Abstract Submission Toolkit

EUBCE 2021

29th European
Biomass Conference
& Exhibition

Marseille, France
26 – 29th April

Carefully read this document before
submitting your abstract.

Submission deadline extended to
27 November 2020 at 23:59 CET

Contact: +39 055 5002174 - papers@etaflorence.it - www.eubce.com

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Call for Abstracts

The 2021 European Biomass Conference and Exhibition (EUBCE) is now open for papers.

On April 26th, EUBCE will inaugurate its 29th in-person and online edition.

EUBCE brings together the greatest minds and latest innovations in biomass, with the aim of advancing research and market uptake. The scientific programme is coordinated by the Joint Research Centre of the European Commission.

1. What: EUBCE 2021 is looking for

New scientific- and industry-oriented work that has not been presented at another conference. Including:

- concrete examples of already-implemented operational solutions, experience and feedback from the field, featuring,
- real-world data, as well as innovative research, concepts and ideas.

See Annex 1 for the full list of 2021 conference topics

2. Why: Submit

Participate in the largest biomass conference worldwide.

- Reach a global audience – more than 80 countries
- Be viewed by more than 5000 e-visitors (2020 data)
- Receive permanent identification and citation indexing

Accepted abstracts will be invited for a plenary, oral, or mini-oral-with-visual* presentation and will be:

- viewed live and then available online to registered participants for over 2 months of total exposure;
- published online with a full open-access policy on the EUBCE proceedings website;
- indexed in Scopus – the world's largest database of peer-reviewed research literature;
- coded by a digital identifier (DOI code) that guarantees unequivocal and permanent identification and citability (in case of full paper submission);
- featured in *Be Sustainable Magazine* (which selects cutting-edge contributions);
- considered for the 2021 Poster Awards, which recognise the most outstanding visual presentations for each conference topic; and
- considered for the 2021 Student Awards, which recognise the most remarkable and outstanding research work in a field by young enrolled applicants (if requested during the abstract submission).

Authors that request peer-review during their abstract submission will also be considered for inclusion in:

- *Biomass & Bioenergy*, by Elsevier
- *Energies*, an open-access journal by MDPI

* ***mini-oral-with-visual*** *presentations will replace the conventional "visual presentation" from previous editions*

3. When: Process & Timeline

STEP 1	Review the full list of conference topics (see Annex 1)
STEP 2	Download and apply following the Submission Guidelines (see section 4 of this toolkit). Make sure to specify if you would like to apply for peer review or for a student award, in which case follow the additional steps (as outlined in sections 4.4 and 4.5).
STEP 3	Register with the online portal for details about what is required. Submit via the online portal by 20 November 2020 at 23:59 CET. https://ssl.conference-biomass.com
STEP 4	Have your submission reviewed by 3 members of the scientific committee, which is coordinated by the Technical Programme Chair for the JCR of the European Commission.
STEP 5	Be invited for a plenary, oral, or visual presentation by December 2020, including notice of your presentation slot within the official conference programme. Submissions not accepted will receive a rejection letter and invitation to register for the conference as an active participant. Recipients for the student awards will be notified at this time.
STEP 6	Reply to the received invitation and confirm your participation, with proof of registration by January 2021.
STEP 7	Present live during the virtual conference on April 26, 27, 28, or 29th.
STEP 8	Have your presentation and/or paper visible and available online to registered participants through until July 2021.
STEP 9	Those applying for peer review status will be notified by the editors about the status of their request and the next steps.

4. How: Submission Guidelines

4.1 Abstract format & content

- Language: English
- Length: Four A4 pages max. (main page + 3 explanatory pages)
  Note: We recommend a minimum of 2 pages in total to ensure a comprehensive evaluation of your work. We encourage authors to provide enough information to be evaluated correctly.
- Structure:
  - √ Aim and approach used
  - √ Scientific innovation and relevance
  - √ Results or preliminary results and conclusions
    Note: This structure provides the basis for the evaluation.
- Authors need to provide:
  - √ Applicable topic number and sub-topic number (e.g. 1.1) (see Annex 1 for the full list of 2021 conference topics and subtopics)
  - √ Full paper title
  - √ Full name, affiliation, address, e-mail and phone of one author for all correspondence
  - √ Full name, affiliation, phone/e-mail for all additional authors
    Note: Industry-oriented abstracts must include at least one co-author from the industry.

4.2 Using the online portal

1. Register for the online portal [https://ssl.conference-biomass.com]

   Note 1: The person registered in the User Area is automatically set as the primary author and contact person for the submission.
   Note 2: Modifications to the submission in the online system are possible at any time until the submission deadline. Please avoid double submissions.

2. Specify the most relevant EUBCE 2021 conference topic and sub-topic. (see Annex 1 for the full list of 2021 conference topics).

3. Upload your abstract in PDF format.

   Note: Please make sure that your abstract.pdf is not password protected.

4. Receive an automatic email notification after successful submission. If you do not receive this email within 24 hours of submission, please write to papers@etaflorence.it.

5. If you would like to withdraw your abstract after the submission deadline, please contact papers@etaflorence.it

4.3 Evaluation criteria

Each submission will be reviewed by 3 members of the EUBCE International Programme Committee, which is composed of a scientific-oriented and an industry-oriented sub-committee.

The International Programme Committee is composed of +150 leading scientific and industry experts from the global biomass community, and under the coordination of Dr. Nicolae Scarlat, European Commission's Joint Research Centre's Directorate for Energy, Transport and Climate, with the support of the Members of the Executive Committee.

The main selection criteria are:

Content

- Relevance to the selected conference topic and subtopic specified
- Relevance for stakeholders active in biomass
- Clarity of key messages & substance

Innovation

- Extent to which the key messages & content will advance the understanding, sustainability, applicability, and marketability of biomass.

Quality

- Scientific rigor
- Probability of an engaging conference presentation

Positively evaluated abstracts will be selected for a plenary, oral, or mini-oral-with-visual presentation.

- **Plenary and oral** presentations are reserved for contributions: (1) covering a wider scope, (2) with substance of interest to a broader audience, and (3) highlighting progress and novelties within that topic and subtopic. The plenary and oral presentations will be performed live. Presenters are visible to the audience and can share their screen during the presentation. Audience members can use the live Q&A chat to ask questions.

- **Mini-oral-with-visual** presentations will replace the conventional visual presentation and are predominantly dedicated to submissions of interest to specialists in a particular field. The author can present the poster during a live or pre-recorded mini-oral of three minutes, which can be followed by a live Q&A with audience members, if desired. The visual presentations will then be on display throughout the conference with a brief pre-recorded introductory video, which the author can upload.

4.4 Applying for scientific journal publication

Each year, a limited number of selected abstracts from each topic will be invited to be peer reviewed for potential publication in high impact journals. These publications will be in addition to the publication in the conference proceedings

If you would like your abstract to be considered for inclusion in high impact scientific publications, follow the standard application process through the online portal (https://ss.conference-biomass.com), and also make sure to conclude the following steps before the submission deadline of 20 November 2020:

- Check the box specifying your desire to apply for peer review; and
- Ensure that your abstract is a minimum (and maximum) of 4 full A4 pages with content following the guidelines in section 4.1 of this toolkit.

  Note: If selected, a full paper will need to be supplied on short notice.

4.5 Applying for a student award

The aim of the student awards is to encourage high-quality work amongst young researchers. The awards are bestowed, live, during the EUBCE 2021 closing session to select matriculated students who made significant contributions to remarkable biomass research. The EUBCE Scientific Committee may nominate up to 5 awardees, one for each conference topic.

To apply for a EUBCE 2021 Student Award, follow the standard application process through the online portal (https://ss.conference-biomass.com), and also make sure to conclude the following steps before the submission deadline of 20 November 2020:

- Check the box specifying your desire to be considered for the Student Award;
- Upload at least one letter of recommendation that: (1) states the name of the applicant, (2) specifies the institution where the research was supervised, (3) confirms that the applicant is an officially matriculated student at this institution on November 20th, 2020, and (4) includes a one A4 page outlining how the research will make an outstanding contribution to the discipline and what the specific contribution of the applicant has been. The recommendation and its content must come from the student's supervisor or head of department.

5. Helpful Links

Essential links to apply and register:

- For information about EUBCE 2021: https://www.eubce.com
- For an online list of EUBCE 2021 conference topics and sub-topics: https://www.eubce.com/conference-topics.html
- To submit an abstract and/or register for EUBCE 2021 visit the online portal: https://ssl.conference-biomass.com

Additional links:

Publications

- **Scopus** – *https://www.eubce.com/conference/publications-of-papers/inclusion-of-eubce-proceedings-in-scopus.html*
  The world's largest abstract and citation database of peer-reviewed research literature.

- **Proceedings -** All submitted contributions of plenary, oral and mini-oral-with-visual presentations will be published online on the EUBCE Proceedings website. Full papers will be indexed by SCOPUS. The conference proceedings reflect the latest science and technology for biomass & bioenergy. The proceedings have a full free access policy and are searchable online as soon as published.

- **Biomass & Bioenergy Special Issue of EUBCE** – *https://www.sciencedirect.com/journal/biomass-and-bioenergy/special-issue/107DQLXLX57*
  3.551Impact Factor. 6.6 CiteScore
  A compilation of select works presented at the EUBCE.
  Biomass & Bioenergy is an international journal publishing original research papers and short communications, review articles and case studies on biological resources, chemical and biological processes, and biomass products for new renewable sources of energy and materials. The scope of the journal extends to the environmental, management and economic aspects of biomass and bioenergy.

- **Energies** – *https://www.mdpi.com/journal/energies*
  Impact Factor: 2.702 CiteScore (2019 Scopus data): 3.8
  A peer-reviewed open access journal of related scientific research, technology development, engineering, and the studies in policy and management and is published semi-monthly online by MDPI. Many presenters from previous editions of EUBCE have been featured in Energies.

- **BE Sustainable Magazine** - *http://www.besustainablemagazine.com/*

A source of news, information, and resources on biomass, bioenergy and the bioeconomy. BE-Sustainable is published by ETA-Florence Renewable Energies. An annual BE Sustainable Special Issue contains a selection of some of the most relevant and cutting-edge contributions presented during each EUBCE.

Awards

- **EUBIA Award** - https://www.eubce.com/conference/prizes-and-awards/eubia-award.html
  A prize awarded by the European Biomass Industry Association during each edition of EUBCE to companies and organizations demonstrating high effort and success in biomass technology at the commercial and industrial level.

- **Johannes Linneborn Prize** - https://www.eubce.com/conference/prizes-and-awards/linneborn-prize.html
  Awarded during the opening session of each EUBCE to a single individual that has made an outstanding and ethical contribution to the development of biomass.

- **Poster Awards** - https://www.eubce.com/conference/prizes-and-awards/poster-awards.html
  Its own ceremony during each EUBCE edition highlighting exceptional visual presentations during that year's conference and exhibit.

- **Student Award** - https://www.eubce.com/conference/prizes-and-awards/student-awards-2.html
  To encourage high-quality work amongst young researchers, Student Awards will be delivered in recognition of significant contributions in the field of Biomass.
  The awards will be delivered during the EUBCE closing session.

Annex 1: Full List of EUBCE 2021 Topics

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
Innovative biomass production for energy integrated into traditional agri-forestry systems

- 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 – compost, digestate, biochar;
- Phytoremediation solutions for contaminated lands.

Topic 2

BIOMASS 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;
- Process modelling and monitoring;
- Control systems;
- Abatement of corrosion and fouling;
- Advanced emission control systems;
- Tri-generation (power, heat and cooling);
- Innovative concepts and thermodynamic cycles;
- High efficiency, 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 CONVERSION TO INTERMEDIATE BIOENERGY CARRIERS, SUSTAINABLE BIOFUELS AND BIO-BASED PRODUCTS

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);
- Bioprocesses for microbial oils production;
- 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);
- Technology and process improvements;
- Energy balance and techno-economic analysis;
- Biofuel blending, distribution and logistics;
- Progress on FAME production.

3.5
Bio-alcohols from sugars, starch and lignocellulosic biomass

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

3.6
Biorefineries

- Biorefinery platforms for bio-based products, energy and fuels;
- Combined production of fuels, chemicals and materials from biomass;
- Integrated concepts for bioenergy and bio-based 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
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 (nitrogen, phosphorus, potassium).

Topic 4

SUSTAINABLE BIOECONOMY: IMPACTS AND POLICIES

4.1
Sustainability, socio-economic impacts and public acceptance

- 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;
- Bioenergy contribution to the Sustainable Development Goals (SDG);
- Improving citizen awareness and acceptance, increasing public engagement;
- Promoting good practices for bioenergy.

4.2
Environmental impacts

- Biomass and land use, agricultural intensification, water and air emissions from biomass production and conversion;
- Biomass production preserving biodiversity;
- Agro-environmental assessments;
- Biomass production and ecosystem services;
- Land use change impacts, monitoring and addressing indirect land use changes;
- Land use and land governance;
- Biomass production and water use, energy, land and water interactions;
- Carbon and air emissions;
- Trade-offs between different impacts;
- Environmental Life Cycle Assessments.

4.3
Climate impacts and GHG performance

- Climate impacts of biomass, biofuels, bioenergy and bio-based materials production;
- Climate change mitigation potential;
- Carbon capture and storage potentials in soils, biomaterials, etc.;
- GHG emissions, LULUCF and sustainable forest management;
- Assessing direct and indirect land use change potential;
- Carbon storage on land and materials;
- Innovative carbon utilisation options;
- Assessing GHG of biomass pathways and prioritizing biomass pathways;
- Carbon pricing;
- GHG Life Cycle Assessment.

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;
- Biomass and rural development, opportunities in the circular and bioeconomy;
- Strategies for international cooperation;
- Biomass utilisation concepts for bioenergy and bio-based products;
- Strategies for the integration of bioenergy into a bio-based economy.

4.5
Resource efficient bioeconomy

- 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;
- Opportunities of biomass use for food, feed, fibre, fuels, biomaterials and biochemicals;
- Innovation, growth and job creation;
- Exploiting the value of co-products;
- The role of bio-based chemicals in a sustainable and circular bioeconomy;
- Cross-sectorial synergies to avoid over-exploitation.

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;
- Electricity and gas grid balancing concepts;
- 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;
- Bioenergy and Carbon Capture and Storage (BECCS) enabling negative GHG emissions.

5.2
Technological options for energy grid balancing

- Innovative solutions for smart grids and energy (heat and power) storage;
- Bioenergy and renewable energy distributed generation and systems integration;
- Integrated bioenergy RES hybrid systems and technologies;
- Integrated solutions and biomass systems for short, mid-term and seasonal grid balancing;
- Biomass in district heating and cooling;
- Poly-generation energy networks;
- Greening the gas grids (biomethane, hydrogen etc.);
- Energy and power system modelling.

5.3
Alternative renewable fuels and hydrogen

- Technological innovations of Power-to-X (Power-to-gas, Power-to-liquids, etc.): synthetic fuels, hydrogen, methane, methanol, etc.;
- Renewable fuels of non-biological origin (RFNBO), Recycled Carbon Fuels (RCF);
- Bio-Synthetic Natural Gas (Bio-SNG);
- Algae biofuels production: technology progress and perspectives;
- Electrofuel production and use;
- Hydrogen production: thermochemical, electrolytic, photolytic, biological processes;
- Hydrogen storage systems, novel hydrogen carriers;
- Hydrogen and fuel cells for stationary and mobile applications;
- Alternative fuels and hydrogen infrastructure development.

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.