EC Support to Advanced Biofuels

European Commission
Directorate-General Research & Innovation
New and Renewable Energy Sources

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The broad context

- RES Directive (2009/28/EC) ➔ 2020 mandatory targets:
  - 20% reduction in emissions
  - 20% improvement in energy efficiency
  - 20% renewable energies
  - 10% in transport ➔ proposed 5% cap on 1G

- G8 in Aquila (2009) ➔ 2050 target: developed countries should cut their GHG emissions by 80% by 2050

- EU 80% dependent on fossil fuels

- A critical challenge: from 80% dependency on fossil fuels to 80% reduction in GHG emissions in 40 years.

"Climate & Energy package"
Technology a key role
The SET-Plan

The Strategic Energy Technology (SET) Plan* is the technology pillar of the EU's energy and climate change policy

- Objective is to accelerate the development of low carbon technologies leading to their market take-up
- Includes a number of instruments, including 7 European Industrial Initiatives (EII)
  - EII are public – private partnerships → risk sharing, pooling resources, co-ordinating work
- October 2010: launch of the European Industrial Bioenergy Initiative (EIBI)

The European Industrial Bioenergy Initiative (EIBI)

- **Currently 31 members**, representing industry (8), Interested countries (19), the EC (4) and the European Energy Research Alliance –EERA (1)

- **Strategy to boost advanced biofuels in Europe** ➔ **EIBI Roadmap** and **EIBI Implementation Plan 2010-2012**
  - 2 “core” activities + 2 complementary activities
  - Inclusive and technology-neutral
  - Industrial cooperation and European added value

- **EIBI key partner** of EC: orientation, focus, joint programming...
**EIBI activities**

**CORE**

*Industrial projects of European relevance, with a potential for large scale deployment*

- **DEMONSTRATION**
  Last pre-commercial step

- **FLAGSHIP**
  First commercial units

**COMPLEMENTARY**

*Longer-term R&D*

*Biomass supply*
EC support to advanced biofuels

- SETIS
- Call for Expression of Interest 2011
- BIOMAP

Information

EIBI Implementation Plan

Bio-Based Industries PPP

Aviation Biofuels FlightPath

Financing

FP7 WPs alignment

ERA-NET Plus (2012, 2013)

NER 300

New instruments under discussion
● **FP7 alignment with EIBI activities + improved coordination**

➢ **Core activities (demonstration)**
  ❖ 2010: Biofuels from algae (3 projects, 16 M€) – DG ENER
  ❖ 2012: Pre-commercial industrial scale demonstration plant on lignocellulosic ethanol (under negotiation) – DG ENER
  ❖ 2013: Pre-commercial industrial scale demonstration plant on paraffinic biofuels for use in aviation – DG ENER

➢ **Complementary activities**
  ❖ 2011: New or improved sustainable bio-energy carriers (2 projects, 13M€) – DG RTD.K
  ❖ 2012: New or improved logistics for lignocellulosic biomass harvest, storage and transport (3 projects, € 10M) – DG RTD.K + RTD.E
  ❖ 2013: Support to the sustainable delivery of non-food biomass feedstock at local, regional and pan-European level – DG RTD.K + RTD.E
ERA-NET Plus (2012, 2013)

Bioenergy Demonstrations of the EIBI

- Instrument permitting to combine resources from MS, FP7 and industry through a joint call

- ERANET Plus 2012 (€ 15 M EC → min. € 90 M total)
  - Contract signed Dec. 2012 with organisations from UK, DK, FI, DE, Navarra (ES), PO, SE, CH
  - Joint call published Jan. 2013, projects starting beginning 2014

- ERANET Plus 2013 (EC budget: € 20 M → min. € 120 M total) – In preparation
NER 300

- **300 million allowances** reserved in the new entrants reserve (NER) of ETS for financing commercial-scale CCS and innovative RE demonstration projects.

- **EIBI strategy was instrumental** in defining eligibility criteria for bioenergy projects.

- **First Call** (200 million allowances- 1,2 billion €) launched Nov 2010 ➔ Award decisions **18 December 2012**
  - 23 RES projects funded ➔ **8 in bioenergy**
  - No CCS project funded

- **Second call in 2013** (100 M allowances)
New instruments and strategies in Horizon 2020

Bottlenecks for advanced biofuels uptake:

✓ Regulatory framework
✓ Access to finance

Horizon 2020: significant budget increase requested from European Parliament and European Council

✓ € 80 billion vs. € 50 billion in FP7 → 60% increase
✓ € 5,6 billion for Energy vs. € 2,3 in FP7 → 240% increase!
● New instruments and strategies in Horizon 2020

➢ Access to risk finance
  ✓ Equity & debt instruments ➔ leveraging effect
  ✓ Around 3.8 billion requested (to cover all technology sectors)
  ✓ "First come first served"
  ✓ Possibility to create a 'policy window' e.g. for the SET-Plan

➢ Better coordination with Cohesion & Structural funds in 2014-2020
  ✓ Largest EU budget for low-carbon economy ➔ €17 billion
  ✓ SET-Plan highlighted as a possible investment area by EC
  ✓ Operational programmes under development ➔ MS and regions
Summary of investment perspectives in 2014-2020

**Energy only (excl. ITER)**

- €5,8 B requested for *Secure, clean and efficient energy* in H2020
  - Leveraging effect on public sector, e.g. through *ERA-NET Plus*

**Several sectors**

- €3,8 B requested for access to *risk finance*
  - Leveraging effect on financial sector

- €17 B for a *low-carbon economy* in *Structural & Cohesion funds*

- Potentially additional funds from *NER 300* second call
Thank you for your attention