Carbon Footprints:

Optimising supply chain emissions for chemicals and plastics

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Agenda

01 Challenges faced by the chemicals and plastics industry?

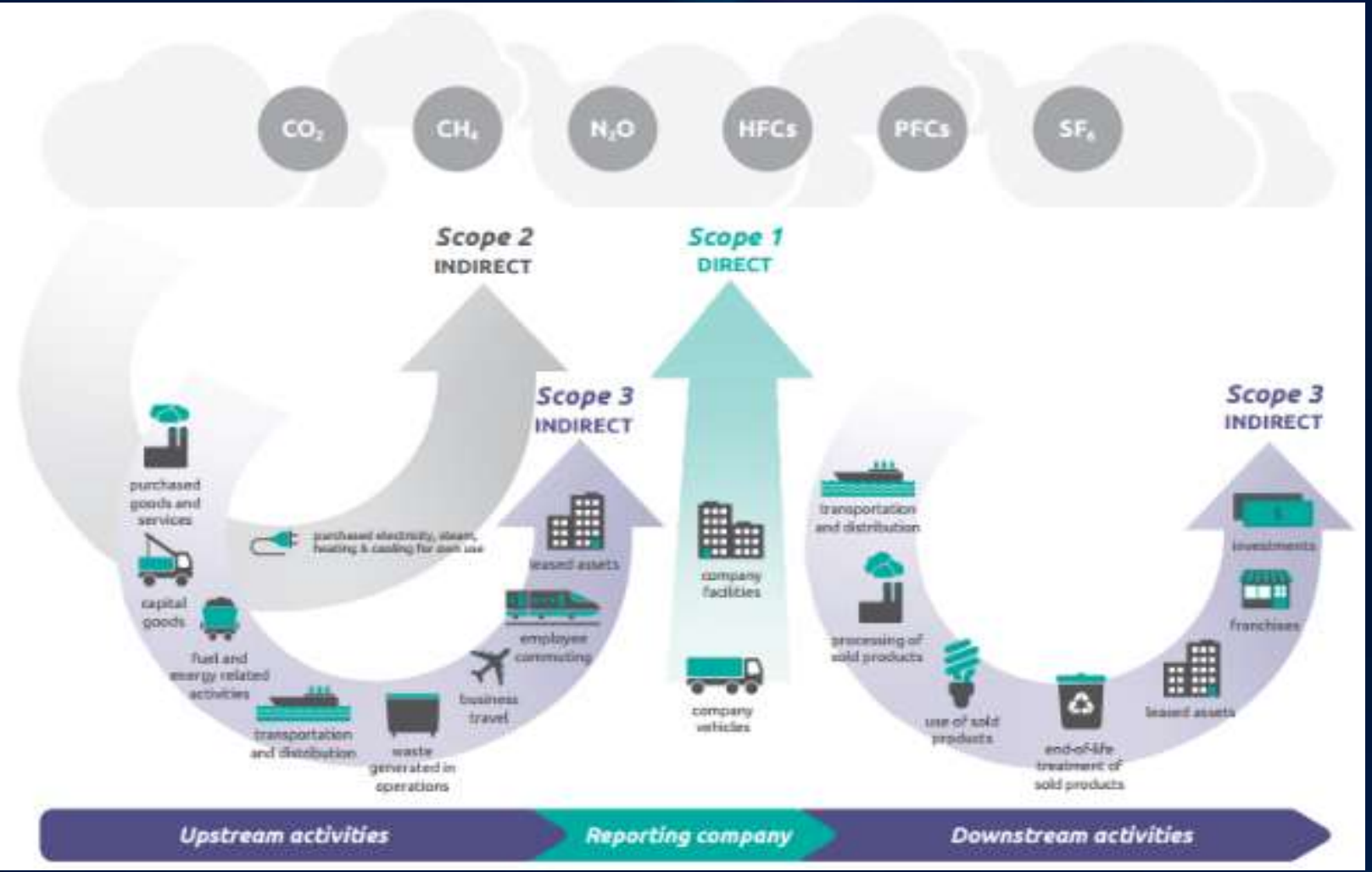
02 Data availability and the criticality of Scope 3 Emissions tracking

03 Business collaboration to resolve industry challenge

04 Understanding the variables – a closer look at polypropylene

05 Q&A

Greenhouse Gas Emissions – Scope 1, 2 and 3



Source – Greenhouse Gas Protocol

Achieving climate targets – what's at stake and what's needed?

What is the problem?

- Mounting pressure to report, monitor and reduce environmental impact
- For chemicals and plastics companies, a large portion of carbon emissions occur in the supply chain. But obtaining ***primary emissions data at a supplier level***, using a consistent methodology is impractical
- Many companies are setting targets and reporting annually using ***generic, aggregated secondary data*** that does not allow them to demonstrate progress

When is it a problem?

- When trying to set ***realistic targets*** for Scope 3 reduction
- When disclosing annual Scope 3 emissions and ***measuring changes to prior years***
- When trying to choose the lowest carbon intensity suppliers, or challenge suppliers to reduce
- When trying to ***benchmark your carbon emissions position*** against peers and industry norms

Understanding Raw Material Attributes

- What differences exist among prime, neat resin pellets?
- Going forward, the range of carbon footprints associated with making those pellets will matter increasingly
- How can you tell if the pellets on the right have a high carbon footprint or a low one?
- Most polymers and chemicals are not equal in terms of their accumulated carbon footprints, but accumulating the data surrounding can be a cumbersome challenge

External factors driving the need for clarity on Scope 3 emissions

- **Increased demands from customers** for more sustainable products with lower environmental impacts
- **Environmental and ethical demands from investors** in choosing where to they want to invest and to what level
- **Profit and reliability demands** amid push to reduce carbon footprint
- **Increased regulatory pressure** and the prospect of additional mandated reporting
- **Competitive pressure** from peer companies setting climate targets and the need to keep pace

Summary

- Major manufacturers including chemical producers and plastics converters are committing **billions of dollars** to reach their climate targets
- These companies can have worldwide emissions of more than **20m tonnes** of CO2 equivalents
- New emissions reductions targets for these organizations require them with **cut millions more tonnes** of CO2
- These ambitious targets require a robust solution that provides **visibility into supplier-specific upstream Scope 3 emissions**
- Such information will **bridge the gap** between generic secondary data and primary carbon footprint data which through suppliers in the future

20m

Tonnes of CO2 equivalent emissions at present from a major global chemical producer

920m

Estimated tonnes of CO2 equivalent emissions per year globally from the chemical industry

Partnership between ICIS and Carbon Minds

A shared mission

Accelerate the measurement and reduction of chemical supply chain emissions.

Our solution

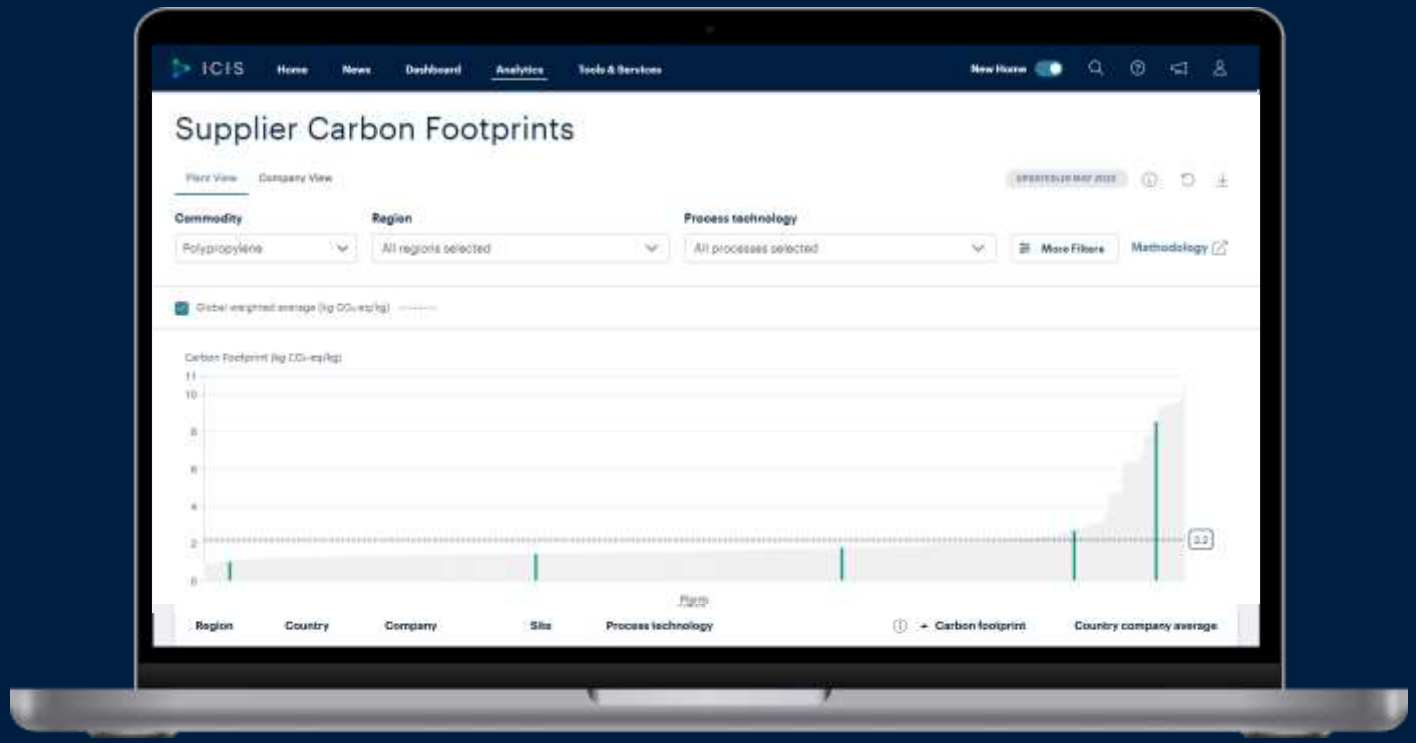
Comprehensive and reliable carbon emission data for chemicals by region, plant and supplier.

Unique combinations

We combine ICIS' deep understanding of chemical markets with ground-breaking carbon footprint data from Carbon Minds.

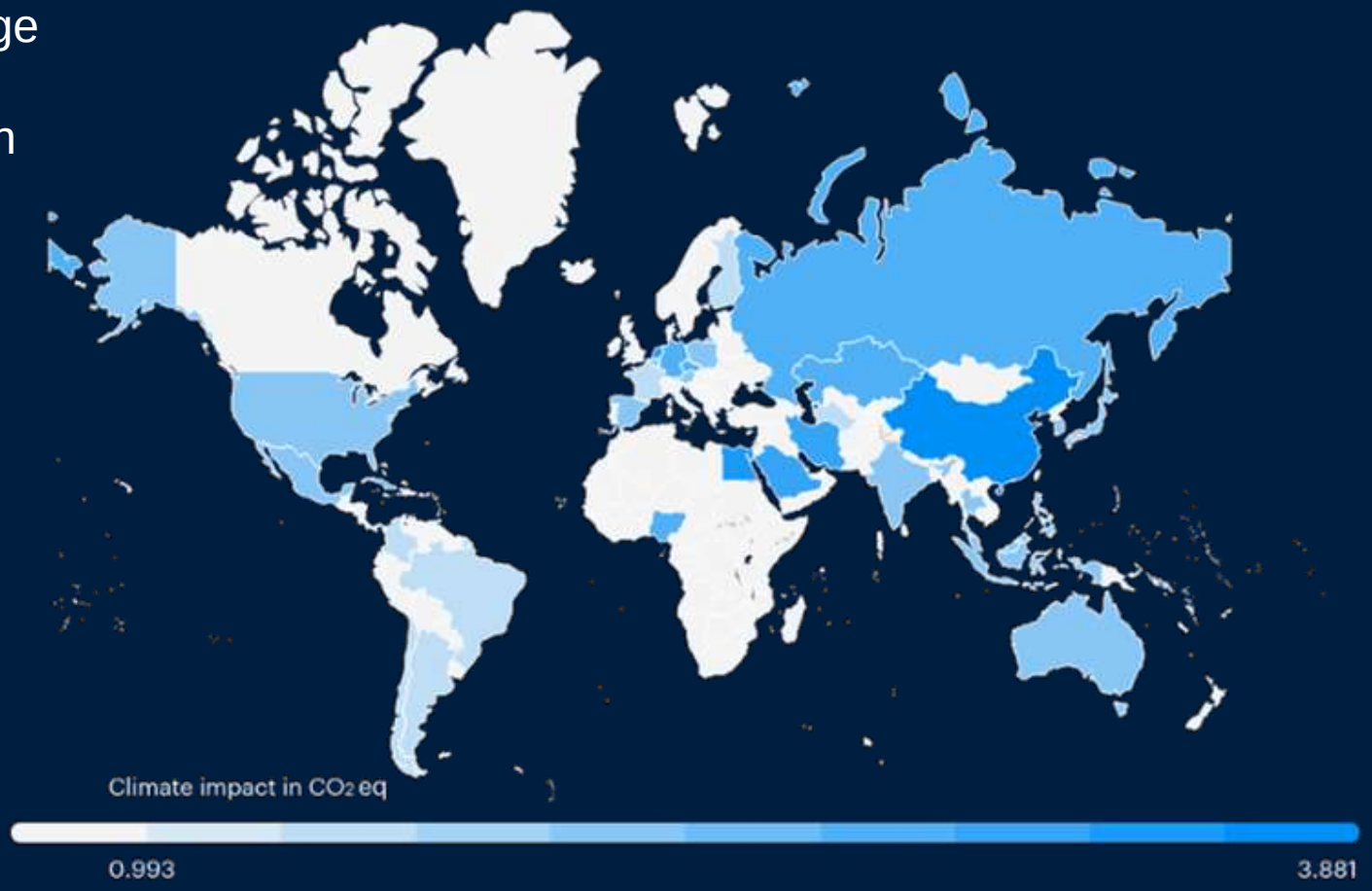
Supplier Carbon Footprints

- Measure, report and **reduce** supply-chain emissions for chemicals and plastics with independent, reliable, emissions data by supplier, plant
- Data covers 71 bulk chemicals and plastics present in around 95% of manufactured goods
- Third party certified ISO14040/14044 compliant methodology
- Interactive visualisation on the ICIS digital platform
- Full LCA methodology provided for all products

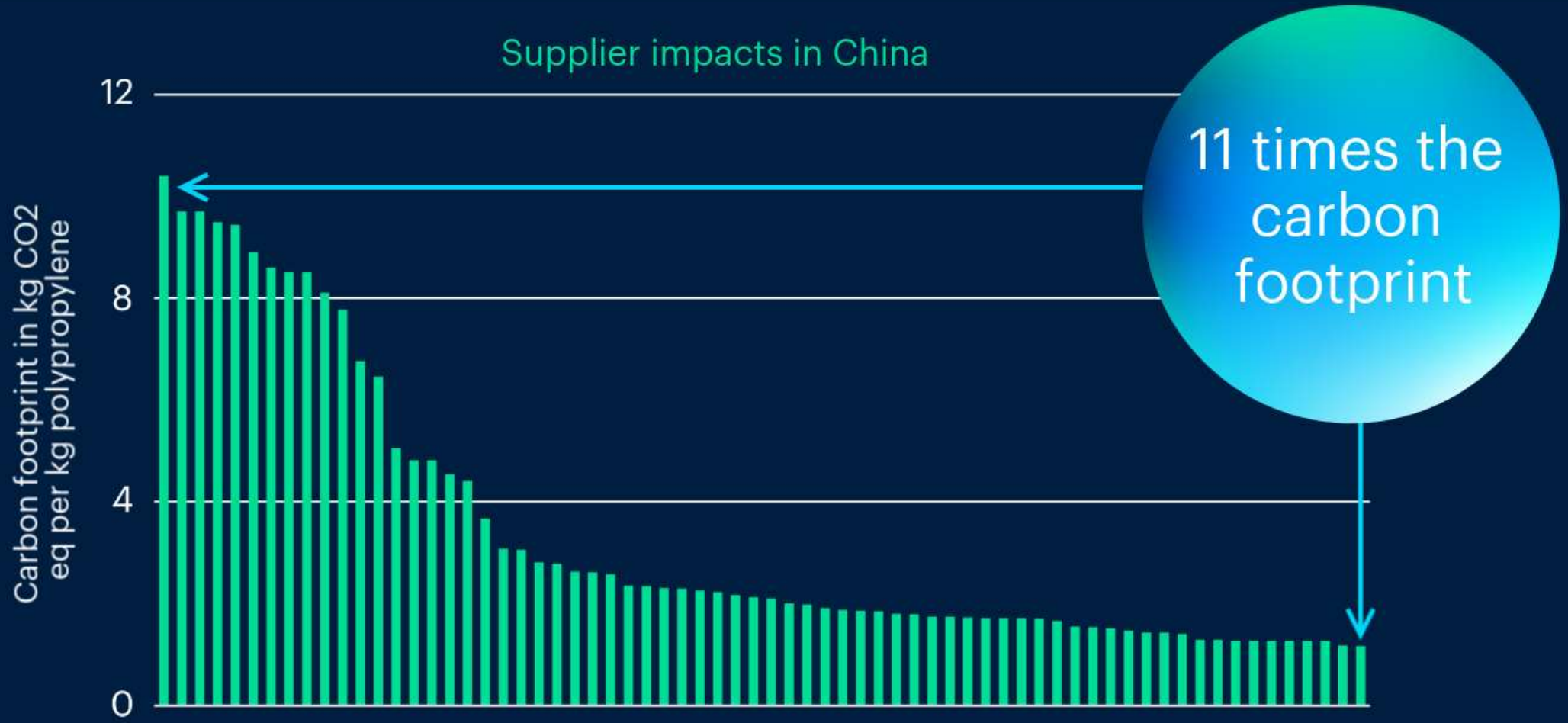


While national average climate impacts show the variation between different countries...

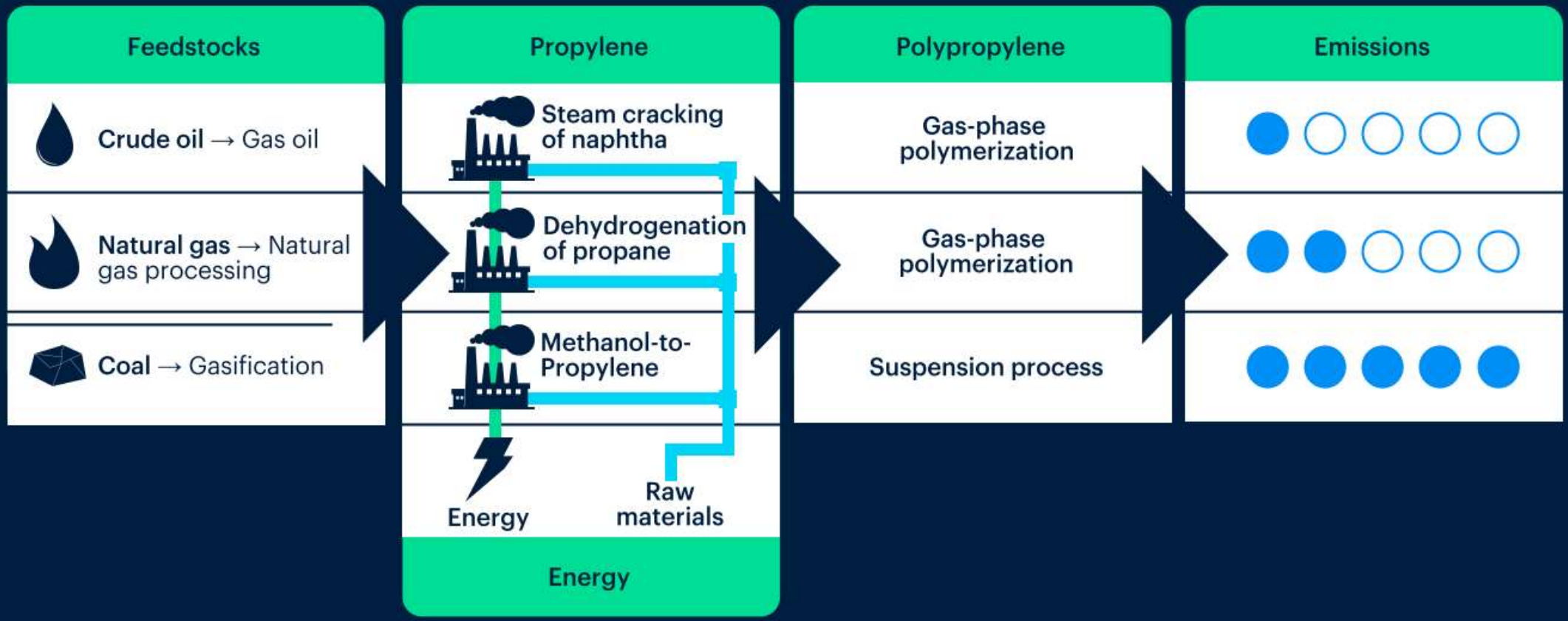
Example: National average climate impacts of **polypropylene** production



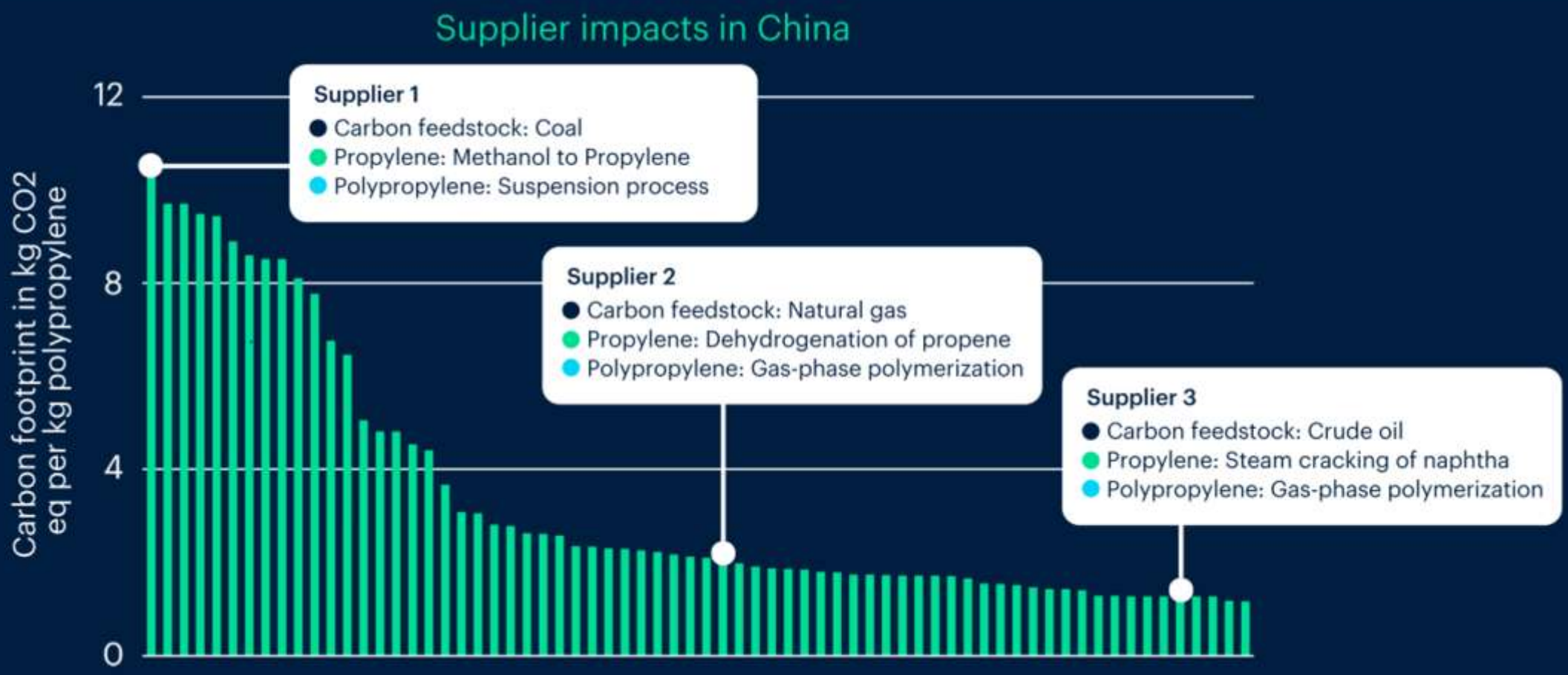
...suppliers' emissions vary, even within a single nation



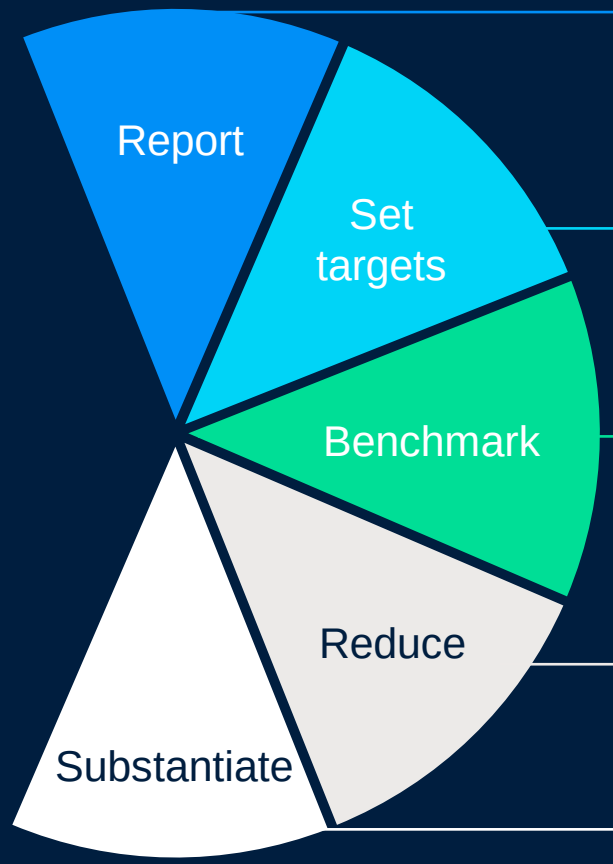
Supplier emissions vary for every chemical because of differences in the production process



Supplier Carbon Footprints reveal climate impacts by accounting for each suppliers' precise production process



What values does supplier-specific data provide?



Improve the quality of your emissions reporting using on more specific data

Set realistic reduction targets based on comprehensive market overviews

Benchmark suppliers or your own production sites and identify emissions hotspots

Choose less emissions intensive suppliers and engaging with current suppliers

Substantiate climate targets and achievements towards clients & investors

Discover the CO_2 emissions across your supply chain

Q & A

Thank you

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Contact ICIS

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