



European Commission
JRC - Institute for Energy

David Baxter

(With input from Kyriakos Maniatis/Jose Riesgo: EC-DG TREN)





Contents of Presentation

- Outline of EU Policies & Targets Related to Renewable Energy
- Policy and Legislative Activities
(focus on the Biomass Action Plan)
- Useful Contact Details and References



EU Policies and Targets: Energy (1)

- **RES White paper 1997:** increase share of RES from 6% to 12% of gross consumption by 2010 (~ 6% in 2001, of which 2/3 is from biomass/waste - mainly heat: EU15 expected to reach 10% by 2010)
- **To reduce greenhouse gas emissions**
(meet the commitments made by the EU under the 1997 Kyoto Protocol)
- **To contribute to Security of Supply**
[COM(2000)769 – C5-0145/2001]



EU Policies and Targets: Energy (2)

- **Directive 2001/77/EC of 27.09.01 on RES-e** : to establish a framework to increase the share of green electricity from 14% to 21% of gross electricity consumption by 2010 (expected to reach 18-19% by 2010)
- **Directive 2003/30/EC of 08.05.2003 on the promotion of biofuels for transport**: targets: 2% by 2005; 5.75% by 2010
- **Directive 2004/8/EC on cogeneration of heat and power**: target: 18% by 2010



EU Policies and Targets: Energy (3)

- **Landfill (1999/31/EC)**
Reduced landfilling of biodegradable component of waste by 65% by 2016
- **Integrated Pollution Prevention and Control (96/61/EC):** special provision for RES
- **Establishing a scheme for greenhouse gas emission allowance trading (2003/87/EC):** with an amendment to 96/61/EC



EU Policies and Targets: Biogas

There is no particular policy on biogas, it is a component of the general bioenergy "cocktail" ...so it is covered by all policies related to RES and bioenergy (see later comments for Biomass Action Plan)

Landfill gas is covered by the policies on waste management but its applications falls under the energy policies.



Policy and Legislative Activities



Biomass Action Plan

Best Available Techniques (BREFs)

Well-to-Wheels Study

Recent Publications



Biomass Action Plan (DG TREN)

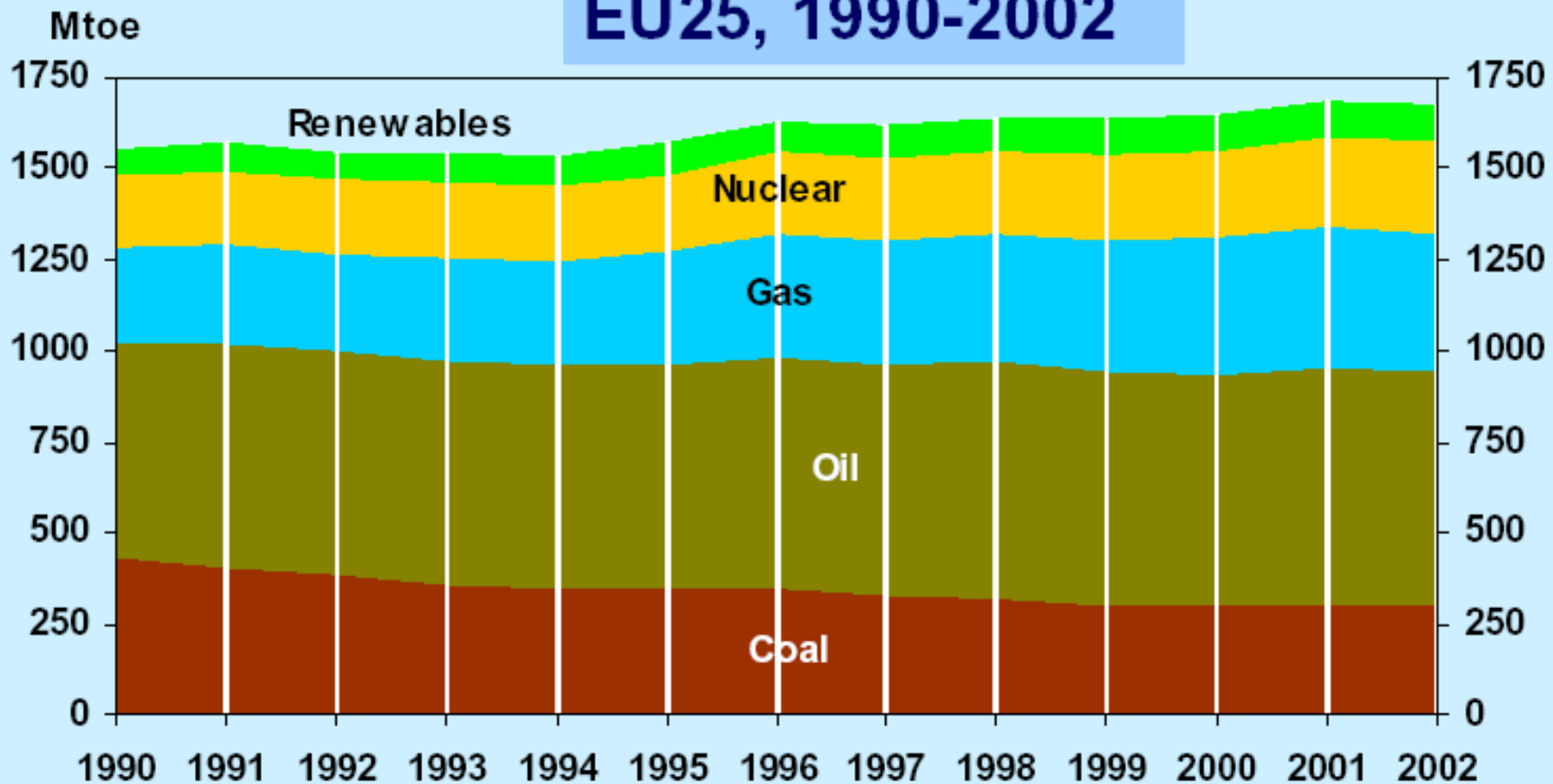
- Study « Bioenergy Role in the EU Energy Market - A view of developments up to 2020 »
- Biomass / biodegradable fraction of waste: need to increase current contribution by 32 Mtoe (electricity)
- Biomass overall availability in EU 25 : 140-150 Mtoe
 - Wood (refined residues): 27 Mtoe
 - Solid Agriculture (residues): 36 Mtoe
 - Solid Industrial: 14 Mtoe
 - Wet/ dry manure : 17.5 Mtoe
 - Biodegradable MSW: 23.5 Mtoe
 - Demolition wood: 6.5 Mtoe
 - Black liquor: 11.5 Mtoe
 - Sewage gas: 2.5 Mtoe



Gross Energy Consumption

EU25, 1990-2002

Joint Research Centre



Source: EUROSTAT

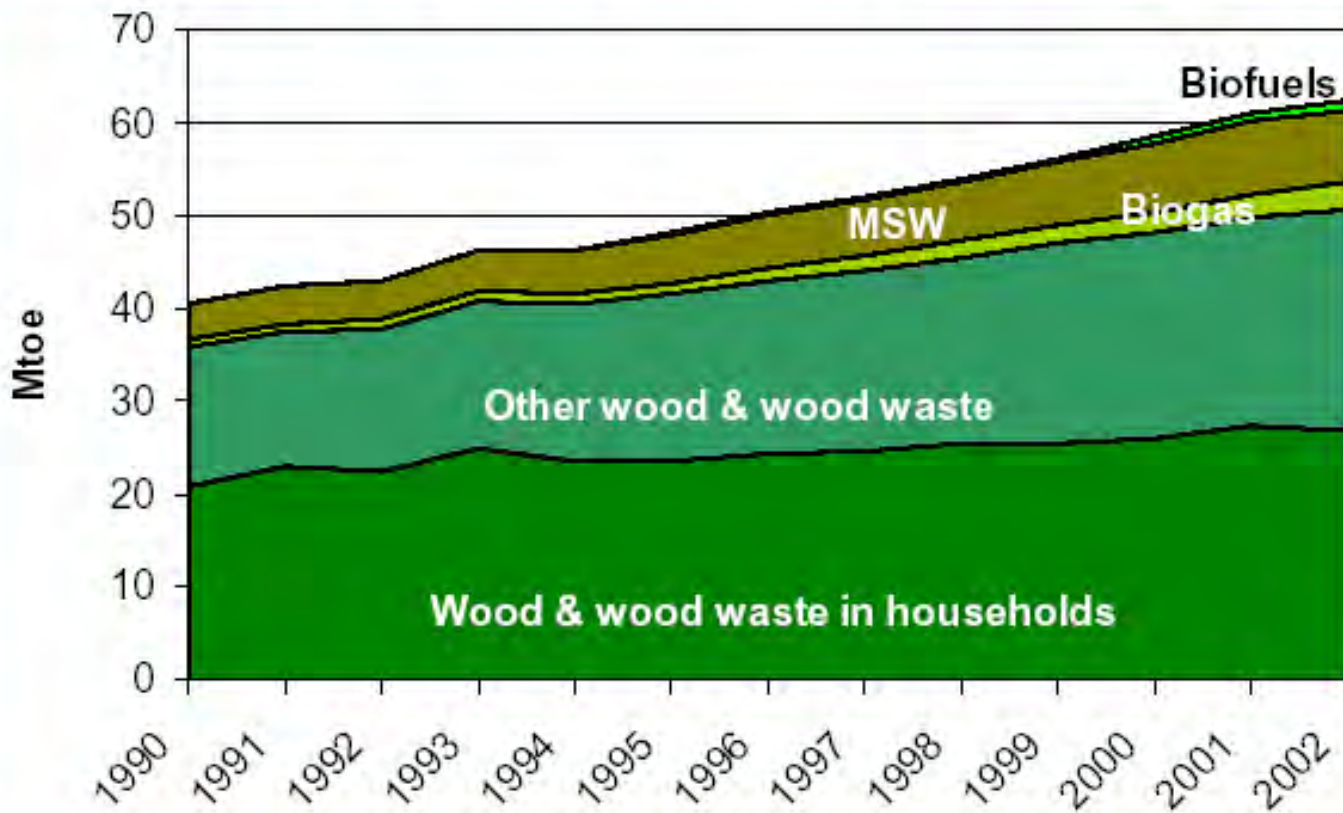
Slide Courtesy of J.Riesgo: EC-DG TREN





Gross Energy Consumption

EU25, 1990-2002, biomass & waste only

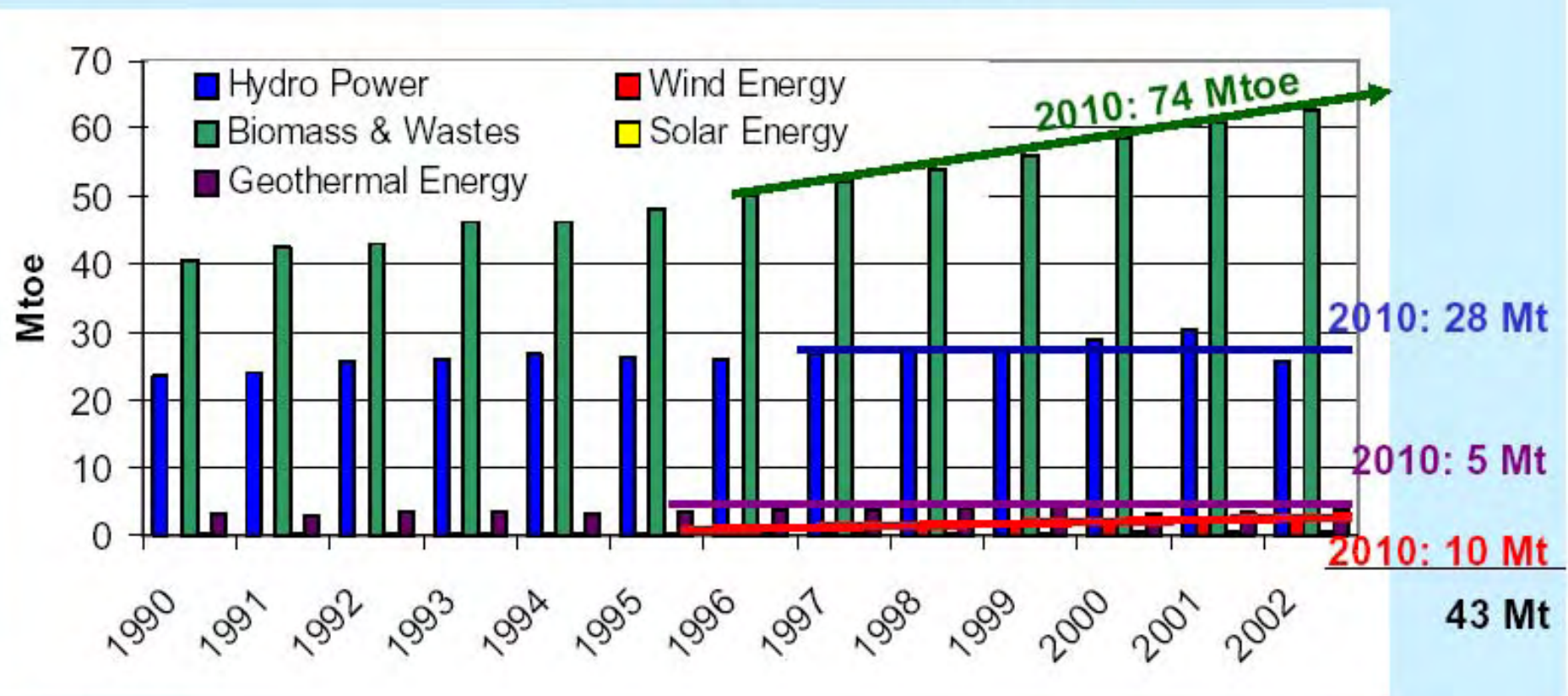


Source: EUROSTAT



Gross Renewable Energy Consumption

EU25, 1990-2002



Source: EUROSTAT

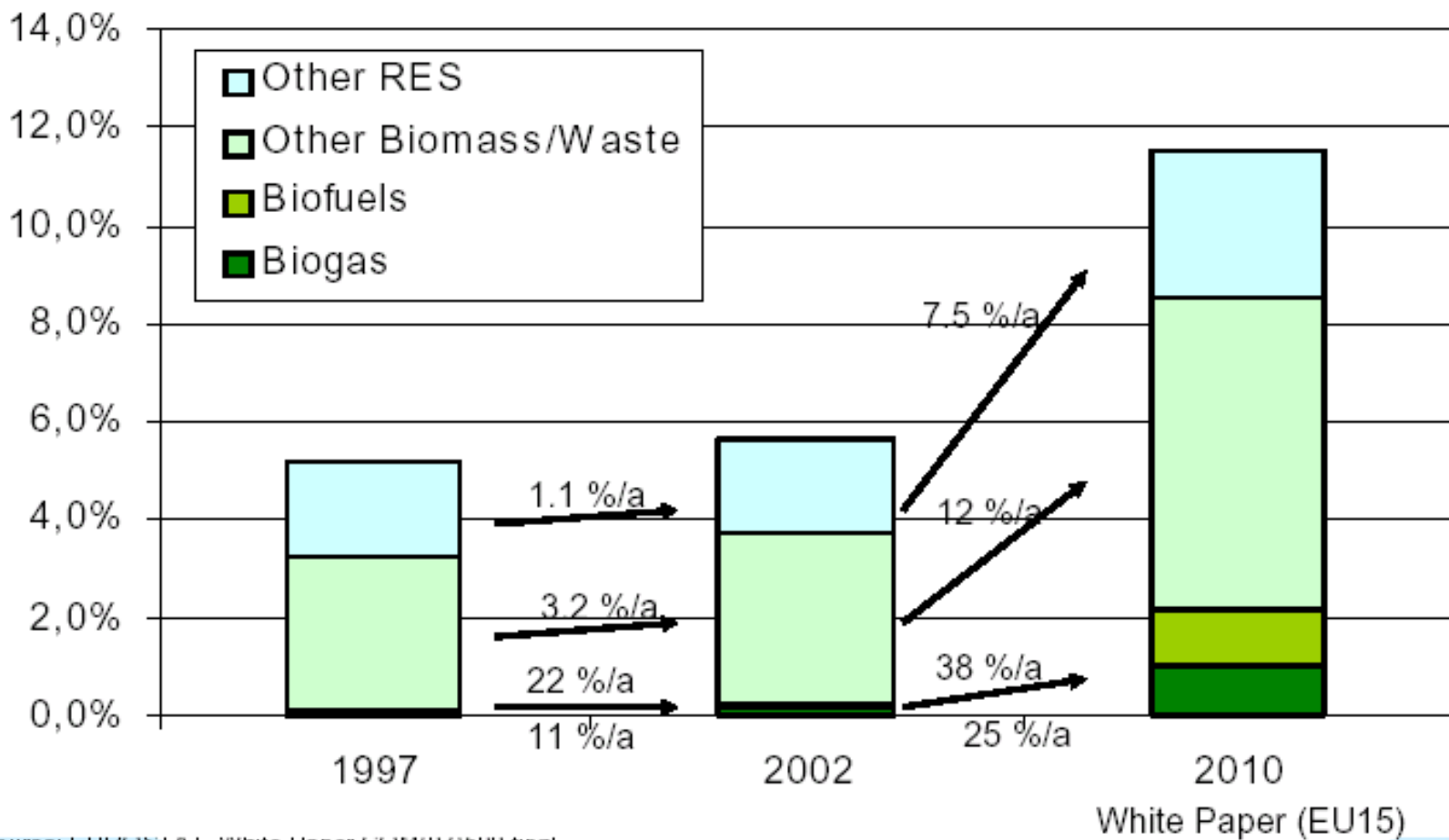
Joint Research Centre

Slide Courtesy of J.Riesgo: EC-DG TREN





Targets

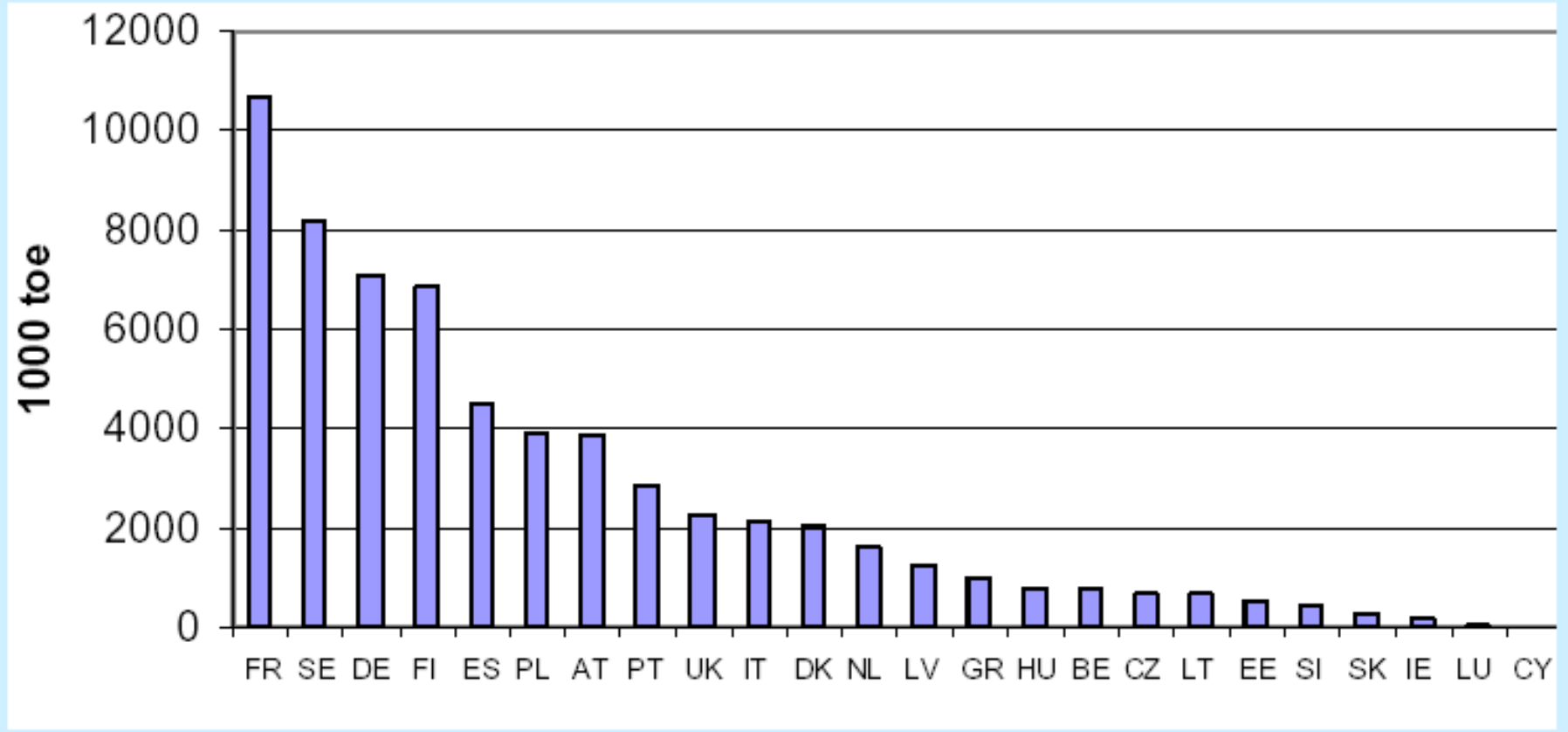


Source: EUROSTAT, White Paper COM(97)599 final



Gross Energy Consumption

EU25, 2002, biomass & waste only, per MS



Source: EUROSTAT

Joint Research Centre

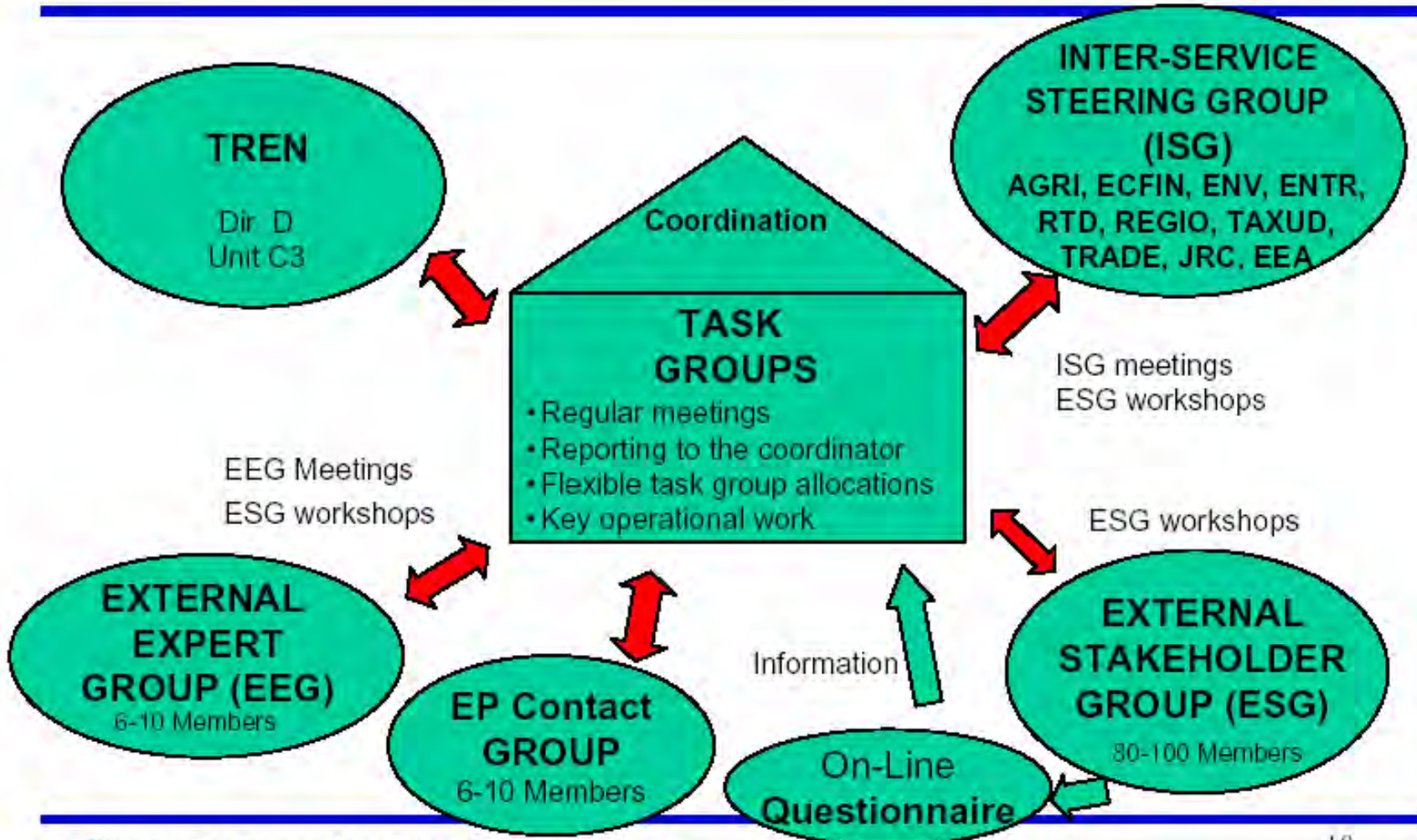
Slide Courtesy of J.Riesgo: EC-DG TREN





Biomass Action Plan Organisation

Joint Research Centre





Biomass Action Plan Fields of Activity

Current use and future potential, land availability, food & other industrial needs

Functioning solid biofuels European market including international trade

Power

+32
Mtoe/a
by 2010

Heat/
Cooling

+24
Mtoe/a
by 2010

Trans-
port

+18
Mtoe/a
by 2010

Socio-economic issues and proper approach to the EU citizen

Strategic research agenda

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Biomass Action Plan (DG TREN)

Resulting Opinions of External Stakeholders Group

- Limit bioethanol imports from outside the EU
- Increase CAP support to energy crops
- Avoid negative impacts of bioenergy on existing agro- and forest-based industries
- Give long-term perspectives to the sector
- Supplementary Member State level action is vital



Resulting Opinions of External Stakeholders Group

- Technology availability is not a limiting factor
- Biomass supply follows demand
- Update transport fuel + FAME quality regulations
- Key obstacle of many biomass applications is limited economic viability
- Any policy action must be clear and predictable



Public Consultation

Aim: Involvement of other external stakeholders

On-Line Questionnaire (01/02/2005 until 31/03/2005)

- Information about the sender (business background, sectorial bioenergy activity)
- Up to 3 proposals for activities on NATIONAL level
- Up to 3 proposals for activities on EU25 level

262 contributions in total

Available on Internet via DG-TREN homepage



BAP: Possible Follow-up Actions

Basic orientation of BAP Action:

- **Synchronising bioenergy relevant EU policies and creating a common understanding within EC**
- **Mobilisation of effective EU support mechanisms for bioenergy (Structural Funds, CAP, etc.)**
- **Signalling strong EU Action + raising political awareness for supplementary MS level action**
- **Others (Standardisation, FP7, etc.)**



BAP: Possible Follow-up Actions

Possible Areas of Regulatory Action:

- **New RES Heat/Cooling Directive**
- **Introduction of mandatory co-firing targets into existing RES-E Directive**
- **New RES Umbrella Directive**
- **New Fossil Fuel Substitution Directive**
- **Others (public procurement targets in Building Directive, biofuel taxation, VAT reduction etc.)**



TREN Conclusions

Bioenergy is the only RES that can make a significant difference in the energy and climate change situation of the Union by 2010.

If the policy targets on RES and Kyoto are to be met, there is urgent need to visibly streamline several EU policies on energy, agriculture, environment, regional policy etc. and propose new effective initiatives.

The BAP Impact Assessment will aim to identify these initiatives and the BAP Communication has got the objective to elaborate them in more detail.



Best Available Techniques (BREFs)

New BREF:

- Energy Efficiency (started May 2005, expected to take 1 year to prepare final draft for presentation to DG ENV)

Called a “horizontal” BREF – it aims to take energy efficiency issues from other existing BREFs and present generic approaches supporting the development/definition of best techniques for reaching maximum energy efficiency. The final document will give guidance to target groups and other interested parties (it is neither legislative nor binding in any other way).



Well-to-Wheels Study

- **How will biogas be treated** in the 2nd version of the auto/oil industry's Well-to-Wheels study that is part of the Target 2020 policy to replace 20% of petroleum in the transport sector by 2020 with natural gas, biofuels and hydrogen ?

“Version 2 will include quite a lot on biogas: there will be a calculation of

- *energy, GHG balances and costs, and discussion of availabilities.*
- *Sources: "dry" manure, slurry, sewage*
- *Uses: mostly compressed as transport fuel, but that is basically the same as replacing NG.”*

(Expected first draft: end September 2005)



Recent Publications

- Green Paper on,

“Energy Efficiency or Doing More with Less”

The Green Paper seeks to identify bottlenecks preventing cost-effective efficiencies being realised, and identify how the bottlenecks can be removed – presents 25 questions for discussion from options given in the paper.

[COM(2005)265 – June 22nd 2005]



Recent Publications

- Euro Barometer (June 2005)

Paper copies of latest issue circulated at meeting



Useful Contact Details and References

- **Biomass Action Plan:**
http://europa.eu.int/comm/energy/res/biomass_action_plan/index_en.htm
- **RESe Country Profiles**
http://europa.eu.int/comm/energy/res/legislation/share_res_eu_en.htm
- **Euro Barometer: June 2005:**
http://www.energies-renouvelables.org/observ-er/stat_baro/comm/baro167a.pdf
- **DG Energy and Transport web site:**
http://europa.eu.int/comm/energy/index_en.html
- **Contact Point for Waste and Biomass Related Activities at JRC-Institute for Energy:** <http://ie.jrc.cec.eu.int/>
David.Baxter@jrc.nl - Tel/Fax: (+31) 22456-5227/5626



Thank you