Bioeconomy Austria

Perspectives for the new EU Bioeconomy Strategy

November 2025

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New Bioeconomy Strategy – a driver for green growth

- Position the EU in the **rapidly expanding bioeconomy market**
- **s**ignificant growth potential in bio-based materials, biomanufacturing, biochemicals, and agri-biotech sectors
- **reduce our reliance on fossil fuels** and **improve the economic perspectives of our rural areas**

Competitiveness Compass, January 2025

- **improve resource efficiency** and to tap the **significant growth potential of bio-based materials** substituting fossil-based materials, and related industries.
- **reduce dependencies** on imported raw materials.
- lay down **priorities for manufacturing and using biomaterials**, and for retaining them as long as possible in the economy

Clean Industrial Deal, February 2025

- **diversification** of value streams and **valorisation of farm residues**
- strengthening the **role of primary producers** in the value chain and generating new jobs in the **rural areas**
- reducing dependencies on imported raw materials and **fertilisers** with **recycled nutrients**

Vision for Agriculture and Food, February 2025

European Commission

Interplay with other policy areas

Industrial Decarbonisation Accelerator Act

Biotech Act

Circular Economy Act

Life Science Strategy

Bioeconomy Strategy

Start up and Scale up Strategy

Ocean Pact

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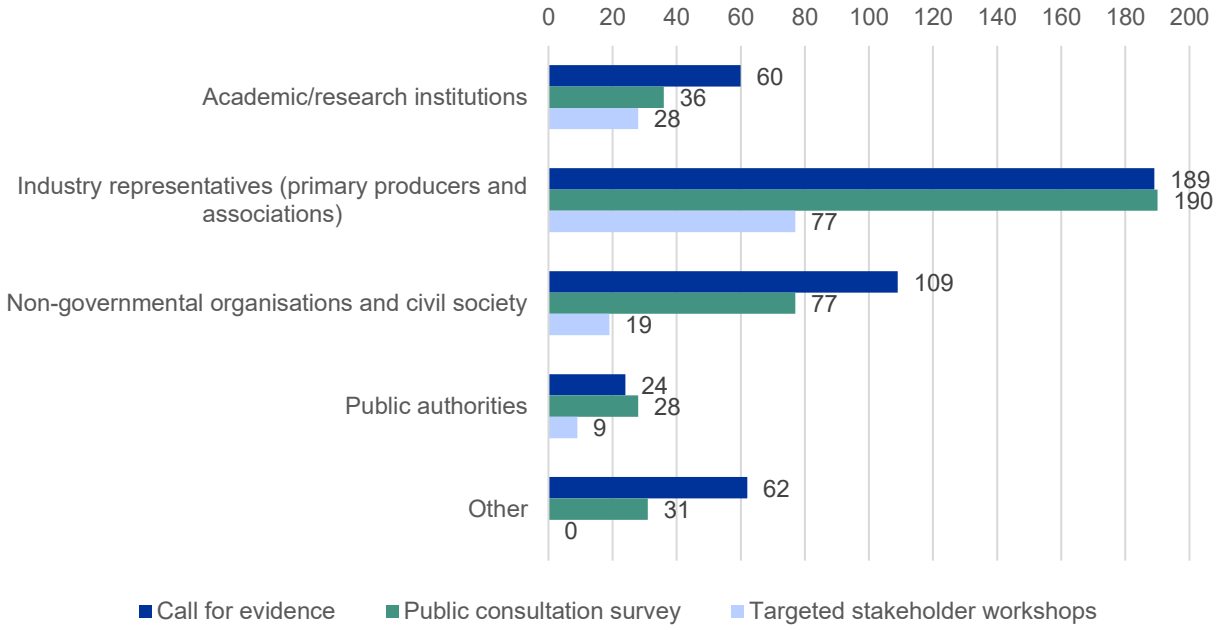
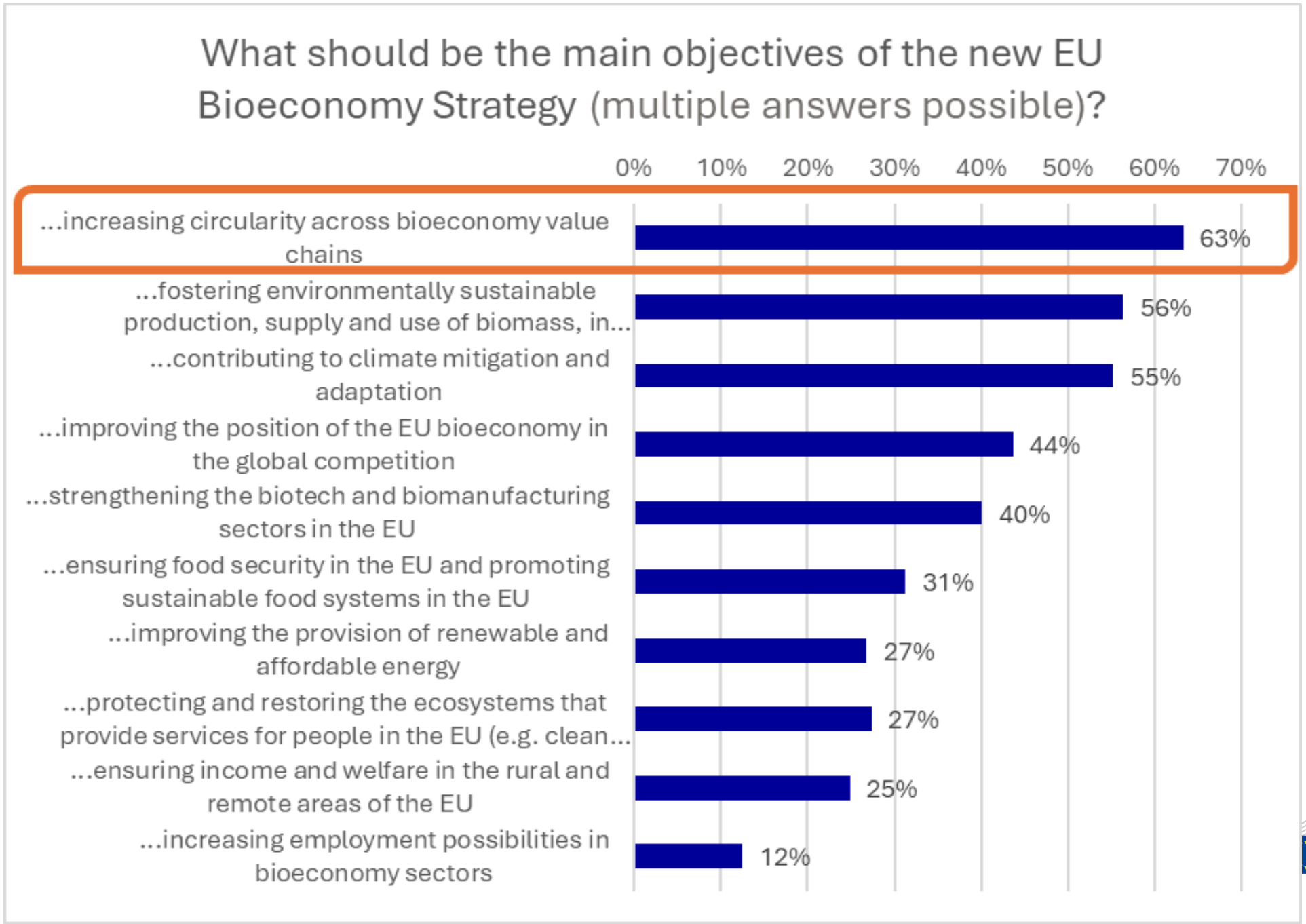
Consultation activities: Big interest of industry and NGO's





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Main **challenges** raised per pillar of the Bioeconomy Strategy

Innovation & investment

- Innovation gaps and scaling challenges, for ex. from R&D to industrial applications
- Regulatory barriers, for ex. complexity & fragmentation of regulations acros EU
- Market barriers,for ex. unfair competition from fossil-based products

Level-playing field for lead markets

- Creating market demand & enhancing biomass use efficiency
- Cascading principle – prioritisation of high-value applications
- Improving waste management
- Importance of regional collaboration

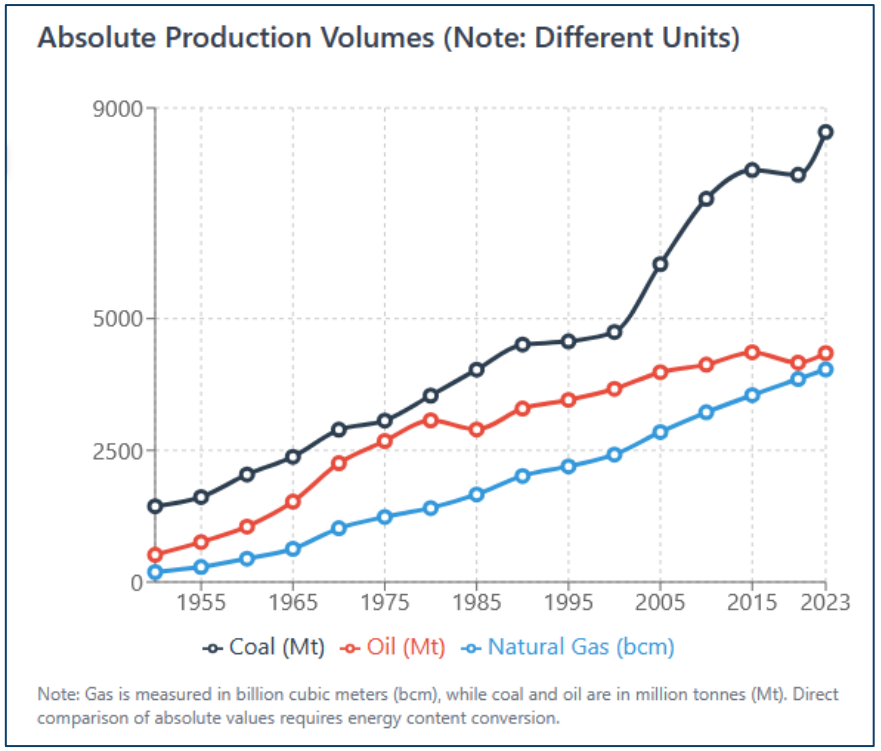
Sustainable Supply

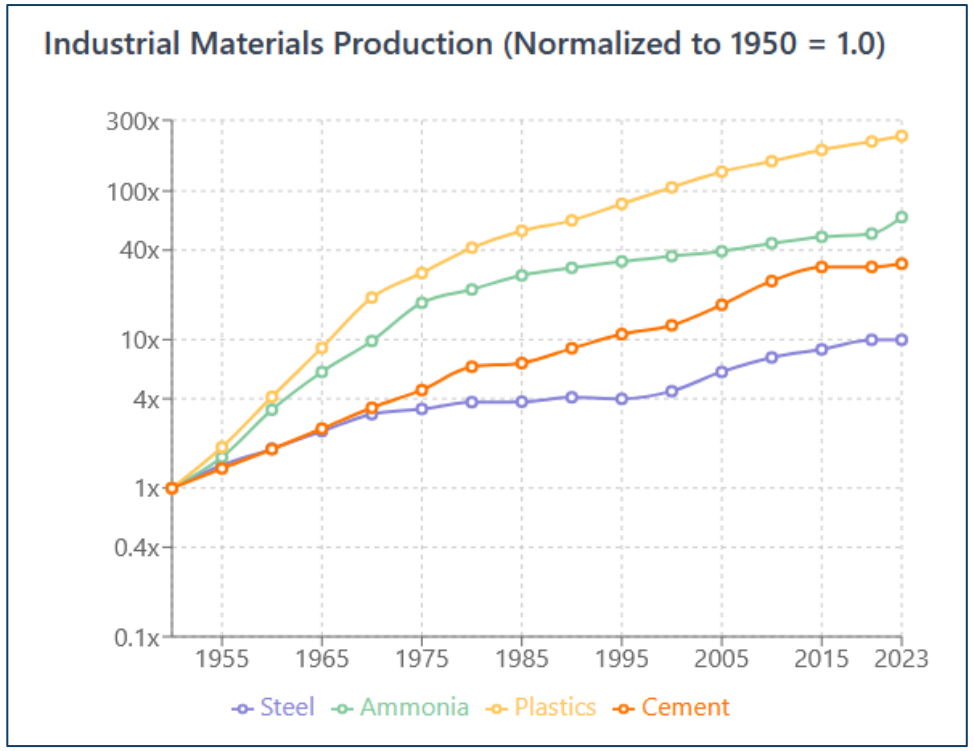
- Sustainability criteria and certification
- Competition for biomass and land use
- Complex sustainability frameworks & traceability requirements
- Lack of sustainable supply

EU's Global Leadership

- Importance of international partnerships and trade
- EU should position itself as a global leader in green diplomacy and bioeconomy, with more active role in international forums

Global development of fossil-based Energy and Materials





Energy Production Growth Summary (1950-2023)

Coal	5.9×	Steady growth, peaked ~2013
Oil	8.4×	Rapid growth 1950-1980
Natural Gas	21.4×	Highest growth, accelerating

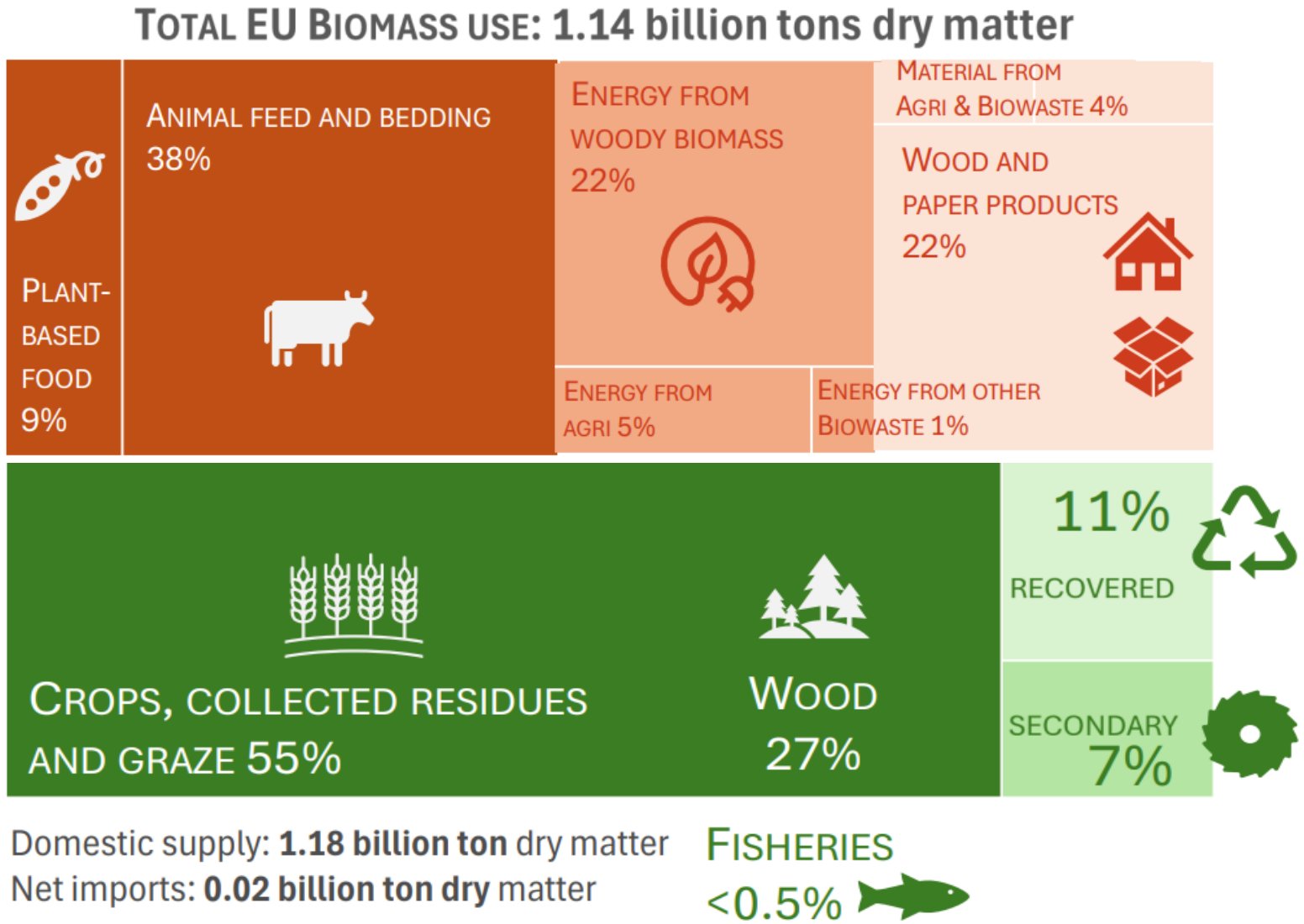
Data sources: BP Statistical Review of World Energy, IEA Energy Statistics, EIA International Energy Statistics. Mt = Million tonnes, bcm = Billion cubic meters.

Key Growth Factors (1950-2023)

Steel	10.0×	189 → 1,888 Mt	
Ammonia	66.7×	3.6 → 240 Mt	
Plastics	235.3×	1.7 → 400 Mt	
Cement	32.3×	133 → 4,300 Mt	

Source:
Prof. Reinhold W. Lang, 2025
based a.o. on Vaclav Smil, How the World Really Works, May 2022

Biomass Production and Use in the EU 2022



How have biomass supply and use changed over 2012-2022?

Overall +6% of biomass supply & use between 2012-2022

Food and feed use almost **stable**

Supply of domestic wood increased:
+16% harvest removals, +13% industrial by-products

Wood use increased: +8% for material; +11% for energy

Use of biowaste increased: +26% for material; +24% for energy

Source: JRC 2025

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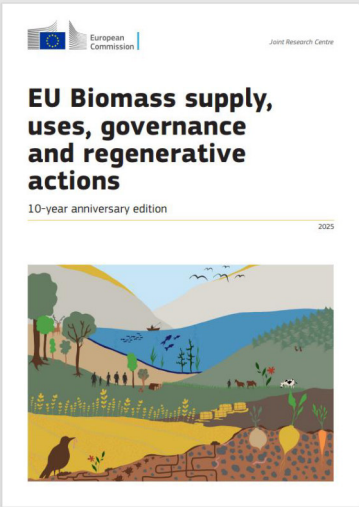
New JRC Biomass Report – June 2025



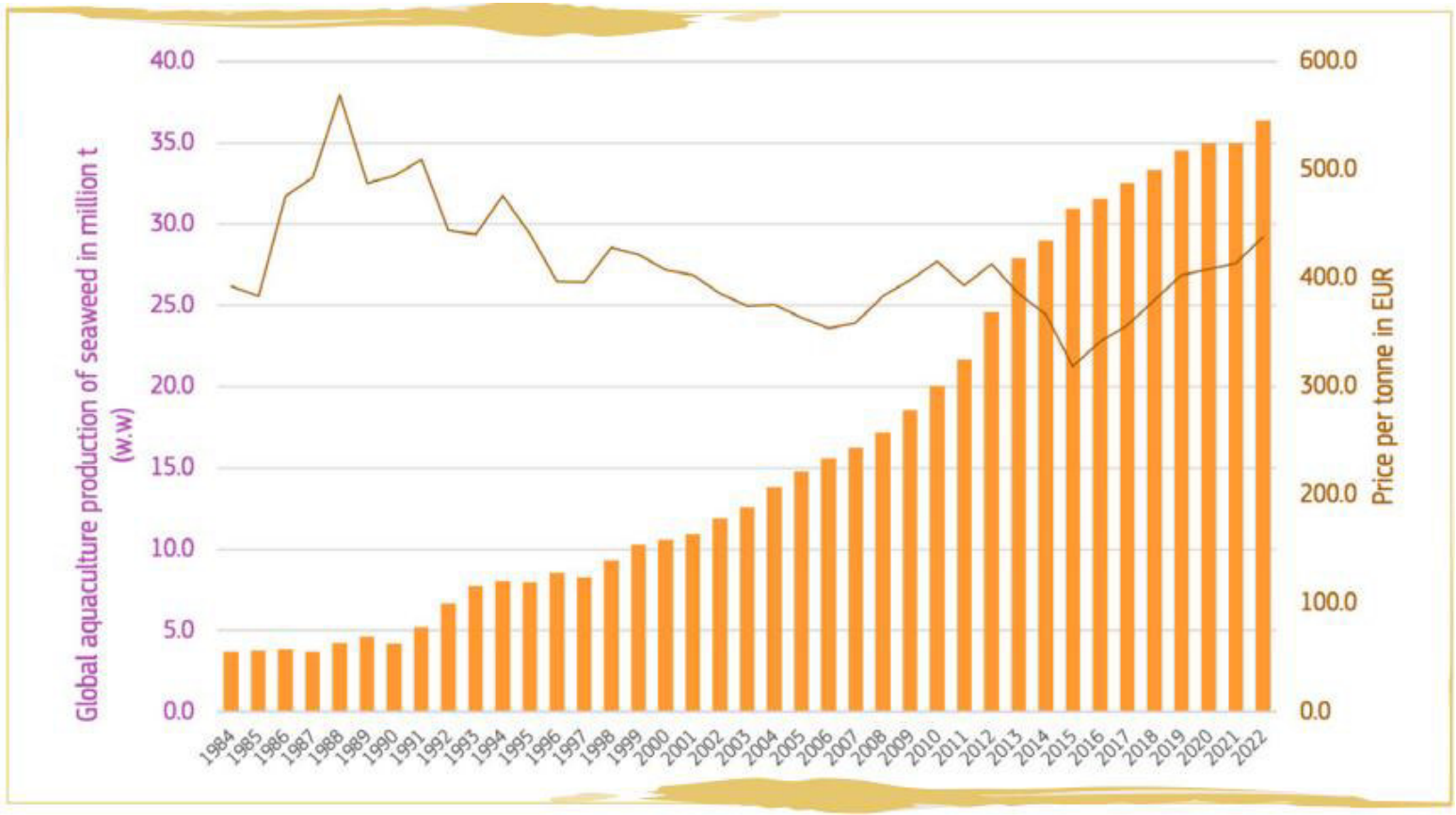
EU-27 agricultural biomass production

Total annual agricultural biomass production in the EU-27: 921 Mt D.M. yr^{-1}

54 %
are economic production

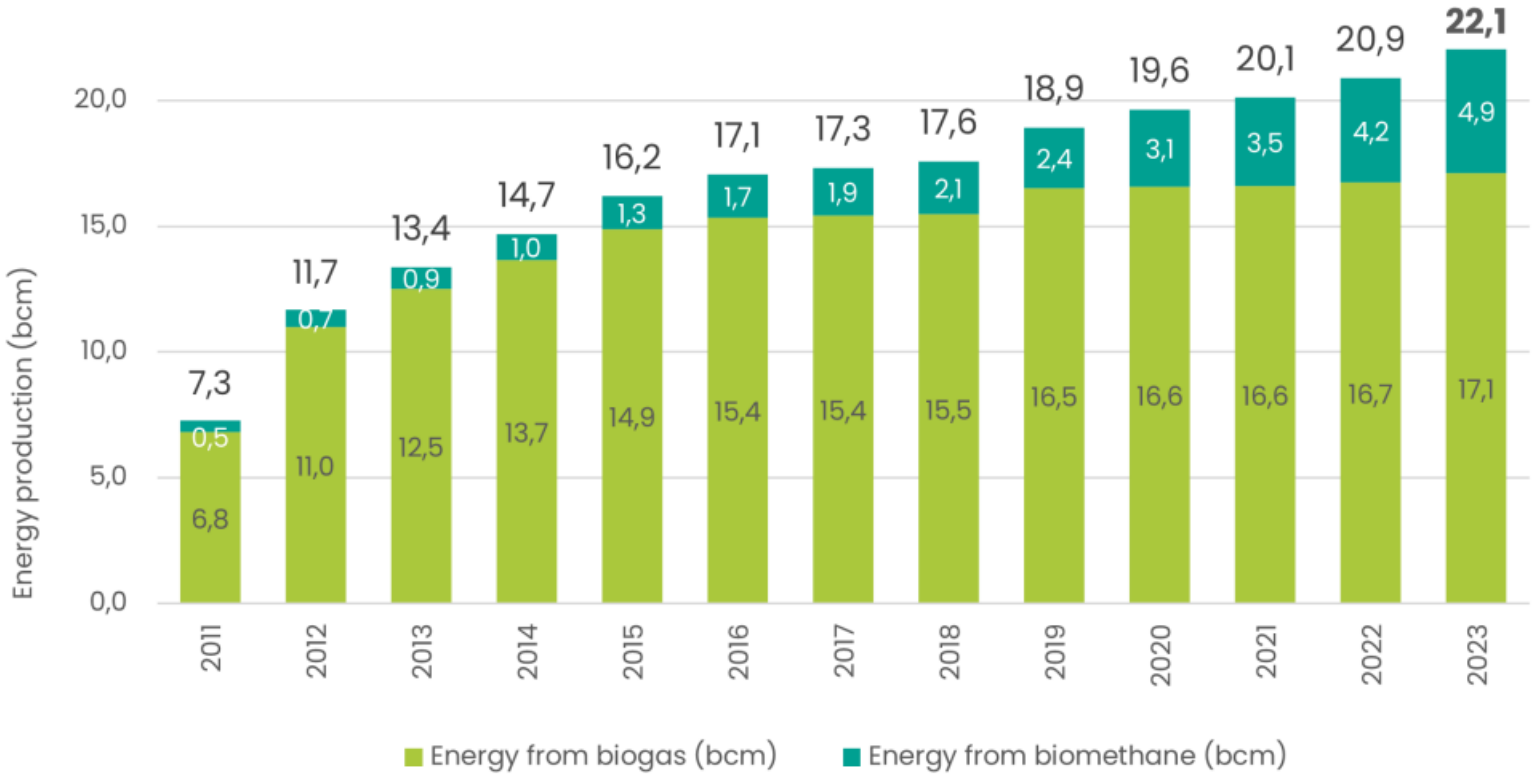
46 %
are residues

Algae play an important role in marine ecosystems contributing to the global primary production and supporting complex food webs in the coastal zone. At the same time, algae biomass is a valuable resource for Europe, mainly for the food and chemical industries.



Data source: FAO 2024.

Biogas and Biomethane in Europe



REPowerEU target
35 bcm of biomethane in 2030

EBA data for 2023:

4.9 bcm/52 TWh of biomethane in approx 1,550 plants

17.1 bcm/182 TWh of biogas in approx. 20,000 plants (EU, UK, NOR, CH)

Source: European Biogas Association (EBA), Statistical Report 2024

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Forestry production and uses

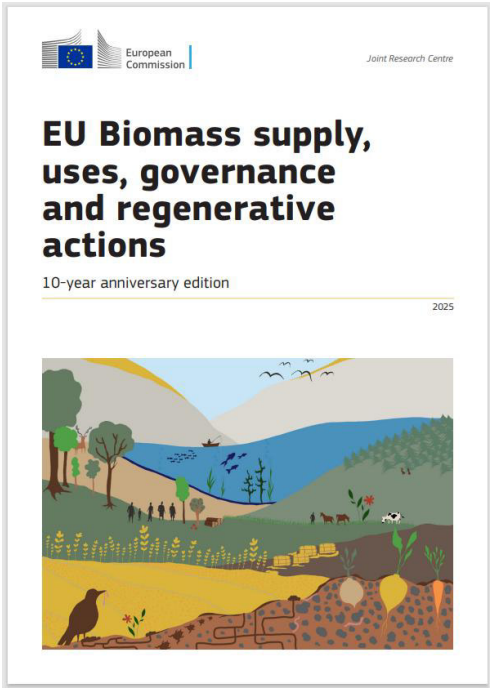
Broadleaves and conifers in EU-27 forests

	Broadleaves	Conifers
Area in EU-27	47 %	53 %
Aboveground stock	16,000 Mm³	20,000 Mm³
Fellings to net annual increment (NAI) ratio	58-62 %	80-90 %
Trends in fellings to NAI ratio	Stable	Increasing
Wood provision	Provide about 70 % of the wood used as fuelwood	Provide about 80 % of the total industrial roundwood

Roundwood production has been, on average, **slightly above 500 Mm³ U.B.** the last 5 years of reporting

Forest biomass uses in the EU-27

	Sawnwood	Panels	Pulp	Energy
Trends in production from 2010-2022	+ 13.3 %	+ 21.6 %	+ 3.2 %	Further harmonisation efforts are needed to be able to interpret the data reported by the Member States under the Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action
Trends in apparent consumption from 2010-2022	+ 5.7 %	+ 12.6 %	- 4.1 %	
Trade	the EU is a net exporter	the EU is a net exporter	the EU is a net importer	



Source: JRC Biomass Report 2025

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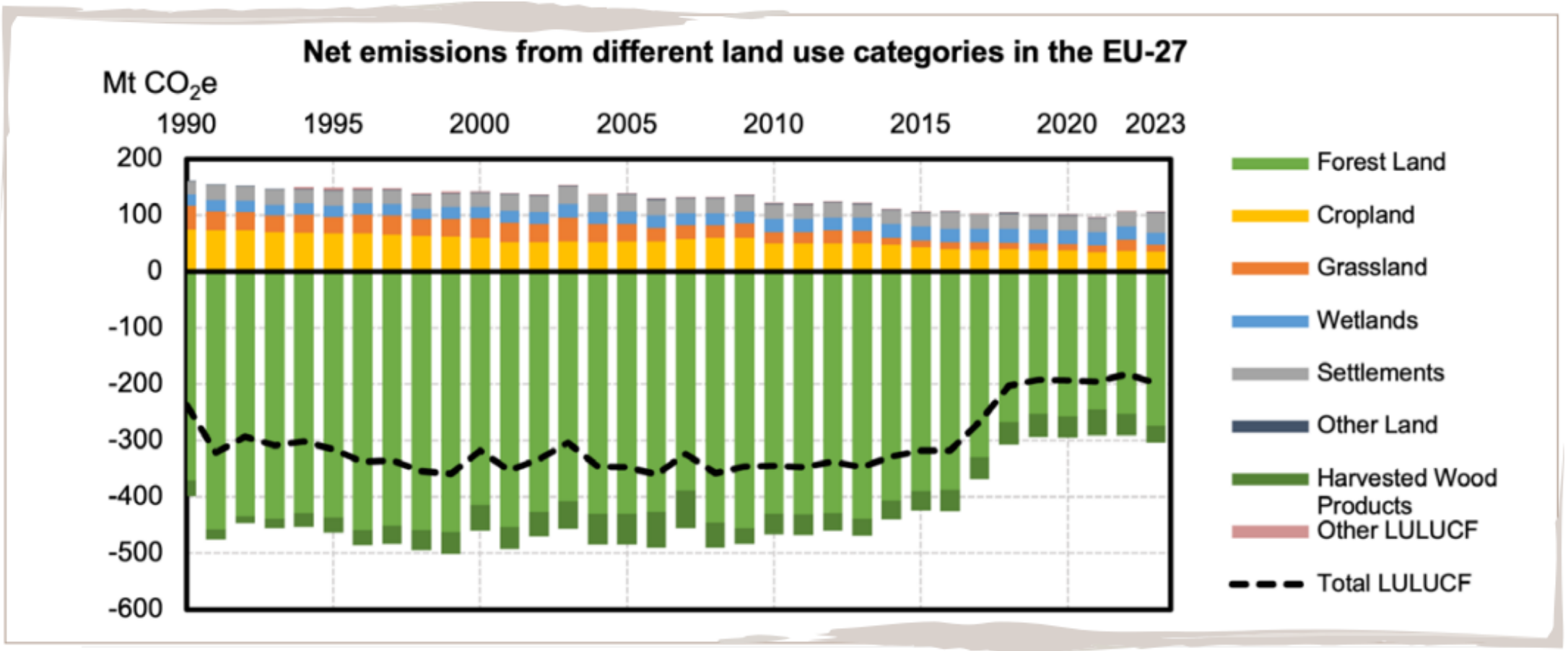
Development of Carbon Sink



Source: JRC own elaboration, based on data from EEA (2025).

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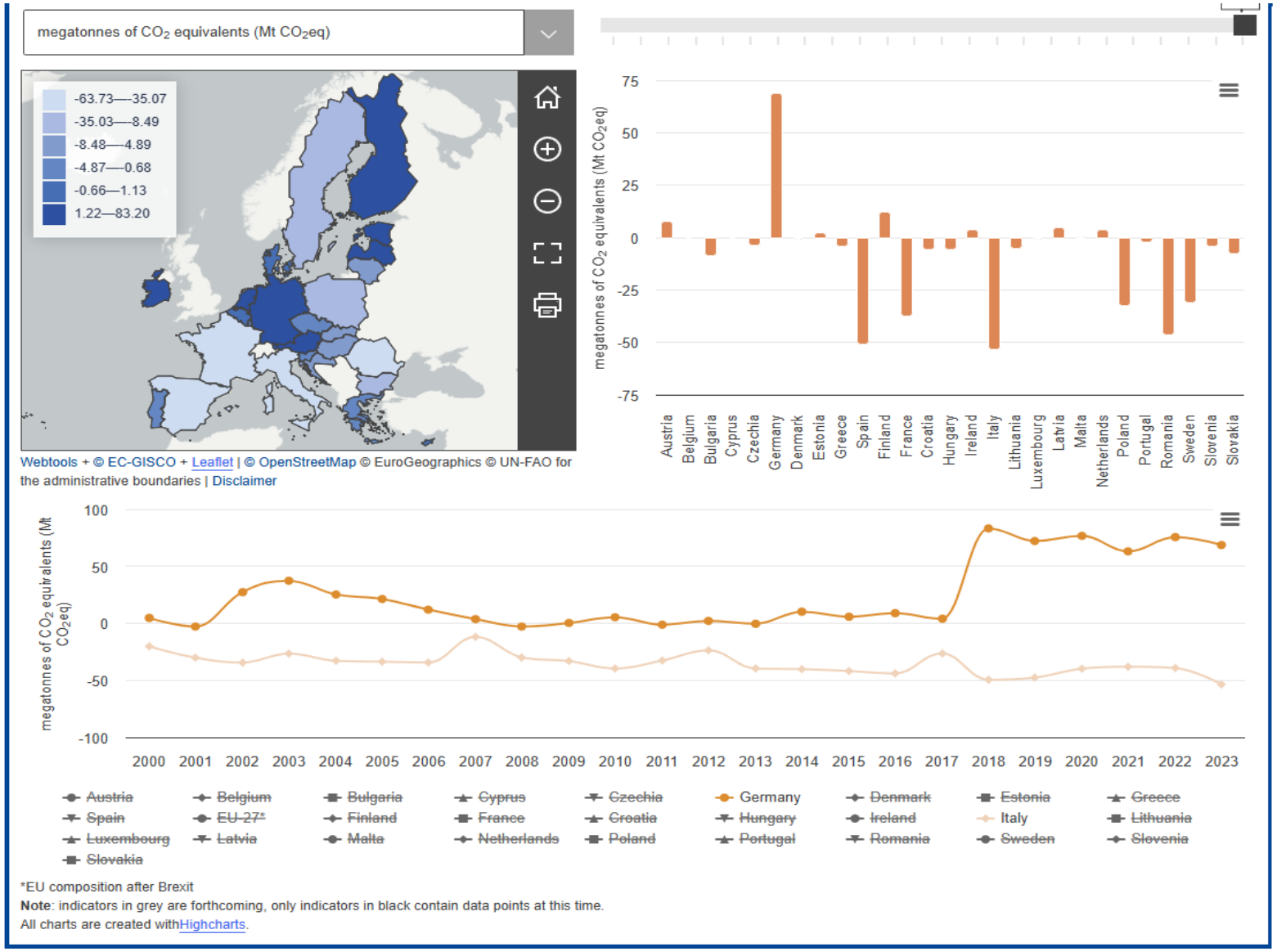
Net GHG Emissions LULUCF – a differentiated picture



Knowledge Centre for Bioeconomy: https://knowledge4policy.ec.europa.eu/bioeconomy/monitoring_en

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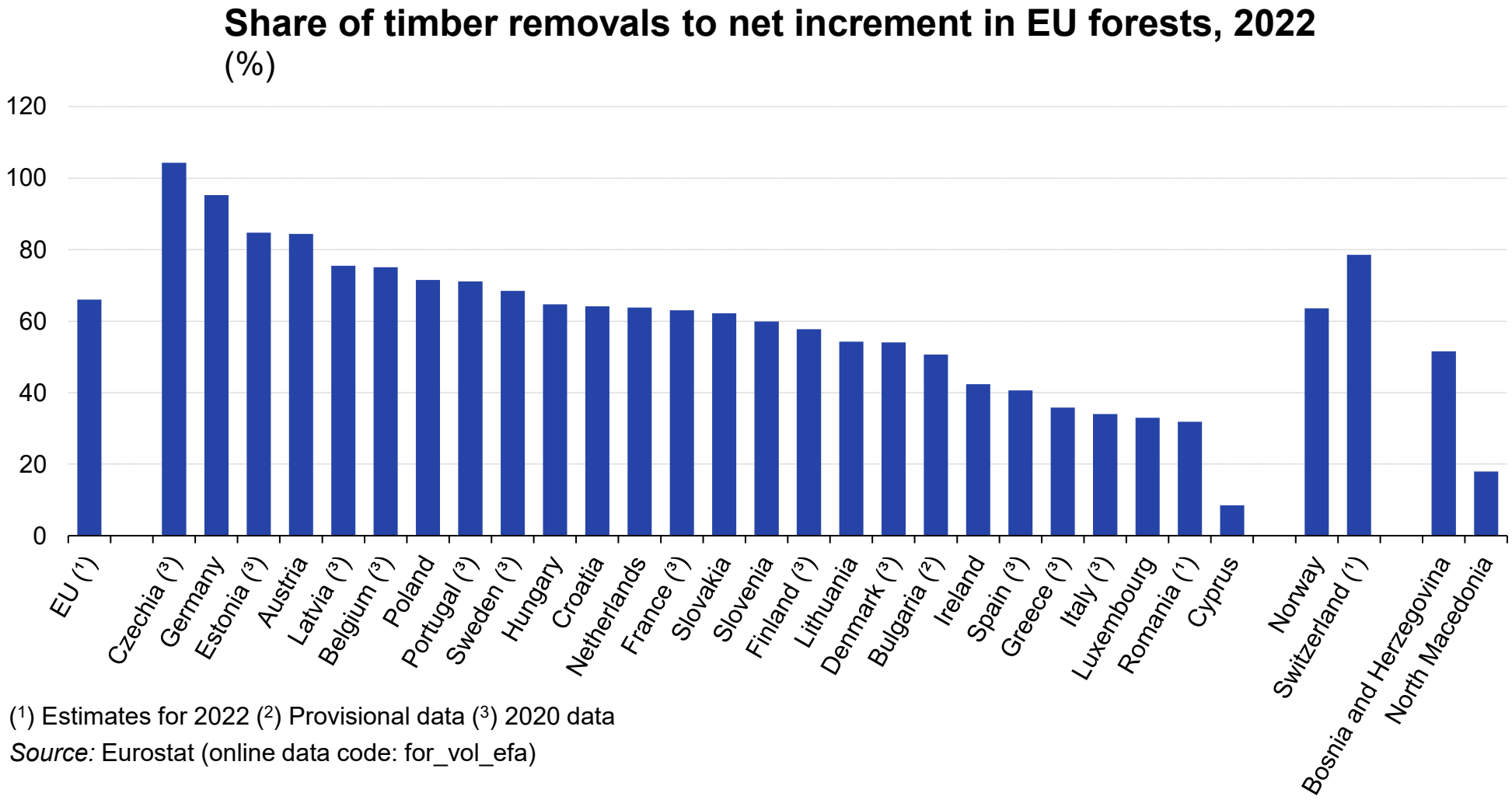
Forest-based Biomass Potential – Harvesting Rates



(1) Estimates for 2022 (2) Provisional data (3) 2020 data

Source: Eurostat (online data code: for_vol_efa)

New FAO Global Forest Resources Report

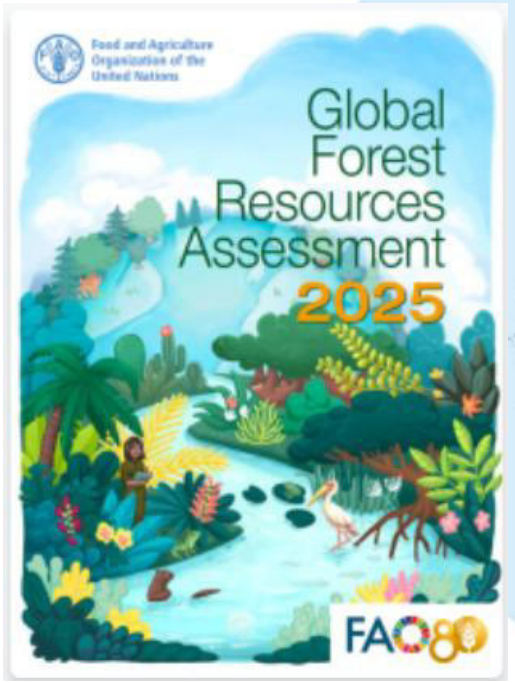
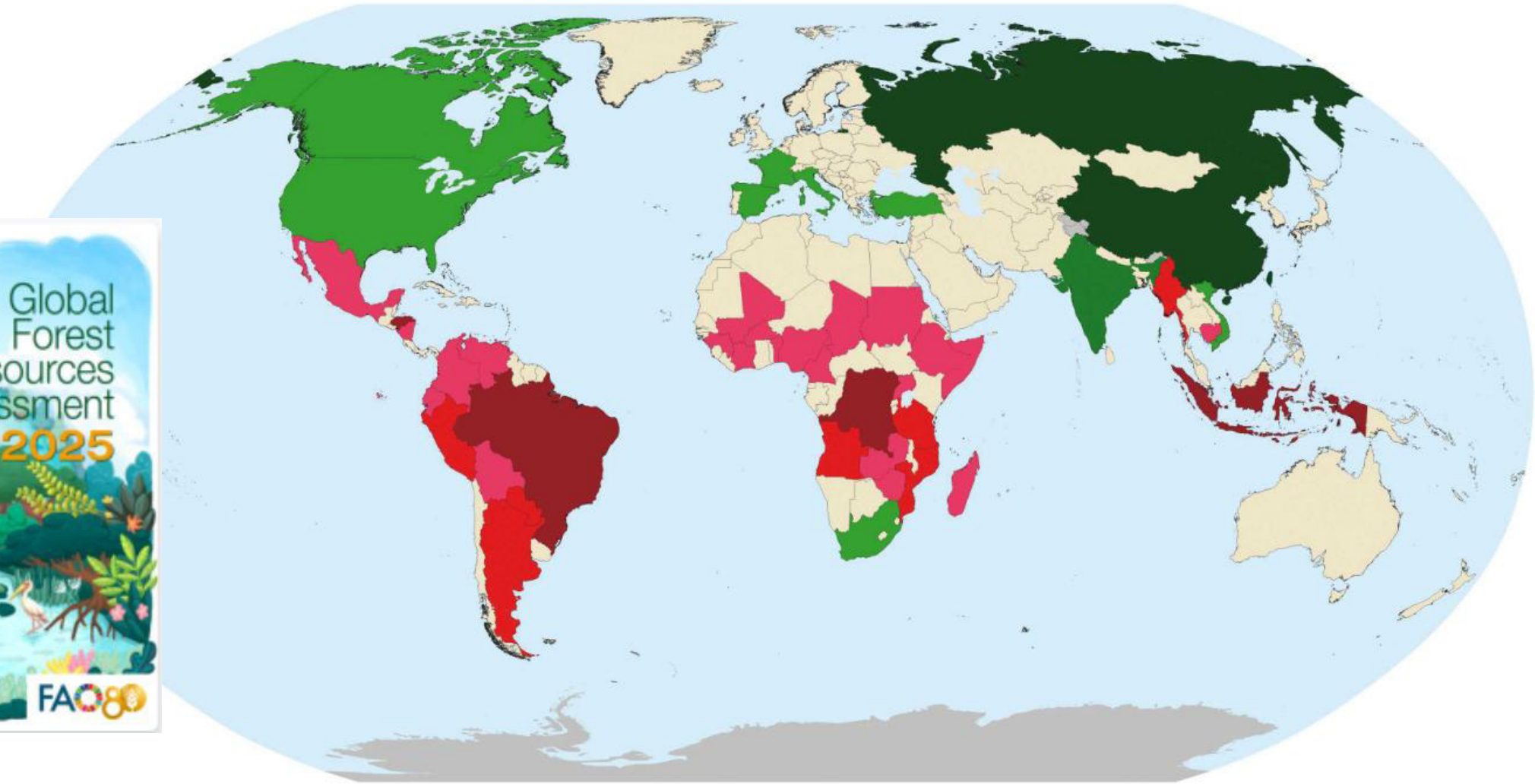


FIGURE 5. Annual forest area net change, by country and area, 1990–2025



1 000 ha/year

Net gain: >501 | 251–500 | 51–250 | Small changes: >±50 | Net loss: >501 | 251–500 | 51–250 | No data

Objectives and scope of the new Bioeconomy Strategy

Enhance **long-term competitiveness** of the EU economy and strategic resilience

Ensure **industrial leadership** in addressing climate change, biodiversity loss and pollution

Lead in the emerging **bio-based economy,** build **new market-based business models** and drive innovation

Secure internationally competitive **sustainably supplied biomass** and sustainable production of biological resources for food, materials, energy and services

Create **green jobs,** new income opportunities for **farmers and foresters** and prospering **rural areas**

Pillar I - From Lab to Fab, priorities for scaling-up

Pillar II – Developing lead markets for more value from less biomass

Pillar III - Securing the competitive and sustainable supply of biomass

Pillar IV - Positioning the EU in the rapidly expanding international market

EU Bioeconomy potential Lead Markets

Key sectors for sustainable supply markets

- Agriculture and food sectors
- Forestry
- Blue Biomass
- Chemical industry

Creating demand for more value from less resources

- Construction and buildings materials sector
- Chemicals industry (biopolymers, biofertilizers) and its downstream users
- Packaging sector
- Textiles and fibres industry
- Fertilisers and plant protection products

EU CAP Network workshop
‘Circular bioeconomy – valorisation of forest by-products’
Kouvola, Finland 26-27 March 2025

Aim of the workshop was to explore:

- innovative approaches to wood processing and utilising forestry by-products: logging and sawmill-residues, conifer needles, tannins, resins, etc.
- advanced integration of forest biomass in energy systems (biochar, syngas), biorefineries, bioplastics and biobased chemicals

80 participants from 23 Member States, including forest owners, researchers, advisors, industry, and others

https://eu-cap-network.ec.europa.eu

Focus Groups and workshops in next work programme July 2025-June 2026:

- “Innovative and sustainable ways to strengthen the role of farmers in revitalising the European wool value chain” (FG)
- “Forestry and forest health: new and emerging pests and diseases” (FG)
- “Innovative on-farm energy production systems” (FG)

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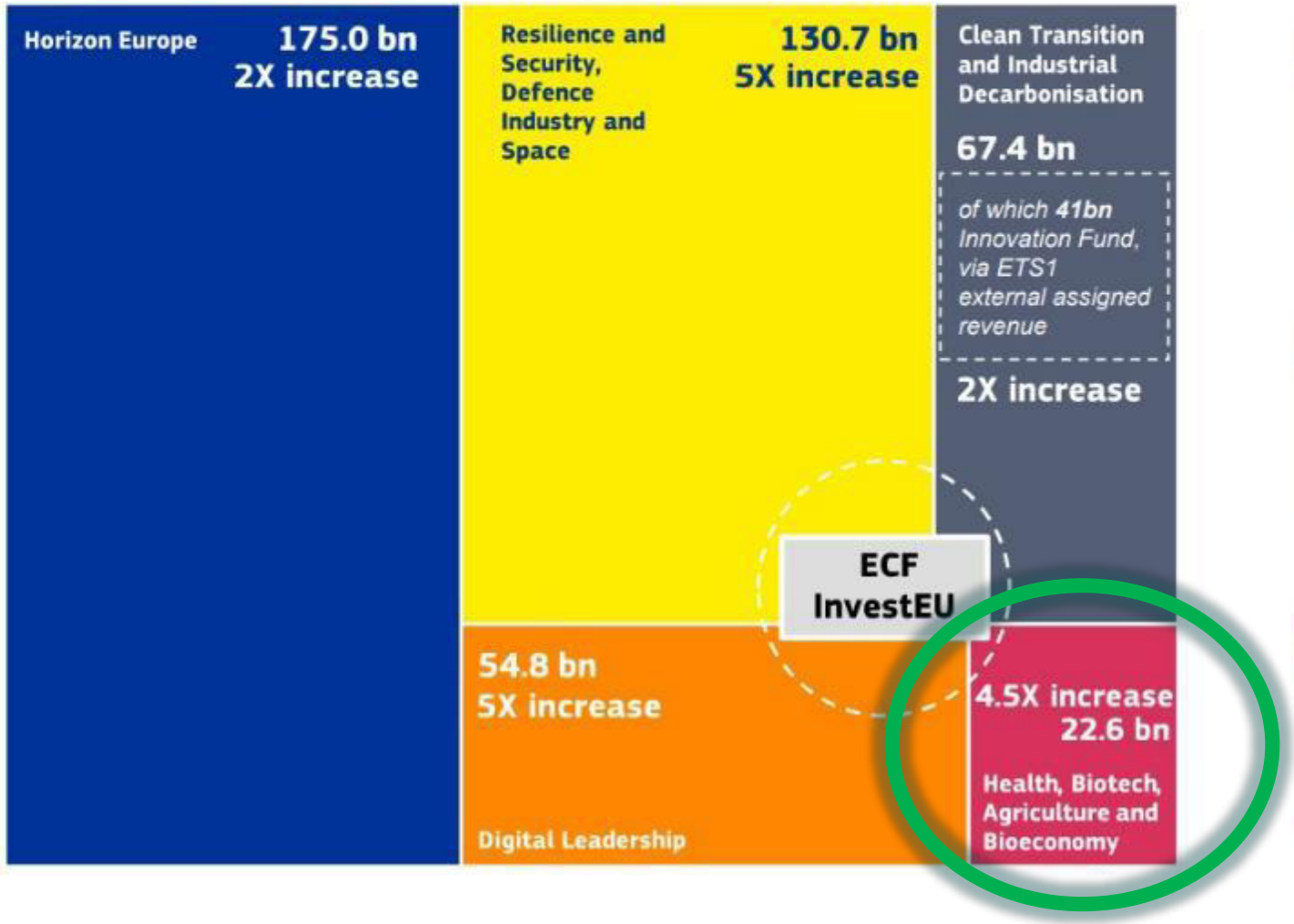
European Competitiveness Fund

A **EUR 451 billion** to boost innovation (incl. Innovation Fund)



FOCUSED

Steered towards EU's
industrial and technological priorities

SIMPLER

One rulebook
Single portal
Common rules for project promoters

IMPACTFUL

Support from research to scale-up
Unlocking private funding with more leverage
on EU budget (*ECF **InvestEU** Instrument*)

Thank You !

European Commission