GLOBAL BIOECONOMY SUMMIT 2026

Bioeconomy for socio-economic transformation and climate action

Global Bioeconomy Vision 2040

supported by the

Dublin Global Bioeconomy Development Goals 2040

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International Advisory Council on Global Bioeconomy

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1 Introduction

Recognising that the term bioeconomy has different meanings around the world, the International Advisory Council for the Global Bioeconomy (IACGB) and participants at GBS2026 in Dublin have outlined the following Global Bioeconomy Vision for 2040:

"By 2040, the bioeconomy is a key driver for delivering sustainable and circular benefits to the economy, people, and the planet, making a significant contribution to climate and nature-positive action, socio-economic development, and a fair, equitable and inclusive society, while working within the regenerative capacity of the living world on which it depends. It is also widely understood, recognised, and supported across regions and society."

This Vision is underpinned by three Global Bioeconomy Goals, each with Sub-goals, to guide understanding of how the bioeconomy can contribute to sustainable development worldwide, including at local and regional levels. The three Goals and Sub-goals are of equal importance and inter-connected and are mutually reinforcing.

The Vision and Goals highlight the potential of bioeconomy innovation to advance economic development, climate and nature, and fairness across the social, environmental, and economic dimensions of sustainability. The Vision is optimistic, presenting the bioeconomy as a powerful driver of competitive sustainability, enhanced resilience and of a future in which humankind lives responsibly in and with the biosphere. It should play a central role in shaping the post-2030 sustainable development agenda.

The Vision and Goals capture only part of the bioeconomy's potential. Given the diversity of definitions, resources, and circumstances worldwide, this document presents ONE possible global Vision, made concrete and achievable through a set of high-level, qualitative Goals and more quantitative Sub-goals.

The Goals explain why citizens, businesses, and governments should support the bioeconomy, while the more concrete Sub-goals identify areas for action. Adapted into national, regional, local, and commercial strategies, they can drive meaningful impact. Progress towards these Sub-goals should be supported by lifecycle assessment and careful monitoring developed with global stakeholders and research partners well before 2040.

The Vision and Goals are **non-binding and non-prescriptive**, intended to provide direction and stimulate action, not to establish agreed targets or political commitments. The Dublin Global Bioeconomy Development Goals take their name from the Global Bioeconomy Summit 2026 in Dublin and provide a non-binding framework to guide action towards the Global Bioeconomy Vision 2040. Future Global Bioeconomy Summits provide opportunities to discuss progress made.

2 Global Bioeconomy Vision 2040

By 2040, the bioeconomy is a key driver for delivering sustainable and circular benefits to the economy, people, and the planet, making a significant contribution to climate and nature-positive action, socio-economic development, and a fair, equitable and inclusive society, while working within the regenerative capacity of the living world on which it depends. It is also widely understood, recognised, and supported across regions and society.

The bioeconomy is embedded in everyday life. People recognise the benefits of shifting towards sustainable biobased products and away from fossil-based alternatives, helping to scale up sustainably produced biosolutions with benefits from local to global levels. Sustainable sourcing and circular use of biomass will be the norm. The circular bioeconomy is recognized as a major concept to strengthen resilience locally, nationally and globally in the light of continued climate change. It is mainstreamed across international, national, regional and local policy, alongside dedicated initiatives. Industry has expanded sustainable and innovative biomanufacturing across areas such as industrial enzymes, pharmaceuticals, vaccines, advanced biomaterials, construction, textiles, bioenergy including biofuels. It also enables Indigenous communities to valorise their knowledge through cosmeceuticals, nutraceuticals and medicines. In doing so, the bioeconomy makes a major contribution to global defossilisation, climate mitigation and resilience to climate change. Bioeconomy start-ups and scale-ups thrive in all regions.

Circular, regenerative, and socially innovative practices in agriculture, food systems, forestry and aquaculture support the use of the biosphere in ways that help bring humanity back within planetary boundaries. They reduce pollution and waste, restore ecosystems, reverse biodiversity loss, and enable rewilding of land freed through more efficient production and land use, and adapted consumption.

Ongoing research and innovation in biological resources including through synthetic biology and advanced fermentation create new jobs, ensure fair benefit-sharing, and deliver safe and sustainable biosolutions. The global community has agreed safeguards to prevent misuse of new technologies affecting the biosphere. Young people play a central role in a socially responsible and equitable bioeconomy, while Indigenous and traditional knowledge continues to enrich and broaden viable solutions.

Achieving this vision depends on an enabling environment: adequate, predictable and accessible finance; capacity-building and technology access, especially for developing countries; policies that allow biobased solutions to compete fairly with fossil-based ones and better monitoring of the bioeconomy. Realising it requires governments, business, researchers, producers and communities to act together — starting now.

3 Global Bioeconomy Goals substantiated with Sub-goals[1]

Goal - Bioeconomy for Economic Development and Sustainable Growth: By 2040, the bioeconomy is one of the world's leading engines contributing to economic prosperity, circularity, sustainable and resilient businesses, new jobs and incomes for people and communities.

Sub-goals

1. By 2040, global biomanufacturing capacity both in volume and facilities will have doubled and will be transforming manufacturing compared with 2026 while respecting nature's limit.

2. By 2040, bioeconomy-related public procurement will have increased significantly and biobased products will compete with fossil-based equivalents on price in their main markets, supported by policy instruments that reflect the full cost of fossil use and by the removal of subsidies and taxes that work against biobased alternatives.

3. By 2040, the number of new start-ups and small and medium-sized enterprises in the bioeconomy will have increased very significantly globally, be regionally dispersed including in rural and coastal areas, and the availability of venture capital, debt and equity investments in the bioeconomy will not be limiting deployment of bioeconomy solutions.

4. By 2040, farmers, foresters, fishers and other primary producers will capture greater economic value through production of new biobased products, participation in innovative bioeconomy businesses and sustainable bioeconomy value chains compared to 2026.

5. By 2040, the investments by governments in bioeconomy science and technology research will have significantly increased and will be driving rapid bioeconomy technology development and deployment worldwide compared to 2026.

6. By 2040, bioeconomy finance, including carbon credits and biodiversity/nature credits, will reliably provide income for primary producers, land managers, and Indigenous Peoples and local communities globally.

7. By 2040, new educational courses (including Bachelor and Master programmes) will address the education and training needs of specialised bioeconomy workforces and early career professionals, compared to 2026.

8. By 2040, bioeconomy sustainability certificates will be issued by major sustainability certification schemes and recognised in bilateral and multilateral trade agreements.

[1] The sub-goals identify concrete areas for action and measurable directions of progress towards 2040, using 2026 as a reference year where appropriate. Indicators, baselines and monitoring approaches will need to be developed with relevant stakeholders.

Goal - Bioeconomy for Climate and Nature: By 2040, bioeconomy activity will have enhanced resilience, made a major contribution to climate mitigation and adaptation, and contributed positively to food security, biodiversity, water, soils and resource stewardship, operating within nature's capacity to regenerate and sustain healthy ecosystems on which bioeconomy production itself depends.

Sub-goals

1) By 2040, the global chemical industry has significantly de-fossilized, with more than 20% of its carbon coming from renewable sources, including sustainably sourced biobased carbon, recycled carbon and / or captured CO_2, and with the biobased share sourced from land whose carbon stocks and ecosystem service provision are stable or improving.

2) By 2040, significant amounts of currently underused biological residues, side streams, food and municipal biowaste streams will be valorised based on cascading principles and circular bioeconomy technologies into upgraded products, food, feed, biobased-chemicals and fertilizers, and at end of life, renewable energy, compared with 2026, with removal rates that maintain or even increase soil carbon stocks .

3) By 2040, value added from blue bioeconomy solutions for food, feed and biomaterials will have significantly increased compared to 2026 within safe harvesting thresholds that keep extraction below the rate of regeneration.

4) By 2040, biodiversity across agricultural, forest, freshwater, coastal and marine ecosystems will be measurably restored and enhanced through sustainable and circular bioeconomy practices, including the regenerative production of biomass and use of biological resources, reduced pressure on land and ecosystems, and the substitution of fossil-based and non-sustainable materials with sustainably sourced biobased alternatives, compared with 2026.

5) By 2040, adoption of agricultural bio-inputs with demonstrated environmental and agronomic benefits will have significantly increased relative to 2026.

6) By 2040, land supplying the bioeconomy will be a net carbon sink rather than a source, with emissions from land use falling and natural sinks enhanced, and more carbon stored in long-lived biobased products, such as wood in construction materials and buildings compared with 2026.

7) By 2040, the diversity of agricultural and forestry species and production systems supplying the bioeconomy will have increased compared with 2026.

8) By 2040, global production of biobased Sustainable Aviation Fuels will have tripled and advanced and sustainable biofuels will have doubled, compared to 2026.

Goal - Bioeconomy for Fairness, Equity and Inclusion: By 2040, through global partnerships and enabling environments, the bioeconomy creates broadly shared and resilient prosperity, while supporting inclusion and capacity building, and supporting regional development and a just transition for land managers, workers, producers and communities including Indigenous Peoples and minority groups.

Sub-goals

(1) By 2040, innovative bioeconomy solutions will significantly contribute to the resilience of global food systems, contribute to enhanced food security and food and nutrition quality worldwide as compared to 2026.

(2) By 2040, global investment in support of the Global South's bioeconomy developments and trade in Indigenous knowledge-based products will have increased significantly, compared to 2026.

(3) By 2040, young people will play a more crucial role in shaping the global bioeconomy transition, with meaningful participation embedded and formalised across bioeconomy policy development, innovation ecosystems, entrepreneurship, and implementation pathways, including youth representation, consultation, or youth-led implementation partnerships.

(4) By 2040 a Global Bioeconomy University and Research Alliance will connect the regional and global Bioeconomy University and Research networks and provide a platform for sharing best practices in bioeconomy education from kindergarten up to lifelong learning, and for capacity building in the global bioeconomy. And, the Consultative Group on International Agricultural Research (CGIAR) will have set-up a Global Bioeconomy Research Centre in the Global South.

(5) By 2040, there will be a significant number of joint private Global North-Global South and South-South bioeconomy initiatives, compared to 2026.

(6) By 2040, the number of countries and regions with dedicated bioeconomy strategies adopted will have doubled, and the number of subnational bioeconomy strategies will have increased significantly compared to 2026.

(7) By 2040, the share of biomass processed and used within a region where it is produced will have increased compared with 2026, at continental, national and landscape level, so that value is captured close to source, transport and land footprints fall, and industrial symbiosis, circularity along the entire value chain and local innovation are strengthened, rather than regions exporting raw biomass for processing elsewhere.

(8) By 2040, core bioeconomy principles, the aims of these Visions and Goals and Global Bioeconomy Partnership aims are solidly embedded in major policy agendas (e.g. the post 2030 Sustainable Development agenda, UN Framework Convention on Climate Change, Convention on Biological Diversity, United Nations Convention to Combat Desertification, G20 and G7).