PSCI PHARMACEUTICAL SUPPLY CHAIN INITIATIVE
Building responsible supply chains

Taking climate action
(Why it's important and how to do it)

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AGENDA

Taking climate action

Evidence to show that the Climate Crisis is real and unavoidable

The commitments of pharma companies and why they are looking towards their suppliers

Demonstrate the business case for climate action

Calculating your greenhouse gas emissions

Five next steps for your business

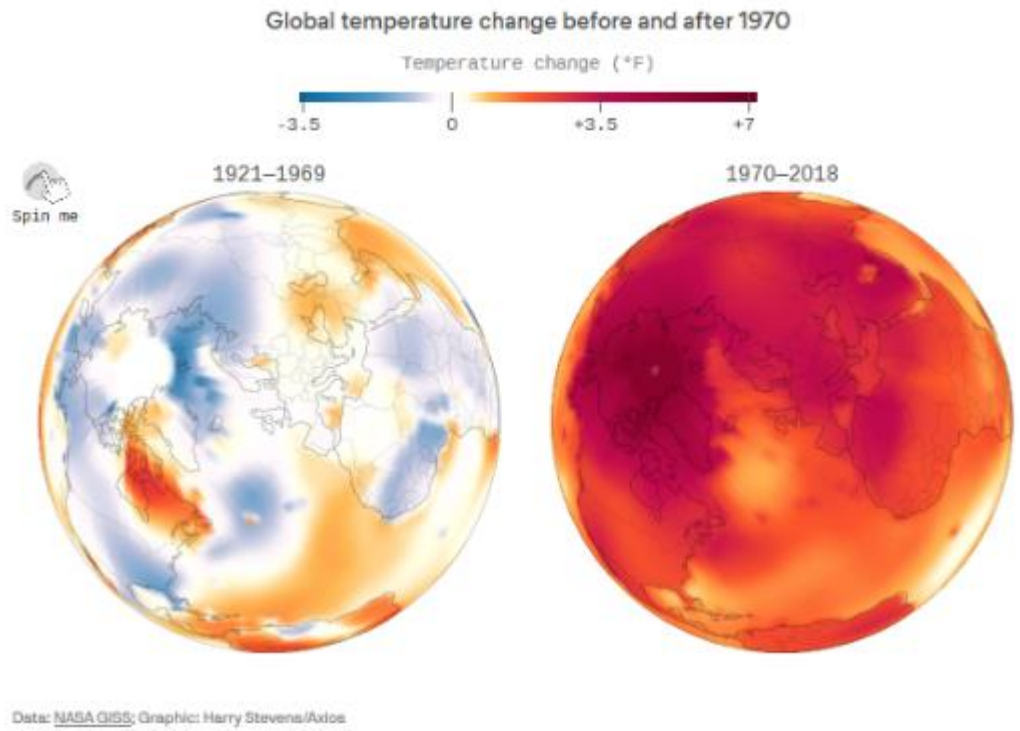
Speaker Bio

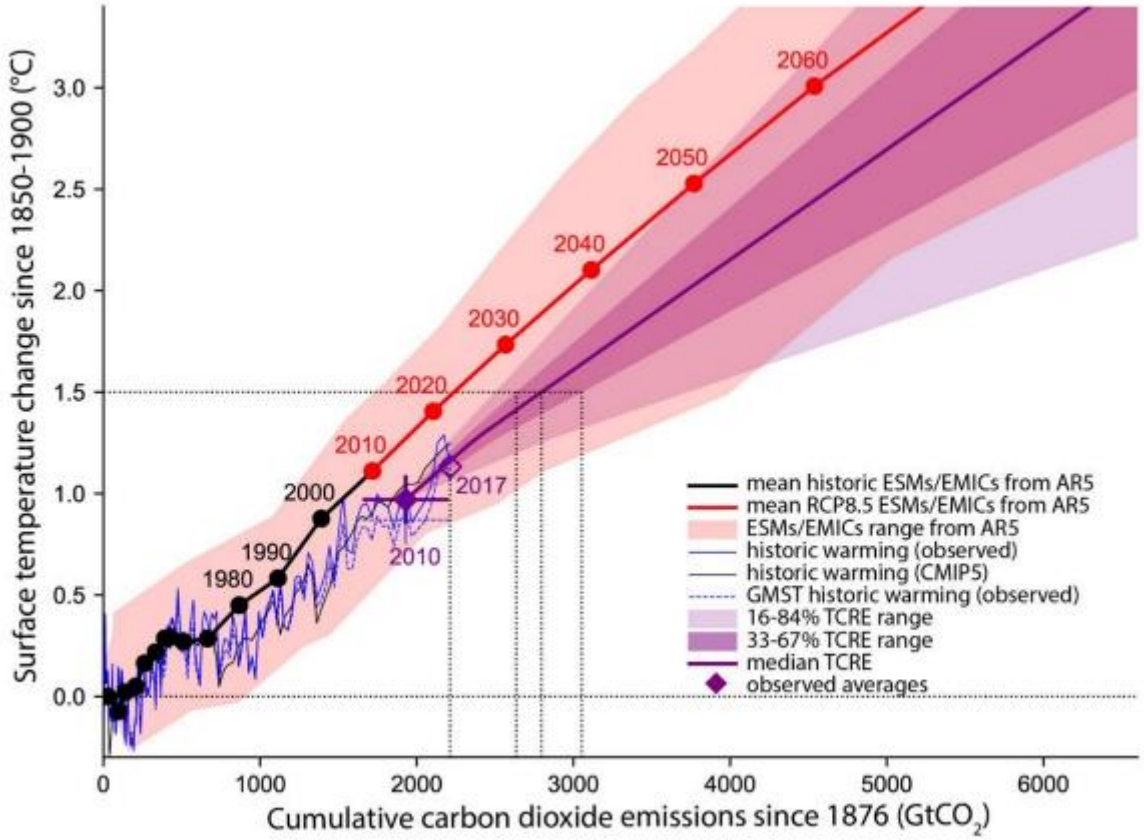
Glynn Roberts

Director and Senior Partner, Carnstone Partners Limited

- Glynn has strong environmental experience; pushing the agenda and helping to strengthen companies' approaches to water stewardship, energy management and climate change. He is also an expert in organisational performance management and reporting, advising a range of clients from global manufacturers to leading UK retail brands.

The data tells us the world is changing….



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BRIEF

AstraZeneca pledges to go 'carbon negative' by 2030

Pfizer Implemented More than 4,000 Greenhouse Gas Reduction Projects Since 2000

Commitment to Carbon Neutrality at Takeda

BRIEF

Renewable energy to power all Novo drug production by next year

Bloomberg

Deals

Johnson & Johnson Buying 100 Megawatts of Texas Wind Power

GSK begins to make inroads on supply-chain emissions

The pharmaceuticals multinational has begun giving awards to suppliers that have managed to reduce their energy levels – among other initiatives

The impact of the pharma sector

SCOPE 1

Direct emissions from owned or controlled sources

5.9
Million tonnes

4% reduction since 2016

SCOPE 2

Indirect emissions from the generation of purchased electricity, steam, heating and cooling

6.6
Million tonnes

10% reduction since 2016

SCOPE 3

All other indirect emissions that occur in a company's value chain

91.0

Million tonnes

Understanding the business case

Focus on your scope 1 and 2 emissions: Four key questions

Which activities in my organisation release GHG emissions?	What information should I collect from these activities to calculate my GHG emissions?	How do I calculate my GHG emissions?	How often I track my emissions over and report performance?
• Fuels combustion (e.g. boilers, furnaces or turbines) (Direct: Scope 1) • Consumption of purchased electricity, heat, steam and cooling (Indirect: Scope 2) • Process emissions (e.g. cement, aluminium, waste processing) (Direct: Scope 1) • Owned transport (e.g. trucks, trains, ships, airplanes, cars) (Direct : Scope 1) • Fugitive emissions (e.g. air conditioning and refrigeration leaks, methane leaks from pipelines) (Direct : Scope 1)	• Activity data is information used to calculate GHG emissions from combustion and other processes, for example, this could be litres of fuel consumed by your organisation's vehicles. • Most activity data is easy to obtain, relatively accurate and can be found on bills, invoices and receipts. • It is best to collect activity data by volume or mass (e.g. litres of petrol used) as emissions can be calculated more accurate.	• The most common approach used to calculate GHG emissions is to apply documented emission factors to known activity data from the organisation. • An emission factor is a coefficient which allows to convert activity data into GHG emissions. It is the average emission rate of a given source, relative to units of activity or process/processes. **GHG emissions = Activity Data x Emission Factor**	• The period for which you collect data must suit your internal and external reporting needs. • We recommend that your reporting period should be for 12 months. • Your emissions year should ideally correspond with your financial year. • To help you maintain a meaningful and consistent comparison of emissions over time, you will need to choose and report on a base year.

Sources of emissions factors

- There are many sources of GHG emissions factors. It is best to select the source that is most relevant to your business. These are often produced by local government agencies in your country. The important thing is to be consistent.
- The table below offers some suggestions for factors for common fuels. These are based on information from the GHG Protocol (the 'rule book) and the International Energy Authority (for electricity, which changes based on your national power generation mix)

Fuel	Unity	Emissions factor	Source
Coal	$kgCO_2$/tonne	2,624	GHG Protocol
Natural gas	$kgCO_2/m^3$	1.88	GHG Protocol
Gas/Diesel Oil	$kgCO_2/m^3$	2.67	GHG Protocol
Electricity (China)	$kgCO_2$/kWh	0.62	IEA
Electricity (India)	$kgCO_2$/kWh	0.72	IEA
Petrol	$kgCO_2$/litre	2.27	GHG Protocol
Diesel	$kgCO_2$/litre	2.67	GHG Protocol

Example calculation….

Apex Chemicals makes chemical products used by the pharmaceutical sector. It has a manufacturing site and office. The manufacturing process uses heat to treat and process raw materials, using natural gas and coal fired boilers. Electricity is used to power each site, mainly for lighting and computers, is bought from a local energy provider. When products are made, they are delivered directly to the customer using company owned trucks on the road. There are no other vehicles.

Information relating to fuel and electricity use is collected on an annual basis – from a combination of meter readings, invoices from fuel suppliers and energy bills.

Energy consumption	Annual consumption	Units
Coal	5,600	Tonnes
Natural gas	12,700	m3
Electricity (China)	24,000	kWh
Diesel	55,000	Litres

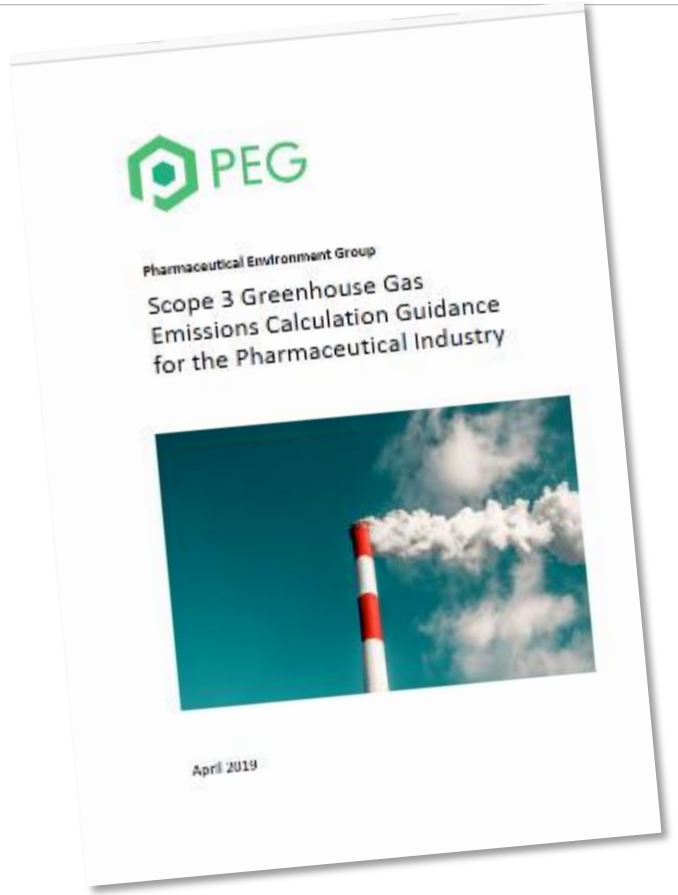
How many tonnes of GHG emissions were emitted last year?

GHG emissions = Activity Data x Emission Factor

Energy consumption	Annual consumption	Units	*Emissions factor*	*GHG emissions $KgCO_2$*
Coal	*275*	Tonnes	2,624	*271,600*
Natural gas	117,555	m3	1.88	*221,003*
Electricity (China)	75,000	kWh	0.62	*46,500*
Diesel	*22,500*	Litres	2.67	*60,075*
			TOTAL	***599,678***

Total annual emissions = 600 tonnes

Sources of information



Principles of GHG accounting and reporting

RELEVANCE:	Ensure the GHG emissions you report appropriately reflect the emissions of your organisation and serves the decision-making needs of users – both internal and external to the organisation.
COMPLETENESS:	Measure and report on all GHG emissions sources and activities from the businesses / operations for which you are collecting GHG. Disclose and justify any specific exclusions.
CONSISTENCY:	Use consistent methodologies to allow for meaningful comparisons of emissions over time. Transparently document any changes to the data, changes in your organisational boundary, methods, or any other relevant factors
TRANSPARENCY:	Address all relevant issues in a factual and coherent manner, keeping a record of all assumptions, calculations, and methodologies used. Report on any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.
ACCURACY:	As far as can be judged, ensure that your reported GHG emissions data is systematically neither over nor under your actual emissions. Seek to reduce uncertainties in your reported GHG emissions where practical. Achieve sufficient accuracy to enable users to make decisions with reasonable assurance as to the integrity of the reported information

Five steps to GHG reduction

Step 1:
Measure energy use and emissions*:*

Review your gas, electricity and fuel bills to assess how much energy is used each year and from which activities. Convert your energy usage into a carbon footprint, using a globally recognised frameworks, such as the *Greenhouse Gas protocol*.

Step 2:
Identify opportunities to reduce emissions:

Where are the opportunities for you to use less energy or fuel? Can you improve the energy efficiency of your operations or drive less? Can you use renewable energy? Undertake a review or audit of your business to find out.

Step 3:
Set a target:

Based on the opportunities available, set a target to reduce your emissions. Usually at least 10% of your energy can be saved at no or low cost to your business. Secure management support and budget (if needed)

Step 4:
Create an action plan:

Prioritise your actions based on cost and emissions savings. Be clear on the steps you will take based of the opportunities identified.

Step 5:
Engage with your pharmaceutical customers:

Many of these companies will have their own targets and plans. They will be able to offer advice, guidance and support.

Poll – To submit your responses, please go to https://app.sli.do/ and enter the event code: #PSCIIndia

1. **How would you assess the maturity of your Scope 1 & 2 reporting capability?**
   a. Not started: Do not collect any data and need some guidance
   b. Beginning: Can provide basic GHG reporting on an annual basis
   c. Developing: Track and manage GHG data across entire organization; report to one or many GHG collecting organizations
   d. Mature: Track and manage GHGs by facility; actively exploring ways to reduce your Scope 1 & 2 emissions
2. **Do you have a plan to reduce your greenhouse gas emissions?**
   a. No
   b. Yes
   c. Yes, and we have detailed quantitative targets for emissions reduction
3. **Please select the challenges preventing you from reporting your Scope 1 & 2 emissions more frequently?**
   a. Available technology
   b. Employee bandwidth / expertise
   c. Maturity of your ability to collect necessary data
   d. No business benefit / other priorities
   e. Knowledge of how to go about reducing emissions
   f. Other

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About the Secretariat
Carnstone Partners Ltd is an independent management consultancy, specialising in corporate responsibility and sustainability, with a long track record in running industry groups.

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