

Broadening the Agricultural Challenges to Green Growth

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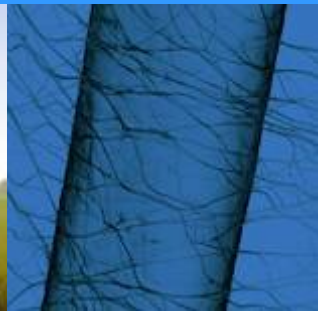
Industrial Biotechnology

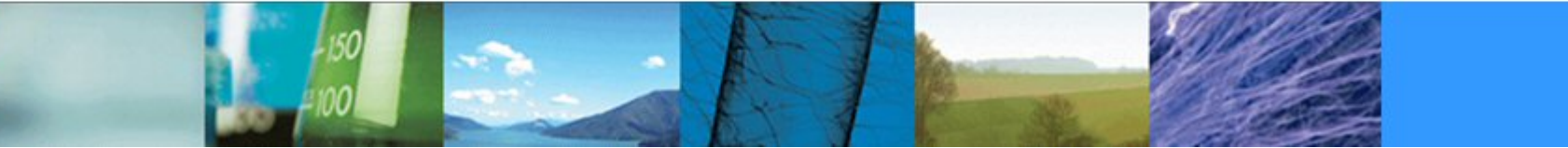
Antoine Peeters

XXIV EURAGRI Conference 2010

6-7 September 2010, Helsinki, Finland

European Technology Platform for Sustainable Chemistry





- **EuropaBio: the European Association for Biotechnology Industries**
- **Representing the entire industry**



- **66 corporate members operating worldwide, 7 associate members, 4 BioRegions and 22 national biotechnology associations (1800 SMEs)**

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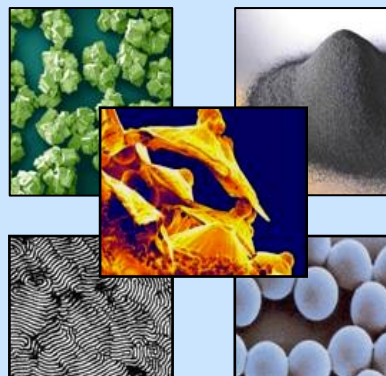
National Platforms



Industrial Biotechnology



Materials Technology



Reaction & Process Design

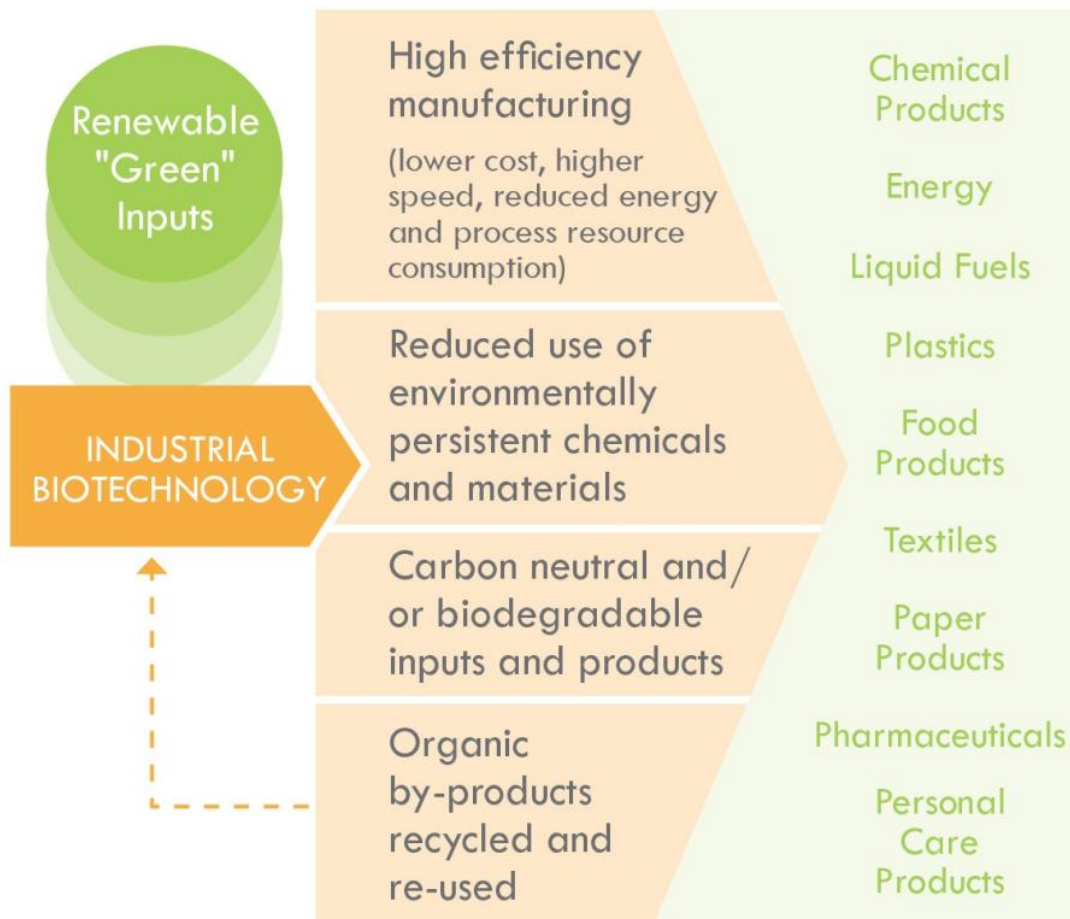


Horizontal Issues (Education & Innovation)



www.suschem.org
www.suschem.blogspot.com

Industrial Biotech Provides Solutions to Sustainable Production of Key Goods and Commodities



...and many other products

Contribution to Green Growth

Enzymes clean clothes and dishes at lower temperatures than chemical detergents, saving energy.

Enzymes can keep fruits from breaking apart in baked goods.

Enzymes help to extract more fermentable sugars from fruits and starchy vegetables (potatoes) to produce more alcohol or wine, more efficiently.

Enzymes also extract harmful substances from corks, to prevent off-tastes in wine.

Enzymes can help reduce the amount of bleaching needed for paper production. And, enzymes can also remove inks from paper to be recycled.

Enzymes remove more types of stains and soils from clothes than chemical detergents, without bleaching dyes from fabrics.

Fabrics can be pretreated with enzymes to change their texture without wear on the fibers, making them more durable and longer-lasting.



Microorganisms can safely remove more protein stains and mold from carpets and other fabrics.

Enzymes can speed up fermentation in beer.

Enzymes can convert trans fats to more healthful fats in oils.

Enzymes convert the starch in corn, potatoes and other grains to sugars for use in sweeteners and sodas.

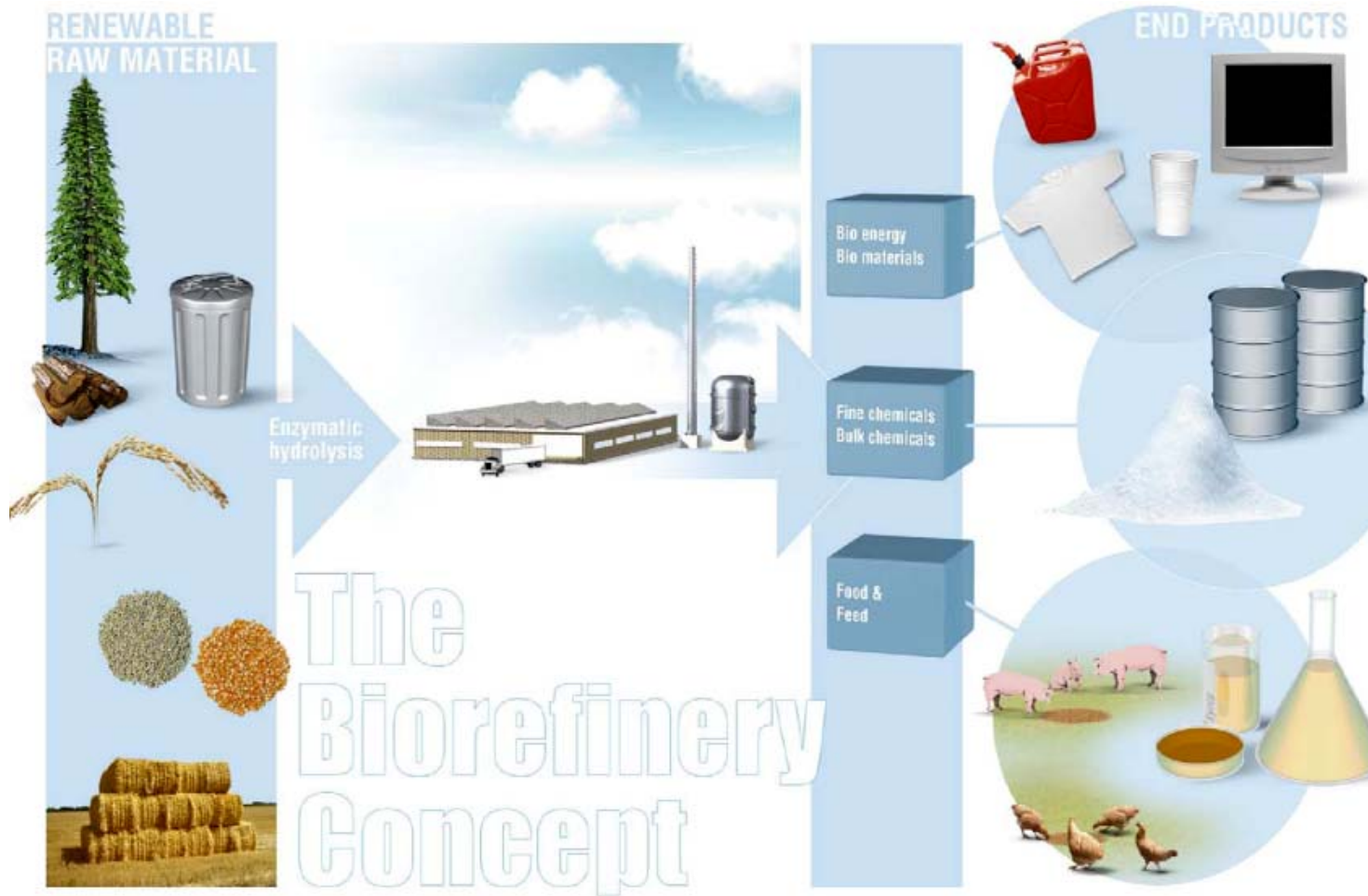
Bread baked with enzymes remains fresh longer.

Enzymes allow us to get every single drop of juice out of fruits.

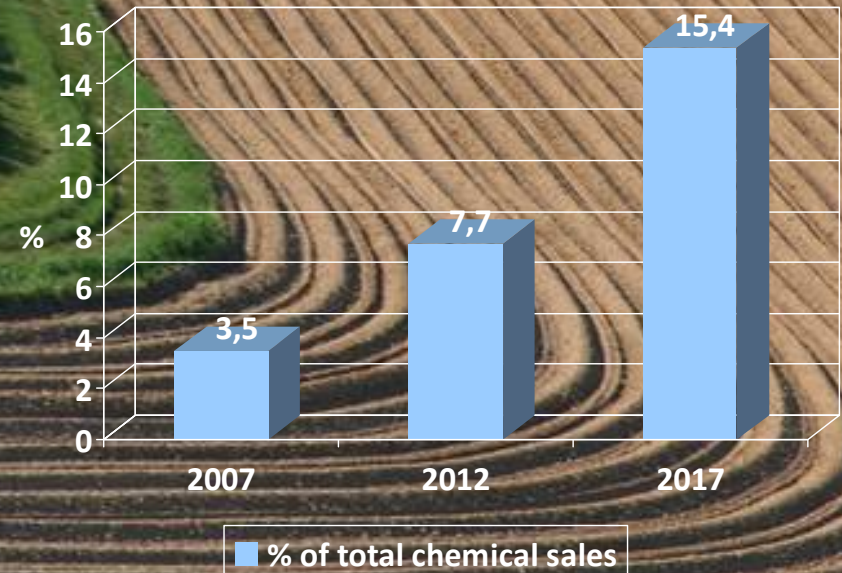
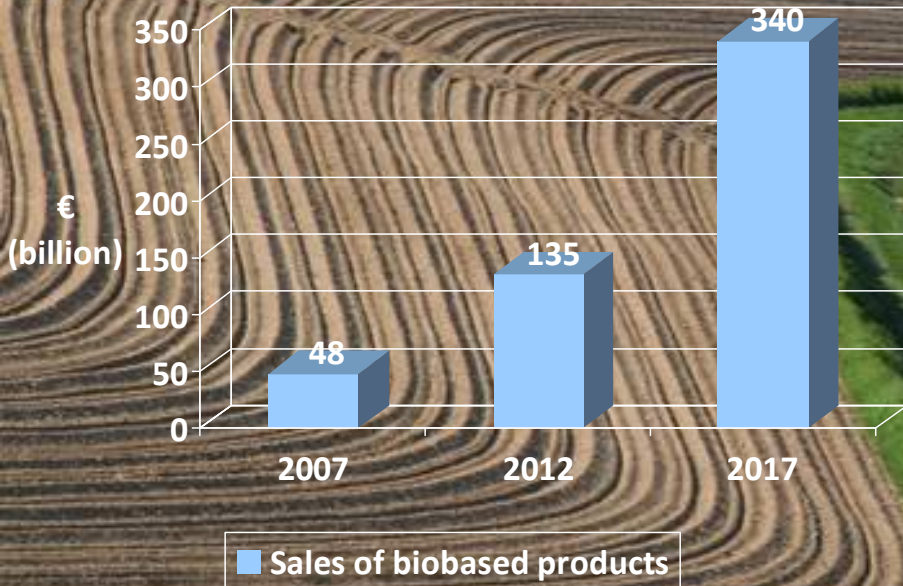
Enzymes can replace harsh chemicals in pretreatment of cotton and in leather softening. Enzymes are biodegradable, cheaper, and less damaging to fabrics.

Enzymes help animals to digest food better, promoting better nutrition and less waste.

The Biorefinery Concept



Gigantic market opportunities



Benefits of the bio-based economy (non-food)

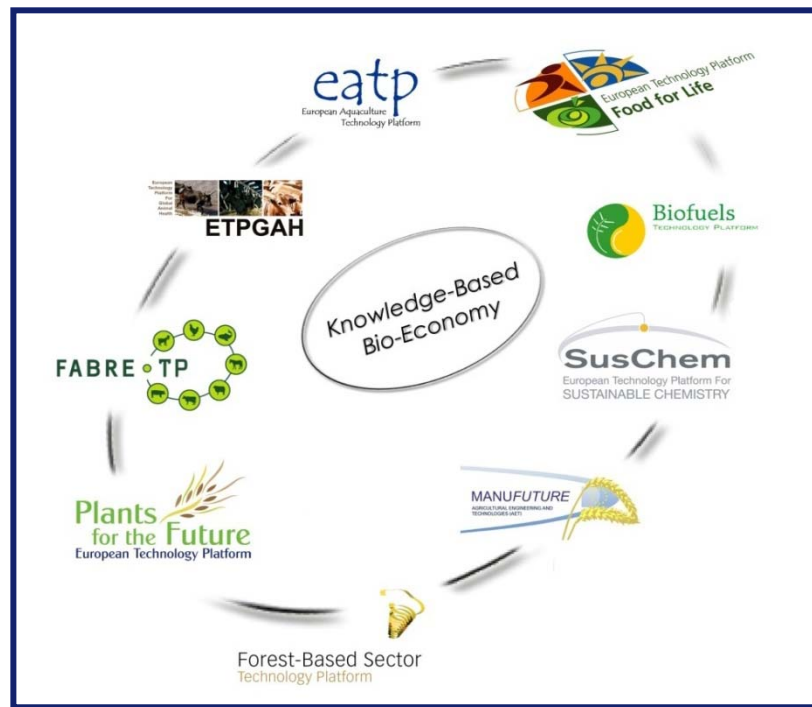
Economic benefits

- Economic opportunities for domestic, rural economies
- Increased economic growth

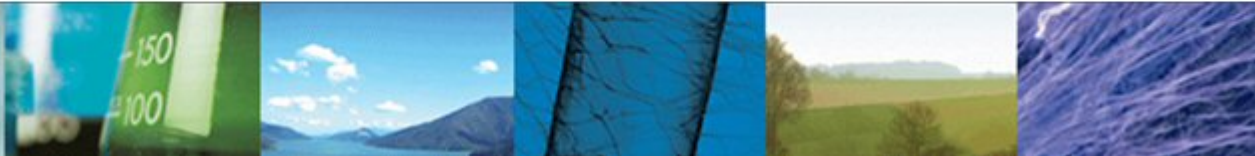
Environmental benefits

- Reduced greenhouse gas emissions
- Reduced petroleum use
- Potential to save between 1 billion and 2,5 billion tCO₂e / year by 2030 (Source: WWF)

The Bio-Economy Technology Platforms join forces to address synergies and gaps between their Strategic Research Agendas



BECOTEPS: Contribute to the creation of a strong Bioeconomy in Europe



- Achieve closer and more coordinated **collaboration** between KBBE ETPs.
- **White Paper:** Develop recommendations for coherent European policies in the bioeconomy area.
- Encourage **discussions** between European and national, public and private, research and innovation initiatives.



Thank you for your attention



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