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ETIP Bioenergy – how to strengthen European sustainable biofuel deployment?

Conference: Building a sustainable European biofuel industry

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Outline

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The European Technology and Innovation Platform Bioenergy…

- Bases on the European Commission's Energy Union strategy
- Is a continuation of
  - the European Biofuels Technology Platform (EBTP, launched 2006) and
  - the European Industrial Bioenergy Initiative (EIBI, launched 2010)
- Established in April 2016

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ETIP Bioenergy has the role…

- to bring together relevant actors from academia, industry and civil society engaged in the development of sustainable bioenergy and competitive biofuel technologies
- to represent the unbiased, united, and consolidated view of the biofuels and bioenergy industry in Europe
- to act as the main interlocutor for DG RTD to implement the Strategic Energy Technology Plan in the field of biofuels and bioenergy

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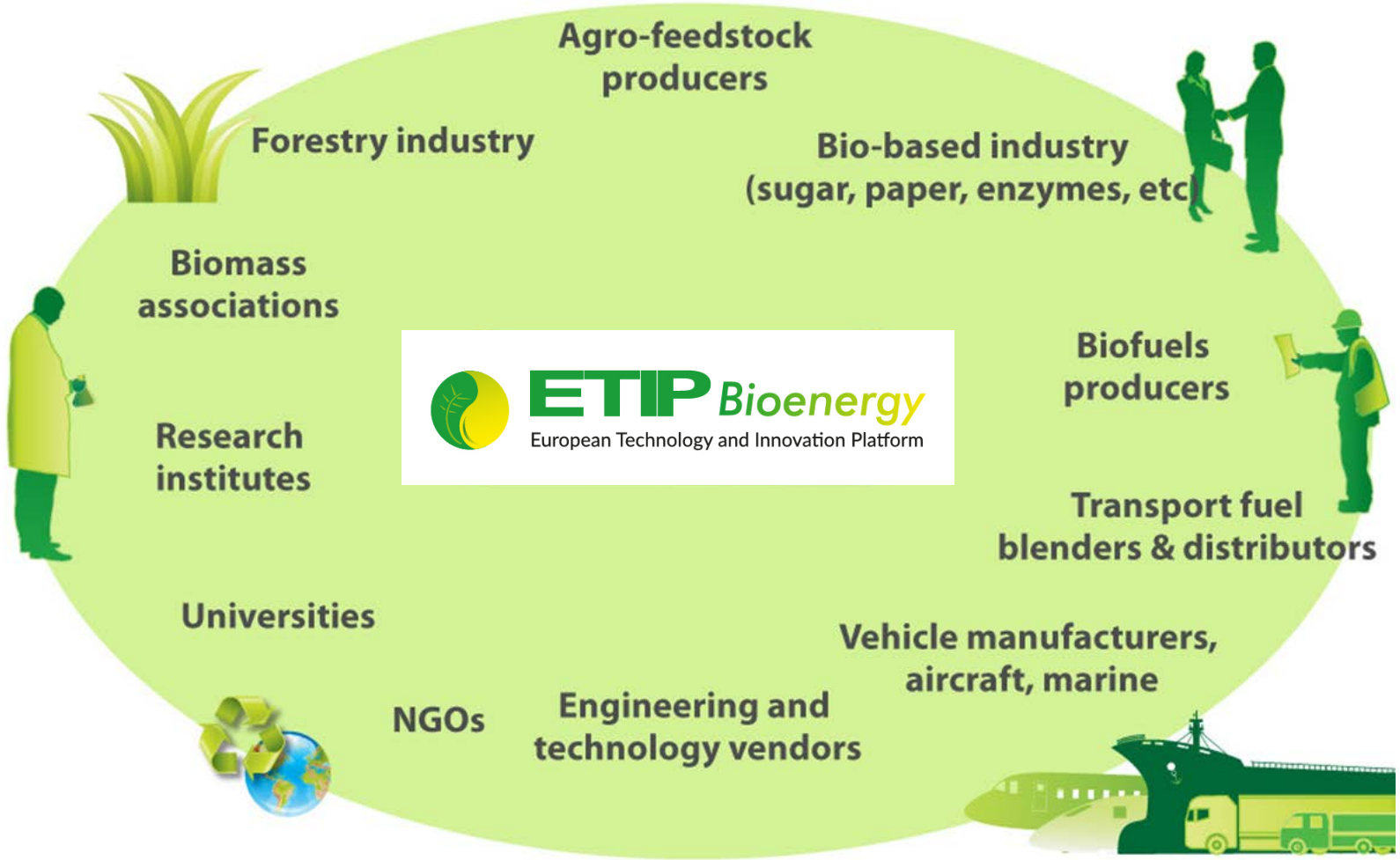
Stakeholders of the ETIP Bioenergy



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The Strategic Research and Innovation Agenda (SRIA)

- Presents the most significant recent evolutions with relevance to the advancement of biofuels and bioenergy technologies and policies
- Highlights the corresponding research, development and demonstration activities and priorities for the next decades necessary to achieve long-term bioenergy policy goals
- Identifies the potential for biofuels and bioenergy technologies to contribute to the decarbonisation of the current energy system and in particular the transport sector
- Brings together knowledge and expertise of a diversity of stakeholders (research und development, industry, NGOs)

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The SRIA recommendations

- Ensure a coherent national implementation of the EU biofuel legislation.
- Continue work on relevant, transparent and science-based data and tools for practical implementation of sustainability requirements in the legislation and market place.
- Support resource efficient supply following a system approach (including legal and financial mechanisms and measures).
- Apply the key priorities for commercial biofuel technologies: to improve environmental (GHG, energy balance, water, inputs…) and economic performance and bring flexibility as integrated biorefinery.

The SRIA recommendations

- Give priority to conversion technologies targeting fuels for heavy duty road, air, and marine transport because of lack of low fossil carbon alternatives and their increasing demand.
- Work to ensure a fair appreciation of CO2 emissions (well-to-wheel approach) such that vehicles running on partly or fully on renewable fuels and electric vehicles are treated using equal criteria.
- Execute the SET-Plan Action 8 Implementation Plan with suggested activities worth more than 100 bn EUR jointly by stakeholders, Member States and EU.

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Environmental impact of European biofuels deployment

- No significant reduction of energy consumption or GHG emissions in the European transport sector for the past 15 years
- Market development in contrast to ambitious climate and energy targets on EU and international level
- Biofuels are the only option reducing GHG emissions in the transport sector immediately- as low level blends and drop in fuels can be used in the whole vehicle fleet
- Biofuels have been a frontrunner for EU wide sustainability requirements since 2009
- Average GHG reduction of biofuels on the German market 2018: 84%!

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REDII - Recognizing the position of biofuels within the Renewable Energy Directive

STRONG R&I STRATEGY FOR ADVANCED BIOFUELS

- The internal combustion engine (ICE) will be part of the energy transition for the next decades and therefore sustainable biofuels as well.
- The future focus should not only consider e-mobility and electricity for the transport sector. Aviation, shipping and heavy duty transport will have to rely on the ICE.
- To reach the deployment of advanced biofuels and other renewable fuels, an integrated approach of strong policy measures, research, innovation and improved financing solutions is necessary.

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REDII - Recognizing the position of biofuels within the Renewable Energy Directive

- REDII targets are welcome, but higher ambition needed to fully meet the 2 degree target.
- Renewable fuels and biofuels are key to help reducing the carbon footprint of transport.
- An EU-wide determination and harmonised approach is needed.
- A robust sustainability framework is mandatory.
- R&D efforts are needed to properly assess the sustainability of biofuels (which includes the low-ILUC concept development).
- Concerning sector coupling, well-to-wheel (WTW) approaches should be considered when assessing GHG emission reduction, e.g. REDII for renewable fuels linked to CO2 fuel regulations for vehicles.

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Social impacts of biofuel deployment

- Marginal and abandoned land and rural depopulation are major issues in several EU countries.
- Sustainable biomass supply for advanced biofuels can offer a win-win opportunity to maintain European farming capacities and jobs.
- Several options to increase local productivity without harming food production or biodiversity.
- Decentral approaches provide opportunity for value added in rural regions.
- Sustainable Biomass Regions Concept encompasses the full value chain.

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Strategic Energy Technology Plan (SET Plan)

Objective: Accelerating the decarbonisation of the energy system and the transport sector by making technologies cost-effective and better-performing.

- Cooperation among EU countries, companies, research institutions, and the EU itself, based on common priorities, targets and actions;
- 10 Priority Actions;
- Action 8: Renewable Fuels and Bioenergy;
- Action Implementation Working Group started in June 2019;
- Leading role of ETIP Bioenergy stakeholders.

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SET Plan – Action 8 (Renewable Fuels and Bioenergy)

- Total required investment volume for R&I activities (development, demo and scale up) 107 bn EUR (to be provided by industry, Member States, European Commission);
- Different value chains addressed:
    1. Advanced liquid and gaseous biofuels
    2. Other renewable liquid and gaseous fuels
    3. Renewable hydrogen
    4. High efficiency large scale biomass CHP
    5. Solid, liquid, and gaseous intermediate bioenergy carriers;
- Highest investments for scaling up advanced biofuels (70 bn EUR).

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Energy Financing Programmes in the EU

Significant need to support and push the development of bioenergy and renewable fuels industry in the EU.

Financing programmes:

- Innovation Fund
- Horizon 2020
- Horizon Europe (from 2021)
- Investment Plan for Europe
- European Structural & Investment Funds
- Digital Europe Programme
- EU Finance for Innovators

Summary

- European biofuel deployment critical for reaching EU and international climate and energy targets
- Mismatch between needs, political framework and R&I activities
- Key issues to optimise environmental impact and social benefit:
  - Stable and supportive framework for all applications
  - Broaden and mobilise sustainable biomass feedstock supply (→ 3 dimensions of sustainability: environmental, social, economic)
  - Flexible, efficient conversion technologies and biofuel qualities according to market needs
- ETIP Bioenergy prepared to contribute!

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Stakeholder Plenary Meeting

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Project Partners

FNR Fachagentur Nachwachsende Rohstoffe e.V.

BEST Bioenergy and Sustainable Technologies

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