

## Opening & approach



Daniela Thrän, Alberto Bezama

## BioEconomy – a royal issue



## What is bioeconomy



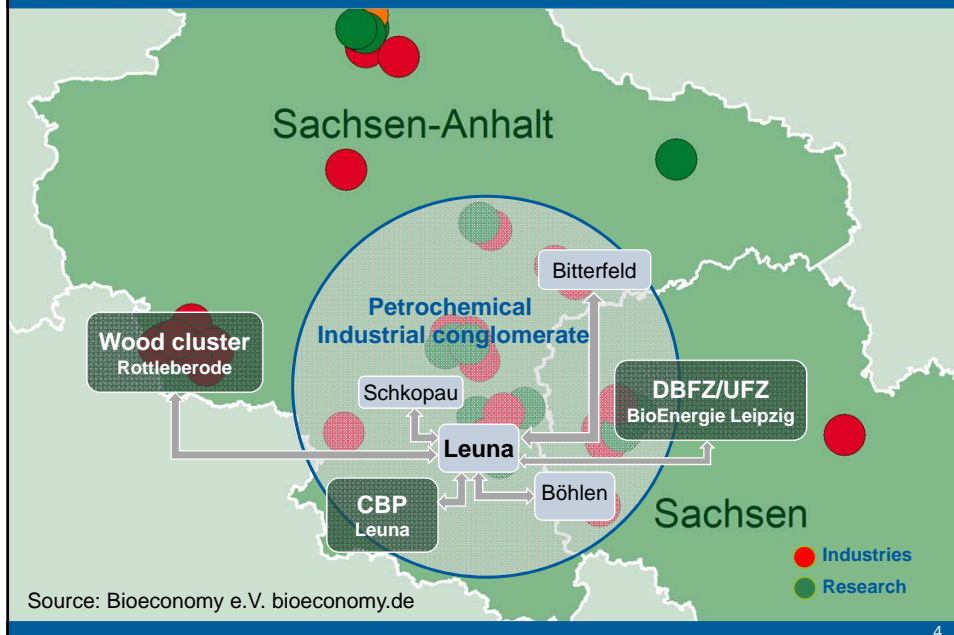
„The bioeconomy comprises all economic sectors and **all industries that produce, manage or otherwise use biological resources** including bio-waste.“

Source: German Bioeconomy Council



Pictures: Imagebrochure Bioeconomy Council, Fraunhofer CBP, TU Dresden, C3 Technologies, Linde AG, ThyssenKrupp Industrial Solutions, DBFZ

## The Leading-Edge Cluster BioEconomy



## Overview of cluster stakeholders

Companies					

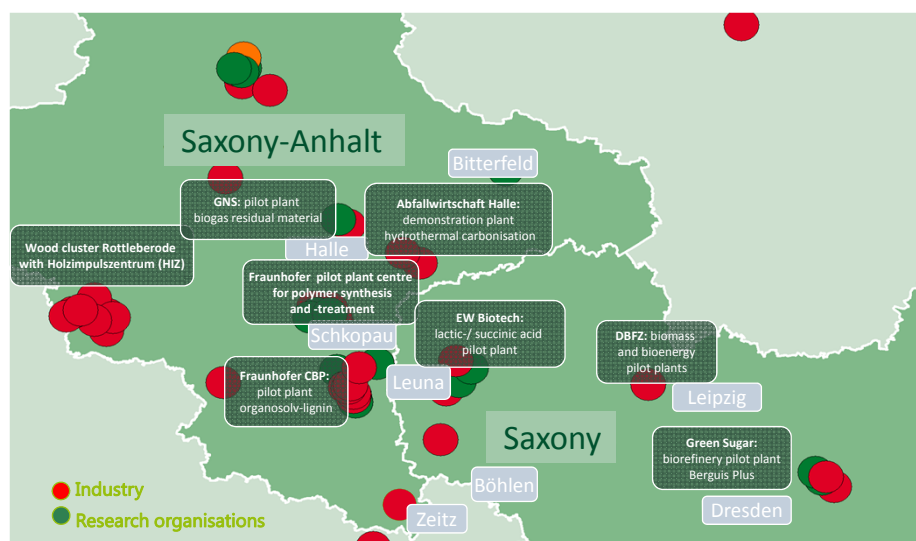
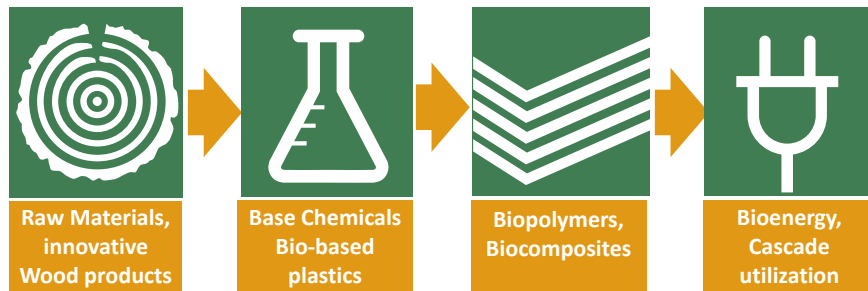
March 2017 BioEconomy - Leading Edge Cluster

## The Spitzencluster was the starting point for...



22.03.2017








Central Germany  
Where Wood meets Chemistry  
in 45 Joint (145 individual) R&D Projects



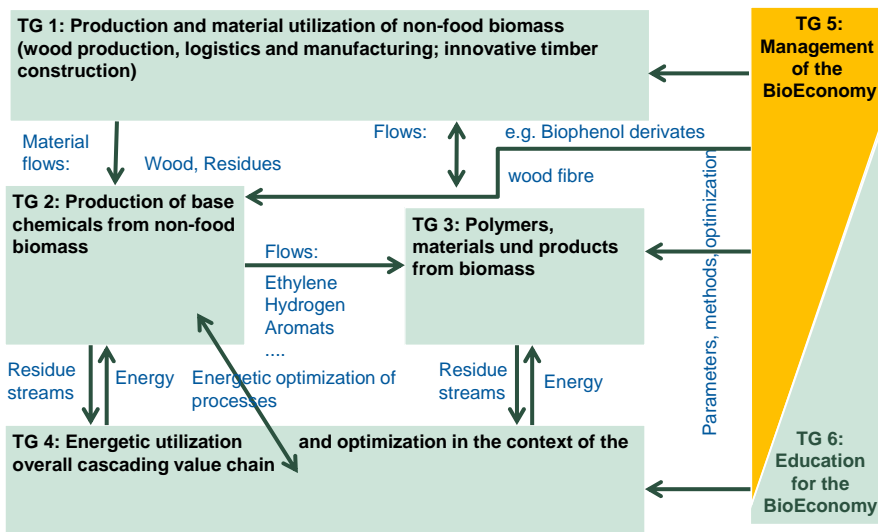
March 2017

BioEconomy - Leading Edge Cluster

## The clusters success stories

Supply Chain for 500.000 t/a beech wood		Organosolv extraction demo scale upcoming	
Wood products based log grading and handling		Integrated biorefinery for PLA (from lignocellulose)	
System for wood frame houses developed		Phytosterol	
Beechpole pilot scale		Demo plant for lactic and succinic acid	
Isobutene fermentation demo scale upcoming		Pilot plant center for polymer synthesis and processing	

## The research activities within the Cluster



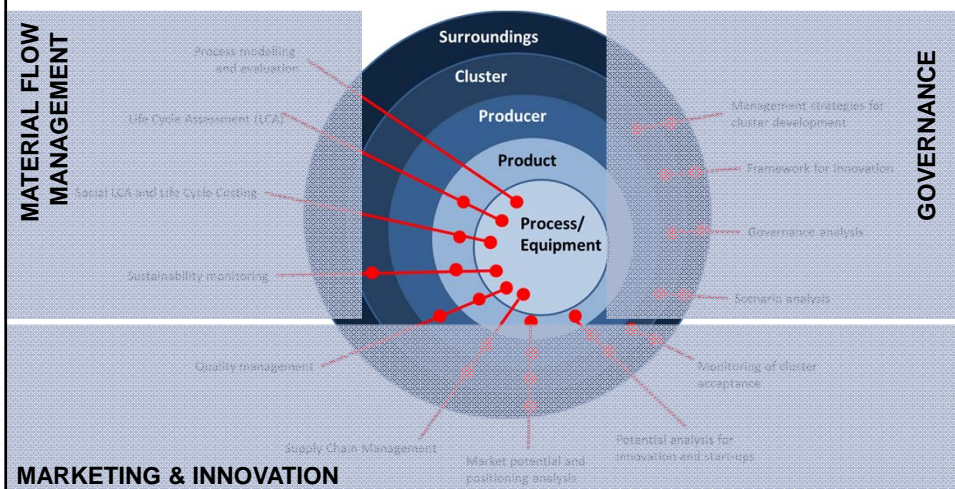
■ Provision of

- specific tools for knowledge management,
- services and control, considering
  - New Materials
  - New Processes and Products, Cooperations
  - New Cooperations along the value chain,
  - New Cooperations between the industrial sectors

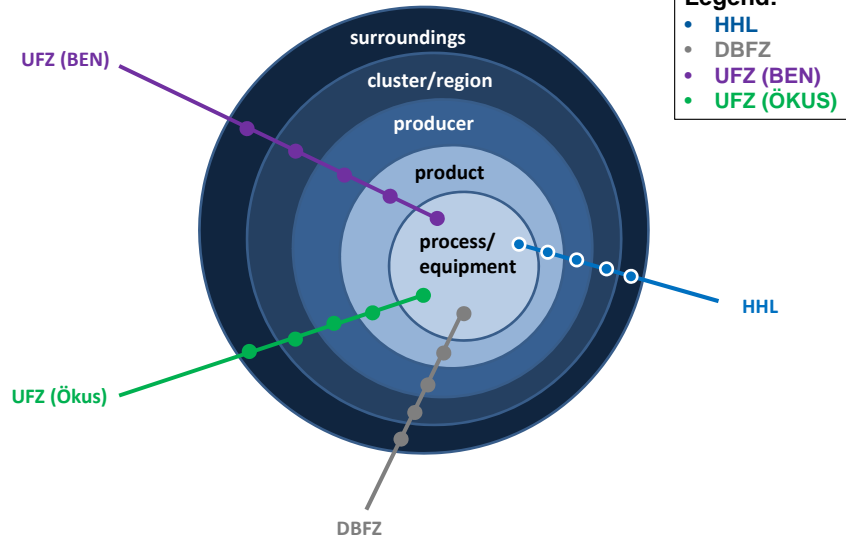
■ Development and implementation of

- sustainable competitive strategic action plans
- and governance architectures as a location for
  - Common development and profiling
  - Organisation of the complex field





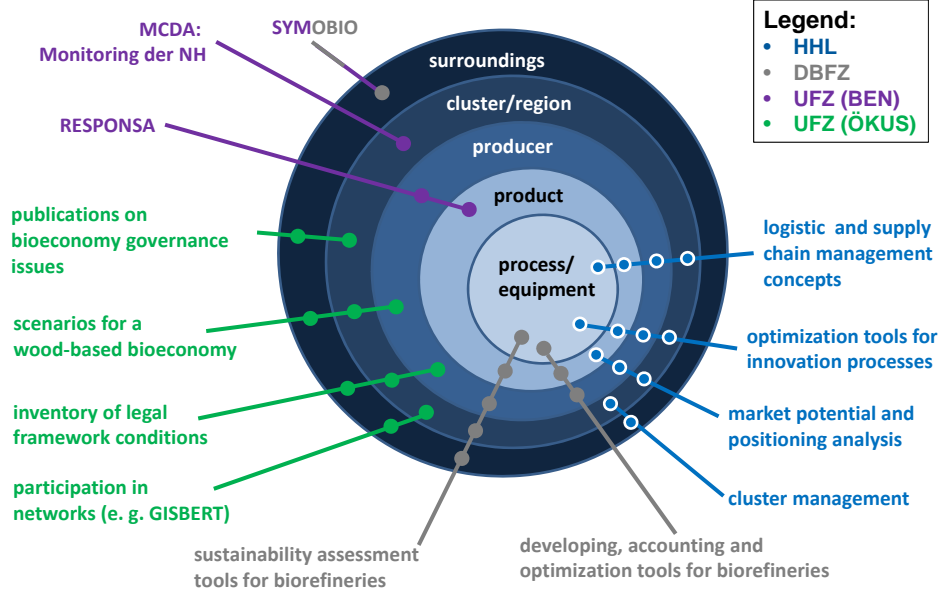
## Achievements



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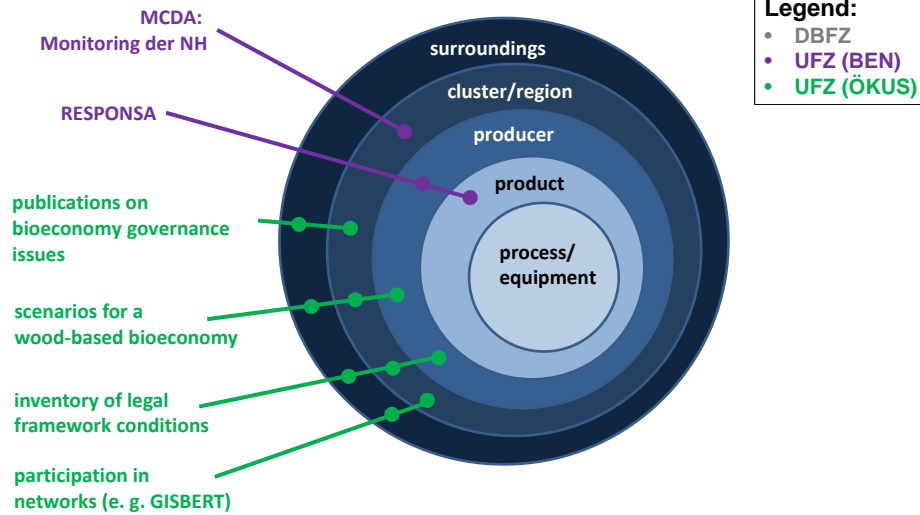
## Achievements



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[www.ufz.de/bioeconomy2017](http://www.ufz.de/bioeconomy2017)

**Output** UFZ DBFZ

CMS / Verwaltung von We... x UFZ Final Workshop Bioe... x

www.ufz.de/index.php?en=4183

HELMHOLTZ CENTRE FOR ENVIRONMENTAL RESEARCH - UFZ

The UFZ Departments Research Media & Press Events Career & Jobs

Events / Scientific events / UFZ Final Workshop Bioeconomy

Calendar  
Leipziger KUBUS  
Popular scientific events  
**Scientific events**  
Chemicals in the Environment  
Water and Environment  
**UFZ Final Workshop Bioeconomy**  
Output  
Programme  
Registration  
Pitch your IDEA  
Important Dates  
Venue  
Accommodation

**UFZ Final Workshop BioEconomy 2017**  
HOW TO MANAGE BIOECONOMY REGIONS?  
Lessons learnt, visions & tools  
16-17 March 2017, KUBUS Leipzig

The BioEconomy Cluster integrates several industrial and research partners, and works for accelerating innovation in the wood-based bioeconomy field, with a focus on the Central Germany region. In this project, the Bioeconomy Department at UFZ has coordinated the Scientific Accompanying Research, which aims at the development and implementation of sustainable strategy concepts and management tools for the BioEconomy Cluster. Partners of this Accompanying Research are the OKON and UPR Departments at UFZ, as well as the DBFZ Deutsches Bioökonomiezentrum GmbH and the Leibniz Center for Applied Energy Research (ZEP) at the TU Braunschweig.

**UFZ Final Workshop BioEconomy 2017**  
How to manage bioeconomy regions?  
Lessons learnt, visions & tools  
16-17 March 2017, KUBUS Leipzig (Saal 1A)

**Special**  
Networking event with  
→ PITCH OF IDEAS for the BioEconomy Region 2017  
& Matchmaking points (CF BCM BioEconomy Cluster Management GmbH, CF Smie, CF Giesert, CF Social Impact Lab, CF Science Campus Halle, CF TOPS - Technologiegründertfonds Sachsen etc.)

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**Output** UFZ DBFZ

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The UFZ Departments Research Media & Press Events Career & Jobs

Events / Scientific events / UFZ Final Workshop Bioeconomy / Output

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Venue  
Accommodation  
Organizing Committee  
The 7th International NanoSIMS user meeting  
ALTER-Net Summer School

**UFZ Final Workshop BioEconomy 2017**  
HOW TO MANAGE BIOECONOMY REGIONS?  
Lessons learnt, visions & tools

Workshop output +  
Output of the accompanying research of the BioEconomy Cluster +  
Additional material +

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**Information**  
PITCH!!! Your IDEA  
for the BioEconomy Region 2017  
March 16th - 2017  
@ UFZ KUBUS Leipzig

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**Output** UFZ DBFZ

CMS / Verwaltung von We... Output - Helmholtz-Centr... x

www.ufz.de/index.php?m=43069

**Output**

- Programme
- Registration
- Back your IDEA
- Important Dates
- Venue
- Accommodation
- Organizing Committee
- The 7th International NanoSIMS user meeting
- ALTER-Net Summer School

**workshop output**

**Output of the accompanying research of the BioEconomy Cluster**

- DBFZ final document DBFZ
- HHL final document HHL
- coming soon
- HHL DBFZ background paper of the accompanying research of the BioEconomy Cluster
- Link to the website of the UFZ BioEconomy platform
- Link to the website of the accompanying research of the BioEconomy Cluster

Additional material +

**Networking event with**

- PITCH of IDEAS for the BioEconomy Region 2017
- Matchmaking points (CF, OCW BioEconomy Cluster Management GmbH, CF Simle, CF Gestart, CF Social Impact Lab, CF Science Campus Mate, CF TGF5 - Technologiegründerfonds Sachsen etc.)

**Information**

**PITCH!!!**  
Your IDEA  
for the BioEconomy  
Region 2017

March 14<sup>th</sup> - 15<sup>th</sup> 2017  
@ UFZ KUBUS  
Leipzig

**Contact / Address**

- Organizing Committee
- How to get there?

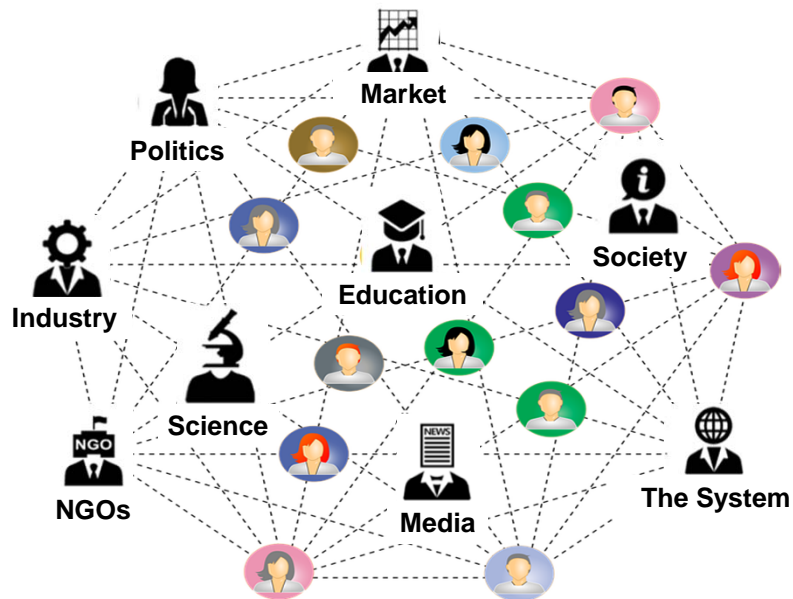
Leipziger KUBUS  
des Helmholtz-Zentrums für Umweltforschung -  
UFZ  
Pflanzestraße 15  
04110 Leipzig

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**It has been a long way** UFZ DBFZ

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## Who will use our results?



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## The Workshops



HOW TO MANAGE BIOECONOMY REGIONS?  
Lessons learnt, visions & tools

22.03.2017

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**Program Overview**  

<p><b>Session A:</b> Bioeconomy Regions</p> 	<p><b>Session B:</b> Economics &amp; law of the wood-based bioeconomy</p> 
<p><b>Session C:</b> Management tools for the bioeconomy</p> 	<p><b>Closing session:</b> Reality check</p> 

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**Program Overview**  

**PITCH!!!**

**Your IDEA**

for the BioEconomy Region 2017

March 16<sup>th</sup>, 2017  
@ UFZ KUBUS,  
Leipzig

*Pitch event:  
Workshop BioEconomy 2017  
"How to manage bioeconomy regions?"*



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THE PITCH & NETWORKING  
March 16<sup>th</sup>, 2017  
networking event  
at the workshop  
BioEconomy 2017



**... and enjoy the workshop !**

[www.ufz.de/bioeconomy2017](http://www.ufz.de/bioeconomy2017)

## UFZ Final Workshop BioEconomy 2017



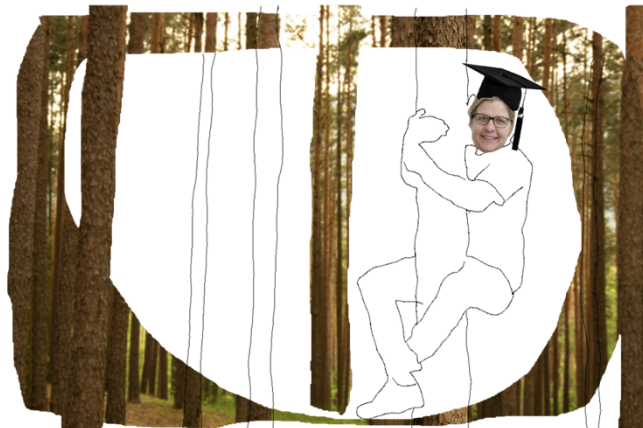
Final workshop - UFZ activities in the accompanying  
research of the BioEconomy cluster



HOW TO MANAGE BIOECONOMY REGIONS?  
Lessons learnt, visions & tools

Prof. Dr.-Ing. Daniela Thrän

(UFZ, DBFZ, University of Leipzig)



*"My first contact with bioeconomy was during my PhD, when I searched for sustainable utilization pathways for the unused wood in North-East Germany. Today much of this wood is used, but I see still a lot of potential for innovation."*

**UFZ Final Workshop  
BioEconomy 2017**



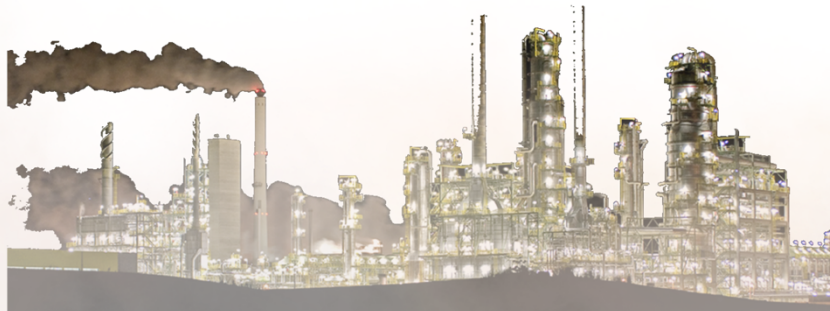
**HOW TO MANAGE BIOECONOMY REGIONS?  
Lessons learnt, visions & tools**



**SESSION A: Bioeconomy Regions**

Dr. Eva Leiritz (PtJ)

Welcome & résumé of the BioEconomy cluster



*„In November 2011 I made practical experience with the bioeconomy on site when entering the Leuna research area during fog.“*



**Kees Kwant** (Netherlands Enterprise Agency)

Opportunities & challenges for the implementation of a Biobased Economy in the Netherlands

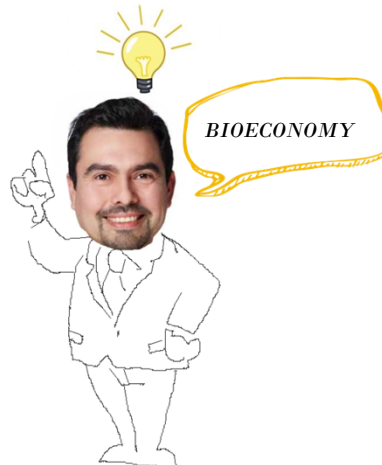


*"My first contact with the bioeconomy was when I was raised as a child on a farm. My father was innovative, so I learned how to modernize milk production and improve efficiencies. My interest in renewable energy led me via solar energy to biotechnology at DSM where we developed fermentation processes."*

**Dr. Alberto Bezama** (UFZ)

Strength in numbers: Evaluating a BioEconomy Region from an integrative Life Cycle perspective

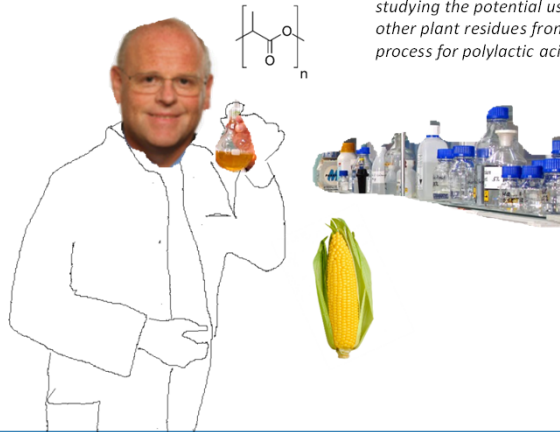
*"My first contact with the bioeconomy concept came in 2011, as I joined briefly the BEN department to prepare the proposal of the Spitzencluster project. What it stroke me at that time was "Hey, I have been actually working in things related to this for years!!!" Now that I think about it, I realize that one challenge is to make people aware that the components of bioeconomy are already there."*



**Dr. Rainer Busch (BCM BioEconomy Cluster Management GmbH)**

Lessons learnt and vision for the management of BioEconomy Regions

*“His first contact with aspects of the bioeconomy were in 1999/2000 when he was studying the potential use of corn hulls and other plant residues from the Cargill-Dow process for polylactic acid (PLA).”*



**Ulrich Schurr (Bioeconomy Science Scenter BioSC)**

*In Vertretung Heike Slusarczyk (FzJ, BioSC)*

Experiences from the Bioeconomy Science Centers

*„My first contact with bioeconomy was in 2004, when i was a member of the executive board of the European Plant Science Organisation in Brussels. Here I worked on the preparation of bioeconomy papers and inputs for the EU Commission.“*



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BioEconomy 2017**



**HOW TO MANAGE BIOECONOMY REGIONS?  
Lessons learnt, visions & tools**



**SESSION B: Economics & law of the wood-based  
bioeconomy**

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BioEconomy 2017**



**HOW TO MANAGE BIOECONOMY REGIONS?  
Lessons learnt, visions & tools**



**SESSION C: Management tools for the bioeconomy**

**Fritz Balkau** (Advisor, Sustainable Solutions)

Sustainability management, circular economy of bioeconomy



*"My first contact with bio-economy was through Alberto Bezama when he became an author in our book. There were also some researchers in Belgium."*

**Anke Siebert** (UFZ)

Social life cycle assessment of wood-based products from bioeconomy regions



*"I made my first contact with bioeconomy in a supermarket buying a bio-based plastic bag and here at the UFZ when I got 90 % wood-based pens etc."*

Jakob Hildebrandt (UFZ)

Assessment tools for sustainability monitoring of bioeconomy networks

*"My first contact with the diversity of bio-based materials and designs was in the material library of Material Connexion Cologne in 2011. With the broad spectrum of bioeconomy strategies i came into touch also in 2011 via a contact to the nova-Institute Cologne."*



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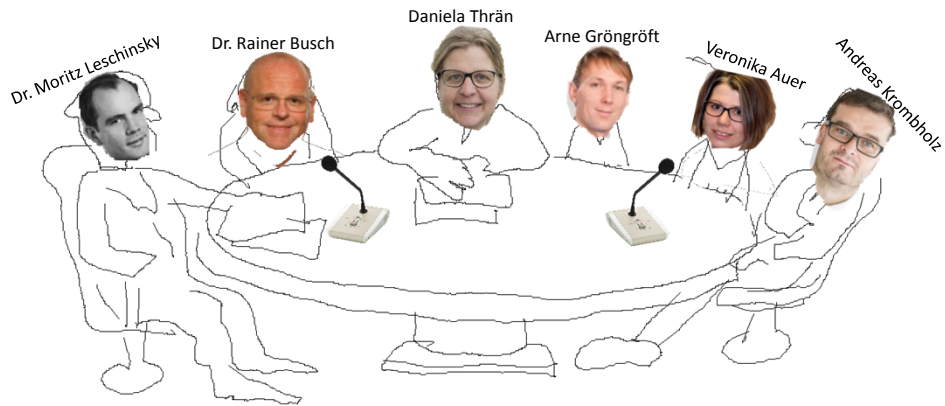


**HOW TO MANAGE BIOECONOMY REGIONS?  
Lessons learnt, visions & tools**



**CLOSING SESSION: Reality check**

## Discussion round



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## Feedback round



Dr. Alberto Bezama (UFZ)



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