EUROPEAN INDUSTRIAL BIOENERGY INITIATIVE (EIBI)

Objectives and activities

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Why an Industrial Initiative on Bioenergy at EU level?

- Thanks to R&D activities of EU actors (academia, research institutions, industry) innovative technologies to tackle the challenges of deploying a larger feedstock base, processing more difficult feedstocks and producing more added value per unit of raw feedstock (biorefining) are being developed.

- Those technologies most likely to bring significant contribution to the 2020 targets, in addition to existing commercial technologies, are too risky and too costly to be developed for commercial and industrial deployment by private actors alone.

- Feedstock suppliers, technology vendors, industrial project developers and operators likely to deploy the innovative projects needed for demonstration and first industrial units are based in different member states.
Routes to 2020 targets

- **A** - RTD business as usual
- **B** - late market introduction
- **C** - accelerated RTD & DD?
- **D** - long term RTD

**Climate and energy targets 2020**
**Climate and energy targets 2050**

Source: Erik ten Elshof, 2008
EIBI: objective, activities, budget

Key objectives

- Enabling commercial availability of advanced bioenergy at large scale by 2020, including advanced biofuels covering up to 4% of EU transportation energy needs by 2020.
- Strengthening EU world technology leadership for renewable transport fuels, in particular for diesel and jet engines, serving the fastest growing area of transport fuels in the world.

Core activity

- Selection and funding of demonstration and reference plants, via calls for projects
  - **Demonstration**: outcome of demo unit should allow first commercial unit to be designed and performance guaranteed.
  - **Reference plant**: first commercial scale unit

Estimated budget: 8 billion € over 10 years, to fund 15 to 20 demonstration and / or reference plants
Why do we need several demonstration and reference plants?

- Significant variations within the individual generic value chains: feedstocks & conversion technologies
- EIBI does not intend to pick winners up front; economic actors have to come forward with proposals and be ready to take financial and market risks to be shared with public actors

Basis for the budget estimation per value chain/plant

- Combination of investment costs, feedstock costs and operation costs could vary substantially from one value chain to another and within some value chains
- Plant size will vary between different chains
- Budget estimates based on published figures and EBTP expertise
Criteria for projects selection and evaluation

EBTP’s Proposal for Project Eligibility and Selection Criteria discussed at Technical Workshop with European Commission, with active contribution of EBTP and other technical experts (September 2009).

A 2-steps procedure is proposed:

- In the first step, eligibility (go/no go)
- In the second step, quantitative criteria with a range of scores and weights.
Criteria for projects selection and evaluation

• **EU dimension**: Consortium actors from at least 3 Member States

• **Sustainability**: all RES Directive relevant provisions should be met.

• **Maturity level**: if demo exist, appropriate for further industrial scale up at low risk. If industrial appropriate for being profitable.

• **Industrial leadership**: clear industrial leadership to operate the project and bring private funding along public funding.

• **Innovation**: at least one “technology brick” or the integration of “technology bricks” within the considered value chain should not have been deployed at demonstration / commercial scale.
Criteria for projects selection and evaluation

- **Feedstock and market potential for industrial scale**: realistic scenario for feedstock sourcing for future industrial units should be described and volume potential of corresponding bioenergy market should be outlined.

- **Timeline**: deployment of project outcome should be realistic to bring first commercial contribution by 2015-2017 for the projects selected in first demonstration call and by 2020 for the second demonstration call.