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Substantiating Green Claims in a meaningful way – the challenge of PEF

In the chemical industry, using alternative, sustainably sourced feedstocks with a lower CO₂ footprint, such as renewable raw materials, is one of the key milestones toward GHG emissions reduction. The realization of such challenging milestones requires a comprehensive and meaningful method to account for the footprint of biogenic carbon and to allocate it to the actors along the value chains. Clear and transparent communication about the environmental added value of a product will increase customer demand and contribute to market development. While a harmonized approach to assessing a product's environmental performance can facilitate comparisons between products of the same category, the underlying methodology needs to be sound, science-based, but also practical.

In its initiative on substantiating green claims, the European Commission foresees the introduction of the Product Environmental Footprint (PEF) method as the mandatory tool for assessing and communicating environmental product performance. Yet, the currently proposed methodology does not grant recognition to the uptake of biogenic carbon and thereby storage of carbon in a biomass-derived product. In a cradle-to-gate life cycle analysis, which has to be supplied by manufacturers marketing products for which the use cannot be singled out (e.g. platform chemicals), this method will not account for the CO₂ removed from the atmosphere by the biomass used as sustainable feedstock. Thus, no CO₂ removal credit via attribution of renewable raw materials can be claimed at the factory gate. At the same time, the sustainability benefits of biomass-derived products (biogenic carbon storage) compared to conventional fossil products cannot be communicated to the customer.

This issue applies to biomass balance applications, too. If a cradle-to-gate analysis is conducted, little difference regarding the GHG footprint compared to fossil products can be shown. This is also the case for long-lived products, for which the removal of CO₂ from the atmosphere will not be accounted for during their lifetime.

As the PEF methodology is thereby not incentivizing the use of bio-based materials we would like to suggest improvements to the methodology to better reflect the sustainability benefits of alternative resources.