



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 (EIIs)**
 - EIIs are public – private partnerships → risk sharing, pooling resources, co-ordinating work
 - October 2010: launch of the **European Industrial Bioenergy Initiative (EIBI)**

* *COM (2007)723 of 22 November 2007*





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...



EI BI activities

CORE

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

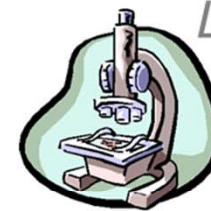


DEMONSTRATION
Last pre-commercial step



FLAGSHIP
First commercial units

COMPLEMENTARY



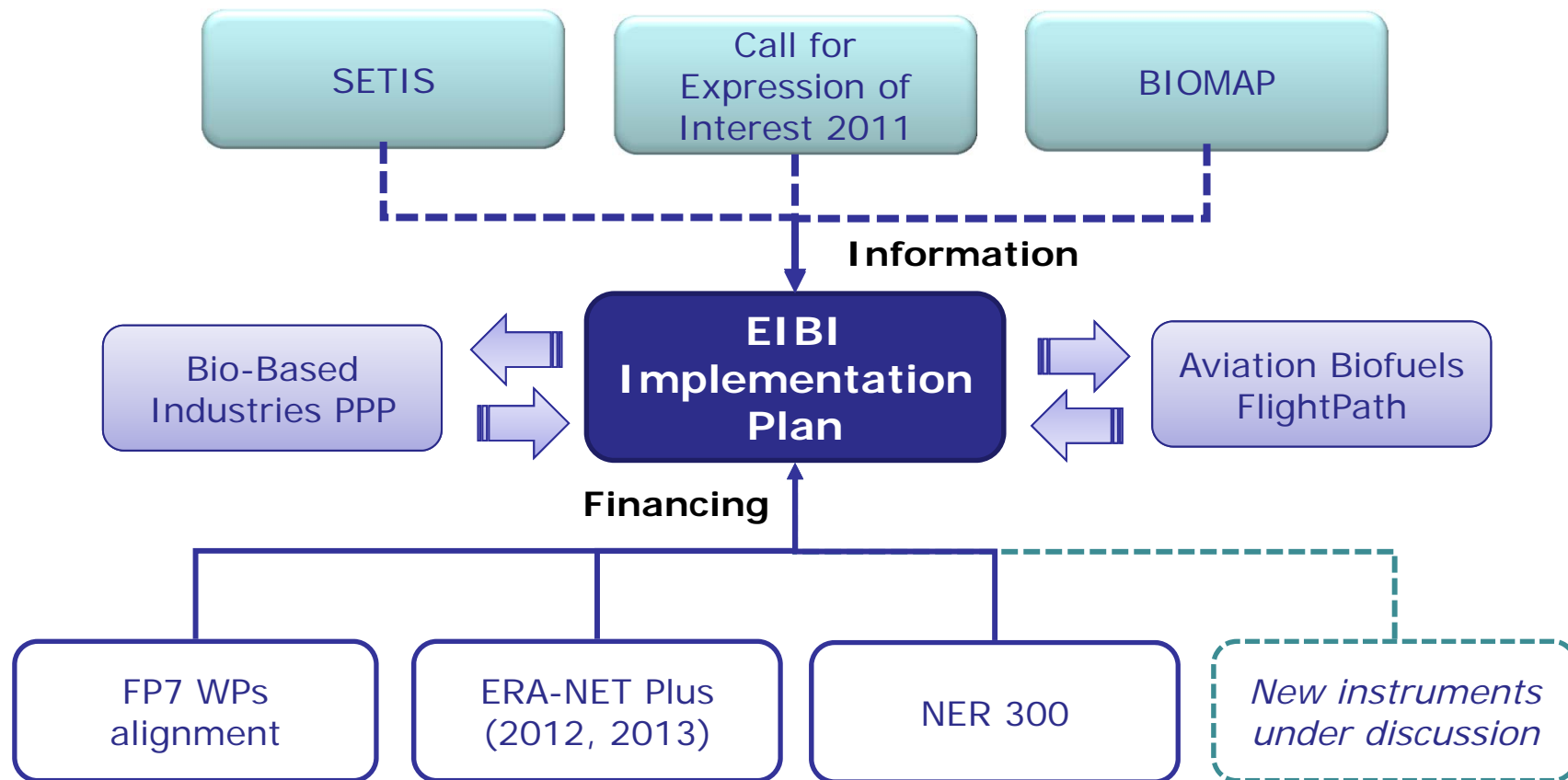
Longer-term R&D



Biomass supply



EC support to advanced biofuels





● 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!

UNDER DISCUSSION



● 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

