

# **CBIO** AARHUS UNIVERSITY CENTRE FOR CIRCULAR BIOECONOMY

## Future, Relevance, Activities and Dependency

The **vision** of CBIO is to be a leading European inter-disciplinary research & innovation hub for circular bioeconomy solving grand societal challenges.

The centre **mission** is to provide excellent interdisciplinary research & innovation on circular bioeconomy and sustainable solutions to our grand societal challenges regarding food, materials, energy, climate and the environment.

### THE FUTURE PRODUCTION- AND CONSUMPTION SYSTEM IS CIRCULAR!



Geissdoerfer, M., et al. (2020). Circular business models: A review.Journal of cleaner production, 277, [123741]. <u>https://doi.org/10.1016/j.jclepro.2020.123741</u>



#### Circular economy in EU, 2020





### THE FUTURE PRODUCTION- AND CONSUMPTION SYSTEM IS CIRCULAR! – AND A BIG PART OF IT IS BIOBASED!!





DEPARTMENT OF BIOLOGICAL AND CHEMICAL ENGINEERING

#### IN THE FUTURE PRODUCTION- AND CONSUMPTION SYSTEM; CARBON CAN ONLY COME FROM RENEWABLE SOURCES BIOMASS IS AN IMPORTANT SUPPLY OF RENEWABLE CARBON!



#### IN THE FUTURE PRODUCTION- AND CONSUMPTION SYSTEM; CARBON CAN ONLY COME FROM RENEWABLE SOURCES BIOMASS IS AN IMPORTANT SUPPLY OF RENEWABLE CARBON!

Biorefineries are essential in the future cascade utilization of bioresources in order to deliver on:

- Food & Feed,
- Materials & Chemicals,
- Fuels & Energy
- Circulate nutrients



#### **BOTH LIGHTHOUSES AND HOLISTIC SYSTEMS-THINKING**

#### **CBIO'S FORSKNINGSSFÆRE**







CBIO'S FORSKNINGSSFÆRE

#### BROADEN THE FOCUS TO ENCAPSULATE MORE ASPECTS OF CIRCULAR BIOECONOMY

The future CBIO aim to

- Include more disciplines in our core activities
- Have a holistic view on circular bioeconomy,
- Connect the dots across multiple circular systems.
- Bridge activities towards centres with overlapping and peripheral activities (e.g. AU/DK: DIGIT, iMAT, WATEC, iCLIMATE, CiFOOD, START, CORC, Plant2Food, LandCraft, etc... But also in EU!)









MAPP CENTRE - RESEARCH ON VALUE CREATION IN THE FOOD SECTOR DEPARTMENT OF MANAGEMENT S AARHUS UNIVERSITY

MATERIALER

FØDEVARER

2030

O M O M RINGADNIN

MAPP Centre

**Research at QGG** 

 $\rightarrow$ 

RIORAFEINADERIE

#### CBIO SHOULD PLAY A SIGNIFICANT ROLE IN IMPLEMENTATION OF THE CIRCULAR BIOECONOMY

CBIO attracting large (DK/EU) inter-disciplinary R&D projects and increasing our collaboration with the bioeconomy industry

Be a significant and known communication platform for scientific advances and educational knowledge on the circular bioeconomy

Educate the future bioeconomy workforce in inter-disciplinarity and circularbioeconomy-thinking

Engage in DK- and EU policy advice to advance sustainable implementation of circular bioeconomy



## WHAT CAN CBIO CONTRIBUTE WITH?

- Be an active and visible network for inter-disciplinary collaboration internally at AU and an easy contact point for external collaboration on Circular Bioeconomy topics
- Make inter-disciplinary collaboration more available for early-stage researchers.
- Be a platform for communication and outreach of inter-disciplinary CBIO research
- Help implementing inter-disciplinarity within our educations relevant to CBIO
- Support network activities and CBIO interdisciplinary activities (meetings, travels, others)



#### WHAT CAN CBIO NOT CONTRIBUTE WITH?

# Funding of research projects – e.g hours for PhD's and PostDocs and large equipment.





#### WHAT KIND OF RESEARCH IS RELEVANT TO CBIO?

Well, really a lot of topics are relevant! ...and we do not want to dictate ideas!

But if you can answer yes to several of these questions, then it is most likely relevant  $\odot$ 

Is it related to biogenic raw materials?

Is it increasing circularity of a food/feed/material/chemical/energy/nutrient/carbon value chain?

Is it inter-disciplinary research?

Does it have an aspect of applied science and is the idea scalable?

Is it relevant for society and the green transition?

Does it contribute to a significant piece of the circular bioeconomy puzzle?





# WHAT DO CBIO NEED FROM YOU?

CBIO feeds of activity, expertise and enthusiasm of its participants.

It is US – the CBIO participants – that makes a difference. Without the valuable R&D of CBIO participants, affiliates and external collaborators, CBIO is just an empty shell!

We fill the centre with meaning and results. The centre is a service for us to make collaboration and outreach happen better, faster, stronger....

The more the merrier! The more engaged the better!! If you have good ideas for future CBIO activities do not hesitate to contact us!!





# **CBIO** AARHUS UNIVERSITY CENTRE FOR CIRCULAR BIOECONOMY

### Stor TAK til alle gode folk i CBIO! Og tak til alle jer der er kommet i dag!

Contact:

Head of Centre: Morten Ambye-Jensen, <u>maj@bce.au.dk</u>

Administration of CBIO: Margrethe Balling Høstgaard, <u>margrethe.hostgaard@dca.au.dk</u>

Communication of CBIO: Stine Rasmussen <u>stira@bce.au.dk</u>

2030 BIO Scenario [mio ton dry matter]





# 2030 ) Scenario mio ton dry matter] m



2030 mio ton dry matter] Scenario  $\overline{\mathbf{m}}$ 

![](_page_16_Figure_1.jpeg)