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Sustainable Plastics Live

Plastics and sustainability, not a contradiction in terms



What are bioplastics?

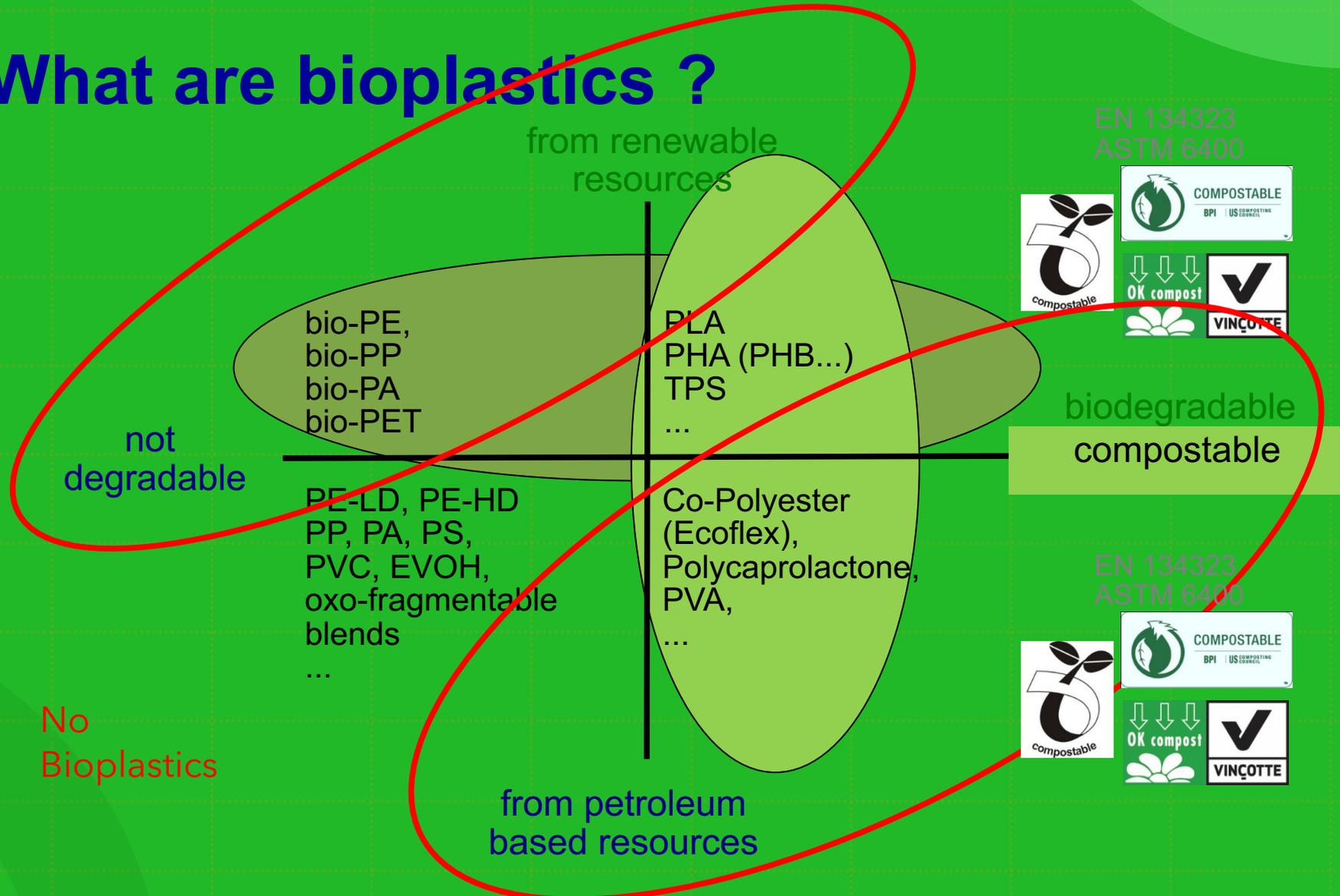
Many people, including stakeholders in the plastics industry, assume that bio-based means biodegradable. However, bio-based and biodegradable are not necessarily identical. Bio-based polymers may be biodegradable, but often they are not.

Bio-based refers to the origin of a material. In the case of bio-based polymers, it means that the polymers are based on renewable raw materials. By contrast, biodegradable is a functional attribute: it means that the material can be broken down by microorganisms, as it serves as a nutrient to them.

The 14C method can be used to check whether materials are bio-based and therefore eligible for certification as conforming to the ASTM D6866 standard developed by the American Society of Testing and Materials (ASTM). Certification is awarded by DIN CERTCO (in Germany) or Vinçotte (Belgium). End products may be awarded different certification logos, depending on the percentage of the carbon in the bio-based polymer that comes from "green" sources.

Biodegradability can be determined using standardized tests that meet the requirements of the European standards DIN EN 13432 and DIN EN 14995 and the US standard ASTM D6400. In the future, research will aim to identify whether polymers are biodegradable and find ways of making non-degradable polymers biodegradable.

What are bioplastics ?



No Bioplastics

Why bioplastics?

Fossil carbon, the backbone of conventional plastics, is contributing to the rising levels of carbon dioxide in the atmosphere.

That these levels are rising is a measurable fact. Most scientists now agree that is causing our climate to change. As plastics are based on fossil fuels, they, too, have become part of the discussion.

The answer is **renewable carbon**.