World BioEconomy Forum talks on climate

THE 5th WORLD BIOECONOMY FORUM
LIVE FROM RUKA, FINLAND
7–8 SEPTEMBER 2022

WORLD
bioeconomy
FORUM

The World BioEconomy Forum talks on Climate – live from Ruka!

THE FORUM STRICTLY OPERATES
under the Four-Pillar Structure:

I **The Bioeconomy: People, Planet, Policies,**
II **Global Leaders, and the Financial World,**
III **Bioproducts Around Us and**
IV **Looking to the Future.**

Using the Four-Pillar Structure enables the complete evaluation of the status of the circular bioeconomy and thereby facilitates developments across the whole of the sector. This makes the Forum and its activities extremely powerful and effective, enabling the facilitating of a holistic bioeconomy and thus making significant conjoined efforts in the mitigation of climate change.

ALL FORUM PROGRAMS AND ACTIVITIES are aligned with the Four-Pillar Structure, including all Roundtables and the annual Declaration. This Four-Pillar Structure ensures that all relevant stakeholders in the circular bioeconomy have a voice and a platform.

THE WORLD BIOECONOMY FORUM® is a key platform for promoting the use of circular bioeconomy to save vital resources and contribute towards curbing climate change. The Forum was established in 2018. This year's summit will be broadcasted live from Ruka as an online event: The World BioEconomy Forum talks on Climate – live from Ruka! 7–8 September 2022.

THE 2022 SEASON will raise key discussions on the role of the bioeconomy and bioproducts in mitigating climate change. In the Forum we think that bioeconomy and bioproducts act as additional tools in combatting climate change. Consequently, this year's annual conference is named:
The World BioEconomy Forum talks on climate – live from Ruka! The theme has been reiterated throughout the events of the 2022 season, and it will be also featured in the annual Declaration.

Event sponsor 2022

PONSSE

Declaration 2022 sponsor

tietoevry

Supported by

KUUSAMO
KUUSAMON KAUPUNKI

Dear Forum 2022 guests,

THIS IS ALREADY THE FIFTH EDITION of the World BioEconomy Forum. Over the years, the Forum has become renowned as a platform for circular bioeconomy stakeholders – not only for its annual conference, but also for its roundtables which follow the Four-Pillar Structure. I warmly welcome you to the annual conference 2022!

The world has not become any less turbulent since we held the previous annual conference in Belém, Brazil. We all hoped that we would overcome the pandemic yet now we are currently facing new global challenges. No one expected today's events such as the ongoing war in Ukraine. With all the humanitarian distress accompanied with energy crises ongoing around us, it is undoubtedly deeply affecting the world. We can only hope for a peaceful future and outcome.

The Forum 2022 is held fully online, and safely with less carbon footprint as well. This fits perfectly for the overarching theme of the season: **WORLD BIOECONOMY FORUM TALKS ON CLIMATE – LIVE FROM RUKA!**

During this year's season we have revisited the new theme in our Roundtable discussions as well as in the annual conference. We can already say that we have learned a lot and it all will be highlighted in the **DECLARATION 2022**. One of the main findings is that for the time being the bioeconomy has not been part of the climate change mitigation tools.

We will once again have **HARD TALK** among the speakers and panellists. We are pleased to have over 50 high-calibre and very topical speakers sharing insights on this topic. We would like to express our sincere gratitude for their contribution. A thank you is also rightfully-directed to the Advisory Board for their consistent work on composing the exciting programme.

We cannot meet face to face, but let's use these digital tools as well as we can to interact with each other. During these days you will be hosted

by the core team: *Mark Rushton, Aida Greenbury, Matthias Zscheile, Tammy Moilanen and Brian Simiyu*. I believe they will help you navigate the programme to ensure you receive the most out of your experience at the Forum.

ON BEHALF of the Advisory Board and the core team – I would like to warmly welcome you to the fifth World BioEconomy Forum! We are looking forward to your active participation in the programme.

Jukka Kantola
Founder
World BioEconomy Forum

Bioeconomy is also seen as an opportunity in Kuusamo

THE vitality of Northeast and Kuusamo springs from its forests and nature. Businesses based on forests and nature, such as forest industry, nature tourism, primary production, and food processing, bring work and livelihood to almost every home. Love for one's neighbor and nature are also the value base of our urban strategy. In the northern conditions, our diverse nature has offered well-being from gen-eration to generation. We have lived here, and we continue to live, sustainably and in harmony with nature, so that future generations have the same opportunities. Kuusamo's sustainable growth is based on harmony and living together with nature.

The city has set itself the goal of achieving carbon neutrality and zero waste by 2030. Bioeconomy and the sustainable utilization of natural resources have been raised as important focal points of our strategy, and we will invest in them in the coming years. A bio-industrial area based on circular economy principles is being planned and being built for the Mäntyselkä industrial area, which, if realized, would be unique in Finland.

We have set our goal to offer 200 additional jobs by 2025. As an opportunity, we especially see in-creasing the degree of processing of local wood, new wood-based products, and entirely new product areas. Other potential business opportunities are offered by e.g. fertilizer production and the pro-cessing of products collected from nature into products with high added value for, for example, the pharmaceutical industry.

We work closely with the Nordic Business Centre - Naturpolis Ltd, owned by the city of Kuusamo and Taivalkoski municipality. Naturpolis Ltd currently also manages and prepares several development projects based on the bioeconomy in cooperation with RDI operators and the business life of the region.

For example, the tourism industry is under a lot of pressure to reduce its carbon footprint. We are currently investigating the most suitable compensation models for Northeast Finland.

In addition, we are creating a carbon-wise bioeconomy innovation ecosystem, which is a bioeconomy research, de-velopment, innovation and training environment designed for Kuusamo. The innovation ecosystem will serve both companies in the Northeast region and research and training organizations in different regions, and act as an innovation platform for e.g. for new bio-based products as well as construction, digitalization and circular economy solutions. We are also preparing a development project that inves-tigates the utilization of regional environmental biomasses as fertilizer, plant disease control and bio-gasification.

The World Circular Bioeconomy Forum is a great opportunity to familiarize yourself with the possibilities of the bioeconomy and hear top experts in the field. Participation is always worth it!

Jouko Manninen
Mayor
Kuusamo Town

Distinguished participants of the World BioEconomy Forum!

I AM very pleased to be able to convey greetings from the Finnish Government to the World BioEconomy Forum. The bioeconomy is an exceptionally important sector in Finland. In 2020 it accounted for 16 per cent of the total output of the national economy. Through a sustainable bioeconomy, eco-nomic growth, new jobs and citizens' wellbeing can be increased in the cities as well as in the rural areas.

The increasing global tensions we have seen this past year have made it clear that we have to make better use of renewable resources to achieve an economic green transition. Innovative bioeconomy, including sustainable forestry and agriculture, offers an important element for the overall solution in this regard.

Finland and Finnish businesses have invested heavily in research, innovation and sustainable bio-based technology solutions covering the entire life cycle of products, including their recycling. This is the path we are going to follow in the coming years keeping also in mind, that Finland has set the target to be climate neutral by 2035.

Bio-based solutions can contribute to solving the climate challenge. The bioeconomy addresses green transition by providing concrete, renewable solutions to sustainable production, sustainable consumption, and sustainable lifestyles. Bio-based biomaterials are key enablers of the green transition of many critical industries, products and services such as chemicals, batteries, textiles, construction, packaging and mobility – just to name a few.

Finland's updated Bioeconomy Strategy was released in April 2022. During the update of the strategy, opportunities were identified for doubling the bioeconomy's value added by 2035, considering overall sustainability.

A key aim guiding the update of Finland's Bioeconomy Strategy has been the preparation of a systematic, comprehensive and exhaustive action plan for developing the bioeconomy's value added. One of the bioeconomy's key strengths is the ability to make sustainable and efficient use of raw materials, including side streams, in the production of high value added products and chemicals.

This is the fifth time that the World BioEconomy Forum brings together bioeconomy actors from all over the world. This a great possibility to learn from each other and build global networks. The Forum plays an important role in increasing awareness of the bioeconomy and spreading the role of the bioeconomy in climate change mitigation.

Innovative bioeconomy offers the world a unique opportunity to address complex inter-connected challenges, while achieving economic growth.

Mika Lintilä
Minister of Economic Affairs
Government of Finland

Greetings from the European Commission

IT IS an honour for me to participate at this year's meeting of the World Bioeconomy Forum. The message of last year's Forum's declaration that 'Bioeconomy is more than an economic sector; it synthesizes a set of ethical normative values on the relationship between society and nature and their consequences' is similarly embodied in our European Union (EU) Bioeconomy Strategy adopted in 2018.

This year's Forum is taking place in the context of a looming threat of food and energy crisis exacerbated by the ongoing war in Ukraine and the aftermath of the pandemic, fuelled by global climate change impacts. For this reason, it is of vital importance to have a comprehensive bioeconomy framework, which guides policies on the resource-efficient and circular use of our biological resources as well as their protection.

Bear in mind that The European Green Deal ambition is to make Europe the first climate-neutral continent by 2050. It will be impossible to reach this ambitious climate goal without innovative renewable and bio-based and nature-based solutions.

We need to move away from the linear economy based on the intensive use of fossil and mineral resources, towards a sustainable economy.

In June of this year, the European Commission published the report "European bioeconomy policy: stocktaking and future developments", assessing the progress made on the implementation of the EU Bioeconomy Strategy. We found very promising developments, for example an increasing number of national and regional bioeconomy strategies.

Yet, we also identified gaps that require further action, such as: how to better manage land and biomass demands to meet environment and economic requirements, avoiding trade-offs; work on more sustainable consumption patterns to ensure environmental integrity; or further strengthen the bio-based sector, including start-ups.

I invite you to continue this discussion at our high-level Bioeconomy Conference, taking place in Brussels on 6th and 7th October.

Working together, I am sure that we will be able to manage the deeply transformative changes ahead of us!

John Bell
Director Healthy Planet,
DG Research & Innovation at
European Commission

Advisory board 2022

The World BioEconomy Forum Advisory Board is chaired by **Jukka Kantola**, and includes several accomplished bioeconomy experts.

Aida Greenbury
Co-Founder, Global Sustainability Advisor

Jukka Kantola
Founder, World BioEconomy Forum

Teresa Presas
Co-founder, World BioEconomy Forum Board

Mark Rushton
Co-Founder, Advisory Board

Dr. Christian Patermann
"Father" of the European Bioeconomy, Co-founder, Honorary Chair of the Advisory Board

Mark Rudnicki, Ph.D.
Professor of Practice Forest Biomaterials, Michigan Technological University

Ludo Diels
Senior Advisor, VITO, Chair of the Advisory and Programming Group of Processes4Planet

Marcello Brito
Chief Executive Officer at CBKK SA

Pramod Chaudhari
Executive Chairman, Praj Industries Limited

Flora Ismail Tibazarwa
Programme Director, Southern African Innovation Support Programme (SAIS)

David Brand
Chair and CEO of New Forests

Marco Mensink
Director General of Cefic, the European chemical industry council

Information for online participants

THE WORLD BIOECONOMY FORUM will be hosted in **ProspectumLIVE Virtual Event** platform. All the attendees will receive a link to the platform 7 days before the Event starts where you will be immediately directed to the Prospectum platform.

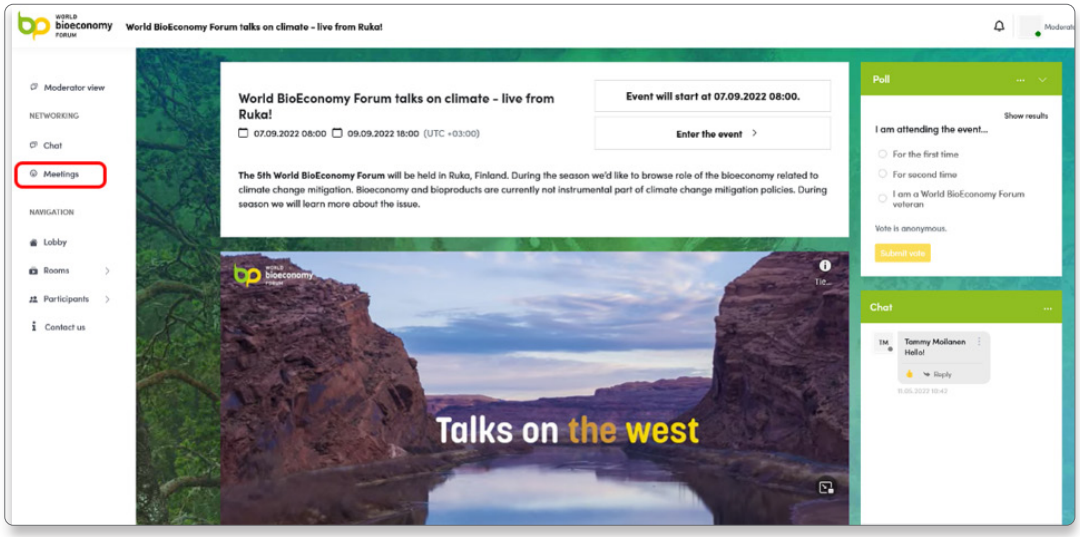
THE PLATFORM WORKS best with the latest browsers and devices. Functionality cannot be guaranteed with older mobile / tablet devices and browsers.

RECOMMENDED BROWSERS are Chrome, Safari, Firefox, Edge.

PLATFORM CONTAINS

- Rooms for the live programme including interaction tool (chat & polls)
- Agenda, Materials, and other relevant information
- Virtual Showrooms
- Recordings of the live sessions (published after the Event)
- Networking tool (1-to-chat, meetings and videocalls between participants)

THE PLATFORM STAYS ONLINE 14 DAYS after the event and you will find all the live session recording on the platform.



Network and arrange meetings with the ProspectumLIVE meeting manager tool

YOU CAN FIND THE MEETING MANAGER TOOL under the title "Meetings".

Alternatively, you can first search for interesting participant profiles and after that click on an interesting profile. A new window pop ups with choices **Cha**t, **Call**, and **Meet**.

- **Chat** 1-to-1 chat
- **Call** Videocall the person right away
- **Meet** Arrange and set up meetings beforehand

A length of scheduled meeting is 15 minutes.

INSTRUCTIONS ON SETTING UP THE MEETINGS

1. Once you are arranging a meeting you will be asked who you would like to invite to the meetings. After choosing the participants, define the meeting time and name. We also encourage you to write a personalized invitation text to the "comments" -field
2. Send the meeting request and wait for a reply. You can follow your meetings and their statuses from "meetings" tab. Meetings times can also be rescheduled by both parties.
3. Once the meeting is confirmed, you will see the status of the meeting will go "confirmed". The meeting video-call link will become active at the time of the meeting.
4. Once the meeting time comes, "Join videocall" -button appears. You can mute your mic, open your camera, and share your screen during the meeting if needed.

Programme

Times expressed in EET – local time in Finland

Day I – 7 September 2022

8:00 EET	Studio open – live from Ruka!
8:30 EET	Opening ceremony
9:30 EET	The Bioeconomy: People, Planet, Policies
10:30 EET	Coffee break – Back to the studio
11:00 EET	The Bioeconomy: People, Planet, Policies
12:15 EET	Lunch break – Back to the studio
13:30 EET	Corporate Leaders and the Financial World
15:00 EET	Coffee break – Back to the studio
15:30 EET	Corporate Leaders and the Financial World
17:00 EET	End of the day I – Back to the studio

Day II – 8 September 2022

8:15 EET	Studio open – live from Ruka!
8:45 EET	Bioproducts around us
10:30 EET	Coffee break – Back to the studio
11:00 EET	Bioproducts around us
12:15 EET	Lunch break – Back to the studio
13:30 EET	Looking to the Future
15:00 EET	Coffee break – Back to the studio
15:30 EET	Looking to the Future
17:00 EET	Back to the studio
17:15 EET	Closing of the Forum 2022 Conclusion, Annual awards, Declaration

Studio – live from Ruka!

DURING THE BREAKS you will be hosted by the studio team in Ruka! Your hosts are **Mark Rushton** and **Jukka Kantola** with **Matthias Zscheile**, **Aida Greenbury**, **Tammy Moilanen** and **Brian Simiyu**. They will bring you some insights behind the scenes and provide interviews/comments during the Forum days in the spirit:
Hard Talk – Relaxed Environment – Easy Access.

Programme

Day I – 7 September 2022

Times expressed in EET – local time in Finland

08:00 **STUDIO OPEN – LIVE FROM RUKA!**
Hosted by World BioEconomy Forum team

Jukka Kantola	Founder
Mark Rushton	Co-Founder
Aida Greenbury	Co-Founder
Matthias Zscheile	Membership Director – World BioEconomy Circle

08:30 OPENING CEREMONY
Welcoming words

Jukka Kantola	Word BioEconomy Forum
Mika Lintilä	Minister of Economic Affairs, Finnish government
John Bell	Director Healthy Planet, DG Research & Innovation at European Commission
Nils Torvalds	Member of European Parliement
Helder Barbalho	Governor of the state of Pará, Greetings from the World BioEconomy Forum 2021 host
Matti Heikkilä	Greetings from local government

Jukka Kantola

Mark Rushton

Aida Greenbury

Matthias Zscheile

Mika Lintilä

John Bell

Nils Torvalds

Helder Barbalho

Matti Heikkilä

The Bioeconomy: People, Planet, Policies

09:30 **The Bioeconomy: People, Planet, Policies**

Introduction of the theme by the session head Dr. Christian Patermann

Overview on recent biostrategies worldwide

Dr. Christian Patermann "Father" of European bioeconomy, Former Director EU Commission and Advisor to the German Government on bioeconomy matter

Keynote: Governing the Bioeconomy: Some international perspectives

Stefan Bößner Research Fellow, Stockholm Environment Institute, SEI

Keynote: Carbon management – the bioeconomy cannot do it alone

Ole Jørgen Marvik PhD, Special Adviser Life Sciences, Innovation Norway

10:30 **Coffee break – Back to the studio**

11:00 **Panel 1 – Latest development of national and regional biostrategies**

Moderated by Dr Christian Patermann

Panelists

Paulus Mungeyi Manager for the Biotechnology Division at the National Commission on Research, Science and Technology (NCRST), Namibia

Sari Tasa Senior Advisor, The Ministry of Economic Affairs and Employment, Finland

Wataru Mizunashi Director General, Bioeconomy Unit Technology Strategy, New Energy and Industrial Technology Development Organization, Ministry of Economy, Trade and Industry of Japan

Mary Maxon Senior Fellow, Schmidt Futures, USA

Yin Li Professor, Institute of Microbiology, Chinese Academy of Sciences

12:15 **Lunch break – Back to the studio**

Dr. Christian Patermann

Stefan Bößner

Ole Jørgen Marvik

Paulus Mungeyi

Sari Tasa

Wataru Mizunashi

Mary Maxon

Yin Li

Corporate Leaders and the Financial World

Session host
Valmet

13:30 **Introduction of the theme by the session head**
Teresa Presas Senior advisor World BioEconomy Forum

13:40 **Keynote speech: Economy review**
Rafael Cayuela EMEAI Senior Strategy Development Director, Corporate Chief Economist & the Chair of the EU Sustainability Leadership Team, Dow

14:00 **Panel 2 – Sustainable Financing**
Moderated by
Michael Nettersheim Managing Partner at European Circular Bioeconomy Fund ECBEF
Panelists
Mark Wishnie Chief Sustainability Officer and Head of Landscape Capital, BTG Pactual
Virginia Puzzolo Head of Programme Bio-based industries, CBE JU
Ben Vickers Land Use, Forests and Ecosystems Senior Specialist, Green Climate Fund
Jarmo Heinonen Senior Director at Innovation Ecosystems, Business Finland

15:00 **Coffee break – Back to the studio**

15:30 **Keynote speech: Bioeconomy in the Industrial transformation**
Adrian Leip Head of Sector Bioeconomy in the European Commission

15:50 **Panel 3 – CEO Panel**
Moderated by Teresa Presas Senior Advisor, World BioEconomy Forum
Panelists
Catia Bastioli CEO, Novamont Group
Fernando Leite CEO, Lipor
Marco Eikelenboom CEO, Sappi Europe
Petri Rasinmäki Vice President, Board and Paper Mills Business Unit, Valmet

17:00 **End of the day I – Back to the studio**

Teresa Presas

Rafael Cayuela

Michael Nettersheim

Mark Wishnie

Virginia Puzzolo

Ben Vickers

Jarmo Heinonen

Adrian Leip

Catia Bastioli

Fernando Leite

Marco Eikelenboom

Petri Rasinmäki

Day II – 8 September 2022

Times expressed in EET – local time in Finland

08:15 Studio open – live from Ruka!

Hosted by World BioEconomy Forum team

Jukka Kantola	Founder
Mark Rushton	Co-Founder
Aida Greenbury	Co-Founder
Matthias Zscheile	Membership Director – World BioEconomy Circle

Session host

ANDRITZ

08:45 Wrap up Day I / Bioproducts around us

Introduction of the theme by the session head

Ludo Diels	Senior advisor, Sustainable Chemistry Flemish Institute for Technological Research (VITO), Professor Emeritus at Antwerp University, Chair of the Advisory and Programming Group of Processes4PlanetT

09:00 Keynote speech: How to get to net-zero carbon by 2050

Jim Philp	Science and Technology Policy Analyst, OECD

09:15 Panel 4 – Role of processing technologies in enhancing sustainability and mitigating the climate change

Moderated by

Tiina Nakari-Setälä	Head of Business Development at VTT

Panelists

Peep Pitk	CDO, Fibenol Biorefinery
Pasi Vainikka	CEO, Solar Foods
Philipp Morgenthaler	Head of Manufacturing, Circa Group
Elias Junker	Area Sales Manager, ANDRTZ Laroche
Karolien Vanbroekhoven	Lignovalue plant VITO

10:30 Coffee break – Back to the studio

11:00 Keynote speech: Recycling of bio-based plastics

Constance Ißbrücker	Head of Environmental Affairs, Bioplastics Europe

11:15 Panel 5 – Long lasting bio-based products

Moderated by

Ludo Diels	Senior advisor, Sustainable Chemistry Flemish Institute for Technological Research (VITO), Vice-chair of the Public-private-partnership SPIRE

Panelists

Ylwa Alwarsdotter	EVP Business Development, Sekab BioFuels & Chemicals AB
My Hanh	Natural Science University HCMC
Petro Lahtinen	CEO and Founder, Woodio
Dr. Christian Haessler	Global Head of Circular Economy, Covestro

12:30 Lunch break – Back to the studio

Ludo Diels

Jim Philp

Tiina Nakari-Setälä

Peep Pitk

Pasi Vainikka

Philipp Morgenthaler

Elias Junker

Karolien Vanbroekhoven

Constance Ißbrücker

Ylwa Alwarsdotter

My Hanh

Petro Lahtinen

Dr. Christian Haessler

Looking to the Future

13:30 **Introduction of the theme: Looking to the Future**
Mark Rudnicki Professor of Practice, Forest Biomaterials, Michigan Technological University

13:45 **Keynote speech: The importance of the IPCC report and the Climate Resilience Development in bioeconomy strategies**
Hans Pörtner Professor, Alfred Wegener Institute of Polar and Marine Research, AWI,Co-Chair, Working Group II IPCC

14:00 **Panel 6 – The role of forests in the climate resilience development pathway**
Moderated by
Flora Ismail Tibazarwa Programme Director, Southern African Innovation Support Programme (SAIS)

Panelists
Antti Asikainen EVP Research, Luke
Yitagesu Tekle Tegegne Team Leader, Global Forest Governance, EFI, Coordinator, Circular Bioeconomy Alliance
Hans Pörtner Professor Alfred Wegener Institute of Polar and Marine Research, AWI
Arne Tobian Planetary Boundaries

15:00 **Coffee break – Back to the studio**

15:30 **Keynote speech: Developments of Carbon credit markets**
Jim Hourdequin CEO, Lyme Timber

15:45 **Panel 7 – The bioeconomy role in the climate change mitigation**
Moderated by
Mark Rudnicki Professor of Practice, Forest Biomaterials, Michigan Technological University

Panelists
Philip Osano Centre Director SEI Africa
Jeff Nuss Founder and Former President & CEO, GreenWood Resources, Inc.
Rainer Häggblom Chairman of the Board, Häggblom & Partners
Michael Jenkins CEO, Founding President, Forest Trends
Jim Hourdequin CEO, Lyme Timber

17:00 **Back to the studio**

17:15 **Closing of the Forum 2022**
Conclusion
Annual awards 2022
Declaration 2022

Mark Rudnicki

Hans Pörtner

Flora Ismail Tibazarwa

Antti Asikainen

Yitagesu Tekle Tegegne

Arne Tobian

Jim Hourdequin

Philip Osano

Jeff Nuss

Rainer Häggblom

Michael Jenkins

Interviews

TIINA NAKARI-SETÄLÄ *is Head of Business Development at VTT Technical Research Centre of Finland Ltd., the leading comprehensive research and technology organization in the Northern Europe. She has worked 20+ years in the company in various positions in research, business development, customer operations, leadership and strategy. She has acquired a broad knowledge on research and innovation cycles, innovation management, speeding up commercialization and technology transfer as well as strategic frameworks to facilitate company's impact delivery. Tiina Nakari-Setälä holds a PhD in biochemistry and has carried out research in sustainable and smart solutions in bio and circular economy.*

VTT is one of the very important players in the research and development of bio products. So, can you tell us a little bit about VTT and the work that you're personally involved in?

VTT is a technical research centre of Finland which turned 80 years old this year and ever since its founding we have been working together with partners to solve some of the complex problems in the world. Our partners are of course very important because no one can work on their own, so partners are needed and when it comes to VTT' operations, we are not really a commercial organization; we do not take our solutions and the technologies as products to the market, hence we always need the partners to do that.

One of the issues that I have been personally focusing at VTT is how to accelerate innovation. So this includes: how we can take the initial research ideas forward, how to produce the results and then actually how to identify the most important and interesting developments from the commercial perspective. This involves how to find the partners to collaborate with, how to develop these concepts and technologies, how to mature, how to increase the TRL (technology readiness level) of the technology and how then to eventually make the technology transfer.

What are your thoughts about the substitution effect? This is whereby products made from fossil fuels are substituted from those made by renewable materials. Do you think this is a positive move when it comes to the mitigation of climate change?

I think it is an important action. I have started to use a slogan that the bioproduct is actually an action for climate, so it's a positive action for climate. I think that it is very important that we continue on that track and replace fossil-based materials with renewables as much as we can. But of course, not only from virgin raw materials, but also make sure that the new renewable materials or other products also become circular.

So, there's a lot of work going on at VTT, but what in your opinion are some of the most important bio-products under development at the moment?

I think that one can take a global or a more national view on this and one can think in different time perspectives. There has been a lot of doors opened by bio-products that enter the market and those that are gaining ground and making the products commercial. Then there are the new developments that are not there yet but are about to break into the market.

One of those products are the new textiles and I think those are very interesting and important because we know that there is a huge need for that type of product. There are very interesting technologies currently being developed, and they are about to break into the market with production capacity soon. This is going to be a ground-breaking and very interesting time ahead for the textile sector.

TIINA NAKARI-SETÄLÄ
interview on YouTube

DR. PETER HOLMGREN *has a long international career in forestry and rural development. He served 14 years at the Food and Agriculture Organization of the UN (FAO) including as Director of Climate change 2007-2012. From 2012-2017 he was Director-General at the Center for International Forestry Research (CIFOR). Since 2018 he works as senior advisor on sustainability and climate change within the Swedish and European forest-based sector.*

What are your thoughts on the main current regulative tools on climate change mitigation?

I think we should be careful not to dive too deep into the details of what is being discussed at the policy levels at national or European levels today, and instead look back at the time when the Climate Change Convention was founded in 1992 and it was established that there are two main tasks in climate change mitigation. One is to reduce our bad emissions from fossils and cement and other

anthropogenic sources and the other was to secure the sinks and storages of carbon, mainly in our natural systems. Since then, most policy developments have followed these two parts, but separately.

So, what has happened is that the forestry mitigation issues have ended up in the second goal to secure the sinks and storages. It's not at all as visible in the first goal, reducing the emissions. I think this is the main structural problem we're facing. This is repeated in the Paris agreement, in the EU Green deal, and in the Swedish climate goals. We don't really get the regulations that embrace the forest-based sector that meets both goals.

How do you see the forests role in climate change mitigation?

We need to look at both goals at the same time, and we need to realize that an active and good forest management builds a long term and stable carbon storage in the forest. That's what we have seen in the Nordic countries and in many other countries that have an active forest-based sector. At the same time, we also need to see the benefits we get from the products, from the wood that is delivered from these well managed forests because they continue to store some of the carbon and more importantly, help reduce the emissions from alternative materials and energy.

What about substitution of bio products for fossil fuel-based products? How is it related to climate change? And importantly, do you see the substitution as acknowledged or playing a recognized role in policy areas?

So, if we start with the acknowledged part, it's well acknowledged. If you read the IPCC reports, for example, you can see that this is built into the scenarios that they count on wood-based products to replace other materials with a higher climate impact. Also, we see that bioenergy is expected to play a big role in phasing out fossil-based energy.

So, the acknowledged part is there. However, is it recognized? That's where the issue comes in, because we must straddle the two principal goals of climate change mitigation and because policies have evolved along these paths in a little bit of isolation. There are some issues about recognizing the role in policy measures because straddling these two goals is difficult. Yet we can see the potential role that we can attach to wood-based products, by that I include, solid wood products, paper-based products, and bioenergy. The combined role of these, if you have efficient value chains, if you have an integrated use of the components, if you have recycling, and if you have efficient end use of the products, is enormous.

The IPCC report was published just last week. What is your evaluation, how bioeconomy and bio-products are acknowledged by the IPCC in climate change mitigation?

Well, the most recent report was on climate change adaptation, and to that I would say that perhaps two things were not so obvious in the main messages from the IPCC report. One is that the best opportunity in forests is to make sure that we adapt, and we manage forests actively. The processes whereby we can promote or select the tree species we want. We can manage the forests to be more resilient to the new weather patterns. That is perhaps an underestimated part of the adaptation dimension in the IPCC report. So, again, IPCC very much acknowledges the role of the forest-based sector, but they are perhaps not highlighting some of the key dimensions of it.

Okay, so what do you think the problem is here? How do the forest-based industries get more recognition? What needs to be done?

I think we need to continue to build the complete story about the contributions that the forest-based sector makes. We must make sure that we are not confused with other things that impact the forest, such as deforestation, which is mainly caused by agriculture and which leads to major emissions, no doubt about that. Or for that matter, when forests are removed for setting up infrastructure or mining for instance, the forest-based sector should establish its own identity here, if you prove that you have a long-term commitment to forest management it will be good for the climate both in the forest and through the products that we derive from the wood.
In addition to that, I think that we need to have a stronger focus on the value chain, because a lot of the discussion, regulation and policies are focused on the forest. It's important, but without an efficient and integrated value chain, we will not be able to reach the same level on climate change mitigation. If the forest stands alone, there is a limit of what we can do. If the forest is well managed and connected to an efficient value chain, we can generate climate benefits repeatedly..

DR. PETER HOLMGREN
interview on YouTube

PHILIPPE MENGAL *is the Executive Director of the Circular Bio-based Europe Joint Undertaking (CBE JU; previously BBI JU) since 1st of October 2015. He is the chief executive responsible for the day-to-day management of the CBE JU, in accordance with the decisions of the Governing Board.*

The CBE-JU plays a pivotal role in enhancing the circular bioeconomy in Europe. How would you describe the CBE-JU's specific role in the circular bioeconomy?

I think the main specificity is in the name CBE-JU, as was the case for BBI-JU, is a public private partnership, meaning that it is a huge opportunity to align the public interest with that of private interests to advance the European bioeconomy. It is a 2-billion-euro budget initiative to fund a competitive circular bio-based industry in Europe with the objective of de-risking investment, mobilizing actors and structuring the value chain, because you know that the bio-based industry sector is still a very fragmented sector.

So, it is about developing science and technology for innovation with huge socioeconomic and environmental impact. What we do is that we bring together various actors from the bio-based industries, ranging from farmers, scientists, companies, investors, to solve the technological, regulatory and market challenges of the sector. The CBE public private funding team boost innovation and market deployment and pave the way for future investments.

Can you tell us a little bit about the take up of it? What is the day-to-day action?

How we turn the objective of the initiative into concrete action is we start with the strategic research and innovation agenda. That's an agenda that has been established by the two funding partners: the private partner, the bio-based industry consortium, and the European Commission. So, they set the strategic agenda for innovation to develop the sector with a perspective of five to ten years and the role of the program of the CBE-JU. The goal for my team is to turn this agenda into a call for proposals to select the best project that will be funded by BBI. There are different types of projects, including research and Innovation, which aim at developing a technology which is missing in a value chain or to improve it. Then there is the demonstration project which is the scale up and finally the flagship biorefinery project.

What are the challenges posed to creating a functioning bioeconomy on Europe?

Sourcing the production of the feedstock, the transformation of the feedstock and the application are quite deep trends that we have observed in the last years. The first example is that there is less room for copycat. So, the focus is on producing a bio-based solution, bio-based building block which is the exact copy of the fossil based one. So easy to replace but what is the added value? We see more and more breakthrough solutions which are really providing additional added value.

I like the expression that it's more building on the complexity created by nature. Nature created a wide diversity, so let's build on it rather than destroying it and rebuilding it which is a bit of a historic model of the petrochemical industry. There we see a fantastic future and very promising application.

What are your expectations from the Forum?

I think it is a very good moment to look at what has been achieved, I mentioned that the first European bioeconomy strategy was ten years ago. We saw here and there in other continent initiatives, also at national level a lot of European countries now have a bioeconomy strategy, but also regional bioeconomy strategy, because in some large countries you can have a national strategy, but then from a region to another, it's totally different.

More interestingly, those strategies in a lot of cases have been turned into an action plan. So that's very important to discuss about that, to learn from each other. So, to acknowledge the success. It's good for the European leadership, but I think it's also essential to openly discuss the remaining challenges and shortcomings and how to tackle them.

I think in Ruka it's important that we are not only proud of what has been achieved in exchange of good practice, but also identify the remaining challenges and agree on how to tackle them.

PHILIPPE MENGAL
interview on YouTube

PROF. DR. HANS-OTTO PÖRTNER *studied at Münster and Düsseldorf Universities where he received his PhD and habilitated in Animal Physiology. As a Research and then Heisenberg Fellow of the German Research Council he worked at Dalhousie and Acadia Universities, Nova Scotia, Canada and at the Lovelace Medical Foundation, Albuquerque, NM. Currently he is Professor and Head of the Department of Integrative Ecophysiology at the Alfred Wegener Institute for Marine and Polar Research, Bremerhaven, Germany. He acts as an associate editor "Physiology" for Marine Biology and as a co-editor of the Journal of Thermal Biology and serves on several editorial boards.*

Can you about your work on research and then more about your role as co chair of Working Group Two for the IPCC?

I came into the topics that are covered by the IPCC from the side of my own research in marine ecosystems, trying to understand how marine animals specialize in different climate zones. But my interest certainly goes beyond those and always went beyond the marine area as I am an animal physiologist. I have a specific interest in cause and effect understanding of what the environment means, how organisms have to adapt and how they are challenged by environmental changes, and this is exactly what climate change does.

This means exposure to ocean acidification, CO_2 causes PH which is a measure of acidity, to fall and challenges animals physiology, especially the capacity of calcium carbonate in shell formation in systems like coral reefs. So that's where I see the connection, I also have ties with the Biodiversity Panel, which is a sister organization of the IPCC. We had the first ever official collaboration meeting last year and published a report on that.

What would you say in a sentence to climate change sceptics now?

Climate sceptics have missed some important information, otherwise they wouldn't be sceptics. Ecosystems can exist without the human species, but human species cannot exist without healthy ecosystems. Healthy soils are the basis of food production and biodiversity is so meaningful in keeping all the functioning of those ecosystems.

As co chair of the IPCC, how do you see the progress of the ambitious target of the Paris Agreement?

We have these nice goals that have been agreed in the policy arena. But we are far from keeping to these goals as we have a huge implementation gap. We are too slow in mitigating, in reducing climate change and or stopping it by a certain time. That's where the big challenges are, the implementation of what we've agreed at the international level.

At the World Bio Economy Forum this year we will be addressing the role of the bioeconomy and bioproducts in relation to climate change mitigation. How do you see the interconnection?

Sustainability is a leading principle in the bioeconomy, it makes a lot of sense to develop models where nature can be used sustainably to support mitigation. The term nature-based solutions come to mind where we are strengthening those ecosystems that store carbon. Carbon rich ecosystems exist on land, in the ocean and even in managed ecosystems that store carbon. We are on the verge of overusing the space that is available on this planet for this, and this is constraining the biosphere. We need to protect and conserve, we need to restore ecosystems.

PROF. DR. HANS-OTTO PÖRTNER
interview on YouTube

TIMOTHEE BOITOUZET,
Founder & CEO of Woodoo.

Firstly, that's an intriguing name that you have for your company. Can you just tell us why the name Woodoo?

So Woodoo is basically a mix between wood and magic and since we are enhancing nature through technology, we thought it was an appropriate name.

Can you please describe some of the products you're making at Woodoo and how they make a difference when it comes to decarbonisation and mitigating climate change?

Wood is one of the oldest materials known to mankind and just imagine that through chemistry and physics, we can turn wood into steel, we can turn wood into glass, we can turn wood into all sorts of materials that are part of our supply chain and day-to-day products.

The reason I founded the company is that we use materials that were invented a millennia ago. For instance, concrete was invented by Romans, glass was invented by Egyptians, and if we must fight, we're fighting it to win the battle against climate change. We must invent materials that can substitute concrete, glass and steel and all those super carbon emissive materials with a very favorable carbon footprint. So, the products that we are making at Woodoo involve sometimes making wood transparent, sometimes making it as strong as steel. But with the carbon footprint, which is in our case, it's seven times lower than glass and 229 times, to be exact, lower than aluminum.

So how do Woodoo's processes work?? Are you breaking down wood, into fibers?

We have 50 patents on this technology, we can make a handful of products and basically the way we treat wood is we take solid wood like planks, sheets, and wood that are traditionally used in the woodworking industry. Through chemistry, we extract lignin which is responsible for some of the biggest problems that wood has, for example, insects, they eat lignin, lignin is what gets oxidized by air and moisture, it's also sensitive to UV.

So, through removing this molecule and replacing it with another filling compound, you can totally change the face and the properties of this low carbon footprint material, enhancing its properties.

So can you comment on how important bio-products like Woodoo's are for the health of the planet into the future?

So, two answers here. First, the carbon footprint of the material, as mentioned, is a structural wood piece that has strength properties that are three times higher than aluminum. This material also has a carbon footprint which is 220 times less impact on the planet than aluminum in terms of CO_2 emissions. Another area of our business is that we help revive the forestry sector through transforming weak wood species or diseased wood species into advanced material. Because you know that climate change is going to have an impact on forests, especially because temperatures are rising, forests are going to be attacked by fungi, insects, and other threats. So, more and more trees are going to die and before they completely collapse and transform into methane which is a problem when trees are dying and emitting as much greenhouse gas, we want to specifically look at those weak and disease wood species to transform them into revolutionary new materials.

TIMOTHEE BOITOUZET
interview on YouTube

MR. MUYAMBI FORTUNATE *is the Deputy Executive Secretary of the East African Science and Technology Commission (EASTECO) an institution of the East African Community in charge of Projects and Programs. He is also a Principal Officer-Innovation, Technology Development and Acquisition at EASTECO. Mr Muyambi promotes and coordinates the development, management and application of Science and Technology to support regional integration and socio-economic development in EAC Region.*

Can you please describe your role in the bioeconomy and give us a brief introduction into the work that you do?

I work for the East African Science and Technology Commission (EASTECO), which is a specialized institution of the East African Community. EASTECO promotes and coordinates the development, management and application of science and technology, supporting regional integration. I am the deputy executive secretary, head of Department of Programs and Projects responsible for projects and program activity and implementation in the seven EAC partner states. I'm responsible for promoting and coordinating the development of science technology and one of the programs that I coordinate and manage is the East African Regional Bioeconomy Program

What do you see as the most promising areas in the bio economy in Africa?

Number one on the list is bio-based technologies and solutions that strengthen food production and products that ensure food security. The second is bio-based

healthcare sector. Third is the industries that stimulate sustainable economic growth and that add value to the under-utilised renewable resources in the region. Lastly is the production of sustainable bioenergy and development of ranges of bioenergy products for both household and industry purposes.

Innovation is also playing a major role in your strategy. Can you elaborate on how you maintain and foster innovation?

We enhance bioeconomy innovation systems through facilitating the connection of R&D actors. We have research and development actors, individuals and entrepreneurs, and especially the start-up businesses. We link the R&D and entrepreneurs to the industry, that is something which we are innovative on. Also we have to be innovative on the access of capital and credit facilities under reasonable terms which is going to be very crucial for the implementation of bioeconomy in the region. To successfully bring in new bioproducts to market new funding partnerships are necessary in which innovation risks and business development costs are born by several different parties. Lastly, the professional incubating services are very key to bioeconomy through supporting the introduction of new bio-based products, techniques and technologies to market stimulate, business to business collaboration and supporting private sector actors in the EAC region, also to collaborate with international companies is also important in this context. So those are the areas where I see that we have to maintain and foster innovation for bioeconomy.

The World BioEconomy Forum - talks on climate is going to be the main theme which is where we are going to learn about the bioeconomy, bioproducts' role in climate change mitigation. Can you share your views on this topic?

Our bioeconomy strategy anchors mostly on the climate change mitigation adaptation in the region. Creating new forms of green sustainable modern bioenergy such as biofuels for transportation and electricity generation from bio-waste and industry products plays an important role in protecting the environment and combating climate change.

MR. MUYAMBI FORTUNATE
interview on YouTube

SARI TASA, *Senior Advicer (M. Sci Chem.) works at the Ministry of Economic Affairs and Employment, Department of Innovations and Enterprise Financing, main themes being at the moment bioeconomy, circular economy and climate actions. She is carrying out the programs and tasks from the governmental strategic action plans. The related tasks have strong focus on solving global problems with Finnish innovations in sustainable growth, climate actions and carbon neutrality.*

Can you briefly describe the main points of the new strategy, and could you please highlight the differences when compared to the 2014 buyer strategy?

The first strategy was published 2014 and the years before that they were very dark times for Finnish forest industry. They were renewing themselves totally and the targets we had there they were related to jobs and how well the business will be doing but they were not based on any research work. They were lucky guesses, target numbers that would sound great. In the new strategy the work started with a few more studies how the old one has impacted the bioeconomy, and also what expectations were required for a new one. We also checked and compared what is going on in other strategies and other programs not only in Finland but also at the EU level.

How has the strategy gone down with the stakeholders? How has it been received?

Well, they are looking forward very much to more detailed programs, but for that I think we need to wait for the next government and their budget. We are already doing something, but the stakeholders are doing their part already, for instance regions in Finland are producing their own strategies and actions and EU funding is well used. This RR funding is well used already, so things are flying.

What do you think makes Finland so strong in the bioeconomy sector? What is the secret that Finland holds and how can it keep the secret and maintain this power?

The secret is that we don't have any secret. We are hungry, for us the forests are our green gold and we need to take care of it so that we have also bread also tomorrow. The other secret is that you need to do this together with the stakeholders, so that you share the target and the means on how you do it, because then you get everybody involved and you get where you are aiming at.

Is there any sector in particular that you see as the most promising in the future for the bioeconomy?

For Finland for there are some interesting innovations regarding battery chemistry. Also, the other interesting area is textiles, combining lignin, for example, from the forest industry as well as recycled fibres to create a circular economy for textiles.

There is more and more talk about the bioeconomy's role related to climate change mitigation. How do you see this interconnection, and do you see that the bioeconomy and bioproducts are well enough incorporated into climate mitigation policy tools?

Personally I have difficulty understanding why they are separate things, because bioeconomy for me is a tool to work in climate actions and it's basically a tool for both climate mitigation and adaptation. Bioeconomy and circular economy are exactly the tools to fight against climate change.

We are very much looking forward to seeing you at the World Bio Economy Forum. What are your expectations for this year's annual conference?

When you get people together globally, I think it gives you a good view of how the global markets are doing, what kind of global action is needed, and you can find new collaboration possibilities. These products that we make in Europe, or Finland, they need to be manageable in all the markets. Bioeconomy is not national or regional thing in the end, bioproducts are a good thing because they are biodegradable, they are recyclable, and they are renewable. My expectation is to see how Finland positions itself in this discussion, what we could do, how our strategy is working in this global playground, and importantly what are our weaknesses are.

SARI TASA
interview on YouTube

PONSSE

EV1

A NEW TECHNOLOGY CONCEPT BY PONSSE

READ MORE: www.ponsse.com/ev1

Awards session

Sponsored by

BUSINESS FINLAND

WHAT ARE THE WORLD BIOECONOMY FORUM AWARDS? The World BioEconomy Forum aims to promote the incredible work ongoing in the circular bioeconomy to fight climate change and create a carbon neutral world. The awards recognise companies, products and people whose contribution created a remarkable impact on the global circular bioeconomy and climate change mitigation.

THE RECOGNITION PROCESS. Awards are presented at the annual Forum on 8 September 2022. Winners will be selected by the Advisory Board of the World BioEconomy Forum.

Categories

Bio Act of the year

The most remarkable contribution during 2022 related to the circular bio-economy and climate change mitigation. The Advisory Board will consider contributions made by organisations, groups or other entities which facilitate the circular bioeconomy, or mitigate climate change

Bioproduct of the year

The most remarkable bio-product during 2022 related to the circular bio-economy and climate change mitigation. The Advisory Board will consider the novelty and innovativeness of the bioproduct, which can be in commercial use or have a clear path to commercialisation.

Bio Person of the year

The most remarkable person during 2022 within the circular bioeconomy and climate change mitigation. The Advisory Board will consider recognised impact of this individual for the circular bioeconomy and mitigating climate change.

Start-up of the year

The most remarkable startup during 2022 related to the circular bioeconomy and climate change mitigation. The Advisory Board will consider recognised impact of the start-up for the circular bio-economy and climate change.

World BioEconomy Circle

THE MEMBERSHIP CIRCLE as part of the World BioEconomy Forum® was founded in April 2021. Since that we are inside of a continuous growing process within more than 24 members now of all types like start-up´s, SME´s, large and major companies, institutions, universities, associations, and finally private persons.

How does the Circle work?

The Membership Circle is its own structure inside the Forum's activities with focus on more detailed, specified information exchange in between the interested participants of the Forum.

The World BioEconomy Forum itself has formed a dedicated global networking platform to exchange ideas concerning the latest developments in the circular bioeconomy.

The World BioEconomy Forum will allow discrimination-free participation of any entities under the condition that they do not in any way damage or denounce any recognized legal or ethical norms.

The platform is designed so that politicians, academics, technical experts, and business leaders can share their vision and ideas and can learn from each other.

What is important about the cooperation inside the circle?

Every participant in the circle is responsible for their own announcements and IP-secrecy during all World BioEconomy Forum events and activities.

The World BioEconomy Forum will not be held responsible for any content or statements discussed by any participant.

The purpose of the World BioEconomy Forum Circle is to explore, discuss and highlight high-level developments within the circular bioeconomy. We would request that our members refrain from discussing any commercially sensitive topics regarding technology, markets, or pricing.

Entities joining the World BioEconomy Circle and working together under the umbrella of the World BioEconomy Forum are obliged to work under the so-called Chatham House Rules as follows:

"When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed."

Activities of the circle

For the members, World BioEconomy Circle organises own assemblies called "Insider Insights". The occasions are arranged as per Chatham house rules to keep the communication confidential among the members and enabling dialog on evolving issues related to the circular bioeconomy.

General goals of the World BioEconomy Circle are:

- Trustful and efficient communication platform for the members.
- Source of ongoing state of the art information regarding general and specific developments inside the given fields of interests of the circular bioeconomy worldwide.
- Intensive networking of the engaged stakeholders of the circular bioeconomy worldwide
- Think tank of the engaged stakeholders to develop and to enable general long-term objectives and strategies of the circular bioeconomy worldwide supporting the alignment of the World BioEconomy Forum activities in terms of content

INTERESTED IN THE MEMBERSHIP? Please send your application to members@wcbef.com or contact us discuss further.

Bioproduct Day – 7 July

WE AT THE WORLD BIOECONOMY FORUM have taken time to reflect about the role and importance of bio-based products in superseding non-renewable options. Through the adoption of more bio-based materials we can move towards solutions that are more sustainable and healthier for us and the planet by stepping away from fossil fuel feedstocks. We aim to raise awareness of the importance of bioproducts around us and how they contribute to the larger goal of environmental sustainability and climate action.

THE WORLD BIOECONOMY FORUM for the second time ran our annual campaign earlier this year, "World Bioproduct Day" held on 7 July. Bioproduct day is an annual and reoccurring event in which we ask you to share your experience and story on bioproducts. You can participate by posting a photo/video of a bioproduct related to you or owned by you.

WE ASK YOU TO SHARE your post via LinkedIn, Twitter, YouTube, and/or Email Submission with the accompanying hashtag, **#bioproductday**. We will showcase and share yours and/or your company's posts on our social media channels and have the opportunity to showcase them at the annual Forum. By doing so, we are placing a spotlight on the benefits of bioproducts to the future of the Earth, to the future of our home.

BIOPRODUCT DAY this year is held in collaboration with BIOVOICES, Transition2Bio, and the European Bioeconomy Network with support from SPRING - Italian Circular Bioeconomy Cluster, International Bioeconomy Forum, The International Advisory Council on Global Bioeconomy (IACGB) and The Global Bioeconomy Summit.

World BioEconomy News™

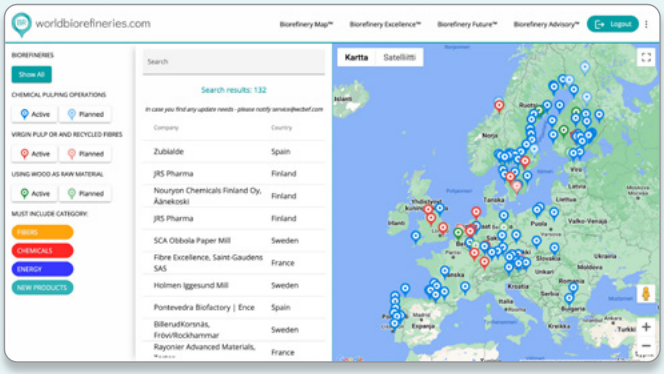
WORLD BIOECONOMY NEWS FOCUSES ON THE LATEST NEWS and developments surrounding bioeconomy respective to The World BioEconomy Forum's thematic sessions: The Bioeconomy: People, Planet, Policies; Corporate Leaders and the Financial World; Bioproducts around us and Looking to the Future. Our World BioEconomy News service is available on our website, as an email subscription, and mobile application directly to your smartphone.

Circular bioeconomy breaking news and developments on the go.

VISIT THE NEWS:
https://wcbef.com/news-bulletin

Biorefinery Map™

BIOECONOMY IS GROWING worldwide and benefits nearly every sector of the economy. Its continued growth is critical for sustainable development in all nations of the world. The forest sector is currently a major contributor to the bioeconomy through traditional products such as wood products, paper and a large array of emerging products associated with the biorefinery concept. While forest-based biorefineries are increasingly producing advanced biofuels, a wide variety of biochemicals and biomaterials around the world, there has never been a well-structured database of the current facilities and production details.



THIS YEAR, THE WORLD BIOECONOMY FORUM LAUNCHED its Biorefinery Map™. This is a detailed database and map showing biorefineries in Europe (EU27 + Switzerland, Norway, UK), who are they operated by and where are they located? Utilising the Biorefinery Map ™ will help users gain a comprehensive idea of operators in this field in Europe. On the map, biorefineries are defined, identified, and put into three major categories and users can navigate around them using our browsing tool.

CURRENTLY WE ARE OFFERING FREE DEMOS to any interested parties.

BOOK A DEMO:
wcbef.com/online-store/biorefinery-map-service

Bioeconomy News App

THE WORLD BIOECONOMY FORUM LAUNCHED the world's first breaking news app for global stakeholders operating in the circular bioeconomy. The app, which is available for both Android and IOS devices, alerts users to the very latest breaking news and developments taking place in the rapidly growing sector.

THE APP COVERS all the latest news emerging from the global circular bioeconomy, and importantly will fit into the World BioEconomy Forum's four thematic pillars of; ***People, Planet, Policies; Corporate Leaders and the Financial World; Bioproducts Around Us and Looking to the Future.***

Download on the App Store

GET IT ON Google Play

Core team information

Aida Greenbury
Co-founder, Advisory Board
aida.greenbury@wcbef.com

Jukka Kantola
Founder
jukka.kantola@wcbef.com
+358 40 552 8880

Mark Rushton
Co-founder, Advisory Board
mark.rushton@wcbef.com
+44 7717 828211

Matthias Zscheile
Membership programs
matthias.zscheile@wcbef.com
+49 171 1219644

Tammy Moilanen
PR & Media Manager
tammy.moilanen@wcbef.com
+358 40 321 8998

Brian Simiyu
Marketing Coordinator
brian.simiyu@wcbef.com
+358 44 987 4860

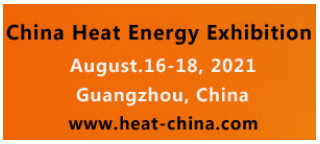
Markku Päätalo
Brand Designer
markku.paatalo@wcbef.com

World BioEconomy Shop

THE WORLD BIOECONOMY SHOP IS AN ONLINE shop for products, services, reports related to circular bioeconomy. We also think it is important to have an online store to help the circular bioeconomy community find sector related products on one site. The World BioEconomy Shop offers the Forum's own products as well as those from other stakeholders in the sector.

VISIT THE SHOP:
wcbef.com/online-store

Media partners



ISO 9001:2015 Certified


The bioeconomy
celebrates nature
WORLD
bioeconomy
FORUM
www.wcbef.com