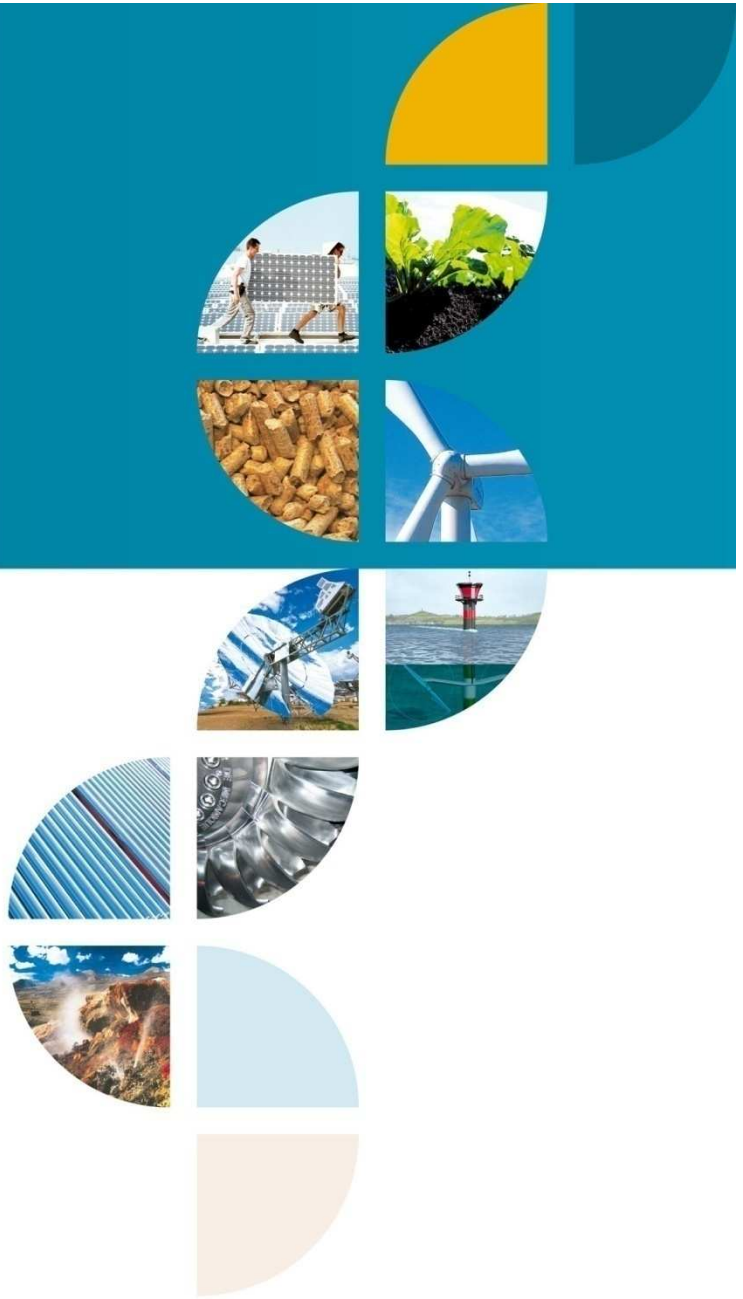
EUROPEAN RENEWABLE ENERGY COUNCIL

EREC



The built environment – can it be more sustainable?

Christine Lins
Secretary General of EREC

EESC Conference – Sustainable Cities
Bordeaux, 15th June 2010

EREC Member Associations

- AEBIOM European Biomass Association
- EGEC European Geothermal Energy Council
- EPIA European Photovoltaic Industry Association
- EREF European Renewable Energies Federation
- ESHA European Small Hydropower Association
- ESTELA European Solar Thermal Electricity Association
- ESTIF European Solar Thermal Industry Federation
- EUBIA European Biomass Industry Association
- EU-OEA European Ocean Energy Association
- EUREC European Association of Renewable Energy Research Centres
- EWEA European Wind Energy Association

Renewable Energy Market

RES Market Overview (2004-2010)

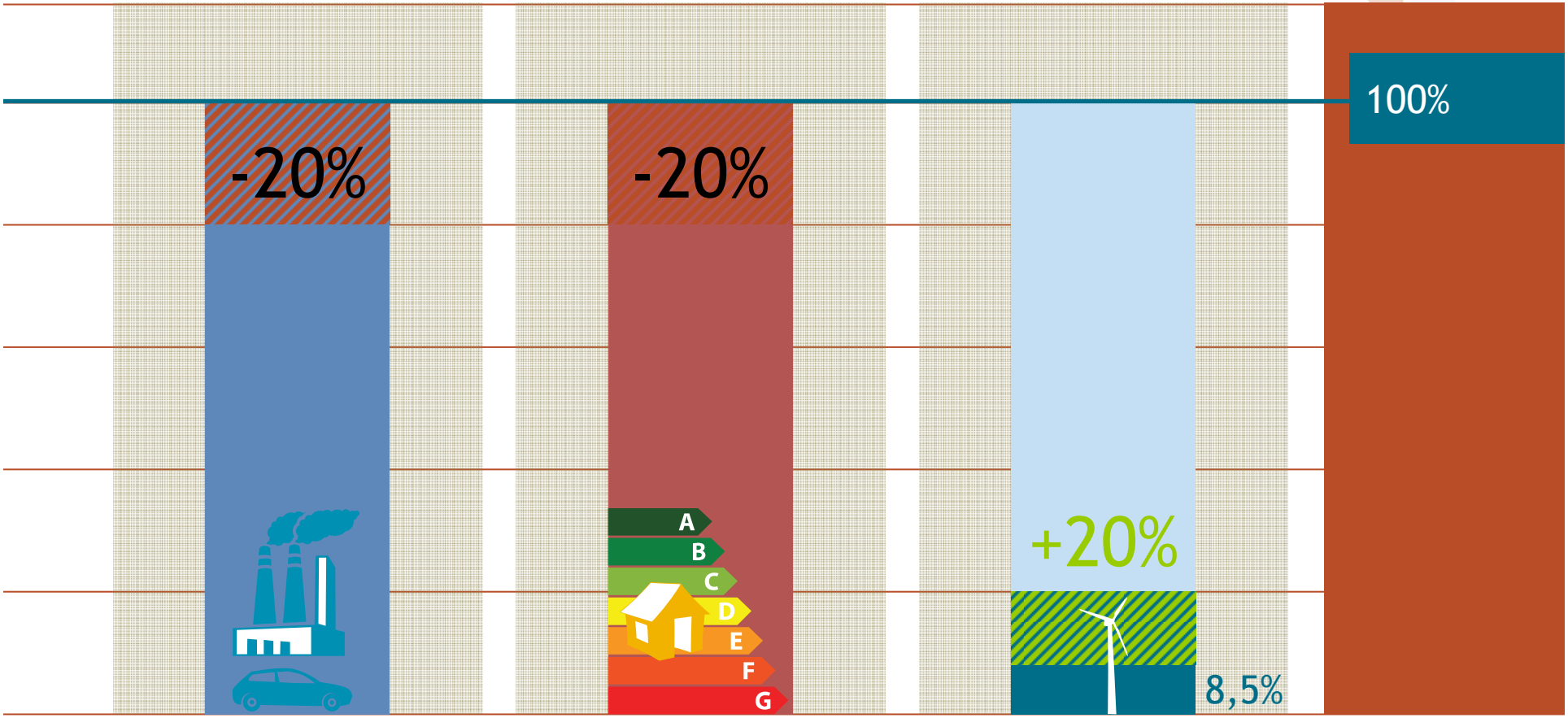
	2004	2006	2008	2010
Jobs	200,000	300,000	400,000	550,000
Turnover (€bn)	10	15	35	70
RES share (%)	8.2	9.2	10.5	12

Source: EREC

2009: Energy & Climate Package: 3 x 20 %

From 8.5 % renewable energy to at least 20 % by 2020

The 20-20-20 EU policy by 2020



Buildings sector is key to reach 3 x 20 targets

- **Buildings account for 40 % of EU's energy use**
- **Business as usual won't be good enough to reach the EU's climate & energy targets**
- **Annual construction rate of new buildings in the order of 1 % of the building stock, demolition rate 0,5 %, retrofit 1,8 % - large-scale mobilisation of actors is needed**

IEE project Smart-e buildings

Industry-led European-wide mobilisation campaign inspired by the Obama election campaign

Consortium:

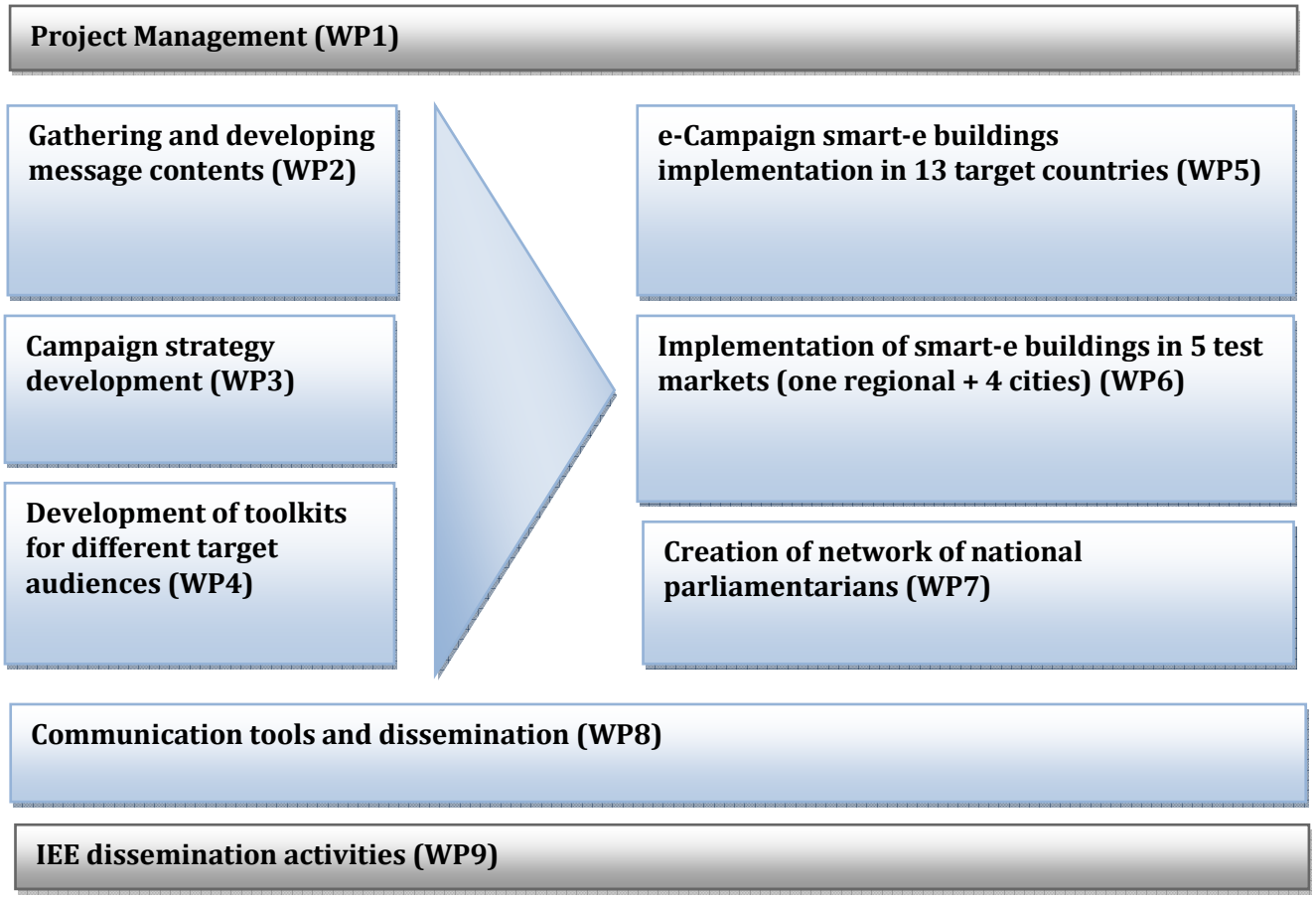
EREC (coordinator)
EUROACE
ADEME
CEETB
FEDARENE
Energy Cities
Climate Alliance
PLEON
eclareon

Project duration:

May 2010 – April 2013

Intelligent Energy Europe

Project outline: Smart-e buildings



Smart-e buildings objectives

- engage 2 Mio Europeans in a practice-oriented interactive dialogue on how to implement RUE and RES in buildings
- enable 20.000 house-owners and public administrations to invest into sustainable buildings measures
- 5.000 € average investment volume
- 100 Mio € invest in RUE & RES measures in buildings

QualiCert

Development of an European approach for accreditation /certification schemes for installers (Art. 14 of RES Directive):

- **For different technologies (solar thermal, PV, biomass, geothermal) to avoid re-inventing the wheel in each Member State**
- **In close collaboration with installers (via their EU associations representing their interests) to ensure the easy application of the developed system in the market**

QualiCert

Why is this topic so important?

The reaching of the 20 % RES target by 2020 will result in a multitude of small-scale RES installations in buildings – high-quality installation is of utmost importance!

European Energy Programme for Recovery (EEPR)

- 15 energy projects (9th December 2009)
  - 6 CCS projects: €1 billion
  - 9 Offshore Wind projects: €565 million
- 43 infrastructure projects (4th March 2010)
  - 31 gas pipeline projects: €1.4 billion
  - 12 electricity interconnection projects: €910 million

Remaining funds – the chance for a real sustainable recovery for Europe

- € 3,980 million financial envelope of EEPR

- € 3,865 million dedicated to EEPR projects

→ € 115 million uncommitted

↓

possibly € 400 million uncommitted by the end of 2010

EEPR - Committment

Should the Commission (…) find that it will not be possible to commit by the end of 2010 a part of the funds (…), the Commission will propose, if appropriate and ***in a geographically balanced way***, an amendment to the Regulation allowing for the ***financing of projects in the area of energy efficiency and renewable energy sources***, in addition to the above initiatives (…).

Source: Commission Declaration of Regulation (EC) No 663/2009

Why is building sector so important?

- The building sector is among the “lowest-hanging fruit” when it comes to making our energy system more sustainable.
- It is the sector where progress towards sustainability is cheapest to reach.
- Energy efficiency strategies can reduce a building’s energy consumption by 50% to 70%. Renewable energy technologies must be used to reach the goal of a net-zero energy building.
- A combined approach on both the demand and the supply side is needed

The Renewable Energy House

- Headquarters for the European renewable energy sector
- 2800 m^2 office building
  - 3 large townhouse
  - 100 pers. / 15 associations
- Showcase for EE and RE
  - Listed building
  - Urban environment
- Central point for renewable energy issues
- Guide tours
  - More 20.000 visitors

Inauguration on 22nd March 2006

Historic Building (19th Century)

Built	1866-1868	Renov. Phase I	2006
Listed	1996	Renov. Phase 2	2008





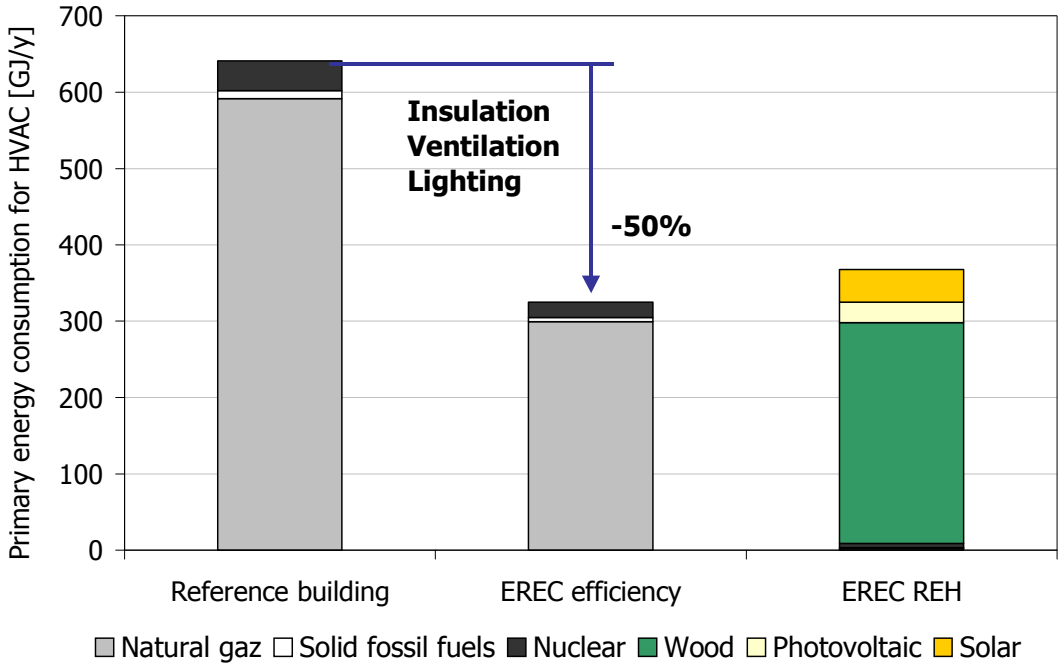

Internal Features

Energy Concept

Approach

- limit thermal exchanges
- heat recovery
- EE
  - building envelope
  - ventilation
  - lighting
- RES
  - Biomass
  - Solar Thermal
  - Geothermal
  - PV

Energy Consumption



100% Renewable Energy for Heating

Biomass

Solar Thermal

Geothermal

100% Renewable Energy for the Renewable Energy House

- *100% RES Heating*
  - Biomass
  - Solar Thermal
  - Geothermal
- *100% RES Cooling*
  - Solar Thermal
  - Biomass back-up
  - Geothermal
- *100% RES Electricity*
  - REH PV installations
  - External Supplier Lampiris (Wind, Biomass, Small Hydro)

From the example to its replication

New4old Network of Renewable Energy Houses

- Focal points for policy issues on sustainable energy
- Basis for further stimulation of the market

New4old Technical guidelines

- Integration of Energy Efficiency and Renewable Energy into historic buildings

new4old

Intelligent Energy Europe

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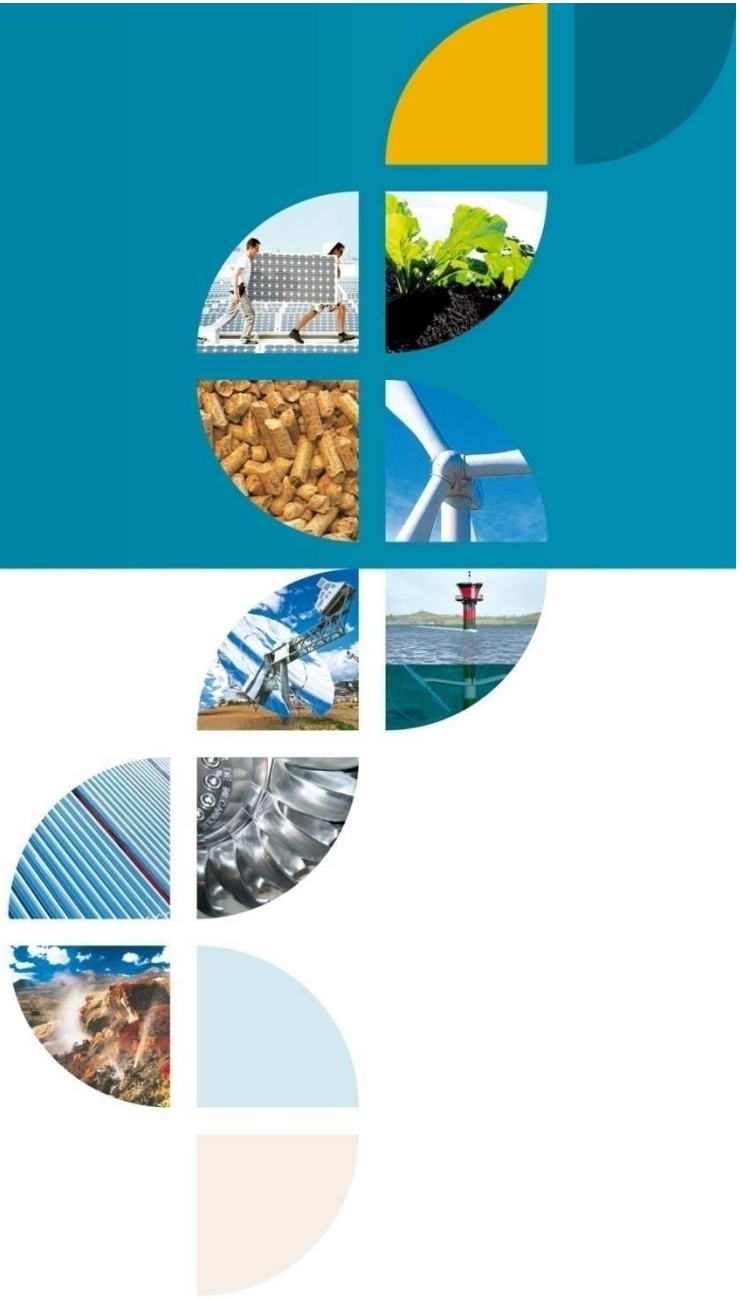

More information:

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