

EXECUTIVE SUMMARY

A comparison of bioeconomy strategies was conducted in during the 2Q 2023 by the **World BioEconomy Forum**.

This work analysed the latest bioeconomy programmes in selected regions: **Brazil, USA, Canada, EU, Sweden, Finland, India** and **China**. Not all of them have a published national bioeconomy strategy, but all of them have shown a clear interest to facilitate developments of the bioeconomy, like Brazil indicating stronger focus on the bioeconomy.

The last 14-16 months in the international bioeconomy has been very dynamic. World economic powerhouses such as **China** and **USA** have recently increased engagement in this sector. China announced its first bioeconomy strategy in May 2022, and the USA updated its own strategy by an EO 14081 to advance Biotechnology and Biomanufacturing in September 2022. Both also have an interest in becoming the world's leading bioeconomy – the competitive landscape is visible.

The bioeconomy is an emerging topic to other international fora, e.g. the UNIDO organised a bioeconomy panel for the first time at the UNFCCC COP27 last autumn, this year **India** is bringing the bioeconomy on the G20 meeting agenda. There is growing interest to consider the bioeconomy as a source of solutions to deal with the global challenges.

The importance of the bioeconomy is growing also economically. It is estimated that the current global value of the bioeconomy is approx. 4 trillion USD and according to some projections its value will rise to 30 trillion USD, which is a third of the global economic value.

Based on the analysis, the **bioeconomy is seen as a source of solutions to humanity's basic challenges,** such as climate change management, biodiversity, health care and food security. At the same time, complexity increases, and the role of the bioeconomy must be recognised in interacting phenomena. It is also interesting to note interest in some areas towards **societal goals** and **indigenous knowledge** valorisation.

Bioeconomy is not an explicit concept, and its contents are not comparable in terms of different regions. The bioeconomy scope of different regions was evaluated based on sectors of interest and the value is based on each region's own scope and announcements (values are not comparable).

In the evaluation, **a biotechnology, bioresource or bioecology vision** approach for the bioeconomy was applied. The USA, China and India have been very much focused through a biotechnology vision and the EU has been more inclined to bioresource and bioecology visions. Now there are signs of expanding approaches to become more comprehensive.

Biotechnology increases its importance. As such, the topic is not new. What is new is that new tools like digitalisation, automation and AI are boosting the development work of the sector enabling faster product launches and greater investor confidence.

Bioresources deployment expectations differ from region to region. The USA is under way to deploy more of its domestic biomass, while in the EU there has been a tendency to restrict the use of its domestic biomass. China wants to improve the management and protection of its biomass. Brazil sees opportunities to increase the use of biomass and seeks more opportunities in the downstream of the value chains.

