

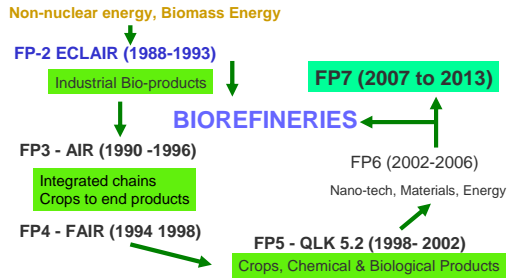
Bioproducts and biofuels from agricultural raw materials - the development of new technologies through research in the non-food area

Jim Coombs, CPL Press, Newbury, UK
jim@cplpress.com

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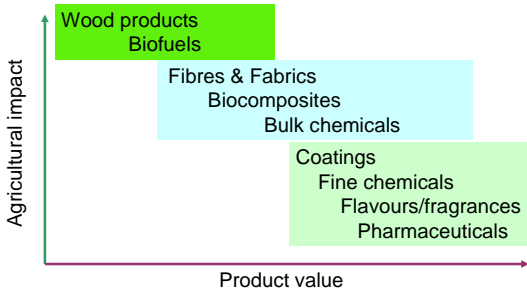
Non- food R&D activities - Past, Present & Future



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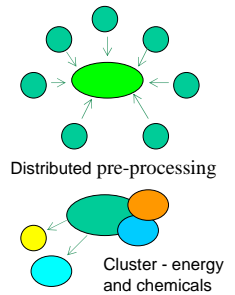
Product chains and agricultural impact



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The biorefinery - concepts



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The biorefinery - why do it?

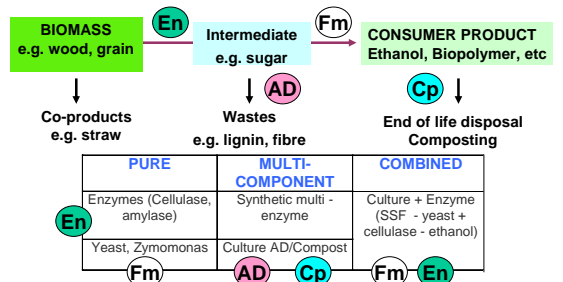
Speakers at the EC Biorefinery Conference Helsinki 2006

-reliable feed stock supply will be crucial for the future large scale biorefinery industries.....
-new member states increase feedstock base..
- ...production of bulk chemicals from biomass saves more fossil energy than just producing energy
- ...non-food products from biomass have to compete with subsidised bioenergy production
-the road to bio-based chemicals is long because of both the cost and the state of technology
- bio-based chemicals would better be produced for niche markets instead
-the sum of the value of the parts is higher than the value of the whole

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Bioconversion processes



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Advances in bioconversion processes

Product cost may be increased by

Issue	Problem	Solution
Poor yield	Unused substrate	Process modification
Low specificity	By-products	GM, mutation selection
Rate limitations	Larger reactor longer time	Cell recycle Immobilised cells, etc
Inhibition	Poor performance	Clean substrate, resistant catalysts
Death/decay	Need for replacement	Improved enzymes microbes

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European Biofuels Technology Platform

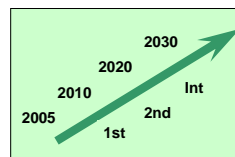


www.biofuelstp.eu

secretariat@biofuelstp.eu



Vision - anticipated future roadmap



- Vision Report -BioFRAC
- Biofuels Directive
- Biomass Action Plan
- Biofuels Strategy

1st = improved current technology

2nd = second generation - lignocellulose

Int = integrated biorefineries

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European Biofuels Technology Platform



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secretariat@biofuelstp.eu

Activities of BFTP 2007

•WGs Meetings Jan - May

•Draft Strategic Res Agenda - June

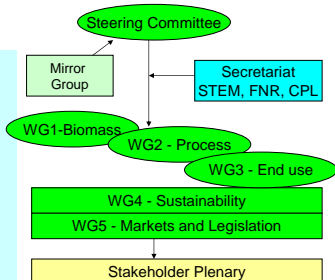
•Public consultation by - Oct

•Final SRA - Nov

•Implementation Plan - 1st dec

•Stakeholders Plenary - Dec

•Implementation through FP7



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Realising the Economic Potential of Sustainable Resources - Bioproducts from Non-food Crops

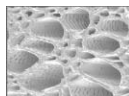
www.epobio.net

info@epobio.net

EC-US TASK FORCE IN BIOTECHNOLOGY RESEARCH plant-based bioproducts: creating value from renewable resources

Specific Support Action SSPE-CT-2005-022681

Aims to identify areas for investment in plant science research to realise the economic potential of plant-derived raw materials with long-term benefits to society.



Mechanism - Production of reviews - Flagship Reports

These include:

Plant cell walls in relation to biorefining -
Cell wall saccharification

2nd Workshop - May 15-17 Athens Greece

Products from Plants - from crops and forests to zero-waste biorefineries

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Biological Materials for Non-Food Products (Renewable Bioproducts).

www.biomatnet.org

biomatnet@biomatnet.org

More Information

BioMatNet

- an EC activity within EPOBIO -
making available the results from RTD projects supported by the European Commission

Includes over 1500 ITEMS with results from FP5, FAIR, AIR, Joule and other programmes, as well information on ongoing research from FP6.

Details relevant Calls for Proposals from FP7

Will include PARTNER SEARCH facility for FP7

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