

PCF Platform – Empowering the Chemical Industry to Achieve Net Zero Goals



The global imperative to drastically reduce CO2 emissions has led companies across sectors to set ambitious sustainability goals, including time-bound net-zero targets. As a significant contributor to CO2 emissions, the chemical industry is poised to take a leadership role in this transformative journey. Collaborative initiatives such as Together for Sustainability (TfS) underscore the sector's commitment to building a sustainable future, meeting regulatory standards and responding to societal calls for action. Digital solutions are essential tools in this effort, enabling companies to discover and achieve CO2 emission reduction opportunities.

Decoding the Complexity of PCFs

The Product Carbon Footprint (PCF) is an essential metric representing the total CO2 emissions attributed to the production of a product. The intricate production processes in the chemical industry, often resulting in multiple outputs, amplify the complexity of determining an accurate PCF. Full transparency in CO2 emissions at each production stage, and understanding the proportion originating from purchased raw materials, is paramount for chemical companies. Industry guidelines, including the GHG Protocol, ISO standards, and sector-specific frameworks like TfS, set strict parameters for the proper calculation of PCFs for chemical products.

Introducing Our Solution: PCF Platform



A Collaborative Innovation

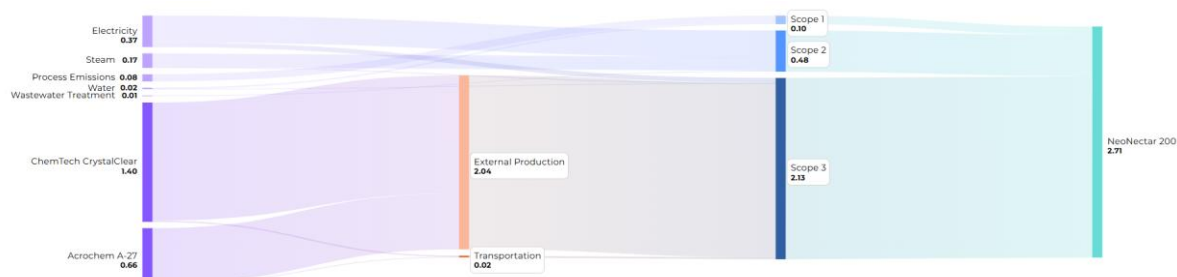
Atos' PCF Platform, developed in partnership with BASF, is a state-of-the-art software solution that automates the calculation of PCF scores and ensures compliance. The platform's capabilities go beyond mere calculation, providing functionality for:

1. Accurate and automated PCF scores for the whole portfolio of chemical products.

2. Easily export PCF data to analytical tools and generate customized PCF data sheets for customers.

3. Detailed CO2 transparency at each production step, facilitating the exploration of CO2 reduction scenarios.

4. Enabling companies to undertake substantive CO2 reduction measures down to product level



Meeting Industry Challenges:

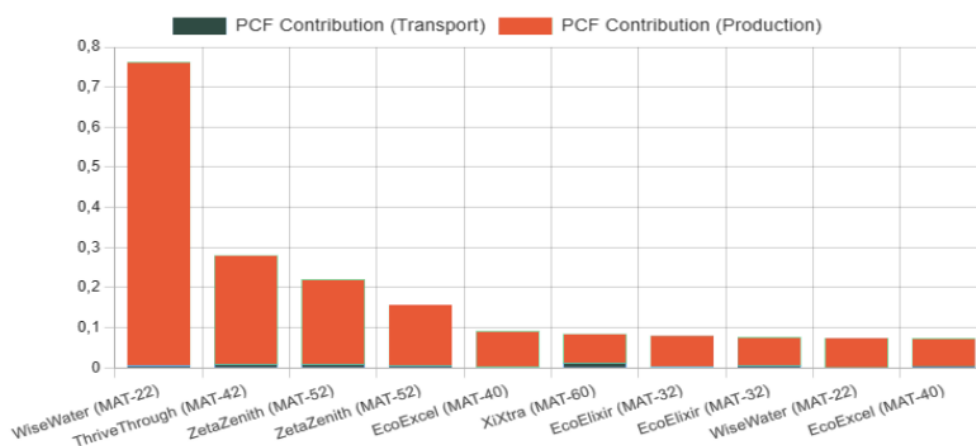
The PCF Platform is an advanced, efficient response to the specific needs of the chemical industry for accurate PCF assessment. It addresses some of the most pressing challenges facing the industry in its quest for sustainability and regulatory compliance:

- **Streamlined Data Management:** The platform streamlines the collection and structuring of essential data from multiple systems, ensuring that high-quality, standardized data is readily available. This streamlining eliminates data silos and improves the accuracy and reliability of PCF calculations.
- **Advanced Calculation Engine:** With its powerful technology, the PCF Platform enables fast and scalable calculations across extensive product portfolios. This advanced calculation engine enables real-time processing of large data sets, ensuring that companies can quickly generate accurate PCF scores for a wide range of products without compromising speed or efficiency.
- **Collaborative Industry Standards:** The platform complies with international and industry-specific guidelines such as the GHG Protocol, ISO standards, and Tfs. This compliance ensures that PCF calculations are universally accepted and promotes industry collaboration.
- **Enhanced Transparency and Analysis:** The PCF Platform provides comprehensive visibility into emission sources, supported by robust Life Cycle Impact Assessment (LCIA) and scenario analysis capabilities. This enhanced transparency allows companies to track emissions throughout the production process, identify key areas for improvement, and explore different CO2 reduction scenarios.

Unique Features

The PCF Platform distinguishes itself through a set of unparalleled features designed to optimize precision and drive sustainability initiatives forward:

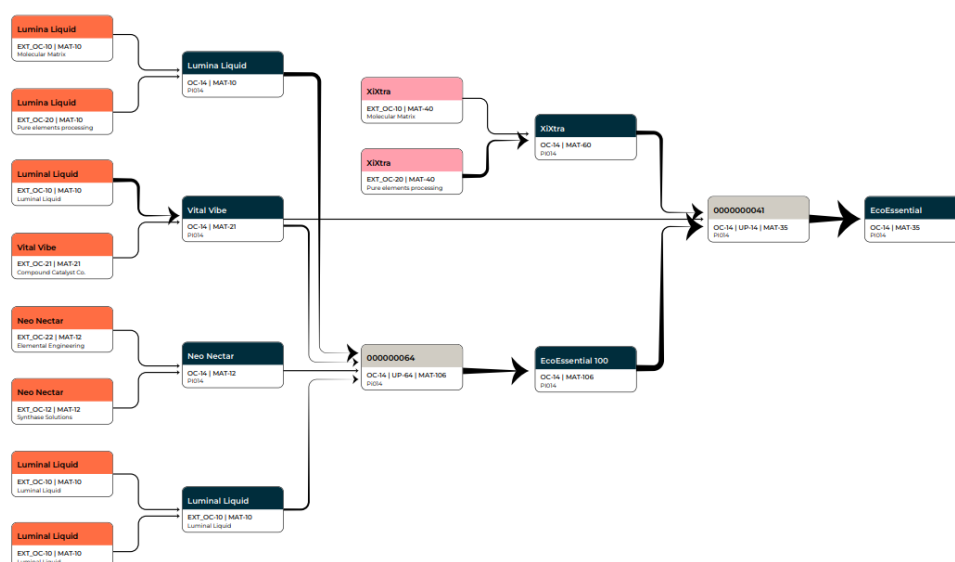
- **Supplier-Specific Data:** Most PCFs rely on secondary data (e.g., LCA databases) for raw material emissions. The PCF Platform is designed to both provide and enable the use of supplier-specific PCF data, ensuring greater accuracy and the ability to more effectively identify and reduce emissions.
- **Internal Supply Chain:** Chemical companies often produce intermediates that are used to make other products. The platform enables consistent and transparent calculation of PCFs for products with an “internal supply chain”.
- **Pre-Defined Allocation:** Many chemical processes generate multiple outputs, requiring emissions allocation within the LCA. The PCF Platform provides an accepted allocation hierarchy that ensures consistent allocation of emissions across the product portfolio.
- **Link to Scope 1 & 2:** Many product carbon footprints use generic or estimated data for energy emissions. The PCF Platform directly links a company’s corporate carbon footprint (Scope 1 & 2) to the PCFs, providing a comprehensive assessment of the entire product portfolio.
- **Scenario Analysis:** The platform enables product/process comparisons and quick identification of differences between two PCF datasets. It also provides the ability to change parameters related to bills of materials, raw materials, and/or utilities, for analysis purposes



Company	Product Code	Contribution (Total)	Contribution (Transport)	Contribution (Production)	% of Total PCF	Mass Contribution	Scope 3
EXT_OC-22 Elemental Engineering	MAT-22 WiseWater	0,763	0,006	0,756	20,5	0,320	2,383
EXT_OC-42 Alchemy Alloys	MAT-42 ThriveThrough	0,279	0,008	0,272	7,5	0,379	0,737
EXT_OC-2 Catalyst Composites	MAT-52 ZetaZenith	0,220	0,008	0,212	5,9	0,377	0,584
EXT_OC-12 Synthase Solutions	MAT-52 ZetaZenith	0,157	0,005	0,152	4,2	0,251	0,625
EXT_OC-0 Chemosynth Tech	MAT-40 EcoExcel	0,092	0,002	0,089	2,5	0,125	0,735
EXT_OC-10 Molecular Matrix	MAT-60 XiXtra	0,083	0,011	0,073	2,2	0,530	0,157
Total		2,227	0,073	2,153	59,8	3,706	

Your Strategic Advantage:

Implementing the PCF Platform provides chemical companies with a variety of strategic advantages. It enables them to confidently navigate the complexities of regulatory compliance and environmental reporting. By enabling transparent disclosure of PCF data, the platform helps companies build trust with their customers and stakeholders, enhancing their reputation and competitive advantage. In addition, the PCF Platform empowers companies to take control of their sustainability narrative, enabling them to set and achieve their net zero and CO2 reduction goals with accurate, data-driven insights. It is a solution that not only aligns with global sustainability goals, but also distinguishes its users as industry leaders committed to environmental responsibility and innovation



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