



## **BESTF3 and ERA-Net Bioenergy Newsletter (December 2016)**

*We are proud to present to you the first edition of the Newsletter of combined news from BESTF3 and ERA-Net Bioenergy. This Newsletter includes an interview with the Coordinator of the programme, the announcement of the first BESTF3 Joint Call for R&D proposals, the status of the projects under the Joint Calls, a brief summary of the networking webinar on the ERA-Net Bioenergy 11<sup>th</sup> Joint Call, an announcement for the BESTF3/ ERA-Net Bioenergy Conference to be held in June 2017 in Stockholm, highlights of the European Biomass Conference (June 2016 Amsterdam), and links with other relevant networks, in particular with the IEA Bioenergy Technology Collaboration Programme. Enjoy!*

### **1. Welcome to BESTF3 and ERA-Net Bioenergy**

New website

<http://eranetbestf.net/>

The BESTF website has recently been revamped and now links to the ERA-Net Bioenergy website. Updates and improvements to the site will be made in the coming weeks.

This ERA-Net Co-fund, BESTF3 brings together a number of national and transnational organisations with an interest in promoting the greater use of bioenergy. It follows on from two previous BESTF ERA-Net Plus initiatives that were launched respectively in 2012 and 2013 and, like its predecessors, aims to kick-start large scale investment in close-to-market implementation of bioenergy, thereby helping to achieve the key objectives of the European Industrial Bioenergy Initiative (EIBI) Implementation Plan and the Strategic Energy Technology (SET) Plan.

Bioenergy Sustaining the Future (BESTF3) is a European initiative which aims to encourage the commercialisation of bioenergy projects, and increase renewable energy production across the EU. By incorporating ERA-Net Bioenergy as an additional activity within the project, demonstration and research are brought together and collaborative projects are thus encouraged across the entire TRL spectrum.

The overall aim for this third BESTF ERA-Net Co-fund is to implement a joint programme for bioenergy projects that demonstrates enhanced bioenergy technologies. It will leverage public-private partnerships to manage the risks and share the financing of close-to-market bioenergy projects.



**The key objectives of BESTF3 are:**

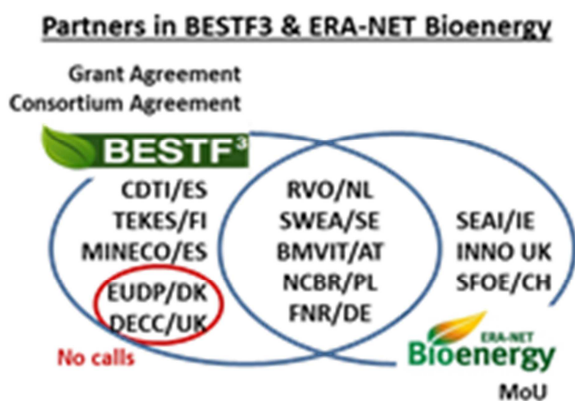
1. to launch and implement a single joint co-funded transnational call for proposals that will support demonstration projects focused on the generation of bioenergy.
2. to maintain and enhance coherence and networking between national bioenergy programmes across the EU.

**ERA-Net Bioenergy**

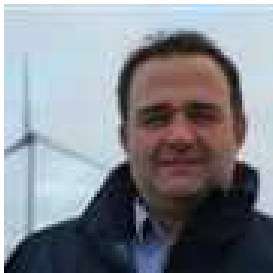
<http://www.eranetbioenergy.net>

The goal of ERA-Net Bioenergy is to strengthen national bioenergy research programmes through enhancing cooperation and coordination between national agencies. Through collaboration, the individual national programmes aim to produce higher quality results, while through coordination, they will seek to complement each other, avoiding duplication.

ERA-Net Bioenergy has been operating since October 2014 as a self-sustained network organised on a membership basis. Before this ERA-Net Bioenergy was funded under the 6<sup>th</sup> Framework Programme of the European Commission.



## 2. The Added Value and Expected Impact of BESTF3 on the Bioenergy Technology Sector *(Interview with Bart de Leeuw, BEIS, UK, Coordinator BESTF3)*



Bart de Leeuw from the Department for Business, Energy and Industrial Strategy (BEIS) at the UK Government took over from Megan Cooper as Coordinator of BESTF3 in September 2016. Bart, born in the Netherlands, has spent most of his academic and working career in the UK. As Innovation Programme Manager for the Renewables Theme within BEIS, Bart coordinates all aspects of energy innovation related to renewable energy.

When asked about the added value of BESTF3, Bart emphasised the leverage of funding from the Member States. *“This provides a great benefit and enabler for projects to pursue the development of their innovations, which may otherwise not have taken place”*. Open discussions about priority innovation areas for bioenergy, and how to address these through the BESTF programme are equally important according to Bart. The co-funding approach creates unique opportunities for Member States to support more ambitious projects. There is a clear structure in place defining how the programme is run which helps ensure that our commitments to the Commission and to the individual projects are met.

In answer to the question regarding the potential impact of BESTF3 on the bioenergy technology sector, Bart explained that he felt confident that BESTF3 projects could make a similar impact to those in BESTF1 and BESTF 2. Many of these projects demonstrated the effectiveness of the programme in driving technologies to TRL levels of 8-9. It is most encouraging to note that some have subsequently gone on to secure significant levels of follow-on funding from private and public sources to take the next leap towards commercialisation. Of course it is still early days and difficult to envisage the wider impact of the BESTF3 projects when the projects are not yet up and running. Overall the key impact the projects should have according to Bart is that of demonstrating and de-risking the technology and/or processes as part of the demonstration programme.



For BESTF3 to be successful there are three key aspects in Bart's view:

- a strong pipeline of collaborative innovation projects which are aligned to the key challenges set out in the programme brief;
- continued strong collaborative engagement of member states driving alignment of priority areas, promotion of the programme and knowledge sharing across the industry;
- attractive levels of leveraged funding from EU and national agencies.

Bart is confident that higher TRL levels will be achieved in the projects supported through the BESTF3 programme, and that this should help drive technological advancements in the wider industry. However, achieving higher TRL levels alone is unlikely to result in the desired outcome of the BESTF3 programme. This must be coupled with meeting the specific commercial drivers required for technologies to be deployed at a larger scale.

When asked about the cooperation between BESTF3 and ERA-Net Bioenergy Bart explained that so far he had seen a real passion and drive by all national agencies to deliver the agreed work packages under the ERA-Net Bioenergy programme, and to maximise the quality and number of Bioenergy projects that may be supported under the scheme. Regular management committee meetings and a shared vision of how the programme should be delivered have enabled a smooth delivery to date. Bart feels strongly that the strength of the collaboration of the national agencies has encouraged the development of equally strong and ambitious collaborative project teams.

Finally the transnational collaboration between project organisations sharing knowledge, skills and resources to overcome specific innovation challenges has been very encouraging.

### **3. Announcement of 1st Joint Call for Research and Development Proposals of the ERA-NET Co-Fund Bioenergy Sustaining the Future (BESTF3)**

The first Joint Call for R&D proposals of BESTF3 - Bioenergy as part of a smart and flexible energy system is now open.

**Deadline for submitting pre-proposals: 23rd January 2017, 13:00 CET**

**Deadline for submitting full proposals: 20th June 2017, 13:00 CEST**

Expected project start: Early 2018

#### **Summary**

In this Joint Call, ERA-NET Bioenergy and BESTF3 aim to fund innovative, transnational research, development and innovation (R&D&I) projects in the field of bioenergy. Funding will be offered to excellent proposals that provide clear added value through cooperation of



partners in at least two (preferably more) participating countries. Novelty beyond the state of the art in the bioenergy value chain addressed must be significant, and evidence of exploitation potential must be provided (e.g. by way of tangible industry commitment). Public funding is available for this joint call from funding bodies in Austria, Finland, Germany, Poland, Sweden and Switzerland.

[http://eranetbestf.net/wp-content/uploads/2012/11/ERA-NET\\_Bio\\_BESTF3\\_2016\\_call\\_text\\_FINAL.pdf](http://eranetbestf.net/wp-content/uploads/2012/11/ERA-NET_Bio_BESTF3_2016_call_text_FINAL.pdf)

#### **4. ERA-Net Bioenergy Networking Webinar (29<sup>th</sup> November 2016)**

In order to help find potential partners for ERA-Net Bioenergy's 11<sup>th</sup> joint call, a networking webinar was set up on November 29<sup>th</sup> 2016. Nine researchers from the countries participating in this joint call presented their project ideas and expressed their need for partners in specific fields. Other scientists explained their field of competence and offered their expertise as potential partners in projects. The majority of interested partners in the webinar were from Germany and Finland, while there were also participants from Austria, Switzerland and Poland. As a result, many new connections were made via the webinar and researchers will further discuss possible collaboration options bilaterally. As a higher industry participation would have been appreciated, it is envisaged to specifically contact industry networks in preparation of a networking webinar for the next joint call.

#### **5. Update on the Project Status of the Joint Calls**

Although some of the projects under BESTF1 and BESTF2 got off to a tricky start, due to some partners having to withdraw because of changing priorities within the partnering companies, we are now starting to see the benefits. Many of these projects have demonstrated the effectiveness of the programme in driving technologies to TRL levels of 8-9. It is most encouraging to note that some have subsequently gone on to secure significant levels of follow-on funding from private and public sources to take the next leap towards commercialisation.



International jury meeting, September 2016 Hamburg



A number of projects have successfully progressed through the selection phase of BESTF3, and are currently in final contract negotiations. We hope to be able to make further announcements shortly.

#### **ERA-Net Bioenergy 9<sup>th</sup> Joint Call “Innovative Bioenergy Concepts”**

A total of six projects were recommended for funding. While grant negotiations for two of these projects are still ongoing, four of these projects have already started their work in early 2016:

- BIOFLEX: *Clean and flexible use of new difficult biomass fuels in small to medium-scale combustion (Coordinator: SP Technical Research Institute of Sweden; other partners from AT, PL, DE)*
- REFAWOOD: *Resource-efficient fuel additives for reducing ash related operational problems in waste wood combustion (Coordinator: SP Technical Research Institute of Sweden; other partners from AT, DE, NL, PL)*
- GrateAdvance: *Advanced adjustable grate solutions for future fuel flexible biomass combustion Technologies (Coordinator: BIOENERGY 2020+ GmbH (BE2020); other partners from CH, SE)*
- MetHarmo: *European harmonisation of methods to quantify methane emissions from biogas plants (Coordinator: Deutsches Biomasseforschungszentrum (DBFZ); other partners from AT)*

The three projects on “Integrated bio-refinery concepts” are progressing very well too:

- ICOCAD: *Development of an Innovative Concept for Carbon Dioxide Utilisation as Side Stream of Integrated Bio-refinery Concepts (Coordinator: Fraunhofer ICT-IMM, DE; other partners from DE and PL)*
- CHEMBEET: *Biofuels and green chemicals from sugar beet through direct processing (Coordinator: Dutch Sustainable Development BV; other partners from NL and PL)*
- CtoC Farming: *Cradle to cattle farming (Coordinator: Cornelissen Consulting Services B.V.,NL; other partners from NL, PL, UK)*

While the projects from the call on “Biogas and Energy Crops” have just finished their work (ERA-Net GAS, SE.Biomethane, ORNATE, AmBiGas), the projects on “Small-scale heat and power production” (“WoodStoves2020” and “Small scale BM based CHP”) are already planning their final seminars for the first half of 2017. Please check out the website to find announcements of these seminars.

#### **6. SAVE THE DATE - Announcement – BESTF3/ ERA-Net Bioenergy Conference 2017 “Bioenergy – from Research to Market Deployment in a European context” (14<sup>th</sup> June 2017, Stockholm)**

Please note in your diaries that a seminar will take place on Wednesday 14th June 2017 in Stockholm entitled "Bioenergy - from Research to Market Deployment in a European context". This will take place in conjunction with the European Biomass Conference. During this seminar a presentation from the new European Technology and Innovation Platform (ETIP) on Bioenergy will be given, followed by presentations from BESTF3 and ERA-Bioenergy and the European Energy Research Alliance (EERA). Both



EERA and BESTF3 and ERA-Net Bioenergy can be seen as instruments which make the approach and ambitions of ETIP Bioenergy possible. More details will be announced in due course on the BESTF3 and ERA-Net Bioenergy websites.

## 7. European Biomass Conference, June 2016 Amsterdam

This year's European Biomass Conference and Exhibition took place on 9<sup>th</sup> June 2016 in Amsterdam. It was a unique opportunity to present an overview of the state of play of the bioenergy sector and resulted in a much clearer view than ever before on the role biomass can play in achieving the transition to a low carbon economy.

After decades of continuous research and technological development, a number of large scale demonstration plants are proving that biomass can be effectively converted into energy, advanced biofuels and bio-based products. Recognising the value of those good examples it is fundamental to build the consensus needed to finally set a clear, stable European policy framework, which is still lacking, but is essential to enable the widespread development of the bio-based economy. The attention of policy makers and the media has up until now been focussed rather too much on the possible negative effects of bioenergy. Attention needs to shift to the positive results that the bio-based economy can deliver in achieving the low carbon economy.

*"This conference demonstrated that there are high level talents working on these issues", said Prof. André Faaij, Conference General Chairman in his concluding remarks: "It is now about how do we link all this good work to the right arena. Now we need to ensure close interplay and engagement of the research community, the industry and the governance arena. I would like to call upon all the key players in the field, especially international bodies such as UN, FAO, IRENA, IEA, EC, to organise the debate and to give it the focus it needs to solve the problems to progress". He also launched the idea of forming a coalition among the GBEP, the Global Environment Facility, the European Commission and the Energy Coalition of the world billionaires, to discuss how to support a series of large-scale demonstrations of sustainable biomass production in different settings, integrating bio-refineries, BECCS (bioenergy with carbon capture and storage), and bio-chemicals.*

This year there were also BESTF presentations during the workshop "EU support for bioenergy demonstration projects: current state and developments". This workshop was targeted at the main European bioenergy technology stakeholders from industry, research, government, NGOs and other related organisations in the bioenergy research and innovation chain. During this event an overview of the current status and developments of ongoing projects under the different funding instruments was presented. This included two projects funded in the frame of the NER300 programme – BEST (bioethanol from lignocellulosics, Italy) and VERBIOSTRAW (biomethane from straw, Germany), as well as the two BESTF projects BioProGReSS and BioSNG. Experiences from projects were shared with the audience and a discussion panel took place to discuss those challenges and opportunities identified.

<http://www.eubce.com/conference/parallel-events-workshops/parallel-events/eu-support-for-bioenergy-demonstration-projects-current-state-and-developments.html> -



Date of next European Biomass Conference, 12<sup>th</sup>-15<sup>th</sup> June 2017, Stockholm, Sweden

<http://www.eubce.com>

An abstract for a paper on the results of BESTF3 has been submitted for EUBCE 2017 entitled Bioenergy Sustaining the Future and ERA-Net Bioenergy Results.

## **8. Links with related networks**

### IEA signals need for acceleration of Bioenergy

At its recent IEA Bioenergy Executive Committee meeting in November in New Zealand, Mr Kees Kwant, Chairman of this IEA Technology Collaboration Programme announced that the Mid-term Market Report of IEA shows a rapid increase in renewable power, specifically produced by solar pv and wind, with a contribution of about 25 %. Renewable heat remains at 10% and transport only at 5%. According to Mr Kwant: *“There is a strong request to speed up cost price reduction and accelerate deployment in these areas where bioenergy can play a major role. However to carry out this role a step up in innovation and deployment is needed to reduce the cost price of bioenergy and to improve efficiency. BESTF3 is a crucial European Co-Fund instrument to accelerate market introduction by bringing innovations to the next TRL level.”*

**Wishing you a Merry Christmas and a Prosperous New Year from BESTF3 and ERA-Net Bioenergy!**

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