

# Supply Chain Climate Action

## SCTI Index 2020

IPE



公众环境研究中心  
Institute of Public & Environmental Affairs

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# 01

## Introduction

The world still faces serious climate and environmental challenges. Meanwhile, the Covid-19 pandemic has had a serious impact on the world economy. While striving to achieve economic recovery, how to fulfill climate and environmental goals has become a severe challenge for both China and other countries around the world.

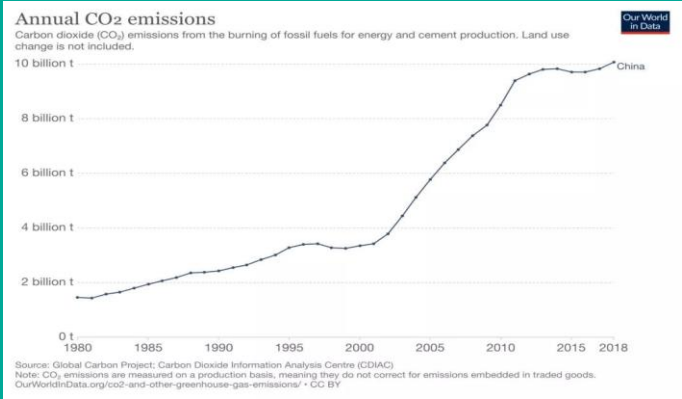
At this critical moment, the European Green Deal proposed to make the EU carbon neutral by 2050. Moreover, the European Parliament has recently increased the EU's 2030 emissions reduction target from 40% to 60% and China made a new commitment to achieve carbon neutrality by 2060, which not only reflects the sense of responsibility of China and Europe in addressing climate change but also highlights the vision to promote a green economic recovery.

Carbon neutrality refers to achieving net zero carbon dioxide emissions.

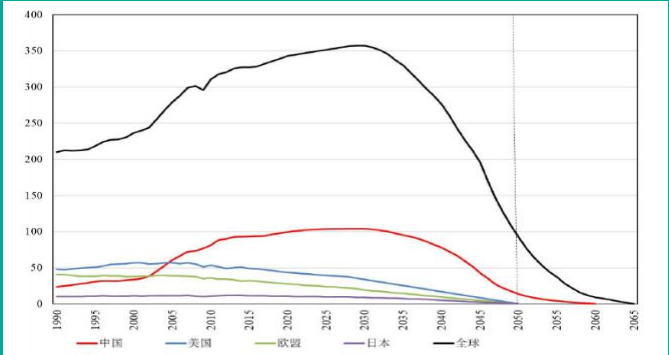
“China will scale up its Intended Nationally Determined Contributions by adopting more vigorous policies and measures. We aim to have CO<sub>2</sub> emissions peak before 2030 and achieve carbon neutrality before 2060.”

——President Xi Jinping at the General Debate of the 75<sup>th</sup> Session of The United Nations General Assembly

Through aggressive efforts, China has met its pre-2020 commitments ahead of schedule, with CO<sub>2</sub> emissions per unit of GDP in 2019 down 48.1% from 2005 levels, equivalent to a reduction of 5.62 billion tons. At the same time, however, it is a sobering thought that China's carbon emissions have regained momentum in the past two years, reaching 10 billion tons in 2018.



“Achieving carbon neutrality in the long run will entail great commitment from all countries, with developing countries facing graver challenges. It is even more so for China to achieve carbon neutrality by 2060, meaning China will have to work much harder than developed countries in achieving carbon neutrality by 2050. It will take Europe and the US 50 to 70 years to transition from peak carbon to carbon neutrality, but the transitioning period for China is only 30 years. From 2030 to 2050, China will have to cut its emission at an annual average rate of 8-10%, much faster than that in developed countries.” (Research on China’s Long-term Low-carbon Development Strategy and Pathway)



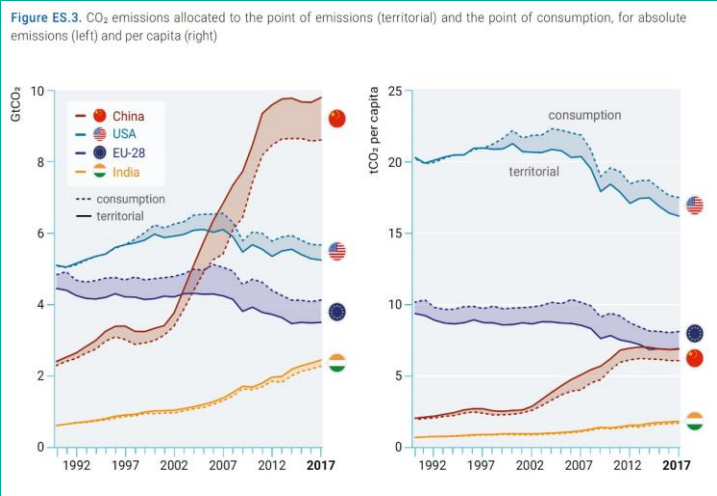
▲ Global and major countries’ net GHG emissions (tCO<sub>2</sub>e)

**“The current target of carbon neutrality by 2060, as proposed by China, is far ahead the 2065 - 2070 global carbon neutrality schedule under the 2°C global temperature target adopted by the Paris Agreement, which could bring forward global carbon neutrality by 5 to 10 years and serve as a catalyst to global climate governance.”**

——Xie Zhenhua, Special Adviser on Climate Change Affairs of the Ministry of Ecology and Environment of China, President of the Institute of Climate Change and Sustainable Development at Tsinghua University

Many companies have also set their own carbon neutrality targets. Apple has already achieved carbon neutrality in its global operations, and its new commitment is to make its entire footprint carbon neutral by 2030; Microsoft has proposed to make its entire value chain carbon-negative by 2030.

Setting carbon emissions reduction targets for the supply chain is especially important for brands that source globally. Consumption-based emissions estimates in Emissions Gap Report 2019 released by the UNEP, shows that the net flow of embodied carbon is from developing to developed countries, even as developed countries reduce their territorial emissions this effect is being partially offset by importing embodied carbon.



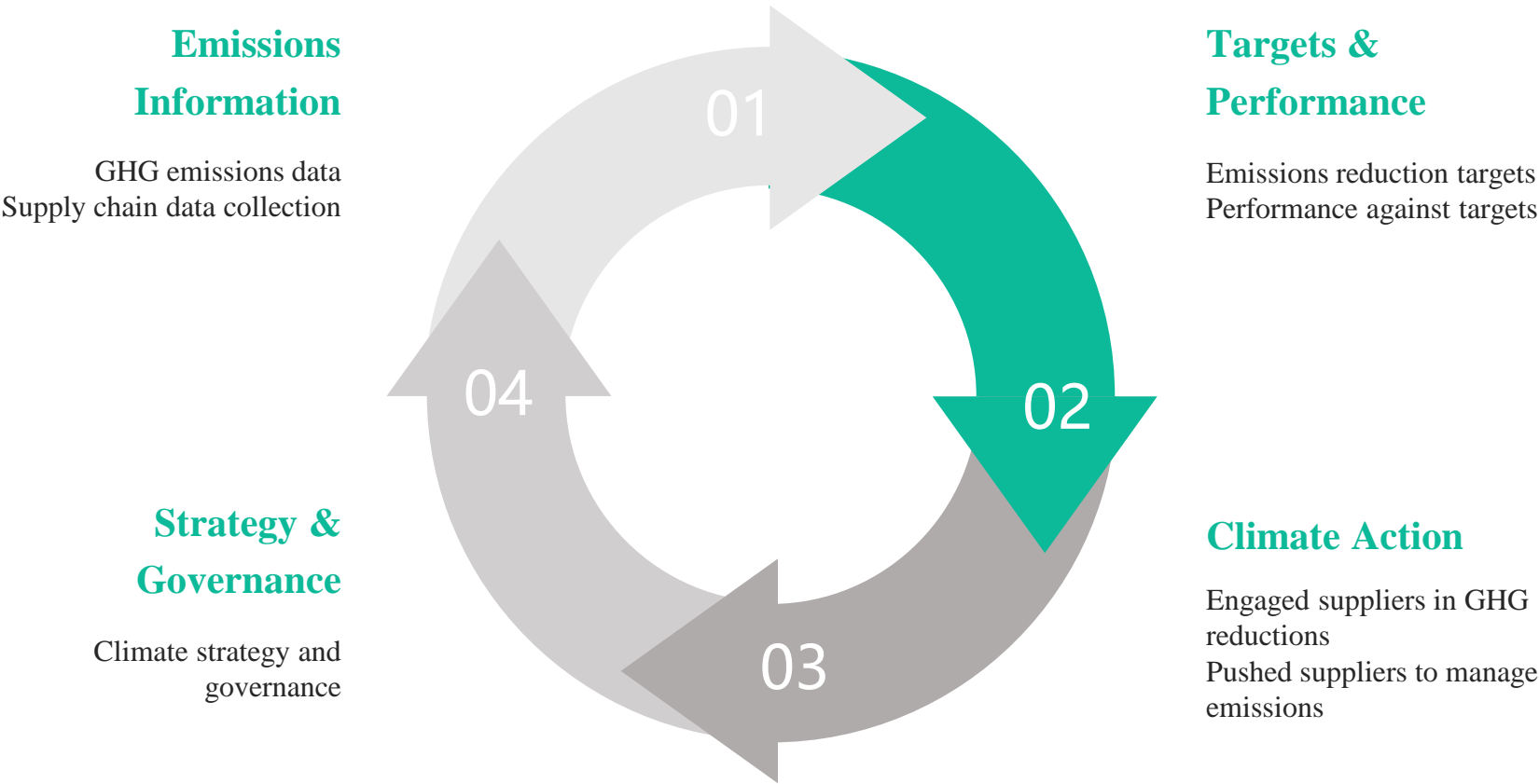
At present, global climate governance has entered a critical stage. IPE conducted Supply Chain Climate Action SCTI Index evaluation for three years. In 2020, the evaluation expanded to 540 brands, focusing on their supply chain GHG emissions management in China.

We expect that through the continuous evaluation of the SCTI Index, we will be able to objectively reflect the current status of supply chain climate action by Chinese and foreign enterprises, identify good practices, promote larger-scale emissions reduction by enterprises and support green economic recovery. In addition, it will provide a strong market impetus to the implementation of the Paris Agreement, the earlier peaking of global carbon emissions and ultimately the achievement of the crucial goals of carbon neutrality.

About SCTI Index

The SCTI index system has been updated to the 3rd version, which guides brands to focus more on **greenhouse gas emissions management in the supply chain** that starts from measuring emissions data to setting emissions reduction targets, taking emissions reduction actions and ultimately achieving their commitments to emissions reduction across the supply chain.

In 2020, we expanded the SCTI evaluation scope from **440** brands in 2019 to **540** brands. Newly joined brands are mainly in the industries of environment & waste management, real estate, interior decoration.



▲ The SCTI provides brands with a roadmap to reduce supply chain GHG emissions in China.



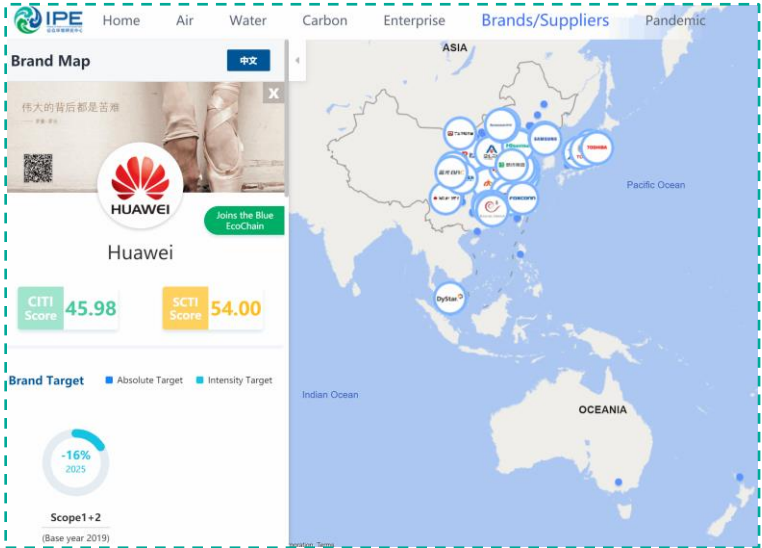
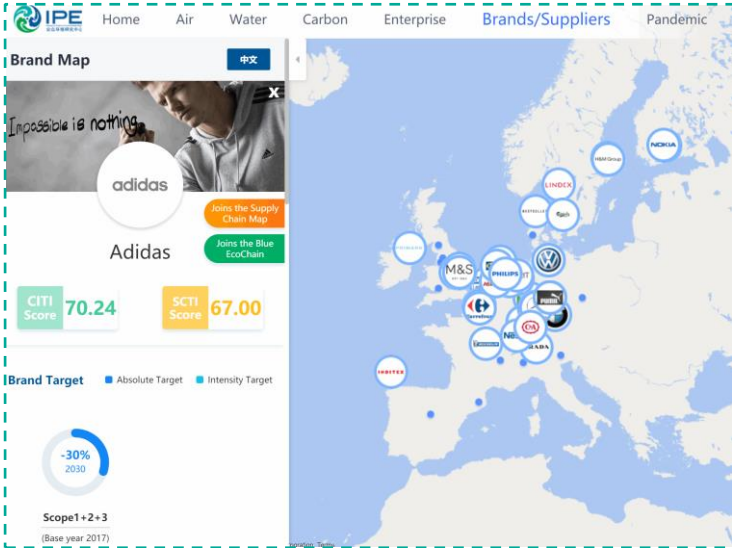
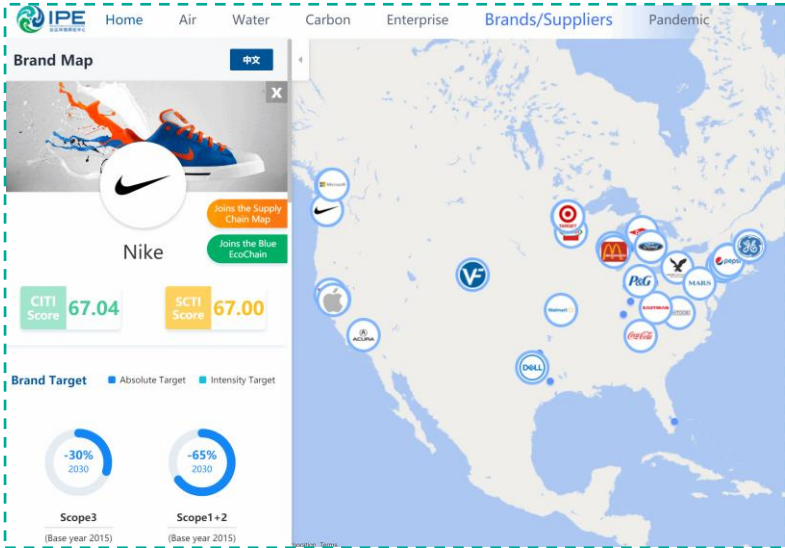
# 02

SCTI Top 50  
SCTI Master

Supply Chain Climate Action Global Top 50 Brands

01 adidas 67	01  67	03  66	04  64	05  63	05  63	07 Walmart  62	07  62	09 Gap Inc. 60	09  60	11  58
11  58	13 INDITEX 57	14 FOXCONN 56	15  55	15 NOKIA 55	15  52	15 L'ORÉAL 55	19 M&S EST. 1884 54	19  HUAWEI 54	21  52	21  52
23  50	23  50	23  50	26 FUJITSU 47	26 TOMMY HILFIGER 47	26 ck 47	26 MARS 47	26  AB InBev 47	26  pepsi. 47	26 BURBERRY 47	26  47
26 lenovo 联想 47	26 PHILIPS 47	26  47	37  46	37  46	37 PRIMARK® 46	37  迪卡侬 46	41  44	41  DSM 44	41  44	41  44
41  44	41  44	41 Nestlé 44	41  44	41  44	41  44	41  44	2020 SCTI Scores			

Note: Brands with the same ranking number are listed in no particular order.





## SCTI Master Qualification Criteria

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1. Rank as a top performance brand in the annual SCTI;
2. Require all key suppliers to annually submit/disclose GHG emissions, reduction targets and monitoring progress through the Blue EcoChain or an equivalent automatic data system to ensure their accountability to the public.



BlueEcoChain  
蔚蓝生态链



### Scope1+2

( Base year 2018 )



### Supply Chain

( Base year 2018 )

## Dell 2030 Supply Chain Carbon Target

Reduce carbon intensity by 60% together with its direct material suppliers

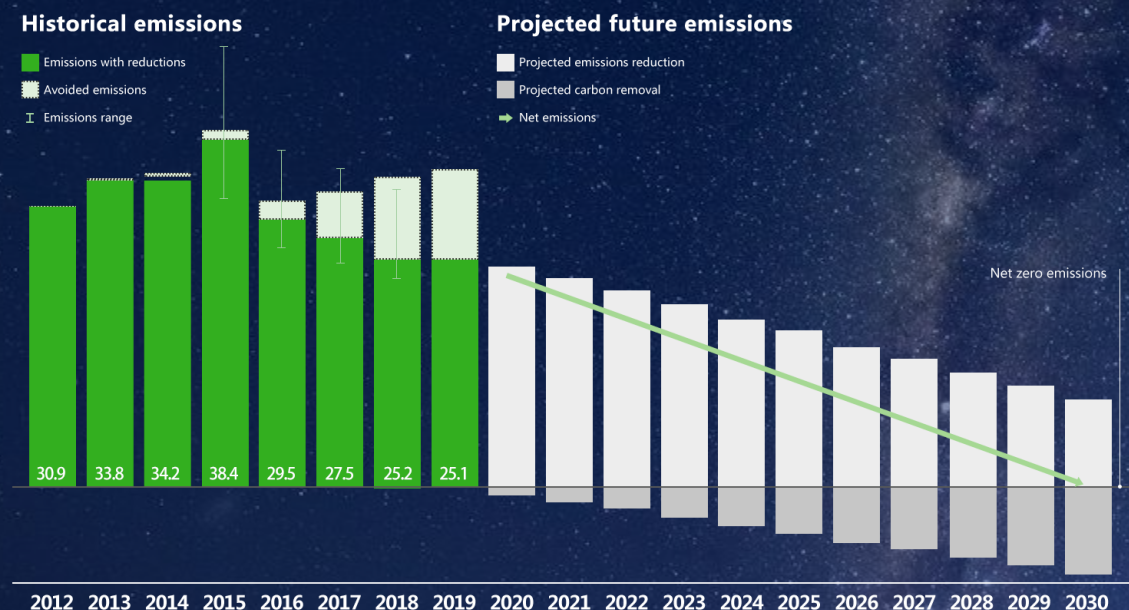
This target is in line with the goal of the Paris Agreement – to limit global warming to 1.5°C. In order to achieve the target, Dell is motivating its key suppliers to reduce emissions by setting their own SBTi. In the future, Dell will partner with its suppliers not only on the procurement of renewable energy and improvement of energy efficiency, but also on emissions accounting and reporting.



Supply Chain Climate Action Master



Dell



Supply Chain Climate Action Master

## Apple commits to be carbon neutral for its supply chain and products by 2030

— Since April 2020, Apple has already been carbon neutral for its operation.

Since 2015, we've reduced emissions by 35 percent. Building on this success, we recently announced our new goal to become carbon neutral by 2030, targeting an ambitious 75 percent reduction in emissions compared to 2015.



Apple

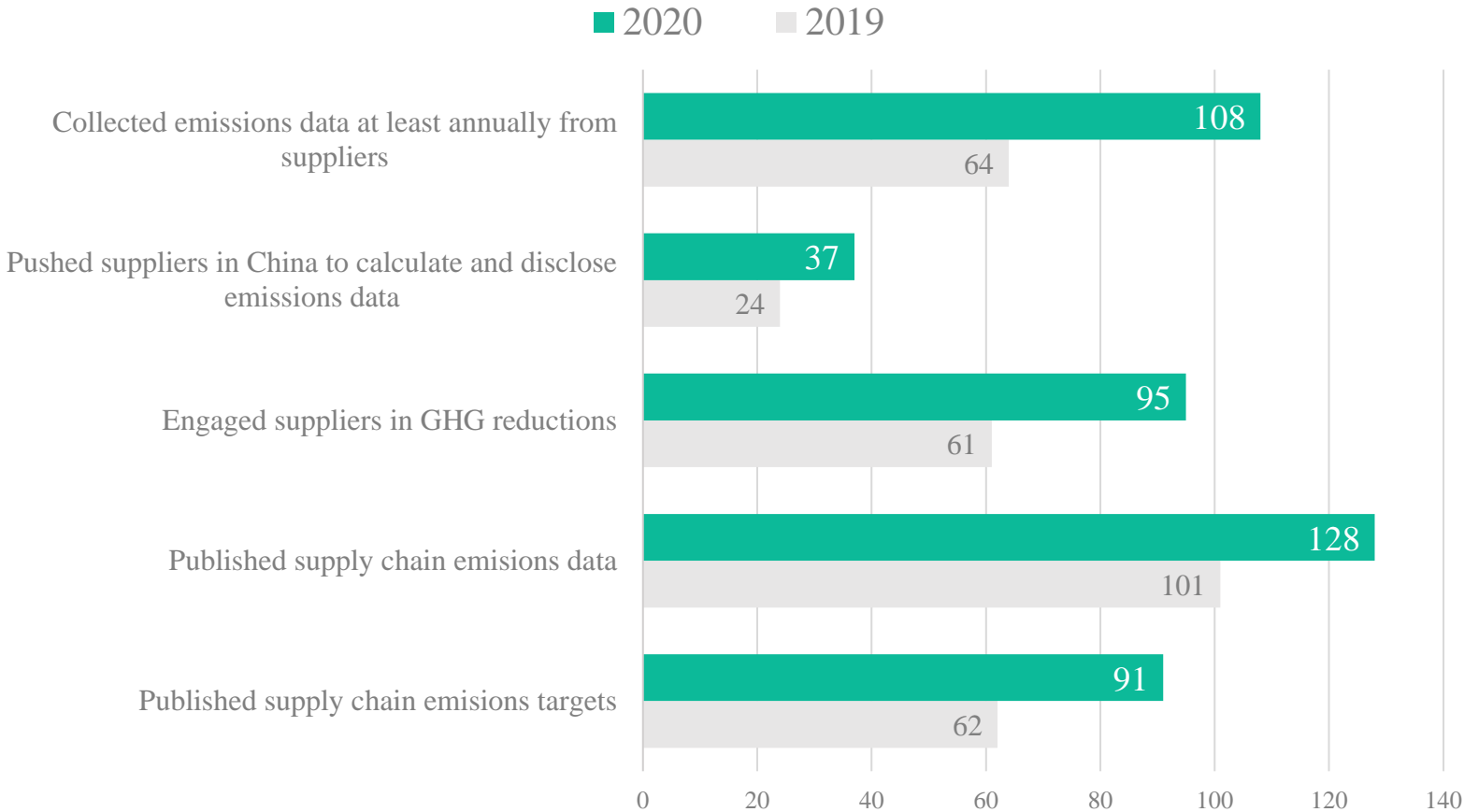


# 03

## Evaluation Findings

- 1. The impacts from COVID-19 does not stop leading brands from committing to greenhouse gas emissions reduction.**

## Brands supply chain climate action progress



The results of the 2020 SCTI evaluation show that **108** of the 540 brands collected GHG emissions information at least annually from suppliers (nearly 70% increase over last year);

**37** brands are actively pushing their suppliers in China to measure and publish their own emissions data (54% increase over last year);

and **16** brands are pushing their suppliers in China to set and publish their emissions reduction targets.



▲ 16 brands pushing suppliers in China to set targets

The pandemic didn’t slow down corporate climate actions. By the end of September 2020, brands have pushed **808** suppliers to release their GHG emissions data in 2019 through the Blue Map, involving **60 million tons** of emissions. Among them, **299** suppliers released GHG emissions reduction targets.

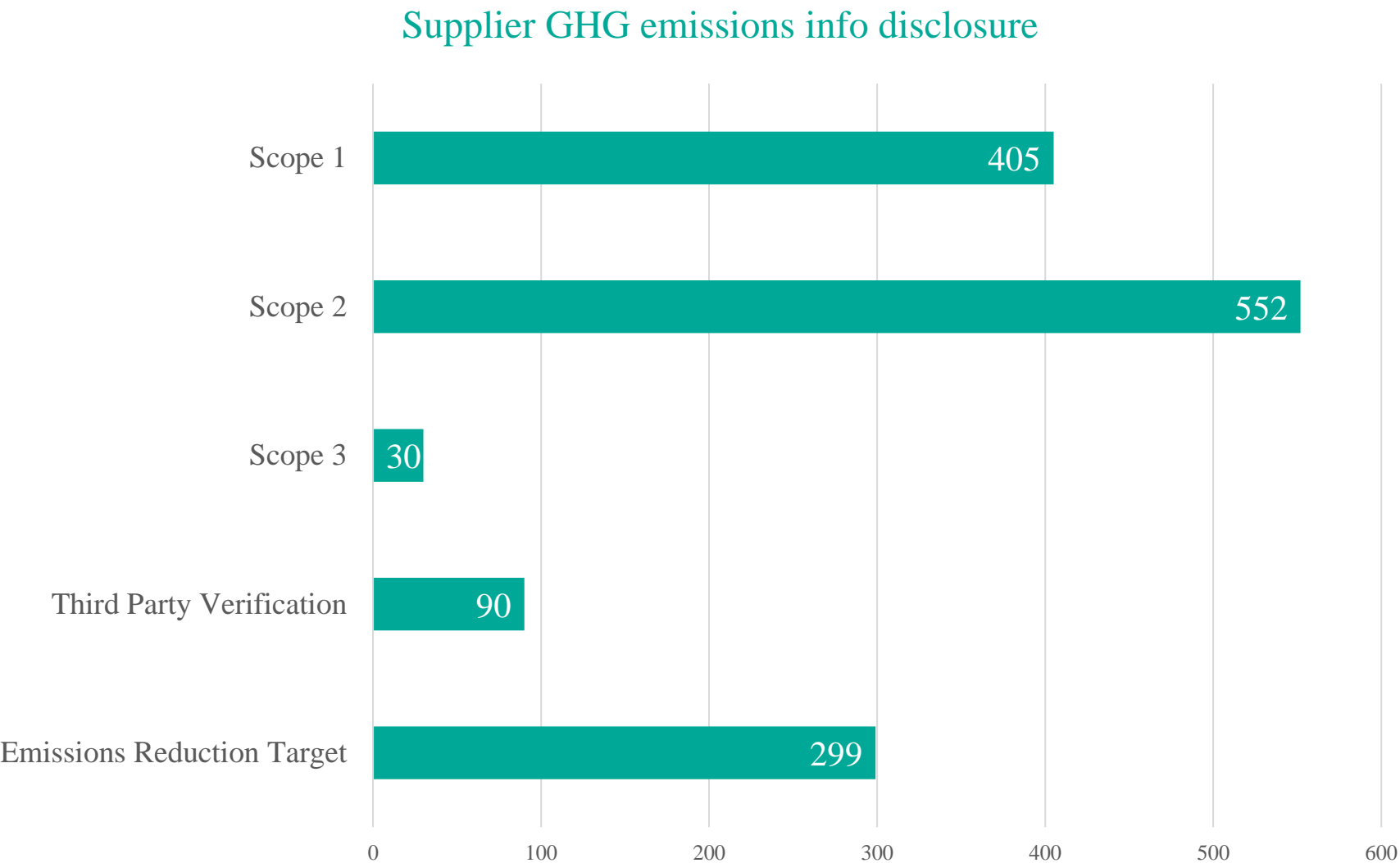
What is scope 1, 2 and 3?

Scope 1 emissions refer to direct emissions from companies, or company-owned and controlled emissions sources. For instance, GHG emissions from their production process or their own transport.

Scope 2 emissions refer to indirect emission from energy purchased and consumed by companies, such as electricity, steam, heating and cooling.

Scope 3 emissions refer to all other indirect emissions produced in the company’s value chain (upstream, midstream and downstream). For instance, emissions from the production of raw materials purchased by the company, the use of sold products through their life cycles, the logistics, etc.

Scope 3 emissions, though well above scope 1 and 2 emissions, are often overlooked.



# 03

## Evaluation Findings

**2. Leading brands cooperate with suppliers in China, and forms a batch of operational, reproducible best practices on energy saving and emission reduction.**



## Start to push suppliers in China to disclose GHG emissions in 2020

In order to get a better understanding of the supply chain emissions in base year 2019, Carrefour has pushed 20 suppliers in China to disclose 2019 GHG emissions data since January this year, among whom 8 have also published their emissions reduction targets.

Its Science-Based Targets (SBTi) were approved in June 2020: Carrefour commits to reduce absolute scope 1+2 emissions of 30% by 2030 and 55% by 2040 from a 2019 base year. Carrefour also commits to reduce absolute scope 3 emissions from purchased goods and services and use of sold products of 29% by 2030 from a 2019 base year.



### What is a science-based target?

The Science-Based Targets initiative (SBTi) was initiated by CDP, the World Resources Institute (WRI), the World Wildlife Fund (WWF), and the UN Global Compact (UNGC). Targets adopted by companies to reduce greenhouse gas (GHG) emissions are considered “science-based” if they are in line with what the latest climate science says is necessary to meet the goals of the Paris Agreement – to limit global warming to well-below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C.



## Drive Top 100 suppliers to set up carbon emission reduction targets by 2025

Huawei encourages suppliers to set up energy management organizations and measurement systems, identify reduction opportunities of energy consumption and carbon emissions, and set the plan of energy conservation and emission reduction. In 2019, 35 suppliers participated in the energy conservation and emission reduction project of Huawei, and reduced CO2 emissions more than 80,000 tons totally.

Shennan Circuit, saved 5.3 million kWh by reconstructing the cooling system, air conditioners, and power equipment. Another supplier, Shengyi Electronics, saved 1.5 million kilowatt hours by adopting energy-saving chilled water units and circulating refrigeration projects.

In 2020, Huawei expands their supplier energy conservation and emission reduction projects and encourage more suppliers to collect carbon emission information, set up emission reduction plans, and implement emission reduction projects. In addition, Huawei has incorporated carbon emission reduction requirement into the supplier CSR performance evaluation checklist to drive all suppliers to set up carbon emission reduction targets, so that to lead the sustainable development of our supply chain.

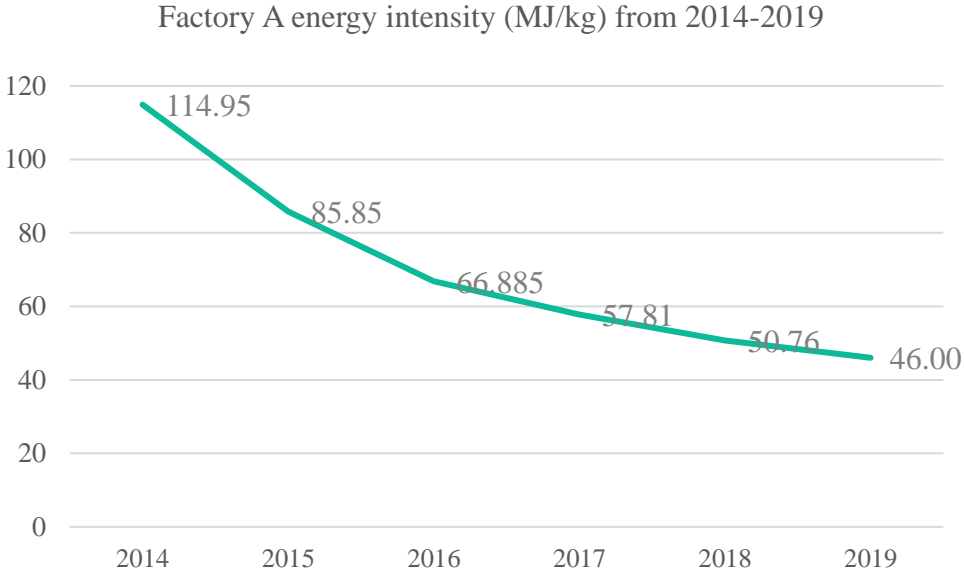
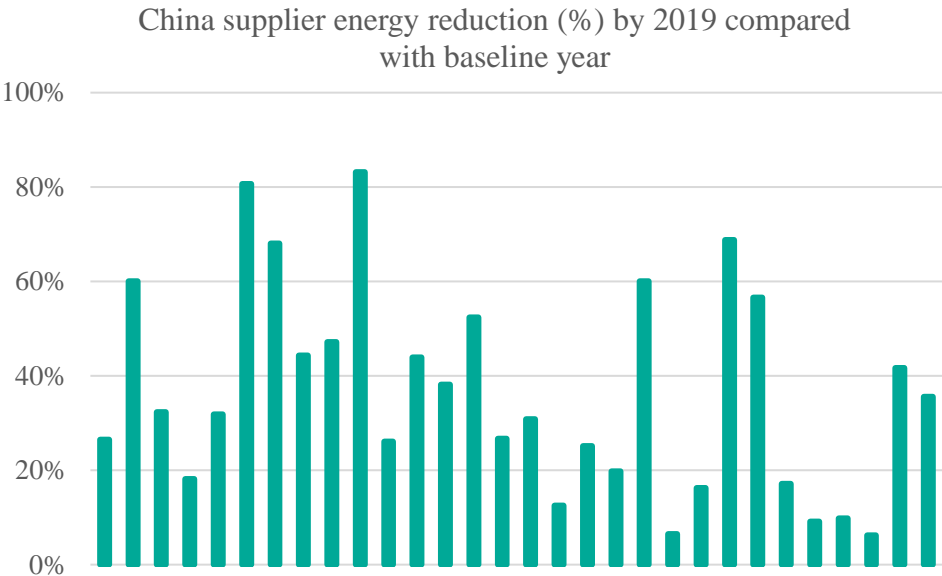
### Energy Saving with Variable Frequency Drives (VFD)

The standard power frequency is generally 50Hz or 60Hz, and the standard frequency and voltage remain constant in both household and industrial use. A motor operating on the standard power frequency may suffer from a loss of power in speed regulation, while the loss can be reduced when the speed is changed using a VFD. The birth of VFD originated from the need of AC motors for continuously variable speed. VFD is a device that drives an electric motor by varying the frequency and voltage supplied to the electric motor. VFD is mainly used to adjust the power of the motor so that the motor is able to operate at varying speeds.



## Continuously improving supply chain’s energy efficiency and in parallel to switch to renewable sources

One of China suppliers has made significant progress in reducing energy consumption since 2014, far exceeding their **5%** annual energy reduction target and implemented roof top solar project to reduce their carbon emission. The energy conservation measures have been implemented in the past few years: replaced diesel oil with natural gas and recovered heat from setting machine, installed rooftop solar system and implemented dyeing machine insulation, eliminated all on-site boilers and replaced with purchased natural gas, gradually replaced **80%** of low efficient machine and implement lean production project.



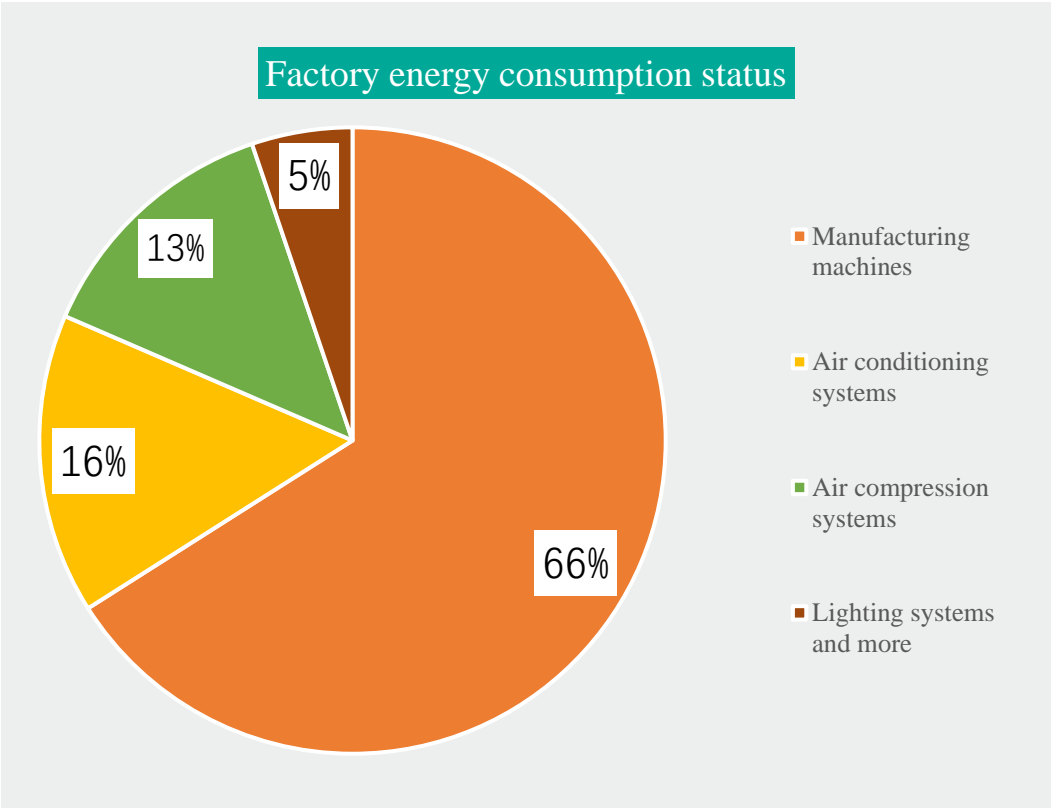


## Engage small & middle scale suppliers to set emissions reduction targets

Dell energy expert suggested a PCB manufacturing factory “collect and reuse heat generated by air compressor to reduce natural gas usage” estimating investment of **450K RMB** with 300K cost saving yearly (IOR is **1.5 year**).

Based on energy consumption status, energy conservation plans like “Photo exposure machine LED lamp update”, “Frequency conversion renovation of dust collecting system” have been put into middle-term and long-term plans. And experts also pointed out some energy efficiency improvement suggestions, like “Frequency conversion centrifugal unit or magnetic suspension unit updates for central air conditioning systems”, “Auto-switch control module installation for natural cooling unit of air conditioning systems”, “cooling stuffing replacement to increase cooling tower heat exchange efficiency”.

Factory set emission reduction targets of 30% for 2025 and 40% for 2030 based on comprehensive consideration of energy efficiency plans in-place, productivity planning, budget plans and renewable energy usage planning (including renewable electricity purchase and dispatched solar cell panel system installment).



### What is waste heat recovery in air compressor?

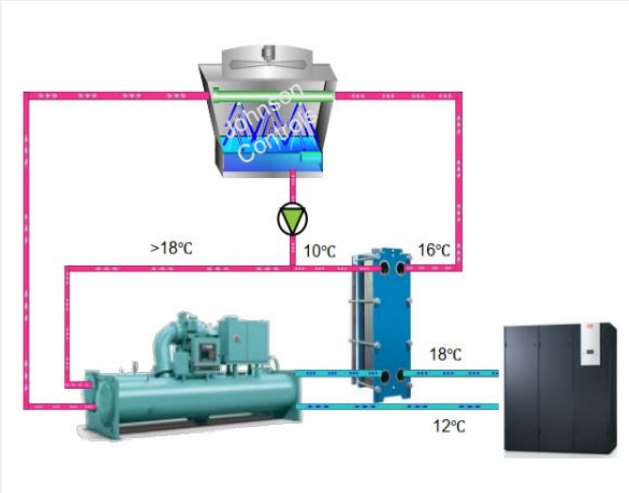
Air compressors consume 25% of the country's electricity. In industrial and mining enterprises, air compressors often consume a large amount of electricity, and often account for 50% of the electricity consumption of the whole plant, especially considering the low power usage effectiveness of air compressors in China. According to statistics, when a compressor is in operation, the power consumed to increase the potential energy of air only accounts for a fraction of the total power consumption, and about 85% of the power is converted into heat, which is discharged into the air through air-cooling or water-cooling.

Waste heat recovery in air compressor is to transfer the heat from the high-temperature oil in the air compressor to cold water through heat exchange and other technical treatments, and the cold water is heated and flows into the insulated water tank, achieving the purpose of heat recovery. The heat of the air compressor is turned into hot water to supply the required heat of the plant, so as to reduce the waste of heat and lower the cost as the original cooling system will not be used. Recovering the waste heat can increase the energy utilization rate to more than 85% and recover the cost in 5 to 8 months.

### How to realize natural cooling in winter?

The fully enclosed structure of the plants in the IT industry requires air conditioning and exhaust systems to meet the specific requirements of the production process in terms of cleanliness, temperature, humidity and air pressure. This keeps air conditioning systems in operation all year round. The task of air conditioning is to create and maintain the required air environment by technical means. The large amount of heat released by the production equipment in the plant, as well as the personnel and other factors, results in a large cooling load. In order to make full use of the ambient cooling resources in winter and to save power consumption during the operation of air conditioning systems, plants in the northern regions can exchange the heat with the indoor air and reduce the running time of compressors, but it requires the installation of a heat exchange switch to change between manual and automatic mode.

A traditional cooling system uses refrigeration equipment to make cold water and send it to the terminal (commonly air handling unit, fan coil unit or directly to the process pool); according to the law of energy conservation, the process of cooling also generates heat, and the heated water (about 30 °C) is sent to the cooling tower through the red pipe where the heat dissipates into the air. In winter, if natural cooling is used, there is no need to turn on the refrigeration equipment (high power). While circulating, the water in the red pipe is cooled by outdoor air to a lower temperature, achieving the same effect as with refrigeration equipment.



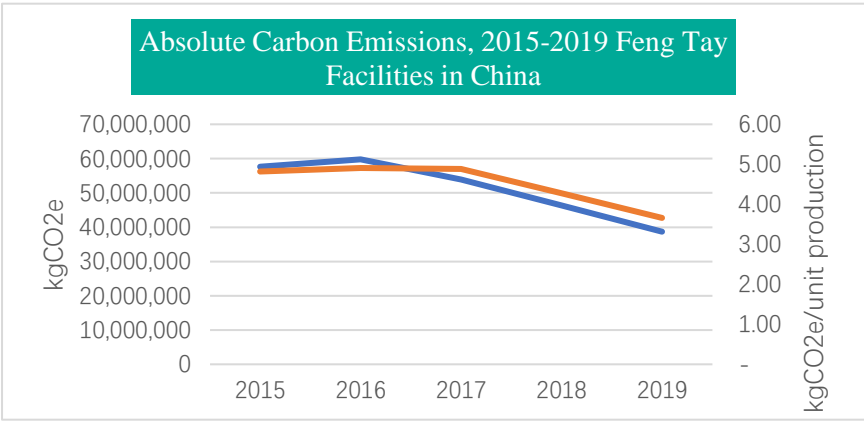


## Reducing Nike Supplier Emissions through Boiler Elimination

Steam boilers are a major source of emissions in footwear manufacturing. Heating accounts for roughly 40% of a factory’s energy consumption. Converting facilities to electrically heated bottom-making processes significantly reduced on-site emissions. By electrifying these processes, factories could also avoid losses associated with steam pipes, further improving energy efficiency. In addition, greater electrification means additional opportunity for factories to source renewable energy, such as on-site rooftop Solar PV and grid-based renewable electricity. By eliminating centralized boilers, the total energy use at a footwear finished goods factory could be reduced by 15-20%.

Through the Steam Boiler Elimination Program, suppliers globally successfully eliminated, optimized, or decentralized 50 centralized boiler systems. The initiative has reduced on-site energy use and also halted the direct use of coal in the manufacturing of Nike footwear finished goods. Eliminating coal in footwear manufacturing also helps Nike meet its commitment under the UN Fashion Charter, which seeks to eliminate new coal use in finished goods and materials manufacturing by 2025. Additionally, it has contributed to reductions in Nike’s scope 3 emissions, including a **65%** decline in the energy used per pair of footwear globally over the past decade.

By the end of 2018, footwear manufacturers in China eliminated all boilers and purchased steam. These efforts resulted in **\$13M** in energy savings and **49,000 MT** CO2 equivalent reductions at footwear finished goods supplier facilities in China over the past five years.



By the end of 2017, Feng Tay eliminated steam boilers at their three finished goods manufacturing facilities in China. As illustrated in the charts above, they reduced energy consumption by 16-21% per factory, resulting in 12,200 MT CO2e emissions reduction over the past 5 years.

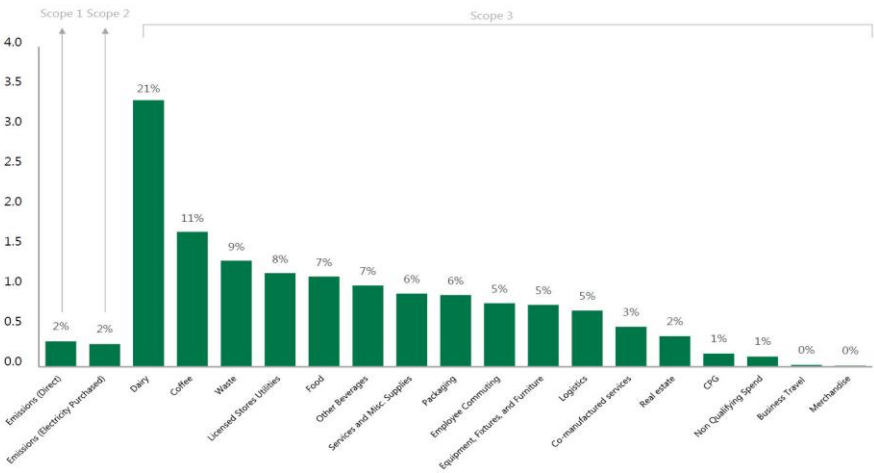


## Setting carbon target based on value chain emissions

In 2020, Starbucks published its first Environmental Baseline Report 2018 which accounts for the environmental impact of its entire value chain and uses the quantitative data in business decisions. Based on the baseline emissions, the company set the target to reduce emissions by 50% by 2030 and included it in the SBTs initiative.

The scope 3 emissions of Starbucks account for 96% of its total emissions, with dairy (21%) and coffee (11%) contributing the most.

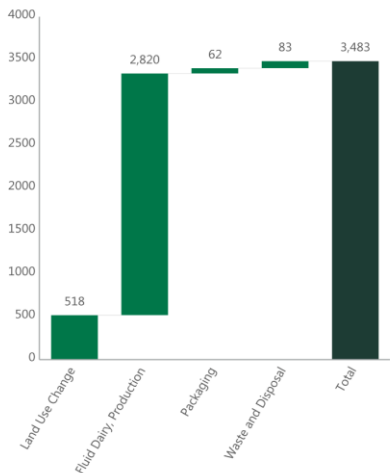
Starbucks Global Carbon footprint – 15.6 MMT CO<sub>2</sub>-eq (including Land Use Change)



An analysis of emissions from the dairy value chain found that methane from enteric fermentation in animals contributes the most to the emissions, while the share of emissions from land-use change is not negligible.

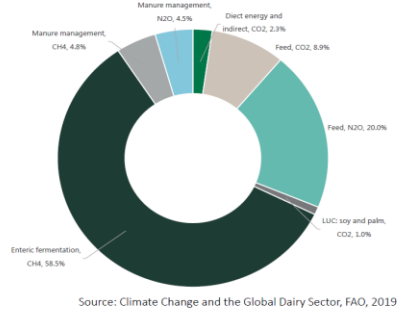
Fluid Dairy value chain, Carbon Footprint

Dairy, value chain: Carbon Footprint (KMT CO<sub>2</sub>-eq)



Global Dairy: GHG Emissions Breakdown On-farm

Sources of GHG emissions from the global dairy cattle systems, 2015



Global Dairy: GHG Emissions

The most important factors driving the carbon footprint in dairy systems globally include milk production level of the herd, animal diets, and manure-handling practices.

Starting from 2020, emissions reduction targets are required for **PRTR**. We notice that one of the ways many brands curtail emissions is to **push their suppliers to set emissions reduction targets**.

What is PRTR?

IPE developed a Pollutant Release and Transfer Registry (PRTR) data sheet for China in 2013 to provide suppliers with a platform to report and disclose enterprise-level energy and carbon emissions data.

IPE’s PRTR Data Sheets include both carbon emissions and local pollutants to address multiple data reporting needs; include annual emissions data and progress on targets to facilitate self-evaluation and public disclosures on progress; accurately benchmark mainstream carbon data indicators such as those from the CDP climate change questionnaire; provide automatic check functions, which are then reviewed by IPE as a third party before the data is published.



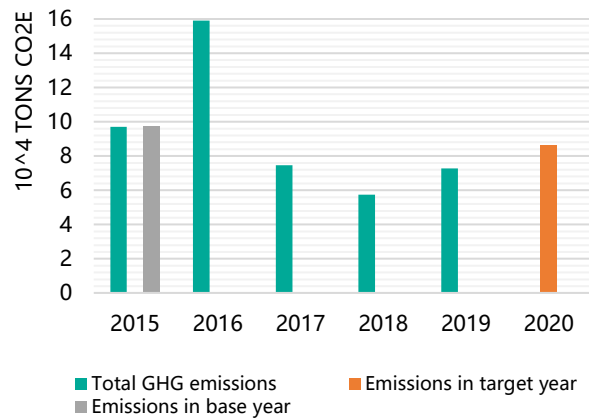
	The number of suppliers pushed		
	Published 2019 emissions data	Set emissions reduction targets	Set mid- and long-term targets
Dell	136	61	26
Inditex	138	52	19
Foxconn	91	40	21
Target	106	37	16
Primark	72	51	6
Adidas	89	34	13
C&A	68	29	9
Levi's	81	28	8

	The number of suppliers pushed		
	Published 2019 emissions data	Set emissions reduction targets	Set mid- and long-term targets
Cisco	72	27	13
GAP	48	20	6
H&M	37	19	8
Nike	56	17	7
Apple	36	17	9
M&S	33	15	7
Huawei	33	10	5
Carrefour	20	8	1

Note: Data is collected by the end of September 2020.

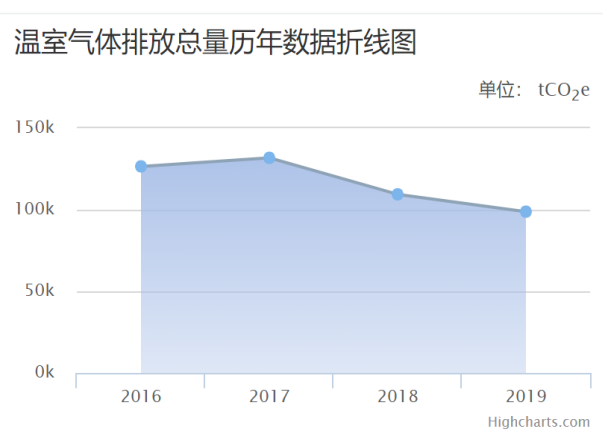
TPK Glass Solutions (Xiamen) Inc.

Motivated by Apple, it has published their GHG data for 4 consecutive years. In August, it has published scope 1+2 data of 2019 and mid- and long-terms target, and it has achieved its 2020 target ahead of schedule.



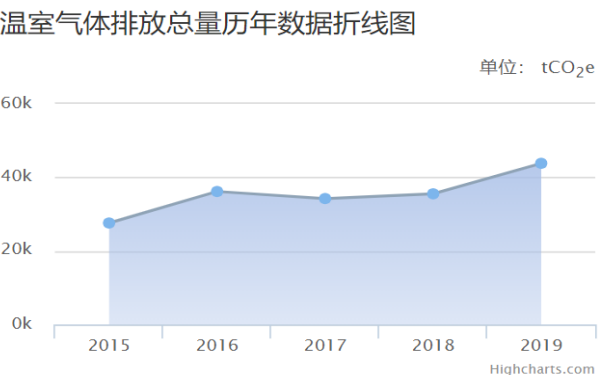
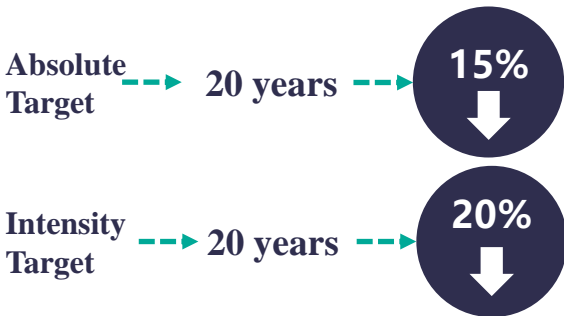
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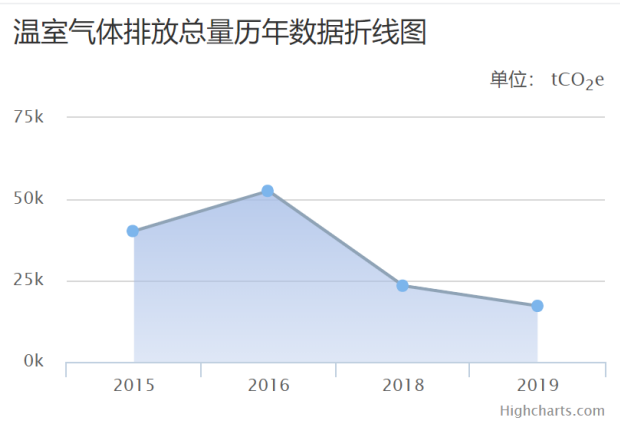
Chicony Electronics(Suzhou)Co.,Ltd.

Motivated by Dell, it has published their GHG data for 5 consecutive years. In July, it has published scope 1+2 data of 2019 and long-terms targets.



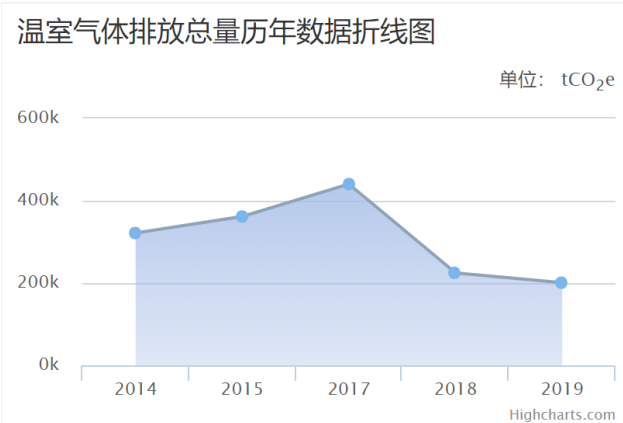
WEIFANG LANTIAN TEXTILE CO LTD

Pushed by Levi's, it has published their GHG data for 4 years. In May, it has published scope 1+2 data of 2019 and its intensity target.



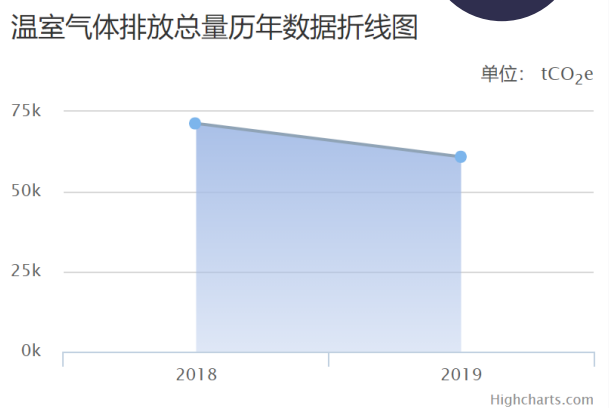
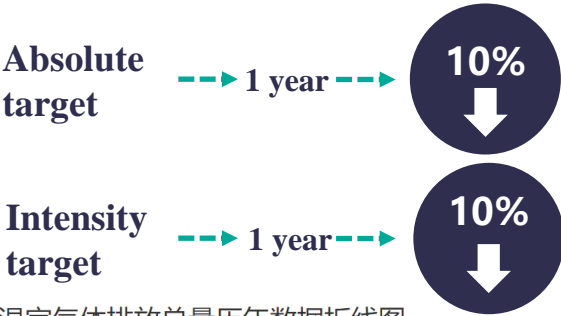
Jiangsu Lianfa Textile

Pushed by brand, it has published their GHG data for 5 consecutive years. In May, it has published scope 1+2 data of 2019 and long-terms target.



Regina Miracle Intimate Apparel (Shenzhen) Ltd.

Pushed by Adidas, it has published scope 1+2 data of 2019, which are verified by an independent third party, and set the annual reduction targets of 10%.

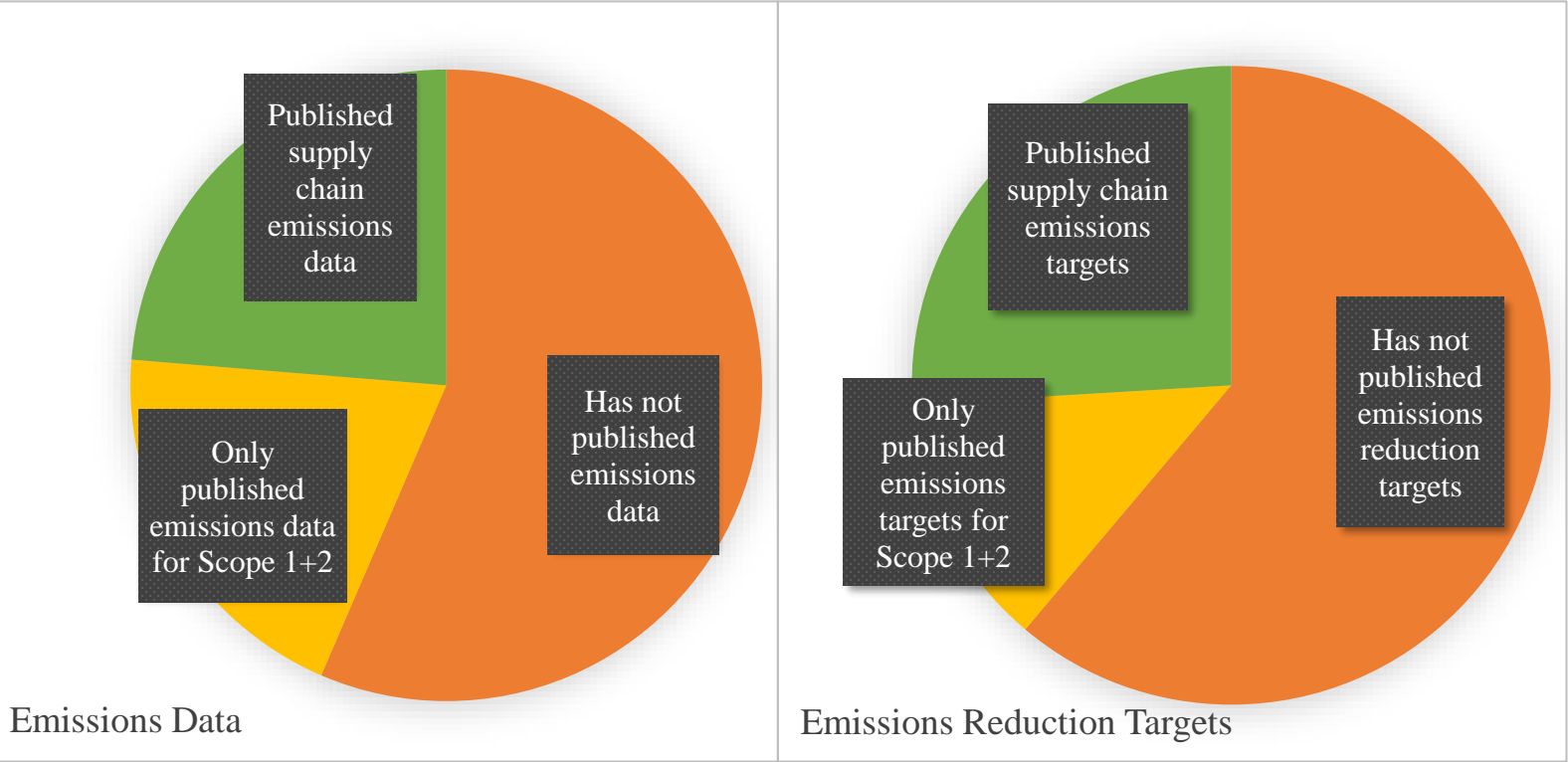


# 03

## Evaluation Findings

**3. 93% of the 540 brands, and 99% of the Chinese brands under evaluation, have not yet to push suppliers in China to disclose their GHG emissions. The scale of supply chain climate action needs to be extended. Most suppliers lack of ability to set medium- and long-term targets, which is inadequate to cope with the imminent carbon border adjustment mechanism of the EU.**

Most brands have yet to start pushing suppliers in China to disclose their GHG emissions



2020 SCTI evaluation of brand’s public emissions data and emissions reduction targets

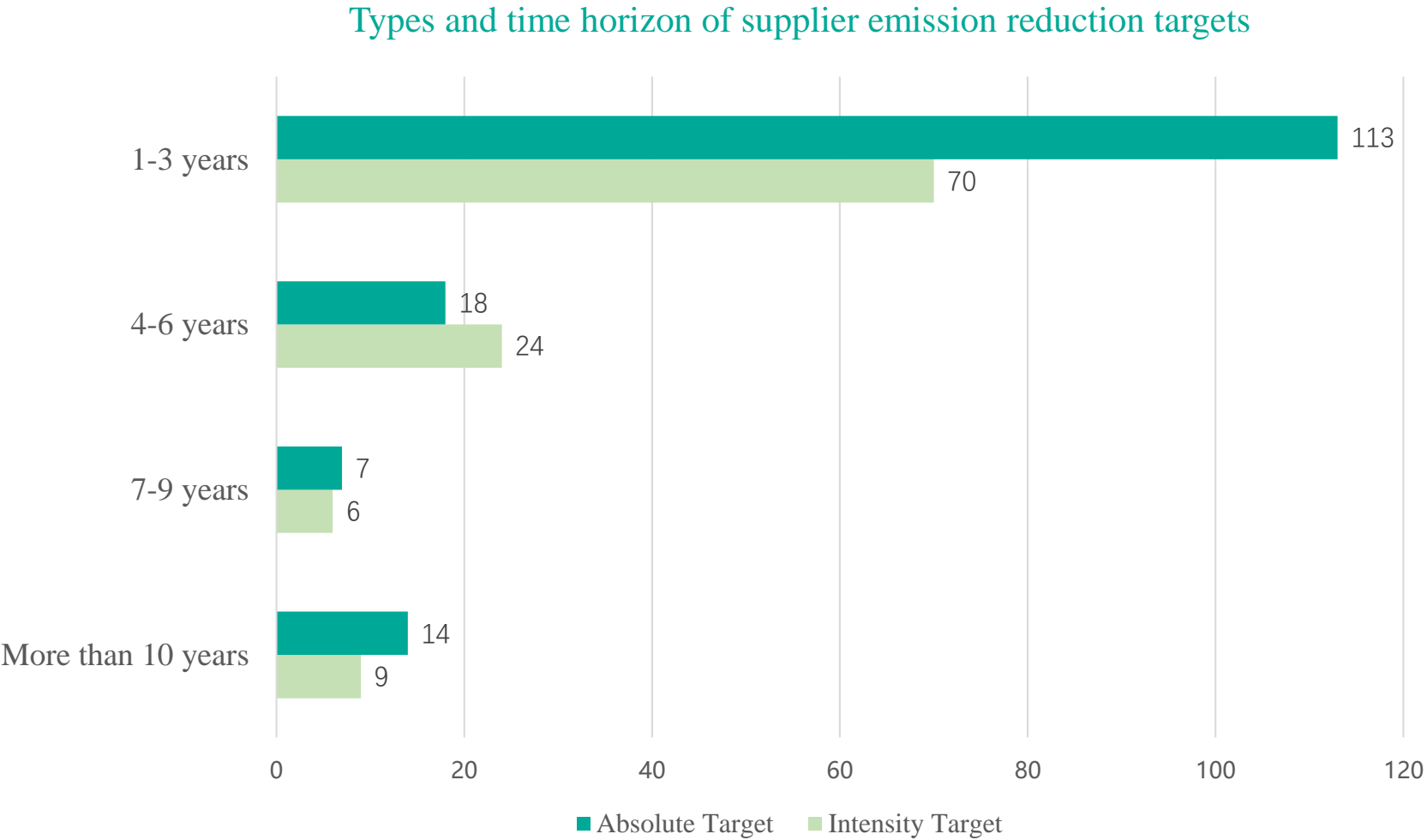
540 brands

- Nearly **60%** of the 540 brands have not published their emissions data;
- Nearly **70%** have not published emissions reduction targets;
- **55%** of them have not implemented emissions reduction initiatives in China;
- **93%** have not yet pushed suppliers in China to disclose their GHG emissions;
- **70%** have not published any climate-related strategy.

Motivated by the brands, suppliers start to measure their own emissions, select base years and set reduction targets. **70%** of the suppliers have set short-term targets for the next 1 to 3 years, **but few set mid- and long-term targets; 12%** of the suppliers set both absolute targets and intensity targets, but the targets they set are **not science based enough**.

**Absolute target & Intensity target**

There are mainly two types of GHG reduction targets: absolute targets and intensity targets. Absolute targets are usually expressed in terms of the reduction of a specific GHG emitted into the atmosphere over a period of time, typically in tons of CO2 equivalent. Intensity targets are usually expressed as a reduction in the ratio of GHG emissions to another business metric. The business metric can be a company's production (e.g., tons of CO2 equivalent emitted per ton of product, per kilowatt-hour of electricity or per ton-mile) or sales, revenue or office space. When intensity targets are adopted, the disclosure of absolute emissions from the sources covered by the targets is required. Intensity targets that the SBTs initiative requires the companies to set must be consistent with climate science and can bring about absolute emissions reductions, or the reduction pathway simulated by the company can ensure emissions reductions in the sector.



The background of the slide is a dark blue gradient. On the left side, there is a complex, abstract digital landscape. It features a series of rolling hills or mountains rendered in a wireframe style, with glowing blue lines forming the structure. Scattered across these hills and in the foreground are numerous small, bright blue dots or particles, some of which are slightly out of focus, creating a sense of depth and movement. The overall aesthetic is futuristic and technological.

# 04

## Innovative Solutions

How exactly are supply chain emissions managed? It is a question ailing many brands. Some foreign brands set scope 3 targets or supply chain emissions reduction targets for their headquarters, but one of the questions frequently asked by the brands is what their supply chains in China should do if there is no pathway to start the implementation of the targets.

With the release of the 2019 SCTI Index, brands have found a pathway to start managing their supply chains in China - **start with motivating key suppliers to account and report GHG emissions.**

Effective Pathway

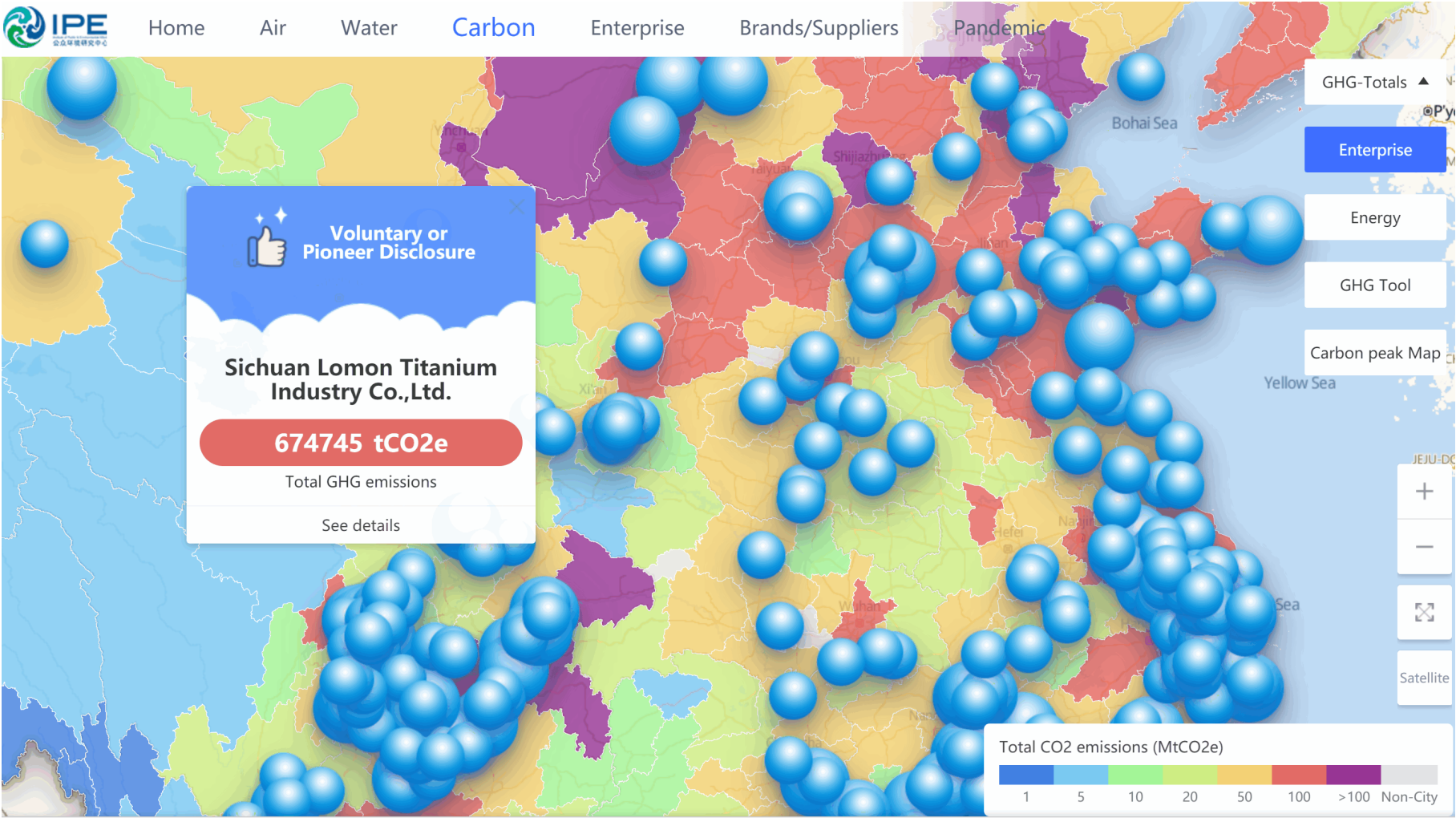
- Major suppliers with high carbon emissions or energy consumption are screened by key processes and industries, and meanwhile the **Blue Carbon Map** helps identify climate risk areas;
- Assist suppliers in completing their own carbon accounting through the **Corporate GHG Emissions Accounting Platform**;
- Promote the disclosure of **GHG emissions data** by suppliers through the **online PRTR disclosure platform**;
- Guide suppliers on setting mid- and long-term **emissions reduction targets** based on emissions data;
- Collaborate with suppliers on emissions reduction projects and leverage **big data** to enable large-scale emissions reduction actions based on emissions data and targets.

Brands have already started acting according to the above pathway :

	In order to encourage suppliers to implement emissions accounting and set reduction targets, Huawei has called on its top 100 suppliers to set carbon emissions reduction targets and included emissions data and reduction targets in the checklist of its supplier CSR performance evaluation and audit.
	Carrefour, Esprit, Primark and Starbucks are also collecting emissions data from their suppliers in China.
	Dell, Nike, Swire, Levi's and Foxconn are making it a priority in 2020 to motivate their suppliers to disclose their annual emissions data and set and release their carbon emissions targets.

The **Blue Carbon Map Database** is China's first public greenhouse gas emissions database, covering regional and enterprise-level emissions data. The continuously accumulated data will become an important basis for brand companies to manage greenhouse gas emissions in their supply chains by identifying key regions and sources of emissions.

The **Blue Carbon Map** covers the data on total GHG and CO<sub>2</sub> emissions, per capita emissions, and emissions per unit of GDP of 336 cities in 2010, 2015, and 2019. The corporate carbon data on the map covers over 5,000 pieces of data on annual carbon emissions from 2,100 companies in 31 provinces, disclosing over 2.6 billion tons of emissions. In addition to the corporate carbon data disclosed at the request of Sichuan, Jiangxi and Shaanxi, more disclosure has been driven by the IPE Green Supply Chain PRTR project.



**In order to meet the supply chain management needs of the brands and to serve more SMEs, IPE has worked with professional organizations to develop a convenient online GHG emissions accounting platform based on the GHG accounting methods and reporting guidelines for 24 selected industries released by the national authority.**



The accounting platform is developed according to the characteristics of GHG emissions from industrial enterprises and meets the current accounting needs of enterprises in all industries in China. The platform not only helps enterprises to fully measure GHG emissions (including emissions from industrial process), but also provides enterprises with automatic uncertainty analysis of emission results and generates emission reports directly for enterprises to download and use easily.

Why should enterprises account for GHG emissions?

In the context of increasing anthropogenic GHG emissions that contribute to global warming, enterprises can play a pivotal role in supporting government actions to achieve climate goals by taking the lead in committing to manage GHG emissions.

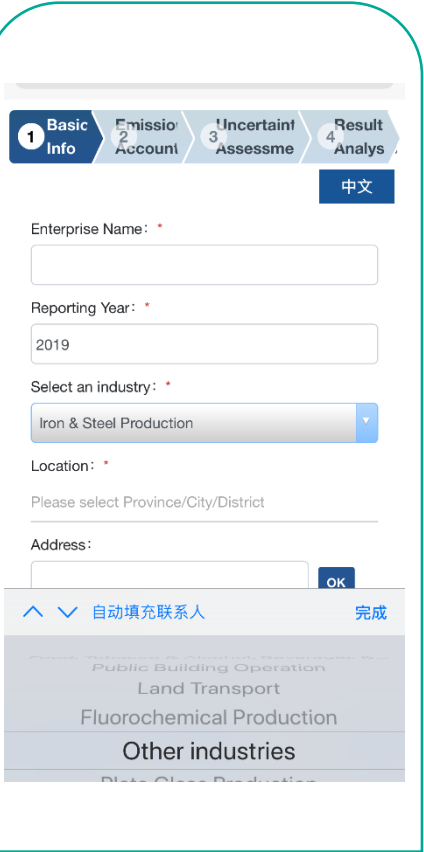
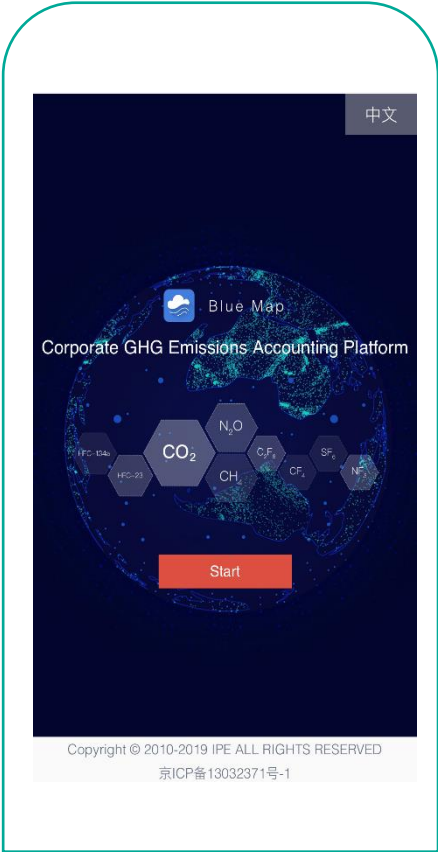
On the one hand, in terms of regulations and standards, China has issued a series of policy documents such as the GHG emissions reporting system for selected enterprises (public institutions) and the GHG emissions accounting and reporting guidelines for enterprises in 24 selected industries (for trial implementation) during the development of the carbon market, which have laid the foundation for China's MRV mechanism (a GHG emission data management mechanism featuring measurability, reportability and verifiability). For four years in a row, companies included in catalogue of key emitting industries have accounted for and reported their GHG emissions.

On the other, whether it is mandatory for enterprises to account for GHGs or not, GHG emissions accounting is commercially valuable to them. According to the 3rd edition of the HKEX ESG Reporting Guide to be implemented in July, listed companies are required to disclose new GHG emissions in their environmental information. The EU is planning to introduce a carbon border adjustment mechanism for selected industries to reduce the risk of carbon leakage from global trade. As the emissions of many international brands mainly come from their supply chains that are primarily based in China, major Chinese suppliers will be under pressure from customers or investors to reduce emissions. By accounting for GHG emissions, enterprises can understand the impact of their production and business operations on climate change, set carbon emissions reduction targets thereupon and enhance the carbon competitiveness of their products, so as to achieve a green transformation.

Guide to the Platform  
on the phone

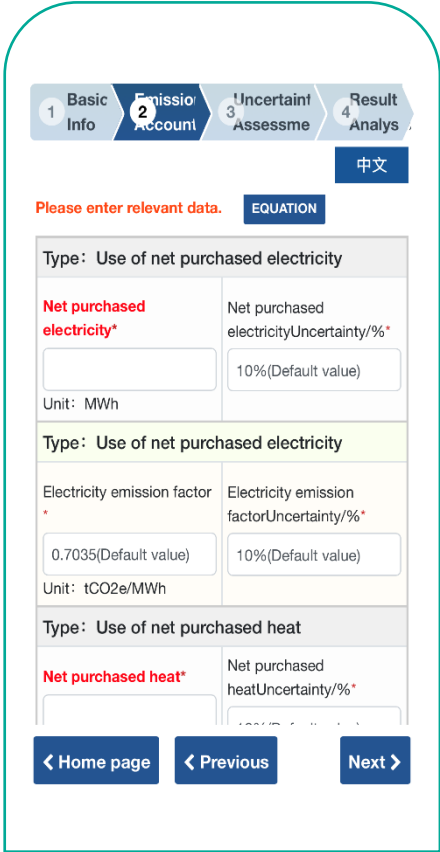
Step 1

Select your industry and region



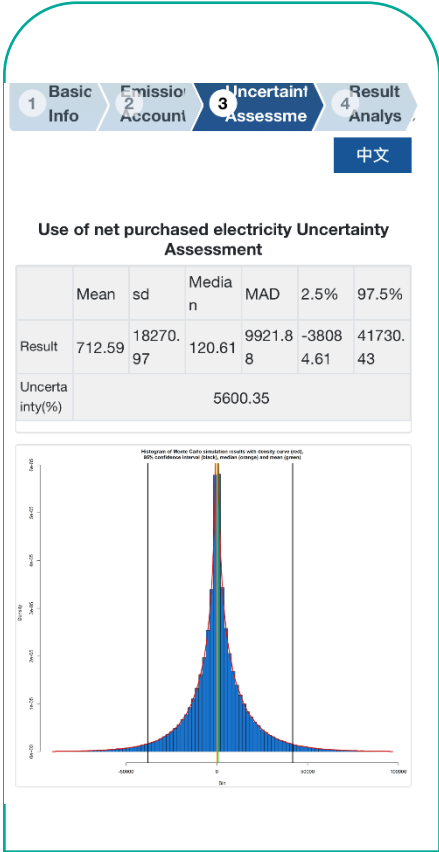
Step 2

Fill in values for purchased electricity, purchased heat, fossil fuel consumption, etc.



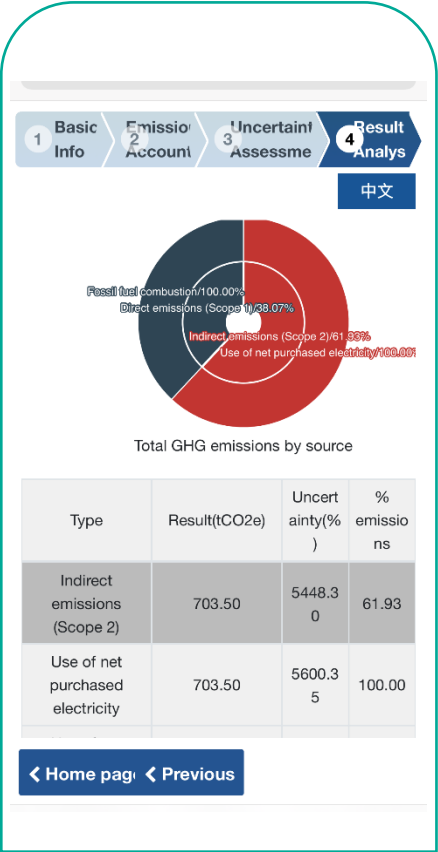
Step 3

The platform calculates uncertainty

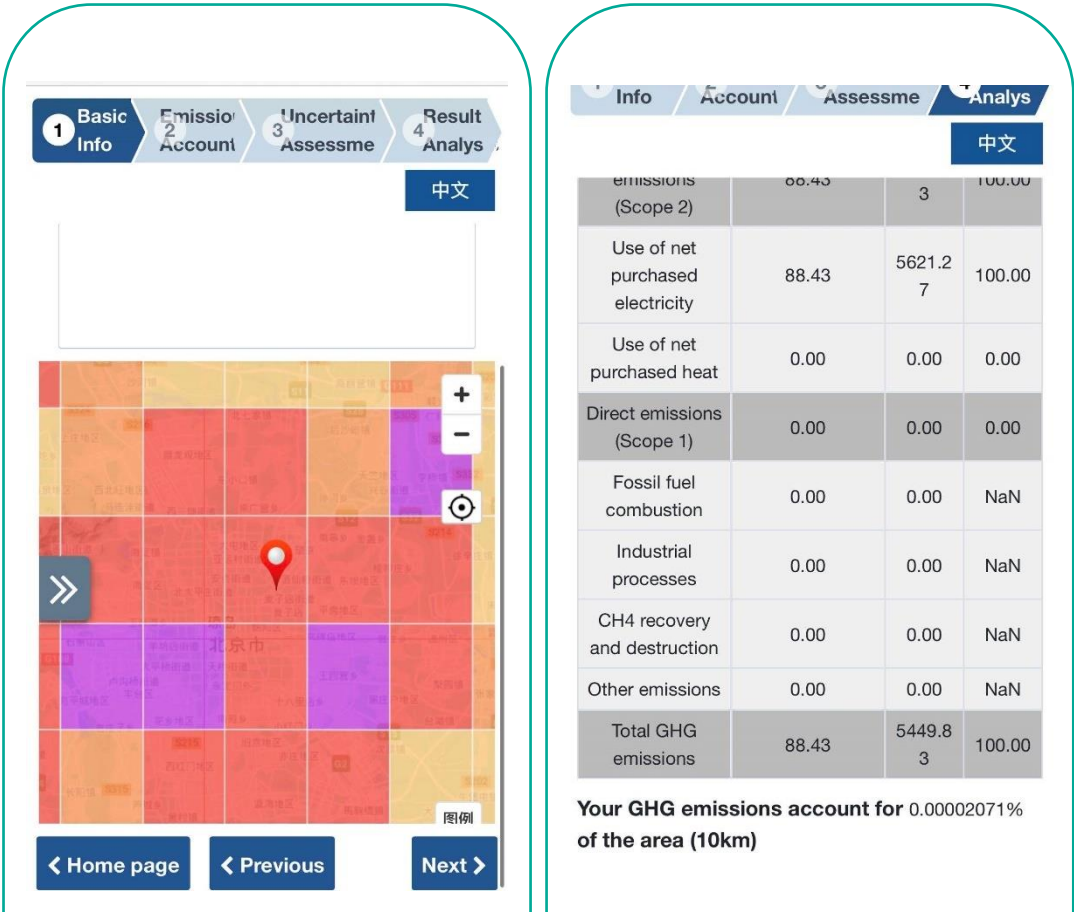


Step 4

Analyze the result and generate a report



In addition, enterprises can find their locations on the map and see the percentage of their emissions in the region.



The accounting platform has now been recommended by several brands and industry associations to their suppliers or members as a management tool and becomes a methodology and basis for SMEs to measure carbon emissions.

Carbon Data (2019)

GHG Emissions Information


Type	Volume
Total GHG emissions	23993.36 tCO <sub>2</sub> e
Scope 1 emissions	3443.27 tCO <sub>2</sub> e
Scope 2 emissions	23649.09 tCO <sub>2</sub> e
Emissions from fossil fuel combustion	3443.27 tCO <sub>2</sub> e
Emissions from use of net purchased electricity	23649.09 tCO <sub>2</sub> e
Scope 3 emissions	--
Purchased goods and services	--
Percentage of suppliers submitted their emissions data	--
CO <sub>2</sub> emissions from biologically sequestered carbon	--
Methodology	中国企业温室气体排放核算平台
Indicate the verification status that applies to your reported emissions	No

▲ Cited as methodology in the PRTR data sheet



IPE's online PRTR disclosure platform: a combination of active and passive disclosure systems, including information on total GHG emissions (scope 1 and 2), accounting methodology, third-party verification of data, scope 3 emissions, supply chain emissions, activity level data, emissions performance, emissions reduction targets and progress, etc. The emissions data of the brands' supply chains in China can be generated directly from the PRTR data of Chinese suppliers.

Foxconn has developed a corporate carbon management system for its suppliers against the PRTR-GHG disclosure indices and is integrating the data disclosed by suppliers on the PRTR platform into Foxconn's carbon management system so as to facilitate the collaboration of stakeholders in promoting carbon inventory and emissions reduction.



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Basic Information

Greenhouse Gas

Wastewater

Exhaust Air

Hazardous Waste Discharge and Transfer

Submit PRTR

Fill in the reason for non disclosure

Greenhouse Gas Emissions

\* Total GHG emissions:

tCO<sub>2</sub>e

Scope 1 emissions:

tCO<sub>2</sub>e

Scope 2 emissions:

tCO<sub>2</sub>e

\* Emissions from fossil fuel combustion:

tCO<sub>2</sub>e

\* Emissions from use of net purchased electricity:

tCO<sub>2</sub>e

Emissions from use of net purchased heat:

tCO<sub>2</sub>e

+

Add Other Greenhouse Gas Emissions

Methodology:

Reported Emissions Verified by Third Party?

Please Select

Scope 3 emissions:

tCO<sub>2</sub>e

Purchased goods and services:

tCO<sub>2</sub>e

Percentage of suppliers submitted their emissions data:

%

CO<sub>2</sub> emissions from biologically sequestered carbon:

tCO<sub>2</sub>e

Activity Level

Fossil Fuel Combustion Emissions

Anthracite

t

Data Source:

Please select

Bitumite

t

Data Source:

Please select

Motor Gasoline:

t

Data Source:

Please select

Natural Gas:

10<sup>4</sup>m<sup>3</sup>

Data Source:

Please select

Diesel:

t

Data Source:

Please select

+

Add Other Fossil Fuel

Net Purchased Electricity and Heat Emissions

\* Net purchased electricity:

MWh

Data Source:

Please select

Net purchased heat:

GJ

Data Source:

Please select

Emissions Performance

Comprehensive energy consumption:  <sup>10<sup>4</sup> tce</sup>

Energy Consumed per 10,000 RMB of Goods Produced:  tce

Energy savings:  tce

Emissions intensity per unit of major production:  tCE/

Emissions reductions:  tCO<sub>2</sub>e

% change:  %

Reasons for Emissions Changes:

\* Set Emissions Reduction Target? Please Select

Reduction Rate in Absolute Percentage from Base Year:  %

Base Year:  Start Year:  Target Year:

Science-based Target? Please Select

Target Achieving Rate in Percentage:  %

Base Year Emissions:  tCO<sub>2</sub>e

Reduction Rate in Absolute Percentage from Base Year:  %

Base Year:  Start Year:  Target Year:

Science-based Target? Please Select

Target Achieving Rate in Percentage:  %

Base Year Emissions:  tCO<sub>2</sub>e

Target Adjustment Explanation(s):

Carbon Assets

Allowances allocated:

CCER:

Other Purchased or Developed Carbon Offset Credits which are Beyond the Boundary:

Emissions Reductions which are Generated within the Emissions Boundary and Sold or Transferred to Third-parties as Carbon Offset Credits:

Save

## **Institute of Public and Environmental Affairs (IPE)**

The Institute of Public & Environmental Affairs (IPE) is a non-profit environmental research organization registered and based in Beijing, China. Since its establishment in June 2006, IPE has collected government and corporate environmental information into a comprehensive database. IPE's two platforms – the Blue Map website and the Blue Map app – provide environmental data to serve green procurement, green finance and environmental policymaking, using cooperation between companies, government, NGOs, research organizations and other stakeholders to promote environmental information disclosure and improve environmental governance mechanisms.

## **Acknowledgements**

This report was completed with the support of many parties. I would like to thank all those who shared their time and expertise with us.

Thank you to the brand companies evaluated in this report for your trust and support.

Thank you to CDP for data support.

Many sincere thanks to the Heinrich Böll Foundation Beijing Representative Office, SEE Foundation, Alibaba Foundation, Vanke Foundation and Ai You Foundation for their support. The content and opinions of this report represent only the authors' personal views and are not related to the position or policy of these foundations.

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