on sustainable energy March 2011:**

[http://ec.europa.eu/regional\\_policy/conferences/energy2011/index\\_en.cfm](http://ec.europa.eu/regional_policy/conferences/energy2011/index_en.cfm)

## **Regions for Economic Change Conference May 2010 Energy efficiency workshop (2A):**

[http://ec.europa.eu/regional\\_policy/conferences/sustainable-growth/programme\\_en.cfm?nmenu=4](http://ec.europa.eu/regional_policy/conferences/sustainable-growth/programme_en.cfm?nmenu=4)

## **Commission proposals for Cohesion Policy 2014-2020:**

[http://ec.europa.eu/regional\\_policy/what/future/proposals\\_2014\\_2020\\_en.cfm](http://ec.europa.eu/regional_policy/what/future/proposals_2014_2020_en.cfm)

## **List of Cohesion Policy funds Managing Authorities:**

[http://ec.europa.eu/regional\\_policy/manage/authority/authority\\_en.cfm](http://ec.europa.eu/regional_policy/manage/authority/authority_en.cfm)

## **Practical Guide to EU funding opportunities for Research and Innovation:**

[http://cordis.europa.eu/eu-funding-guide/home\\_en.html](http://cordis.europa.eu/eu-funding-guide/home_en.html)



# Many thanks for your attention

