



**BIO<sub>4</sub>  
FUELS**

# Fuels of the Future

## **OPEN WORKSHOP**

Ideal for: Industry Stakeholders · Biofuels R&D Innovators  
Strategic Energy Services · NGOs · Commercial Energy Consumers

### Energy System Integration of Bio-Based Fuels

- ✓ Energy products of the future - 2050
- ✓ Research and innovation needs
- ✓ Integration of fuel production into a European Energy System

**Thursday 13th September 2018, 9am-4pm**

Location: [Radisson Blu Royal Garden Hotel, Trondheim](#)

Register at [www.ambition-research.eu/workshops](http://www.ambition-research.eu/workshops)

# Workshop Programme

**9:00 Welcome / Introduction**

**Duncan Akporiaye - SINTEF, Leader of FME Bio4Fuels**

**9:10 Links between Ambition and Bio4Fuels**

**Bernd Wittgens - SINTEF, Ambition & Bio4Fuels**

**9:20 Future Ambitions for Liquid Transportation Fuels**

**Judit Sandquist - SINTEF, Bio4Fuels**

**9:40 Technical and Economical Evaluation of Biomass-to-Liquid, Power-to- Liquid and (Power & Biomass)-to-Liquid**

**Moritz Raab - German Aero Space Center**

**10:10 Hydrogen as Part of the Future (Transportation) Energy System**

**Torsten Buddenberg - Mitsubishi Hitachi Power Systems**

**10:40 Coffee Break**

**11:00 Discussion Part 1**

**12:00 Lunch**

**13:00 Gasification Beyond State of the art**

**Jaap Kiel - ECN part of TNO**

**13:20 Catalytic Processes Towards Oxygenated Compounds for Decarbonization of Transport and Chemical Industry**

**Armin Günther - Air Liquide, Global Engineering and Construction**

**13:40 Biochemical Conversion Oxygenated Compounds Beyond State of the Art**

**Speaker from industry to be confirmed**

**14:00 A New Approach to Process Design**

**Heinz Preisig - NTNU**

**14:20 Discussions Part 2**

**15:30 Summary of Discussions**

**16:00 Workshop Close**

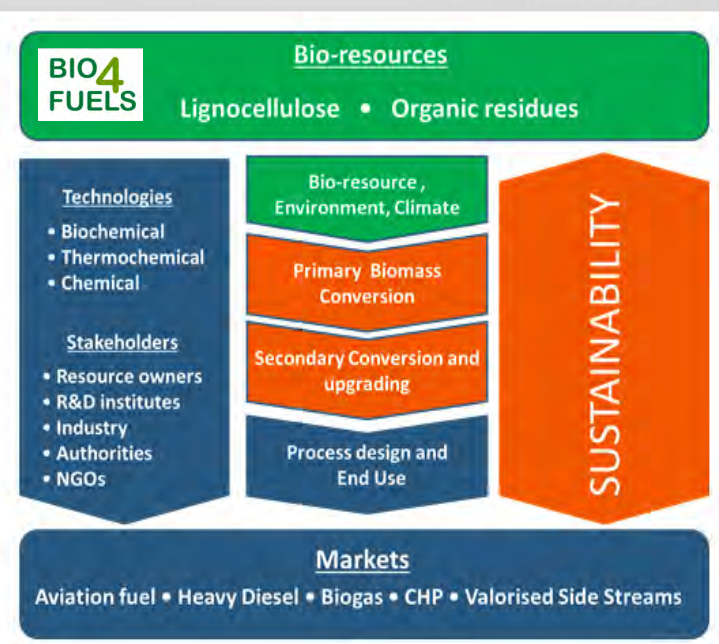
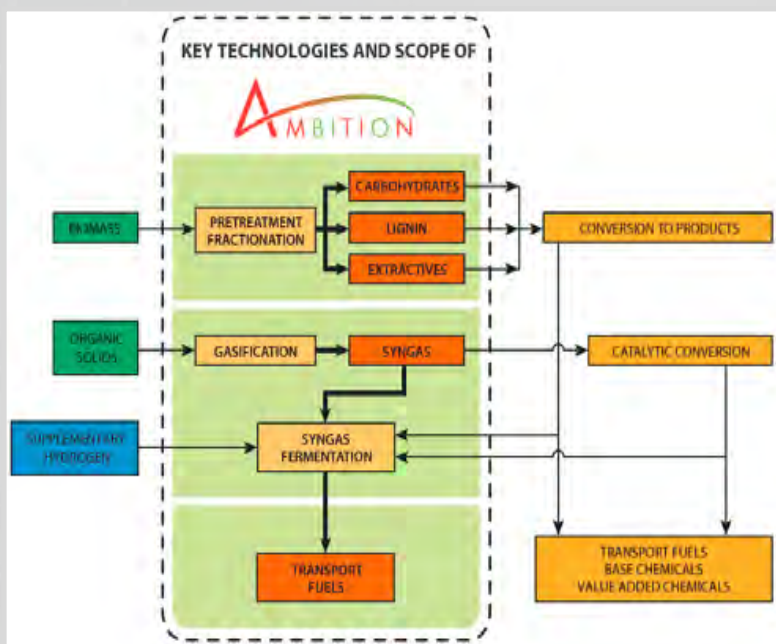


This free one day workshop is delivered by the complementary projects [AMBITION](#) and [Bio4Fuels](#). There is a growing demand for solutions that provide integration and flexibility in the European energy system. This workshop is an opportunity to discuss and influence those solutions.

The AMBITION project creates a bridge between two forms of energy carrier - grid electricity and biofuels. Integration creates flexibility between intermittent electricity and sustainable fuel production. This optimises the valorisation of peak renewable electricity and enables production of sustainable biofuel in economically competitive conditions.

Bio4Fuels develops innovative technology and supports industry to realise economic and sustainable conversion of biomass to transport fuels, along with value added chemicals, heat and power. Research aims include increasing overall efficiency and yields in pursuit of environmentally and economically sustainable and feasible fuel production.

This workshop includes expert speakers from industry and leading research institutes, as well as open discussion sessions. Energy and biofuels stakeholders are invited to network and exchange views, ideas and knowledge in pursuit of a sustainable future for bio-based fuels.



## Location Information

Venue: [Radisson Blu Royal Garden Hotel, Kjøpmannsgata 73, N-7010 Trondheim, Norway](#)

Additional accommodation: [Thon Hotels, Trondheim](#)

Flights: Via Oslo (SAS Norwegian), Amsterdam (KLM), Copenhagen (SAS), Stockholm (Baltic)

Transfers: Bus [www.flybussen.no](http://www.flybussen.no) and [www.vaernesekspressen.no](http://www.vaernesekspressen.no), or Taxi [TrønderTaxi](#)

Organising Committee: Bernd Wittgens (SINTEF); Francisco Giro (LNEG); Jaap Kiel (TNO/ECN) and Nicolaus Dahmen (KIT), Heinz Presig (NTNU) and Klaus J Jens (TUC)

**For more information, contact:**

**Bernd Wittgens at [bernd.wittgens@sintef.no](mailto:bernd.wittgens@sintef.no)**



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