



BioSC Newsletter March 2021



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Award of the Christian Patermann Prize to Dr. Michael Wustmans

The BioSC Supervision Award was presented for the first time as the Christian Patermann Prize on March 5, 2021. The namesake, who is considered the founder of the knowledge-based bioeconomy in Europe, personally presented the award to Dr. Michael Wustmans from the Chair of Technology, Innovation Management and Entrepreneurship at the University of Bonn. The laudatory speech was given by Prof. Dr. Ingar Janzik.



Prof. Dr. Dr. h.c. Christian Patermann, Dr. Michael Wustmans, Prof. Dr. Ingar Janzik; Photo: Forschungszentrum Jülich

Since 2014, the BioSC Supervision Award, endowed with € 25,000, has been awarded regularly to young scientists for outstanding achievements in supervising PhD students in the BioSC. At the 5th BioSC Symposium on March 5, 2021, it was awarded for the first time as the Christian Patermann Prize. The recipient of the award is Dr. Michael Wustmans from the University of Bonn.

Michael Wustmans studied Industrial Engineering in Siegen before specializing in the field of innovation management during his PhD at the University of Bremen. In 2018, he joined the [Chair of Technology, Innovation Management and Entrepreneurship at the University of Bonn](#), where he established a research group. In the [BioSC FocusLab greenRelease](#), he leads the work package on technology transfer and market potential.

Michael Wustmans was nominated by current and former PhD students as well as the head of the chair, Prof. Dr. Stefanie Bröring. In about 20 personal letters of support, one could read how he promotes the scientific self-confidence and visibility of his doctoral students, Prof. Dr. Ingar Janzik reported in her laudation. He encourages them to actively contribute to conferences, organize workshops independently, and present to experts and non-specialists, she said. With a "Scientific Jour Fixe" at the chair, he promotes thinking outside the box. With creative concepts such as "design thinking" and "science fiction prototyping", he guides successful interdisciplinary project development. His outstanding project management skills and his ability to pass them on were also highlighted. In addition, the award winner is active in the area of start-up support as a mentor and coach. With his expertise and activities, he moves at the interfaces between different scientific disciplines and between science and application, which are crucial for establishing a sustainable knowledge-based bioeconomy.

Prof. Dr. Dr. h.c. Christian Patermann personally presented the award to Michael Wustmans during the 5th BioSC Symposium. Christian Patermann was Head of the Directorate for Research at the European Commission from 1996 to 2007 and was in charge of the concept of a "Knowledge-based Bioeconomy (KBBE)", which the Commission first formulated in 2005. From fall 2007 to 2014, he advised the North Rhine-Westphalian state government on the emerging future field of bioeconomy. From 2009 to 2012, he was a member of the first German Bioeconomy Council. He is the most important pioneer for the modern knowledge-based bioeconomy in Europe.

5th BioSC Symposium: Looking back and looking forward after ten years of BioSC

The 5th BioSC Symposium on March 5, 2021 combined a look back at ten years of bioeconomy research since the founding of the BioSC with a look ahead to future developments and challenges. In addition to scientists from the BioSC, high-level guests from academia, industry, and ministries at the federal and state levels contributed to the event. With about 170 participants, the virtual event was well attended.

The symposium was opened by Christine Lang, Vice Chair of the International Advisory Council for Global Bioeconomy and former Co-Chair of the German Bioeconomy Council. She outlined the growing importance of the bioeconomy in a global context. She said 49 countries already have bioeconomy-related policy strategies, 16 of which have dedicated bioeconomy strategies. In the U.S., she said, the bioeconomy is already worth \$1 trillion, or 7.4 percent of gross domestic product. The bioeconomy supports social and technological innovations that can contribute to a sustainable lifestyle. Expanding it further requires a long-term political perspective that must also include changes to existing economic structures and legal frameworks, for example.

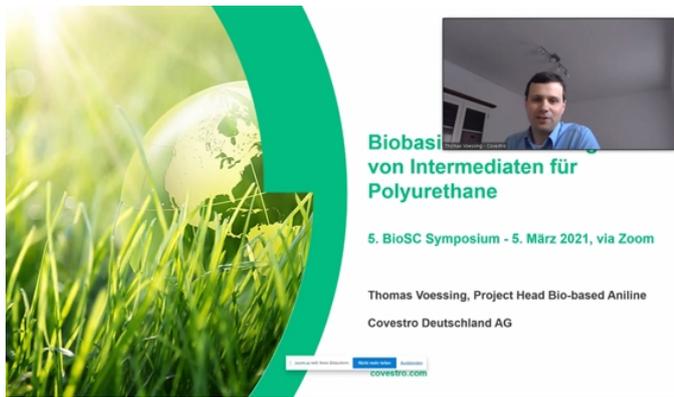


Foto: Forschungszentrum Jülich

From science to application

Ulrich Schurr, spokesman for the BioSC's Executive Board, gave a brief overview of the BioSC's ten-year history before members of the BioSC and external guests presented specific innovations.

At the beginning, the focus was on sustainable plant production. Felix Jakob and Sylvia Schleker presented results on new technologies and active ingredients for crop protection from the BioSC FocusLabs [greenRelease](#) and [CombiCom](#). Anne-Kathrin-Mahlein, University of Göttingen, presented methods for digital monitoring of plant diseases and weed infestations in the field, which enable tailored and resource-efficient crop protection.

Innovative biorefinery concepts were the next thematic focus. Holger Klose and Nina Ihling presented developments for processing alternative biomass and agricultural residual streams from BioSC FocusLabs [AP³](#) and [Bio²](#). Thomas Voessing, Covestro AG, presented a process for the biobased production of intermediates for polyurethanes.

Anita Loeschcke and Stephan Noack presented the successful engineering of platform organisms for the production of pharmaceutical and agronomic active ingredients in the BioSC FocusLabs [CombiCom](#) and [HylmPAct](#). Subsequently, Thomas Müller-Kirschbaum, formerly of Henkel AG & Co. KGaA, outlined the industry's expectations of the bioeconomy, addressing topics such as sustainability, competitiveness and openness to new technologies.

Forschung im *Living Lab*
"Rheinisches Revier"

Einmaliges Forschungsumfeld:
Die Projekt-Partnerschaft
Living Lab „Rheinisches Revier“

Austausch von empirischen Daten:

- 2019 repräsentative Befragung der deutschen Bevölkerung (N=1002)
- 2019 Bioökonomie Expertenbefragung (N=76)
- 2019 Stakeholder Ideenskizzen (N=67)
- 2019 Transkripte diverser Stakeholder Workshops (#Workshops = 5)
- Potenzialstudie (2020)
- Bioökonomie Kommunalprofile (2021)
- [...]

5. März 2021

RWTH AACHEN UNIVERSITY

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JÜLICH

Foto: Forschungszentrum Jülich

Bioeconomy and society

The following presentations were dedicated to the changes in the economy and society that necessarily accompany the establishment of a bioeconomy.

Ulrich Schurr presented the [BioökonomieREVIER](#) project, which aims to use the establishment of a model region for sustainable biobased economic activity as an opportunity for the Rhenish lignite mining region after the coal phase-out. The BioSC FocusLab [Transform2Bio](#), presented by Sandra Venghaus, uses this concrete example to investigate how social transformation processes take place and how they can be designed to take into account the interests of different social groups.

Uwe Fritsche from the International Institute for Sustainability Analysis and Strategies outlined the perspective of a future BioWEconomy, in which participation and the common good, ecology and fair trade play an important role. Finally, Karen Siegel, University of Münster, directed attention to the global context, presenting the SABIO project, which is investigating the possibilities for developing sustainable bioeconomies in South America.



Foto: Forschungszentrum Jülich

Developments and perspectives

In the concluding panel discussion, Thorsten Menne, Ministry of Culture and Science of the State of North Rhine-Westphalia, and Andrea Noske, Federal Ministry of Education and Research, emphasized the essential need for systemic and interdisciplinary thinking and action, as well as networking among all stakeholders from science, industry, society, and the importance of research for a successful transformation process. Professor Wolfgang Marquardt, Forschungszentrum Jülich, emphasized the need for appropriate funding structures for systemic and complex issues such as in bioeconomy research. The structural change in the region is suitable as an ideal real laboratory for exemplary implementation with industry and society. Professor Thomas Müller-Kirschbaum, formerly of Henkel AG & Co. KGaA, emphasized that only sustainable innovations could be competitive. For the future, he would particularly like to see an even stronger exchange between industry and science. The BioSC and its partners offer an established, ideal basis for cooperation. Uwe Fritsche of the International Institute for Sustainability Analysis and Strategies pointed out that the bioeconomy has the opportunity and obligation to contribute to the achievement of the global sustainability goals. The post-COVID era offered a great opportunity to achieve the necessary transformation to a more sustainable economy and society.

At the end of the event, the BioSC Supervision Award, worth €25,000, was presented for the sixth time, this year for the first time as the Christian Patermann Award. The award winner is Dr. Michael Wustmans from the Chair of Technology, Innovation Management and Entrepreneurship, University of Bonn.

BioSC anniversary brochure published

The anniversary brochure, published on March 5, 2021, provides an overview of the results and developments from ten years of research, education and cooperation at the BioSC. It can be downloaded from the homepage of the BioSC homepage. The English version will be available soon.



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VI Cooperation and networking for the development of the bioeconomy

Download here: www.biosc.de/eng (English version coming soon!)

Events and calls

Events (selected)

New Food Conference, virtual

April 28-29, 2021

[More Information](#)

6th European Symposium on Biomaterials and Related Areas (Euro BioMAT), virtual

May 5-6, 2021

[More Information](#)

Renewable Materials Conference 2021, virtual

May 18-19, 2021

[More Information](#)

9th International Bioeconomy Conference, virtual

June 9-10, 2021

[More Information](#)

9th International Conference "Fuel Science - From production to propulsion", Aachen

June 22-24, 2021

[More Information](#)

MECP 2020 - Multistep Enzyme Catalyzed Processes, Aachen

September 13-16, 2021

[More Information](#)

Bioeconomy Camp, Berlin

September 30 - October 1, 2021

[More Information](#)

EFIB - European Forum for Industrial Biotechnology & the Bioeconomy, Wien

October 6-7, 2021

[More Information](#)

Calls (selected)

Förderung im Rahmen des Konzepts "Bioökonomie als gesellschaftlicher Wandel"

30. April 2021

[Weitere Informationen](#)

Ernst-Pelz-Preis

30. April 2021

[Weitere Informationen](#)

Förderpreis Nachwachsende Rohstoffe

30. April 2021

[Weitere Informationen](#)

Start-up Transfer.NRW

30. April 2021

[Weitere Informationen](#)

Begleitforschung zur Modellregion Bioökonomie im Rheinischen Revier

31. Mai 2021

[Weitere Informationen](#)

Kreativer Nachwuchs forscht für die Bioökonomie

15. Juli 2021

[Weitere Informationen](#)