European biofuel ambitions and technology needs - European Biofuels Technology Platform highlights promising routes and discusses challenges to overcome to demonstrate innovative sustainable biofuel value chains

The Renewable Energies Directive and the updated Fuel Quality Directive recently adopted by Council and the European Parliament are setting the framework conditions and resulting challenges to be overcome by economic actors of current and future biofuel value chains. At its 2nd Stakeholder Plenary Meeting held in Brussels on 22 January 2009, the European Biofuels Technology Platform (EBTP) brought together 200 actors from across Europe to discuss promising innovative routes that could bring significant contributions towards achieving the 2020 EU objectives for biofuels. Particular focus was given to the challenges involved in moving from pilot to demonstration, en route to full commercial deployment.

“The European Industrial Initiatives (EIs) are a central instrument within the Strategic Energy Technology Plan (SET-Plan) for accelerating innovation and technology deployment,” said Raffaele Liberali, Director for Energy Research at the European Commission. While acknowledging the specific challenges faced by bioenergy stakeholders (sectoral fragmentation and competition to access feedstocks already or potentially used by other market sectors), he stressed the necessity to come up quickly with a proposal for objectives, activities and commitment from industry, so that the budgetary discussion with Member States can start as soon as possible.

An update on the key issues related to the availability of sustainable biomass feedstocks for biofuels was presented by Calliope Panoutsou (Imperial College). Three new databases on ongoing R&D activities in Europe, on biofuels pilots and demonstration units in Europe, and on the ongoing debates on biofuels (sustainability, food versus fuels, etc), were presented by Birger Kerckow (FNR), from the EBTP secretariat.

Markku Karlsson (UPM), presented the EBTP approach to identify and analyse innovative and sustainable biofuel and bioenergy value chains, in addition to existing bioenergy and biofuel pathways.

Nine case study presentations of ongoing biofuel pilot and demonstration projects, focusing on agricultural and forestry feedstocks, residues and biowastes as well as biochemical and thermochemical conversion routes to be applied on different scales, showed the challenges to be met and ways to overcome them. It became clear that the diversity of European framework conditions will also require a number of technologies to be upscaled. The final presentation of this session provided a very useful comparison with pilot and demonstration activities in the USA.

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Financing demonstrations – another key issue – was addressed both from a Member State and a private equity perspective. Thomas Kaberger (Swedish Energy Agency), clearly explained that the least costly way for the public sector to contribute to the financing of the expensive and risky industrial demonstrations of innovative biofuel value chains was to reduce the risk of regulatory changes that could adversely impact them. Harry Boyle (New Energy Finance) presented data on the private equity financing of next generation biofuels, pointing out a clear imbalance between the different sides of the Atlantic, to the benefit of North American actors.

A European Industrial Initiative on Bio-Energy (EII-B) could play an important role to boost the industrial deployment of the most risky and expensive innovative biofuel and bioenergy technologies. The EBTP is committed to contribute to the shaping of this initiative, and is actively preparing a proposal to be presented in the spring of 2009, said Véronique Hervouet (Total), Chair of the Steering Committee of the EBTP.

The proceedings of the 2nd Stakeholder Plenary Meeting can be found at www.biofuelstp.eu