

Action Plan on Energy Efficiency

From the public consultation to the real outcomes for stakeholders

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What is Leonardo ENERGY

- A partnership between industry & academia on sustainable electrical energy
 - Training & professional development
 - Energy policy & regulation
- Coordinated by European Copper Institute & its European network of 11 offices
 - Involving over 140 partners from industry, universities, associations, institutes, ...

- | | | |
|---------------------------|------------------------|--------------------|
| ▪ Appliances and lighting | ▪ Energy Efficiency | ▪ Policy & finance |
| ▪ Distributed generation | ▪ Energy & Environment | ▪ Power Quality |
| ▪ Ecodesign | ▪ Energy Technology | ▪ Renewables |
| ▪ Electricity | ▪ Green Building | ▪ Transformers |
| ▪ Electric Motors | ▪ Home of the Future | ▪ Transport |

My presentation!

Action Plan on Energy Efficiency

– Process

- Green Paper on Energy Efficiency
- Public consultation
- Impact Assessment
- What was the influence of stakeholders?
- Accompanying documents

– Outcomes

- Is this enough?
- Who will implement it and with what means?

Green Paper on Energy Efficiency

- Stimulate discussion (opening the Public consultation)
- Large number of ideas
- Some bottlenecks identified
- Keys to achieve energy savings
 - Incentives
 - Tools
 - Initiatives need to be made known and implemented
 - Mobilization of all actors
 - Embed energy efficiency in behaviour

Green Paper on Energy Efficiency

- Annual efficiency action plans at national level, complemented by benchmarking and peer review process in a continuous learning cycle. Better **information** to stakeholders
- Promoting best practices and **technology**
- Improving **taxation** mechanisms, ensuring that the polluter pays
- Better targeted state aid
- Use energy efficiency as a criteria in public procurement
- Use new and improved **financing** instruments giving incentives, not aids
- Improve regulation regarding **buildings** and domestic appliances
- Use the CARS 21 initiative to speed up the development of new fuel efficient vehicles
- Improved regulation for network and energy supply initiatives, as well as electricity generation
- Increase the use of white certificates
- Initiatives to increase energy efficiency in **industry**
- Organizing and optimising traffic management
- Charging of infrastructure to induce **behavioural changes**
- Develop a market for clean vehicles
- Improve tyre performance to reduce fuel consumption
- Economic instruments to improve energy efficiency in the aviation sector
- Integrating energy efficiency in **international** cooperation

Public Consultation

- 25 questions
- 241 contributions
- Report from the European Parliament
- 5000 answers to analyze
- Methodology developed to analyse it
 - Sets ok keywords per question
 - Weighting of different groups
 - Precise quantitative and qualitative analysis
- Contributions are too long and not focused – difficult analysis

Public consultation

QUESTION 8	Counting					long version
	NGOs	MS	Industry	Citizens	Total	
hard look	2	2	4	0	8	CEC should have a hard look on actions at national level and implementation of EU policies. Not to be soft on infringements.
building management	1	0	2	2	5	Economic lamps, movement detectors for lamps. In construction: increase natural lighting
assure energy efficiency	6	4	15	1	26	check implementation and continuation of use of energy efficient technologies in buildings
benchmark	1	0	2	0	3	only between countries with similar climates
flexibility	1	1	4	0	6	building regulation cannot be EU-wide, seen the differences between MS
Directive review	11	3	19	0	33	Review of the Energy Performance of Buildings Directive should include buildings of less than 1000 m2. should also include mandatory CHP, RES, integrated heating networks, heat pumps
retrofitting	7	1	5	0	13	80% of the buildings we will have in 2020 are already built. We need to renovate and retrofit.
right instrument	2	0	6	0	8	Energy performance in Buildings Directive is the right instrument if well implemented
specific regulations	3	0	6	1	10	specific directives for insulation/solar shading/blinds/windows for refurbishment of old buildings
difficult implementation	3	2	5	0	10	Difficult implementation of the building directive because of lack of expertise for designing and building. Urgent that CEC supports and monitors the development of this expertise

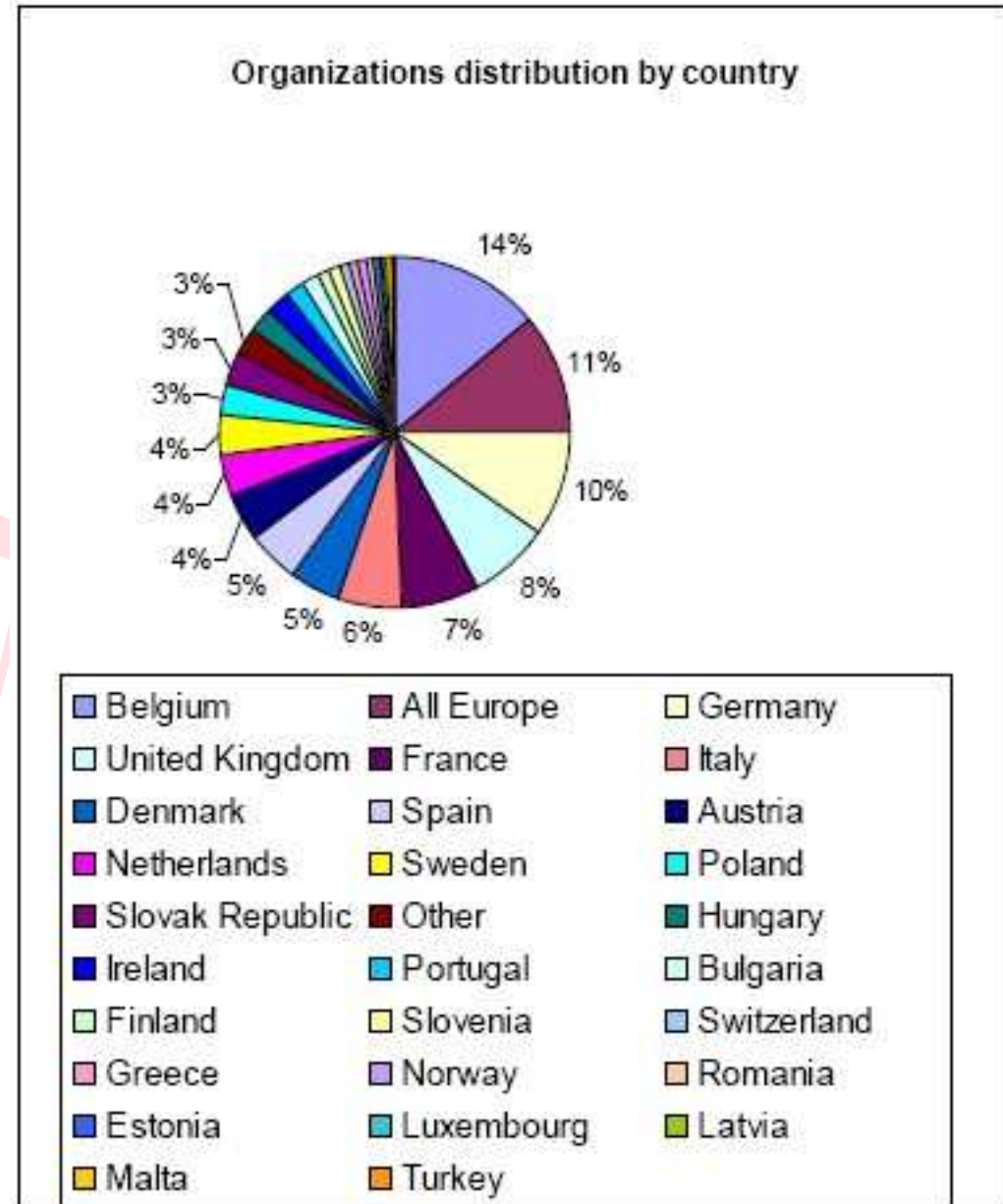
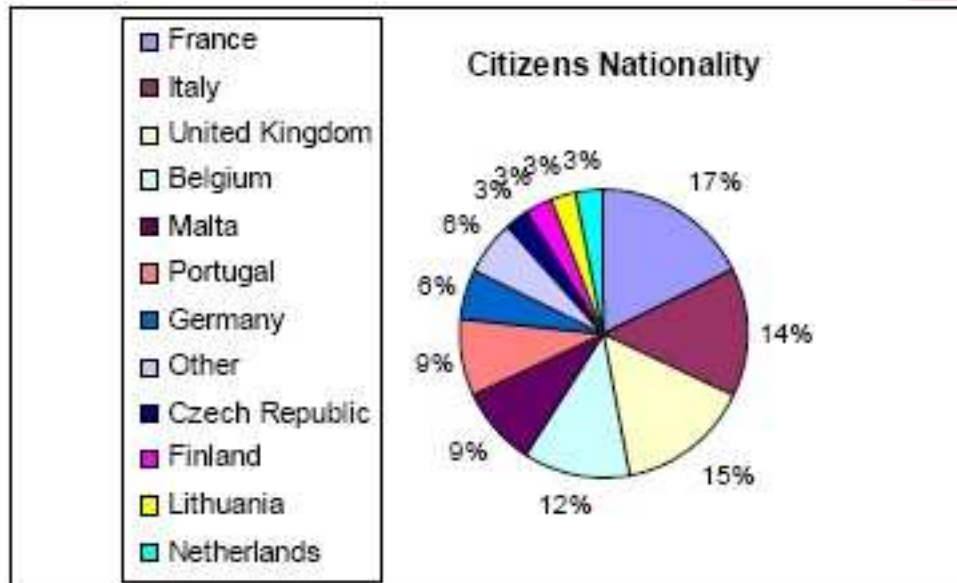
Public consultation

Citizens: 38

Industry and private sector: 106

Public bodies: 66

NGOs: 31



Public consultation

- there is a huge lack of **information** regarding both technology and policies that should be tackled using innovative approaches
- there is a lack of **expertise** – more education and training are needed
- stakeholders call for **more action and less policy**.
- local and regional **energy agencies** should be further developed
- need to make better use of public and EU financing such as structural funds
- **Public Authorities** need to play a bigger role setting the example
- Energy efficiency needs to be introduced as a criteria for procurement
- Energy Services Companies (**ESCOs**) need to be further encouraged
- Stronger emphasis should be given **SMEs** as they have a huge savings potential
- Current labeling systems need to be expanded to other products
- The Directive for Energy Performance of **Buildings** should be reviewed and applied to smaller buildings but in due time, giving the chance to fully implement the current directive
- Need for better land use planning, infrastructure pricing and intelligent traffic management systems
- Support for the improvement of the energy production sector
- **Combined heat and power** should be further encouraged if effectively connected to district heating grids
- Support for **reduced VAT** for energy efficient products and using tax incentives for energy efficiency investments
- The EU could and should do more to spread energy efficient practices at **global level**

Impact assessment

- 54 actions screened
- 18 options with higher potential
 - Indicators: savings in Mtoe, cost effectiveness, competitiveness impact, administrative cost and behavioural change
- Implementation barriers identified
 - Lack of enforcement capabilities and vigorous action
 - Lack of internalization of external costs
 - Volatility of energy prices
 - Rebound effects
 - Lack of knowledge on saving options and financial possibilities

Impact assessment – the potentials

Sector	Energy Consumption 2005 (Mtoe)	Energy consumption 2020 (Mtoe) (Business as usual)	Energy Saving Potential 2020 (Mtoe)	Full Savings Potential 2020 (%)
Households (residential)	280	338	91	27%
Commercial buildings (tertiary)	157	211	63	30%
Transport	332	405	105	26%
Manufacturing Industry	297	382	95	25%

Action Plan

- 20% savings by 2020
- €100 billion/year
- 780 million tonnes CO2/year
- 6 main areas
 - dynamic energy **performance requirements** for products, buildings and services
 - improving **energy transformation**
 - improving **transport** efficiency
 - **Financing** energy efficiency, economic incentives and energy pricing
 - **Behavioural** changes towards energy
 - **International** partnerships
- 10 priority actions (75 in total)

Action plan – 10 priority actions

- New energy **performance standards** for different product groups such as boilers, copiers, TVs, lighting
- new energy standards for **buildings** and promoting low-energy buildings ("passive houses")
- making power **generation and distribution** more efficient
- possible legislation to limit CO2 emissions from cars to 120g/km by 2012
- facilitate bank **financing** for investments in energy efficiency by SMEs and energy service companies
- boosting efficiency in new member states;
- coherent use of **taxation** with the preparation of a Green Paper on indirect taxation in 2007;
- **awareness and education** campaigns;
- improving energy efficiency in **urban areas** through a "Covenant of Mayors" (to be created in 2007) which will exchange best practices, and;
- **International agreements** to foster energy efficiency worldwide.

Action Plan

- Effects on regulation
 - Labelling
 - Eco-design of EuPs
 - Energy performance in Buildings
 - Energy end-use efficiency and energy services
 - Energy taxation
- Accompanying documents
 - Executive summary of the impact assessment
 - Impact assessment report
 - Analysis of the action plan
 - “What can you do to save energy”

Action Plan - analysis

- “The most realistic plan yet”
- Building sector (passive houses)
- Agreements and voluntary measures
- Less bureaucracy
- More action and less talking
- Lack of consistent data
- €100 billion = €200 to €1000 per household
- McKinsey - EU's 2020 Energy goals - € 1000 billion
- IEA – World Energy Investment Outlook 2003 (2001 – 2030)
 - Oil - \$ 2800 billion
 - Gas - \$ 3145 billion
 - Coal - \$ 397 billion
 - Power sector - \$ 9841 billion

Conclusions

- Needs: more communication than technology
- Part of the solution
- Consensus
- Embed energy efficiency in behaviours
- Involve stakeholders
- Resources/training
- Full advantage of mechanisms
- Public consultations are not enough



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“If not us, who? If not now, when?”

Robert F. Kennedy

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Thank you for your attention!