

## **PRODUCT CARBON FOOTPRINTS TO STEER TOWARDS NET ZERO**

Anderlohr C.

*BASF SE, Ludwigshafen, Germany*

To achieve policy makers' and our own ambitious CO<sub>2</sub>-emission targets a stepwise optimization of production processes being the current standard in the chemical industry is insufficient.

A transformation of the energy- and emission intensive production processes of the relevant base chemicals is needed, at least. Important levers are the electrification of energy supply and chemical processes, as well as the use of Hydrogen with low CO<sub>2</sub> Footprints as raw material for chemical reactions. Further fields are Carbon Capture and Sequestration / Utilization as well as closing carbon loops via renewable or circular raw materials.

However, a top-down perspective on availability and reduction potentials of these measures itself is insufficient to steer a company on its transformation path. To enable an actual steering a much more granular view on the emissions, emission contributions and savings potentials is needed to reliably compare different pathways on this journey. A prerequisite is breaking down emissions onto the product level to calculate Product Carbon Footprints (PCF). On the one hand a maximum internal transparency is generated to enable an actual „Carbon Steering“, on the other hand the effects of efficient processes and reduction measures are directly measurable for the customer.

In the end, both transformation and business success depend on customers' decision in favor of more sustainable products.