

Minutes – Innovation Fund Workshop

12 September 2019, 11:00 – 16:30

Venue: European Commission, DG RTD, Rue de Champ de Mars 21 (CDMA), Brussels

The Innovation Fund Stakeholder Workshop on Renewable Fuels and Bioenergy was collaboratively organised by ETIP Bioenergy, the ART Fuels Forum, ETIP Renewable Heating and Cooling and Bioenergy Europe on 12 September 2019 in Brussels. The workshop aimed to collect project ideas from the renewable fuel/biofuel and bioenergy sectors and to discuss key sector-specific issues with regard to the selection and management of projects. The one-day workshop started with presentations from the European Commission DG RTD&DG Clima, and the European Investment Bank (EIB), which put the Innovation Fund in the European research&innovation landscape, presented the key issues for the first Innovation Fund Call and lessons learnt from the predecessor programme, NER300. Then in total 16 companies from the renewable fuel and bioenergy sector presented project ideas that comprised the basic features of the projects, such as the innovative technology and final products, its technological readiness level, expected GHG emission reductions and project development timeline. Agenda and list of participants can be found at the end of the document.

Patrik Klintbom, chair of the ETIP Bioenergy, welcomed all participants to the workshop and thanked the representatives from DG Clima, DG RTD and the EIB for joining the workshop in regard to the upcoming first call of the Innovation Fund in 2020. He addressed the antitrust guidelines that are included in the documentation of the workshop and explained to the participants that they declared their consent with the guidelines by joining the workshop. He pointed out to the importance of the Innovation Fund for ETIP Bioenergy since it constitutes a potentially important funding source for upscaling innovative renewable fuels and bioenergy technologies. Further, it is targeted towards industry – the key stakeholder group for ETIP Bioenergy – and it is complementary to other funding programmes and strategies with ETIP Bioenergy involvement, such as SET-Plan IWG Action 8 Renewable fuels and bioenergy.

Maria Georgiadou, DG RTD, presented about synergies between H2020 and the Innovation Fund. Different possibilities of financing programmes for the energy sector in the EU were demonstrated. She outlined the challenges that innovative technologies are often facing in regard to their market uptake. A lack of investments in innovative technologies due to financial risks often leads to a lack of new technologies coming into the market. Aspects, how bioenergy can contribute in the best way to EU Energy and Climate targets in 2050 and to the Sustainable Development Goals were addressed in the presentation as well as objectives of the Strategic Energy Technology Plan (SET Plan).

Christian Holzleitner, DG CLIMA, presented the Innovation Fund in detail. From 2020 to 2030, the Innovation Fund will amount to approx. 10 billion EUR, depending on the carbon price, which will be provided from the EU Emissions Trading System (EU ETS). The Innovation Fund focuses on innovative low-carbon technologies and processes in energy intensive industries, CCU, CCS, innovative renewable energy generation and energy storage. The first call is expected to be launched in 2020 with a volume of 1 to 1.5 billion EUR. Discussions and suggestions about the design for the first call are one of the key concerns that DG CLIMA is aiming for with the series of workshops around the Innovation Fund. By covering up to 60% of the additional capital and operational costs of innovation, the Innovation Fund de-risks projects to invest in innovative technologies. By April 2020, all selection criteria, including how to identify the maturity of a project shall be set up. Mr Holzleitner replied to the question of a participant, whether there will be constraints on the TRL level, that there will be no restrictions on this regard, however with a focus on First-of-a-kind (FOAK) and larger demo projects. Both product-oriented and cross-sector coupling projects are welcome. There are no restrictions concerning the required number of projects partners, but market driven outcomes are expected from the applicants. The ownership of funded innovations is not an issue, whereas the investments need to take place in the territory of the EU and EEA countries.

The presentation on the lessons learned from the NER 300 programme by Roland Schulze from the European Investment Bank (EIB) as well as the 16 company presentations from the two sessions on renewable fuels/biofuels and bioenergy can be reviewed in the documentation of the workshop.

The discussion on key issues related to the preparation for the first Innovation Fund Call was moderated by Lars Waldheim from Waldheim Consulting (representing ETIP-Bioenergy in the Commission expert group on preparation of the Innovation Fund). Christian Holzleitner, DG CLIMA, remarked that the presentations by the companies comprised quite concrete proposals. Compared to other sectors that held workshop on the Innovation Fund (IF) during the last months, the project plans covered more greenfield plants. A question to be tackled regarding dual/multi fuel engines will be how the rate of emission avoidance can be calculated appropriately. The most important statements from the discussion session can be summarised as follows:

- Greenfield vs. brownfield plants; is there a competitive advantage for brownfield because of a lower CAPEX? Roland Schulze, EIB: not proven from NER 300 experience. The relevant cost concept helps in this respect. Both green- and brownfield plants will be eligible.
- How to evaluate the emission avoidance of technologies? DG CLIMA will provide guidance on this issue.
- Substitute products are only eligible when the sector is covered by the ETS.
- Knowledge sharing is required.
- No funding of commercial facilities.
- The Innovation Fund will cover risks for a first mover in new markets.
- Innovative combinations of existing technologies will be eligible.
- To be eligible, a technology should have a market in a climate-neutral EU of 2050.
- Side products vs. industrial waste? The circular economy concept should be applied.
- TRL level: early TRL should go to Horizon Europe. Main focus TRL7-9 although no formal exclusion of other TRLs.
- Small-scale projects: Projects with total capital costs below e.g. 7.5 million EUR will benefit from simplified application and selection procedures. Detailed modalities are under preparation
- Large-scale projects are expected to be the main business of the IF.
- Controversial discussion on sugar beets. Funding priorities of the IF have to be aligned with the existing political framework, such as the recast of the Renewable Energy Directive (RED2) and the rules on biofuels&bioenergy from agricultural crops.
- Cooperation with SET-Plan and NECP ongoing. Strive for better Member State (MS) support than in NER 300.
- Payment procedure: 40% of support as advance payment and linked to milestones.
- No need for MS guarantees to receive an advance payment.
- The IF is not considered as State Aid as the support does not come from a particular Member State. This makes it easier to combine funding with other programmes.
- Call Implementation between summer 2020 and end of 2021.
- Is it possible to start an investment before a project is approved? It is possible on own risk. It might be questionable, why IF support would be necessary in such cases.

Following the discussion sessions, Theodor Goumas from the ART Fuels Forum presented the Forum and raised some questions in view of the Innovation Fund that should be clarified in advance of the first call. Among other things, clarification is needed on the issues how “innovation” will be measured, how innovative low-carbon technologies can verify their contribution to GHG reduction and receive fair treatment or how the simplified application procedure for small-scale projects will look like.

Patrik Klintbom concluded the workshop and thanked everyone for a very interesting and fruitful discussion. In his closing words, he pointed out to the significance that biofuels will also have in the future in the heavy duty and aviation sectors.

Agenda

Time	Agenda Item	Speaker
11:00 – 11:30	Registration, coffee, sandwiches	
11:30 – 11:40	Welcome and introduction Compliance with EU competition law rules	Patrik Klintbom, Chair SC ETIP Bioenergy
11:40 – 11:50	From research to the market – synergies between H2020 and Innovation Fund	Maria Georgiadou, European Commission, DG RTD
11:50 – 12:20	Presentation Innovation Fund, Q&A	Christian Holzleitner, European Commission, DG CLIMA; All
12:20 – 12:30	NER300 – lessons learned	Roland Schulze, EIB
12:30 – 13:30	Company presentations Renewable Fuels/Biofuels	Moderation: Antti Arasto, Vice Chair SC ETIP Bioenergy
	Saw dust as feedstock for advanced biofuels and bioproducts	Ylwa Alwarsdotter, SEKAB BioFuels & Chemicals AB
	The potential UPM biofuels expansion	Marko Janhunen, UPM
	Powertrain Product engineering	Daniel Klein, FPT Industrial
	Building a sustainable future for aviation	Kasper Spitzen, SkyNRG
	Advanced Marine Biofuel derived from Fast Pyrolysis Oil	René Venendaal, BTG Biomass Technology Group BV
	DME project	Pedro Santos, CLICK AUTOGAS
	Commercial Power-to-Fuel project based on CRI's ETL technology	Ómar Freyr Sigurbjörnsson, Carbon Recycling International
	Duel-fuel application in Heavy Duty Vehicles (HDV's)	Stefan Caliman, Lombardy Mobility Cluster
13:30 – 14:10	Coffee break	
14:10 – 15:10	Company presentations Bioenergy	Moderation: Jean-Marc Jossart, RHC ETIP&Bioenergy Europe
	Converted Local Biomass CLB [®] in North Germany with final use in Iron and Steel Industry and District Heating	Torsten Buddenberg, Mitsubishi Hitachi Power Systems Europe
	Clean renewable Bio-Energy -- Zero Emission & Zero Waste	Axel Weber, zee GmbH
	Sugar beet as building block for a green future	Hans van Klink, Dutch Sustainable Development BV
	New technology for black pellets (hydrothermal carbonisation)	Sébastien Dubois, ENGIE LABORELEC

	The critical role of pre-treatments in biorefineries	Theodora Retsina, API Europe
	Three proposals for reducing CO ₂ emissions with new biomass uses and digitalization	Tuomas Petänen, Valmet
	Small scale gasification system for the flexible production of methane/biofuels from different waste sources	Enrique Montiel, Greene
	HTC Technology – Carbon Recovering	Marisa Hernández Latorre, INGELIA
15:10 – 16:00	Exchange on key issues for the 1 st Innovation Fund Call, learnings from previous activities	All; Moderation: Lars Waldheim, Chair WG2 ETIP Bioenergy
16:00 – 16:10	Views from ART Fuels Forum	Theodor Goumas, ART Fuels Forum (AFF)
16:10 – 16:30	Summary, conclusions and closing words	Patrik Klintbom, Chair SC ETIP Bioenergy

List of participants

Surname	First Name	Company	Country
Ahn	Edgar	BDI Holding GmbH	Austria
Alwarsdotter	Ylwa	SEKAB BioFuels & Chemicals AB	Sweden
Apfelbacher	Andreas	Fraunhofer UMSICHT Institute Branch Sulzbach-Rosenberg	Germany
Arasto	Antti	VTT Technical Research Centre of Finland	Finland
Arslan	Doga	KU Leuven	Belgium
Blondeau	Julien	VUB - Vrije Universiteit Brussel	Belgium
Bouhours	Gonzague	ZABALA INNOVATION	Belgium
Brun	Mathieu	ENGIE	Belgium
Buddenberg	Torsten	Mitsubishi Hitachi Power Systems Europe	Germany
Caliman	Stefan	IBS Consulting	Italy
Cancian	Giulia	Bioenergy Europe	Belgium
Caumont	Pauline	EMC2 Cluster	Belgium
Cehreli	Ergun	KSW Bioenergie	Germany
Cocchi	Maurizio	ETA Florence Renewable Energy	Italy
Dubois	Sébastien	ENGIE LABORELEC	Belgium
Fanelli	Giulia	EUBIA	Belgium
Fellenberg	Thies	Agency for Renewable Resources	Germany
Georgiadou	Maria	European Commission DG RTD	Belgium
Gonzalez	Ana	Region of Murcia Office in Brussels	Belgium
Goumas	Theodor	ART Fuels Forum	Belgium
Guedes de Campos	Pedro	FCH JU	Belgium
Hamelinck	Carlo	Navigant	Netherlands
Hemeleers	Nathalie	Bioenergy Europe	Belgium
Hemmes	Jaap	DSB	Netherlands
Hernández Latorre	Marisa	INGELIA	Spain
Herraiz Gonzalez	Santiago	IDAE	Spain
Holzleitner	Christian	European Commission DG CLIMA	Belgium
Janhunen	Marko	UPM	Finland
Jossart	Jean-Marc	Bioenergy Europe	Belgium
Kärki	Sara	Fortum Power and Heat Oy	Finland
Kerckow	Birger	Agency for Renewable Resources	Germany
Klein	Daniel	FPT Industrial	Switzerland
Klintbom	Patrik	RISE/ETIP Bioenergy	Sweden
Lhomme-Maublanc	Julie	IFP Energies nouvelles	France
Lokare	Kapil Shyam	Methuselah Holding	Germany
Mamrillová	Daša	Envien Goup	Slovakia
Mazzagatti	Valeria	Greenovate! Europe	Belgium
Montiel	Enrique	GREENE WASTE TO ENERGY	Spain
Oesterreicher	Michael	Eura AG	Germany
Pajji	Antoine	EIB	Luxembourg
Pauwels	Kenneth	Engie	Belgium
Petänen	Tuomas	Valmet	Finland
Provaggi	Alessandro	DHC+ / Euroheat & Power	Belgium
Retsina	Theodora	API Europe	Greece
Riffart	Sebastien	TOTAL	France
Roukema	Menno	Cosun Suiker Unie	Netherlands
Rudra	Souman	University of Agder	Norway
Santos	Pedro	CLICK AUTOGAS	Spain
Schulze	Roland	European Investment Bank EIB	Luxembourg
Sigurbjornsson	Omar Freyr	Carbon Recycling International	Iceland
Spitzen	Kasper	SkyNRG	Netherlands

Stuckert	Peter	PNO Consultants GmbH	Germany
Sweygers	Nick	KU Leuven	Belgium
Torrens	Esther	University Rovira i Virgili	Spain
Tzoulaki	Despina	ART Fuels Forum	Greece
van Klink	Hans	Dutch Sustainable Development BV	Netherlands
Vecchio	Valentina	Boeing	Belgium
Velkova	Maria	European Commission DG CLIMA	Belgium
Venendaal	René	BTG Biomass Technology Group BV	Netherlands
Vierhout	Rob	Enerkem	Belgium
Waldheim	Lars	Waldheim Consulting	Sweden
Weber	Axel	zee gmbh	Germany