



# THE PCF GUIDELINE

A first-of-its-kind, tailored solution  
for calculating product carbon  
footprints in the chemical industry

**Official launch of the PCF Guideline:  
Let's decarbonise chemical supply chains together**  
15 and 16 September 2022

# Agenda

- **Welcome**
- **A word from the TfS President**
- **Official launch of PCF Guideline – a milestone for TfS membership and game changer**
- **Benefits and opportunities of the PCF Guideline for corporations and suppliers**
- **How to use the guideline and integrate into operations – the BASF testimonial**
- **Communication Plan for our Guideline**
- **“What is in the pipeline?” – PCF sharing solution 2023!**
- **Q&A**

# A word from the TfS President





*"Let's all engage and seize this unique opportunity to reduce greenhouse gas emissions across our industry!"*

Bertrand Conqu ret,  
President TfS

**Official launch of  
PCF Guideline  
– a milestone for  
TfS membership  
and game  
changer**

# The challenge: **assessing scope 3 emissions**

The chemical industry is accountable for a **high level of global greenhouse gas (GHG) emissions** – 77% are scope 3<sup>1</sup>.

**Scope 3 emissions measurement** is exceptionally challenging for our industry.

**Existing guidelines** do not provide the level of specificity and detail needed.



Corporations need to **meaningfully report scope 3 emissions.**

Chemical suppliers need guidance on **accurately calculating the carbon footprints** of their products for their customers.

<sup>1</sup>Source: CDP, “[Running Hot - Accelerating Europe’s path to Paris](#)” (page 31).

# The solution: the PCF Guideline by TfS

The gold standard for calculating chemical product carbon footprints (PCFs).



**First-of-its-kind, industry-specific guidance** on calculating chemical PCFs.

Empowers companies to produce **higher quality carbon footprint data**.

Allows for **consistency of chemical PCFs** across companies.

**Tailored to meet unique challenges** when calculating chemical PCFs.

**Compliant with ISO and GHG Protocol** accounting standards.

**Open source, “drop-in” solution** available to other industries using chemical material.

**Benefits and  
opportunities of  
the PCF  
Guideline for  
corporations and  
suppliers**



# Making it easier to drive supply chain decarbonisation

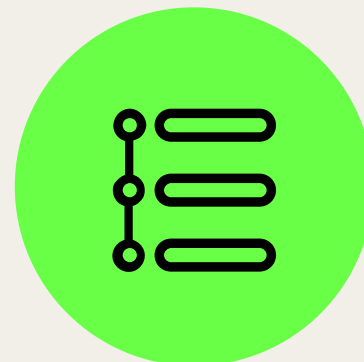
Purchased goods and services (scope 3.1) represent a major share of a chemical company's greenhouse gas (GHG) emissions. The TfS PCF Guideline enables corporations to address scope 3.1 GHG emissions in a systematic and meaningful way.

## How corporations benefit:



### DATA AND EFFICIENCY

Learn exactly what chemical PCF data to collect to accurately evaluate scope 3 emissions. Receive comparable data from suppliers for efficient sustainability reporting.



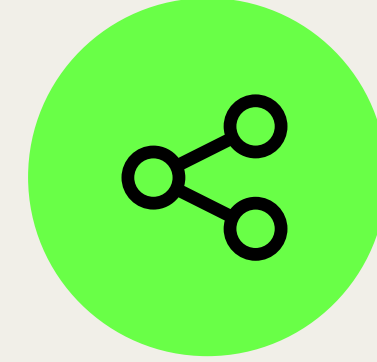
### SUSTAINABILITY STRATEGY

Better understand GHG-reduction opportunities in your supply chain and create a roadmap to meet sustainability targets.



### SUPPLIER SELECTION

Work with suppliers to quantify PCFs in a consistent manner and reduce the footprint of their chemical products.



### SUPPLY CHAIN IMPACT

Create a more sustainable supply chain by supporting your suppliers in using the PCF Guideline – as they supply others too.

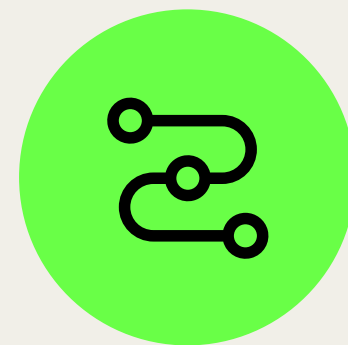
# The far-reaching benefits for chemical suppliers

By applying the TfS PCF Guideline, chemical suppliers can provide accurate chemical PCFs to corporate customers to help them accurately report and reduce their scope 3 emissions and advance sustainability in the chemical industry.

## How chemical suppliers benefit:



Better understand the GHG emissions associated with products – so you can **improve sustainability performance and reporting and reach emissions-reduction targets.**



Improve efficiency, streamline resources and **reduce the amount of time spent using generic guidelines.**

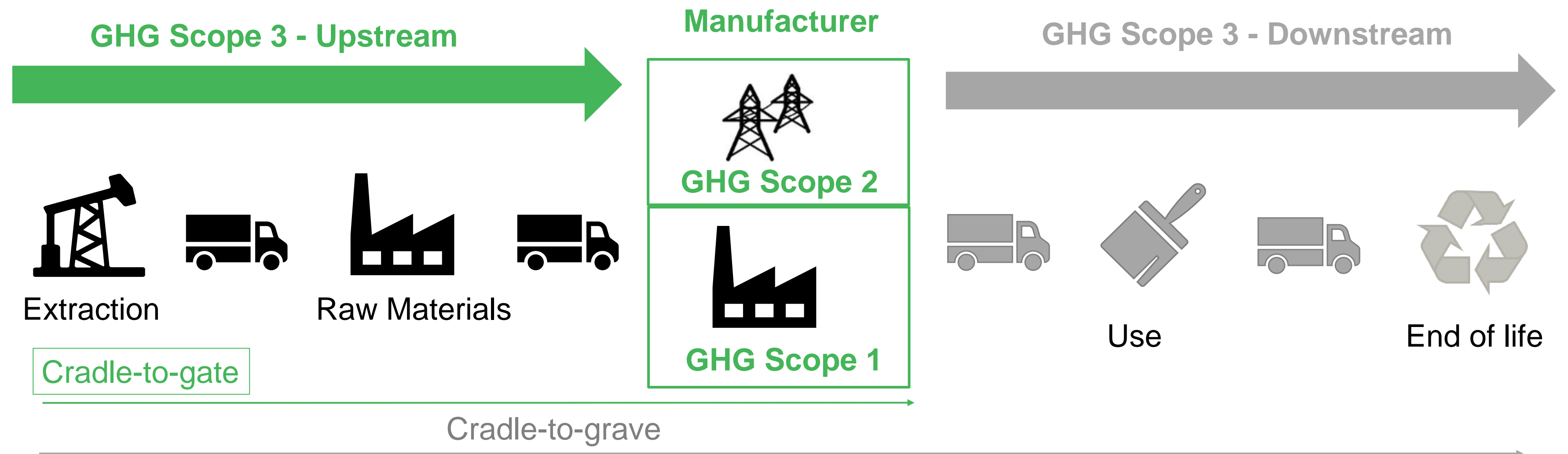


Report PCFs to the level of specificity many customers are requesting – so you can **increase customer satisfaction and generate new sales.**

# How to use the guideline and integrate into operations

# How to calculate a Product Carbon Footprint (PCF)?

- The PCF is an information of the climate impact of a product
- It summarizes the total amount of greenhouse gas (GHG) emissions that is associated with a product depending on the system boundaries of the calculation
- System boundaries may vary from cradle-to-gate to cradle-to-grave



ISO 14067:2018 defines the Product Carbon Footprint as the life cycle GHG emissions of a product

# PCF determination requires availability of data owned by actors along global value chains

**TIER N**

*PCF<sub>Tn</sub>*

*Emissions*

**TIER 2**

*PCF<sub>T2</sub>*

*Emissions upstream*

*Production related*

**TIER 1**

*PCF<sub>T1</sub>*

*Emissions upstream*

*Production related*

**OEM**

*PCF<sub>OEM</sub>*

*Emissions upstream*

*Production related*

*GHG emission impact associated to product manufacturing*



# The Challenge: There is an urgent need for an efficient way to gain transparency and high quality in product carbon footprints and for a shared standard



Generic standards as **ISO standards or GHG protocol** are established and applied in all sectors



Product carbon footprints are very important as information of GHG emissions **along the life cycle**

*but....*



Generic standards are **not specific enough** for sector specific calculations

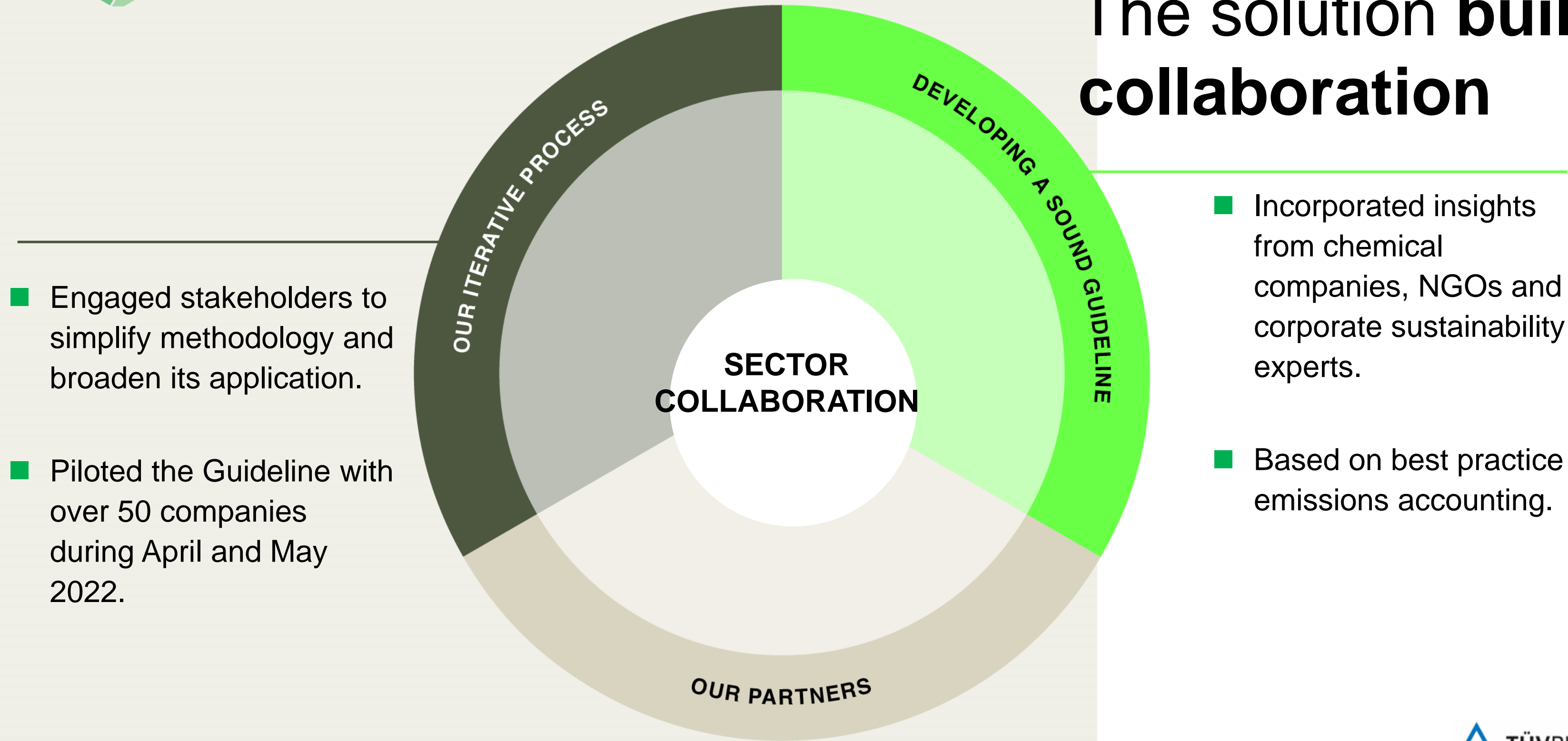


For PCF of chemicals very **specific aspects** needs to be considered and addressed



Chemicals have a **high level of variances** that need to be considered in a guideline

# The solution **built on sector collaboration**



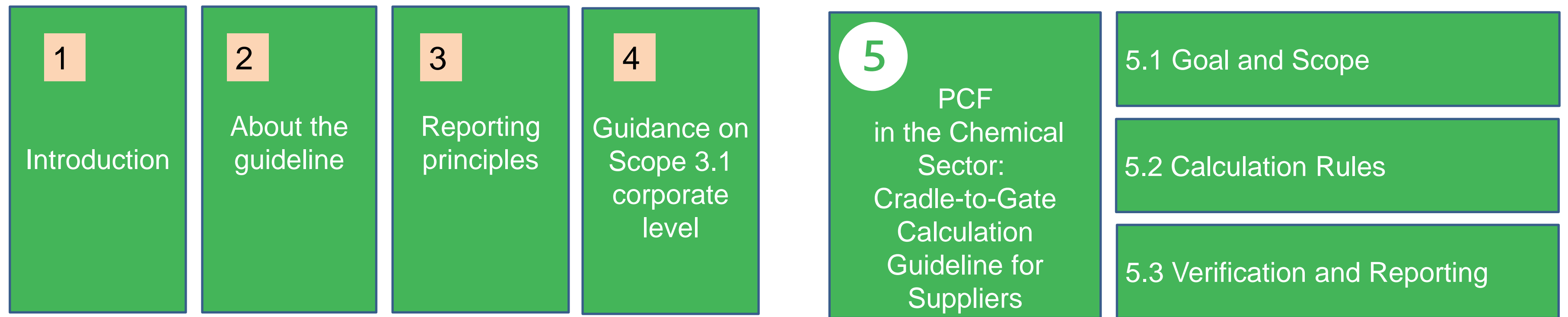
- Engaged stakeholders to simplify methodology and broaden its application.
- Piloted the Guideline with over 50 companies during April and May 2022.

- Incorporated insights from chemical companies, NGOs and corporate sustainability experts.
- Based on best practice emissions accounting.

- Collaboration with partners to align with existing guidelines.
- Became part of WBCSD's Partnership for Carbon Transparency to maximise the PCF Guideline as a cross-sector solution.



# Guideline structure: 5 Chapters for a meaningful application



Publication in November 2022



From generic approach to sector-specific content



# TfS developed a guideline determine PCFs with a consistent methodology for chemicals



Formalized an LCA methodology aligned with **ISO** and **GHG Protocol Product Standard** including **SCOTT methodology** of **BASF**



Use of **primary data** instead of industry averages, technology benchmarks, proxies or database information



Harmonization of **Corporate Scope 3.1 upstream GHG** reporting through implementation of **PCF data**

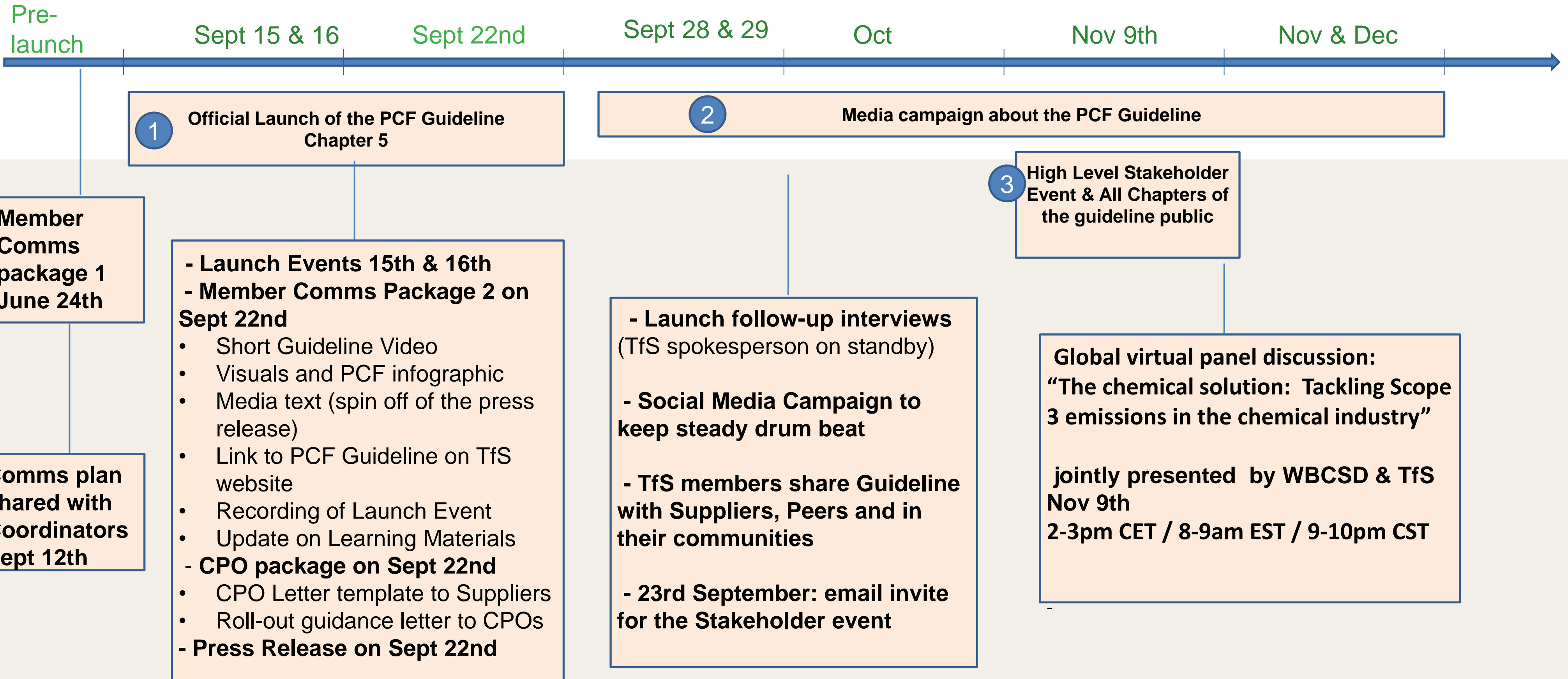
## Sector specific guideline linked with powerful tools allow

- ✔ Calculate PCF quickly and cost-efficiently
- ✔ Comparable data of chemicals
- ✔ Acceptance by other frameworks
- ✔ Close interaction with suppliers

Note: primary data for SCOPE 1 & 2; primary data for SCOPE 3 upstream if available for raw materials; if not, fall back to secondary data



**Communication  
Plan about the  
PCF Guideline &  
High Level  
Stakeholder  
Event**



# High-Level Stakeholder Event

## Speakers

### OPENING SPEAKERS



**Bertrand Conquéret**  
TfS President  
Chief Procurement Officer at Henkel

- Introductory speech



**Anna Stanley**  
Director of Climate Action at WBCSD  
(moderator)

- Opens event
- Scene-setting presentation
- Introduces and moderates expert panellists
- Closes event

### EXPERT PANELISTS



**Prof. Dr. Peter Saling**  
Director of Sustainability Methods  
BASF

- Perspective of a corporation that has successfully used PCF Guideline
- Integrated supplier PCF data to improve accuracy of BASF's scope 3.1 emissions data



**Kentaro Mizuike**  
Lead of LCA Utilization & Implementation  
Mitsubishi Chemical Corporation

- Perspective of a supplier company has used the PCF Guideline to better calculate their chemical PCFs
- Provided more accurate PCF data to corporate customers – enabling them to better understand their scope 3.1 emissions



**Dr. Verena Buback**  
Head of Supplier Decarbonization  
Merck

- Perspective on 'how to': rolling the PCF Guideline internally and with suppliers
- How a company can 'sell' the Guideline internally and cascade it to their supplier base
- Applicability of Guideline to other industries



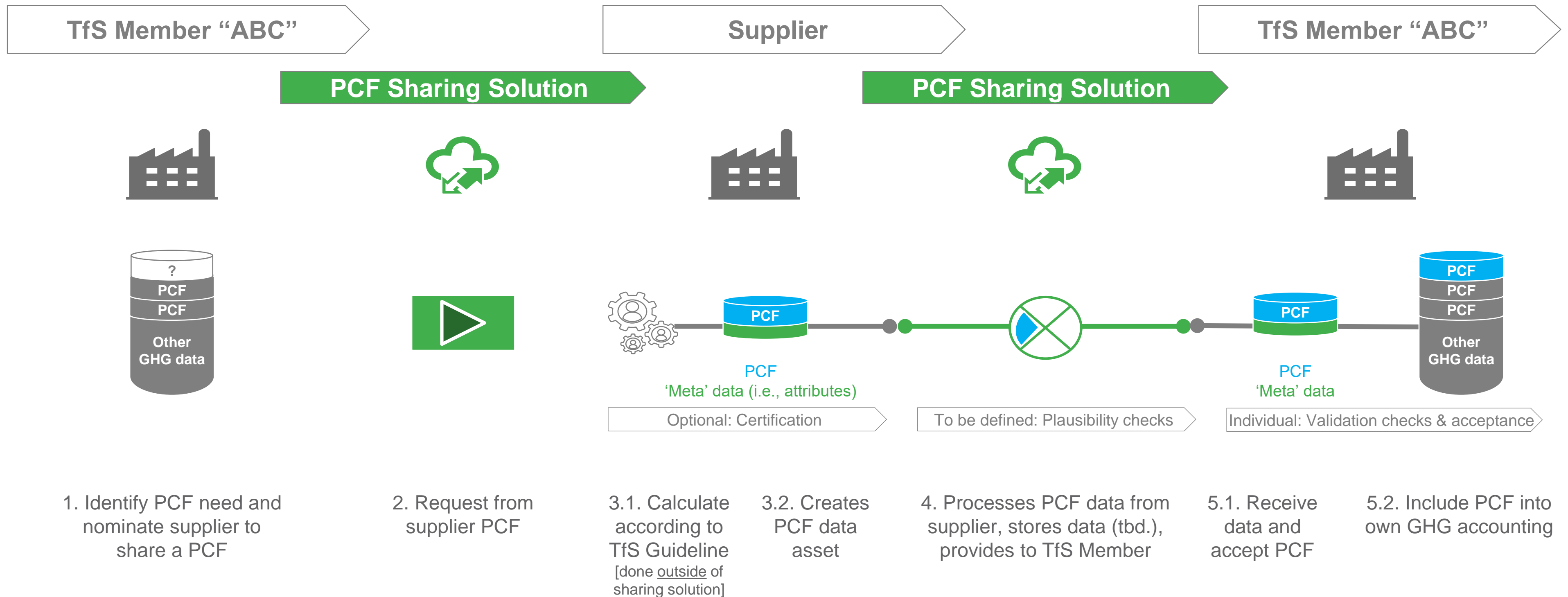
**Anna Stanley**  
WBCSD  
(moderator)

- Facilitates panel discussion
- Participates in panel by providing NGO perspective
- What more accurate scope 3 emissions data means for the future of sustainability in the chemical industry
- WBCSD's role in developing the framework, and how it complements WBCSD's.

**“What is in the  
pipeline?” –  
PCF sharing  
solution 2023!**



# PCF Collection & Sharing – Process





**Thank you**

**[www.tfs-initiative.com](http://www.tfs-initiative.com)**

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