

**“Bioeconomia circolare per la transizione ecologica: nuove competenze e bisogni formativi”** May 24, 2024. Presidency of Council of Ministers, Rome

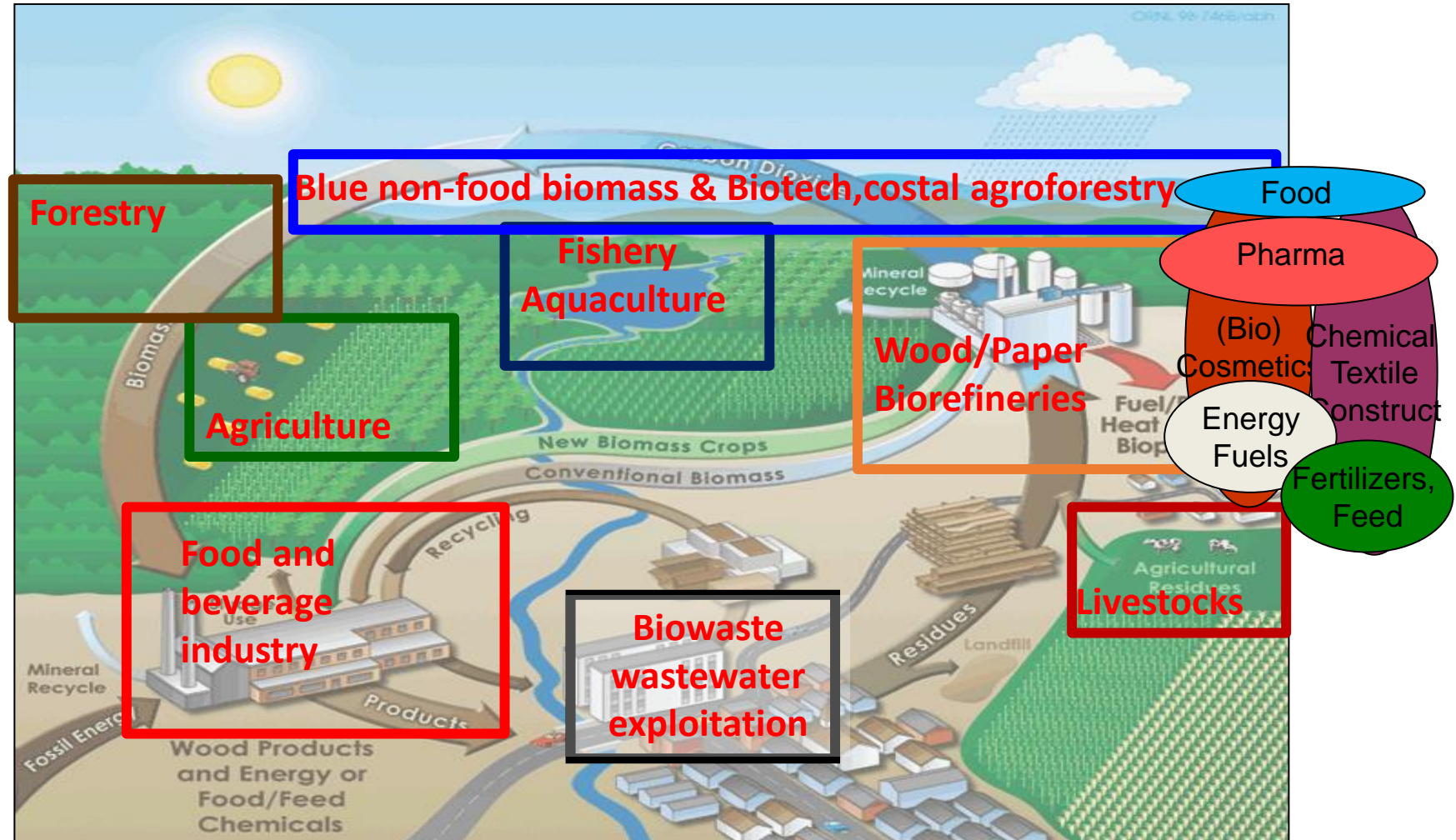
# **Italian Bioeconomy and its implementation in the country, in Europe and worldwide**

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# The Italian Bioeconomy landscape



~335 Bln €/y, ~2.0 Mln of jobs (2018); ~415 Bln €/y, ~ 2.00 Mln of jobs (2022)\*  
 In EU: 3<sup>rd</sup> turnover/jobs; 1<sup>st</sup> Biodiversity richness and number DOP, IGP products on the market

\*<https://group.intesasanpaolo.com/it/research/research-in-primo-piano/ricerche-tematiche/2023/9--rapporto-la-bioeconomia-in-europa>

# Other benefits of Bioeconomy

## Environmental benefits

- Forestry and ocean and seas assimilate CO<sub>2</sub>;
- Produces bio-based products from biomass with lower CO<sub>2</sub> emissions than when produced from oil;
- Produces biodegradable products and plastics, preventing their accumulation in the environment and delivering organic carbon to the soil;
- Disposes impacting bio-waste and wastewater with the production of clean water, bio-products and organic matter to be used for restoring soils;
- Restores biodiversity and ecosystems, regenerates forest, rural, coastal and former industrial areas, preventing/containing future zoonosis and epidemics.

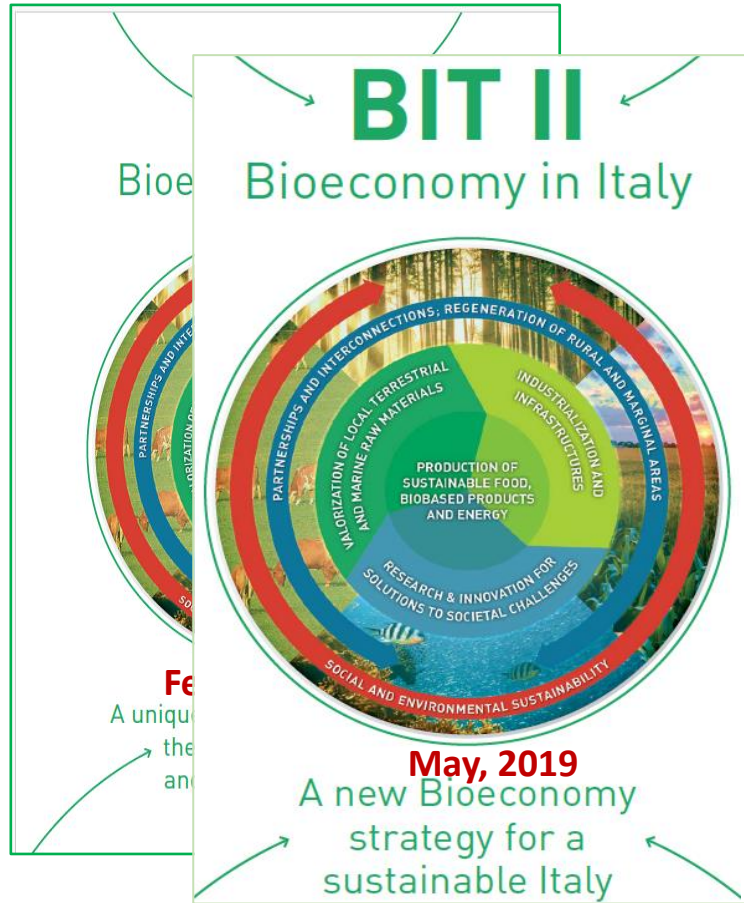
## Social benefits

- Produces food, and for all, along with clean water and essential products;
- Guarantees healthy ecosystems services;
- Creates new jobs in rural and costal areas and abandoned lands.

**High resilience**, given its value chains longer and deeply routed in the territories.

# IT Bioeconomy strategy (BIT II, 2019) & Implementation Action Plan (2021)

## "National Bioeconomy Coordination Board" CNBBSV, Presidency Council Ministers, Rome



[http://cnbbsv.palazzochigi.it/media/1774/bit\\_en\\_2019\\_02.pdf](http://cnbbsv.palazzochigi.it/media/1774/bit_en_2019_02.pdf)

Composition (PdC 2016, decree 2021):

- Ministry of Agriculture....;
- Ministry of industrial Dev...;
- Ministry of Environment, energy..
- Ministry of University Research;
- Ministry of Education...
- X and XI Conferences of **Regions & autonomous Provinces**;
- SVIMEZ;
- Institute for Environmental Protection and Research;
- **National Technology Clusters: AgriFood (CLAN), Forestry and Wood; Circular Bioeconomy (SPRING) , BlueGrowth (BIG)**

## IMPLEMENTATION ACTION PLAN (2020-2025) FOR THE ITALIAN BIOECONOMY STRATEGY BIT II



January, 2021

Presidenza del Consiglio dei Ministri  
**CNBBSV**

<http://cnbbsv.palazzochigi.it/en/areas-of-work/bioeconomy/strategies-and-implementation-action-plan/>

<http://cnbbsv.palazzochigi.it/en/areas-of-work/bioeconomy/>

# IT Bioeconomy Implementation at the national and EU level

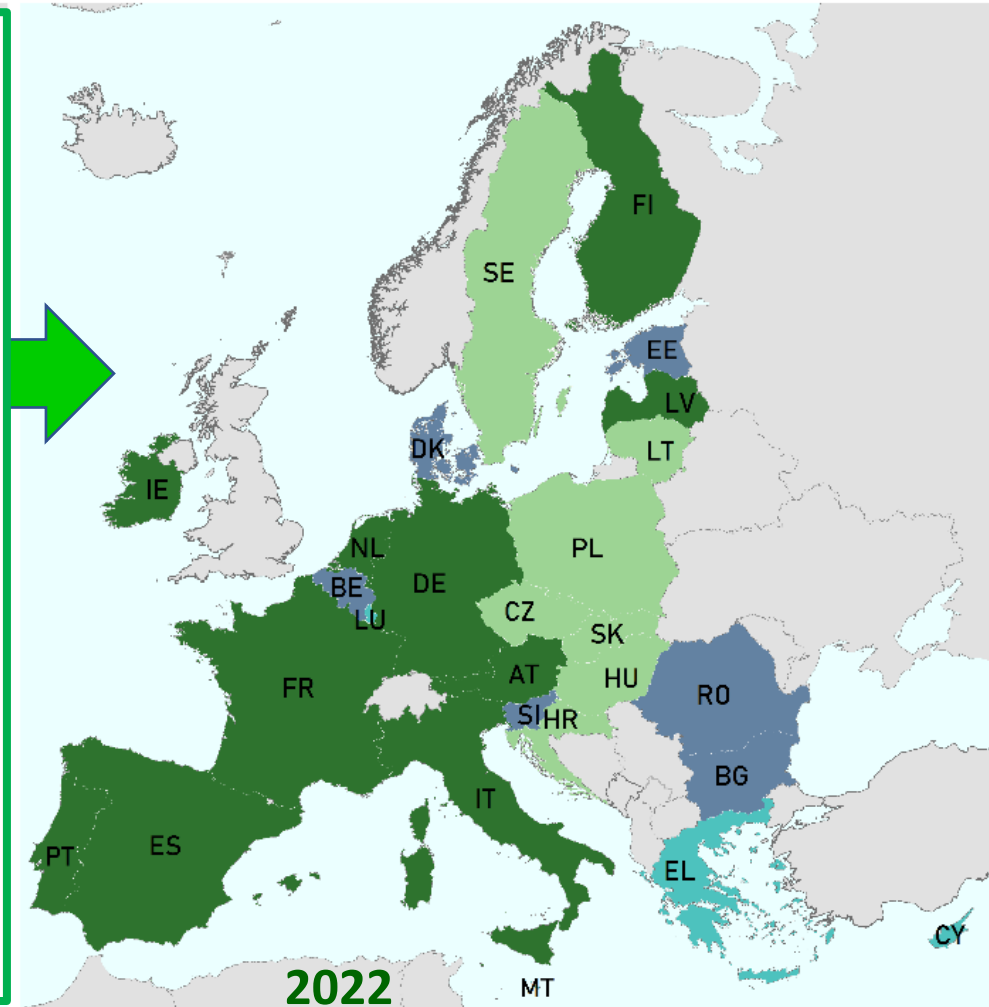
- **Promotion of Bioeconomy priorities (agrifood systems; forestry and biobased industry and blue Bioeconomy) in the frame of the Next Generation EU (PNRR) plans and programmes;**
- **Promotion Bioeconomy Taxonomy in the Regional S3:** assessment of projects funded by Regions under S3 and related structural funds in 2014-2020 and re-classification of sectors under the Bioeconomy landscape;
- **Promotion implementation of the innovation generated by H2020 and BBI JU programmes on the territories** in cooperation with APRE and the Clusters SPRING, CLAN e BIG, the Agency of Cohesion, Committees of the Regions;
- **Contribution to the definition of priorities and contents of the IT Circular Economy Strategy and of the IT Forestry and wood Strategy** (and to the set up of the national Technology Cluster Forestry/Wood) (2021-2022);
- **Identification and promotion adoption of ATECO/EU NACE codes (EUROSTAT ) for biobased products (2021-);**
- **Set up** and submission to the EU Commission by the Prime Minister Mario Draghi the **IT Position towards the “single use plastics”** (with MiTE, MISE, MIPAFF, SPRING, CLAN, ISPRA, Confindustria) (2022);
- Contribution to the set up of a **national position on biofuels submitted by Ministry of Environment and energy security to different DGs of the EU commission (2023);**
- **G20 –env- OECD WORKSHOP:** *Bioeconomy in the G20 and OECD countries: comparing existing national strategies and policies for more effective Bioeconomy governance mechanisms and monitoring systems.* PdCM, Roma, July 16, 2021
- Survey on **Bioeconomy relevance** in the current **University programs** and set up of the **Pilot on Bioeconomy Education for the primary and secondary schools** in the frame of the National Plan “Rigenerazione Scuola” (site <https://prgs.fvaweb.eu> English version) and its **presentation** at the **EU Bioeconomy Policy Forum;**

# The EU national Bioeconomy strategies

## Status of the national bioeconomy policies in the EU-27

- **10 Member states** with dedicated bioeconomy strategies at national level (AT, DE, ES, FI, FR, IE, IT, LV, NL, PT)
- **6 MS** in the process of developing their respective dedicated national strategies (CZ, HR, HU, LT, PL, SK)
- **7 MS** are involved in other macro-regional (BG, DK, EE, RO, SI, SE) or sub-national (BE) policy initiatives dedicated to the bioeconomy.
- **4 MS** have bioeconomy related strategies (CY, EL, LU, MT)

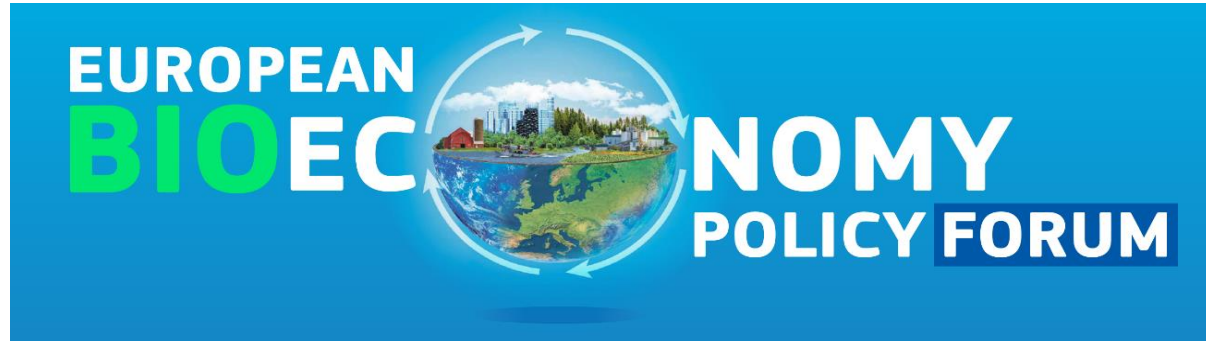
- Dedicated bioeconomy strategy at national level
- Dedicated bioeconomy strategy at national level under development
- Other policy initiatives dedicated to the bioeconomy
- Other related strategies at national level



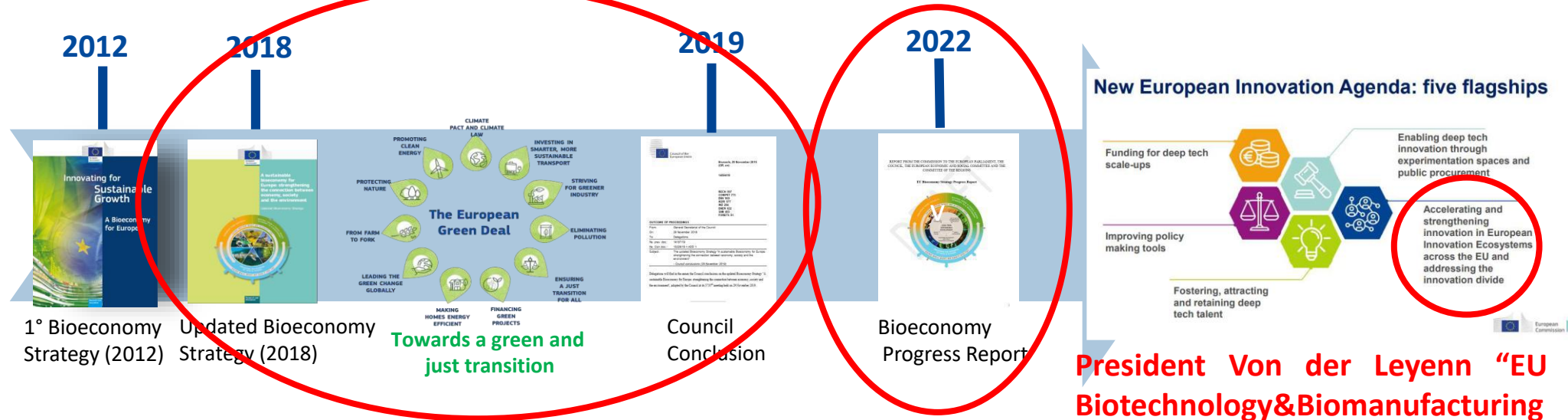
Status before the adoption of the European Bioeconomy Strategy (left side) and in February 2022 (right side)

Source: European Commission's Knowledge Centre for Bioeconomy  
 Administrative Boundaries: © EuroGeographics © UN-FAO © Turkstat

# The European Bioeconomy Policy Forum



All MSs, EC DGs, EP, CoR, EESC (high and expert-level), 2020



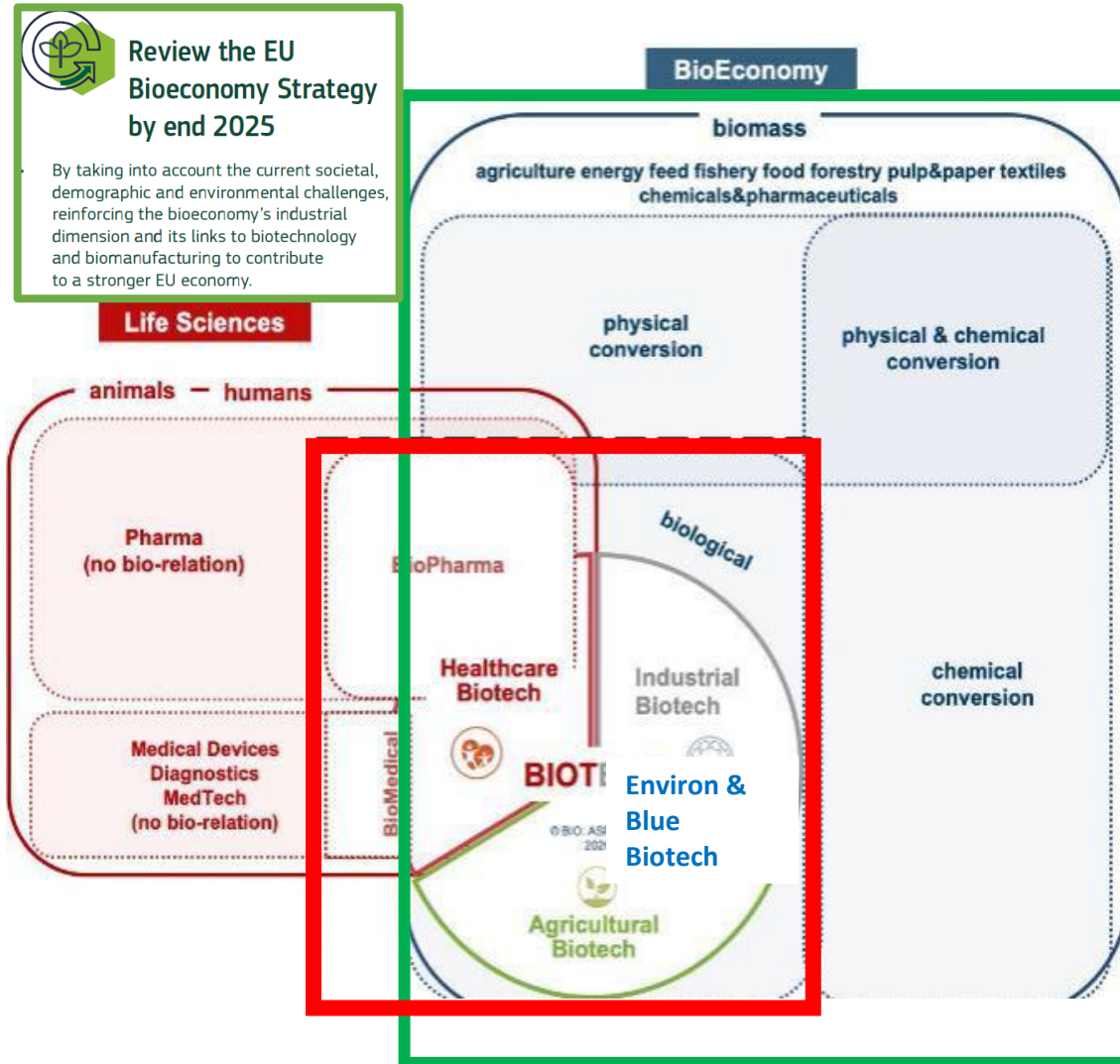
**Towards a green and just transition**

**President Von der Leyenn "EU Biotechnology&Biomufacturing initiative"**

# The *EU Biotechnology & Biomanufacturing initiative*

- Leveraging research and boosting innovation;
- Fostering public and private investments;
- Stimulating market demand of bio-based and biomanufacturing products;
- Elaborating and updating standards;
- Streamlining regulatory pathways;
- Strengthening biotech-related skills with upskilling and reskilling actions;
- Supporting collaboration and synergies via relevant Regional Innovation Valleys.
- Fostering engagement and international cooperation with US, India, Japan, and South Korea but also Africa, Latin America and the Caribbean
- Using AI and generative AI

<https://www.cbe.europa.eu/news/cbe-ju-boosting-eus-biotech-and-biomanufacturing-sectors>





# The national Bioeconomy strategies at the global level

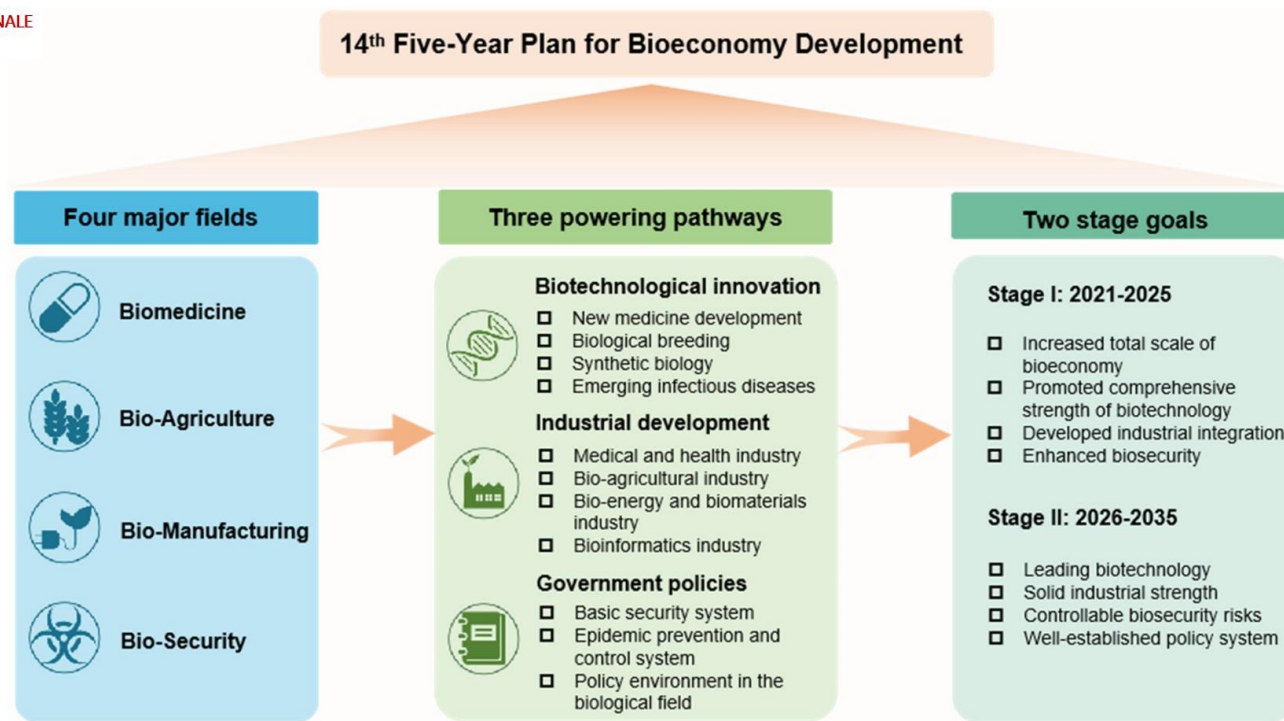


eg., Bioeconomy in Japan, USA, UK etc also includes: pharma/medical biotechnologies

Dedicated bioeconomy strategy  
 Bioeconomy-related strategy  
 Be-related strategy; dedicated be-strategy is under development  
 Dedicated be-strategy is under development

More than 40 States worldwide currently pursue explicit political strategies to expand and promote their Bioeconomy. However, the available Bioeconomy strategies are often considerably different in focus sectors, governance and framework to monitor progress in reaching the planned targets.

# New international drivers for Biotechnology and Bioeconomy



**1) May 2022-**

<https://ietresearch.onlinelibrary.wiley.com/doi/full/10.1049/enb2.12026>

**2) Sept 2022- Executive Order on Advancing Biotechnology and Biomanufacturing Innovation for a Sustainable, Safe, and Secure American Bioeconomy** (<https://www.whitehouse.gov/briefing-room/presidential-actions/2022/09/12/executive-order-on-advancing-biotechnology-and-biomanufacturing-innovation-for-a-sustainable-safe-and-secure-american-bioeconomy/>)

**3) 2024-G7 Env.** (Italian Presidency); **2024 G20 Bioeconomy Initiative** (Brazilian Presidency)

*Thank you!*