



bio-based plastics - webtool and support package

a webtool to enable manufacturers of bio-based plastic products to assess the environmental performance of bio-based plastics

The LCA to go webtool enables manufacturers of plastic products to investigate the potential use of bio-based plastics* as a raw material. By entering design specifications into the LCA to go webtool, users are able to benchmark the environmental performance of alternative designs based on bio-based plastics. This enables users to support internal ecodesign related decision-making and inform environmental product development strategies.

The LCA to go webtool introduces users to the Key Environmental Performance Indicators of bio-based plastics. This information provides users with in-depth knowledge about the processes and life

cycle phases that cause the most significant environmental impacts. This information can be used to prioritise environmental improvements when designing bio-based plastic products. The LCA to go webtool enables users to perform their own financial cost calculation for alternative bio-based plastic designs.

**Bio-based plastics are man-made or processed organic macromolecules derived from biological resources for plastic applications. Bio-based plastics can be used for certain applications as substitutes for oil-based plastic products. They can often be processed and converted into products using conventional equipment requiring minor adjustments.*

available support package

- A free webtool that is quickly accessible without the need to install software.
- A quick and easy life cycle based environmental assessment using easily accessible information.
- Allow the eco-benchmarking of alternative products to optimise the environmental performance throughout the supply chain based on KEPIs.
- A financial cost calculation (gate-to-gate approach) of alternative bio-based plastic options.
- Free mentoring by LCA and bio-based plastics experts through workshops, site visits, online tutorials and online support.



what is life cycle thinking?

All products have life cycles with interlinked stages that include supply chains, production, distribution, use and disposal. Every product has positive and negative environmental impacts along its life cycle. These environmental impacts are influenced by decisions made within each company involved in the product's lifecycle.

LCA to go uses Life Cycle Based Assessments to quantify these environmental interactions and relate them back to a company's decisions. The results from Life Cycle Based Assessments can be used to identify environmental and commercial performance improvements. These improvements can be in the form of reduced environmental pollutants, reduced energy consumption improved product quality or increased use of environmentally responsible resources.

the life cycle of bio-based plastics

land use	acidification	photochemical ozone creation potential
eutrophication	carbon footprint	respiratory inorganics
water footprint	cumulative energy demand	

Carbon footprint
only impacts on
Global Warming are
considered in this
cycle stage



growth



pellet
production



product
manufacturing



distribution

not considered
in LCA to go



use



disposal

icons courtesy of www.thenounproject.com

LCA to go is a Seventh Framework Programme led by the Fraunhofer Institute. It aims to boost Life Cycle based Assessment within Small and Medium Sized Enterprises by developing a Life Cycle Based Assessment webtool for seven sectors: bio-based plastics, industrial machinery, electronics, photovoltaics, printed circuit boards, sensors and smart textiles.

To sign up to the LCA to go webtool or support package please visit

www.LCA2go.eu

or contact your national support agent

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