

The European Industrial Bioenergy Initiative (EIBI)

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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

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



DEMONSTRATION

Last pre-commercial step



"FLAGSHIP"

First commercial units

- ◆ **Complementary measures:**

- Biomass feedstock
- Longer-term R&D



◆ *Financing the EIBI:*

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

Note: Document not legally binding

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

* COM(2009)519 *Investing in the Development of Low Carbon Technologies*, 7/10/2009.

➤ 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

* EC Communication *Investing in the Development of Low Carbon Technologies*, COM(2009)519

➤ 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

- **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***

Thank you for your attention !

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