

16th International Conference on Renewable Mobility

FUELS OF THE FUTURE 2019

21. - 22.01.2019 | Berlin

www.fuels-of-the-future.com

Organiser:

Supported by:















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MONDAY, 21/01/2019

REGISTRATION: MAIN ENTRANCE CITYCUBE/MESSEDAMM ENTRANCE

PANEL 1 - ROOM A6

Renewable mobility in the context of climate protection, rentability and acceptance

10:00 - 13:00 HOURS

PANEL 2 - ROOM A6

Panel discussion – The Future of renewable mobility

14:00 – 15:30 HOURS

PANEL 3 - ROOM A6

Biofuels in the context of synthetic fuels

6:15 - 18:30 HOURS

EVENT ROOM ON LEVEL 1 IN THE CITYCUBE - ROOM A6

Bioenergy evening reception at **19:00** on the exhibition grounds

TUESDAY, 22/01/2019

| PAN | EL 4 – PARALLEL FORUMS | | S |
|-----|---|---------|-------------|
| A | Power-to-XROOM | M1-M3 | 11:00 HOURS |
| В | BioethanolROOM | M4-M5 | 00: |
| C | BiodieselROOM | M6-M7 | |
| D | Biomethane | M8 | 99:00 |
| | | | • |
| | | | |
| PAN | EL 5 – PARALLEL FORUMS | | |
| A | New biofuels ROOM | M1-M3 | 13:30 HOURS |
| В | Biofuels for aviation and shipping ROOM | M4-M5 | 0 1 |
| C | | | - 40 |
| | New drive train and mobility concepts ROOM | M6 – M7 | <u>E</u> |
| D | New drive train and mobility concepts ROOM Biomethane international ROOM | | 30 – 13 |

PANEL 6 - PARALLEL FORUMS

| ~ | <u></u> | |
|---|---------------------------------------|-------|
| B | Biofuels from waste and residues ROOM | M4-M5 |

Biofuels in agriculture and forestry ROOM M6-M7

4:30 - 16:30 HOURS

The Paris Climate Agreement stipulates that global warming should be limited to 2.0 degrees Celsius, if possible even to 1.5 degrees Celsius. To achieve this goal, global increases in greenhouse gas emissions must be cut by 60 percent by 2050 compared with 2010. This ambitious goal represents an enormous challenge for the international community. How can the targets be implemented in concrete terms without restricting transport and traffic for global trade and individual mobility?

In 2016, the German Federal Government adopted the 2050 National Climate Protection Plan, making Germany one of the first countries to draw up a long-term climate protection strategy and submit this to the UN, as required by the Paris Agreement. In 2013, the Federal Cabinet had already adopted a mobility and fuel strategy (MFS), presented by the Federal Ministry of Transport and Digital Infrastructure. This MFS sent out important policy signals, as it describes the drive and fuel options available to the transport sector – road, air, ship, rail – and the expected requirements in terms of energy infrastructure up to 2050 to bring about an energy turnaround in transport.

The future orientation of European climate and energy policy is also crucially important. In June 2018, the European Commission, the European Parliament and the EU Council of Ministers, thus also including the German Federal Government, agreed on a new version of the Renewable Energy Directive (RED II), which is to apply from 2021 to 2030. The directive envisages an increase in the minimum share of renewable energies in transport from 10 percent to 14 percent in 2030. Alternative fuels, such as biofuels from cultivated biomass, waste and residual materials as well as lignocellulose, will continue to contribute to reducing greenhouse gases in transport in the future, along with electromobility. Germany is already avoiding around 7.3 million tonnes CO₂-equivalent annually by using certified sustainable biofuels.

Maintaining the obligation to reduce greenhouse gas emissions from all fuels, which was introduced in 2015 in Germany, is crucial, as is further expansion of renewable energies in transport. The greenhouse-gas-reduction quota for fuels should therefore be gradually increased to at least 16 percent from 2019 to 2030 in order to achieve the agreed European minimum of 14 percent renewable energies in transport.

Increasing diversification of drive technologies, along with production and use of renewable fuels, pose challenges for future mobility, but also offer the key to achieving climate protection goals in the transport sector. There is therefore a greater focus in this year's conference programme on questions relating to drive technologies and various fuel

The International Conference for Renewable Mobility - Fuels of the Future 2019 is one of the most important forums for European actors to discuss current political positions in the fields of climate protection, energy and transport. All international contributions based on research, technological developments and innovation are welcome in these debates.

Yours sincerely

options.

Artur Auernhammer, MP Chairman of the Board, German Bioenergy Association

Panel 1:

Renewable mobility in the context of climate protection, rentability and acceptance

ROOM A6

Chair: Elmar Baumann, CEO, VDB, German Association for Biofuels

10:00

Biofuels for climate protection and renewable mobility Artur Auernhammer, MP, Chairman German Bioenergy Association (BBE)

10:20

Biofuels within the Federal Government's mobility and fuel strategy

tbc, Federal Ministry for Transport and Digital Infrastructure

10:40

Scientific supervision of the funding initiative "Energy transition in the transport sector - sector coupling through the use of electricity-based fuels"

Prof. Dr.-Ing. Manfred Aigner, German Aerospace Center (DLR)

11:00

Future of a renewable mobility in the context of new biofuels and drive train technology

tbc, European Parliament

11:20

Renewables and biofuels as option to CO_2 emissions reduction in road transport

Wolfgang Langhoff, Chairman of the Board, BP Europe SE

11:40

From E-fuel to E-Car – Innovative drive train strategies
Bernhard Mattes, President, German Association of the
Automotive Industry (VDA)

12:00 Discussion 13:00 Lunch break

Panel 2:

Panel discussion – The Future of renewable mobility

ROOM A6

14:00 - 15:30

Renewable mobility and prospects in the run-up to 2030

Chair: Sonja van Renssen, energy post

- Pekka Pesonen
 Secretary-General, COPA/COGECA
- Dr. Ruprecht Brandis
 Director External AFfairs, BP Europe SE
- · Dr. Klaus Bonhoff CEO, NOW GmbH
- Jenny Walther-Thoss
 Policy Officer, WWF Germany
- Stefan Schreiber
 Chairman Association of the German Biofuel Industry (VDB)

15:30

Panel 3:

Biofuels in the context of synthesized fuels – will fuel defossilation be shifted into the future?

ROOM A6

Chair: Dieter Bockey, Union for the Promotion of Oil and Protein Plants (UFOP)

16:15

Importance of biofuels from biomass within the Renewable Energy Directive (RED II) as a contribution to fighting climate change in transport

Dr. Franziska Müller-Langer, German Research Center for Biomass (DBFZ)

16:35

Climate protection in transport – A call for action to reach the target from the perspective of the German and the European petroleum industry – "Vision 2050" Prof. Dr. Christian Küchen, Mineralölwirtschaftsverband e.V. (MWV)

16:55

Dena's lead study for an integrated energy transition – Framework conditions and recommendations for the energy transition in transport

Andreas Kuhlmann, German Energy Agency (dena)

17:15

Synthetic biofuels – how can they support climate protection? Joß Bracker, Peter Kasten, Institute for Applied Ecology

17:35 Discussion

18:30 End of the first conference day

19:00 Bioenergy evening reception

at the exhibition grounds (free admission for all conference participants)

Panel 4: Parallel forum A Power-to-X



ROOM M1-M3

Chair: Dr. Franziska Müller-Langer, German Biomass Research Centre (DBFZ)

09:00

Compact Power-to-Liquid technology: Insights into current projects

Dr.-Ing. Tim Böltken, INERATEC GmbH

09:20

Electrolysis as a key element in PtX pathways: Scenarios for a massive scale-up Patrick Schmidt, LBST - Ludwig-Bölkow-Systemtechnik GmbH

09:40

Industrial PT-methanol – The success story of VulcanolTM Ómar Freyr Sigurbjörnsson, Carbon Recycling International Iceland

10:00

E-Fuel on the way to commercial production Gunar Holen, Nordic Blue Crude AS

10:20

Power-To-X: Challenges and Opportunities at the Interface of Energy and Chemistry

Prof. Dr. Walter Leitner, Max Planck Institute for Chemical Energy Conversion

10:40

Discussion

11:00

Panel 4: Parallel forum B Bioethanol



ROOM M4-M5

Chair: Carola Wunderlich, German Bioethanol Industry Association BDB^e

09:00

High Octane fuels: What E20 will bring to society and the climate

Zoltán Szabó, Ethanol Europe Renewables Ltd.

09:20

Cellulosic ethanol – Providing technologies for 2G ethanol plants

Rahul Dagwar, Praj Industries India

09:40

New enzymes for bioethanol production — New Biotechnologies to enhance conversion of biomass into Sugar Dr. Alex Brogan, Imperial College London

10:00

Decarbonization in the steel production – Turning carbon monoxide into bioethanol
Freya Burton, LanzaTech

10:20

Discussion

11:00

Panel 4: Parallel forum C Biodiesel



ROOM **M6 - M7**

Chair: Prof. Dr. Jürgen Krahl, President University Ostwestfalen-Lippe, Chair of the Technical Advisory Committee of UFOP "Biofuels & Renewable Resources"

09:00

Biodiesel as part of the solution for mixed fuels in future Prof. Dr. Thomas Garbe, Volkswagen AG

09:20

The influence of biofuels on emissions – RDE as a useful tool for fuel design

Martin Kortschak, Technology Transfer Center for Automotive Technology (TAC)

09:40

Biodiesel aging — Oxidizing mechanisms, engine usability and countermeasures

Prof. Dr. Lukas Möltner, MCI Management Center Innsbruck

10:00

Research on aging patterns of various gasoline and diesel fuels for plug-in hybrid vehicles
Anja Singer, Technology Transfer Center for Automotive

Technology (TAC)

10:20

Discussion

11:00

Panel 4: Parallel forum D



Biomethane in the German transport sector

ROOM M8

Chair: Dr. Claudius da Costa Gomez, German Biogas Association

09.00

Biomethane as a fuel – New market potential and incentives from RED II

Horst Seide, German Biogas Association

09:20

Regional resources for regional fuel – Possibilities for providing and using biomethane as a future option for existing biogas installations in Thuringia

Frank Scholwin, Institute of Biogas, Waste Management & Energy

09:40

Fuel production as a future perspective for biogas installations – Analyzing the potential of and case study on the local production of bio LNG

Michael Kralemann, 3N Competence Center for Renewable Resources

10:00

Climate-neutral waste management through biomethane Lars Nehrling, Remondis SE & Co. KG

10:20

Climate friendly mobility with biomethane – Projects and initiatives from North Rhine-Westphalia
Alexander Holle, EnergyAgency.NRW

10:40

11:00

Discussion

Panel 5: Parallel forum A New biofuels



ROOM M1-M3

Chair: Prof. Dr. Thomas Willner, Hamburg University of Applied Sciences

11:30

Strategies to overcome the main barriers to the successful market roll-out of advanced fuels — Approaches of the "AdvanceFuel"-Project

Kirstin Sternberg, Fachagentur Nachwachsende Rohstoffe e.V. (FNR)

11:50

The opportunities of advanced biofuels – The urgent need to scale up for decarbonization in transport Marko Janhunen, UPM Biofuels

12:10

Advanced bio-based and recycled carbon fuels – Will there be a demand, and can it be exhausted? Sabine Ziem-Milojevic, E4Tech

12:30

Which impact do advanced fuels have on applications? Fit for purpose testing can deliver the answer Dr. Klaus Lucka, TEC4FUELS GmbH

12:50

Advanced and bio fuels – Contributing to the energy transition by decarbonizing industry and the transport business: an industrial perspective and our own developments Dr. Armin Günther, Air Liquide Global E&C Solutions Germany GmbH

13:10 Discussion 13:30

Panel 5: Parallel forum BBiofuels for aviation and shipping



ROOM M4 - M5

Chair: Lars Schulze-Beusingsen, Energy Agency North Rhine-Westphalia

11:30

Biofuels for aviation – Essential to reduce carbon emissions from commercial aviation?

Jeffrey Skeer, International Renewable Energy Agency (IRENA)

11:50

Options for electrofuels (e-fuels) production in Germany for sustainable air traffic in the future Dr.-Ing. Ralph-Uwe Dietrich, German Aerospace Center (DLR)

12:10

MY Renewable Jet Fuel – Options for the reduction of greenhouse gas emissions in aviation Henrik Erämetsä, Neste

12:30

Biofuels for the marine shipping sector – Fuel technologies, infrastructure and regulations

Prof. Claus Felby, University of Copenhagen

12:50

Roadmap Sustainable Biofuel for Shipping Loes Knotter, Dutch Platform Sustainable Biofuels

13:10

Discussion

13:30

Panel 5: Parallel forum C New drive train and mobility concepts



ROOM **M6 - M7**

Chair: Johannes Daum, NOW GmbH

11:30

Following the expansion of the charging installations for e-vehicles to reach a comprehensive and needs-based infrastructure in a model approach Waldemar Brost, ISB RWTH Aachen

11:50

Enablers and barriers of integrated urban mobility concepts
Paul Fenton, City of Stockholm

12:10

New drive-trains in the local public transport: The fuel cell hybrid bus fleet of the RVK
Jens Conrad, Regionalverkehr Köln GmbH (RVK)

12:30

Biorefining at the center of the long-term energy and transportation matrix

Carlos Ocampo, Novozymes A/S

12:50

Fuel mix in the heavy load Matthias Spöttle, Ecofys — A Navigant Company

13:10

Discussion

13:30

Panel 5: Parallel forum D



Biomethane in the transport industry – An international perspective

ROOM M8

Chair: Alexey Mozgovoy, German Biogas Association

11:30

Biomethane in the European transportation sector: Regulations and prospects Andrea Gerini, Natural & bio Gas Vehicle Association (NGVA Europe)

11:50

Biomethane in the fuel industry – Hands-on experience and market outlook in light of RED II Zoltan Elek, Landwärme GmbH

12:10

Green logistics as a driver for BioCNG deployment John Baldwin, CNG Fuels

12:30

Producing biomethane – Scandinavian experience Mattias Svensson, Sheepbrook Consulting

12:50

LBG from industrial biowaste: Plant implementation and fuel utilization

Jörgen Ejlertsson, Scandinavian Biogas

13:10

Discussion

13:30

Panel 6: Parallel forum A Biofuel trading



ROOM M1-M3

Chair: Frank Brühning, German Biofuel Industry Association (VDB)

14:30

EU anti-dumping duties on US ethanol since 2013 – effects of the regulation for european producers and outlook Andreas Guth, ePURE

14:50

European biodiesel: The ups and downs of supply and demand – The European biodiesel market fits to the non EU supply and to the rising domestic mandates John Houghton-Brown, Argus Media

15:10

What drives prices and consumption of biofuels in Europe? Tim Worledge, EnergyCensus Price Reporting Agency

15:30

Global sugar, grain and oilseed trading operation and the consequences for the bioethanol and biodiesel production – Outlook 2019

Claus Keller, F.O. Licht Commodity Analysis

15:50

Discussion

16:30

End of conference

Panel 6: Parallel forum B Biofuels from waste and residues



ROOM M4-M5

Chair: Detlef Evers, MVaK, Mittelstandsverband abfall-basierter Kraftstoffe e.V.

14:30

The Renewable Energy Directive (RED II) – A new perspective for biofuels from waste and residues
Fabien Hillairet, Greenea, France

14:50

Every drop counts – Collecting and utilizing old cooking oil from German households

Hubert Zenk, Altfettentsorgung und -recycling Lesch GmbH & Co. KG

15:10

How UCOME and TME became a big part of the US energy mix Bruce Ross, National Renderers Association, USA

15:30

China and India – Potentials, Problems and Perspectives Michael Fiedler-Panajotopoulos, EWABA / REG

15:50

Discussion

16:30

End of conference

Panel 6: Parallel forum C Biofuels in agriculture and forestry



ROOM **M6 - M7**

Chair: Prof. Dr. Peter Pickel, John Deere LLC

14:30

Greenhouse gas emissions and the energy balance of rapeseed-based fuel: How it is influenced by the balancing method and the data basis in the context of the amended Renewable Energy Directive

Dr-Ing. Daniela Dressler, Dr. Edgar Remmele, Technology and Support Centre (TFZ)

14:50

Operating a forestry harvester with rapeseed-based fuel – Experience and emission behaviour in real-life operations Sebastian Mautner, Dr.-lng. Peter Emberger: Dr. Edgar Remmele, Technology and Support Centre (TFZ)

15:10

Sustainable power on the field – Experience and rentability assessment of tractors retrofitted for vegetable oil Jürgen Pfänder, Nominated Energy farmer of the year 2017

15:30

Sustainable power on the field – First experience and rentability assessment of a biomethane tractor and a on-farm biomethane station on the farm

Winfried Vees, Energy farmer of the year 2016

15:50

Discussion

16:30

End of conference

Venue location

CityCube Berlin Messedamm 22 14055 Berlin

Tel.: +49(0)30 3038-0 Fax: +49(0)30 3038-2325





Luggage storage facilities are available free of charge at the on-site cloakroom.

How to get to CityCube Berlin:

From Berlin Main Rail Station, Zoologischer Garten or Charlottenburg

Take S-Bahn 5 – heading towards Spandau

– to the Messe Süd stop

Take S-Bahn 7 — heading towards Potsdam rail station

- to the Westkreuz stop

Take S-Bahn 75 – heading towards Westkreuz

- to the Westkreuz stop

From Berlin Spandau Rail station. .Take S-Bahn 5 to the Messe Süd stop

From Berlin Tegel Airport.......Take Bus X9 or Bus 109 – heading towards Zoologischer Garten – to the S-Jungfernheide stop. Change to S-Bahn 42 – heading towards Westend – and descend at the Messe Nord/ICC stop

From Berlin Schönefeld Airport . . . Take a RB (regional) train – heading towards Nauen – or RE (regional express) train – heading towards Dessau – to the Charlottenburg railway station stop (then continue by S-Bahn to the Westkreuz stop)

Accompanying exhibition

The congress offers companies and associations that already successfully involved in the renewable mobility sector or plan to enter this market an opportunity to present their activities to a specialist audience by organising an information booth at the event. This long-standing and well-established trade congress plays a pioneering role in European developments in this sector. Exhibitors may advertise their products and services in the foyer, giving them a chance to contact their target group in this "market place". Gold and silver partners may also showcase their company logo, along with a reference to their role as congress partner, in the event folder and various other congress media (website, sponsor board, break screen etc.). For further details, please contact the congress office by telephone +49(0)228 81002-22 or send an email to hartmann@bioenergie.de.

Hotel recommendations

We have reserved a limited number of rooms in hotels of various categories for this event. Please indicate "Fuels of the Future" when making your booking.

Lindner Hotel Am Ku'damm Kurfürstendamm 24 10719 Berlin

Tel.: +49(0)30 8182 51 12 5 www.lindner.de Single room (business) € 105,00 Double room (business) € 125,00 (Breakfast included)

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Available until 20.12.2018

Organisation

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Participation fee

Participation fees for the Trade Congress "Fuels of the Future 2019" including beverages during breaks, lunch buffet, evening event and presentations on a USB stick:

€ 690.00 early booker rate until 30.11.2018 € 890.00 standard rate from 01.12.2018 € 490.00 for BBE, UFOP, VDB, BDB° and Fachverband Biogas members

€ 190.00 for students (with valid identification)
Free Press (with valid press identification)

All prices plus statutory value-added tax.

Registration

Please register using the enclosed coupon or online at:

www.fuels-of-the-future.com

An invoice will be sent to you as binding confirmation of your participation. Please transfer the invoice amount after receiving the invoice specifying the invoice number. Transfer of this sum automatically registers you to attend the congress.

Cancellation

 $A \in 50.00$ processing fee will be charged for cancellations before 16.01.2019 (cancellations may only be made in writing). The full participation fee becomes due for cancellations after 17.01.2019. In case of cancellation, please indicate your full name, address and invoice number; alternatively, you can appoint a substitute participant for no extra charge.

Note

German-English simultaneous interpretation is provided at the congress. The presentations will be available for congress participants to download in English or German after the event (from 28.01.2019) at www.fuels-of-the-future.com. The organiser reserves the right to make programme changes for urgent reasons.

Overview of topics:

Framework conditions for renewable mobility of the future

The role of biofuels in climate protection and development of renewable mobility. What prospects does EU policy offer for renewable mobility in the run-up to 2030 and beyond? Renewable mobility in Europe – differing perceptions of political decision-makers and the industry. Perspectives of automotive industry and mineral oil industry.

Biofuels within the context of synthesized fuels

Importance of biofuels from biomass within the Renewable Energy Directive (RED II) as a contribution to fighting climate change in transport. Synthetic biofuels - how can they support climate protection?

Biofuels established on the market

Biodiesel, bioethanol, vegetable oils: Which market developments should be monitored? What kind of technological optimization can we expect? Presentation of results from various research projects examining biodiesel. Emission reduction potential of ethanol-containing petrol fuels. Outlook for trade and market development and the availability of feedstocks for biofuels.

Electromobility

Future of electromobility: Electric drives in conjunction with internal combustion engines or pure electric drives? What is the state of play in infrastructure expansion to ensure electromobility can be rolled out across the country?

Biomethane and Power-to-X

Which opportunities and obstacles exist for biofuels produced from biomethane? Which synergies between power-to-gas and biomethane production can be identified? How has biomethane developed compared with international standards? Comparison of the climate impact of drive systems: Fossil fuels, bio, PtX or battery.

Alternative biofuels

What prospects exist for biofuel production from carbon recycling? What technical challenges arise in recycling waste into biofuels? Importance of liquid alternative fuels for climate protection and market development.

Parallel forums

During the two-day conference, market developments, current research results and practical experience with market-tested and new biofuels will be presented in 13 forums and a panel discussion. This year we are again expecting over 500 international participants.