Abstract Submission Toolkit

EUBCE 2023
31st European Biomass Conference & Exhibition

5 – 8 June | Conference and Exhibition
9 June | Technical Tours
Bologna, Italy

Carefully read this document before submitting your abstract.

The submission deadline is

25 November 2022 at 23:59 CET

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

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Call for Abstracts

The 2023 European Biomass Conference and Exhibition (EUBCE) is now open for papers.

On June 5th, EUBCE will inaugurate its 31th 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 2023 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 2023 conference topics

2. Why: Submit

Participate in the largest biomass conference worldwide.

- Reach a global audience – more than 90 countries
- Be viewed by an audience of more than 82.800 pageviews in 2022;
- Receive permanent identification and citation indexing

Accepted abstracts will be invited for a plenary, oral, or visual presentation and will be:

- presented onsite and then available online to registered participants for over 3 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 2023 Poster Awards, which recognise the most outstanding visual presentations for each conference topic; and
- considered for the 2023 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 & Energy,* by Elsevier
- *Energies*, an open-access journal by MDPI
- *Sustainability,* an open-access journal by MDPI

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 25 November 2022 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 end of January 2023, 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 20th of February.
STEP 7	Present in person during the conference on June 5, 6, 7, or 8th.
STEP 8	Have your presentation and/or paper visible and available online to registered participants.
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). *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 2022 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 2023 conference topic and sub-topic.
   (see Annex 1 for the full list of 2023 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 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 in person.

- Visual presentations are predominantly dedicated to submissions of interest to specialists in a particular field. The visual presentations will be performed in person during a moderated visual session.

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://ssl.conference-biomass.com), and also make sure to conclude the following steps before the submission deadline of 25 November 2022:

- 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 2023 closing session to select matriculated students who made significant contributions to remarkable biomass research. The EUBCE Scientific Committee may nominate up to 6 awardees, for each conference topic.

To apply for a EUBCE 2023 Student Award, follow the standard application process through the online portal (https://ssl.conference-biomass.com), and also make sure to conclude the following steps before the submission deadline of 25 November 2022:

- 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 25th, 2022, 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 2023: https://www.eubce.com
- For an online list of EUBCE 2023 conference topics and sub-topics: https://www.eubce.com/call-for-abstracts/
- To submit an abstract and/or register for EUBCE 2023 visit the online portal: https://ssl.conference-biomass.com

Additional links:

Publications

- **Scopus** – *https://www.eubce.com/pubblication-of-paper/pubblication-scopus/*
  The world's largest abstract and citation database of peer-reviewed research literature.
- **Proceedings -** *http://www.etaflorence.it/proceedings/*
  All submitted contributions of plenary, oral and 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/10T2XJF461S
  Impact Factor: 5.774. CiteScore: 8.8
  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: 3.252. CiteScore: 5.0
  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.

- ***Sustainability*** *- https://www.mdpi.com/journal/sustainability*
  Impact Factor: 3.889. CiteScore: 5.0
  Sustainability is an international, cross-disciplianry, scholaerly, peer-reviewed and open access journal of environmental, cultural, economic, and social sustainability of human beings.

- **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/prizes-and-awards/eubia-award/
  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/prizes-and-awards/linneborn-prize-nominations/
  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.

- **Giuliano Grassi Prize** - https://www.eubce.com/prizes-and-awards/giuliano-grassi-prize/
  The Giuliano Grassi Excellence in Biomass Industrial Deployment Prize is established in 2022 to honour scientific, technical or managerial merit in the market deployment of biomass industrial processes, attained over a long period of continuous achievements. It is an International Award.

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

- **Student Award** - https://www.eubce.com/prizes-and-awards/student-awards/
  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 2023 Topics**

Topic 1

SUSTAINABLE RESOURCES FOR DECARBONISING THE ECONOMY

1.1
Biomass resources and potentials

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

- Innovative agri-forestry systems including biomass production for energy and materials;
- Bioenergy production integrated into agriculture and forestry;
- Biomass plantations increasing sustainability and ecosystem services;
- Novel crops, multi-purpose crops, intercropping and alternative cropping systems;
- Low ILUC impact feedstocks;
- Crops from marginal and degraded lands;
- Soil quality and soil fertility improvement - compost, digestate, biochar;
- Phytoremediation solutions for contaminated lands.

1.3
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;
- Algae production systems, marine farming systems;
- Aquatic waste streams;
- Aquaculture and aquatic waste streams;
- Algae harvesting, drying, oil and chemical extraction.

1.4
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.

1.5
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 waste;
- Sewage sludge, slaughterhouse waste;
- Integrated waste management systems.

Topic 2

SUSTAINABILITY, IMPACTS AND POLICIES

2.1
Sustainability, socio-economic impacts and public acceptance

- Sustainability aspects of biomass production and use;
- Sustainability schemes, sustainability standards and products certification;
- Socio-economic aspects, benefits and socio-economic opportunities;
- Competition and risk mitigation of the increased use of biomass;
- Bioenergy, food security and local, traditional use of biomass;
- Actions for sustainable economic growth;
- Bioenergy contribution to the Sustainable Development Goals (SDG);
- Improving citizen awareness and acceptance;
- Promoting good practices for bioenergy.

2.2
Environmental impacts

- Biomass and land use, agricultural intensification, water and air emissions from biomass production and conversion;
- Biomass production preserving biodiversity 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;
- Trade-offs between different impacts;
- Environmental Life Cycle Assessments.

2.3
Climate impacts and GHG performance

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

2.4
Biomass strategies and policies

- Policies for the sustainable and circular economy;
- Agriculture, forestry and rural development;
- Bioenergy policies and targets for 2030 and beyond;
- Bioenergy and bio-based products contribution to a low carbon economy; LULUCF emissions and Emissions Trading Scheme;
- The role of bio-based products for the 2030 and 2050 targets
- Biomass and rural development, opportunities in the sustainable and circular economy;
- Strategies for international cooperation;
- Strategies for the integration of bioenergy into a low –carbon economy;
- Strategies for the integration of bio-based products into the chemical industry.

2.5
Resource efficient bioeconomy

- Approaches for efficient management of natural resources (land and water);
- Promoting resource efficient value chains;
- Sustainable circular economy and cascading use of biomass;
- Competition and risks of the increased use of biomass;
- Opportunities of biomass use for food, feed, fuels, bio-based products;
- Innovation, growth and job creation;
- Exploiting the value of co-products;
- Cross-sectorial synergies to avoid over-exploitation.

Topic 3

BIOMASS, BIO-BASED PRODUCTS AND BIOENERGY INTEGRATION

3.1 *Biomass integration into energy systems*

- Innovative solutions for small communities, integrating bioenergy and other renewables;
- Integrated bioenergy RES hybrid systems and technologies;
- Bioenergy for electricity grid stability and gas grid balancing concepts;
- Bioenergy in renewable energy communities and buildings;
- Bioenergy solutions for rural electrification concepts and off-grid systems;
- Biomass in district heating and cooling, poly-generation energy networks;
- Greening the gas grids (biomethane, hydrogen etc.).

3.2 *Biomass use in biorefineries*

- Biorefinery platforms for bio-based products, energy and fuels;
- Integrated and innovative biorefineries concepts;
- Process design and business development;
- Integration of biochemical and thermochemical processes into biorefineries;
- Biochemical and thermochemical conversion processes of biomass to fuels, energy, bio-based products;
- Multi-purpose and versatile schemes;
- Renewable energy utilisation;
- Assessment tools for biorefineries.

3.3
Strategies for bio-based products in the chemical industry

- National, regional, local strategies;
- Market uptake initiatives and policies;
- Perspectives for bio-based chemicals and materials and contribution to the climate neutrality goals;
- Strategic decisions for bio-based products and chemicals;
- Assessing most promising value chains, processes and concepts;
- Economics, incentives and subsidies towards developing a bio-based economy.

3.4
Market implementation, investments & financing

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

Topic 4

BIOMASS CONVERSION FOR BIOENERGY

4.1
Biomass pre-treatment for solid fuels and production of intermediates

- Biomass pretreatment and densification;
- Physical, chemical, physico-chemical and biological methods for biomass pretreatment;
- Process development and optimisation;
- Characterisation and utilisation of solid fuels and intermediates;
- Logistics, storage and distribution.

4.2
Advanced biomass combustion

- Innovative concepts for small scale and medium scale combustion;
- Advanced and innovative small scale and medium scale systems;
- Large scale advanced combustion systems;
- Process modelling and monitoring;
- Advanced process and emission control systems;
- Tri-generation (power, heat and cooling);
- Innovative concepts and thermodynamic cycles;
- High efficiency, increased steam parameters plants;
- Bioenergy and Carbon Capture and Storage (BECCS) enabling negative GHG emissions.

4.3
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;
- Advanced process control systems;
- By-products utilisation.

4.4
Gasification for synthesis gas production

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

4.5
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 5

BIOMASS CONVERSION TO INTERMEDIATE BIOENERGY CARRIERS AND SUSTAINABLE BIOFUELS

5.1
Pyrolysis

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

5.2
Hydrothermal processing

- Advances in hydrothermal liquefaction, gasification and hydrothermal carbonisation;
- Process fundamentals and studies;
- Technology and process improvement;
- Biocrude production, purification, upgrading;
- Value-added compounds extraction;
- Energy balance and techno-economic analysis.

5.3
Oil-based and renewable hydrocarbon biofuels

- Oil-based fuels and renewable hydrocarbon biofuels from lipids and lignocellulosic biomass;
- Bio-Synthetic Natural Gas (Bio-SNG);
- Algae biofuels production, technology advances;
- Bioprocesses for microbial oils production;
- Innovative processes for synthetic fuels production from lignocellulosic biomass (biomass based electrofuels);
- Co-processing biomass feedstock with fossil fuels in common processes;
- Technology and process improvements;
- Energy balance and techno-economic analysis.

5.4
Bio-alcohols from sugars, starch and lignocellulosic biomass

- Biochemical routes for lignocellulosic ethanol, other alcohols production;
- Pretreatment of lignocellulosic biomass;
- Enzymatic hydrolysis and microorganism fermentation into alcohols;
- Novel C6 and C5 fermentation techniques;
- Progress on ethanol production from sugar and starch;
- Innovations in bio-alcohol production from lignocellulosic biomass;
- Process advances;
- Downstream wastewater treatment.

5.5
Synthetic fuels from biomass and hydrogen

- Synthetic fuel production processes;
- Technological innovations of Power-to-X (Power-to-gas, Power-to-liquids, etc.);
- Renewable fuels of non-biological origin (RFNBO), Recycled Carbon Fuels (RCF);
- Hydrogen production pathways: thermochemical, electrolytic, photolytic, biological processes;
- Hydrogen and fuel cells for stationary and mobile applications;
- Alternative fuels and hydrogen logistics and infrastructure;
- Technico-economic assessments.

Topic 6

BIOMASS CONVERSION TO BIO-BASED PRODUCTS AND CHEMICALS

6.1
Processes for bio-based chemicals and materials

- Advances in renewable chemicals;
- Production of high-added value organic compounds;
- New products from biomass: bio-based chemicals and polymers, bio-catalysts, additives, bioplastics, etc.;
- Production of organic fertilizers and compost;
- Nutrients cycles and recovery (nitrogen, phosphorus, potassium).

6.2
Biorefinery platforms for bio-based chemicals and polymers

- Fuels and chemical building blocks from synthesis gas;
- Production of value added chemicals and macromolecules from lignin;
- Production of fine chemicals from sugar and oil platforms;
- Process development, maximising conversion efficiency;
- Technical and biological barriers and economic considerations.

6.3
Co-production of biofuels and biochemicals

- Combined production of fuels, chemicals and materials from biomass;
- Innovative processes integrating fuel production into bio-based refineries;
- Process integration;
- Co-production options and economics;
- Technical and economic assessments.