

# International Congress and Expo on **Biofuels & Bioenergy**

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## First and second generation fuels: How to assess their potential for sustainable transportation?

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Today many biofuel technologies and concepts are developed and discussed to supply different transport sectors. They differ in feedstock, conversion approach, levels of development, product quality, and availability on the market as well. In parallel there is an intensive debate on relevant sustainability dimensions for the assessment of biofuels in general (i.e. GBEP, RED etc.) and it is well known, that the frame condition from support schemes, the specific demand from different transport sectors (road, ship, aviation) and the development of feedstock markets will influence the future feasibility substantially. With regard to those expectations the assessment of the potential for current and future biofuel provision concepts has to consider different possible futures, which will be figured in a scenario approach. Based on this comparison of different biofuel concepts can be performed by (i) the assessment of their technical performance, (ii) optimization potential for greenhouse gas emission reduction and (iii) simulation of market potentials considering different prices for feedstock, energy and carbon certificates. Finally, we will provide the most relevant driver for market implementation of the different biofuels for both, the short term perspective till 2020 and for the longer term.

### Biography

Daniela Thrän is Head of the Department "Bioenergy Systems" at the German Biomass Research Center (DBFZ) and Head of the Department "Bioenergy" at the Helmholtz Centre for Environmental Research (UFZ). She is a graduate Diplom-Engineer for environmental technologies from the Technical University of Berlin and did her PhD at the University of Weimar. Her doctoral-thesis dealt with "Material Flow Account in rural areas". Since 2011 she holds the professorial chair bioenergy systems at the Institute for Infrastructure and Resources Management, University of Leipzig. Further she is responsible for the coordination and management of national and international research projects for governmental, industrial and nongovernmental organizations in her leadership role as head of the department bioenergy systems at DBFZ and the department bioenergy at UFZ. Her work focuses on resource analysis on biomass, standardisation of solid biofuels, assessment of biomass technologies and trade, sustainability aspects and system integration of biomass and bioenergy, and development of market implementation strategies and support schemes for bioenergy. Furthermore she is member of working groups at ISO, CEN, VDI, DIN and European technology platform for biofuels. She has a long term work experience with over 100 publications in the biomass field.

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