

FUELS OF THE FUTURE



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NAVIGATOR
FOR SUSTAINABLE
MOBILITY!

Call for Papers

Fuels of the Future 2024
21st International Conference on Renewable Mobility
22nd – 23rd January 2024 in Berlin

Submit now: www.fuels-of-the-future.com/cfp



Deadline
9. June 2023

Organizers

BBE | BUNDESVERBAND
Bioenergie e.V.

ufop

BDB^e
Bundesverband der deutschen
Bioethanolwirtschaft e. V.

Fachverband
BIOGAS

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21ST INTERNATIONAL CONFERENCE ON RENEWABLE MOBILITY

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THE CONFERENCE

Since 2002, the „Fuels of the Future“ conference has provided the international biofuel industry, key players from the fields of “Renewable Fuels” and “Renewable Mobility”, science and research, as well as other stakeholders with a platform to address the current EU and international legal framework and its transposition into national legislation. In this context, national and international climate protection obligations increasingly determine the thrust of funding policy and practical constraints. These have consequences for the future of biofuels and other renewable fuels that already been introduced onto the market or for which process engineering is being developed. At the same time, engine drives, including exhaust aftertreatment, need to use renewable fuels to comply with the relevant emission requirements. That means that the fuel tank opens up access to drives, which at the same time makes it the fuel quality „interface“, as fuel composition will grow more diverse in future. It is crucial to adopt a forward-looking approach in addressing fuel-chemical interactions to ensure user satisfaction and scope for potential applications. This is a nexus of complex challenges for the business sectors involved and especially for research and development.

The topics (see attachment) on the second day of the conference will engage with these challenges. As in previous years, the organizers aim to offer participants a wide-ranging, up-to-date spectrum of topics, which also provide opportunities for intensive technical discussions during and after each forum. The conference's strength lies in integrating all relevant market players in renewable mobility, including the automotive industry, the petroleum and chemicals industry, transport and logistics sector, in road, heavy transport, shipping and air transport and certification companies as well as representatives from science and politics, with a view to concentrating debate on current and future needs and challenges related to use of renewable fuels. The conference and its topics it tackles flesh out the concepts of „sectoral interlinkage“ and „system integration“ in practice. Thanks to this distinctive profile, the organizers again expect over **600 international participants** in January 2024. The full breadth of renewable mobility and drive development issues will remain the thematic focus. Germany and the European Union have set ambitious climate protection targets, particularly for transport, that are to be progressively fulfilled by 2030 in order to achieve virtually complete defossilisation of the transport sector. The sometimes emotional topic of the future that awaits the internal combustion engines is also at stake in this context. How should this „evolutionary process“ be structured to take account, on the one hand, of the exigencies of climate protection and, on the other hand, the economic factor of mobility, particularly in light of its significance for German and European renewable fuels production sites and the automotive industry? Against this backdrop, the future of engine technology, exhaust aftertreatment and drives in general must also be considered in the context of renewable energy supplies. Which structural challenges arise on the one hand for the automotive industry and on the other hand for the mineral oil industry as a traditional energy supplier? Will product ranges be expanded by adding new business and funding models for synthetic fuels from renewable electricity? Is the energy revolution in transport simultaneously an opportunity for new value-creation potential, helping to safeguard jobs, both within and beyond Germany and the European Union?

ORGANIZERS

BBE – Bundesverband Bioenergie e. V.

UFOP – Union zur Förderung von Oel- und Proteinpflanzen e. V.

BDB^e – Bundesverband der deutschen Bioethanolwirtschaft e. V.

FvB – Fachverband Biogas e. V.

VDB – Verband der deutschen Biokraftstoffindustrie e. V.



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CALL FOR PAPERS

In the light of this conference profile, the organizers cordially invite you to contribute to the programme by submitting lecture proposals. Is there a topic you would like to present and discuss? Are you involved in a project with results that would be of interest to conference participants?

If you would like to give a presentation in one of the numerous topics, please send your **proposal** with the attached reply form and a brief synopsis to the German Bioenergy Association (BBE) **by 09 June 2023** at the latest. The Conference Programme Advisory Board will decide which proposed presentations to include in the programme.

Submit now: www.kraftstoffe-der-zukunft.com/en/cfp



EXHIBITION AND PARTICIPATION OFFER FOR PARTNERS “MARKETPLACE OF THE FUTURE”

In addition, you have the opportunity to present your company or organisation to an international professional audience with an [exhibition stand](#) and to present it through a partnership as silver, gold or diamond partner. You can find more information on [our conference website](#).

TOPICS

Climate protection, the energy transition in transport and the complex transformation process and security of supply associated with it are the major challenges facing society. Despite all efforts, the transport sector in Germany, Europe and worldwide has so far made practically no contribution to climate protection. Both higher power-to-weight ratios of the vehicle fleet and an increase in road-based freight transport have more than compensated for technological efficiency gains and greenhouse gas savings.

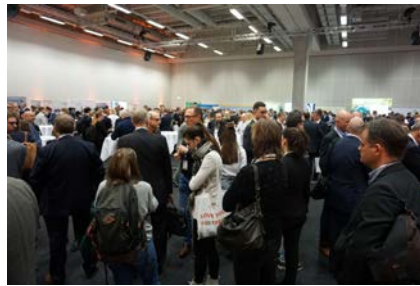
The European Union has taken an important and far-reaching decision by increasing the climate protection target to at least 55 percent less CO₂ emissions by 2030. Achieving the 2030 climate protection target requires a massive reduction in greenhouse gas emissions for the transport sector. In this context, practising technological openness is the means to an end. Since other promising measures such as e-mobility, hydrogen and other electricity-based fuels will only have a noticeable effect on climate protection after 2030, sustainable biofuels will be part of the climate protection policy toolbox in the coming decades. The vehicle fleet with combustion engines must therefore be given more attention.

The conference will identify and discuss tangible measures, technology options and the need for political action to contribute to attaining the sector-specific goals. Below you will find an overview of possible thematic clusters and questions:

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IMPRESSIONS 2023



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BACKGROUND TO THE EXPERT TOPIC ON “POLITICAL FRAMEWORK CONDITIONS”

EU “Fit for 55”, EU Green Deal and Renewable Energy Directive 2030 (RED II and RED III)

- Green Deal and “Fit for 55” and the contribution of renewable fuels for the achievement of the European climate protection targets.
- Effects of the European climate protection legislation on the transport sector
- Role and economic prospects:
 - of biofuels from renewable resources until 2030
 - biofuels in the context of renewable energy and climate protection policies in the transport sector until 2030
 - waste and residues in until 2030-expansion of biofuels
 - Supply policy aspects of biofuels and renewable fuels
- Various process-engineering prospects for production of PtX fuels (e-fuels).
- New infrastructure needed for electromobility in conurbations, on motorways and in rural areas
- Development of innovative drive technologies
- Development and evaluation of innovative process technologies to obtain sustainable biofuels; which feedstocks and processes have a future within this competitive market?
- Sustainable Finance

Greenhouse gas-reduction commitment in the transport sector due to the Paris COP21 decisions – Prospects and implementation options

- Status of practical implementation and prospects in Germany
- Implementation of GHG-reduction commitments in other EU states and worldwide
- Concepts for GHG-reduction strategies in agriculture
- Approaches by signatories to the Paris Agreement on Climate Change for introduction and further development of first-generation and advanced biofuels as a targeted GHG-mitigation measure

EXPERT TOPICS

Topic: The future of biofuels established on the market – biodiesel and bioethanol

Biofuels from cultivated biomass make an indispensable contribution to ensuring sustainable and renewable mobility by continuously reducing greenhouse gas emissions in the transport sector. The future of such fuels depends on political decisions and the extent to which these provide a reliable basis by safeguarding existing developments and securing investments in new processing technologies. One obstacle is uncertainty about the kind of biofuels policy that will be pursued in future; any such policy should also continue to take sufficient account of biofuels established on the market at the EU level by 2030 and beyond. Which regulations of RED II and the new RED III and other European guidelines plus discussion topics from the RED III legislation process will determine developments in technology and markets for biodiesel and bioethanol from cultivated biomass in coming years?

- Changes in EU biofuels policy and prospects to 2030
- Role of cultivated biomass as a basis for biofuel production
- Research and development projects for the further development of biodiesel, bioethanol and vegetable oil fuel.
- Market development for biodiesel, bioethanol and vegetable-oil fuel
- Feedstock potentials in Europa and worldwide
- Technology development and research in the field of biodiesel and bioethanol production
- How would blocking market access for biofuels already introduced into the market affect efforts to achieve as much international harmonization as possible on a sustainable policy for biomass feedstocks and biofuel policy?
- Policies to promote biofuel are implemented in third countries even without the European Union’s influence – how do these countries shape the general parameters informing such promotion policies?

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Topic: Biomethane as a fuel

Although biomethane has begun to be produced successfully as a fuel in practice, biomethane currently still plays a minor role in the transport sector. On the other hand, its high energy yield per hectare and feedstock flexibility mean biomethane can make a significant contribution to sustainable and renewable mobility. Changes in funding pursuant to the German Renewable Energy Sources Act and within the political framework conditions in general mean that in essence a more pronounced focus on this sector is needed to secure future prospects for existing biogas plants. How can general economic and regulatory parameters be improved and how would it be possible to accelerate the currently sluggish pace of infrastructure development?

- Market development of biomethane in the transport sector in Germany, Europe and globally
- Potential in fleet and heavy goods traffic
- Regulatory framework and the biomethane industry's expectations
- Infrastructure, feedstocks, quality requirements, successful real-world examples
- Best-practice examples of biomethane use in the national and international transport sector
- Liquefied biomethane as a new option for the petroleum industry

Topic: New biofuels and conversion pathways

Research into biofuels based on residues and waste is being conducted worldwide, currently addressing unexploited biomass or new chemical processes for biomass production (algae oil). Various technological developments are being pursued: bioethanol from lignocellulose, hydrogenation of vegetable oils and animal fats, biodiesel from algae or thermochemical conversion of biomass to fuels. Politicians, the mineral oil industry and the automotive sector have great expectations of these research results and introduction of these methods on an industrial scale.

- Role of new biofuels the biofuel policy adopted by the German government and in other countries? What are the market incentives? What are the existing and likely future levels of R&D funding?
- Biofuels from waste and residues – which sustainable potentials can be tapped?
- Strategies and concepts for the development of residual and waste materials (used cooking oils, animal fats, etc.)
- Contribution of waste-based biofuels to the decarbonisation of the EU transport sector
- E-fuels/synthetic biofuels: presentation of pilot projects and state-of-play in research
- Green hydrogen, hydrogen from biomass: state of the art, current projects, perspectives
- Fuel cell, electric and hybrid drives
- Power-to-X and power-to-gas – options and prospects for expansionFuel cell, electric and hybrid drives
- Which technologies offer the highest synergy potential to make biofuel production as cost-effective and carbon-neutral as possible?
- Which funding concepts exist in the EU and in other countries?
- Which new demonstration plants or R&D projects are planned?
- What technologies are on the verge of market maturity?



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Topic: Sustainability certification

Complex supply chains for biofuels as well as alternative fuels and their environmental impacts make it essential to demonstrate compliance with sustainability criteria in accordance with statutory requirements (pursuant to RED III, the German Biofuels Sustainability Ordinance, etc.). Certification systems can ensure compliance with the ensuing mandatory sustainability requirements pertaining, for example, to preservation of biodiversity, reduction of GHG emissions, protection of land rights and the socio-economic impacts of biofuel production.

- Auditing biofuel and alternative fuels sustainability
- Implementation status for certification systems in EU Member States
- „Role-model function“ of sustainability certification for biofuels for the bio-economy
- Systemic comparison of certification systems: North and South America, EU, Asia

Topic: New drive and mobility concepts

• Renewable mobility at local authority level

- In which municipalities in Germany, Europe and worldwide are biofuels and alternative fuels successfully used?
- Renewable mobility in municipal vehicle fleets
- Best practice examples in municipalities with a multiplier effect for the use of biofuels and alternative fuels
- Innovative sustainable mobility concepts in municipalities
- Regional and urban mobility concepts and Car-Sharing

• Automotive industry, vehicle technologies and new fields of application in heavy goods transport, inland navigation, maritime shipping and air transport

Biofuels must meet comprehensive sustainability requirements as a prerequisite for market access. Over and above this, increasingly stringent emission requirements also give rise to growing demands on biofuel quality. Possible application spheres encompass private mobility, along with aviation, heavy goods traffic and shipping.

- Importance of biofuels and electromobility from the perspective of the automotive industry and its suppliers
- Drive development
- Electromobility: State of the market development, areas of application, innovations and perspectives
- Fuel mixtures, quality and engine compatibility
- Potential for mobility of the future
- Commercial vehicles and logistics
- Biofuels and alternative fuels in inland waterway and maritime transport
- Biofuels and alternative fuels in air transport
- Biofuels and alternative fuels in heavy goods transport



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Topic: Feedstocks for biofuel production and trade

Biomass availability, origin and potential development are crucial issues. Biomass for biofuel production/ biofuels is traded globally. Market supply and security of supply play a decisive role in this context. Agricultural markets are characterised by structural surpluses. Countries outside the EU are increasing admixture obligations to ease market pressure.

- Optimised cultivation of agricultural feedstocks
- Biofuels and feedstocks in the context of agricultural trade and markets
- Influence of tariffs on international agricultural trade and national biofuel production – displacement effects?
- Cheap imports from Argentina and their influence on local production
- Price development of feedstocks
- Role of biofuel markets in third countries
- Material use concepts and innovative bioeconomy strategies

Topic: Renewable propulsion energy for agriculture and forestry (biofuels, e-mobility, hydrogen, etc.)

Against the backdrop of sectoral greenhouse gas (GHG) reduction targets for agriculture and forestry, renewable drive energies offer a rapid, verifiable contribution to climate protection. The agricultural machinery industry also has every interest in cutting GHG emissions from agricultural and forestry machinery. This creates a „win-win situation“ for agriculture and the agricultural machinery industry. For this to succeed, there must be a widespread increase in the use of renewable drive energies in agriculture and forestry.

- Renewable drive energies use in agriculture and forestry nationally and globally
- Climate protection potential due to renewable drive energies in agriculture and forestry
- Technological developments and research activities
- Market entry and product strategies of the agricultural machinery industry
- Best-practice case studies on renewable drive energies in agriculture and forestry

CONTACT



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