BUYING INTO BIOBASED

BENEFITING CONSUMERS NOW AND FOR THE FUTURE

Creating a circular bioeconomy, enabled by industrial biotech, offers a wide variety of benefits for consumers both now and in the future. These include the development of more sustainable products and processes which use natural resources and energy more efficiently.

Industrial biotech uses enzymes and microorganisms to make biobased products from renewable plant-based material rather than from fossil carbon sources. These new products increasingly have the new and novel properties that consumers demand and can help reduce Europe's carbon footprint, its dependence on foreign fossil carbon imports and its impact on the environment.

The process of developing a circular bioeconomy for the products we use every day not only looks at reusing or recycling them, but also means shifting towards the use of renewable resources (e.g. wind and solar for electricity, and biomass as a carbon source for materials). Whilst the change won't happen overnight, it promises consumers renewable products that won't cost the earth.

6 examples of biobased products which are better performing, longer lasting, recyclable or more economical

Enzymes are used instead of harsh chemicals to make leather soft or cotton fabric smoother and stronger, reducing the amount of water needed and chemical waste released into the environment.

High-yielding enzymes can turn municipal and agricultural waste, such as corn cobs or wheat straw, into biofuels and so become a major source of sustainable energy.

Renewable resources can now be used to make durable, lightweight biobased car plastics and tyres, which reduce fuel consumption and CO_2 emissions.

Biodegradable mulching films made from biomass enable farmers to use less herbicides in growing vegetables and, as they biodegrade in the soil, prevent the loss of soil which occurs when removing traditional non-biodegradable plastic films.

Biobased materials are increasingly used in high value engineering solutions. They can for example strengthen shock-proof screens for smartphones or tablets.

Innovative textile fibres from biomass make renewable carpets with vibrant colours and soft touch apparels, replacing fossil-based synthetic fibres.

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BUYING INTO BIOBASED

100%

PLANT-BASED AND RECYCLABLE PLASTIC BOTTLES ARE NOW BEING INTRODUCED BY CONSUMER BRANDS[1]

65%

LESS FOSSIL CARBON USED TO MAKE BIOPLASTICS THAN TRADITIONAL PLASTICS[2]

€ 3.7 BILLION INVESTED

OVER 7 YEARS (2014-2020) IN RESEARCH AND INNOVATION FOR THE BIOBASED INDUSTRIES THROUGH THE BBI JU[3]

30%

LESS ELECTRICITY USED IN LAUNDRY BY GETTING CLOTHES CLEAN AT 30°C INSTEAD OF 40°C[4]

OVER 1 MILLION

JOBS WILL BE CREATED THROUGH THE BIOTECH INDUSTRY BETWEEN 2010 AND 2030 MAINLY IN RURAL AREAS[5]

9%

OF EUROPE'S WORKFORCE ALREADY EMPLOYED WITHIN THE BIOECONOMY[6]

2 MILLION

ADDITIONAL JOBS CREATED THROUGH MEASURES TO INCREASE RESOURCE PRODUCTIVITY[7]

"The concept of a circular economy promises a way out. Here products do not quickly become waste, but are reused to extract their maximum value before safely and productively returning to the biosphere. Most importantly for business leaders, such an economy can deliver growth. Innovative product designers and business leaders are already venturing into this space."

Paul Polman, CEO of Unilever

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