

International cooperation for fostering all SDGs through bioeconomy

G20 at Rio de Janeiro
September 9th 2024

Jukka Kantola
Founder and CEO
World Bioeconomy Forum

The Bioeconomy meets SDGs

The Bioeconomy plays a role

Global trends

Why is collaboration needed?

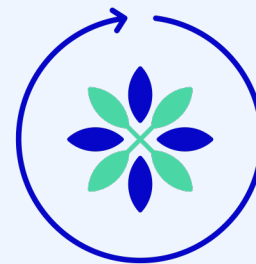
Unique structure of the World BioEconomy Forum

What has been done?

Looking to the Future

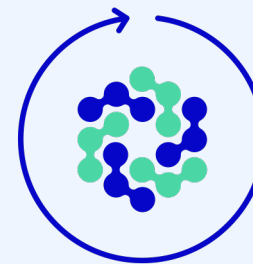
Takeaways

The bioeconomy meets the SDGs



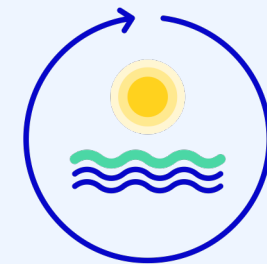
Bioresource vision

A bioresource vision, focusing on the role of research, technology development and upscaling, needed for conversion and value-chain-valorisation of biomass feed stocks, from agriculture, marine, and forestry sectors.



Biotechnology vision

A biotechnology vision, emphasising the importance of biotechnology- and biomanufacturing research, for application and commercialisation in different sectors.



Bioecology vision

A bioecology vision, highlighting the importance of ecological processes that optimise the use of land, energy and nutrients, giving space for promoting biodiversity, strengthen crop plants by out-phasing pesticides and protect soil quality against degradation. While the previous two visions are technology-focused and give a central role to RD & D in globalised systems, this vision emphasises the potential for regionally concentrated circular and integrated processes and systems.

The bioeconomy plays a role



SDG 2: Zero Hunger - The bioeconomy supports sustainable agriculture, improves food security, and enhances nutrition through biotechnological innovations in crop and livestock production.



SDG 3: Good Health and Well-being - Advances in biotechnology within the bioeconomy lead to the development of new medicines, vaccines, and healthcare solutions, contributing to better health outcomes.



SDG 6: Clean Water and Sanitation - The bioeconomy promotes the sustainable management of water resources, including the development of bio-based technologies for water purification and wastewater treatment.



SDG 7: Affordable and Clean Energy - Bioenergy and biofuels derived from biomass are key components of the bioeconomy, contributing to the transition towards clean and renewable energy sources.



SDG 8: Decent Work and Economic Growth - The bioeconomy creates new job opportunities, especially in rural areas, and drives economic growth by developing sustainable industries based on biological resources.



SDG 9: Industry, Innovation, and Infrastructure - Industrial biotechnology, a core part of the bioeconomy, fosters innovation in manufacturing processes, leading to the production of bio-based materials, chemicals, and products.



GOAL 11: Sustainable cities and communities

The bioeconomy supports sustainable urban infrastructure through bio-based construction, green spaces, urban agriculture, waste-to-energy initiatives, and organic waste recycling, enhancing city sustainability



SDG 12: Responsible Consumption and Production

The bioeconomy promotes sustainable production patterns by developing bio-based products, encouraging recycling, and reducing waste through the circular bioeconomy.



SDG 13: Climate Action - Bioeconomy practices such as carbon sequestration in forests, sustainable land management, and the production of bioenergy help mitigate climate change by reducing greenhouse gas emissions.



SDG 14: Life Below Water - The bioeconomy supports sustainable fisheries, aquaculture, and marine biotechnology, contributing to the conservation and sustainable use of marine resources.

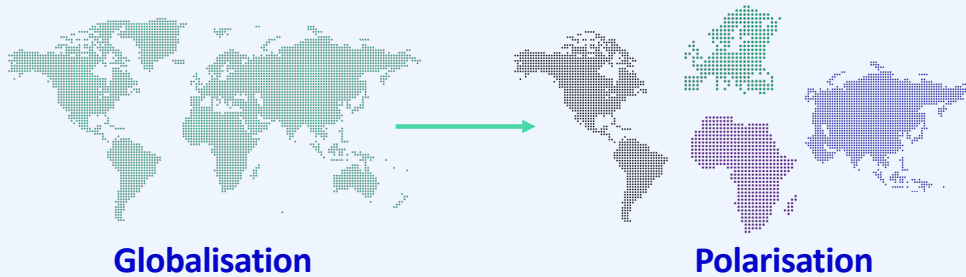


SDG 15: Life on Land - Sustainable forestry, land management, and biodiversity conservation, all aspects of the bioeconomy, contribute to the protection and restoration of terrestrial ecosystems.



SDG 17: Partnerships for the Goals - The bioeconomy encourages collaboration between governments, industries, and research institutions to advance sustainable development goals through the sharing of knowledge, technology, and resources.

Global trends

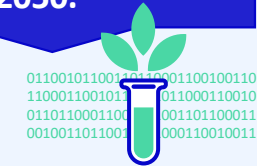


- The shift from globalisation to polarisation could fragment the bioeconomy, making international collaboration more difficult and leading to more regionally focused bioeconomic strategies.
- Rising divisions threaten international collaboration, slowing progress on global challenges like climate change and biodiversity.

Did you know? Today's global bioeconomy is estimated to be valued at US\$4 trillion, with growth potential to US\$30 trillion by 2050.



**3rd Industrial Revolution
Digitalisation**



**4th Industrial Revolution
Biorevolution**

Opportunities in the bio-revolution:

- Biotechnology advancements, like genetic engineering and synthetic biology, are driving new markets and business models.
- Ethical and regulatory challenges may arise in a polarised world.

Success and growth in the bioeconomy hinges on navigating these global dynamics.

Why is international collaboration needed?

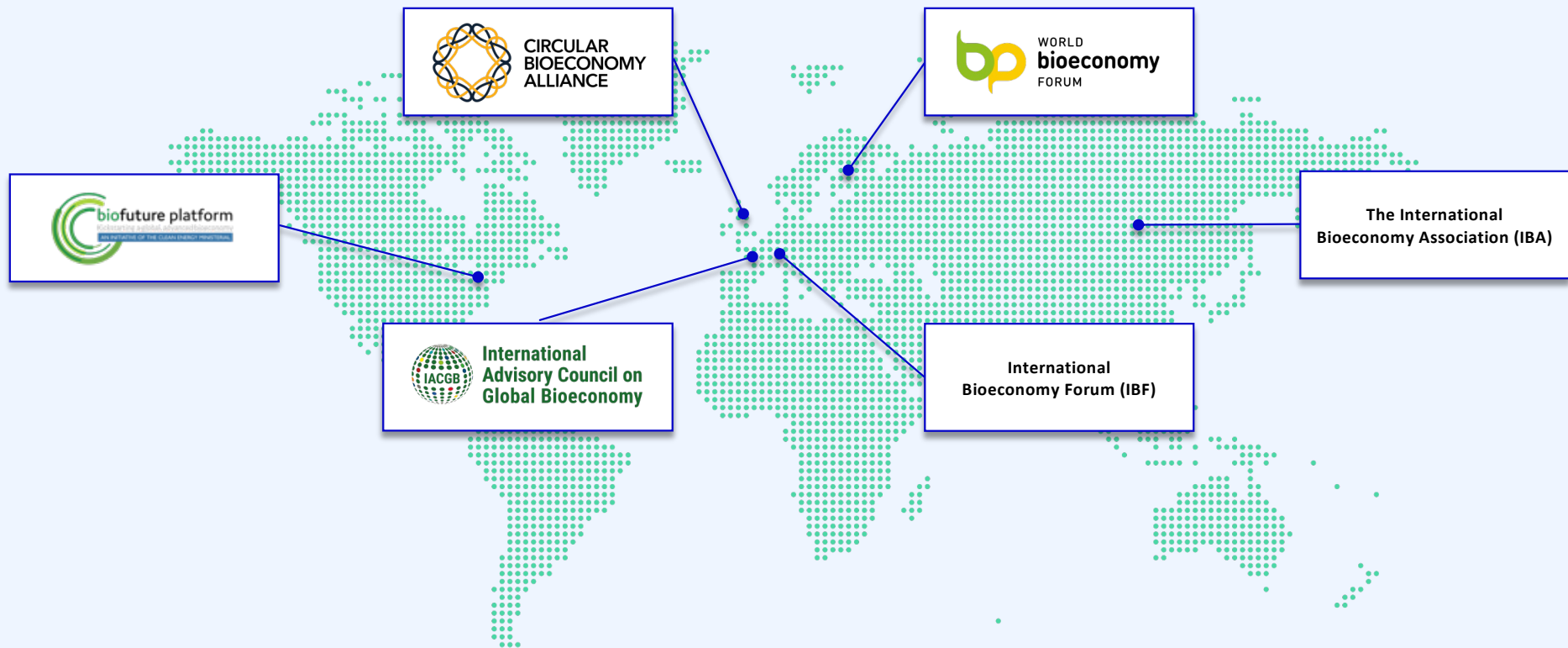
- 
- 1 Scaling positive impacts
 - 2 Mitigating risks
 - 3 Harmonising standards and measurements
 - 4 Enhancing financing mechanisms
 - 5 Creating enabling trade rules
 - 6 Building knowledge and capabilities
 - 7 Global policy coordination



More on
**Financing a Positive Bioeconomy
for Climate, Nature and People**

September 12 2024, Jardim Botânico, Rio de Janeiro, Brazil

Some global bioeconomy forums



Unique Four-Pillar Structure Reach out stakeholders widely



- All programmes and activities are arranged according to the Four-Pillar Structure
- Each season has a designated theme
- Every season is concluded with a declaration

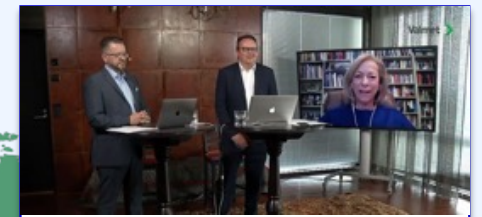
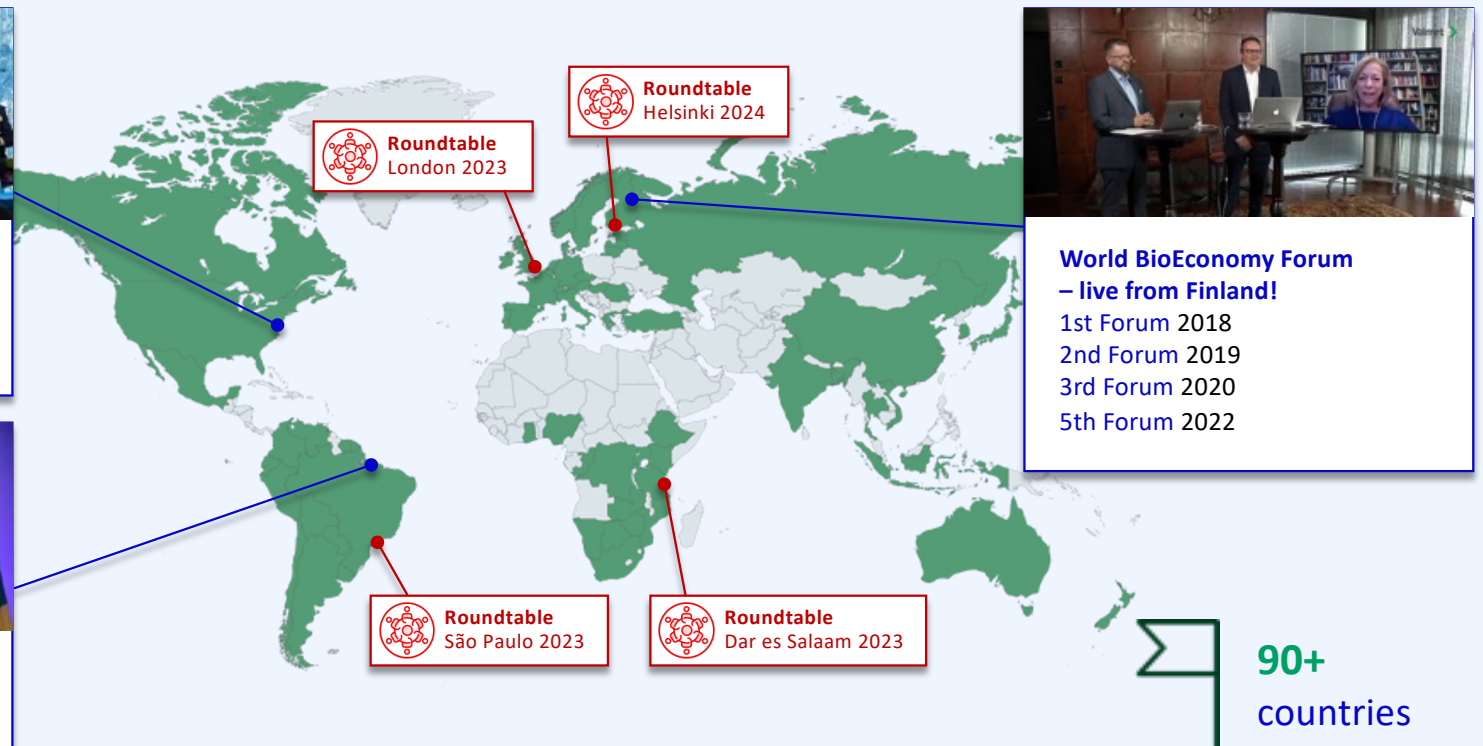
Participants of the World BioEconomy Forum



World BioEconomy Forum goes to the USA – live from Washington D.C.!
6th Forum 2023



World BioEconomy Forum goes to Brazil – live from Belém!
4rd Forum 2021

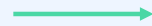


World BioEconomy Forum – live from Finland!
1st Forum 2018
2nd Forum 2019
3rd Forum 2020
5th Forum 2022

World BioEconomy Forum goes to Rio de Janeiro – Paradigm shift for the bioeconomy!

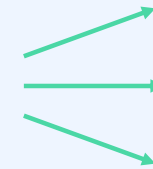


G20 GIB 2024



World Bioeconomy Forum

13–15 March 2025



COP30 Belém

10–21 November 2025

- Bridging the bioeconomy with climate change mitigation
- Bringing together public and private sectors
- Ensuring global reach out

Takeaways

- The bioeconomy is crucial for achieving sustainable development goals (SDGs)
- The bio-revolution is on the horizon
- International collaboration is essential
- The World BioEconomy Forum with its unique structure supports global leadership and stands ready to support global initiatives, including those of the G20

Thank you!



Jukka Kantola
CEO & Founder, World BioEconomy Forum

jukka.kantola@wcbef.com
www.wcbef.com