Programme

Circular Bioeconomy Days
- new protein sources for Europe

• How do we develop a circular bioeconomy, which supports a general sustainable development?

• What are the prerequisites for and the implications of the European protein strategy?

• What are the new protein sources for Europe?

Grand opening of demonstration scale Green Biorefinery

25-27 June at Aarhus University, Foulum, Denmark
BIOECONOMY IN ACTION
How do we develop a circular bioeconomy, that supports a general sustainable development? A series of top-notch presentations will set the scene for a debate on the challenges and opportunities ahead.

11:00
Registration open

11:30
Lunch buffet

12:30
Interdisciplinary research to unlock the circular bioeconomy
by Niels Halberg, Director of Danish Centre for Food and Agriculture

The bioeconomy concept – and its implications
by Dr. Dr. Christian Patermann, Director ret., European Commission

The untapped potentials of the seas to contribute to the circular bioeconomy
by Annette Bruhn, Senior Researcher, Marine Ecology, Aarhus Universitet

Needs and requirements for realising bioeconomy 2.0 from a stakeholder perspective
by Agnes Borg, Industrial Biotech Director, Europabio

The dual bottom line in realising the circular bioeconomy
by Mikael Skou Andersen, Professor, Environmental Science, Aarhus University

14:15
Coffee

14:45
BIOECONOMY AT WORK
How do we manage the economic potentials when using renewable biological resources? Four pioneers operating bioeconomy share their experiences

Drivers on bioeconomy
by Ejnar Schultz, Managing Director, SEGES, Danish Agriculture & Food Council

Governance of big Bio Clusters - how to accelerate the green transition through a triple helix approach
by Steen Hintze, CEO, Energifonden Skive

Smart biomaterials from sustainable biomass
by Lars Storm Petersen, Project director, Haldor Topsoe a/s

Building a startup company on bioeconomy
by Henrik Busch-Larsen, CEO, Unibio

16:00
Visits at Aarhus University, Foulum pilot plants

Experimental field crop research, Foulumgård
by Uffe Jørgensen, Centre Director, Centre for Circular Bioeconomy and Poul Erik Lærke, Senior Researcher, Agroecology

Biogas research facilities
by Morten Dam Rasmussen, Deputy Head, Dep. of Engineering and Mogens Møller Hansen, Buildings Manager, Biogas Plant

17:00
Official inauguration of Aarhus University’s new demonstration scale Green Biorefinery

18:00
Return to Viborg

19:15
Dinner and networking at Nytorv Street Food, Viborg Snapsting
THE PROTEIN CHALLENGE
A crucial element in the further development of the bioeconomy is the increasing demand for protein. Not only as feed for animals, but also as food ingredients. However, we need to grow or extract this protein in a way, that reduces the environmental footprint of the production.

08:30 Coffee

09:00 The market demand for new protein sources
by Nan-Dirk Mulder, Associate Director, Rabobank International

Value creation in the protein ingredients market
by Denis Chereau, General Manager, Improve

Green biorefinery as the tool for disruption of Northwestern European agriculture
by Uffe Jørgensen, Centre director, Centre for Circular Bioeconomy, Aarhus University

10:00 Coffee

The development of plant proteins in the European Union
by Silke Boger, European Commission, DG Agriculture and Rural Development

The Danish bioeconomy panel recommendations on protein
by Asbjørn Børsting, Chairman of the Danish National Bioeconomy Panel

The future protein challenge - how to change strategies into action?
by Roberta Iley, Principal Change Designer, Forum for the Future

System-mapping of a Nordic Alternative Protein Industry
by Henrik Nørby Søndergaard, Innovation Lead - Climate KIC Nordic

An interactive session on the future education on bioeconomy
by ABBEE project coordinator Gerlinde van Vilsteren, Wageningen University & Research

ABBEE: Accelerating the transition towards the Bio-Based Economy via Education

12:00 Lunch

13:00 Technical tours
Indicate your choice upon registration
Note – there is a limited no. of participants on each tour

Arla Foods Ingredients - their largest production site, Danmark Protein. A unique environment for process developement and test production

Greenlab Skive - an industrial business park for companies working actively with integrated green energy, intelligent grid and sustainable production

KMC Food Innovation Centre - a creative base for trials, tests and evaluations on highly refined ingredients with specialized functions

Madsen Bioenergi - one of the first biogas plants in Denmark upgrading biogas to bio-natural gas and delivering to the natural gas network on a full scale

Dinner on the return-trip

22:00 Return to Viborg/Foulum
NEW PROTEIN SOURCES FOR EUROPE
Insights and outlooks on the development of new protein sources – what are they and how far are we in tapping their potentials?

Three parallel sessions on new sources of protein elucidating the circular perspective on their production and value chains mapping the state of the art, and identifying knowledge gaps in key processes.

08:30 Coffee

Proteins from green biomass
Room: Auditorium

Bringing protein to the market - the case of alfalfa concentrated extract
Valentine Claudon, Development Manager, Lucerne Research and Development, L-RD (FR)

Functional proteins from vegetable and arable crop residues
Paulus Kosters, GreenProtein Project manager, Royal Cosun (NL)

09:00

Proteins from algae
Room: ML 2

Cultivation of microalgae
Malene Fog Lihme Olsen, Senior Specialist, Danish Technological Institute (DK)

Production of macroalgae in the open ocean
Urd Grandorf Bak, Research Manager, Ocean Rainforest (FO)

Proteins from mussels, starfish, worms and insects
Room: ML3-4

Opportunities and challenges of producing insects at industrial scale
Lars-Henrik Heckmann, Head of Section, PhD, Danish Technological Institute (DK)

Status, challenges and opportunities in the production of mussels and mussel protein in Denmark
Jens Kjerulf, Professor, National Institute for Aquatic Resources (DK)

10.00

Green biorefinery technology development, Pilot and demo-scale facilities at Aarhus University
Morten Ambjørn Jensen, Assist. Prof., Biorefinery, Aarhus University (DK)

Effects of ensiling on quality parameters in grass
Marketta Rinne, Professor, Natural Resources Institute Finland (Luke) (FI)

Extraction of protein from macroalgae
Ingrid Undeland, Professor, Biology and Biological Engineering, Food and Nutrition Science, Chalmers (SE)

Differences in protein fractionation from aquatic and green biomass
Angelica Tamayo Tenorio, Food Process Engineering, Wageningen University (NL)

Blue Mussel cleaning and processing
Margrét Geirsdottir, Northlight Seafood (IS)

Processing insects for the production of protein
Dirk Sindermann, Head of Process Technology - Renewables, GEA Group (DE)

Mealworm biorefinery and processing for food products
Marieke Bruins, Senior Scientist, Wageningen Food and Biobased Research (NL)

11:00 Parallelle events

Poster session with pitches and Q&A’s to exchange new results and ideas with CBIO Ph.D. Students

Climate KIC workshop Challenges and opportunities in developing a systemic perspective on sustainable proteins

12:00 Lunch
PROGRAMME DAY 3

13:00
Quality requirements and nutritional value of protein products for feed from biorefined green biomass
Søren Krogh Jensen, Senior researcher, Molecular nutrition and reproduction, Aarhus University (DK)

Microalgae in fish feed
Mette Sørensen, Professor, Faculty of Bioscience and Aquaculture, Nord University (NO)

Can we turn decomposing seaweed into valuable worm protein for fish feed?
Martin Holmstrup, Professor, Soil Fauna, Ecology and Eco-toxicology, Aarhus University (DK)

Improved quality of soluble proteins from green biomass
Trine Kastrup Dalsgaard, Assoc. Prof., Food Chemistry and Technology, Aarhus University (DK)

Biorefining of micro- and macroalgae
Rósa Jónsdóttir, Research group leader, Ingredients & product development, Matis (IS)

Mussels, starfish and insects as feed protein sources
Jan Værum Nørgaard, Assoc. Prof., Animal Nutrition and Physiology, Aarhus University (DK)

14:00
System analysis of green biorefinery
by Morten Birkved, Professor, University of Southern Denmark, Life Cycle Engineering (DK)

Environmental impact of seaweed cultivation
by Göran Nylund, Researcher, Dep. of Marine Science, University of Gothenburg (SE)

Production of mussels as a tool to reduce eutrophication
by Karen Timmermann, Senior researcher, Applied Marine Ecology and Modelling, Aarhus University (DK)

15:00-15:10
Concluding remarks and goodbye
by Uffe Jørgensen, Centre director, Centre for Circular Bioeconomy, Aarhus University (DK)

Venue: Aarhus University, Foulum, Blichers Allé 20, 8830 Tjele, Denmark

Any questions regarding the conference, please contact:
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