



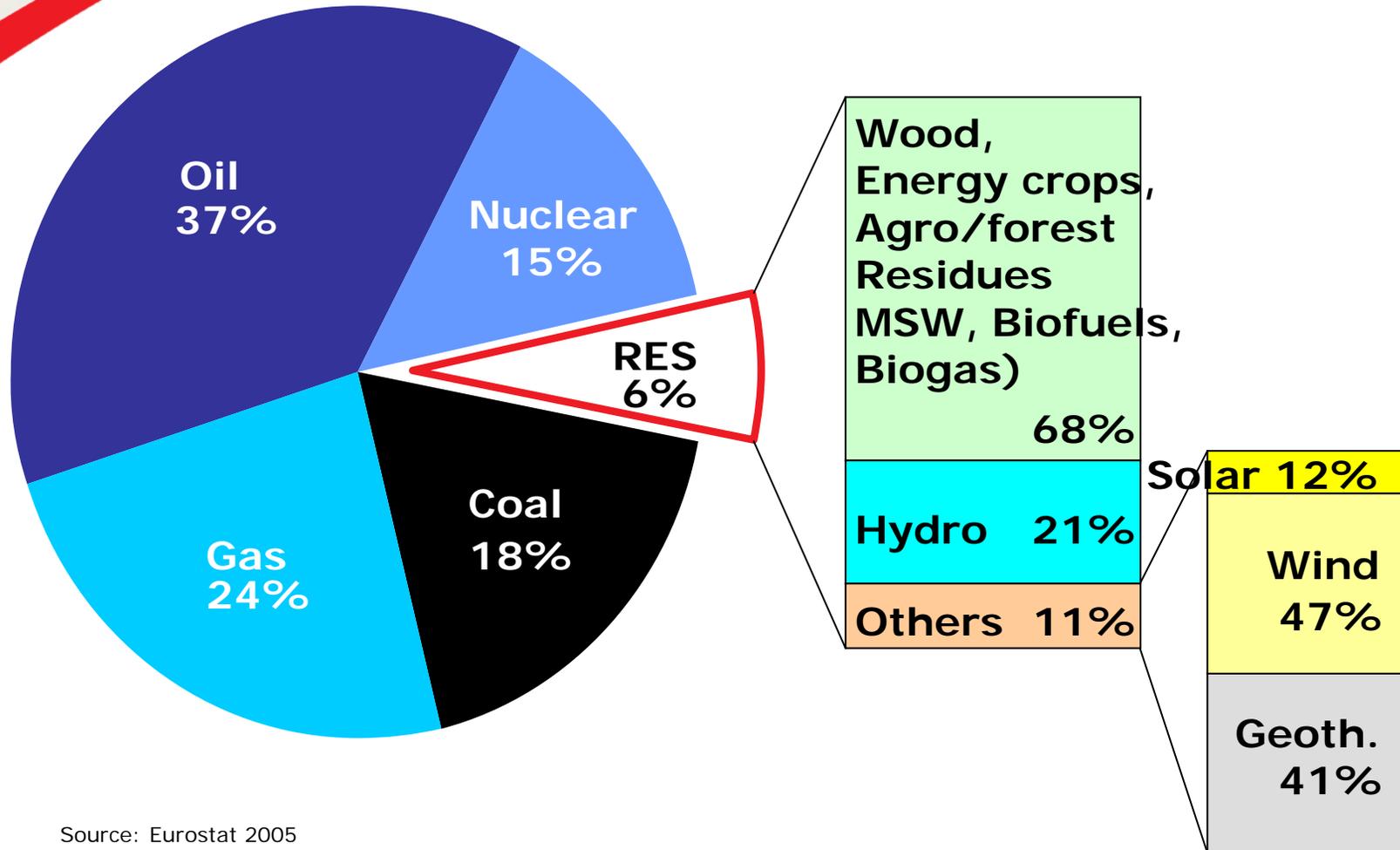
EU Biomass Research Priorities

Opportunities for International Cooperation

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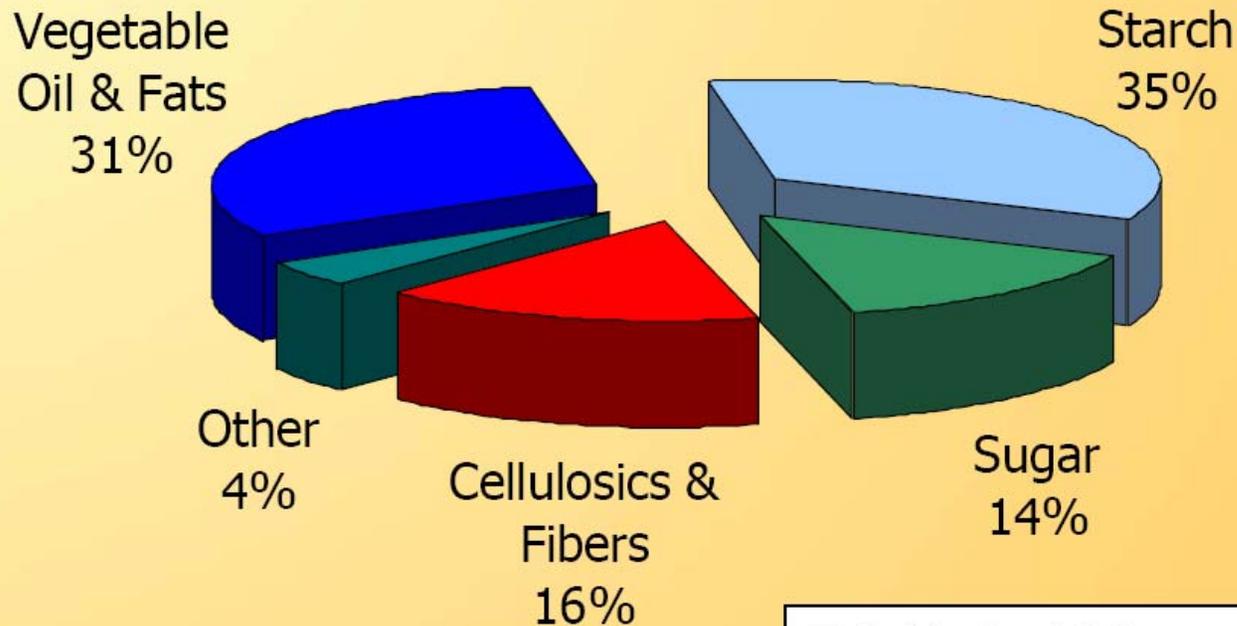


EU Energy Mix: RES share has to increase



Source: Eurostat 2005

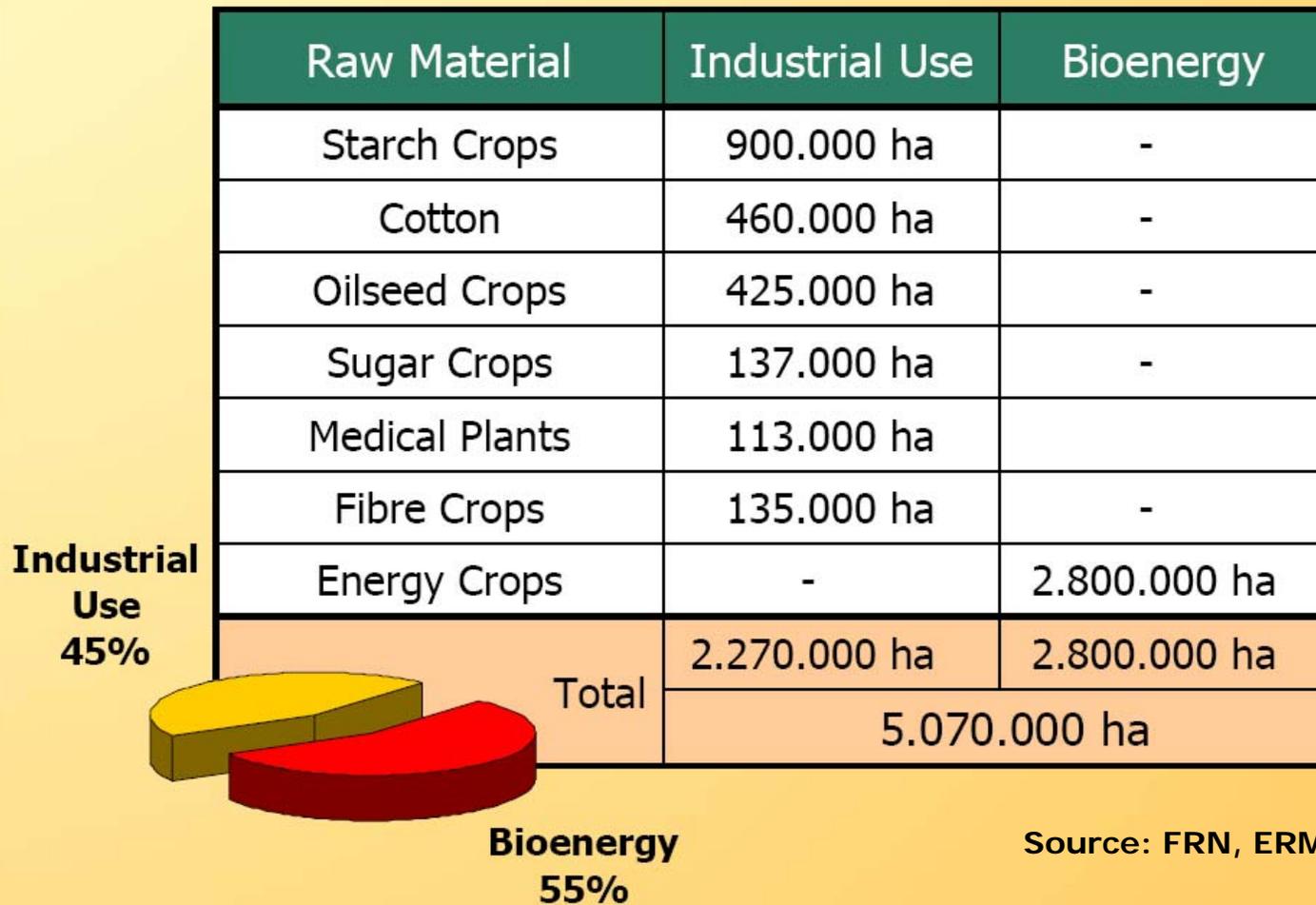
EU-25 Industrial Use (2003)



Total industrial use of RRM:
~ 9 Mio. t

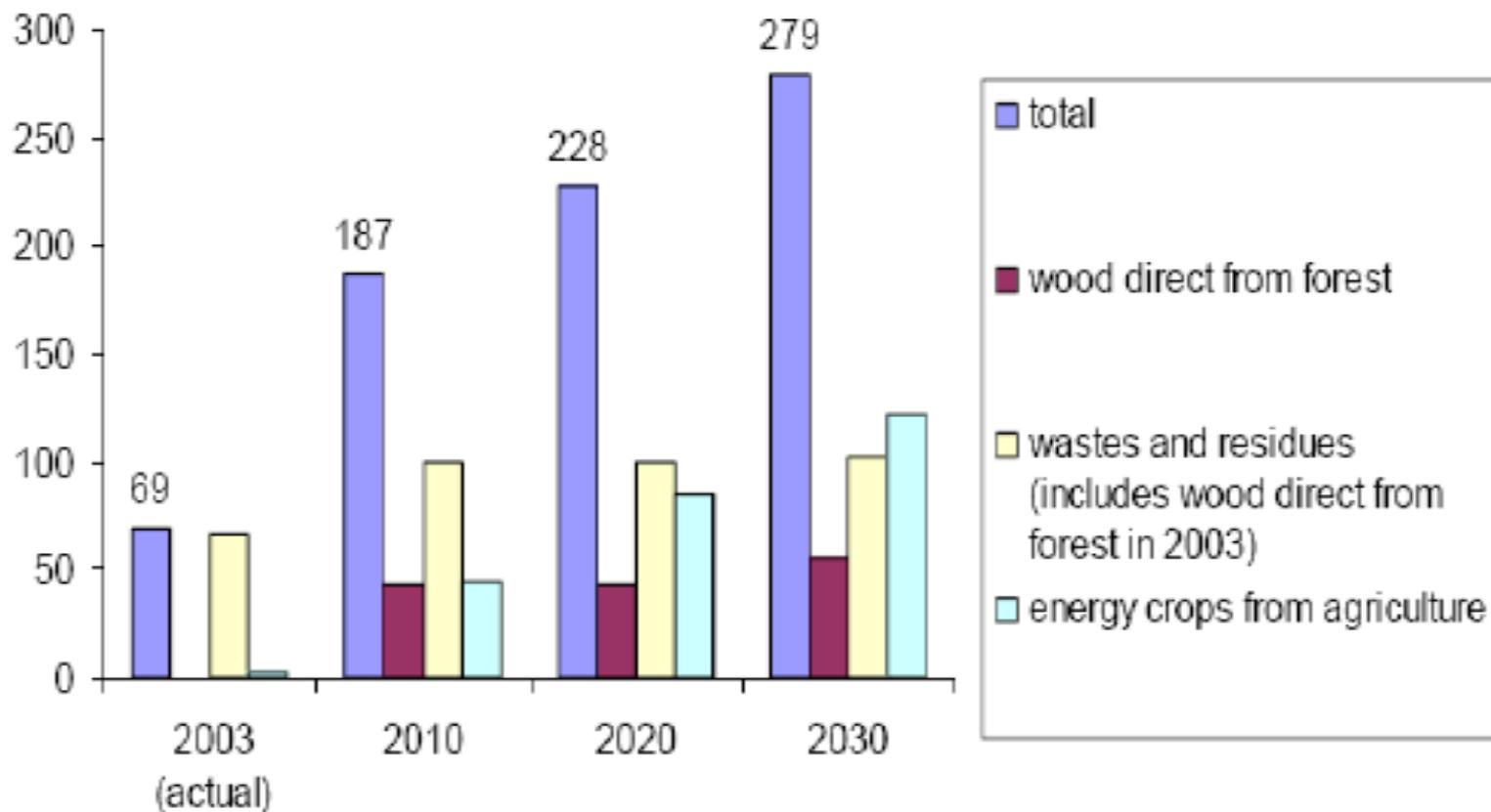
estimations based on data from:
EU, IENICA, EHGA, CIRFS, EIHA, EuropaBio, AAF, Röper, Kaup, EurObserv'ER, FAO

EU-25 Non-Food Crop Land (2005)



Source: FRN, ERMA

EU25 biomass production POTENTIAL (mtoe)



Source: Eurostat 2003 / EEA Projections

Agricultural perspective

on meeting the 5.75% target of EU fuel supply by 2010

- **Opportunities**
 - Outlet for agricultural produce
 - Source of income and employment for rural communities
- **Implications**
 - Agricultural land: 15-18 million ha needed if all biofuels feedstock is grown in the EU
 - Total arable area (EU25): 103.6 million ha
 - Obligatory set-aside (EU15): 4 million ha
 - Not cultivated land: 3 million ha

A balanced approach is needed to imports and domestic production

December 2008:

EU Directive on the promotion of the use of energy from renewable sources

→ New Targets by 2020

- 20% of greenhouse gas emissions (30% if USA, China and India join the efforts) compared to 1990 emissions
- 20% of energy efficiency improvement
- a binding target of a 20% share of renewable energies in overall EU energy consumption
- a 10% binding minimum target to be achieved by all Member States for the share of renewable in overall EU transport petrol and diesel consumption subject to
 - Biofuels production being sustainable
 - second-generation biofuels becoming commercially available
 - Fuel Quality Directive being amended accordingly to allow for adequate levels of blending

R&D perspective:

EU Research policy

- Raising the spending on RTD to 3% of the EU GDP, of which 2% should come from the private sector (part of the Lisbon strategy)
- **The 7th Framework Programme** (2007-2013) is the main instrument for the policy implementation, and its budget will be significantly higher than that of FP6
- **Technology Platforms** will provide a means to foster effective public-private partnerships
- **Strategy Energy Technology Plan**

R&D perspective:

European Strategic Energy Technology Plan (SET-plan)

- **Joint Strategic Planning** – new governance – align technology development with energy policy goals
- **Effective implementation:**
 - **European Industrial Initiatives:** strategic technology alliances
 - Strengthening European energy research capacities – **European Energy Research Alliance**
 - Trans-European Energy Networks and Systems of the Future – transition planning
- Increase resources, both financial and human. Follow-up Communication in 2009.
- Reinforce international cooperation

R&D perspective:

Biofuels Technology Platform

- Launched on 8 June 2006 in Brussels
- Strategic Research Agenda presented on 31 January 2008
- Vision: “By 2030, the European Union covers as much as one quarter of its road transport fuel needs by clean and CO₂-efficient biofuels”
- Mission: *“Contribute to the development of cost-competitive world-class biofuels technologies, to the creation of a healthy biofuels industry and to accelerate the deployment of biofuels in the European Union through a process of guidance, prioritisation and promotion of research, development and demonstration.”*
- **www.biofuelstp.eu**

The 7th EU Framework Programme

Total Funding € 53B



Cooperation
Collaborative Research



Ideas
Frontier Research



People
Human Potential



Euratom

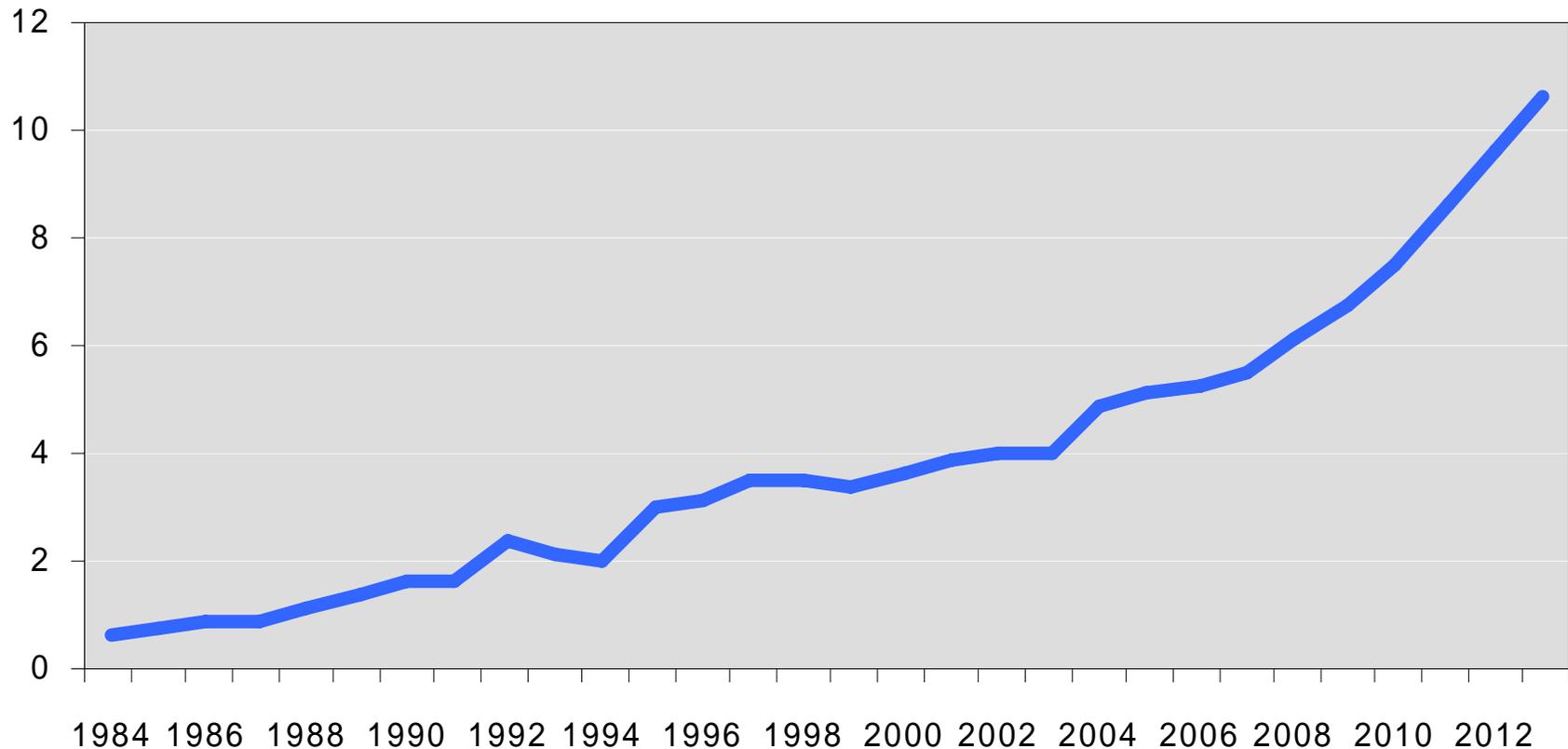
Specific Programmes

Cooperation – Collaborative Research	€32.365 m
Health	
Food, Agriculture and Fishery and Biotechnology	
Information and communication technologies	
Nanosciences, nanotechnologies, materials and new production technologies	
Energy	
Environment (including climate change)	
Transport (including aeronautics)	
Socio-economic sciences and the humanities	
Space	
Security	



EU Research Framework Programmes Annual Budgets between 1984 and 2013

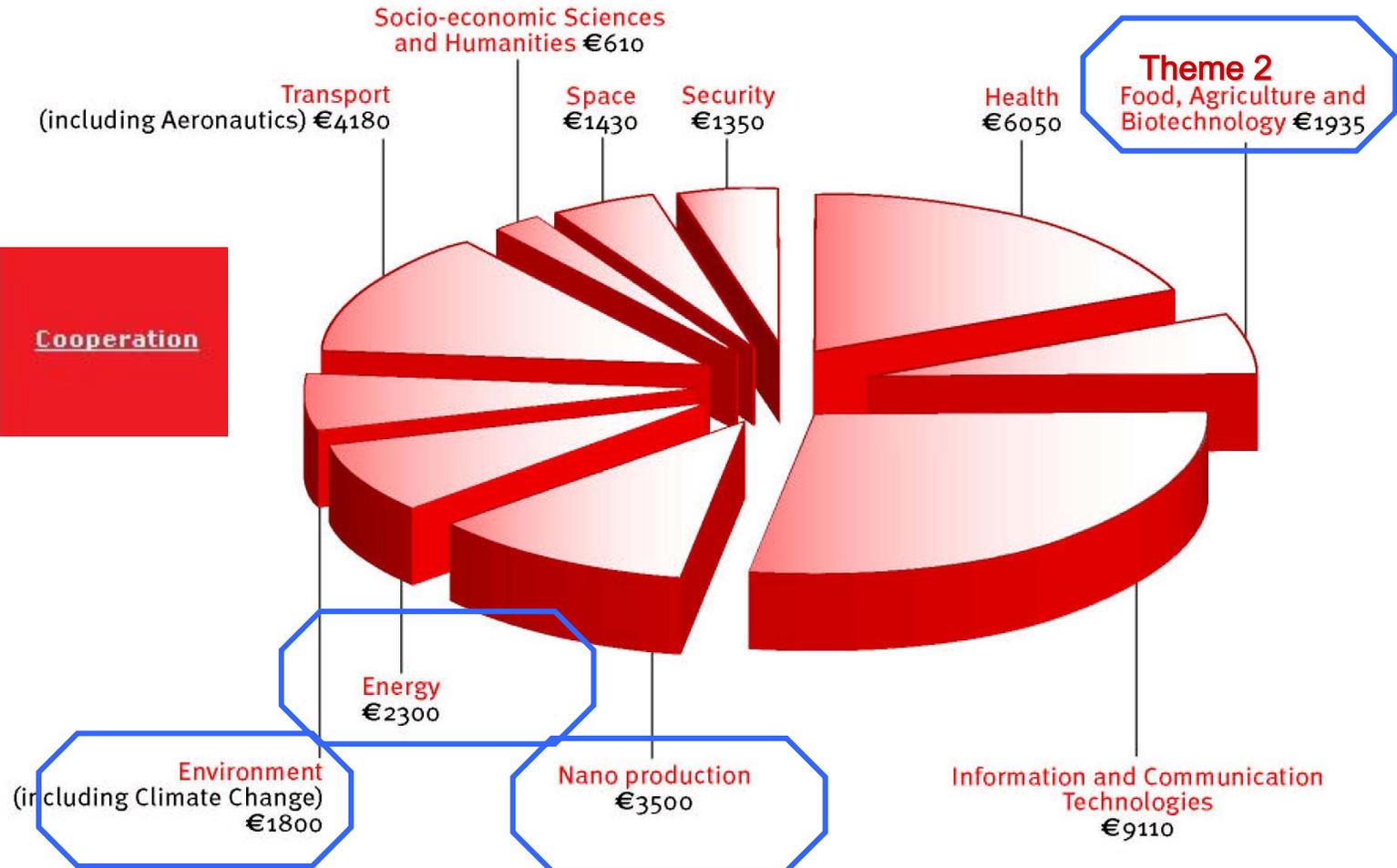
€billion



NB: budgets in current prices. Source: Annual Report 2003, plus FP7 revised proposal

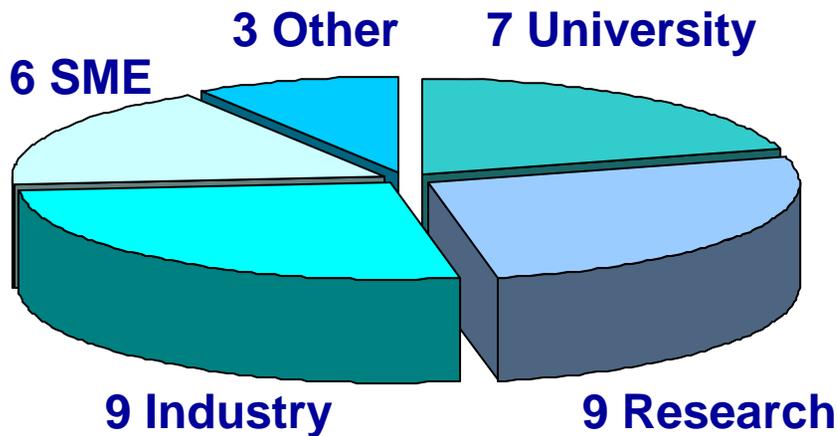


FP7- Cooperation : 10 thematic areas

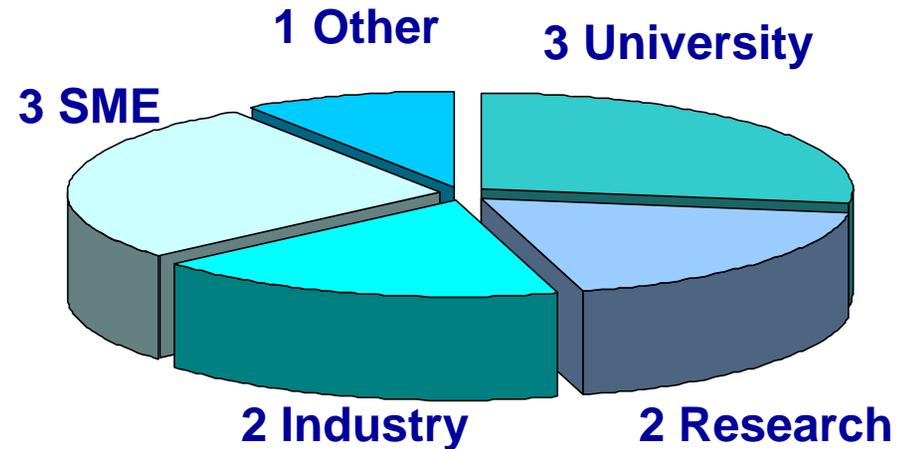


Types of organisation in typical projects

IP



STREP



Requested contribution (submitted)
Recommended (ranked list)
Number of partners

IP	STREP
13.2 M€	2.4 M€
9.3 M€	2.1 M€
34	11

MODALITIES of International Cooperation

1. GENERAL OPENING

All activities / topics are open to participation by Third Countries

Third countries (other than AC): as additional partners

2. TARGETED OPENING:

Some topics encourage international cooperation with some TC

Third countries (other than AC): as additional partners (encouraged)

3. SICAs - Specific International Co-operation Actions

Topics with mandatory participation of some TC-ICPC

International Co-operation Partner Countries : as compulsory partners

4. COORDINATED CALLS

Synchronised Calls, between FP7-Theme 2 and Third countries on topics of shared interest and with co-funding (ex Russia 2008, India 2009)

5. TWINNING of projects

between FP7-Theme 2 and related programmes from Third countries (ex: Canada)

Life sciences, biotechnology and biochemistry for Sustainable non-food products and processes



Food, Agriculture and Fisheries, and Biotechnology



- Improved crops, feed-stocks, biomass for energy, environment, and high added value industrial products;
- bio-refinery
- Industrial biotechnology
- Marine biotechnology
- Environmental remediation and cleaner processing
- Enabling technologies

Bioenergy in FP7- First 2 calls [2007-2008]

- ✓ **First two calls**
Under FP7 around 75.5 M€ were spent in the 2007/2008 calls for biomass related RTD
- ✓ **Areas (number of projects)**
 - Gasification (3)
 - Biorefinery (2)
 - Biofuels (14)
 - Other (6)
- **75,5 M€ / 25 Projects = 3 M€ / project**

EU – US Collaboration



A Rolling Action Map

2008 Activities

2009 Activities

The following areas have been identified

- ✓ **Algae / Biofuels**
- ✓ **Advanced Biofuels**
- ✓ **Pyrolysis**
- ✓ **Biorefinery**
- ✓ **Sustainability issues**

■ **Algae / Biofuels**

- Cross participation in workshops (Amsterdam & Washington) in December 2008

■ **Advanced Biofuels**

■ **Pyrolysis**

- Experts exchanges

■ **Biorefinery**

- EU Call on BIOREFINERY (US experts participated as evaluators)

■ **Sustainability issues**

- Exchanges of information

2009 Activities (1/2)

■ Algae / Biofuels

- EU project, network type, to be selected in July 2009, possibility of expert exchanges

■ Advanced Biofuels

■ Pyrolysis

- Experts exchanges

■ Biorefinery

- EU Call on BIOREFINERY (US experts participated as evaluators), projects to selected in December 2009

■ Sustainability issues

- Exchanges of information

2009 Activities (2/2)

■ EU Calls to be published in July 2009

- US partners are welcomed and should look for opportunities

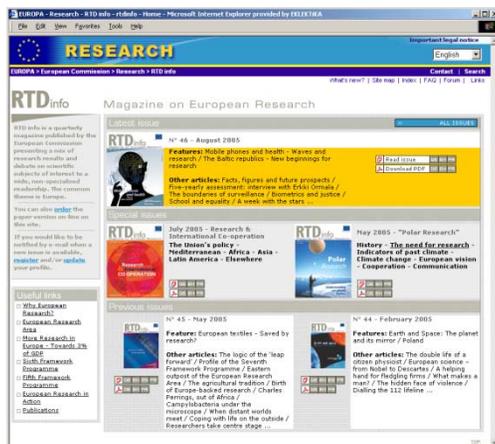
■ Biorefinery

- Investigating linking possibilities between EU & US projects (exchange of researchers, twining, etc...)

■ Exchange of information

- EU Calls & US Sollicitations
- Ad-hoc meeting between project managers

More Information



- EU research:
<http://ec.europa.eu/research>
- Seventh Framework Programme:
<http://ec.europa.eu/research/fp7>
- Information on research programmes and projects:
<http://www.cordis.lu/>
- RTD *info* magazine:
<http://ec.europa.eu/research/rtdinfo/>
- Mobility (Marie Curie):
<http://europa.eu.int/mariecurie-actions>
<http://europa.eu.int/eracareers>
<http://europa.eu.int/mc-opportunities/>
- Information requests:
<http://ec.europa.eu/research/enquiries/>