The European Industrial Bioenergy Initiative (EIBI)

EBTP 4th Stakeholder Plenary Meeting
Brussels, 14-15 September 2011

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Note: Document not legally binding
EIBI in short

- **Launched:** 15 November 2010 at the Belgian EU Presidency Conference, following 2-year preparation between EBTP, EC and EU Member States

- **Objective:** commercial availability of advanced bioenergy by 2020
  
  - Focus on advanced biofuels
  - Up to 4% of EU transportation energy needs.
  - Strengthening EU technology leadership

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European Industrial Bioenergy Initiative

- **Core activities:** industrial projects of European relevance, with a potential for large scale deployment - 7 generic, innovative value chains

- **Complementary measures:**
  - Biomass feedstock
  - Longer-term R&D

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## Financing the EIBI:

<table>
<thead>
<tr>
<th>Value chain</th>
<th>Description</th>
<th>Public Funding</th>
<th>Indicative Cost per Project (M€)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEMO PLANTS</strong></td>
<td>50%</td>
<td>145 - 320</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Synthetic liquid fuels and/or hydrocarbons (e.g. gasoline, naphtha, kerosene or diesel fuel) and blending components through gasification.</td>
<td>Grant + Public Loan</td>
<td>40-100</td>
</tr>
<tr>
<td>2</td>
<td>Bio-methane and other bio-synthetic gaseous fuels through gasification.</td>
<td>20-40</td>
<td></td>
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<tr>
<td>3</td>
<td>High efficiency heat &amp; power generation through thermochemical conversion (propose limit e.g.: $\eta_{el} &gt; 45%$)</td>
<td>20-40</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Intermediate bioenergy carriers through techniques such as pyrolysis and torrefaction</td>
<td>20-40</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Ethanol and higher alcohols from ligno-cellulosic feedstock through chemical and biological processes</td>
<td>20-40</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Hydrocarbons (e.g. diesel and jet fuel) through biological and/or chemical synthesis from biomass containing carbohydrates</td>
<td>5-20</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Bioenergy carriers produced by micro-organisms (algae, bacteria) from CO₂ and sunlight</td>
<td>20-40</td>
<td></td>
</tr>
<tr>
<td><strong>FLAGSHIP PLANTS</strong></td>
<td>50%</td>
<td>1050 - 2250</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Synthetic liquid fuels and/or hydrocarbons (e.g. gasoline, naphtha, kerosene or diesel fuel) and blending components through gasification.</td>
<td>Public Loan + Public Guarantee of Private Loan</td>
<td>400-1000</td>
</tr>
<tr>
<td>2</td>
<td>Bio-methane and other bio-synthetic gaseous fuels through gasification.</td>
<td>200-300</td>
<td></td>
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<td>3</td>
<td>High efficiency heat &amp; power generation through thermochemical conversion (propose limit e.g.: $\eta_{el} &gt; 45%$)</td>
<td>150-250</td>
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<td><strong>COMPLEMENTARY MEASURES</strong></td>
<td>50-75%</td>
<td>135 / year</td>
<td></td>
</tr>
<tr>
<td>Biomass feedstock for bioenergy</td>
<td>Grant</td>
<td>5-15</td>
<td></td>
</tr>
<tr>
<td>Set of activities on longer term R&amp;D on emerging and innovative bioenergy value chains</td>
<td>5-15</td>
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Progress in financing

- Around € 250M already spent or earmarked for bioenergy under FP7 in the period 2007-2012 (14.5% of Energy Theme) ➔ Some collaborative projects are contributing to EIBI implementation.

- EIBI investment needs have been estimated at € 9B (period 2010-2020)*

- SET-Plan workshop on financing (June 2011) ➔ identification of main barriers, needs and tools.

- Call for Expression of Interest published 15 July 2011

Call for Expression of Interest

Projects fulfilling EIBI criteria (both demonstration and “flagship”)

Objectives are:

- to further determine the level of readiness of different technologies ➔ better focusing EIBI activities, possible prioritization
- to help identifying actual financial needs
- To help foreseen industrial cooperation

Not a pre-selection process, but input into future ERA-NET Plus call in 2012 and other implementation activities

Deadline: 30 September 2011
Financing demonstration projects

- FP7 is financing and will continue to finance demonstration-type projects
- NER300 focuses on demonstration projects
- ERA-NET Plus: experimental tool to coordinate funding from EU and Member States
- Further opportunities are being explored

ERA-NET Plus

Published 20 July 2011, deadline 28 February 2012

Objective: interested Member States + EU funding jointly EIBI demonstration projects through a single call in 2012

MS need to prepare a proposal to the EC, defining rules and means of cooperation

€ 15M (EC) + minimum € 30M (MS) = € 45M minimum public funding ➔ minimum € 90M total investment

EIBI projects

11 Member States have confirmed their interest: SE, FI, DK, UK, BE, FR, PT, DE, TR, NL, ES
Financing “flagship” projects

- Currently available tools
  - NER300 could be used to finance close-to-market demonstration
  - Risk Sharing Financing Facility (RSFF) – Guarantees for EIB loans for high-risk projects
  - European Investment Bank loans (but, for the moment, low success rate for bioenergy projects)
  - EU Structural Funds
  - Commercial / public banks at MS

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Specific difficulties:

- High investments required (€ 50M to € 1B per project)
- Close-to-market: outside the scope of EU and national demonstration funds ➔ legal constraints, lack of instruments
- Investment risk, public acceptance issues, regulatory framework ➔ difficulties to access credit (EIB, commercial banks, etc.)
Future instruments (under discussion)

- Horizon 2020
  - Access to risk finance (both as equity & loans)
  - Strengthened complementarities with Structural Funds (€ 86B devoted in 2007-13 to activities related to R&D&I!) ➔ better coordination is being sought
- EU Emissions Trading Scheme (ETS) ➔ Significant budgets available for MS (to be invested inter alia in renewable energy)

Keep interacting with relevant services at EC and MS level, and present advanced biofuels advantages and needs

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Thank you for your attention!

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