

Climate Chatter

Greenhouse Gas Calculation & Assurance

9 June 2020



Welcome to our Climate Chatter - Carbon Credits & Carbon Pricing in Asia Pacific

- **Default audio setting:** mute on joining
- **Questions** via the **Question box** are welcome at any time
 - Technical support: we will aim to resolve ASAP
 - Topic-related questions for the discussion: Q&A at the end. If we cannot answer your question in the Q&A we will get in touch via email
- Many of us are broadcasting from **our homes**. Please bear with us in case of technical issues

Host



Leah Wiczorek
Business Development
Manager, Asia
South Pole

Speakers



Ajit Padbidri
Senior Consultant,
Corporate Sustainability
South Pole



Dr Tahsin Choudhury
Senior International Product
Manager - Climate Change and
Sustainability
TÜV NORD CERT GmbH

About South Pole

South Pole helps clients address climate change impacts, while mitigating risk and creating value on their sustainability journeys.

Innovative Solutions

An award winning, 14-year history of providing sustainability solutions

Diverse Expertise

Our team of 350+ Sustainability advisors, scientists, and engineers are leading experts in their fields

Global Presence

19 offices and representations around the world



Offices & Global Representations:

Amsterdam, Bangkok, Beijing, Bogotá, Hanoi, Jakarta, London, Madrid, Medellín, Melbourne, Mexico City, New Delhi, New York, San Francisco, Singapore, Stockholm, Sydney & Zurich



In 2019, over **8,400 companies disclosed through CDP** – a significant **20% increase** on the previous year



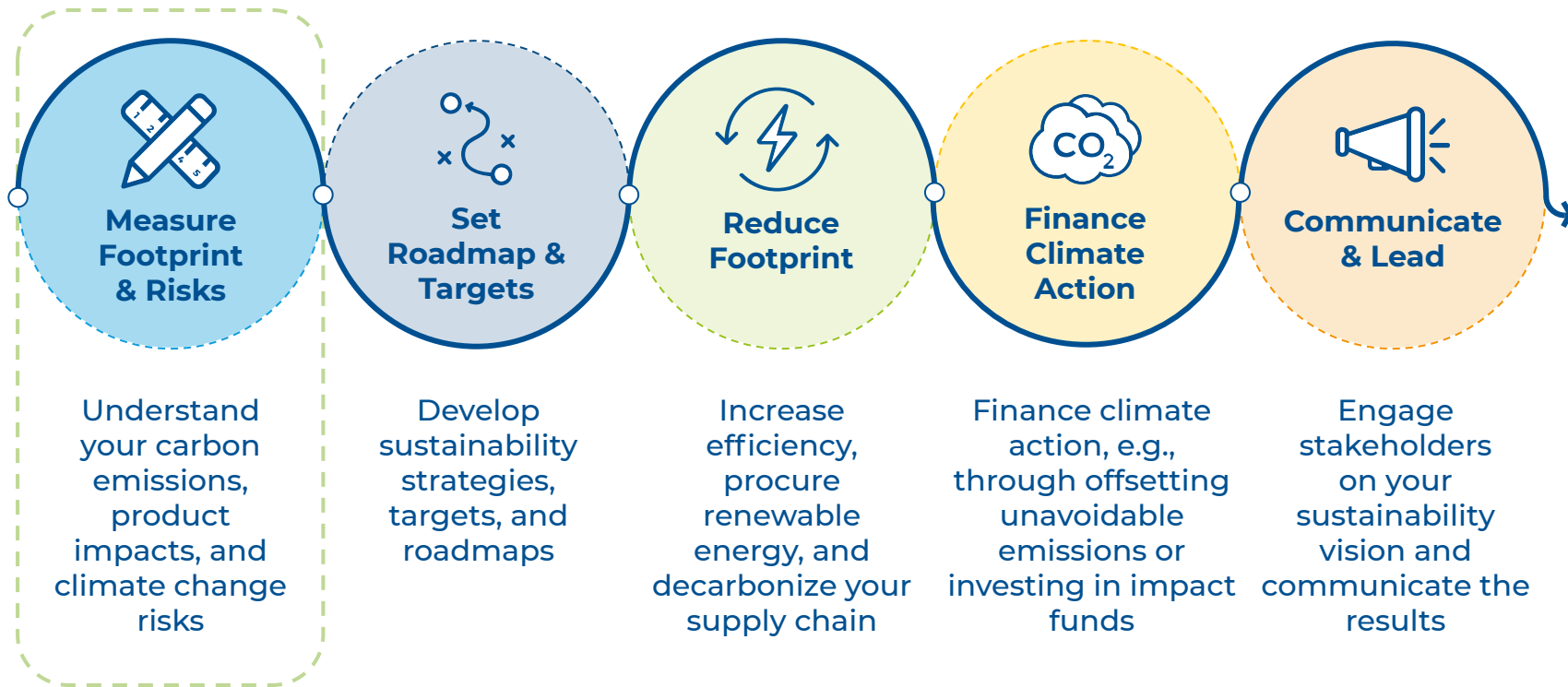
Business leaders, cities and investors are being urged to back a UN campaign aiming for net-zero greenhouse gas emissions by 2050.

Calculating your Carbon Footprint with South Pole

Ajit Padbidri



The Climate Journey



The Greenhouse Gas Protocol

The GHG Protocol

- World's **most widely used GHG accounting tool** for understanding, quantifying and managing emissions
- **Launched 1998** by:



WORLD
RESOURCES
INSTITUTE



World Business Council for
Sustainable Development

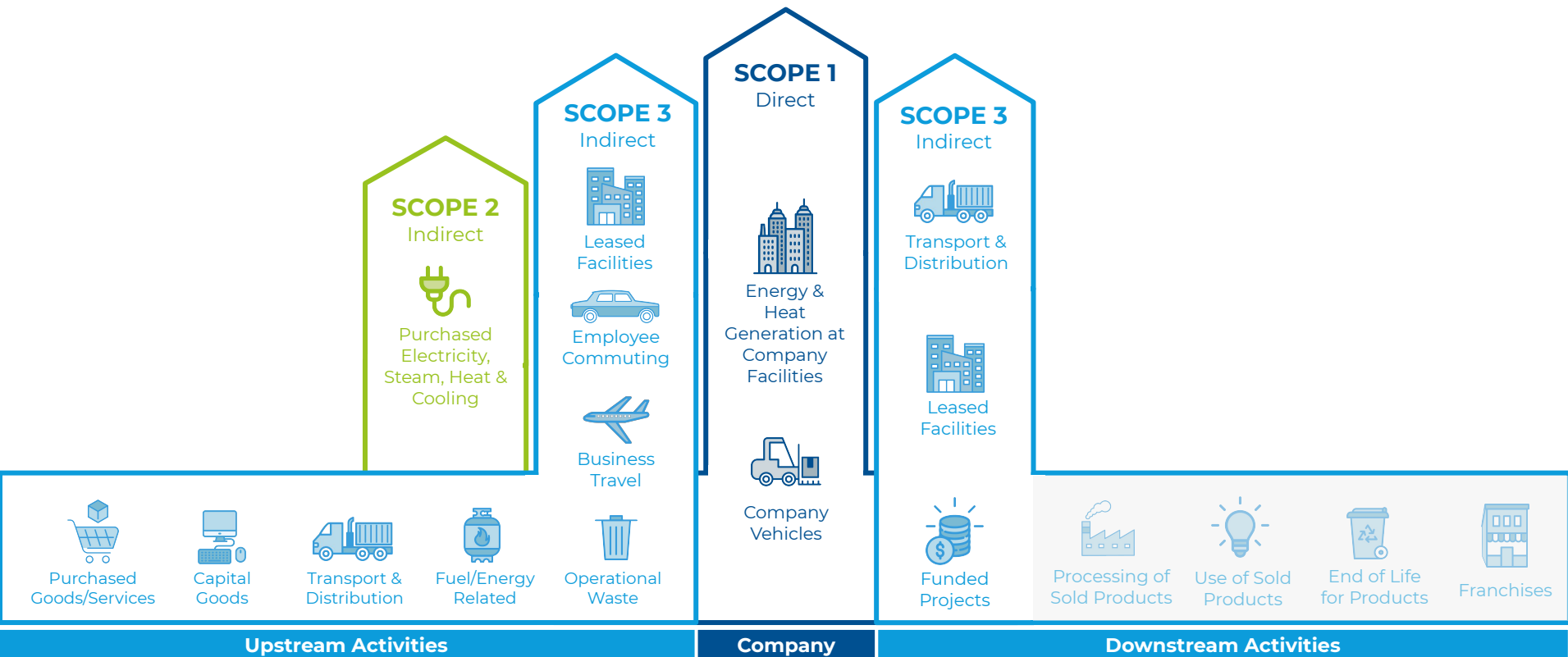
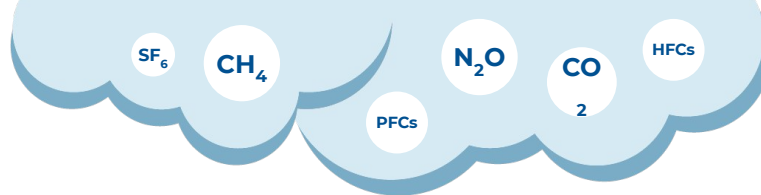
Five Key Principles

1. **Relevance**
2. **Completeness**
3. **Consistency**
4. **Transparency**
5. **Accuracy**



GREENHOUSE
GAS PROTOCOL

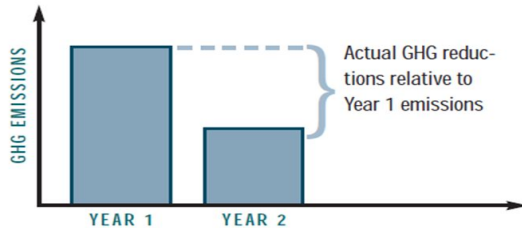
Scopes of Emissions



Three types of GHG Accounting

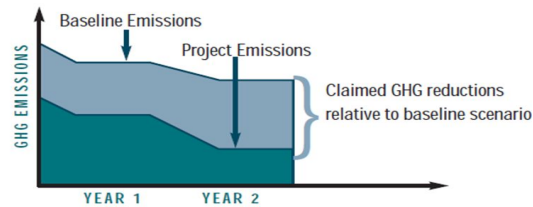
1. Entities

- Combines emissions data across an **organisation's operations**
- **Emissions** have mostly **already occurred**
- Emissions data **compared** with **prior base year**



2. Projects

- Quantifies **emissions avoided by a project** in the future
- Impact **estimated through baseline comparison** ("what if?" scenario)



3. Products

- **Life Cycle Assessment (LCA)**
- Combines data from **past and future emissions across all phases** of individual **product or service**
- Emissions data **compared** with **prior base year**



What is a Carbon Footprint?

Total greenhouse gases emitted by an activity or organisation over time, measured in tonnes of carbon dioxide equivalent (tCO₂e)

A **carbon footprint** is calculated by multiplying:

Energy Used × **Emission Factor**

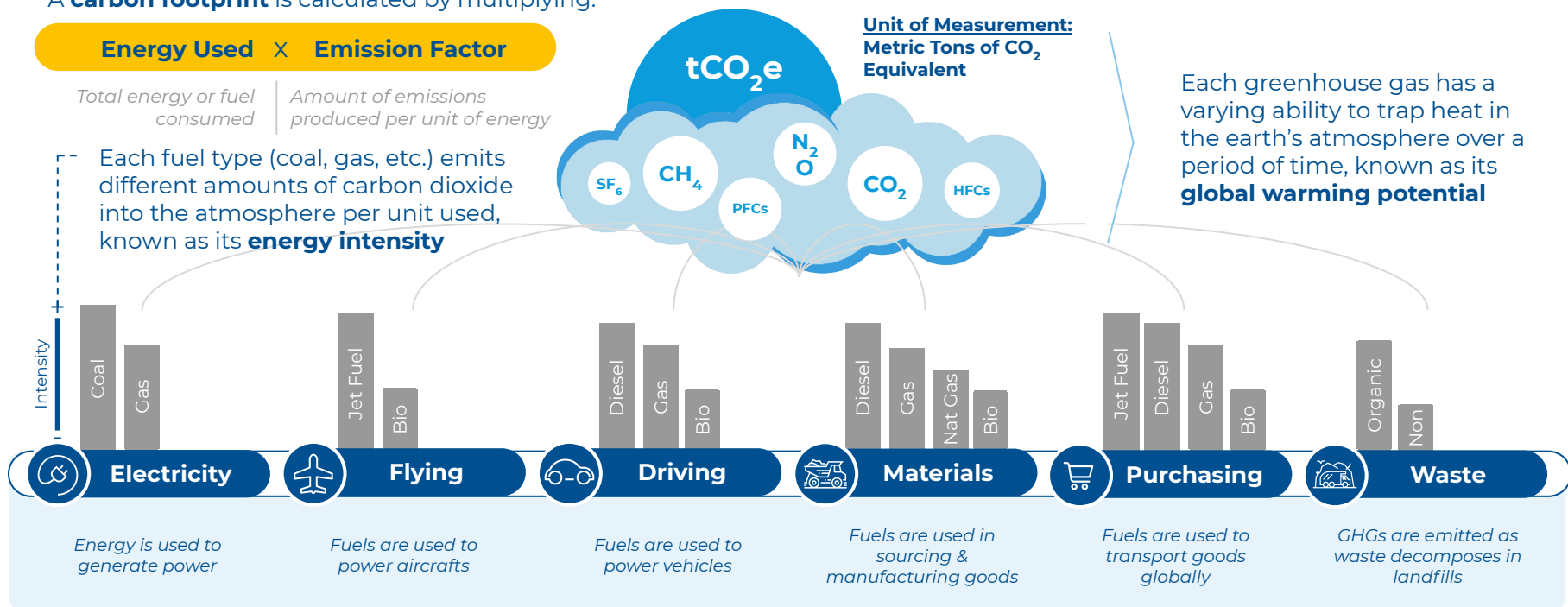
Total energy or fuel consumed

Amount of emissions produced per unit of energy

Each fuel type (coal, gas, etc.) emits different amounts of carbon dioxide into the atmosphere per unit used, known as its **energy intensity**

Unit of Measurement:
Metric Tons of CO₂ Equivalent

Each greenhouse gas has a varying ability to trap heat in the earth's atmosphere over a period of time, known as its **global warming potential**



5 Reasons for Carbon Footprinting

Common business goals of GHG Accounting



Managing **climate-related risks** and **identifying opportunities**



Public reporting and participation in **voluntary GHG programs**



Participating in **mandatory reporting** programs

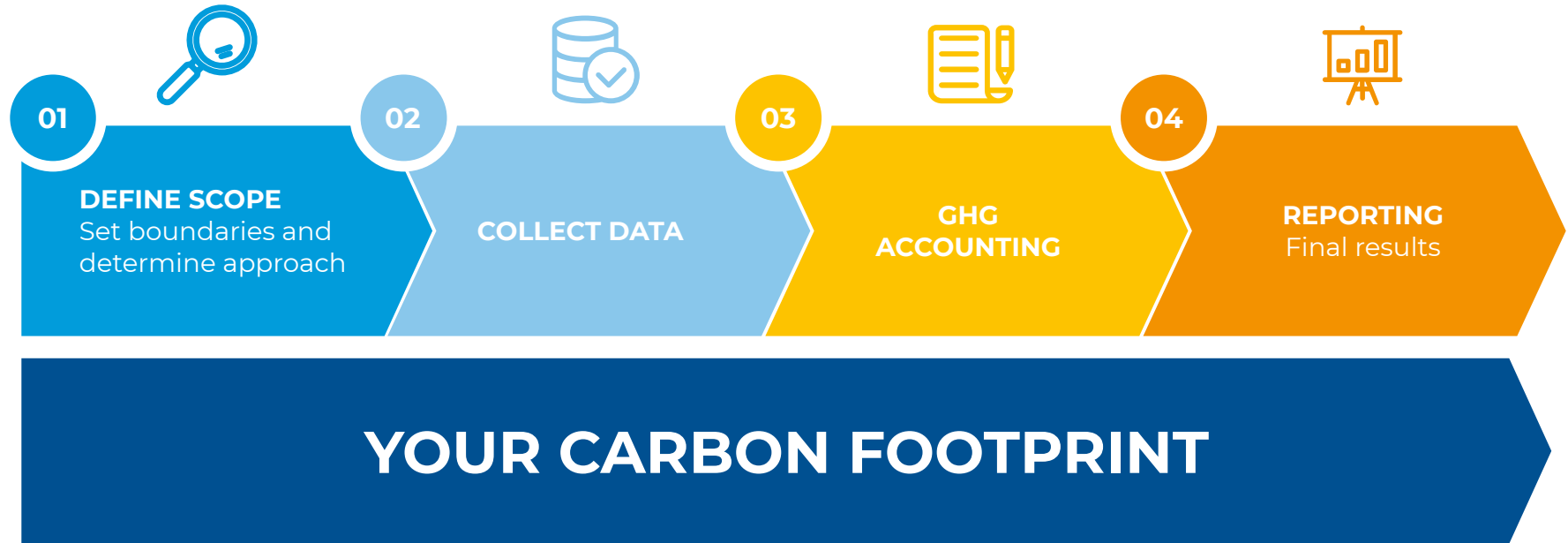


Participating in **national carbon markets**

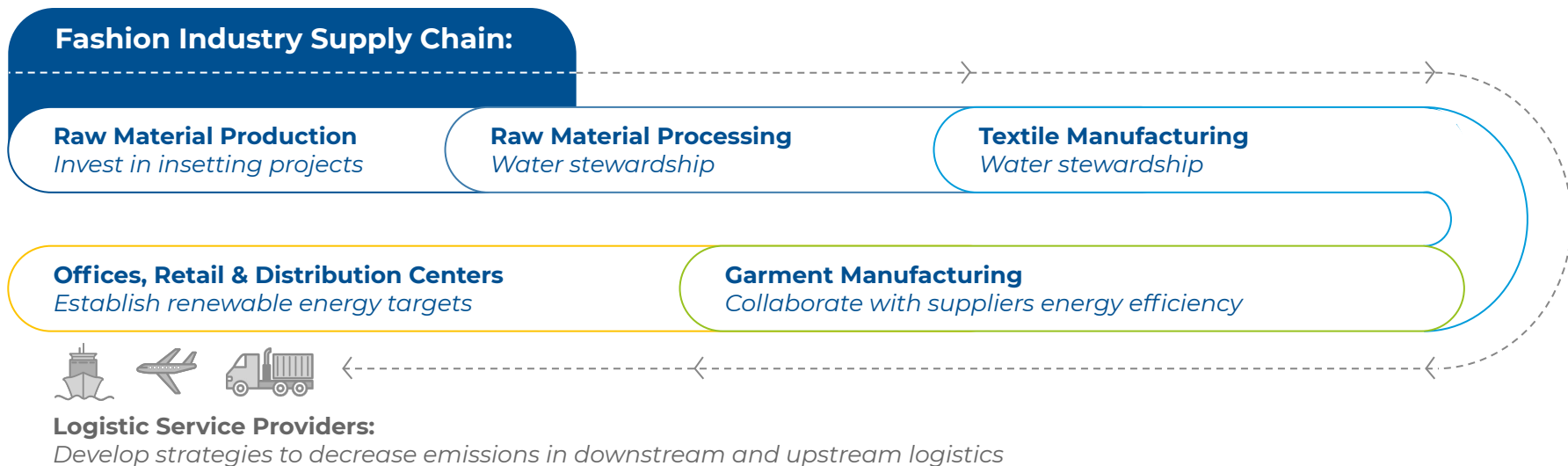


Achieving recognition for early voluntary action

The GHG Accounting Process



Fashion & Textiles



Tourism & Aviation



Air travel

Number of flights, classes of seating occupied (economy, business, first), distance between airports

Hotels and accomodation

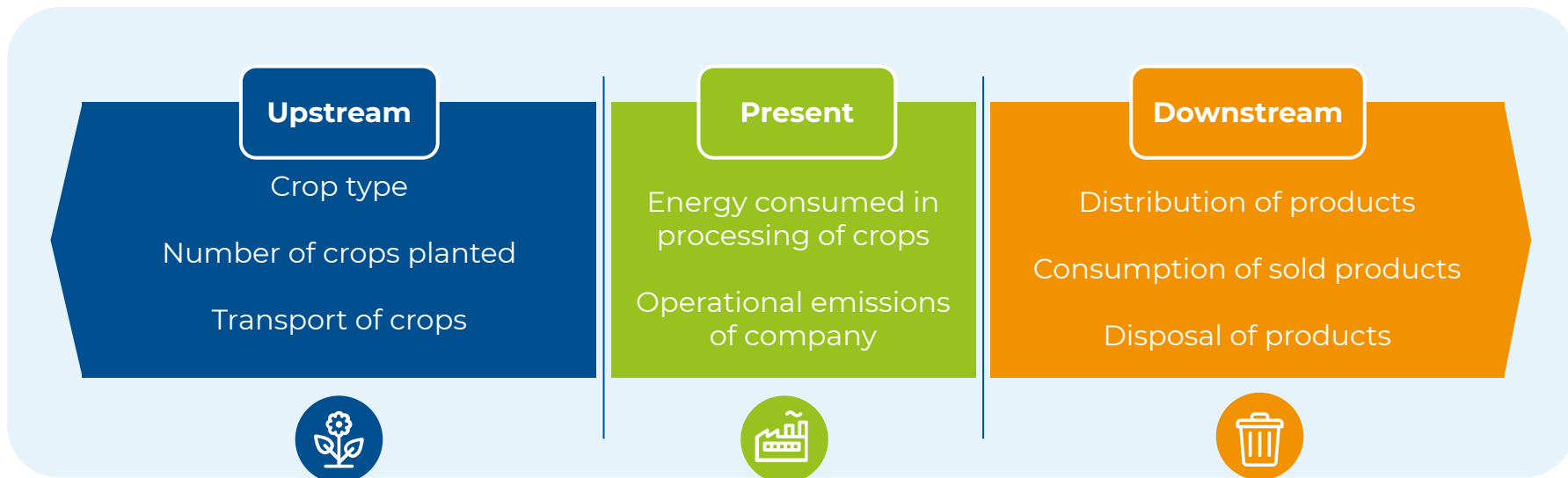
Hotel rating (4 star, 5 star), number of rooms occupied, city or country of accomodation

Food and beverages

Number of meals consumed, types of meals consumed (breakfast, lunch dinner), vegetarian or non-vegetarian, number and type of beverages (alcoholic or non-alcoholic)

Agriculture & Food

Products in agriculture can be assessed for past, present and future emissions for **upstream and downstream** elements of a crop **life cycle**.

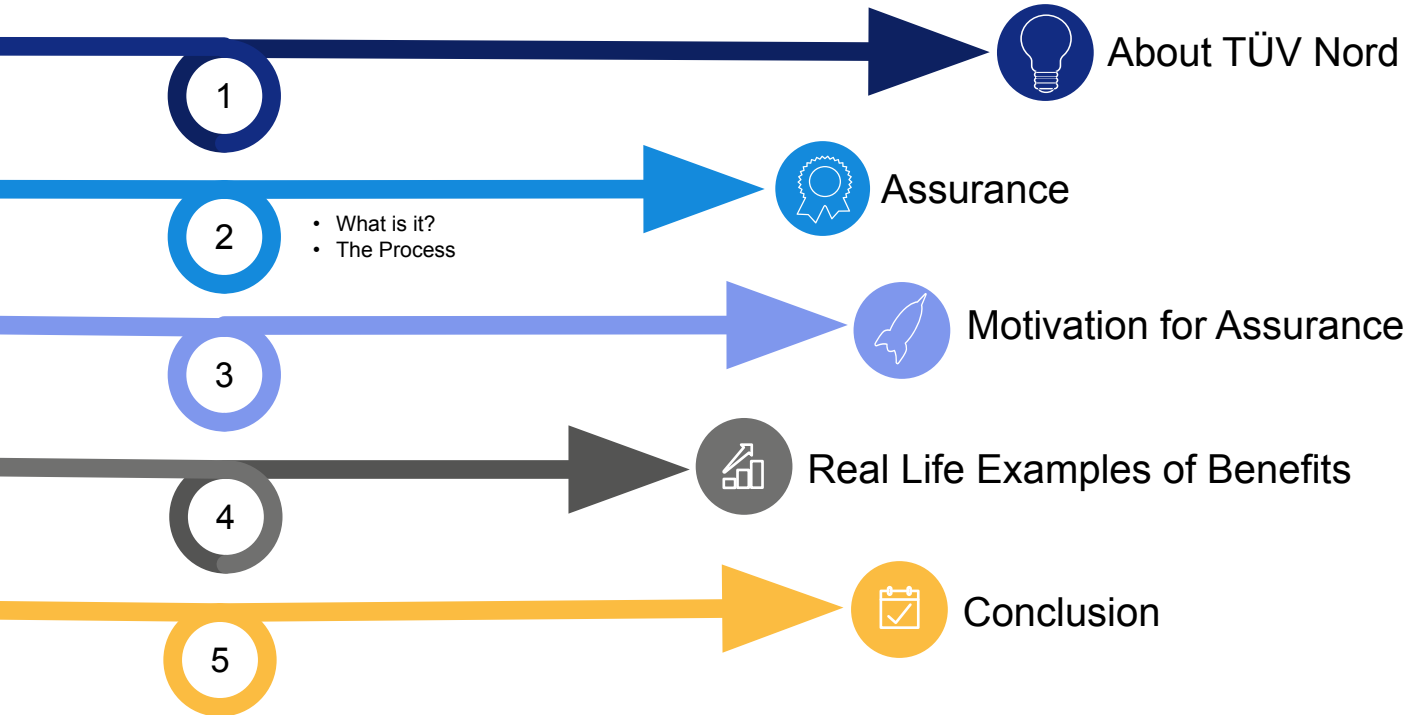




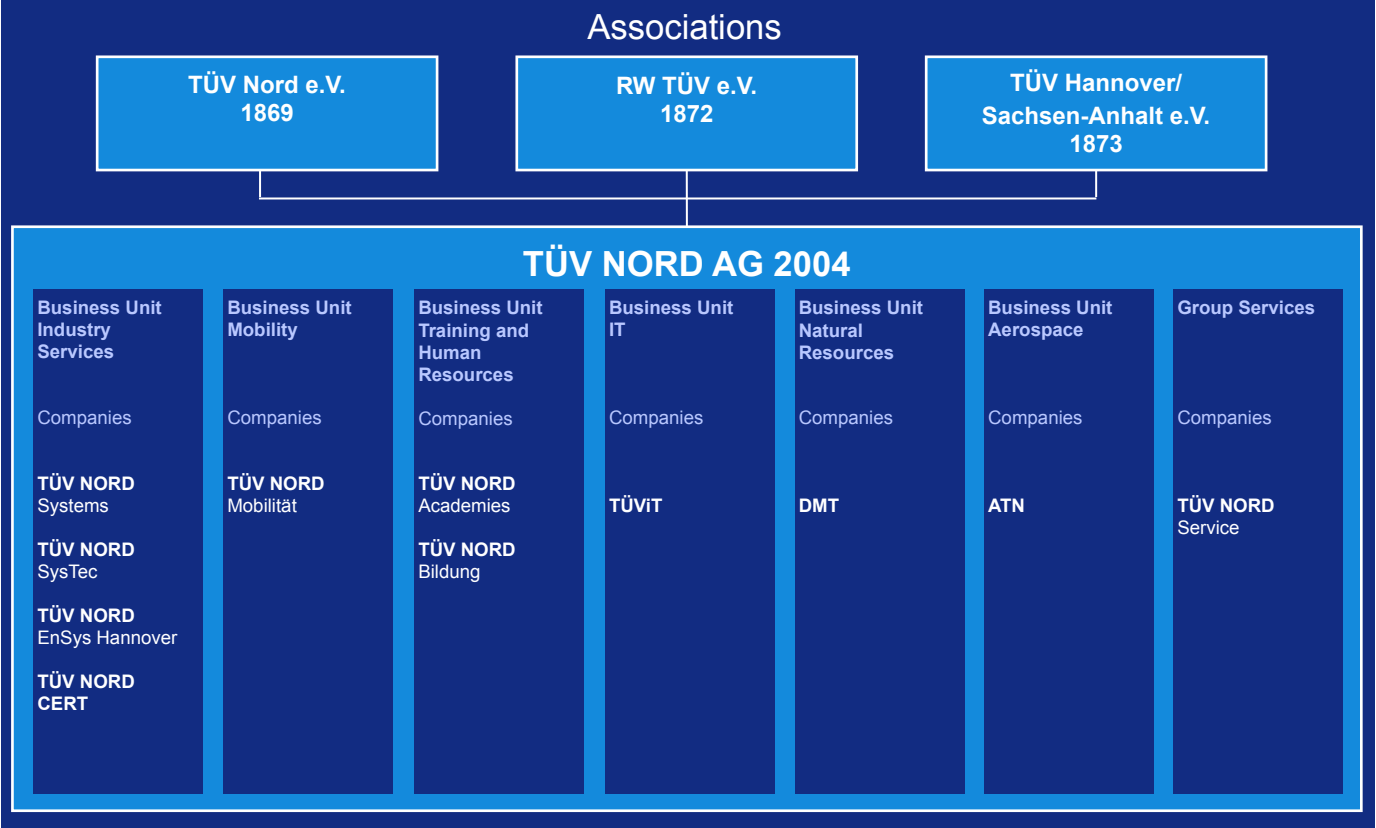
VERIFICATION OF GHG INVENTORIES ACCORDING TO ISO 14064-3

DR. TAHSIN CHOUDHURY

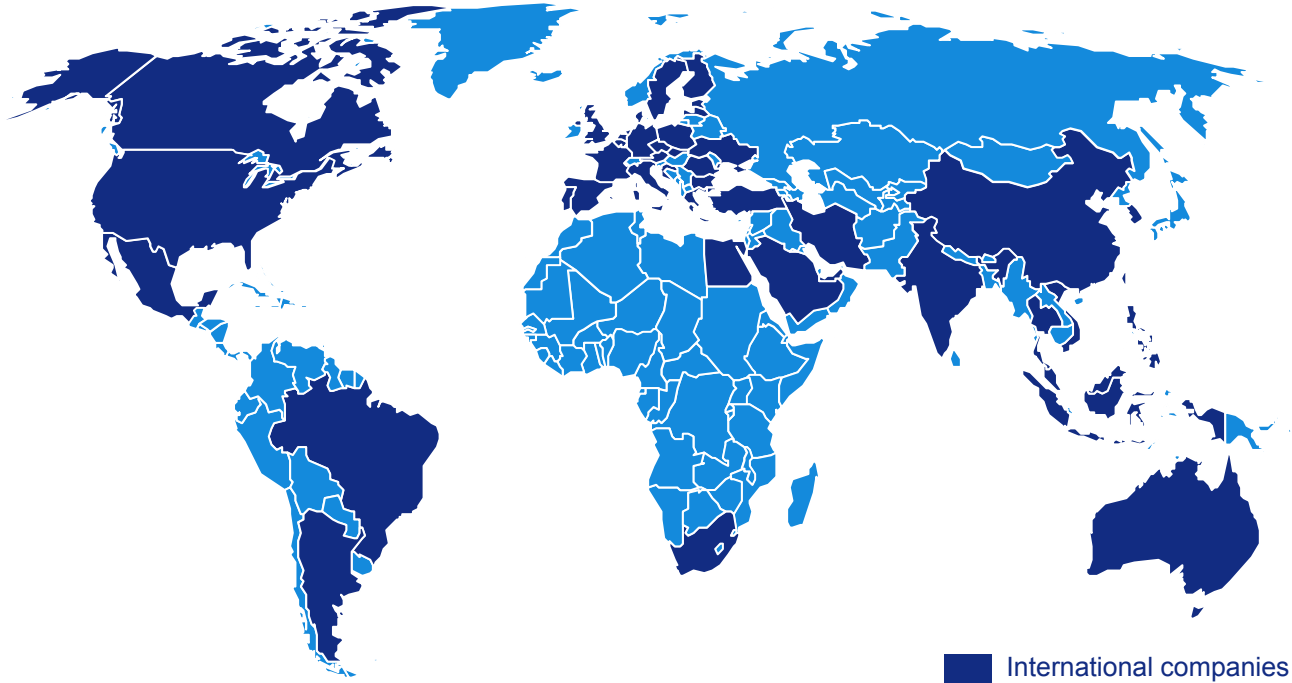
9TH JUNE 2020



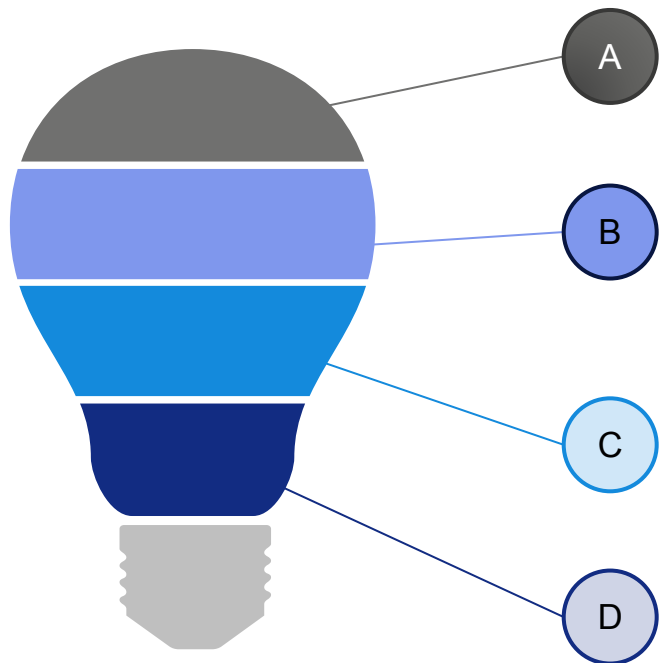
TÜV NORD GROUP STRUCTURE



THE WORLD OF TÜV NORD GROUP AT A GLANCE



WHAT IS VERIFICATION ?



Systematic, independent and documented process for the evaluation of a green house gas assertion against an agreed verification criteria.

Verification is the process of confirming whether a statement about an actual circumstance or past performance is true and correct.

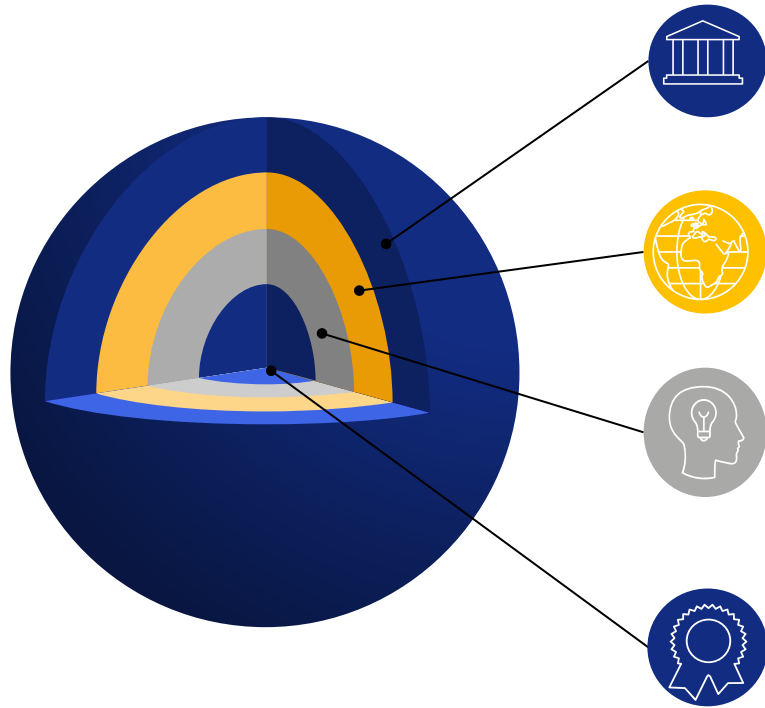
Only statements about actual performance, events or circumstances can be verified.

Both GHG inventories and GHG projects may be verified.

THE VERIFICATION PROCESS



MOTIVATION FOR VERIFICATION



Legislation

- Mandatory reporting of GHG
- Align business strategy with policies and regulations

Corporate Social Responsibility

- Company image
- Stakeholder pressure

Image

- Ethos/image of company
- Marketing tool
- 1st mover advantage
- Business differentiation

Credibility

- Increased confidence in data
- To prospective investors

AVOIDING THE HEADLINES

**Offsetting your carbon footprint
takes decades**

*Jonathan Leake
The Sunday Times*

TIMESONLINE

**Top companies 'failing to report
true greenhouse gas emissions'**

Independent

THE 
INDEPENDENT

**Beware the carbon offsetting
cowboys**

*By Fiona Harvey,
Environment Correspondent*

**How I was deluded
by my carbon
footprint**
*BY JONATHAN GUTHRIE,
FINANCIAL TIMES*



**Industry caught in carbon
'smokescreen'**
By Fiona Harvey and Stephen Fidler in London

RISKS OF NON VERIFICATION

- The GHG Inventory could have been incorrectly calculated and reported
- In the case of Mandatory Reporting Schemes, a Director must attest to the accuracy of the GHG Inventory
- Reputational damage may be suffered by the signatory(s) and the company concerned
- Any positive marketing image which has been created could be reversed
- Investors may choose not invest in the company due to increased risk profile

CASE STUDY - 1



SEA based Chemicals Manufacturer

- 100 sites globally
- Scope 1 refrigerant: Instead of reporting the top up of refrigerant gas, they reported the total volume of gas in the chiller units.
- This increased the emissions of the site by 37%.

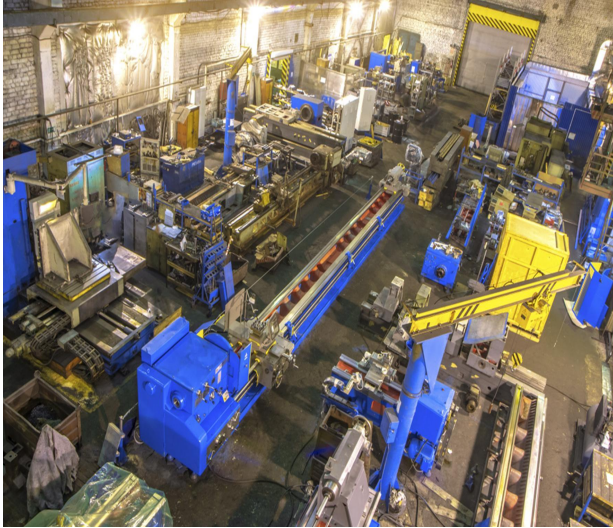
CASE STUDY - 2

European based Logistic Company



- Complex company structure with various divisions
- Reported: Diesel use of 2 million litres and petrol of 4,000 litres
- Verified: Diesel use of 5 million litres and petrol of 19,500 litres
- Poor financial controlling and under reporting of GHG emissions.

CASE STUDY - 3



UK Industrial Equipment Manufacturer

- Operates in 40 countries. Site in France audited
- Scope 2 Electricity: The site has never had the electricity meter read. Invoicing always based on estimated meter readings.
- Audit revealed that their electricity use has been over-estimated equivalent to 100,000 Euros.
- Cost savings >> audit fees.

CASE STUDY - 4



Asia based Garments manufacturer

- 55 sites globally
- Scope 1 Diesel: Due to frequent power cuts and process use, diesel consumption is considerable.
- Invoices showed 180,000 litres purchased. Logsheets shows 118,000 used. Storage tank of 30,000 litres.
- Where is the remaining 32,000 litres?

CONCLUSIONS

TÜV NORD has a wealth of experience in the carbon and energy area and operates in over 70 countries globally and so can be a local partner.



We have experience of assuring both corporate and product carbon footprints for organisations in a large number of sectors.



An overview of why Assurance of your Carbon Footprint should be a key consideration.



The Roles and Responsibilities of the individual parties has been explained.



The Assurance process has been explained.



Auditing and providing third party assurance has many benefits.

- These could be to convey certain messages about your company to stakeholders.
- To identify savings in GHG emissions, which also results in cost and efficiency savings.



THANK YOU

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Question Time



Thank you for joining us!

Feel free to get in touch



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Upcoming Climate Chatters

- **A conversation about UPS carbon neutral shipping and initiatives**

Date: 16th June

- **Building resilient supply chains**

Date: 18th June

- **How climate action can transform your brand**

Date: 30th June



More Climate Chatters on www.southpole.com/climate-chat