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Bio-based Industries

Research and innovation provide the means to reduce the European Union's dependency on fossil fuels and contribute to meeting its energy and climate change policy targets for 2020 (10% of transport fuels from renewables and a 20% reduction in greenhouse gas emissions).

The overall objective is to accelerate the conversion of fossil-based European industries to low carbon, resource efficient and sustainable ones. Estimates conclude that a shift to biological raw materials and biological processing methods could save up to 2.5 billion tons of CO₂ equivalent per year by 2030, increasing markets for bio-based raw materials and new consumer products several-fold.

Reaping these potential benefits requires building a broad knowledge base and developing relevant (bio)technologies, focusing mainly on three essential elements:

- transforming current fossil-based processes into resource and energy efficient biotechnology based ones;
- establishing reliable, sustainable and appropriate supply chains of biomass, byproducts and waste streams and a wide network of bio-refineries throughout Europe; and
- supporting market development for bio-based products and processes, taking account of the associated risks and benefits.

Synergies will be sought with the '[Leadership in Enabling and Industrial Technologies](#) ^[1]' specific objective.

Supporting market development for bio-based products and processes

Measures on the demand side may help open up new markets for biotechnology innovation. Standardisation and certification at the European and international level is a requirement for the determination of bio-based content, product functionalities and biodegradability.

Further developments in methodologies and approaches to life-cycle analysis are needed to enhance scientific and industrial advances.

Research activities supporting product and process standardisation (including harmonisation of international standards) and regulatory activities in the field of biotechnology are considered essential to support the creation of new markets and to create trade opportunities.

Search for funding opportunities related to [bio-based economy](#) ^[2].



[3]

Related Horizon 2020 sections:

[Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy](#) [4]

[Leadership in Enabling and Industrial Technologies](#) [5]

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Links

[1] <https://ec.europa.eu/programmes/horizon2020/node/11>

[2] <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-search;freeTextSearchKeyword=Bio-based%20economy;typeCodes=1;statusCodes=31094501,31094502;programCode=H2020;programDivisionCode=null;focusAreaCode=null;crossCuttingPriorityCode=null;callCode=Default;sortQuery=openingDate;orderBy=asc;onlyTenders=false>

[3] <https://ec.europa.eu/programmes/horizon2020/sites/default/files/Bio-based%20industries%20%281%29.jpg>

[4] <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/food-security-sustainable-agriculture-and-forestry-marine-maritime-and-inland-water>

[5] <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/leadership-enabling-and-industrial-technologies>