Bioenergy - enlarged perspectives Introduction

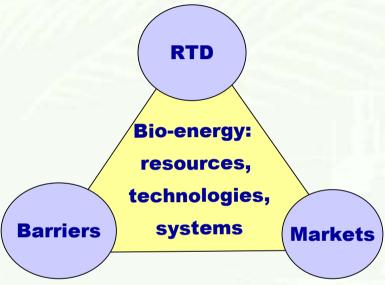
Professor Peter Lund

Chairman of the Advisory Group Energy /DG Research

Helsinki University of Technology, Finland



Structure of the plenary session

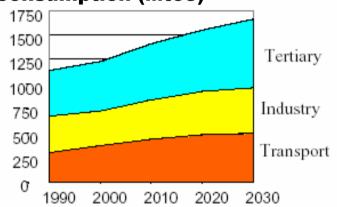


- Bio-energy options in Europe
- Market development, present and future trends
- Overcoming barriers for bio-energy
- Bio-energy research programmes

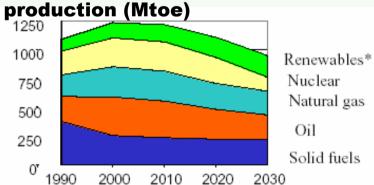


Energy challenges ahead

EU-28. Final energy consumption (Mtoe)



EU-28. Domestic energy



Source: DG-TREN

Driving factors in energy policy

- Energy security
- Climate change and Kyoto
- European Competitiveness

EU energy policy actions

- Action Plan on Energy Efficiency
- Green Paper on Renewable Energies
- White Paper on EU transport policy
- Communication on Alternative Fuels

EU energy R&D actions

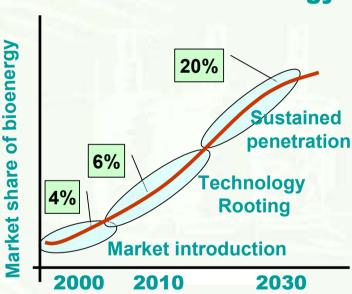
- FP 6 and European Research Area
- Innovation policy (Lisbon process)



European challenge: market penetration of bio-energy

- Fact 1: large infrastructures change slowly and main barriers are costs
- Fact 2: bio-energy is <4% of EU energy, goal is 6% in 2010, but potential is much higher
- Fact 3: MS and EU actions strive for market impacts and effective resource utilization

Diffusion of bio-energy



- ⇒ How to accelerate the commercialization of bio-energy?
- ⇒ Market transformation



Steps in market transformation

- (1) employ innovative commercialization strategies using market forces and mechanisms (technology push and market pull actions)
- (2) involve leading and important market actors and technology users and create European networks
- (3) stimulate RTD in, invest in and use bio-energy as small efforts get amplified through learning processes :
 - combining RTD & learning by doing & learning by using
 - building knowledge and learning capacity
 - creating enabling environments
 - establishing effective transfer mechanisms
 - RTD efforts both into long and near term options and socioeconomics and pursue these in parallel



New opportunity: European Research

