

EUBCE 2020 WILL FULLY INTEGRATE BIOECONOMY INTO ITS CONFERENCE PROGRAMME

The European Biomass Conferences and Exhibition has grown from a small research community biomass conference more than 30 years ago to a well-established international conference, tackling challenges ranging from biomass growth and biomass conversion to bioenergy, biofuels and bioproducts, sustainability and policies, and to provide a forum for industrial implementation of technologies enabling the transition away from fossil fuels economies. For all of these topics on integration of processes, technologies and value chains it has always been necessary to ensure the most efficient use of the limited biomass resource and enable economic viability. The ultimate step of integration is a fully functioning bioeconomy.

A bioeconomy existed in pre-industrial, pre-fossil fuel times, as well-established traditional bio-based activities, ranging from agriculture, food, feed, fibre and forest-based industries. A modern bioeconomy is now emerging, encompassing biomaterials and biochemicals production, along with traditional bio-based products. EUBCE tackles already some of the non-energy sectors such as biochemical and biomaterials and biorefineries. Bioeconomy encompasses the wide ranging economic sectors dealing with the growth, conversion, application and marketing of bioproducts and biochemicals from biogenic sources. The 28th EUBCE will expand its portfolio from energy related biomass production and conversion of bio-based feedstock to other sectors of the economy and will now integrate the bioeconomy into its conference programme (see Conference Topic 4).

In 2020 the conference will include key sessions that will dig deep into the structure, components and role of the emerging bioeconomy in Europe and across the world. There will be plenty of opportunities to present, to listen to and to discuss the fine details of technology developments, options for mitigation of adverse environmental and climate impacts and engage in policy debates. Research results from all stages of development will continue to form the core of the conference addressing the bioeconomy, the thread that links all facets of the growth and utilization of biomass now and in the future.

The organisers of the 28th EUBCE would like to invite all active workers in the field of biomass utilization, and indeed all people with an interest in being part of the emerging bioeconomy, to attend the event in April 2020 in Marseille, France.



Coordination of the Technical Programme European Commission - Joint Research Centre



EUBCE 2020

28th European Biomass Conference & Exhibition

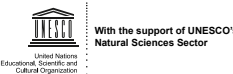
Transition to a Bioeconomy

MARSEILLE – FRANCE | 27 - 30 APRIL
Marseille Chanot Exhibition and Convention Centre

CALL FOR PAPERS

Deadline by 5th November 2019

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ABSTRACT SUBMISSION

Authors wishing to contribute to the Conference Programme should submit the abstract latest by **5 November 2019**.

Authors are invited to carefully read the topic descriptions and select the subtopic which most closely matches the key novelty of their work.

The total length should not be more than four A4 pages. Abstract shall be written in English and must include the following sections addressing:

- Aim and approach used
- Scientific innovation and relevance
- Results or preliminary results and conclusions

Authors also need to provide:

- Applicable topic number and sub-topic number (e.g. 1.1) and a brief justification of the choice of subtopic to assist the evaluation process
- Full paper title
- Full name, affiliation, address, e-mail and phone of one author for all correspondence
- For all other co-authors, full name, affiliation, phone/e-mail

For questions concerning abstract submission, please contact:

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or anna.salimbeni@etaflorence.it

ABSTRACT SUBMISSION

During the online submission authors should clearly indicate the orientation of the abstract, for scientific or industry review. Review will of course be conducted by the respective Scientific or Industry Committee.

SCIENTIFIC ORIENTED ABSTRACTS

An invitation to Scientists and Researchers

The scientific and policy biomass community is invited to contribute with high quality papers and to give the Scientific Committee the opportunity to select and present a Conference Programme which reflects the scientific excellence, as well as the wide range of topics of the global biomass sector, by shaping the future of bioenergy and bioeconomy.

- Have your work evaluated by a scientific committee composed of renowned members of the science and research fields of biomass
- Exchange and learn about developments, share results and get inspired by new ideas
- Find future business partners to valorize your research

INDUSTRY ORIENTED ABSTRACTS

The bridge between Research and Policy

The special call for Industry Abstracts marks an opportunity for the biomass industry to complement the scientific programme of the 28th EUBCE. Industry-oriented abstracts must include at least 1 Industry co-author.

- Appointed industry committee to review industry abstracts and organize industry-specific events
- Attain increased visibility in the industry
- Contribute to the development of the biomass industry
- Perform networking on a global scale
- Reinforce your organization with scientific findings

IMPORTANT FOR AUTHORS

Conference Proceedings

All accepted papers will be published on-line with a full open access policy on the EUBCE Proceedings website.

The proceedings are indexed by SCOPUS and WOS – Conference Proceedings Citation Index – Science.



Scopus®

Scientific Journal Publication

The authors of a limited number of abstracts will be invited to submit these as papers for peer review and publication in Biomass & Bioenergy.

Interested authors may request that their abstract be considered for this process when submitting.



Energies — Open Access Journal of Energy Research, Engineering and Policy

Authors of accepted conference abstracts may request to submit extended papers to Energies, which is a peer-reviewed open access journal of related scientific research, technology development, engineering, and the studies in policy and management and is published monthly online by MDPI.



BE-Sustainable

BE-Sustainable is the official source of news of the EUBCE. The publication is based on a selection of some of the most relevant and cutting-edge contributions presented during the Conference. BE-Sustainable is also source of news, information and resources on biomass, bioenergy and the bioeconomy.



Student Award

To encourage high-quality work among young researchers, the EUBCE Students Awards will be delivered in recognition of the most remarkable and outstanding research work in the field of Biomass. The Scientific Committee may nominate up to 5 awardees, max. one per main Conference Subject.



THE CONFERENCE WILL BE STRUCTURED ALONG THE FOLLOWING MAIN TOPICS:

Authors are invited to carefully read the topic descriptions and select the subtopic which most closely matches the key novelty of their work.

TOPIC 1: SUSTAINABLE RESOURCES FOR DECARBONISING THE ECONOMY

1.1 Biomass potentials and biomass production models

Assessments of biomass potentials and land availability at regional, national and international levels; Assessment of recoverable biomass potential; Biomass mobilisation and logistics; Spatial modelling and remote sensing; Resources mapping.

1.2 Agroforestry residues and by-products

Supply of biomass and biomass by-products and residues from agriculture and forestry; Biomass mobilisation: characterisation, harvest technologies, logistics and storage; Resource efficient agriculture and forestry; Agro-food waste; Agro-industrial feedstocks and side streams.

1.3 Biomass crops and energy grasses

Agricultural production of woody and non-woody plant biomass: plant breeding, cultivation, characterisation and harvest technologies, logistics and storage; Novel crops, multi-purpose crops, intercropping and alternative cropping systems; Biomass plantations increasing sustainability and ecosystem services; Crops from marginal lands.

1.4 Algae and aquatic biomass production systems

Identification, assessment and optimisation of algae strains; Technologies and systems for algae cultivation, nutrition and harvesting; Integration of wastewater treatment into algae systems; CO₂ use in algae systems; Marine farming; Aquatic plants and aquaculture feeds; Aquatic waste streams; Aquaculture and fishery residues; Algae harvesting, drying, oil and chemical extraction.

1.5 Municipal and industrial wastes

Potential of Municipal Solid Waste (MSW) for bioenergy, biofuels and bioproducts; Availability of biowaste from MSW; Techniques for source separation; Industrial wastes; Downstream use of pulp and paper; Sewage sludge, slaughterhouse waste; Integrated waste management systems.

1.6 Integrated biomass production for energy purposes

Innovative agri-forestry systems in energy transition; Bioenergy production integrated into farming systems; Sustainable management practices for agriculture and forestry integrated with biomass production for energy and material use; Sustainable farming systems; Multiple product opportunities; Agro-industry options and economic prospects; Low ILUC impact feedstocks; Soil fertility and soil productivity improvement.

TOPIC 2: BIOMASS TECHNOLOGIES AND CONVERSION FOR BIOENERGY

2.1 Production and supply of solid fuels and intermediates

Technologies development for chipping, pelletising, briquetting, etc.; Production and characterisation of solid fuels from biomass feedstocks; Logistics, storage and distribution.

2.2 Biomass and bioliquids combustion for small and medium scale applications

Innovative concepts for stoves, boilers, micro- and small-CHP, steam and Stirling engines, Organic Rankine Cycles, etc; Abatement of corrosion and fouling; Emission control systems; Auxiliary equipment; Tri-generation (power, heat and cooling).

2.3 Biomass combustion in large utilities

Advanced combustion systems; Co-firing plants; Process modelling and monitoring; Control systems; Abatement of corrosion and fouling; Emission control systems; Tri-generation (power, heat and cooling); High efficient, increased steam parameters plants.

2.4 Gasification for power, CHP and polygeneration

Fundamental studies; Technology development; Process modelling and monitoring; Gas cleaning and upgrading; Syngas utilisation in engines, turbines and fuel cells; Control systems; By-products utilisation.

2.5 Gasification for synthesis gas production

Fundamental studies; Technology development; Advanced gasification systems; Gas cleaning, reforming and upgrading for BTL and SNG applications; Control systems; By-products utilisation.

2.6 Anaerobic digestion for biogas and biomethane production

Anaerobic digestion process improvement; Advanced plant and fermenter concepts; Optimising conversion, improving design and process integration; Dry fermentation and thermophilic processes; Anaerobic digestion of innovative feedstocks (straw, waste, algae, etc.); Biogas utilisation for power, CHP and poly-generation; Biogas upgrading to biomethane; Biomethane injection into the grid.

TOPIC 3: BIOMASS TECHNOLOGIES AND CONVERSION TO INTERMEDIATE BIOENERGY CARRIERS AND PRODUCTS OF THE BIOECONOMY

3.1 Production of thermally treated solid fuels

Thermal treatment and densification; Thermal upgrading of solid fuels: biomass torrefaction, charcoal production, etc.; Process optimisation; Products characterisation and utilisation.

3.2 Pyrolysis

Production of liquid bioenergy carriers from solid biomass: Fundamentals and studies; Technology development; Process modelling, improvement and optimisation; Bio-oil purification, upgrading and utilisation (combustion, chemical extraction, gasification, etc.); By-product utilisation; Energy balance and techno-economic analysis.

3.3 Hydrothermal processing

Hydrothermal carbonisation, production of solid energy carriers; Hydrothermal liquefaction, production of liquid energy carriers; Fundamentals and studies; Technology and process improvement; Biocrude production, purification, upgrading; Value-added compounds extraction; Energy balance and techno-economic analysis.

3.4 Oil-based and renewable hydrocarbon biofuels

Oil-based fuels and Renewable Hydrocarbon Biofuels (biogasoline, renewable diesel, renewable jet fuel) from lipids (vegetable oils, animal fats, grease, and algae), and cellulosic biomass (crop residues, woody biomass and energy crops); Technology and process improvement; Innovative processes: Hydrotreating, Biological sugar upgrading, biocatalytic processes, FT-liquids / Biomass to Liquids (BtL), Hydrothermal processing. Hydrotreated Vegetable Oil (HVO) / Hydroprocessed Esters and Fatty Acids (HEFA); Energy balance and techno-economic analysis; Biofuel blending, distribution and logistics.

3.5 Bio-alcohols from lignocellulosic biomass

Lignocellulosic ethanol, other alcohols: physical, chemical, physicochemical, biological pre-treatment of lignocellulosic biomass, cellulose hydrolysis of lignocellulosic biomass, Novel C6 and C5 fermentation techniques; Innovations in bio-alcohol production from lignocellulosic biomass; Downstream wastewater treatment.

3.6 Biorefineries

Combined production of fuels, chemicals and materials from biomass; Integrated concepts for bioenergy and biobased products; Process design and business development; Process and technology integration into biorefineries; Integration of biochemical and thermochemical processes; Biofuels from biochemical, chemical and catalytic conversion of sugars; Thermochemical conversion of biomass to syngas, bioenergy carriers, synthetic fuels; Additional value creation; Multi-purpose and versatile schemes; Commodities combination; Renewable energy utilisation.

3.7 Bio-based chemicals and materials

Ethylene, Propylene, Furans, specialist chemicals, etc.; Wood-based sugars; Advances in renewable chemicals; High added value organic compounds; Bio-catalysis; Bio-based polymers; Additives; Biolubricants; Geotextiles; Bioplastics; Production of organic fertilizers and compost; Nutrients cycles and recovery (struvite, phosphorus); Soil improvers.

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Topic 4 includes subtopics fully expanded to the bioeconomy.

TOPIC 4: BIOECONOMY SUSTAINABILITY, IMPACTS AND POLICIES

4.1 Sustainability and socio-economic impacts

Sustainability schemes, bio-based feedstocks and final products certification; National and international sustainability standards; Benefits and socio-economic opportunities; Competition and risk mitigation of the increased use of biomass; Bioenergy, food security and local, traditional use of biomass; Evaluation of social impacts; Actions for sustainable economic growth; Sectorial synergies to avoid over-exploitation.

4.2 Environmental impacts

Impacts on land, agricultural intensification, water and air emissions from biomass production and conversion; Agro-environmental assessments; Impact of biomass production on ecosystem services; Land use change impacts, monitoring indirect land use impacts; Land use and land governance; Biomass production, water use, energy, soil and water interactions; Compost, digestate, biochar production and use; Phyto-remediation solutions for contaminated lands; Life Cycle Assessment.

4.3 Climate impacts and GHG performance

Climate impacts of biomass and bioenergy production; Climate change mitigation potential; Carbon capture and storage potentials in soils, biomaterials, etc.; GHG emissions, LULUCF and sustainable forest management; Bioenergy and CCS and CCU; Life Cycle Assessment; Assessing direct and indirect land use change potential; Carbon storage; Assessing GHG of biomass pathways and prioritizing different biomass pathways; Carbon pricing.

4.4 Biomass strategies and policies towards a bioeconomy

Bioenergy policies and targets for 2030 and beyond; Bioenergy contribution to a low carbon economy, LULUCF emissions and Emissions Trading Scheme; National, regional, local bioenergy and bioeconomy strategies; Support programmes; Agriculture, forestry and rural development; Strategies for international cooperation; Biomass utilisation concepts for bioenergy and biobased products; Strategies for the integration of bioenergy into a bio-based economy.

4.5 Resource efficient bioeconomy and social opportunities

Approaches for efficient management of natural resources (land and water); Promoting resource efficient value chains; Sustainable circular bioeconomy and cascading use of biomass; Competition and risks of the increased use of biomass; Social opportunities, from biomass use for food, feed, fibre, fuels, , bio-materials and biochemicals; Innovation, growth and job creation; Exploiting the value of co-products.

TOPIC 5: BIOENERGY INTEGRATION

5.1 Strategies for biomass integrated into energy systems

National strategies for the integration of bioenergy and high share of renewables; ; Integrated bioenergy planning; Concepts and approaches for flexible bioenergy integration; Renewable energy communities and buildings; Bioenergy and off-grid systems; Bioenergy in integrated systems; Sustainable bioenergy solutions for local communities; Bioenergy in rural electrification concepts.

5.2 Technological options for energy grid balancing

Electricity and gas grid balancing concepts; Renewable energy and distributed systems integration; Technological options for the integration of high-share of renewables; Integrated bioenergy hybrid systems and technologies; Integrated solutions balancing the energy system; Biomass into low carbon generation in district heating and cooling; Poly-generation energy networks; Biogas integration into gas grids.

5.3 Alternative renewable fuels

Power-to-X (Power-to-gas, Power-to-liquids, etc.); Renewable liquid and gaseous transport fuels of non-biological origin; Recycled carbon fuels; Bio-Synthetic Natural Gas (Bio-SNG); Algae biofuels; Hydrogen production, storage and use; e-fuel production and use.

5.4 Market implementation, investments & financing

Market uptake initiatives and policies; Initiatives for decarbonisation of the economy; Policies for the circular, sustainable Bioeconomy; Challenges of scale-up and market implementation of new technologies; Support schemes; Economics of bioenergy projects; Risk assessment of financing; Global bioenergy markets; Biomass trade, contracting and logistics; Innovative business models.

5.5 Citizen awareness and engagement: Education, promotion and inclusion

Awareness campaigns, communication methods and tools, education and training, specific skills requirements and job creation; Increasing public involvement; Promoting good practices for bioenergy; R&D strategies for international cooperation; Partnerships programmes for supply security.