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# **European Renewable Energy developments, initiatives and targets**

*“European Commission perspective”*

**William GILLETT**

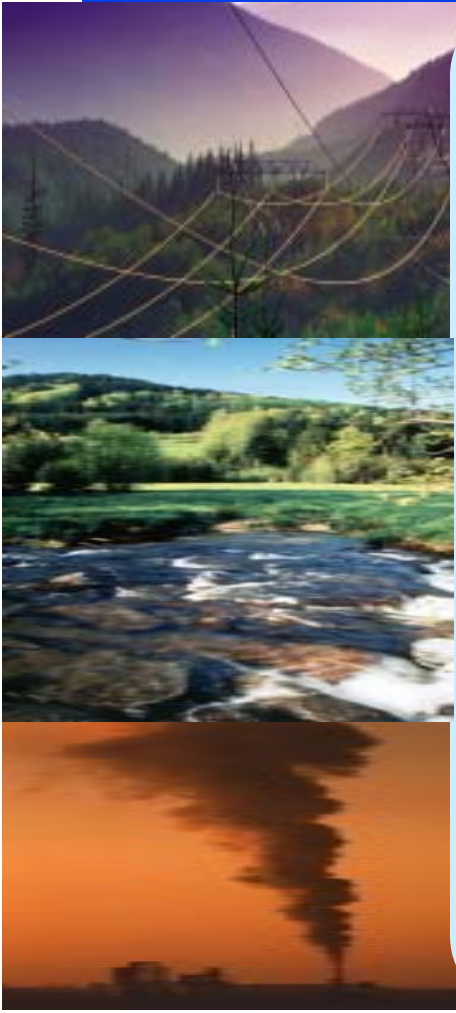
Deputy Head of Unit  
New and Renewable Energies  
**European Commission**  
Directorate General for Energy and Transport

South East Renewable Energy Conference 2003





# EU policies & Targets (1)

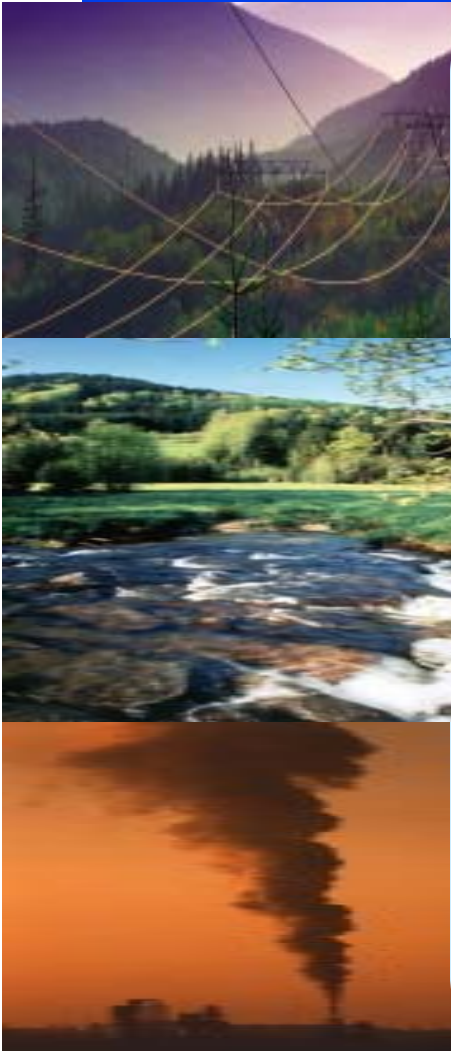


- **RES White paper 1997**: increase share of RES from 6% to 12% of gross consumption **by 2010**
- **RES-e DIRECTIVE 2001** : to establish a framework to increase the share of green electricity from 14% to 22% of gross electricity consumption **by 2010**
- **COM on the Green Paper on Security of energy supply** (June 2002)
- **Directive on liquid biofuels (May 2003)**  
targets: 2% by 2005; 5.75% by 2010
- **Directive on the energy performance of buildings (Dec 2002)** : saving potential of 22%.





## EU Policies & Targets (2)



- **Draft directive on cogeneration of heat and power.**
- **Action plan for Energy Efficiency** - target to reduce energy intensity by a further 1 % point / yr until 2010
- Comply with EU commitments under the 1997 Kyoto Protocol on **reducing greenhouse gas emissions**
- **EU Energy initiative** - poverty eradication and sustainable development by improving access to adequate sustainable energy services : partnerships between EU, Member States and developing countries
- **Johannesburg RE coalition “JREC”** working to increase the use of RES using targets and timetables
- More ambitious targets for 2020, to be discussed at **Berlin** (19 Jan 2004) and **Bonn** (4 Jun 2004)





# Renewable electricity directive

Promotion of electricity from renewable energy sources through:

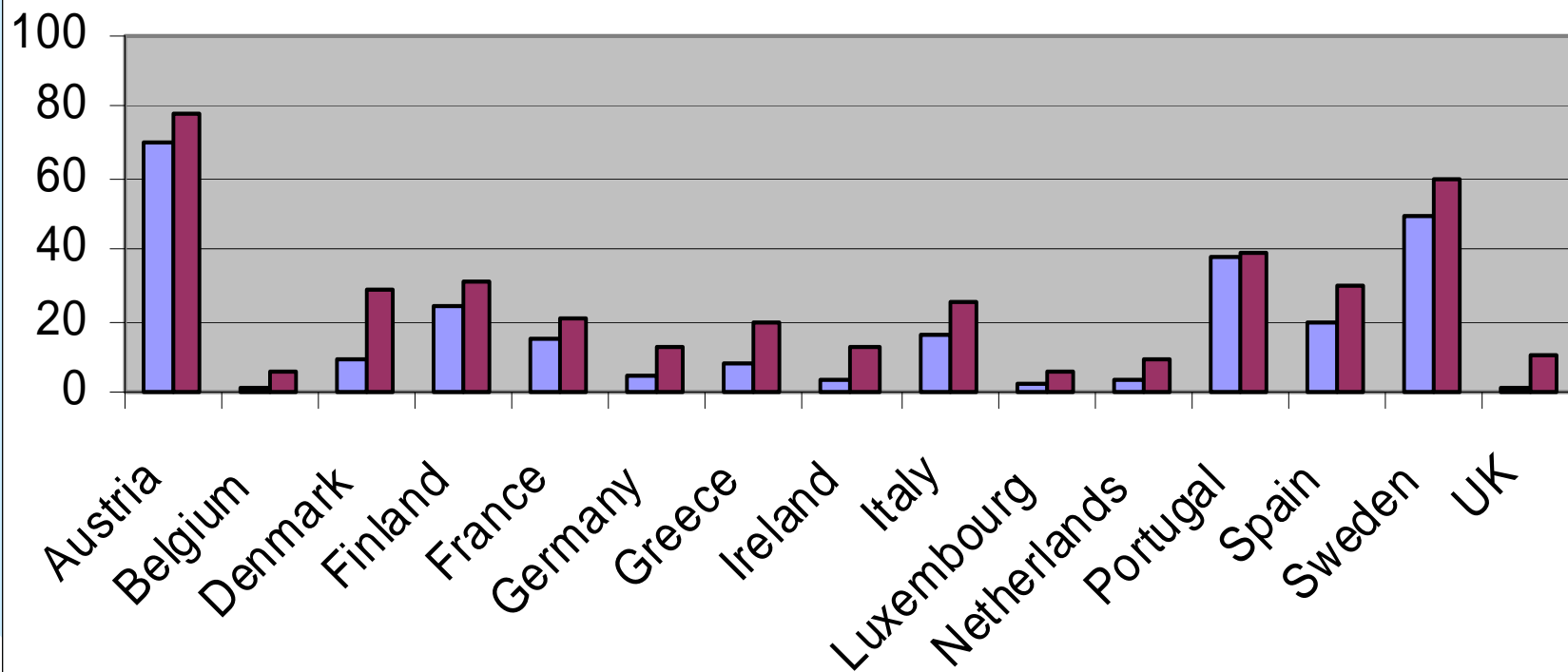
- Quantified **national targets** for consumption of electricity from renewable sources of energy
- National **support schemes** plus, if necessary, a harmonised support system
- **Simplification** of national **administrative procedures** for authorisation
- **Guaranteed access** to transmission and distribution of electricity from renewable energy sources



# % RES-e penetration in EU-15 (indicative targets)

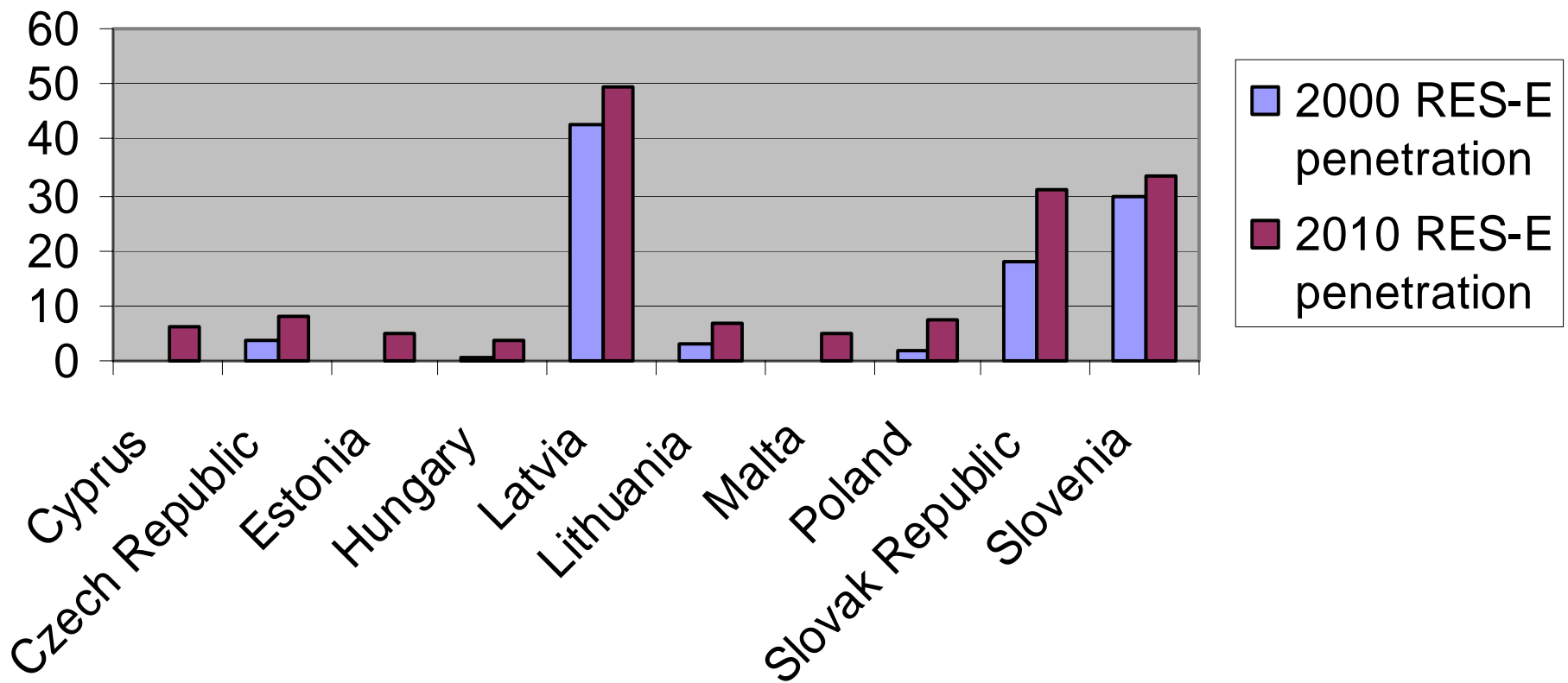
**EU-15, from 14% in 1997 to 22% in 2010**

■ 1997 RES-penetration ■ 2010 RES\_E penetration



# % RES-e penetration in EU-10 (indicative targets)

**New Acceding countries from 5.6% in 2000 to 11% in 2010**



# Energy Performance of Buildings *Directive 2002/91/EC*

- **Publication in OJ (Entry into force) 4 Jan 03**
- **Transposition into National law 4 Jan 06**
- **Common methodology for calculating energy performance standards**
- **establishes a regulatory Committee with a mandate to amend the methodology as necessary**

# Energy Performance of Buildings *Directive 2002/91/EC*

## **Common methodology for calculating energy performance standards**

- gives **flexibility** to designers to meet energy performance requirements in most cost-effective way
- **integrates** insulation, heating, hot water, cooling, ventilation, lighting, heat recovery, passive & **renewables installations**, indoor climate, position and orientation of the building
- provides the basis for an **energy performance certificate** of a building



# Elements of the European biofuels policy

- **Communication** presenting an **action plan** for promoting **biofuels** and other **alternative fuels** in road transport, with the objective of substituting **20%** of traditional fuels by **alternative fuels** in road transport **by 2020**.
- **Directive** on the **promotion of biofuels for transport** which requires an increasing proportion of all diesel and gasoline sold in the Member States to be biofuel.
- **Directive** allowing Member States to apply **differentiated tax rates** in favour of biofuels, by modifying Directive 92/81 on excise duties.



## Minimum share of biofuel

- **Member States** shall ensure by end of 2005 a **2%** minimum proportion of biofuels of all gasoline and diesel fuels sold on their market.
- **Schedule for the biofuels share after 2005:**

2005

2

2010

5.75

- **Biofuels can be made available as:**

pure

blended in mineral oil derivatives

liquids derived from biofuels such as ETBE





# Reports and reviews



**Member States (EU 25)** shall report every year on the total sales of transport fuel and share of biofuel.

**In 2006 the Commission will:**

- **report** to the European Parliament and Council on progress
- **if appropriate** propose to **review the schedule** for minimum shares of biofuels





# **Coherent Energy Actions RES, RUE and Clean Transport**

**EU Policies and Targets  
Directives and Legislation**

**Market development, Certification,  
Planning, Financing, Promotion**

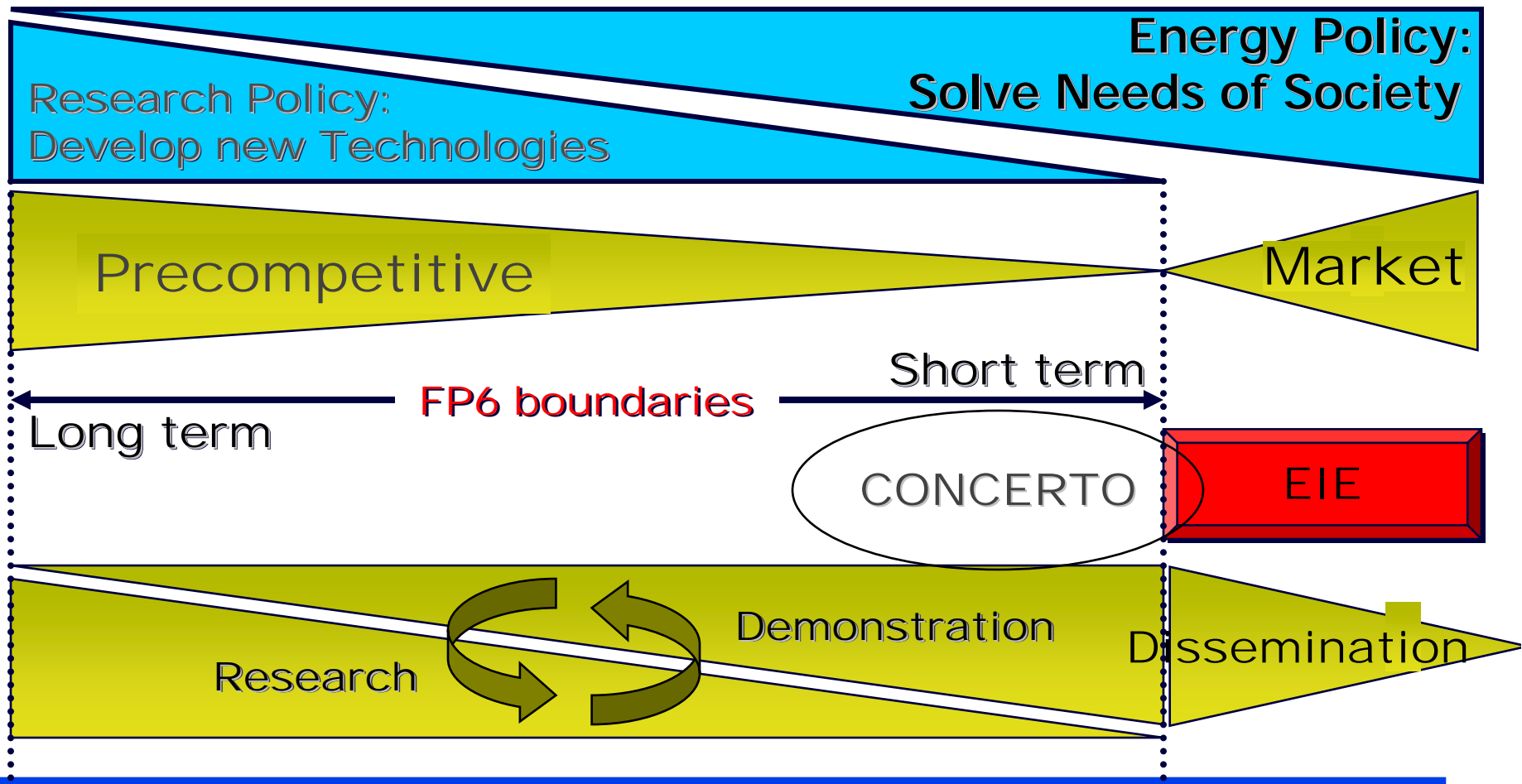
**Research, Development, and  
Demonstration of Technology**

**Integrated projects, Specific Targeted Research Projects,  
Co-ordination Actions, Specific Support Actions**





# EIE & FP6 Programmes





EUROPEAN  
COMMISSION

Community Research



# FP6 Short and medium-term research areas / topics (405 M€)

- **CLEAN ENERGY, IN PARTICULAR RENEWABLES**
  - Cost effective supply
  - Large scale integration
- **ENERGY SAVINGS AND ENERGY EFFICIENCY**
  - Eco-buildings
  - Polygeneration
- **ALTERNATIVE MOTOR FUELS**
  - Biofuels, natural gas and H<sub>2</sub>
  - CIVITAS 2





EUROPEAN  
COMMISSION

Community Research



# Large scale integration of Renewable Energy with demand management **CONCERTO**

Innovative  
Renewable energy  
+  
Energy efficiency  
Technologies

Large scale  
integration

Communities

- ↑ Renewable energy sources
- ↑ Eco-buildings
- ↑ Polygeneration

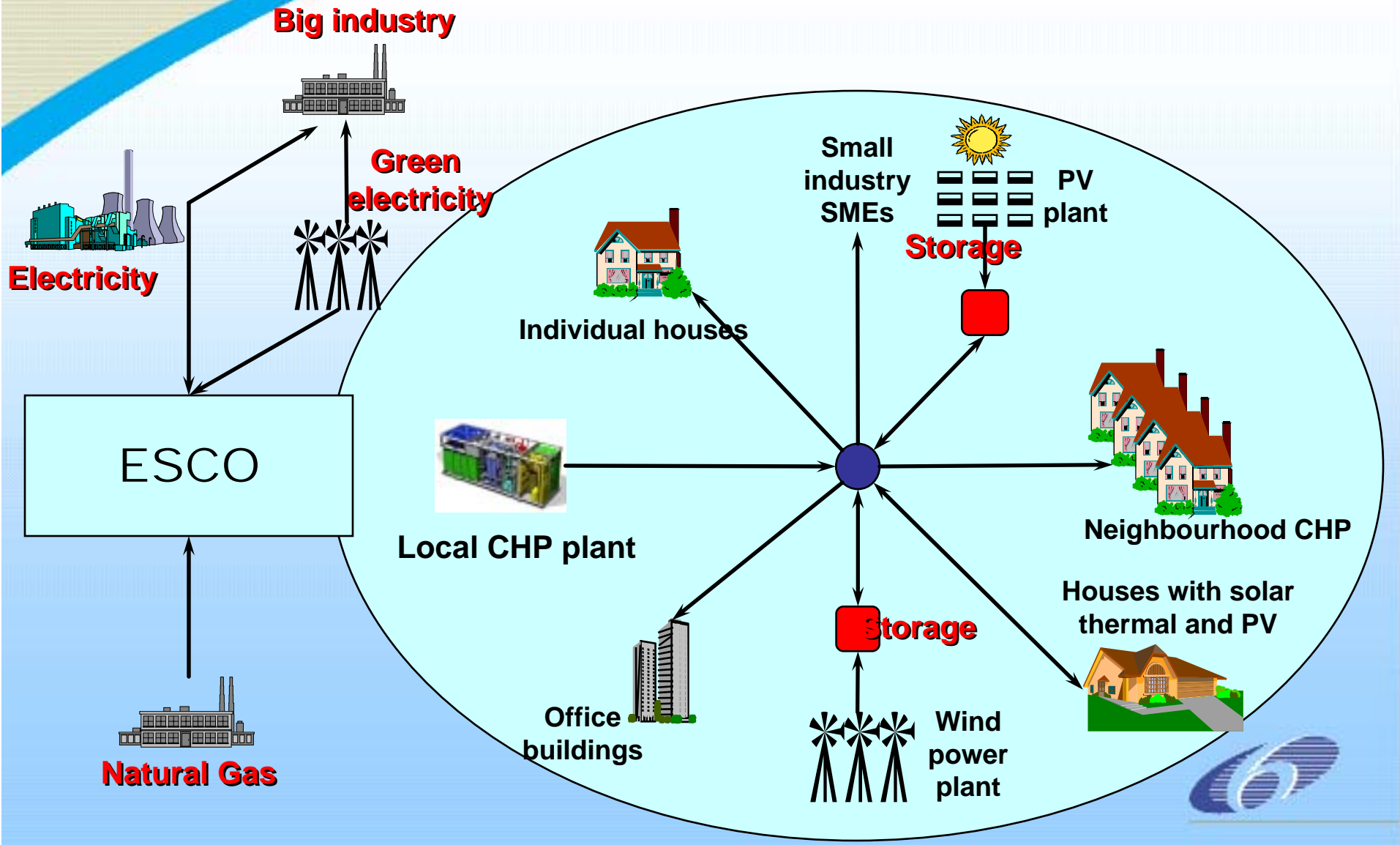




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COMMISSION

Community Research

# "CONCERTO community"





EURO  
COMM

Community Research

## *FP6 Sustainable Energy (short to medium term) – indicative Roadmap*

	<b>1st call</b>	<b>2nd call</b>	<b>3rd call</b>	<b>4th call</b>
<b>Publication</b>	<b>17 Dec. 02</b>	<b>17 Jun. 03</b>	<b>Jun. 04</b>	<b>Jun 05</b>
<b>Deadline</b>	<b>18 Mar. 03</b>	<b>17 Dec. 03</b>	<b>Dec 04</b>	<b>Dec 05</b>
<b>Cost effective supply</b>	All		All	All
<b>Large scale integration</b>	CA, SSA	<b>CONCERTO</b>	CA, SSA	<b>CONCERTO</b>
<b>Eco-building</b>	IP, STRP	<b>CONCERTO</b>		<b>CONCERTO</b>
<b>Poly-generation</b>		<b>CONCERTO</b>	IP, STRP	<b>CONCERTO</b>
<b>Alternative motor fuels</b>	All	<b>CIVITAS</b>	All	

IP Integrated Project; STREP Specific Targeted Research Project,  
CA Coordination Action, SSA Specific Support Action,





# Energy Intelligente - Europe

SAVE	ALTENER	STEER	COOPENER
<ul style="list-style-type: none"><li>▪ <b>Multiplying success in buildings</b></li><li>▪ Retrofitting of social houses</li><li>▪ <b>Innovative approaches in industry</b></li><li>▪ Energy Efficient Equipment and Products</li></ul>	<ul style="list-style-type: none"><li>▪ <b>RES-Electricity</b></li><li>▪ <b>RES-Heat</b></li><li>▪ Small Scale RES Applications</li><li>▪ Alternative vehicle propulsion</li></ul>	<ul style="list-style-type: none"><li>▪ Alternative vehicle propulsion</li><li>▪ Policy measures for an efficient use of energy in transport</li><li>▪ <b>Strengthening the knowledge of local management agencies in the transport field</b></li></ul>	<ul style="list-style-type: none"><li>▪ <b>Energy policies, legislation and market conditions for enabling poverty alleviation in developing countries*</b></li><li>▪ <b>Strengthening local energy expertise in developing countries*</b></li></ul> <p><b>* Focus 2003: Sub-Saharan Africa</b></p>



# The 4 fields of EIE

*SAVE* – Energy efficiency (RUE) 69.8 M€

*ALTENER* – Renewable Energies (RES) 80.0 M€

*STEER* – Energy aspects of transport 32.6 M€

*COOPENER* - Promotion of RES & RUE  
in developing countries 17.6 M€

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Total 200 M€\*

\* Not yet including contributions from enlargement in 2004, nor from EEA and participating candidate countries





# SAVE

- Energy efficiency in buildings and industry
- Total final energy consumption minus Final energy consumption of transport sector (STEER)
- actions on the demand side, where users of energy play important role
- increase of comfort and quality of life in addition to a reduction of energy intensity and energy consumption





# ALTENER

- **Support local implementation of EU legislation**
  - ◆ RES Electricity directive
  - ◆ Biofuels directives
  - ◆ Building directive
  - ◆ Proposed CHP directive
- **Support local implementation of EU policies RES electricity, heating / cooling, liquid / gaseous fuels**
- **Promote new and renewable energy sources, and their efficient integration into the demand**





# STEER

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- Alternative vehicle propulsion
- Policy measures for an efficient use of energy in transport
- Strengthening the knowledge of local management agencies in the transport field

Note: All address passenger and freight, in any mode of transport in either rural or urban areas.

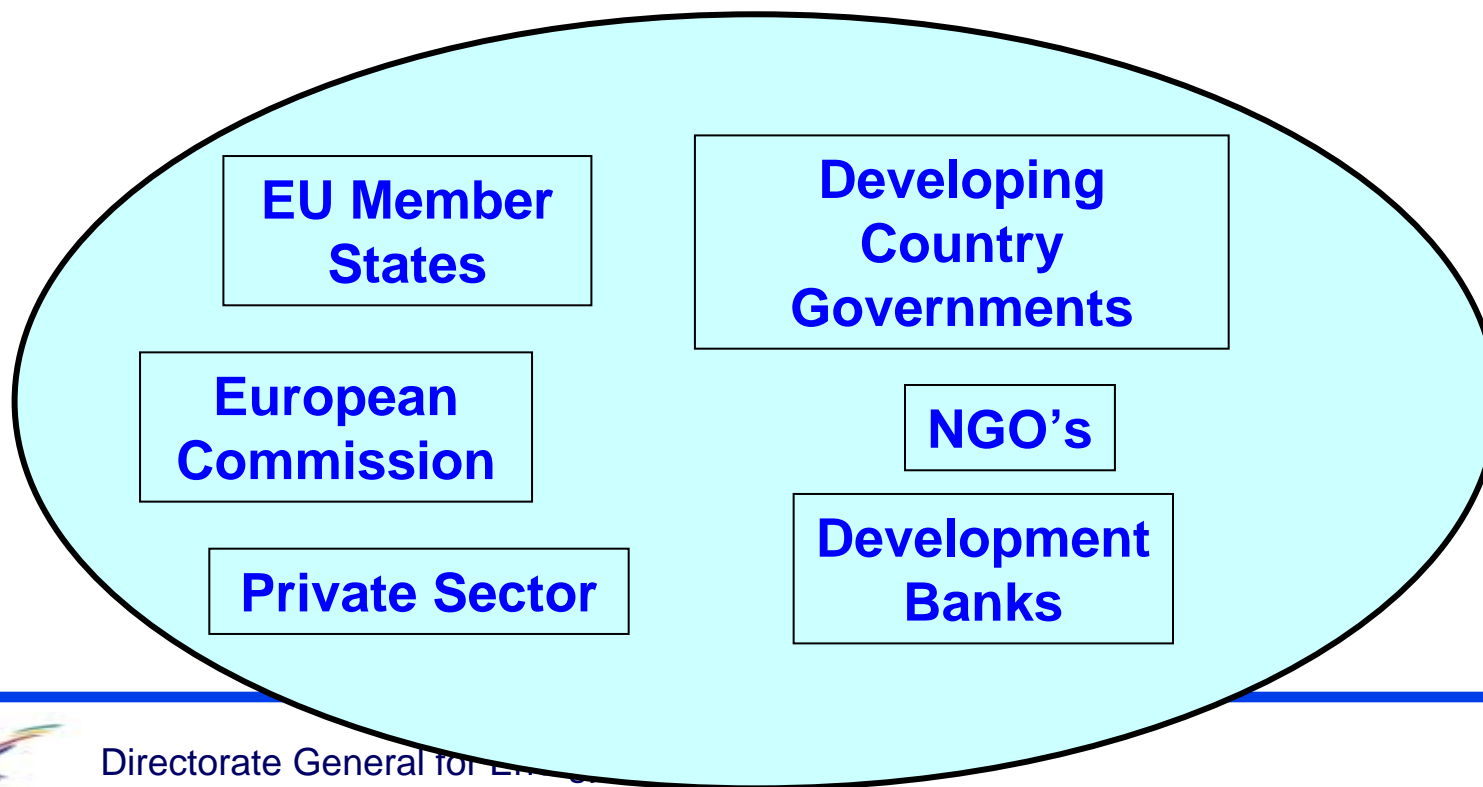




# COOPENER and the EU Energy Initiative

## Partnerships with Developing Countries

*(Develop local policies, regulations, knowledge and skills, to provide sustainable energy services for poverty alleviation in urban, peri-urban and rural areas)*





# Horizontal Key Actions (HKA)

Sustainable Energy Communities

Think globally, act locally

Financing mechanisms & Incentives

Monitoring & Evaluation

Dissemination & Promotion

Red colour = included in call for proposals 2003





# Who can participate ?

- EU, EFTA, Accession and Candidate countries on the basis of MoU.
- ACC participation in 2003:
  - yes: Lithuania, Slovenia, Bulgaria, Romania.
  - Without response so far: Poland
  - no: Czech Republic, Estonia, Hungary, Latvia, Slovakia, Malta, Cyprus





# How and when to submit ?

- 1<sup>st</sup> Deadline for type 1 +2 actions: 31 March 2004
- 2 deadlines for type 3 (events): 31 January 2004 and 31 May 2004
- Submission
  - ◆ by post (stamp of day of deadline) or
  - ◆ by private courier (received by the Commission before 16:00 on day of deadline)
- 1 original (with original signatures) and 5 copies of the original
- Partly additional electronic submission





# Further information

- EIE programme website (incl. project database),  
[http://europa.eu.int/comm/energy/intelligent/index\\_en.html](http://europa.eu.int/comm/energy/intelligent/index_en.html)
- ManagEnergy website,  
[www.managenergy.net](http://www.managenergy.net)
- [Tren-intelligentenergy@cec.eu.int](mailto:Tren-intelligentenergy@cec.eu.int) for requests per email
- +32-2-2966016 for requests per fax

