

PA #1 Current EU Rural Bioeconomy Status

The European bioeconomy is one of the EU's largest and most important sectors encompassing agriculture, forestry, fisheries, food, bioenergy, and bio-based products with an annual turnover of around 2 trillion euros and employing around 18 million people. The EU bioeconomy is transforming from an economy based on linear economic models to circular economic models however, this transformation is still at its early stages and will require the transformation of existing production systems and value chains as well as the creation of new innovative value chains.

There is considerable variation in the types and geographic availability of biomass across the EU, the main biomass supply types originate from the sources, including: forests (thinning, logging residues), by-products of the wood industry, energy crops, agricultural by-products, biomass from waste streams, by-products from agro-food industry, aquatic biomass. The total production of biomass in the EU consisted of around 1.1 billion tons of dry matter of which 95% is produced locally and 5% imported with Agriculture being the biggest supply sector (65% dry matter) (Gurria et al., 2017b). The level of contribution in this biomass flow differs according to the country. There are also various potentially underutilized biomass sources including potential biomass production from unused and abandoned areas which represents about 15.8% of the total land use in EU 28 as well as the recovery and reuse of biowaste.

In addition, there are a number of important niche sectors that have the potential to considerably scale in the future. These are currently identified small scaled biobased solutions that seek to displace fossil-based value chains. In general, the development of biobased industries and biorefineries supported by biobased innovation processes are a key priority for the EC. The 2022 EU blue economy report highlights the importance of preserving and enhancing the natural capital of water bodies in the EU while also the importance of the 'blue biotechnology' sector as one of the key emerging sectors within water systems. Particularly promising is the development of the algae sector as well as related biorefineries, offshore aquaculture, the use of fish by-products and cellular mariculture and cell-based seafood. The 2021 EU Forest Strategy for 2030 highlights the importance of supporting the socio-economic functions of forests while enhancing the forest-based bioeconomy within sustainable boundaries.

In recent years EU policy has become very supportive of the development of a sustainable EU bioeconomy and the updated EU bioeconomy strategy operates in parallel to multiple other policy initiatives such as the new CAP, Green Deal, Farm to Fork strategy and circular economy action plan. Bioeconomy policies take a cross-sectoral perspective to improve policy coherence, identify and resolve trade-offs like land and biomass demand.

Improved knowledge on the status of the bioeconomy in the EU, its trajectory and associated innovations will help citizens, entrepreneurs, and policy makers to transition to a circular bioeconomy. For more information, please consult the BioRural toolkit. There are a range of materials available through this toolkit designed to provide users with knowledge and practical support for developing circular bioeconomy-based businesses. These materials include factsheets, bioeconomy inventory, success stories and educational materials as well as a network of bioeconomy stakeholders.

