

Science Advice for Policy by European Academies

Home > News > News > New advice: Do biodegradable plastics bring benefits?

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What does 'biodegradable plastic' mean? Can biodegradable plastics help reduce plastic pollution? What policies should be in place to ensure that biodegradable plastics are beneficial to the environment, compared with non-biodegradable plastics?

Today, the European Commission's Scientific Advice Mechanism published two major documents dealing with these questions:

- The SAPEA [Evidence Review Report](#) presents the latest scientific evidence on the biodegradability of plastics in the open environment.
- The Group of Chief Scientific Advisors' [Scientific Opinion](#), informed by this evidence, presents key policy recommendations to inform the European Commission's forthcoming policy framework on plastics.

In the Evidence Review Report, a working group of leading experts nominated by academies across Europe conclude that biodegradable plastic has a role to play in reducing the accumulation of plastics in the environment. However, its role is limited to some specific applications. In other cases, including single-use packaging and plastic bags, it would be better to reduce the amount of plastic we use — or to re-use it, recycle it, or, where we can, compost it in industrial plants.

The SAPEA experts also stress that calling something 'biodegradable' does not mean that it will biodegrade in all conditions. Whether an item will biodegrade harmlessly depends not only on the item itself, but which environment it ends up in, what it breaks down into, and how long that takes.

Informed by this evidence, the Group of Chief Scientific Advisors provide recommendations on which specific applications of biodegradable plastic in the open environment offer potential benefits over conventional plastics. The Advisors are seven eminent scientists, appointed in their personal capacities, as independent experts to the European Commissioners on issues of public interest.

In their Opinion, the Advisors recommend:

- limiting the use of biodegradable plastics in the open environment to specific applications for which reduction, reuse, and recycling are not feasible as a solution for inappropriate waste management or littering;
- supporting the development of coherent testing and certification standards to realise the potential environmental benefits over conventional plastics;
- to promote the supply of accurate information on the properties, appropriate use and disposal, and limitations of biodegradable plastics and the need for relevant user groups.

The recommendations will contribute to the forthcoming Commission's policy framework related to bio-based, biodegradable and compostable plastics. They will also define the main challenges and policy actions needed in this area.

Both documents were delivered today to the Commissioner for Innovation, Research, Culture, Education and Youth Mariya Gabriel, and the Commissioner for the Environment, Oceans and Fisheries, Virginijus Sinkevičius.

[See full information about this topic](#)

