

## **European Strategic Energy Technology Plan (SET-plan)**

## **European Industrial Bioenergy Initiative (EIBI)**

### **Eight EIBI Team Meeting – 25 April 2012**

#### **DRAFT Summary of main discussion**

#### **1. Introduction**

The meeting was chaired by [REDACTED] who welcomed the Team members and especially [REDACTED] who attended the meeting for the first time representing Poland.

The minutes of the 7<sup>th</sup> EIBI Team meeting held on 14 December 2011 were adopted after including the comments from the EBTP representatives.

[REDACTED] attended the SET-Plan conference and Steering Group meeting on 19 and 20 March 2012 in Berlin, and made a summary of the most relevant outcomes and discussions, notably:

- The "Berlin Model" proposed by the German authorities to put forward projects to be funded within the SET-Plan. The aim is to increase the commitment and initiative of MS in the implementation of the SET-Plan through a simple and informal 3-steps approach. A document summarising the Berlin Model is attached.
- The positive feedback from MS on the ERA-NET+ Bioenergy, which was considered a good tool for the EC and MS to co-finance projects.
- A presentation of the EC Cohesion Policy, some of whose objectives are aligned with the objectives of the SET-Plan. This may allow benefiting from its large budget to finance EIBI-related projects. Efforts are being made for this purpose.

#### **2. Implementation of the EIBI core activities: ongoing activities**

##### ***- ERA-NET+ 2012: preparation of the Joint Call***

The BESTF proposal was evaluated on 18-19 April. In anticipation that the proposal will be selected for funding, it was suggested that the consortium starts working on the next steps, notably the preparation of the joint call. [REDACTED] stated that the EC was committed to speed up the negotiations that could be completed by early September 2012. It would be then conceivable to publish the Joint Call by the end of 2012.

[REDACTED] (UK) made a presentation of BESTF, and also invited EIBI members to contribute to prepare the next steps. He said that the consortium may achieve to speed up the publication of the Joint Call. The presentation is attached to these minutes.

It was reminded that the focus of the ERA-NET+ call and therefore of BESTF is on demonstration projects in line with the EIBI Implementation Plan. It is open to any of the seven generic value chains, none of them being specifically targeted.

**- "*Biofuels FlightPath*": update and outcome of the workshop on financing**

██████████ from Chemtex, member of the Core Group, presented the latest developments of this initiative.

The presentation is attached to these minutes.

**- *Update on EIBI related activities at national level***

In a *tour de table*, MS representatives informed of the latest EIBI-related developments in their respective countries. These are detailed in the annex to these minutes.

**3. Implementation of the EIBI core activities: future activities**

**- *New ERA-NET+ topic for demo projects in WP2013***

████ informed of the topics proposed by the EC within the Energy Work Programme 2013<sup>1</sup>:

- A new ERA-NET +, also focusing on EIBI demonstration projects. This new ERA-NET + would build on the experience of the 2012 one, but with an increased level of ambition as the proposed EC budget is € 20 million.
- A topic on biomass logistics, financed jointly by Directorates RTD.K (Energy) and RTD.E, (KBBE, Knowledge-Based Bio-Economy). Biomass logistics lies in-between the respective domains of these two directorates, and has not been well supported in FP7. This topic builds upon a number of previous projects related to biomass availability assessment, biomass harvesting and pre-treatment, and energy intermediaries. It aims at the development of Strategies, Roadmaps and Tools (SRT) in support of decision-making at local, regional and Pan-European level.
- A topic to support the activities of the European Biofuels Technology Platform. This topic does not aim at supporting a secretariat as such, but rather some of EBTP's core activities.
- A topic aiming at supporting integrated research programmes between research performers in several energy technologies, including bioenergy. It focuses on the longer term perspective, with a view to prepare the next wave of industrial demonstrations and deployment of bioenergy technologies.
- At topic proposed by DG ENERGY on pre-commercial industrial scale demonstration plants on paraffinic biofuels for use in aviation.

---

<sup>1</sup> Further details available in the [Orientation paper prepared in connection with the FP7 2013 Work Programme in the area of ENERGY](#):

### ***- First step for the set-up of a Working Group on end-users***

This working group was proposed in a previous EIBI Team meeting, and was considered interesting by many participants. Involving end-users is considered beneficial for the bankability of projects, and to ensure that product quality requirements are adequately considered.

██████████(EC) proposed a set of activities for this group. The presentation is attached to these minutes.

█████ indicated that contacts should be established with the maritime sector, which is becoming increasingly interested in biofuels.

It was also pointed out that the concept of "end user" should be better defined (e.g. clarifying whether engine manufacturers should be considered).

█████ proposed to start working with biofuels for the maritime sector and biogas as pilot experiences. EuroHeat&Power was requested to clarify which actors could be considered "end users" in the biogas sector.

Abengoa and Italy expressed their interest in contributing to this WG. The interest of ES has to be checked. EBTP indicated that they have an internal working group on biofuels end-use, and that the proposal will be conveyed to them.

### ***- Proposal for the creation of a Working Group on the financing of bioenergy flagship projects***

██████████(EC) made a presentation, attached to these minutes.

█████ asked for volunteers to coordinate and/or to participate in this group. FR offered to take the lead. EBTP, BE, SE and DE offered to participate. The actions and timeline have to be defined by the WG.

█████ indicated that the EC Cohesion Policy should also be considered in the discussions. DG ENER suggested that links should be established with the Biofuels FlightPath initiative, which has a group working on similar issues.

## **4. EIBI 2012 Conference, 5 June 2012**

██████████(EC) updated the Team on the preparation of the EIBI Conference. The aim of this conference is to engage with stakeholders related to the EIBI activities. The invitations have been sent to the speakers and all the stakeholders (as identified by the EC) have received a save-the-date email. The last version of the draft agenda and the target audience document are attached to these minutes. The invitation can be distributed with the principle of "first-come, first-served". [\[The registration web site has been opened on 08/05/2012, see the e-mail attached below\]](#)



## **5. Implementation of the EIBI Complementary activities**

██████████ (ECN – EERA) made a presentation on the workshops to be held in Brussels on 2-3 July 2012. The presentation is attached to these minutes.

The workshops are only on invitation. The organisers are asking the EIBI Team to provide with names of possible speakers and participants by mid-May 2012. Names are to be sent to ██████████. The lists of speakers and participants will be finalised by the end of May.

## **6. European Strategy Forum for Research Infrastructures (ESFRI) and Research Infrastructure (RI) Programme**

██████████ (NL) explained that he received only one contribution from Belgium regarding infrastructure activities in the bio-energy field.

One FP7 project (BRISK) is dealing with the research infrastructures for the thermochemical routes (see the newsletter of the project attached to these minutes).

To know whether a similar research infrastructure project on biochemical routes is needed at European level, ██████████ will investigate the interest of the European bio-energy research community.

## **7. EIBI logo**

It was decided not to create a logo for EIBI yet since it is premature and NL thought it was not necessary.

## **8. Next meetings**

- 9<sup>th</sup> EIBI Team meeting: 3 July 2012 at 10:00 in Brussels
- 10<sup>th</sup> EIBI Team meeting: 10 October 2012 in Brussels

## **9. AOB**

DG Research and Innovation – Directorate E (Food, Agriculture and biotechnology) is working on the preparation of a "bio-based industries" Public-Private Partnership. Directorate K (Energy) has been informed recently on this initiative. Industrial stakeholders have prepared a concept paper and a revised version of this document has been sent after the EIBI Team meeting. Both documents attached to these minutes.

The EIBI secretariat will organise the consultation of the EIBI Team on a possible link/integration of the EIBI with this PPP. [\[All industrial members have received an e-mail asking for feedback at the latest by 25 May\].](#)

## **ACTION POINTS**

### **Actions for Industry / MS**

- Abengoa and IT to initiate the activities within the WG on end-users with possibly the support of ES.
- EBTP secretariat to check the interest of its WG on end-users to contribute to the EIBI WG.
- EuroHeat&Power to clarify which actors could be considered "end users" in the biogas sector.
- FR to initiate the activities within the WG on the financing of bioenergy flagship projects with the support of EBTP, BE, SE and DE.
- EIBI Team members to provide with names of potential speakers and participants to the workshops on longer-term R&D needs by mid-May. Names to be sent directly to [REDACTED]
- NL to investigate the need of a European research infrastructure project on biochemical routes by consulting the European bio-energy research community.
- EIBI Team members to give their comments on a possible link/integration of the EIBI with the bio-based industries PPP.

## List of participants:

### Representatives of MS/AC

[REDACTED] Ministère de l'Ecologie, de l'Energie, du Développement Durable et de la Mer, France, [REDACTED]  
[REDACTED], CRB, Italy, [REDACTED]  
[REDACTED] CPI, UK, [REDACTED] xx  
[REDACTED] Swiss Federal Office of Energy, Switzerland, [REDACTED] x  
[REDACTED], TEKES, Finland, [REDACTED] xx  
[REDACTED], Swedish Energy Agency, Sweden, [REDACTED]  
[REDACTED] Agency-Energy and Climate Change, Netherlands, [REDACTED]  
[REDACTED], Region Wallone, Belgium, [REDACTED]  
[REDACTED], IMP, Poland, [REDACTED]

### Representatives of Industry

[REDACTED], Fraunhofer (EBTP), Germany, [REDACTED]  
[REDACTED], M&G Chemtex, Italy, [REDACTED]  
[REDACTED], M&G Chemtex (FlightPath Initiative Core Group), Italy, [REDACTED]  
[REDACTED], UPM (EBTP), Finland, [REDACTED]  
[REDACTED], Novozymes (EBTP), Denmark, [REDACTED]  
[REDACTED], Abengoa (EBTP), Spain, [REDACTED]  
[REDACTED], Cogen Europe, Belgium, [REDACTED]  
[REDACTED], Repsol, [REDACTED]

### Representative from EERA

[REDACTED] ECN (EERA), the Netherlands, [REDACTED]

### EC representatives

[REDACTED], RTD-K3, [REDACTED]  
[REDACTED], RTD-K3, [REDACTED]  
[REDACTED], RTD-K3, [REDACTED]  
[REDACTED], ENER-C2, [REDACTED]  
[REDACTED], RTD-K3, [REDACTED] u  
[REDACTED], RTD-K3, [REDACTED] eu  
[REDACTED], RTD-K3, chair of the EIBI Team, [REDACTED] xx  
[REDACTED], RTD-K3, [REDACTED]  
[REDACTED], RTD-K3, [REDACTED]

## **Annex**

### ***Update on EIBI related activities at national level***

#### **FINLAND**

Tekes funded R&D-projects within bioenergy for an amount of 37 M€ in 2011. Recent investment decisions in Finland are:

- Fortum Power and Heat Oy build an integrated pyrolysis oil production plant in Joensuu ready for start-up in 2013 and with a capacity of 50 kt/a pyrolysis oil.
- Neste Oil builds a pilot plant in Porvoo for microbial oil to be used as feedstock for biofuels production. Start-up in 2012.
- UPM builds a plant for the production of 100 kt/a of biodiesel from tall oil in Lappeenranta with start-up in 2014.

#### **GERMANY**

The priorities and implementation papers of EIBI are taken into consideration by FNR when managing the German R&D programme Renewable Resources on behalf of the German Federal Ministry of Food, Agriculture and Consumer Protection (BMELV). Examples of ongoing project with direct relevance for EIBI are Bioliq in Karlsruhe ([www.bioliq.de](http://www.bioliq.de)) and the CHP plant in Senden (<http://www.swu.de/geschaeftskunden/energie-wasser/kommunen/aktuelle-projekte/biomasse-heizkraftwerk-senden.html>).

In addition a number of German companies have projects which are relevant for EIBI, e.g. Verbio (<http://www.verbio.de/en/press/news/messages/verbio-opens-worlds-first-straw-based-biomethane-plant/>) and Suedchemie (<http://www.sud-chemie.com/scmcms/web/content.jsp?nodeId=7803&lang=en>).

#### **ITALY**

In April 2011, Mossi & Ghisolfi (M&G) and Chemtex, its wholly-owned engineering and technology affiliate, commenced construction of a commercial-scale 13 million gallons/year (50 million liters) cellulosic ethanol production facility in Crescentino, Italy. The plant will use Novozymes enzyme technology to convert a range of cellulosic feedstocks to ethanol and it is planned to start production by the end of 2012.

The ethanol biorefinery will also include a power plant, generating about 10MW of electricity and steam for the plant by burning lignin, a biomass co-product of the ethanol production process ([http://www.chemtex.com/templates/renewables\\_PROESA.html](http://www.chemtex.com/templates/renewables_PROESA.html)).

#### **The NETHERLANDS**

The Netherlands has an active approach in developing sustainable biomass supply chains and supports 40 pilots around the world (<http://www.agentschapnl.nl/en/biomass>) with different crops, where knowledge about sustainability and certification is obtained, and disseminated. Innovation in the biobased economy is an important part of the Topsector approach and a budget of 40 M€ has become available for the TKI (Topconsortia Knowledgecentra and Industry) on bioenergy and biochemicals. This industry led approach will contribute to an accelerated development and implementation of biotechnology and thermal processes (gasification and pyrolysis) to chemicals, biofuels, green gas, power and heat.

## POLAND

The EIBI-related activities in Poland, coordinated by IMP Gdansk (Institute of Fluid-Flow Machinery, Polish Academy of Sciences) include:

- Research & Development Project (2010-2014) „Model Agroenergy Complexes as an Example of Distributed Cogeneration Based on Local Renewable Energy Sources”, the total budget is about 8 M€, co-financed by the EU in the framework of the Operational Programme Innovative Economy. The project involves a consortium of 4 research institutions. It focuses on technologies for biogas production and dispersed cogeneration of heat & power at a small scale (~2kWe).
- Strategic Project (2010-2015) "Development of Integrated Technologies for the Production of Fuels and Energy from Biomass, Agricultural Waste and other Waste Materials", the total budget is about 28 M€ including approximately 9 M€ from the industrial partner ENERGA S.A. (4th largest energy provider in Poland, approximately 15% market share). The project is funded by the National Centre for Research & Development as a part of national Strategic Programme "Advanced Power Generation Technologies". The project involves a number of research institutions and industrial partners nationwide. The main objectives are building and implementation of 16 pilot plants and demonstrators for future deployment of new technologies: energy conversion of biomass and waste and biogas systems integrated with co-generation sets.

## UK

- **BSBEC:** The Centre represents a £24M investment that increases UK bioenergy research capacity. It brings together 6 world-class research groups. This creates a network with expertise and specialist resources that span the bioenergy pipeline from growing biomass to fermentation for biofuels.

Fourteen leading industrial associates bring business expertise and perspectives, and support totaling over £4M. This will help ensure that research outputs are translated into practical applications as quickly as possible.

Ensuring that bioenergy is economically, environmentally and socially sustainable is core to the Centre's programmes. Life cycle analysis embeds this across the portfolio.  
[www.bsbec.bbsrc.ac.uk/](http://www.bsbec.bbsrc.ac.uk/)

**Supergen Bioenergy Hub:** a reapproved Research Programme focusing across Supply Chains with many millions of funding assured, more information from the director: [REDACTED]

- **CPI** houses pilot/demonstration facilities for developing and commercialising biochemical/thermal chemical process routes which can test and develop process routes from feedstock processing to product separation in all seven value chains of the EIBI. Many hundreds of variations are possible by design using both ‘standard’ and ‘novel/bespoke’ equipment – [www.uk-cpi.com](http://www.uk-cpi.com) or contact [REDACTED]
- **ETI** – Energy Technologies Institute is a major PPP between global industries and the UK Government bringing together projects and partnerships accelerating the development of affordable, clean and secure technologies to help the UK meet its legally binding 2050 climate change targets. We make targeted commercial investments in nine programme areas across heat, power, transport and the infrastructure that links them.