

3rd International Bioeconomy Congress
21 - 22 September 2020
Stuttgart-Hohenheim, Germany



Call for contributions

The 3rd International Bioeconomy Congress Baden-Württemberg will be an inter- and transdisciplinary meeting for experts and stakeholders dedicated to systemic approaches of a sustainable bioeconomy. This year's congress comes with the title "The contribution of Bioeconomy to the Green Deal" and will discuss how innovative products, processes, principles and regional circles can contribute to mitigation of climate change, reducing pollution, protecting biodiversity, supporting resource efficiency and other Sustainable Development Goals (SDGs).

In our call for contributions we are looking for oral and poster presentations on the following topics:

Topic 1: Smart agricultural and food production systems

Securing sustainable biomass supplies is a prerequisite for success in the Bioeconomy. Various strategies are under development for more sustainable agricultural and food production systems and resource management including technological advances and information and communications technology (ICT). We are looking for intelligent/new technological options and concepts including their environmental impact assessment related to:

- Approaches and methods for increasing efficiency and sustainability in agricultural and food production systems
- New approaches in precision farming
- Automation and robotics in agricultural production
- New digital information structures for agricultural and food production systems
- Approaches of linking food and agricultural systems in intelligent value chains
- Future food systems

Topic 2: Using the versatile potential of microorganisms and enzymes for a circular bioeconomy

Microbial biocatalysts and enzymes can contribute to the sustainable production of value-added products and the recovery of valuable compounds. In this call topic, we are looking for contributions on the use of microorganisms or enzymes for:

- The use of CO₂ as a resource for value-added products
- The recovery of metals and other inorganic substances from waste or soil
- Heterotrophic and enzymatic production of platform and fine chemicals
- Valorization of side streams for the production of value-added products

Contributions should include an environmental assessment or hypothesis on how these processes can contribute to the implementation of a circular economy.

Topic 3: Exploiting the concept of biorefineries

Integrated biorefinery concepts leading to multiple products are an important concept for the establishment of a resource-efficient circular Bioeconomy. In this call topic, we are looking for contributions regarding biorefinery concepts:

- Using industrial, agricultural and forestry production including their side streams, biowaste and wastewater as substrates
- With a small scale/ on-farm approach
- Integrating biogas plants

Studies could present new technological options as well as innovations regarding techno-economic and ecologic assessment of bio-based value networks including existing business cases.

Topic 4: Concepts and systems on Biointelligence

The term “Biointelligence” stands for innovative pathways towards new, autonomous, modular and highly flexible manufacturing technologies for personalized goods, chemicals and products, by systematically linking biological and technological systems via information technology. By combining recent achievements in biotechnology, artificial intelligence (including Deep Neural Networks, Adversary Learning Techniques, Deep Reinforcement Learning) as well as on-site, and personalized production it offers great potential for technological leaps that will significantly extend the perspective of the bioeconomy. Decisive for this highly complex interaction of computer science, biology, and technology is the implementation of bidirectional, real-time information and control bridges between technical and biological systems, so-called biology-technology-interfaces (BTIs). The call topic thus addresses:

- Basics of Biointelligence – vision, scenarios, challenges
- Already existing potentials for the established industry and innovative start-ups
- Perspectives for protected assets (climate, water, resources, health)

Topic 5: New materials and innovative products from biomass

Innovative bio-based solutions become available in various economic sectors. In this section, new options closer to the market will be presented. A focus will be on the following industry sectors:

- Novel and sustainable bio-based materials for the building industry
- Innovative fibers and technical textiles derived from biomass
- Sustainable solutions based on new bio-based materials (e.g. packaging materials)

Case studies should include aspects like the assessment of sustainability and economics, regulation, consumer studies, and market entry.

Topic 6: The transition to a sustainable bioeconomy

The transition to a sustainable bioeconomy requires societal changes, e.g. the awareness and commitment to sustainable consumption patterns, mindsets for sustainable entrepreneurship, supporting incentives, regulations, governance structures and policies. For this session, we ask for research (conceptual or empirical) in the field of societal issues, innovation, entrepreneurship, and governance covering:

- Consumer acceptance of novel bioeconomy products
- Bioeconomy and society (governance, ethics)
- Certification and labelling
- Innovation, entrepreneurship, and the bioeconomy
- Hurdles and regulatory frameworks

related to one of the aspects of topics 1-5.

Guidelines for submitting an abstract:

- Please submit your abstracts via the website of our partner smart abstract
- Abstracts submitted via fax, e-mail, post, or other methods will not be accepted.
- The conference language is English and German.
- Abstracts can only be submitted in English
- The abstract and authors' institutes have to be indicated in English for publishing reasons.
- Abstract changes and corrections will be accepted until the **15th of April 2020**.
- Authors may indicate their preferred presentation type (poster or oral presentation). The final decision regarding the presentation type, however, will be taken by the Scientific Committee.
- For the presenting authors of accepted abstracts, registration and participation in this conference are binding.
- Abstracts will be published in an abstract book. By submitting an abstract you agree that it may be openly published. Furthermore, you declare that the contents of the abstract are the work of the authors credited, that the authors are aware and are in agreement of their name being used in this manner, and that copyright permissions for all third-party material have been obtained.
- Please note that only the submitting (corresponding) author receives all abstract notifications. Make sure that emails from information@smart-abstract.com are not marked as spam by your email provider.
- The submitting (corresponding) author takes responsibility for informing all co-authors about successful submission, acceptance or rejection and forwards the received instructions for the presentation of the abstract to the presenting author.

Abstract contents and format

- Maximum length of the abstract is 3000 characters (excl. title & author block, INCLUDING spaces).
- The abstracts will be structured in the four sections 'aims', 'methods used', 'results' and 'conclusion'. Please formulate each of the sections concisely. The above mentioned maximum length is the total of all sections.
- Abstract titles should be concise and direct.
- Please use a minimum of formatting for abstracts. We cannot guarantee that abstracts will be formatted in the exact way as they are entered.
- Avoid using non-standard abbreviations.
- Do not use the title or the name(s) of the author(s) in the body of the abstract.
- The abstracts must be fully self-contained, requiring no further information from other sources to make them understandable.
- A maximum of two references are allowed per abstract. Each reference inserted into the abstract accounts for 100 characters.

For further information about the congress please visit: www.bioeconomy-congress.de

Thank you. We wish you success in submitting your abstracts!