



# QUANTIFYING CARBON FOOTPRINT: NEED OF THE HOUR FOR MANUFACTURERS

With the effects of climate change becoming increasingly evident, governments, organizations, and consumers are becoming more concerned about the impact of their actions on the environment. With global production sectors being responsible for one-fifth of carbon emissions and consumption of 54% of global energy sources<sup>1</sup>, there is an urgent need for manufacturers to address the challenge of decarbonization. Many manufacturing enterprises are actively looking at tracking their carbon footprint and formulating strategies to reduce their impacts.

The first step towards reducing the carbon footprint of the manufacturing industry is understanding product carbon footprint (PCF). PCF helps manufacturers quantify the greenhouse gas (GHG) emissions associated with their products throughout its life cycle, spanning resource extraction, product manufacturing, continuous usage, and end of life.

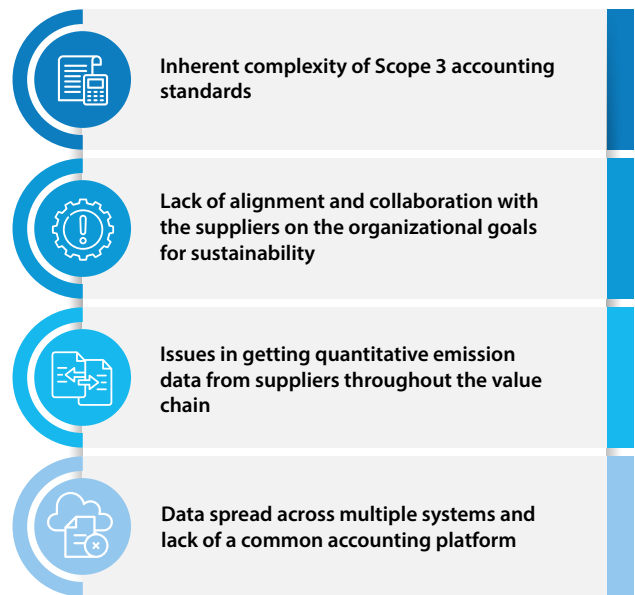
## Why measure PCF?

Measuring PCF will help companies focus on the greatest opportunities in reducing emissions, thereby leading to more sustainable decisions about the products they buy, produce, and sell. This enables organizations to understand the impact of their products and services on the environment, so that they can set improvement targets and take efficient action. On the other hand, it can help customers to compare the eco-friendliness of the products they are purchasing, thus bringing in transparency.

With increasing awareness on climate change and sustainability, net zero products or low PCF products will not only help manufacturers increase their brand value and gain competitive edge but also create value through a strong environmental, social, and governance (ESG) proposition.

## What are the complexities involved in GHG accounting?

Determining complete and accurate PCF can be very challenging, due to inherent dependencies and complexities in the manufacturing value chain, as well as lack of transparency in data. So far, organizations have focused on emissions under their own operations under Scope 1 and Scope 2 of the GHG Protocol. With supply chain emissions (Scope 3) being over 11 times higher than operational emissions (Scope 1 and Scope 2) on an average<sup>2</sup>, manufacturers need to achieve both carbon neutral operations and carbon neutral value chains to tackle direct and indirect emissions. Some of the key challenges in accounting for Scope 3 emissions include:



Growing consciousness among communities businesses operate in, as well as demand from consumers, investors, and governments for the correct labelling of PCF demonstrates the value of GHG accounting across the entire value chain (Scope 3) in comprehensively managing GHG-related risks and opportunities.



<sup>1</sup>[Sharing Data to Achieve Decarbonization of Value Chains](#): Briefing Paper, World Economic Forum and Boston Consulting Group, March 2022

<sup>2</sup>[Reducing the Carbon Footprint of the Manufacturing Industry through Data Sharing](#), World Economic Forum, March 2022

## Navigate Your Next in PCF with Infosys

Infosys, in association with Exa AG, has developed a PCF accounting, reporting, and analytics solution for global value chains (GVCs). Our solution enables companies to analyze their global value chains, based on underlying data in SAP ERP and non-SAP systems. The digital models of global value chains provide transparency on quantities, cost split, material, and activities at the most granular level. Just like cost components (material cost, freight, and power consumption), CO2 emissions can be mapped to the individual steps, which allows manufacturing enterprises to determine the aggregated CO2 footprint of each product (semi-finished and finished).

### Our solution can help companies



Collect/calculate emissions at a granular level

Drill down and analyze emissions at a process/component level



Gain near-real-time visibility required to track planned v/s actual emissions across the global value chain and thereby achieve targeted reductions



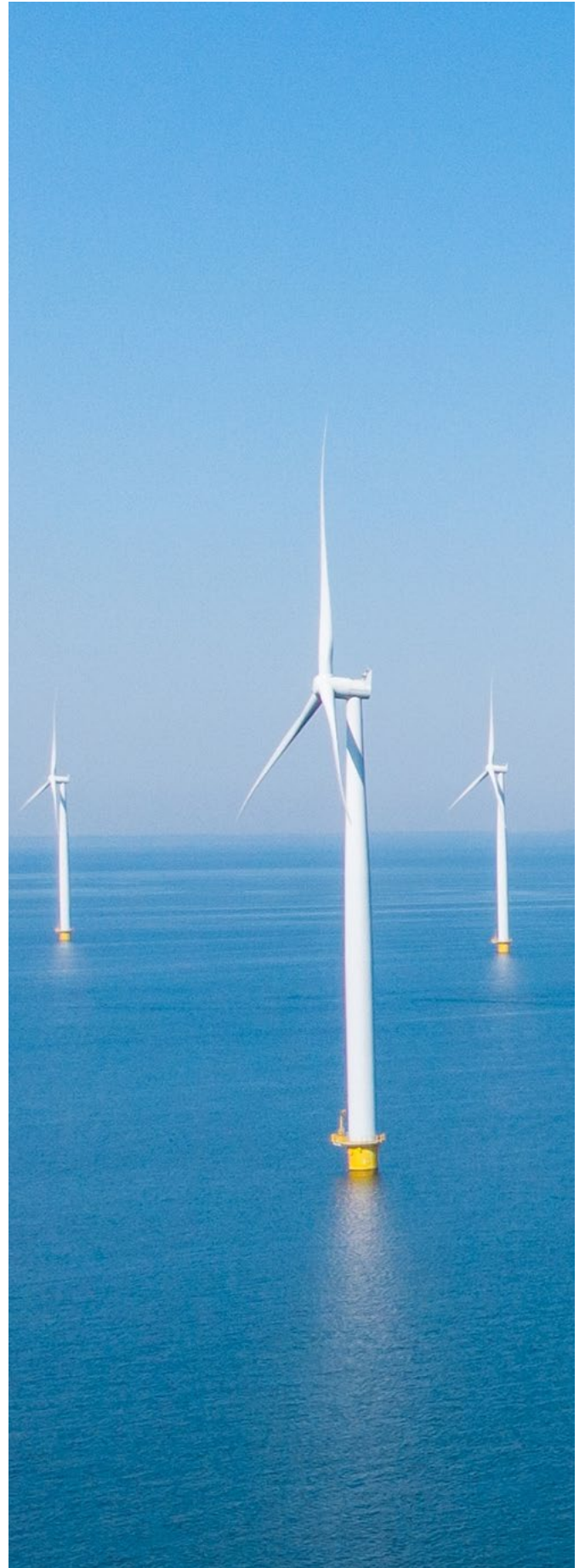
Help set benchmarks for carbon reduction with suppliers and other partners across the value chain



Improve brand reputation and visibility



In 2020, Infosys turned carbon neutral in compliance with PAS 2060 standards. This ensures that all our IT services are “Net Zero” and gives us the confidence we need to help our customers navigate their sustainability journeys.



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Alok Rastogi is a senior industry leader with extensive experience in sales and large portfolio management and in building and managing high-performance global teams. Currently, he leads a team that helps manufacturing clients in developing high-end strategic solutions that address client challenges. He is also leading the Sustainability GTM initiative for the core manufacturing vertical at Infosys.

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