

BIOCHEM

A new Europe INNOVA project

Supporting SMEs to innovate in the
bio based products market

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BIOCHEM Project

● Drivers and Challenges to Innovation

● The BIOCHEM Project

- Addressing the Innovation Challenges
 - Assessing the Bio-based market
 - Business Support toolbox
 - European Business Innovation Process
- Dissemination and Exit Strategy Plans

● Conclusions

Drivers and Challenges to Innovation

● SOCIETAL DRIVERS

● Climate Change

- EU target of 20% GHG reduction by 2020

● Security in energy supply

- Fossil fuel availability

● Creation of new jobs

- 2005- 120,000
- 2020- 380,000

Drivers and Challenges to Innovation

● BUSINESS DRIVERS

● Growth in demand

- Switching from hydrocarbon to carbohydrate feed stocks for making chemicals
- 2005- 58 billion (global), 17 billion (EU)
- 2020- 188 billion (global)
- One third of chemicals and materials will be produced from biological sources by 2030

● Cost Benefits

- Cost of petroleum feed stocks will eventually exceed the cost of biomass in future

Drivers and Challenges to Innovation

● CHALLENGES

- Innovation in the bio-based products market is inhibited by:-
 - Lack of awareness of IB and its benefits and potential within the chemical value chain
 - Lack of confidence to enter a new business and gain access to new supply chains
 - Majority of companies are not well connected to each other, to the technology base or to their potential supply chains
 - Limited access to specialist demonstration and other facilities
 - Limited access to specific market expertise and access to investment capital

BIOCHEM: Assessing the Market

- **Complete a comprehensive assessment of the bio-based products market to**
 - Identify up-to-date barriers, constraints and opportunities for bio-based production on the European Chemical Industry
 - Assess the impact of the recent economic crisis

- **Information on the market structure will help to provide:-**
 - Input for the development of business support toolbox
 - Input to SME audits and development plans
 - Information to support companies in making business decisions

Development of the BIOCHEM Toolbox

- **Develop a business support toolbox providing technical and business support to SMEs to overcome the barriers to innovation, including**
- **Business planning tools for SMEs, such as**
 - A process for implementing a sustainable business strategy
 - Life-cycle methodologies
 - IPR strategies
- **Online Partnering and Open Innovation System**
- **Online Private and Public Funding Directory**
 - Setting up and market testing of a novel Bio-Based Products Fund Model

BIOCHEM: Innovation Process

- **Test the toolbox through a European business innovation process which supports SMEs through three interrelated activities**

- **BUSINESS GENERATOR**
 - Business Plan Competitions to identify best ideas for new businesses, with winners receiving access to
 - Entrepreneurial teaching classes and mentoring
 - Technology transfer and matchmaking events
 - Venture capital events

 - Online Open Innovation System
 - Stakeholders will be invited to post development challenges
 - Possible matches will be followed up with one-to-one on-line meetings
 - Face-to-face meetings at Transnational Tech Transfer and Partnering Events

BIOCHEM: Innovation Process

● BUSINESS DEVELOPER

- At least 250 SME Audits followed by Individual Development Plans
 - Personal mentoring support to implement the Individual Development Plans
 - Entrepreneurial teaching classes
 - Identify first users and specialist facilities for proof-of-concept

- Technology Transfer and Partnering Events
 - 4 major events will bring together researchers, start-ups and SMEs, large industrial stakeholders
 - Establish the base for research and development projects
 - Taking up novel bio-based product ideas by SMEs
 - Creating business partnerships between start-ups, SMEs and large industrial stakeholders

BIOCHEM: Innovation Process

● **FUNDING BIO-BASED BUSINESS DEVELOPMENT**

- Based on SME Audits and Individual Development Plans an assessment of funding needs and opportunities
- Identify funding opportunities for proof-of-concept projects (major obstacle for new SMEs)
- Facilitate access to finance through four European wide Venture Capital Events
 - Bring selected SMEs into contact with interested regional seed-funds, venture capital, business angels

Dissemination and exit strategy plans

Bio-based Community (SMEs)

- Dedicated on-line partnering and open innovation system
- Training event for National Innovation Managers
- 4 Fora organized (combined Transnational Technology Transfer event, Partnering event and Finance and Venture Capital Event).
- On-line Customized innovation tools and materials
- Publications in specialized/end user media

Chemical Industry at large

- Participation in key Conferences and Forums from the Chemical Sector
- Publishing the results of the market assessment throughout the Chemical Industry
- Dissemination of selected show case examples and demonstration projects from BIOCHEM SMEs
- Newsletter containing general purpose educational material related to the societal importance of Bio-based products
- Web page with sections devoted to dissemination activities and downloadable material
- Europe INNOVA Promotion Pillar (Take It Up)

Exit strategy

- Project Impact assessment analysis with SMEs and Innovation Agencies
- Potential to continue joint service provision
- Long term possibilities for establishment a sustainable Eco-Innovation BIOCHEM platform
- Coordinated approach to public funding at a regional, national and EU level
- Investigation of funding models to sustain the BIOCHEM platform
- Europe INNOVA Promotion Pillar (Take It Up)

Communicating the benefits of bio-based products to European Chemical Industry and considering a sustainable exit strategy

BIOCHEM: Conclusions

- **Contributes to foster the Bio-based product market sector to be a Lead Market and disseminates the societal and strategic benefits of the bio-based products and industry in alignment with Lead Market Initiative for Europe.**
- **Completes a comprehensive assessment of the bio-based products market and deploys a broad dissemination action in order to increase the awareness of its potential for the chemistry-using sector.**
- **Develops integrated tools for providing technical and business support to reduce barriers to take-up of Industrial Biotechnology, particularly for SMEs.**
- **Develops a new bio-based business innovation concept that uses the tools to drive new SME-driven bio-based product ideas.**
- **Delivers to over 250 SMEs supporting them innovating in the bio-based products market.**
- **Makes recommendations to Policy Makers and Develops an exit strategy to ensure service and support is available beyond 2013**