

European Framework for Biofuels Production and Use

Nafsika Zevgolis
Project Manager
EXERGIA SA

Bucharest, 26 November 2004

Clear Energy Policy Targets

- ✦ Maintaining security of supply
- ✦ Meeting Kyoto Objectives
 - ✦ 8% CO₂ reduction between 2008-2012
- ✦ Doubling the share of Renewable Energies
 - ✦ From 6% to 12% of gross inland energy production by 2010

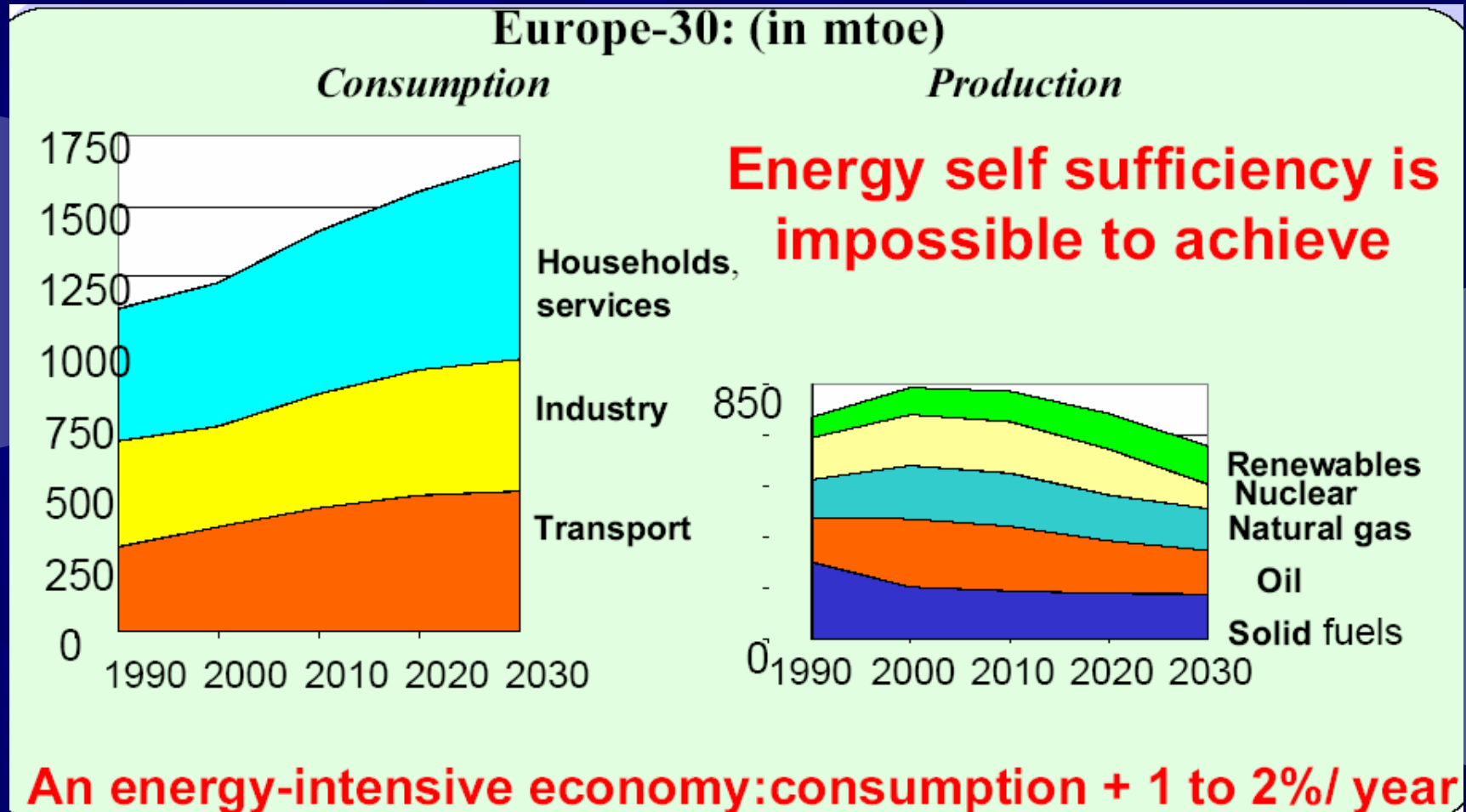
Policy Tools

- ✦ Green paper on security of supply
- ✦ White paper on RES
- ✦ Directives
- ✦ Support programmes

Green paper on security of supply

- ★ The Commission adopted the green paper (29/11/2000) in order to launch a debate on the:
 - geopolitical
 - economic
 - Environmental
- stakes involved in securing the EU's energy supply
- ★ Sets the objective of 20% substitution of conversional fuels by alternative fuels in the road transport by 2020

Basic Facts About Energy



The background of the slide is dark blue with a pattern of semi-transparent gears. On the left side, there is a vertical strip with a colorful, abstract, and somewhat pixelated texture. The main text is in a light yellow/gold color, and the bullet points are in white.

White paper on Renewable Energies

- ★ Community Strategy and an Action Plan to double the share of Renewable energy from 6-12% in Gross Inland Production by 2010
- ★ Establishes Sub-targets in the various sectors

Priorities of EU policy

- ✦ Curb the growth in demand by:
 - ✦ Review of energy taxation
 - ✦ Energy saving and diversification
 - ✦ Dissemination of new technologies
- ✦ Manage the dependence on supply by:
 - ✦ Development of less polluting energy sources
 - ✦ New and renewable forms of energy
 - ✦ Maintaining access to resources
 - ✦ Ensuring external supplies

New and renewable energy sources

- ✦ Renewables offer a potential to be exploited
- ✦ EU target: 12% of total energy consumption in 2010
- ✦ Differing growth prospects
- ✦ Their take off assumes that financial or tax incentives will be provided

Biofuels Directive

- ✦ Adopted in 2003 (2003/30/EC)
- ✦ Member States to ensure
 - “a minimum proportion of biofuels or other renewable fuels is placed on their markets”
 - “national indicative targets”
- ✦ Set “Reference targets” (based on energy content)
 - 2% by 2005
 - 5.75% by 2010of all petrol & diesel for transport
- ✦ Biofuels may be made available as:
 - pure or at high concentration in mineral oil derivatives
 - blended in mineral oil derivatives
 - liquids derived from biofuels (e.g. ETBE)

Tax reductions/exemptions Directive

- ★ Adopted in 2003 (2003/96/EC)
- ★ Allows Member States to grant tax reductions/exemptions in favour of biofuels
- ★ Currently 9 Member States have partly or completely detaxed biofuels
 - ★ Austria, Czech Republic, France, Germany, Italy, Poland, Spain, Sweden and UK

Contribution to EU policy targets

- ★ Reduce the EU's growing dependency on external supply for oil
 - 98% of the transport market is dependant upon oil. In a business-as-usual scenario, EU's external energy dependence will reach 70% before 2030, 90% for oil
- ★ Contribute to the achievement of EU's Kyoto targets
 - CO₂ emissions from transport are still growing. Road transport generates 85% of the transport sector emissions
- ★ Meet the objective of substituting 20% of traditional fuels by alternative fuels in the road transport sector by 2020

Biofuel production in EU-15

★ EU-15 (2002 data)

- Biodiesel: production of 1,165,000 tonnes / capacity for 1,790,000 tonnes
- Ethanol: production of 220,500 tonnes / capacity for 342,940 tonnes
- ETBE: production of 362,500 tonnes / capacity for 594,000 tonnes

★ France

- 366,000 t of biodiesel produced in 2002 mainly from rapeseed (50,000 t were exported) – added up to 5% to regular diesel
- 90,400 tonnes of ethanol produced in 2002 from sugar beet and wheat – bioethanol is transformed into ETBE and blended up to 15% with gasoline

★ Germany

- 550,000 tonnes of biodiesel from rapeseed consumed in 2002 (estimation) – used as pure fuel, blends (5%) are also allowed since 1/1/2004

★ Spain

- 144,000 m³ of ethanol in 2002 from wheat and barley – bioethanol is transformed into ETBE and used in 3-4% blends

★ Austria

- 30,000 tonnes of biodiesel produced in 2002 mainly from rape oil, although sunflower oil and used oil are also used

Member State Reports: Austria

- ☀ Currently 55,000 t/year, 90% of which are exported to Germany, Italy
- ☀ Current production capacity: ~100,000 t/y
- ☀ Draft Fuels Ordinance providing for:
 - 2.5% from 1/4/2005
 - 4.3% from 1/4/2007
 - 5.75% from 1/4/2008
- ☀ Biofuels production to meet targets:

	Biodiesel (tonnes)	Bioethanol (tonnes)
2005	220,900	-
2007	317,500	120,200
2008	481,900	150,000

Member State Reports: Germany

- ✦ Currently 1.4% (800,000 tonnes) of fuel consumption comes from biodiesel
- ✦ Target for at least 2% for 2005
- ✦ Mineral Oil Duty Act amended on 1/1/2004 to allow for full exemption from duty of biofuels until 2009
- ✦ Currently no ethanol production in Germany

Member State Reports: UK

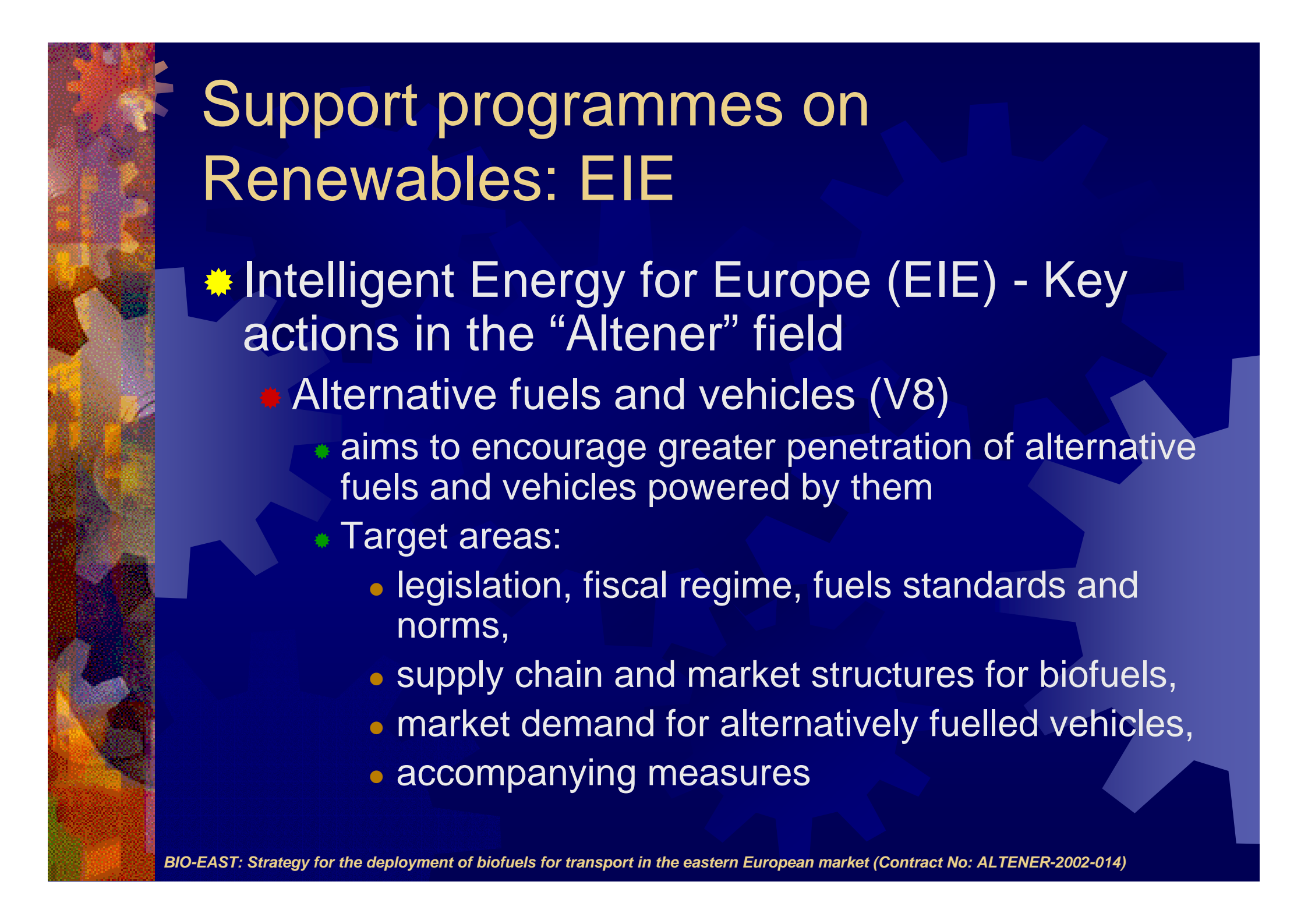
- ★ 2003 sales: 19,446,000 litres of biodiesel – 0.04% of overall consumption
- ★ Used cooking oils
- ★ Target for 2005: 0.3% of total fuel sales (mainly biodiesel)
- ★ Promotion of use of biofuels in the public sector
 - ★ Ministerial and delivery vehicle services to Central Government
 - ★ Local authorities and police authorities
 - Dorset County Council and Dorset Police
 - London's Metropolitan Police

Support programmes on Renewables: 6th FP

☀ 6th Framework Programme

☀ Alternative Motor Fuels

- The focus is:
 - large-scale demonstration initiatives designed to identify and assess ways to remove existing technical, operational, organisational, and institutional barriers, which prevent AMF from significantly entering the market
 - alternative motor fuels and energy efficient vehicles
- The final aim is:
 - To demonstrate the environmental and societal benefits
 - Spread knowledge and improve acceptance
- The call is also open to Specific Targeted Research Projects (STREPs) for demonstration of innovative, cost-effective, energy efficient and large scale biofuel production processes (in coordination with large scale integration of renewables)



Support programmes on Renewables: EIE

☀ Intelligent Energy for Europe (EIE) - Key actions in the “Altener” field

● Alternative fuels and vehicles (V8)

- aims to encourage greater penetration of alternative fuels and vehicles powered by them

● Target areas:

- legislation, fiscal regime, fuels standards and norms,
- supply chain and market structures for biofuels,
- market demand for alternatively fuelled vehicles,
- accompanying measures



Contact details:

Nafsika Zevgolis

EXERGIA S.A.

Tel: 0030 210 6996185

email: n.zevgolis@exergia.gr

<http://www.exergia.gr>

THANK YOU