

Programme: EU-HORIZON 2020 Industrial leadership - 2014-2020

Call:

CE-BIOTEC-09-2020

Topic/s:

The European Strategy for Plastics in a Circular Economy acknowledges the usefulness of plastics for the economy and our daily lives, but points out that plastics' use fails to capture the economic and environmental benefits of a more 'circular' approach. The progressive substitution of consumer products derived from fossil fuels, at all steps along the industrial value-chain, is crucial to successfully decarbonise our society. Most plastic (>98%) is produced from non-renewable sources. This is more than 400 million tonnes globally, which could become 900 million tonnes by 2050, i.e. 20% of oil consumption. The majority of plastic cannot be recycled and contains toxic additives. Some plastics are bio-based; however not all are recyclable, reusable or biodegradable.

Annually, Europe produces 78 million tonnes of plastics, 40% of is used for packaging and mainly for packaging food, drinks and other consumer products with a short shelf-life. Packaging that cannot be recycled ends up in landfills or is burnt in, a process that releases large amounts of CO₂ and toxic chemicals into the atmosphere.

The challenge is to develop technologies to deal with the upcycling of plastics for food and drinks packaging. Upcycling in this context means transforming them into new materials or products of better quality or for better environmental value, ensuring that micro-plastics are avoided. This will allow the sustainable recycling or biological degradation in accordance with existing and novel technologies, standards and certification schemes.

Scope:

Proposals will address as many as possible of the following aspects:

Expand the potential of current technologies and materials for the manufacturing and design of bio-plastics that are recyclable and/or bio-degradable;

Exploit known or develop new biotechnologies, based on enzymes or enzyme combinations and microorganisms, for improved recycling or biodegradation of plastics;

Develop novel standards and certification schemes applicable to packaging materials made from recyclable and biodegradable bio-plastics;

Include Social Sciences and Humanities (SSH) elements and gender aspects to improve consumer attitude and behaviour with respect to purchasing and recycling food and drink packaging;

Take a systemic approach and involve cooperation among actors in the supply chain,

from producer to final consumer, and from research to policy makers.

Call Budget: 8000000,00€

Co-funding type:

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Opening date: 03 Jul 2019

Deadline date: 12 Dec 2019; 14 May 2020

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Call presentation and documents: <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunit...>