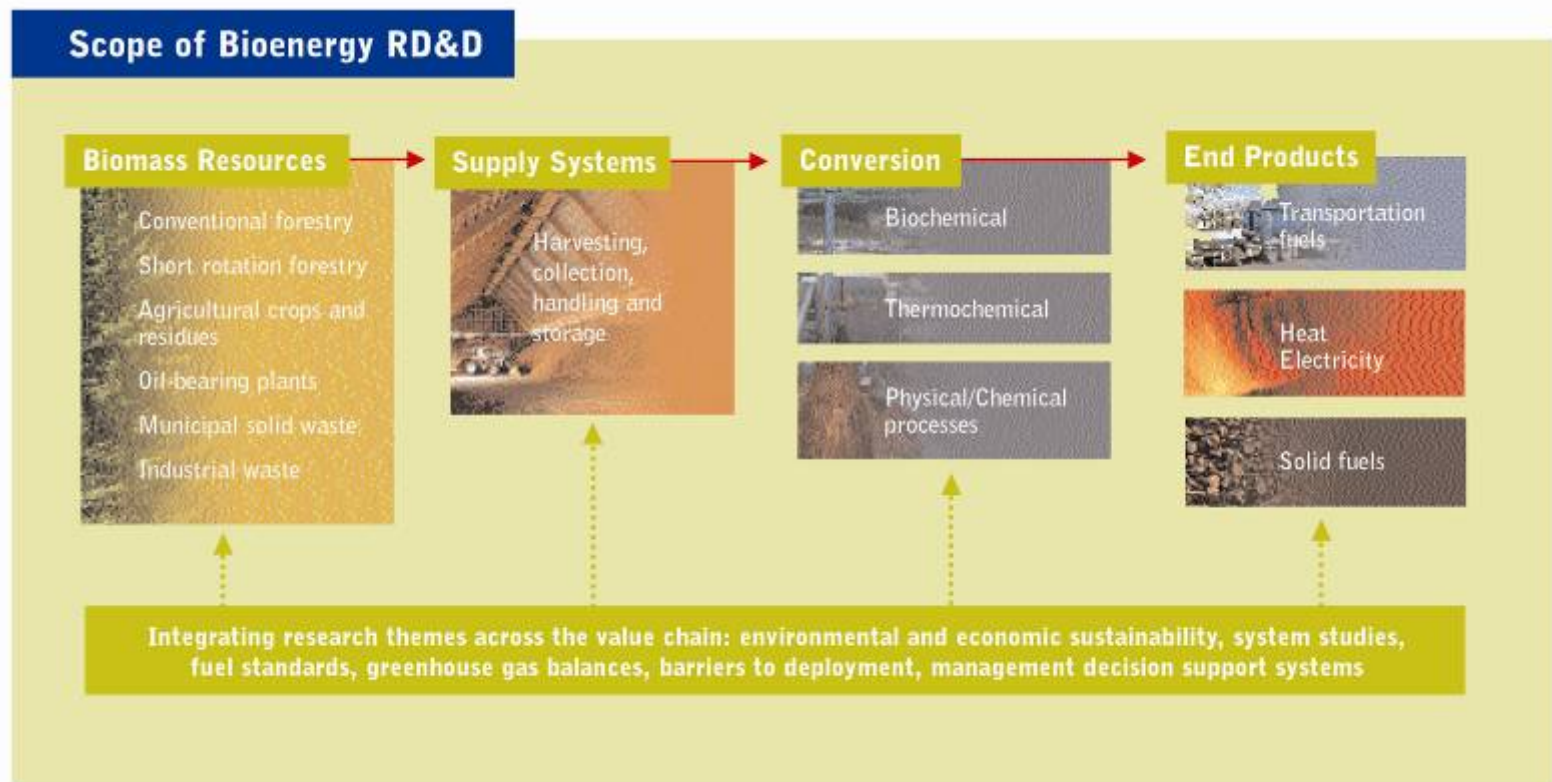


IEA Bioenergy

Facilitating commercialisation and market deployment of environmentally sound, sustainable and cost-competitive bioenergy technologies.....

Bioenergy

- involves a range of feedstocks and technology options that can produce heat, power and liquid fuels*



Strategic Plan

Vision:

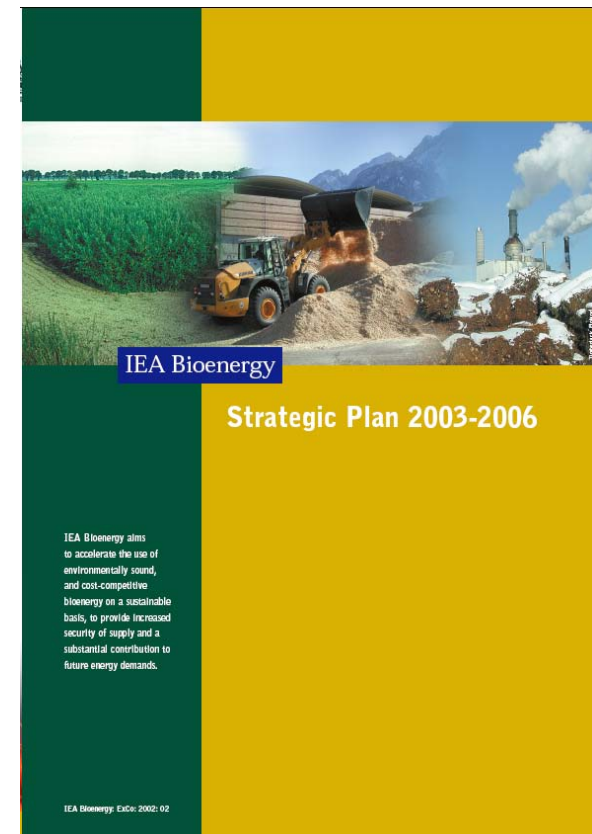
Accelerate the use of bioenergy, to provide increased security of supply and a substantial contribution to future energy demands.

Mission:

Commercialisation and market deployment of environmentally sound and cost-competitive bioenergy technologies.

Strategy:

Provide platforms for international collaboration and information exchange in bioenergy research, development and demonstration.



Strategic Plan

Vision:

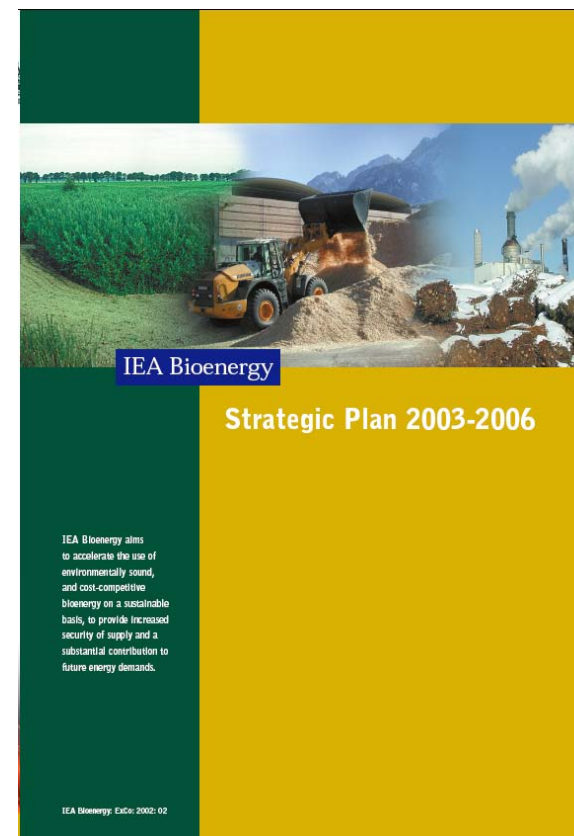
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Agreement Activities

Executive Committee

- Bi-annual ExCo meetings/management of the IA
- Topical Workshops
- Annual report, newsletters, website
- Strategic Position Papers

Tasks

- Coordination of national RD&D programmes, information exchange and joint projects
- Task meetings, study tours and workshops
- Publications, reports, newsletters, websites
- Networking with industrial and other stakeholders

21 Contracting Parties

- Australia
- Austria
- Belgium
- Brazil
- Canada
- Croatia
- Denmark
- European Commission
- Finland
- France
- Germany
- Ireland
- Japan
- Netherlands
- New Zealand
- Norway
- South Africa
- Sweden
- Switzerland
- United Kingdom
- United States

Task clusters

- **Feedstock**
Forest and agricultural products, MSW and recovered fuels:
Tasks 30, 31, 36
- **Conversion**
Combustion, gasification, pyrolysis, anaerobic digestion,
fermentation, biorefineries: Tasks 32, 33, 34, 37, 39, 42
- **Integrating Research Issues**
GHG balances, socioeconomic drivers, international trade,
systems analysis: Tasks 29, 38, 40, 41

Workshops

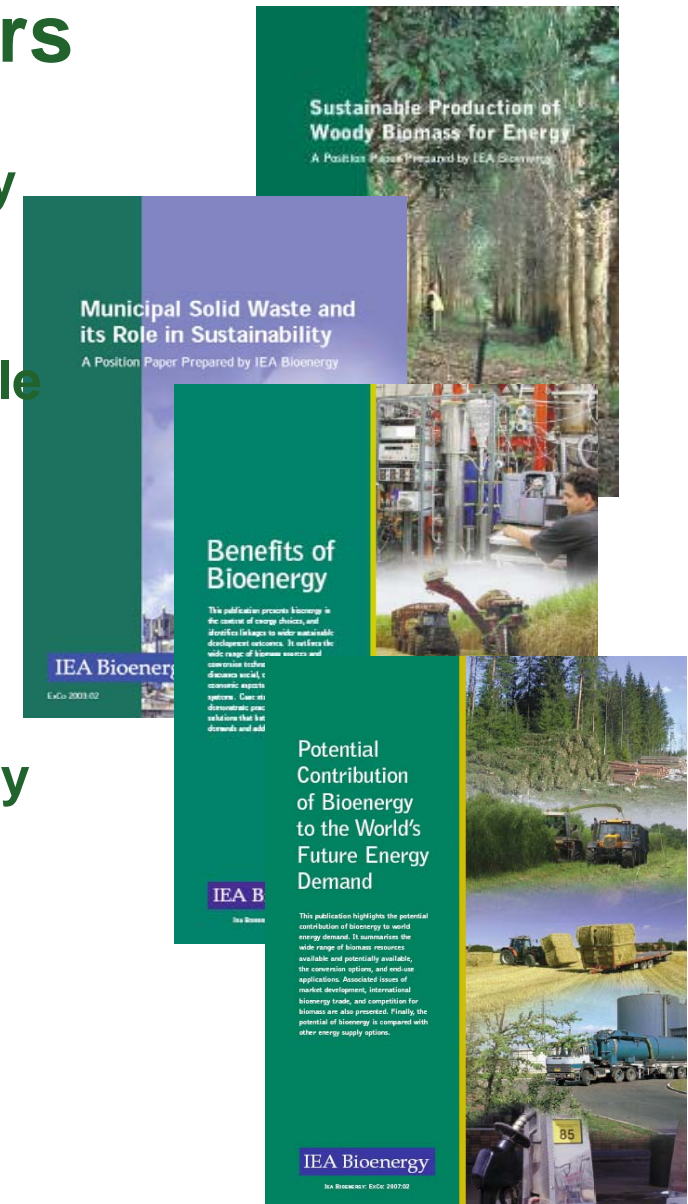
- held in conjunction with Executive Committee Meetings.....

- Liquid biofuels from black liquor
- Co-utilisation of biomass with fossil fuels
- Integrated waste management and utilisation of the products for energy
- Availability of biomass resources
- The biorefinery concept



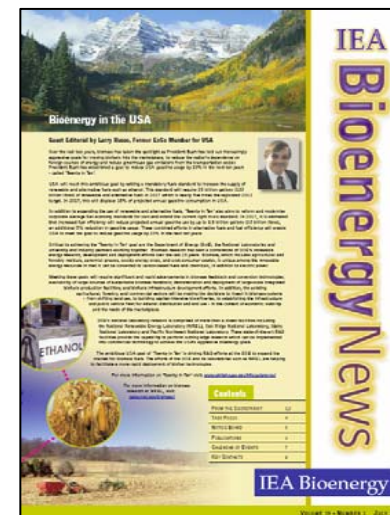
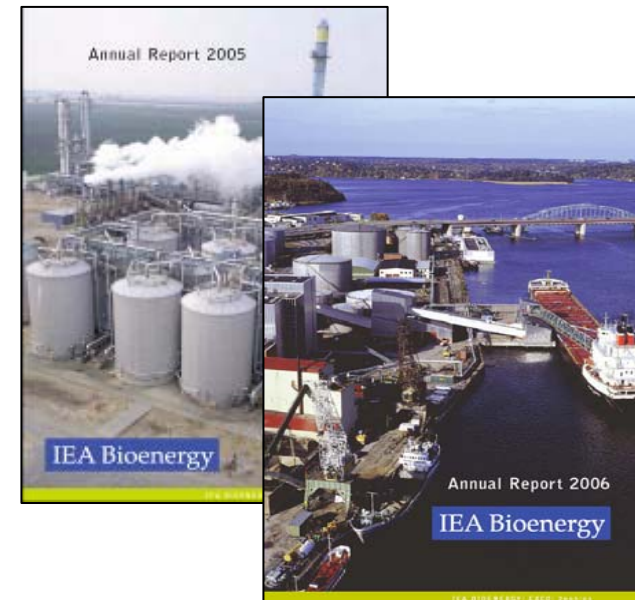
Strategic Position Papers

- Sustainable Production of Woody Biomass for Energy
- Municipal Solid Waste and Its Role in Sustainability
- Benefits of Bioenergy
- Potential Contribution of Bioenergy to Future World Energy Needs
- Lifecycle Analysis of Biomass Fuels Power or Heat - in prep



Annual Reports and Newsletters

- **Annual Report:** Report from the Executive Committee, progress reports on each Task, feature article and information on budgets and participation.
- **IEA Bioenergy News:** Report on ExCo meeting and workshop, editorial from a Member Country, news from the Tasks recent publications and upcoming events.



Task 29: Socio-Economic Drivers for Bioenergy Projects

Focus on:

Improve understanding of the drivers and impacts of establishing bioenergy markets at the local, regional, national and international level.

Aims to:

Synthesise and transfer critical knowledge to stakeholders.

Improve the assessment of impacts of biomass production and utilisation to provide guidance to policy makers.



Task 30: Short Rotation Crops

Focus on:

Woody crops like willows, poplars and *Eucalyptus* with coppicing abilities.
Lignocellulosic crops such as reed canary grass, *Miscanthus* and switch grass.

Aims to:

Synthesise and transfer knowledge, enhance market development and facilitate large-scale implementation



Task 31: Biomass from Sustainable Forestry

Focus on:

Sustainable production of an energy product as well as traditional lumber or pulpwood from forestry.

Aims to:

Promote the market deployment of technologies and systems for sustainable biomass production for energy. Analyse and disseminate scientific knowledge leading to economically and environmentally sustainable production of biomass for energy from integrated forestry systems.



Task 32: Combustion and Co-firing

Focus on:

Combustion and co-firing of biomass for the production of usable energy.

Aims to:

Stimulate further expansion of biomass combustion. Generate and disseminate information on technical and non-technical barriers and solutions for dedicated biomass combustion systems and biomass co-firing in existing coal-fired power stations.



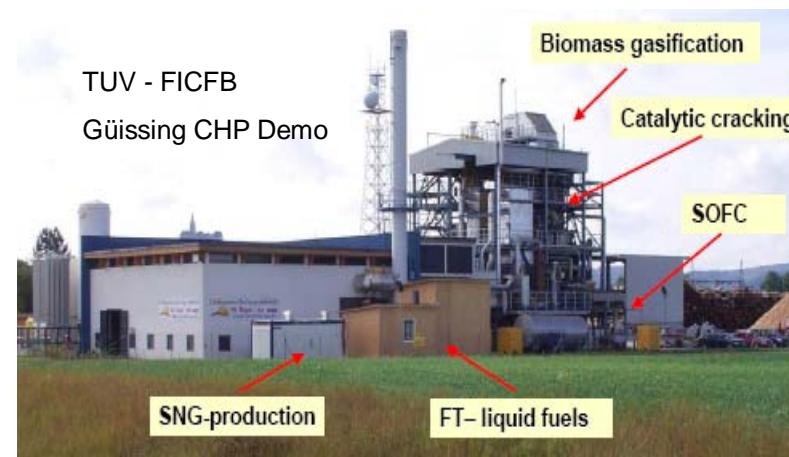
Task 33: Thermal Gasification of Biomass

Focus on:

Production of substitute fuel gases from biomass for utilisation in energy conversion systems.

Aims to:

Exchange information and promote co-ordinated RD&D among the participants to eliminate technological impediments to the commercialisation of thermal gasification of biomass.



Task 34: Pyrolysis of Biomass

Focus on:

The controlled thermal degradation of biomass in any form to derive energy and chemical products. The Task extends the European Pyrolysis Network (PYNE)

Aims to:

Study biomass pyrolysis and its role in an integrated bioenergy scheme. Provide a forum for all aspects of biomass fast pyrolysis including preparation of feedstock, the fast pyrolysis process and utilisation of the liquid product for energy, electricity and chemicals production.



Task 36: Energy Recovery from MSW

Focus on:

Conversion of Municipal Solid Waste (MSW) by thermal processes for the production of usable energy, including heat and electricity.

Aims to:

Collate research and policy information and case study material to produce best practice guidelines for policy makers



Task 37: Energy from Biogas and Landfill Gas

Focus on:

Biological treatment of the organic fraction of municipal solid waste and the anaerobic treatment of organic rich industrial waste water to produce biogas and a digestate of high quality.

Aims to:

Exchange and disseminate information on biogas production and energy utilisation and promote deployment of AD plants



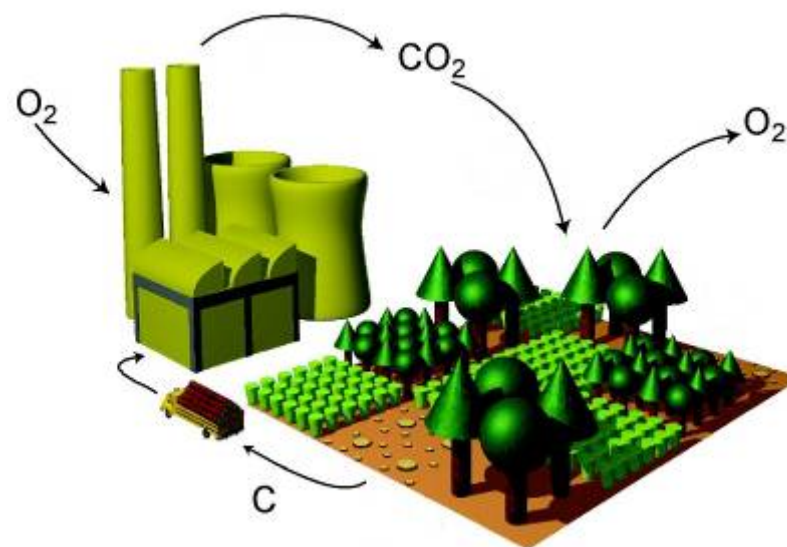
Task 38: GHG of Bioenergy Systems

Focus on:

Investigation of all processes involved in the use of biomass and bioenergy systems on a full fuel-cycle basis to establish overall GHG balances.

Aims to:

Improve understanding of bioenergy and GHG issues.
Develop and improve tools for assessing GHG balances.
Disseminate best practice in biomass GHG reduction and aid decision makers in defining optimal mitigation strategies



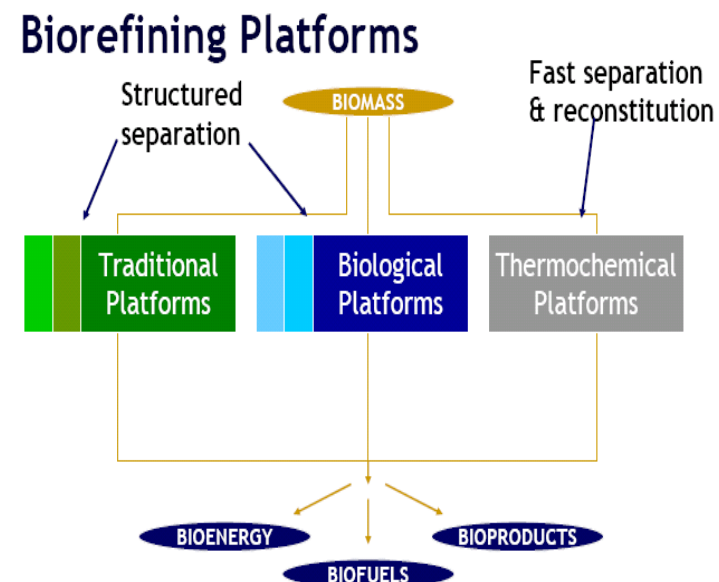
Task 39: Liquid Fuels from Biomass

Focus on:

Policy, market and implementation issues that must be addressed in commercialisation of biofuels and the technical challenges of 2nd-generation biofuel production.

Aims to:

Identify and eliminate non-technical, environmental and institutional barriers. Identify remaining technological barriers to liquid biofuels technologies. Formulate a deployment strategy.



Task 40: Sustainable International Bioenergy Trade

Focus on:

Supporting development of a sustainable international bioenergy trading system while recognising the diversity of resources and applications.

Aims to:

Review the development of biomass markets in various parts of the world and existing trade experiences.

Analyse the effects of existing markets (e.g., pulpwood) on bioenergy trade.

Review the barriers hampering development of a global commodity market and identify strategies to overcome them.

Identify sustainability criteria and their local influence on the biomass market.



Task 41: Bioenergy Systems Analysis

Focus on:

A special Task with a strong project emphasis. Does not have a networking role or repeating components such as bi-annual meetings like other Tasks.

Aims to:

Undertake key projects of direct interest to strategic decision makers in the area of bioenergy.



Task 42: Biorefineries

Focus on:

Biorefinery as a facility that optimises the integrated production of materials, fuels, energy and chemicals and so maximises the value derived from the biomass feedstock.

Aims to:

Assess the worldwide position and potential of biorefineries.

Gather new insights of the possibilities for the simultaneous manufacture of transportation fuels, added value chemicals, heat, power and materials.

