# Enabling NGT products to contribute to sustainability: The role of Industrial Biotechnology

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Ambitious climate, circular economy and sustainable food system goals have been set in motion through the European Green Deal. To meet these objectives and to deliver a climate neutral and sustainable European economy, a range of solutions will be needed including the use of key technologies such as biotechnology.

We welcome the Commission's recently published study assessing the role of post-2001 techniques (defined as "NGTs" – new genomic techniques) and their status under Union law[1]; recognising their use in a broad variety of applications in plants, animals and microorganisms. The Commission study also takes into account major political objectives under the Green Deal and its associated strategies. Current GMO legislation does not fit the incredible advances in technology and has impacted Europe's global competitiveness. Making EU legislation in this area more resilient, future-proof, and uniformly applied will allow the EU to further benefit from innovation.

**Spotlight on microorganisms**

Within industrial biotechnology, and as the study notes, NGTs can contribute to and are in line with Green Deal objectives. Industrial biotechnology is a central pillar of innovation in Europe. It provides living microorganisms and fermentation products that are used in sectors such as food and feed, agriculture, detergents, paper and pulp, textiles, fuels, bioenergy, and specialty chemicals.

Some aspects of innovation in industrial biotechnology rely on the genetic improvement of microorganisms used as products or as production organisms for fermentation products. This is accomplished using scientifically safe and robust techniques, tools and methods that are constantly evolving.

The optimization of microorganisms used in industrial biotechnology results in both efficiency and sustainability benefits, such as higher yields of the intended molecules (e.g. amino acids, vitamins, or enzymes), elimination of genes that are of potential safety concern and / or potential for virulence and toxicity factors, improvements in the utilization of nutrients and in reducing some ecological footprint. Numerous examples of applications of NGTs in microorganisms, both current and future, are outlined in the recently published Joint Research Centre report 'Current and future market applications of new genomic techniques'[2].

We strongly agree with the conclusion of the Commission study that "the GMO legislation has clear implementation challenges and requires contentious legal interpretation to address new techniques and applications. There are strong indications that it is not fit for purpose for some NGTs and their products, and that it needs to be adapted to scientific

[1] https://ec.europa.eu/food/plant/gmo/modern_biotech/new-genomic-techniques_en

[2] https://publications.jrc.ec.europa.eu/repository/handle/JRC123830

and technological progress". Access to state-of-the-art, efficient, accurate and safe tools and techniques is indeed essential to EU research and development, and in particular in the industrial biotechnology sector.

To make best use of these tools, a science-based, proportionate, and predictable regulatory approach to current and future biotechnology innovation is urgently needed, especially if the EU wants to be on par with other regions bringing new, competitive, and innovative solutions to the market. We are encouraged by the Commission's intention to initiate a targeted policy action on plants derived from certain NGTs and look forward to further integration of scientific and technological progress in EU legislation. We stand ready to contribute to further scientific knowledge for microorganisms as part of the ongoing dialogue and future policy actions on this important topic.

By embracing innovation and technology, the EU can further demonstrate that it is using the best available tools in combatting societal challenges as well as in realising its ambitious Green Deal objectives.

EuropaBio *aisbl*
Avenue des Arts 53, 1000 Brussels
+32 2 735 03 13
www.europabio.org
VAT BE0477520310