Corporate
Information
Transparency
Index

GREENING THE GLOBAL SUPPLY CHAIN

CITI Index 2016 Annual Evaluation Report

Institute of Public & Environmental Affairs (IPE)

Natural Resources Defense Council (NRDC)

Institute of Public & Environmental Affairs (IPE)

The Institute of Public & Environmental Affairs (IPE) is a non-profit organization based in Beijing. Since its establishment in May 2006, IPE has developed and operated the China Blue Map Database (www.ipe.org.cn) and the Blue Map mobile app. Along with helping the public to access environmental information and protecting individuals' health and welfare, IPE devotes itself to serving green supply chain development, green finance and public oversight in order to promote positive interaction between government, companies and the public and to push for improvement in environmental quality and green development.

Natural Resources Defense Council (NRDC)

The Natural Resources Defense Council (NRDC) is an international non-profit environmental organization with more than 2 million members and online activists. Since 1970, NRDC lawyers, scientists, and other environmental specialists have worked to protect the world's natural resources, public health, and environment. NRDC conducts work in the U.S., China, India, Canada, Mexico, Chile, Costa Rica, the European Union and in other countries around the world. For more information, please visit www.nrdc.cn.

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Lastly, we would like to thank Violet Ross for her tremendous assistance with the English translation!

Overview

The Corporate Information Transparency Index (CITI) is a system for evaluating brands' green supply chain practices that was jointly developed by the Institute of Public & Environmental Affairs (IPE) and the Natural Resources Defense Council (NRDC). IPE uses this index to dynamically assess brands' supply chain environmental performance based on public data, including government compliance data, online monitoring data, and third-party environmental audits.[1]

This edition of the CITI index report is the third annual report published since 2014. During the evaluation period, following the incorporation of "accelerate the construction of green supply chain production systems" into the key points of China's 13th five-year plan,[2] we saw the Ministry of Environmental Protection (MEP), Ministry of Industry and Information Technology (MIIT), National Development and Reform Commission (NDRC) and other government ministries successively research and formulate related policies and standards. Thus, the policy space for green supply chain is further expanding.

In this round of the CITI evaluation, the assessment scope expands from 167 brands to 198 brands. Using a vast range of evidence that includes data officially published by 198 brands throughout the past year, as well as communication records with 734 suppliers that expressed relationships to a total of 50 brands, we are able to analyze the supply chain environmental management performance of different brands' supply chains in China. This research forms the basis for the 2016 CITI Index Evaluation Report.

This edition is the first time that we are releasing a CITI "Top 30." Entering into the Top 30 signifies that a brand is earnestly developing green procurement and that the environmental performance of its supply chain in China stands at the forefront worldwide. These brands' performance deserves recognition from same-industry brands, investors, government and consumers.

Apple becomes the first brand to surpass the 80-point threshold, and comes in at the top of the CITI rankings for the third year in a row. The environmental management of its suppliers in China serves as a benchmark. Adidas, Dell, Levi's, Marks & Spencer, Target, Panasonic, Gap, Samsung and Walmart respectively rank from 2nd through 10th. These brands are global leaders for the environmental management of their suppliers in China, and demonstrate outstanding performance in several evaluated areas.

The CITI index evaluation covers nine industries, and each industry sector also gives rise to its own leading brand. The leading brands for each industry are as follows: IT – Apple; textiles – Adidas; food and beverage – Coca Cola; household and personal care – Kao; automobile – Mercedes-Benz; paper – Oji Paper; leather – Adidas; alcohol – Tsingtao; and diversified – Hitachi.

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[1] NRDC is not involved in the scoring process.

[2] http://www.china.com.cn/lianghui/news/2016-03/17/content_38053101.htm (Accessed September 2016)

Apple, Adidas and Panasonic continue to respectively lead among brands from North America, Europe and Japan and South Korea. Among brands from Greater China, Huawei has leapt to the top, ranking 12th among all 198 total brands – the highest CITI ranking ever for a brand from mainland China.

In this round of the evaluation, we see three key areas of progress in Chinese and international brands' efforts to push suppliers: 1) under encouragement from brands, an increasing number of suppliers are issuing public responses; 2) more brands are using publicly-available data to push suppliers toward environmental compliance; 3) for the first time, a group of Chinese brands have come together as an industry alliance to explore an innovative mechanism for greening the supply chain.

Following even more brands' effective development of green procurement, during the year from October 2015 through September 2016, as many as 734 suppliers publicly responded, the highest number of suppliers to publicly respond in a year since the Blue Map Database went live in 2006.

And on June 5, 2016, the China Urban Realty Association (CURA) and Society of Entrepreneurs & Ecology (SEE) joined forces with Landsea and Vanke to jointly launch the "Real Estate Green Supply Chain Initiative." This is not only the first time that a large number of Chinese companies are working together as an industry to drive forward supply chain environmental management, but it has also been called "a global first" by the United Nations Environment Programme (UNEP).

In this round of the evaluation, we also see three critical gaps in brands' green supply chain development in China: 1) a number of brands with lofty commitments lack substantive action; 2) in many industries, only a few brands are taking action, so efforts are clearly insufficient and lack real progress; and 3) responsible wastewater treatment urgently awaits a breakthrough.

During the assessment cycle, we worked with Lvse Jiangnan, Huai River Guardians and other local environmental groups to conduct pollution investigations on a series of suppliers with environmental noncompliance records that have been linked to unresponsive brands. Facing joint concern from different groups, ASICS and Disney broke their silence and began to face up to environmental problems at their suppliers in China.

We also look forward to seeing the beginning of action from a series of brands beloved by consumers, including Proctor & Gamble, Victoria's Secret, Toyota, McDonald's, Calvin Klein, Kia Motors, L'Oréal, Samsonite, Haier, BYD, Xiaomi, Modern Farming and Snow Beer, that have yet to take action. We hope these brands begin to identify supplier environmental risk and establish green supply chain management mechanisms to transform their environmental commitments into substantive action.

This edition of the report also raises recommended solutions for a number of current supply chain difficulties, divided into those for government, brands, suppliers and consumers.

The report recommends that the NDRC, MIIT, Ministry of Housing and Urban-Rural Development (MOHURD), and the National Bureau of Statistics should study and learn from the information

disclosure system established by MEP. They should use this as a starting point to improve the policy infrastructure, helping to establish an environment for fair competition on the basis of environmental compliance and allowing market forces to effectively guide green supply chain construction.

As a solution for brands to improve supply chain transparency, the report reveals that IPE is currently developing an environmental map where brand logos will be displayed alongside online monitoring data for their affiliated suppliers. The report contends that the map will not only help the public understand the environmental performance of the production processes for brands' products, but at the same time will help brands to transparently and promptly address supply chain environmental risks.

In order to better serve green consumption, IPE has added a "Green Choice" module to version 3.0 of the Blue Map App, which shows dynamic updates about how brands are pushing suppliers to improve their environmental performance. The module makes it easy for consumers to understand this information and then share it through social media channels such as Weibo and WeChat.

Table of Contents

1. Introduction: Examining Green Supply Chain Policies

1.1. Multiple government agencies formulate and issue green supply chain policies

In November 2014, "green supply chain" was written into the agenda of the APEC Summit, opening up even greater policy space for multi-stakeholder participation and promoting green supply chain development. Follow a preparation period, relevant departments of the Chinese government have begun to formulate and issue policies and standards on this new topic.

At the start of 2016, the National People's Congress (NPC) passed the 13th National Five-Year Plan for Economic and Social Development (the 13th FYP). The plan explicitly proposes "accelerating the construction of a green supply chain production system" to improve the ecological environment.[3] Afterwards, the Ministry of Environmental Protection (MEP), the Ministry of Industry and Information Technology (MIIT), the National Development and Reform Commission (NDRC) and other ministries successively issued policies touching on such areas as green manufacturing and consumption, supply-side reforms and more efficient usage of energy and water resources.

(Image from China-ASEAN Environmental Cooperation Center.)

[3] http://www.china.com.cn/lianghui/news/2016-03/17/content_38053101.htm (Accessed September 2016)

- ***Ministry of Environmental Protection (MEP)***

In April 2016, the MEP published the Guiding Opinions Concerning Actively Implementing Supply-side Structural Reforms to Promote Environmental Protection. The Opinions connect green supply chain construction and structural reforms to production capacity, proposing that green procurement by the government and enterprises and green consumption by the public can lead to a green transformation of the entire supply chain and reduce pollution emissions. Meanwhile, eliminating surplus capacity that is highly-polluting and high energy-consuming, or lags behind technologically, will promote the green transformation and upgrading of production.[4]

Serving as an agency of environmental corporation and technical support for APEC,[5] *the China-ASEAN Environmental Cooperation Center has prompted cities such as Tianjin, Dongguan and Shanghai to launch green supply chain industry and city pilots. At the same time, through cooperation within e-commerce, environmental burdens from packaging and distribution processes have been reduced. The next essential step is the formulation and approval of green supply chain standards.*

- ***Ministry of Industry and Information Technology (MIIT)***

During the period of March to June, 2016, MIIT announced three policies to support the implementation of Made in China 2025: to practically "develop green supply chains; to accelerate the establishment of resource conservation and environmentally-friendly procurement, production, marketing, recycling and distribution systems; and to implement the system for extended producer responsibility."[6] *During the 13th FYP, the MIIT will focus on key leading industries such as the automobile, electronic appliance, communications and heavy equipment industries. Also, the MIIT will rely upon green supply chain standards and systems for extended producer responsibility to improve supply chain management during procurement, production, marketing, recycling and distribution.*[7][8][9]

- ***National Development and Reform Commission (NDRC)***

During February and April 2016, the NDRC launched administrative measures for energy efficiency labelling and for water efficiency leaders. The measures require the establishment of industry benchmarking to promote technological progress and innovation and improve water and energy use efficiency in supply chains.[10][11]

The policies above touch on many segments that make up green supply chains. The policy

[4] http://www.zhb.gov.cn/gkml/hbb/bwj/201604/t20160418_335246.htm (Accessed September 2016)
[5] http://chinaaseanenv.org/zhxx/zxyw/276004.shtml (Accessed September 2016)
[6] http://www.gov.cn/zhengce/content/2015-05/19/content_9784.htm (Accessed September 2016)
[7] http://www.miit.gov.cn/n1146290/n4388791/c4719303/content.html (Accessed September 2016)
[8] http://www.miit.gov.cn/n1146290/n4388791/c5215611/content.html (Accessed September 2016)
[9] http://www.miit.gov.cn/n1146285/n1146352/n3054355/n3057542/n3057545/c5142900/content.html (Accessed September 2016)
[10] http://www.sdpc.gov.cn/gzdt/201603/t20160308_792292.html (Accessed September 2016)
[11] http://www.mwr.gov.cn/slzx/ggdt/ggzx/201604/t20160427_740638.html (Accessed September 2016)

formulation process has mainly been independently carried out by each respective government agency, so how these policies will coordinate during the implementation process is yet to be seen. Despite this, the launching of these policies and standards will undoubtedly play an active role in encouraging each region and department to promote the central government's major policy of green supply chain construction.

1.2. Policy formulation should tap into the role of market mechanisms

During the process of drawing up green supply chain policies and setting standards, many government agencies and commissions collect and listen to the opinions of different sides. We agree with the view held by a number of stakeholders that the most effective way to create green supply chains is to tap into the guiding role of market mechanisms, including the driving role of leading industry brands; to use industry and third-party standards to form self-restraints; and to ensure credibility through societal supervision and third-party certification systems.

In our opinion, the most important role of the government is not to carry out micro-management through legislation and direct supervision of industries' green procurement. Rather, it is to improve the policy infrastructure as a means for helping establish an environment for fair competition on the basis of environmental compliance and allowing market forces to effectively guide green supply chain construction.

An integral component of policy infrastructure is information transparency. At the present stage, industry-related information is scattered across many government departments and agencies including environmental protection, development and reform, industry and information technology, commerce, science and technology, quality supervision, housing and urban-rural development, and statistics departments.

Of these government agencies, the MEP has the highest degree of information transparency. The pollution source supervision data that it publishes already serves a platform to screen suppliers for environmental violations. However, in other departments, such as those relating to development and reform, industry and information technology and housing and urban-rural development, there is a noticeable lack of information transparency and an urgent need for expansion. As Li Keqiang pointed out in March 2016, "At present, more than 80% of China's information and data resources are in the hands of government departments at all levels. Keeping all of these resources 'hidden away' is a great waste."[12][13] Efforts to push for the full disclosure of data and information on industrial pollution control, energy efficiency and carbon emissions, water efficiency and recycling should become an integral component of the government departments' formulation and implementation of green supply chain-related policies.

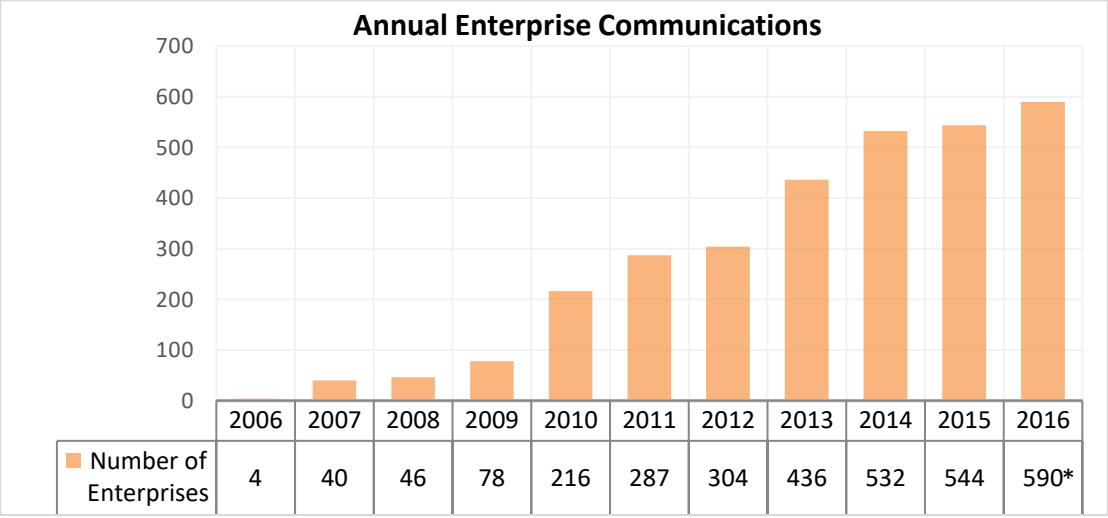
[12] http://english.gov.cn/premier/news/2016/03/16/content_281475308680108.htm (Accessed September 2016)
[13] http://news.xinhuanet.com/politics/2016-05/14/c_128982600.htm (Accessed September 2016)

2. Key Areas of Progress

In this round of the CITI evaluation, we see three key areas of progress in Chinese and international brands' efforts to establish green supply chains: 1) under encouragement from brands, an increasing number of suppliers are issuing public responses; 2) more brands are using publicly-available data to push suppliers toward environmental compliance; 3) for the first time, a group of Chinese brands have come together as an industry alliance to explore an innovative mechanism for greening the supply chain.

2.1. An increasing number of suppliers are providing public responses

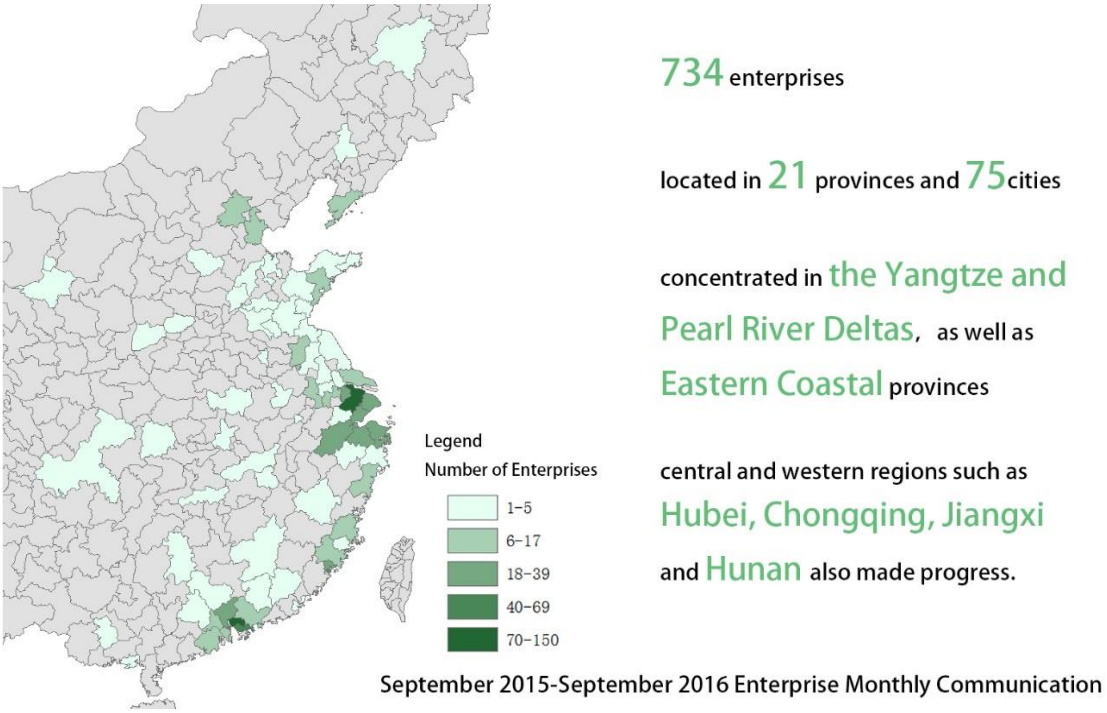
In the ten years since the Blue Map Database went live in September 2006 up through September 2016, a total of 2133 suppliers have contacted with environmental groups and communicated multiple times about their environmental violation records.



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of Enterprises	4	40	46	78	216	287	304	436	532	544	590*

* Statistics for 2016 are based on data up through September 30, 2016.

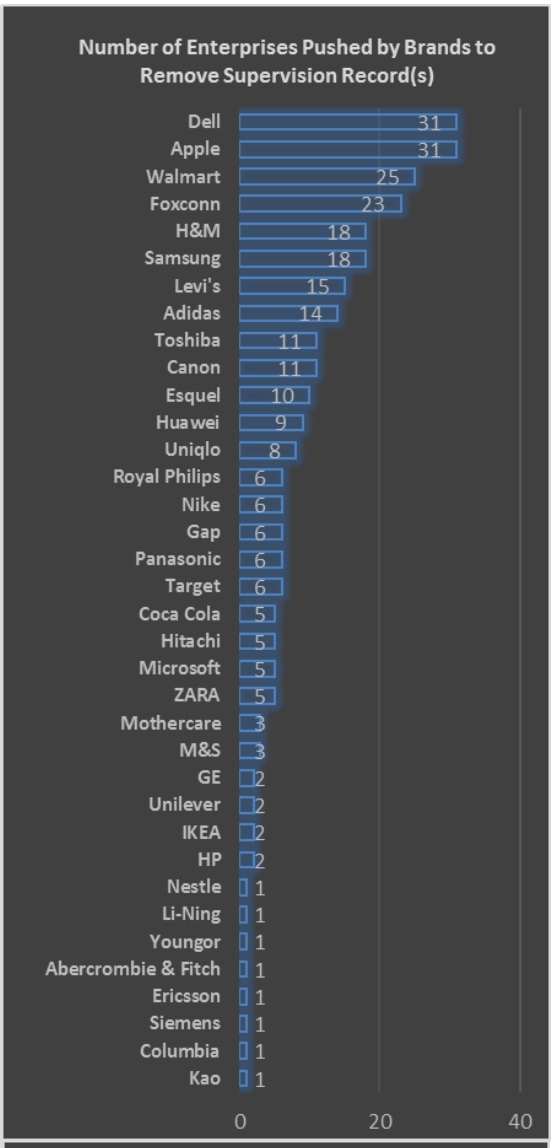
During the most recent period, in the year from October 2015 through September 2016, as many as 734 suppliers provided public responses, the highest annual figure in ten years.

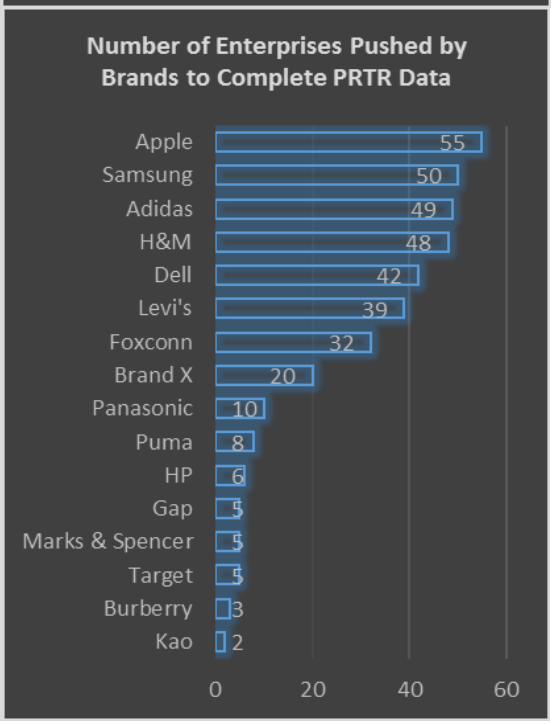


Together, these responses touch upon 1155 violation records in the Blue Map Database for enterprise emissions exceeding standards. During the year from October 2015 through September 2016, 50 brands and some undisclosed brands ("Brand X" in the below charts) pushed 734 suppliers to communicate with environmental groups. Of these suppliers, 272 carried out Green Choice Alliance (GCA) audits to remove 566 records from IPE's database. 216 enterprises have implemented corrective actions in response to 564 records, as well as publicly disclosed relevant information. These corrective actions are playing a positive role in protecting local air, water and soil.[14]

[14] Figures in the below charts total more than 734 because some enterprises supply to multiple brands.


Number of Enterprises Pushed by Brands to Contact IPE
Brand X 110
H&M 95
Apple 78
Walmart 72
Samsung 47
Esquel 43
Dell 42
Target 42
Foxconn 39
Mike 35
Adidas 29
Levi's 28
M&S 26
Huawei 25
Panasonic 24
Uniqlo 22
Toshiba 22
Canon 21
Gap 18
Royal Philips 15
ZARA 15
Coca Cola 14
Hitachi 13
Microsoft 10
Carrefour 8
HP 7
Unilever 6
Mothercare 6
Abercrombie & Fitch 6
IKEA 5
Li-Ning 5
Puma 5
Siemens 4
Mizuno 4
Pegatron 4
Esprit 4
GE 3
Vanke 2
Columbia 2
Ericsson 2
Benetton 1
Asics 1
Youngor 1
Oji Paper 1
Landsea 1
JACK & JONES 1
Kao 1
Mercedes-Benz 1
TCL 1
Clarks 1
Ann Taylor 1
0 50 100 150


Number of Enterprises Pushed by Brands to Remove Supervision Record(s)
Dell 31
Apple 31
Walmart 25
Foxconn 23
H&M 18
Samsung 18
Levi's 15
Adidas 14
Toshiba 11
Canon 11
Esquel 10
Huawei 9
Uniqlo 8
Royal Philips 6
Nike 6
Gap 6
Panasonic 6
Target 6
Coca Cola 5
Hitachi 5
Microsoft 5
ZARA 5
Mothercare 3
M&S 3
GE 2
Unilever 2
IKEA 2
HP 2
Nestle 1
Li-Ning 1
Youngor 1
Abercrombie & Fitch 1
Ericsson 1
Siemens 1
Columbia 1
Kao 1
0 20 40


Number of Enterprises Pushed by Brands to Complete PRTR Data
Apple 55
Samsung 50
Adidas 49
H&M 48
Dell 42
Levi's 39
Foxconn 32
Brand X 20
Panasonic 10
Puma 8
HP 6
Gap 5
Marks & Spencer 5
Target 5
Burberry 3
Kao 2
0 20 40 60

2.2. More brands are disclosing their relationships with suppliers

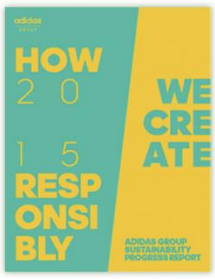
Over the years, IPE has been dedicated to the collection of public data and the establishment of the Blue Map Database in order to meet the growing needs of different parties in obtaining and using environmental information. And moreover, green supply chain theory precisely needs brands and stakeholders to work together and use progress in government disclosure of pollution supervision information to implement requirements for supply chain environmental compliance.

In this round of the CITI assessment, an increasing number of brands have started to take action toward greening their supply chains and are using the Blue Map Database to screen suppliers for environmental compliance. Brands identify which suppliers have existing environmental supervision records and then require them to issue public explanations about their environmental violations.

Several brands mention in their annual corporate social responsibility (CSR) reports or supplier social responsibility management documents that they use the Blue Map Database to screen suppliers for environmental compliance and raise requirements for problem suppliers to provide clarification of corrective actions.

"Apple also assesses a supplier's environmental risks through surveys and by partnering with NGOs and groups like IPE. IPE maintains an air and water pollution database to hold corporations in China accountable for environmental violations."

《Apple Supplier Responsibility 2015 Progress Report》

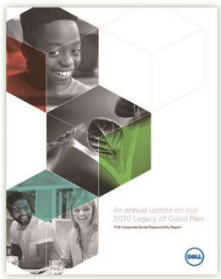


"Over the past few years, we have been working closely with the Institute of Public and Environmental Affairs (IPE), the Beijing-based non-governmental organization which supports our efforts to improve the monitoring of our supply chain performance in China. "

《Adidas Group Sustainability Progress Report 2015》

"We cross-referenced our first tier and sub-tier production supplier lists with IPE's database to identify 28 supplier facilities that have environmental violations. We then partnered with IPE and those suppliers to remediate their violations."

《Dell 2015 Corporate Social Responsibility Report》



"In 2015, Samsung China screened over 1200 suppliers on IPE's database. Samsung China verified 35 envrionmental supervision records and followed up by pushing enterprises to issue explanations and carry out corrective actions to address their superivsion records."

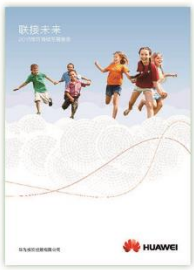
《2015 Samsung China Environmental Report》

SAMSUNG

"In 2014, we began using IPE's Ferret software to regularly investigate 465 suppliers environmental performance and urge them to improve management. We have required low-performing suppliers to solve their issues , and have regularly provided improvement progress to IPE."

HUAWEI

《Huawei 2015 Sustaianability Report》



"Hitachi uses the database established by the environmental NGO IPE to screen suppliers. Over the course of CSR audits we also introduce suppliers to their status , and at the same time require suppliers to strengthen their compliance management."

《Hitachi China Group Sustainability Report 2014.4-2015.3》

HITACHI
Inspire the Next

"Canon (China) uses the database provided by the China-based, non-governmental organization IPE, to compare the supervision records from environmental protection departments across the country in order to confirm whether suppliers have environmental violations."

Canon 《Canon (China) CSR Report 2015-2016》

The above brands have already made environmental compliance an integral component of supplier management and are fulfilling their social responsibility. Through their ample use of government-published environmental information, they are conducting effective management of their suppliers' environmental compliance status. Apart from screening for supplier environmental compliance via the Blue Map Database, these brands also actively and regularly communicate with stakeholders to follow up on the status of their suppliers' corrective actions.

2.3. For the first time, Chinese brands are cooperating as an industry to put joint pressure on suppliers

Beginning in June 2016, the China Urban Realty Association (CURA), the Society of Entrepreneurs & Ecology (SEE) and the China Real Estate Chamber of Commerce (CRECC) joined forces with Landsea and Vanke to launch the "Real Estate Green Supply Chain Initiative." The initiative aims to use the formulation of industry green procurement standards as a means of environmental management towards different types of suppliers.

The initiative, which was jointly launched by Chinese real estate industry organizations, environmental groups and Chinese property developers, is the first time that a group of Chinese companies are working together as an industry to act on supply chain environmental management. This alliance has also been called "a global first" by the United Nations Environment Programme (UNEP).

In the initiative, a "green choice" supply chain management system will be applied to the procurement of two industrial goods, steel and cement. Under the impetus of leading companies Landsea and Vanke, in August 2016, 16 Chinese property developers put together a list of hundreds of steel and cement suppliers and supplied it to IPE in order to compare it with the enterprise emissions violation records entered into the Blue Map Database.

This "Real Estate Green Supply Chain Initiative" by Chinese companies exhibits many highlights worth noting:

- Via a collaborative network, and as a result of the sense of environmental responsibility by influential key leading enterprises in the industry, a group of real estate brands have been motivated to work together. Such cooperation effectively confronts such challenges as the limited motivational power of enterprises acting alone and the common industry-wide problem of a lack of effective communication;

- Through effective communication and cooperation with managing contractors, property developers are able to avoid the time and communication costs of chasing down suppliers to push them, and can directly push and manage heavily polluting enterprises upstream in their supply chains;
- They have set a goal of forming a public "white list." Real estate companies participating in the green supply chain initiative are required to prioritize purchasing from suppliers on the white list. This prioritization may thereby form a kind of industry procurement pressure, which will hopefully influence heavily polluting suppliers into improving their environmental performance.

The steel and cement industries account for a considerable proportion of pollution discharge. Since the real estate industry purchases these two goods on a massive scale, this push from the real estate industry has incredible emissions reduction potential. Results from preliminary comparisons of enterprises show that a considerable proportion of steel and cement suppliers have existing negative environmental records. Among these, more than one quarter of steel suppliers have been classified as "high environmental risk."

The Real Estate Green Supply Chain Initiative's push toward steel and cement enterprises will not only strengthen local pollution and smog control but will also assist in promoting energy efficiency, thereby forming the potential for reducing greenhouse gas emissions in the following ways:

- *Eliminate production capacity that lags behind.* Large numbers of the environmental violation records of steel suppliers involve emissions exceeding standards or not gaining official approval prior to starting construction projects, indicating that an enterprise's technical equipment and environmental management are falling behind and unable to effectively control emissions discharge, to the point that there is no means of obtaining environmental departments' approval to launch a project. Property developers' refusal to do business with these enterprises acts as a procurement target and accelerates the pace at which outdated capacity is eliminated, simultaneously dispelling these enterprises' carbon emissions.
- *Promote structural change in energy usage and energy efficiency.* Electric power plants owned and operated by steel enterprises are a high energy-consuming component within steel production. Screenings found existing violation records for exceeding standards for real estate steel suppliers' thermoelectric power plants. Pushing these thermoelectric power plants to improve their energy usage structure, or to take power directly from the external grid, can make their electric energy consumption cleaner and more low-carbon.
- *Promote upgrades to equipment and facilities.* To improve energy efficiency and thereby achieve carbon emissions targets, property developers are using green supply chain funds, green supply chain credit loans and other financial and credit mechanisms to help steel suppliers purchase and upgrade to energy-saving equipment such as frequency converters for fans and low-heat, coal gas turbines (combined cycle cogeneration power, or CCPP).

In pushing for lawful compliance, the next step in the real estate companies' plan requires that steel and cement suppliers meet energy-efficiency standards and begin energy-saving emissions reductions, to achieve cooperative control of local pollution and greenhouse gas emissions.

Data from the Netherlands Environmental Assessment Agency and the EU Commission's Joint Research Center shows that in 2014, China's carbon emissions totaled approximately 10.7 billion tons, accounting for around 30% of global carbon emissions.[15] The steel industry accounts for around 12% of China's total carbon emissions, [16] emitting around 1.284 billion tons of carbon. Cement accounts for about 10% of China's total carbon emissions, [17] giving off around 1 billion tons of carbon in China. As a result, the first round of this real estate green supply chain initiative focuses on China's steel and cement industries, which together account for around 6.4% of total carbon emissions worldwide.

The industry's massive carbon emissions, coupled with energy efficiency improvements that have not yet been realized, signify that there is huge potential for the industry to significantly reduce emissions. The real estate green supply chain initiative is there for worthy of attention both at home in China and around the world, because if this plan can be properly executed, then the industries' green supply chain actions may become an important method to implement the climate-change Paris Agreement – in China and even on a global scale.

[15] Olivier JGJ et al., "Trends in Global CO_2 Emissions: 2015 Report." The Hague: PBL Netherlands Environmental Assessment Agency; Ispra: European Commissions, Joint Research Centre. For further details see: http://edgar.jrc.ec.europa.eu/news_docs/jrc-2015-trends-in-global-co2-emissions-2015-report-98184.pdf

[16] Liu Hongqiang, Fu Jianxun, Liu Siyu, et al., "Method and Practice to Measure CO_2 Emissions in Steel Production Processes" (钢铁生产过程二氧化碳排放计算方法与实践) [J], *Steel (钢铁)*, 2016, 51(4):74-82.

[17] Liu, Zhu, China's Carbon Emissions Report 2015. For further details see: http://belfercenter.ksg.harvard.edu/publication/25417/chinas_carbon_emissions_report_2015.html

3. Critical Gaps

In this round of the evaluation, we also find three critical gaps in brands' green supply chain development in China: 1) a number of brands with lofty commitments lack substantive action; 2) in many industries, only a few brands are taking action, so efforts are clearly insufficient and lack real progress; and 3) responsible wastewater treatment urgently awaits a breakthrough.

3.1. A number of brands with lofty commitments lack substantive action

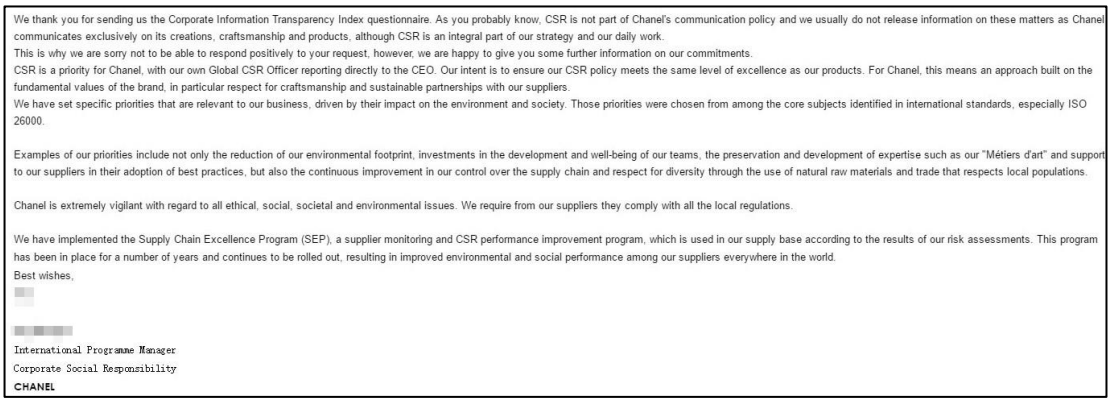
It wasn't until "environmentally-friendly" and "low-carbon" became targets sought after by consumers that brands began to eagerly issue their own environmental commitments. However, observers remain concerned that some environmental promises are just lip service and that in reality, brands are "greenwashers."

When brands make commitments requesting that their suppliers abide by environmental laws and regulations, but then refuse to use the Blue Map Database to compare their supplier lists with government-issued environmental supervision records to check for enterprise violation records at their suppliers, these brands' green commitments are difficult to justify.

In this year's investigation, many brands with lofty commitments fell into this web of contradictions.

Chanel, in response to a message from environmental groups, said: "CSR is a priority for Chanel […] examples of our priorities include not only the reduction of our environmental footprint […] but also the continuous improvement in our control over the supply chain […] Chanel is extremely vigilant with regard to all […] environmental issues. We require from our suppliers they comply with all the local regulations."[18]

On the other hand, Chanel stated, "CSR is not part of Chanel's communication policy and we usually do not release information on these matters," and refused to respond to environmental groups about suppliers' pollution issues.



We thank you for sending us the Corporate Information Transparency Index questionnaire. As you probably know, CSR is not part of Chanel's communication policy and we usually do not release information on these matters as Chanel communicates exclusively on its creations, craftsmanship and products, although CSR is an integral part of our strategy and our daily work.
This is why we are sorry not to be able to respond positively to your request, however, we are happy to give you some further information on our commitments.
CSR is a priority for Chanel, with our own Global CSR Officer reporting directly to the CEO. Our intent is to ensure our CSR policy meets the same level of excellence as our products. For Chanel, this means an approach built on the fundamental values of the brand, in particular respect for craftsmanship and sustainable partnerships with our suppliers.
We have set specific priorities that are relevant to our business, driven by their impact on the environment and society. Those priorities were chosen from among the core subjects identified in international standards, especially ISO 26000.

Examples of our priorities include not only the reduction of our environmental footprint, investments in the development and well-being of our teams, the preservation and development of expertise such as our "Métiers d'art" and support to our suppliers in their adoption of best practices, but also the continuous improvement in our control over the supply chain and respect for diversity through the use of natural raw materials and trade that respects local populations.

Chanel is extremely vigilant with regard to all ethical, social, societal and environmental issues. We require from our suppliers they comply with all the local regulations.

We have implemented the Supply Chain Excellence Program (SEP), a supplier monitoring and CSR performance improvement program, which is used in our supply base according to the results of our risk assessments. This program has been in place for a number of years and continues to be rolled out, resulting in improved environmental and social performance among our suppliers everywhere in the world.
Best wishes,

International Programme Manager
Corporate Social Responsibility
CHANEL

(Screenshot of a portion of Chanel's e-mail response to IPE.)

18 From email correspondence with IPE.

(McDonald's procurement policy. Image from McDonald's official website.)

McDonald's states on its website that its "journey toward sustainable sourcing begins with our direct suppliers and extends to a complex network of indirect suppliers […] the Company works with its direct suppliers who are committed to doing business responsibly in their own supply chains.[19] It also says, "Suppliers are responsible for managing, measuring and minimizing the environmental impact of their facilities. Specific focus areas include air emissions, water use and disposal and greenhouse gas emissions".[20]

As early as May 2015, environmental groups wrote a letter to McDonald's informing the company that its supplier Shanghai East Balt Bread Co., Ltd. had been punished by the environmental protection bureau of Jiading district in Shanghai because of its wastewater discharge exceeding the legal limit,[21] and that another supplier, Keystone Foods Co., Ltd., discharged wastewater containing oil directly into the network of municipal pipes,[22] as well as exceeded standards for soot emissions.[23] However, up through the writing of this report, McDonald's has yet to issue any explanation toward these two suppliers' illegal air emissions and wastewater discharge, going against its commitment to "minimizing the environmental impact of its suppliers." In addition, in McDonald's publicly disclosed supplier list, we did not see any livestock processing enterprises upstream of meat, egg and dairy suppliers. These industries' facilities are exactly the "second tier suppliers" that the brand mentions, and are the most highly polluting segment of food industry supply chains[24] – not to mention sugar, food additives and other raw ingredients suppliers.

[19] http://corporate.mcdonalds.com/content/mcd/sustainability/sourcing.html (Accessed September 2016)
[20] http://corporate.mcdonalds.com/content/dam/AboutMcDonalds/Sustainability/Library/Supplier_Code_of_Conduct.pdf (Accessed September 2016)
[21] http://www.ipe.org.cn/pollution/com_detail.aspx?id=75852
[22] http://www.ipe.org.cn/pollution/com_detail.aspx?id=102234
[23] http://www.ipe.org.cn/pollution/com_detail.aspx?id=79385
[24] The first CITI report, "Greening the Global Supply Chain: CITI Index and the Initial Assessment of 147 Brands," conducted an analysis of the environmental changes of the food and beverage industry. http://www.ipe.org.cn/about/newnotice_de_1.aspx?id=1763 (Accessed September 2016)

Toyota's

"Environmental Challenge 2050" raises the goal to "reduce negative factors associated with automobiles as close to zero as possible."[25]

(Toyota's Environmental Challenge 2050. Image from Toyota's Official Website.)

In July 2016, environmental groups discovered that the excessive air emissions of Kunshan Liufeng Machinery Industry Co., Ltd., a suspected supplier to Toyota, had been the subject of multiple complaints of nearby residents. The groups conducted an on-site investigation, and wrote a letter to Toyota Motor (China) Investment Co., Ltd. (hereafter referred to as Toyota China) informing it of the enterprise's environmental supervision record.[26]

When Toyota China did not respond, environmental groups continued to investigate pollution in Toyota China's supply chain. They discovered that several of Toyota Group's car-part manufacturers also have existing environmental violation records, and that one of the brand's suspected wheel hub suppliers had been subject to punishment by environmental protection authorities for its improper storage and treatment of industrial solid waste and hazardous waste.[27] The groups again wrote a letter to inform Toyota China.

This time, Toyota China issued an explanation and response[28] toward some pollution inquiries. Environmental groups are currently further checking with the brand about environmental violation problems at its suppliers in China.

Apart from Chanel, McDonald's and Toyota, such brands as Proctor & Gamble, Victoria's Secret, Samsonite, Xiaomi, Modern Farming, Calvin Klein, LG, Guess, Mars, Haier and BYD also have yet to conduct effective follow-up toward their suppliers' pollution problems.

In this area, ASICS and Disney showed a positive transformation during the evaluation period. Their turnaround deserves attention from brands that have lofty environmental commitments but lack substantive action, who can learn from their example.

After environmental groups discovered pollution problems at its suspected suppliers and published

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[25] http://www.toyota-global.com/sustainability/features/environment/ (Accessed September 2016)

[26] For further details see "Toyota Motor Supply Chain Pollution Investigation 1: Toyota's Supplier's Air Emissions Continually Disturb Residents." http://114.215.104.68:89/Upload/20161017021105734 4.pdf (Accessed September 2016)

[27] For further details see "Toyota Motor Supply Chain Pollution Investigation 2: Toyota Breaks the Silence, More Pollution Issues Await Follow-up." http://www.ipe.org.cn/about/newnotice_de_1.aspx?id=18715 (Accessed October 2016)

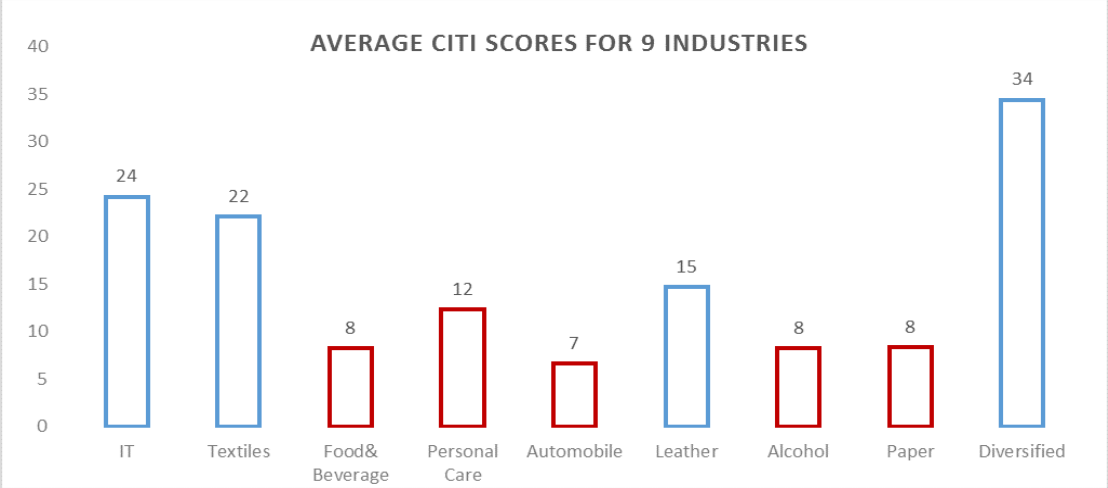
[28] Email correspondence from Toyota (China) to environmental groups on November 18, 2016, regarding the status of Kunshan Liufeng Machinery Industry Co., Ltd.

relevant information, **Asics** positively responded. In addition to proceeding to work with a third-party auditing agency to conduct on-site investigations into the factories with environmental violations, the brand pushed suppliers to communicate with Lvse Jiangnan about how they could reduce their environmental impacts. ASICS also began using the Blue Map Database to comprehensively screen its suppliers in China, and pushed one factory with an existing environmental supervision record to implement corrective measures.

When similarly faced with environmental groups' questions about polluting suppliers discovered during investigations, after several rounds of communication, **Disney** shifted from its previous passive stance. The brand started formulating a plan, and is preparing to begin screening a portion of its suppliers for environmental compliance.

3.2. In many industries, only a few brands are taking action, so efforts are clearly insufficient and lack real progress

The CITI assessment involves nine industry sectors. Looking at the average performance of industries as a whole, the average score of the automobile industry is the lowest. The overall environmental performance of the food and beverage, household and personal care, alcohol and paper industries is also barely satisfactory.



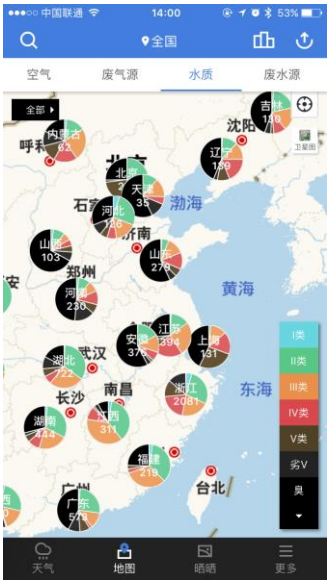
By comparison, the IT, textiles and diversified industries have risen above other industries: IT brands Apple, Dell, Panasonic, Samsung, Huawei, Foxconn, HP, Microsoft, and Canon; textile brands Adidas, Levi's, M&S, Target, Gap, Walmart, ZARA, H&M, Puma and Esquel; and diversified brands Hitachi and Royal Philips are all working together to green their respective industry supply chains. In those industries with comparatively poor performance, oftentimes only one or two brands are leaders.

Based on this situation, the majority of other brands are frequently willing to remain silent. Leading brands remain alone in their respective industries, which lack competition to drive further

improvements. Taking the household and personal care industry as an example, although Kao and Unilever have consistently made progress, L'Oréal and other brands still have yet to begin identifying supplier environmental risk. Proctor & Gamble, which holds a comparatively large industry share, continues to ignore environmental groups' questions toward its supply chain pollution. The poor performance of these multinationals makes it difficult to form a coalition of industry leaders and causes a lack of onward force to propel green supply chains forward.

3.3. Responsible wastewater treatment urgently awaits a breakthrough

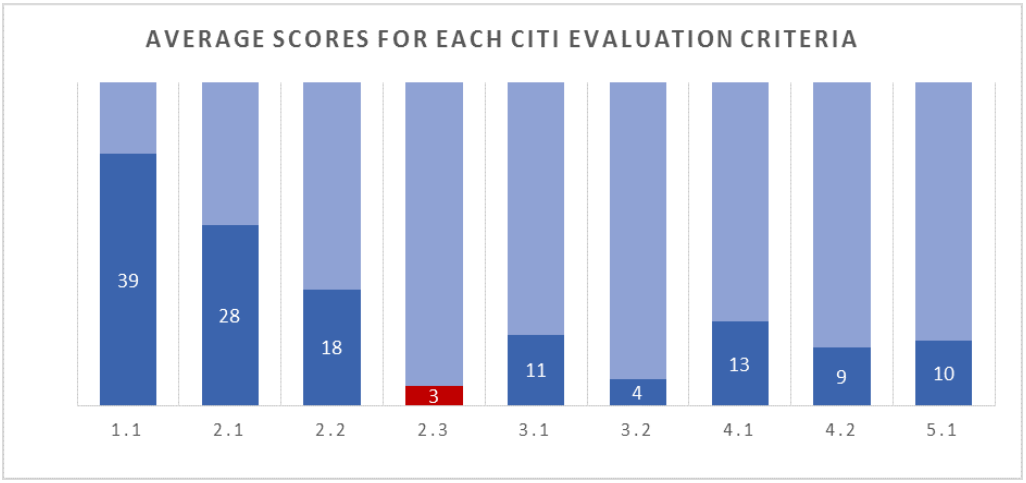
Water pollution is one of the most severe environmental challenges that China is facing, especially in highly populated, economically developed eastern coastal areas. Moreover, the industries evaluated on the CITI index all touch upon water pollution discharge, of which the wastewater management stress of the textiles, food and beverage, paper, leather and IT industries is especially prominent. The wastewater discharge of the textile, paper and food and beverage industries is especially concentrated in eastern coastal regions.



(Screenshot of the Blue Map app's interface for water quality.)

In this edition of the evaluation, seven brands – Apple, Adidas, Levi's, Walmart, Gap, Samsung and ZARA – have pushed key suppliers for environmental management to disclose the names of the centralized wastewater treatment facilities that they discharge into, as well as the locally agreed-upon standards for indirect wastewater discharge (such as the factory's pretreatment standard). Their progress deserves ample recognition.

Still, responsible wastewater treatment is a weak point of green supply chain management. As many as 191 brands have not yet taken action to follow up on the loophole brought about by centralized treatment of their suppliers' wastewater. This situation has caused the scores for "responsible wastewater management" to remain the lowest among the nine assessment areas in this edition of the evaluation.



4. CITI Top 30

01 (rank) +8 80 (score)	02 +7 73	03 +22 +30.5 68.5	04 +8 67	05 +12 64.5
06 +13 +20 62.5	07 -1 +10 62	08 +18 +25.5 61.5	09 +3 +11.5 60.5	10 -3 +5 56.5
11 +10 +16 56	12 +5 +11 54.5	13 -1 +4.5 53.5	14 +1 +7 52.5	15 -12 -9.5 50
16 +1 +5 48.5	17 -10 -3.5 48	17 -3 48	19 -10 -3.5 47	20 -10 -3 46.5
21 -1 +3 43.5	21 +5 +7.5 43.5	23 -7 -1.5 42.5	24 -14 -8 41.5	25 +4 +5.5 41
25 +7 +7.5 41	27 +4 +3.5 38	28 -2 +1.5 37.5	29 +12 +15 37	30 +28 +24 36

Brands that interacted with consumers via official Weibo accounts

This year's report marks the first release of a CITI "Top 30."

Entering into the Top 30 signifies that a brand has veritably developed green procurement and that the environmental performance of the brand's supply chain in China stands at the forefront worldwide.

The CITI Top 30 deserve recognition from multiple stakeholders:

- Brands: In devoting efforts to greening their supply chains, the Top 30 brands should be taken as a benchmark;
- Consumers: Those that wish to make green consumption decisions can prioritize buying the products of Top 30 brands;
- Investors: In focusing on responsible investment, financial institutions can place confidence in the environmental performance of Top 30 brands;
- Government: In promoting the improvement of environmental quality, government departments can encourage and support the emissions reduction efforts of Top 30 brands.

In this year's Top 30, Apple becomes the first brand to break through the 80-point threshold, coming in at the top of the CITI rankings for the third year in a row.

Adidas, Dell, Levi's, and M&S follow closely behind, respectively filling out the top five positions.

The brands with the most improved scores are Dell, Gap, and Carrefour, with their scores all increasing more than 20 points. They are also the brands whose rankings improved the most, with Carrefour jumping 28 places, Dell increasing 22 spots, and Gap rising 18 places.

At the same time, M&S and Esquel have a green and white cloud icon affixed to the upper right corner of their logos on the above chart. This icon signifies that these brands positively interacted through their official Weibo accounts with environmental groups and consumers concerned about these brands' supply chain performance.

5. CITI Top 100

Rank	Logo	Brand	Industry	CITI Score	Change in Score	Change in Rank
1		Apple	IT	80	+8	-
2		Adidas	Textiles/Leather	73	+7	-
3		Dell	IT	68.5	+30.5	+22
4		Levi's	Textiles	67	+8	-
5		Marks & Spencer	Textiles	64.5	+12	-
6		Target	Textiles	62.5	+20	+13
7		Panasonic	IT	62	+10	-1
8		Gap	Textiles	61.5	+25.5	+18
9		Samsung	IT	60.5	+11.5	+3
10		Walmart	Textiles	56.5	+5	-3
11		ZARA	Textiles	56	+16	+10
12		Huawei	IT	54.5	+11	+5
13		Foxconn	IT	53.5	+4.5	-1
14		Kao	Personal Care	52.5	+7	+1

Rank	Logo	Brand	Industry	CITI Score	Change in Score	Change in Rank
15		H&M	Textiles	50	-9.5	-12
16		Puma	Textiles/Leather	48.5	+5	+1
17		Esquel	Textiles	48	-3.5	-10
17		HP	IT	48	-	-3
19		Microsoft	IT	47	-3.5	-10
20		Hitachi	Diversified	46.5	-3	-10
21		Canon	IT	43.5	+3	-1
21		IKEA	Textiles	43.5	+7.5	+5
23		Uniqlo	Textiles	42.5	-1.5	-7
24		Nike	Textiles/Leather	41.5	-8	-14
25		Coca Cola	Food & Beverage	41	+5.5	+4
25		Royal Philips	Diversified	41	+7.5	+7
27		Unilever	Personal Care Food & Beverage	38	+3.5	+4
28		C&A	Textiles	37.5	+1.5	-2

Rank	Logo	Brand	Industry	CITI Score	Change in Score	Change in Rank
29		Jack & Jones	Textiles	37	+15	+12
30		Carrefour	Textiles	36	+24	+28
31		Columbia	Textiles/Leather	35	+26	+47
32		Mizuno	Textiles/Leather	34	+6	+4
33		ASICS	Leather	31	New	New
34		GE	Diversified	30.5	-9	-12
35		Toshiba	Diversified	30	+3.5	+1
35		Oji Paper	Paper	30	-5	-5
37		Mothercare	Textiles	28.5	New	New
38		TCL	IT	28	+22	+56
39		Timberland	Textiles/Leather	27.5	+6.5	+3
39		The North Face	Textiles/Leather	27.5	+15.5	+19
39		Lee Jeans	Textiles	27.5	+15.5	+19
42		Ann Taylor	Textiles	25.5	+3	-2

Rank	Logo	Brand	Industry	CITI Score	Change in Score	Change in Rank
43		Cisco	IT	25	+6.5	+3
44		Lindex	Textiles	25	New	New
45		Nokia	IT	24.5	+5.5	-2
45		Tesco	Textiles	24.5	+18.5	+49
45		Burberry	Textiles/Leather	24.5	-14.5	-21
48		Siemens	Diversified	24	-15.5	-26
49		Lenovo	IT	22.5	+10.5	+9
50		Ericsson	IT	22	+7	+4
50		Esprit	Textiles	22	-7	-17
52		Intel	IT	21	+12	+26
53		Sharp	IT	20	-3	-14
53		APP	Paper	20	+3	-5
55		Primark	Textiles	19	-6.5	-17
56		Mercedes-Benz	Automobile	17.5	+6.5	+12

Rank	Logo	Brand	Industry	CITI Score	Change in Score	Change in Rank
57		BMW	Automobile	17	+5	+1
57		Danone	Food & Beverage	17	+5	+1
57		Pepsi	Food & Beverage	17	+6.5	+16
60		Abercrombie & Fitch	Textiles	16.5	+13.5	+49
61		Youngor	Textiles	16	+0.5	-9
61		Tommy Hilfiger	Textiles	16	-	-11
61		Li-Ning	Textiles/Leather	16	-13	-28
61		Clarks	Leather	16	13	+48
61		Benetton	Textiles	16	+7	+17
66		G-Star	Textiles	15.5	-	-14
66		Sony	IT	15.5	+3	-9
66		New Balance	Leather	15.5	New	New
69		Tsingtao	Alchohol	15	+3	-11
70		HUGO BOSS	Textiles	14	+14	+66

Rank	Logo	Brand	Industry	CITI Score	Change in Score	Change in Rank
71		Budweiser	Alchohol	13.5	+2.5	-3
72		Nine West	Leather	12.5	-6.5	-29
72		Toread	Textiles/Leather	12.5	-3.5	-22
72		Dachan	Food & Beverage	12.5	+3	+2
75		Burger King	Food & Beverage	12	New	New
75		Disney	Textiles/Leather	12	+3	+3
75		Kmart	Textiles	12	+9	+34
75		UGG	Leather	12	New	New
79		KFC	Food & Beverage	11.5	+9	+48
79		ZTE	IT	11.5	+2.5	-1
79		Stora Enso	Paper	11.5	-6	-32
79		SCA	Paper	11.5	-5.5	-31
79		Vodafone	IT	11.5	-	-14
79		BT	IT	11.5	-	-14

Rank	Logo	Brand	Industry	CITI Score	Change in Score	Change in Rank
79	L'ORÉAL	L'Oréal	Personal Care	11.5	+3	+10
79	Nestlé	Nestlé	Food & Beverage	11.5	+2.5	+10
79	Johnson&Johnson	Johnson&Johnson	Personal Care	11.5	+3	+10
79	P&G	P&G	Personal Care	11.5	-3.5	-25
89	EPSON	Seiko Epson	IT	11	-	-21
90	哈尔滨啤酒 HARBIN BEER	Harbin Beer	Alcohol	11	-	-22
91	Ford	Ford	Automobile	10.5	-3	-35
91	HONDA	Honda	Automobile	10.5	-1	-26
91	GM	GM	Automobile	10.5	+5	+11
91	TOYOTA	TOYOTA	Automobile	10.5	-18	-56
95	Asahi 朝日啤酒	Asahi	Alcohol	9.5	-	-21
95	liby立白	Liby	Personal Care	9.5	-	-21
95	VICTORIA'S SECRET	Victoria's Secret	Textiles	9.5	+9.5	+41
98	GUESS	Guess	Textiles	9	+9	+38
98	htc	HTC	IT	9	-	-20
98	LG	LG	IT	9	-	-20

Entering into the CITI Top 100 signifies that a brand has begun taking actions to manage the environmental impacts of its suppliers in China. The scores and ranking positions reflect differences in the degree of brands' actions. The names of brands that did not make it into the Top 100 can be seen below in the "rankings by industry" section.

6. Analysis of Evaluation Criteria

■ Public Accountability

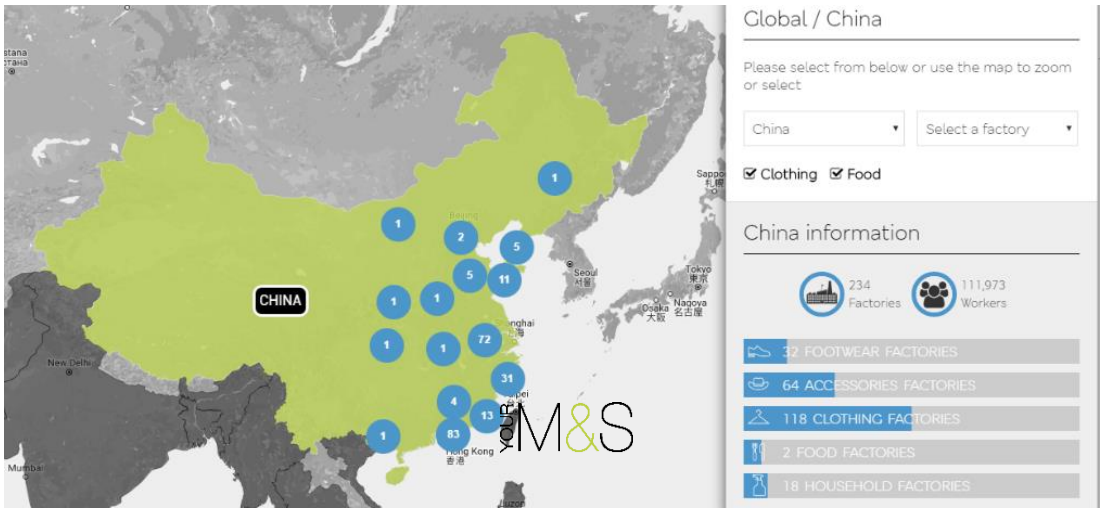
Basic Standard

Section 1.1 aims to push brands to improve their environmental accountability, respond to stakeholders' questions about pollution from their supply chains and production, investigate the cause of suppliers' environmental violation records, and follow up on suppliers' adoption of corrective measures in order to alleviate environmental impacts.

Progress and Gaps

During this round of the evaluation, many brands disclosed their global supplier lists for the first time:

In June 2016, M&S published a list of 690 suppliers for the first time in the form of an interactive map[29] that includes 234 apparel and food factories located in China.



(Map of M&S's suppliers. Image from official website of M&S.)

In July 2016, ZARA's parent company Inditex published a global list of 404 of its wet processing mills,[30] including 81 dyeing and finishing and washing factories in China.

[29] http://interactivemap.marksandspencer.com/#map-canvas (Captured in September 2016)
[30] http://www.wateractionplan.com/documents/186210/199857/6.1.INDITEX+SUPPLY+CHAIN_WET_PROCESS_v1May2016.pdf/90f1e765-5ca2-4cc3-9215-88e0f1cc12a4 (Captured in September 2016)

INDITEX

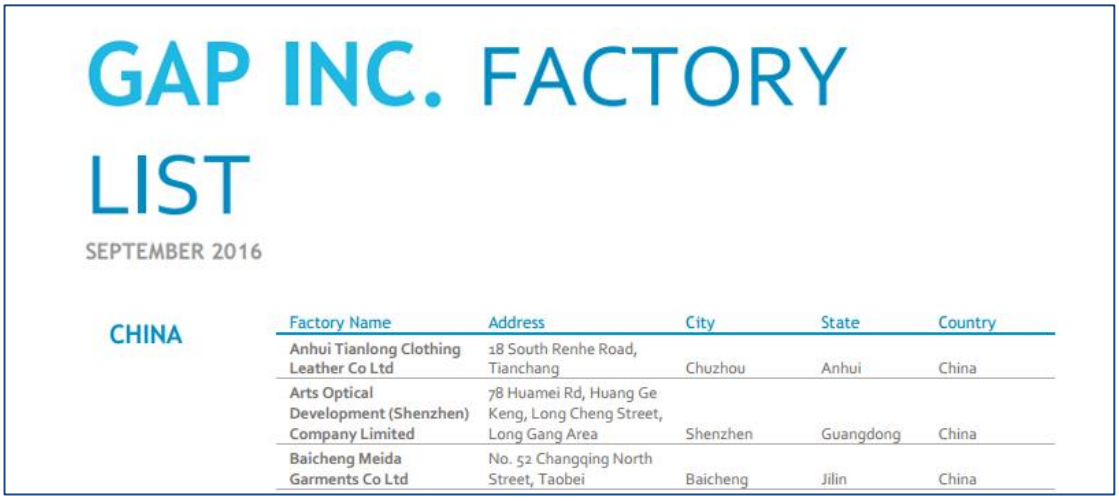
INDITEX SUPPLY CHAIN:

WET PROCESSING UNITS LIST

FACTORY	COUNTRY	ADDRESS
SHANDONG WEILIAN PRINTING AND DEYING MILL	CHINA	NO. 34 QIDONG ROAD, WEIQI ,ZOUPING, CHINA
SHANGHAI BANSHENG GARMENT RINSE CO., LTD.	CHINA	PUWEI ROAD NO. 7998
SHANGHAI CHENGYUAN GARMENT WASHING FACTORY	CHINA	NO.208, BEIWU ROAD, MINHANG DISTRICT, SHANGHAI CITY, CHINA
SHANGHAI SHUN YING GARMENT FINISHING CO., LTD.	CHINA	NO. 1408, XIN DA ROAD, QING PU DISTRICT
SHANGHAI ZHANCHANG GARMENTS FINISHING CO.,LTD	CHINA	NO.1580, XINBIN ROAD, MAO 1580,SONGJIANG, CHINA
SHAOGUAN SHUNCHANG WEAVING FACTORY LTD	CHINA	D3 DIST QUJIANG ECONOM D ,SHAOGUAN, CHINA
SHAOXING JIECAIFANG PRINTING & DYEING CO., LTD	CHINA	NO. 116 SHANYIN WEST ROAD ,SHAOXING, CHINA
SUN TZE PRINTING COMPANY(DONGGUAN)LIMITED	CHINA	WENMING ROAD 11 ALLEY, NO 3,DONGGUAN, CHINA
SUZHOU NANHUA TEXTILE REORGANIZATION TECHNICAL CO.,LTD	CHINA	TONGLUOYANMU DEVELOPMENT ,WUJIANG, CHINA
SUZHOU SILK PRINTING AND DYEING CO., LTD	CHINA	NO.8, FENGBEIDANG ROAD ,SUZHOU, CHINA

(Image from official website of Inditex.)

In September 2016, Gap Inc. published a list of 891 factories located in 30 countries worldwide.[31] The list includes 239 facilities in China including clothing manufacturers, washing mills, printing mills, and embroiderers, and will be updated at least twice a year.



GAP INC. FACTORY LIST

SEPTEMBER 2016

CHINA

Factory Name	Address	City	State	Country
Anhui Tianlong Clothing Leather Co Ltd	18 South Renhe Road, Tianchang	Chuzhou	Anhui	China
Arts Optical Development (Shenzhen) Company Limited	78 Huamei Rd, Huang Ge Keng, Long Cheng Street, Long Gang Area	Shenzhen	Guangdong	China
Baicheng Meida Garments Co Ltd	No. 52 Changqing North Street, Taobei	Baicheng	Jilin	China

(Image from the official website of Gap Inc.)

The number of brands disclosing supplier lists has grown from nine in last year's evaluation to 28 brands,[32] gradually becoming a trend in supply chain management for the textiles, leather, IT and food and beverage industries.

Apple Adidas H&M Levi's Nike HP Puma Dell Timberland

M&S ZARA Target Gap C&A North Face Lindex Esprit Columbia

[31] http://www.gapincsustainability.com/sites/default/files/Gap%20Inc%20Factory%20List.pdf (Captured in September 2016)

[32] Of these, Kmart only publishes suppliers to Kmart Australia, and Dico's only publishes suppliers to Dico's Shanghai.

Kmart | Intel | McDonald's | Lee | UGG | Disney | KFC | Burger King[33] | Dico's | New Balance

Brands that Disclose Supplier Lists and Relevant Links[34]

It is necessary to explain that although the CITI standard only requires standard publication of supplier lists, this does not necessarily mean that we require brands to disclose all of those enterprises with which they have a relationship. Rather, we hope that over the course of discerning the segments of their supply chains where environmental impacts are greatest, brands place a focus on publishing the names of those suppliers that are involved in these segments. **By publishing a list of 404 of its global wet processing facilities, ZARA has done a relatively exemplary job of satisfying the requirements of the current CITI standard.**

There are still 67 brands scoring zero that have yet to respond to issues of suppliers' environmental violations. Included in these are some well-known international brands like Chanel and Samsonite. With the increasing trend for transparency in management, public accountability is a foundational requirement of brands' supply chain management, and is the first step toward realizing transparency and disclosure. Brands must establish unimpeded channels for information disclosure and for public accountability, and promptly respond to the public and environmental groups' questions about pollution.

Innovative Case

ZARA *Publishes a Global List of 404 Wet Processing Units*

In July 2016, ZARA's parent company, Inditex, published a Wet Processing Units List that includes 404 of its worldwide direct and indirect suppliers.[35] The indirect suppliers list can be obtained online in order to trace the supply chain upstream. As an ongoing collection, the list will be updated regularly. Furthermore, both direct and indirect suppliers are evaluated according to Inditex's

INDITEX

2. INTRODUCTION

As a result of the collaboration with our stakeholders and being **committed to the Right to Know principle,** which is defined as practices that allow members of the public access to environmental information, Inditex publishes its global direct and indirect suppliers list of wet processing (dyeing, washing, tanning and printing) declared by its suppliers:

- The **wet processing direct suppliers list** names those suppliers where we hold a direct sourcing relationship.
- The **wet processing indirect suppliers list** includes mills that have been contracted by our direct suppliers. Indirect suppliers normally perform manufacturing operations the main suppliers are not capable of doing in their own facilities: the wet processes like dyeing, tanning, printing and washing. The accuracy of our indirect suppliers list is heavily dependent on the disclosure provided to us by our direct suppliers, who have the business direct relationship with these wet processes mills.

This direct and indirect wet processing suppliers list always describes the current status of our active business relationships and controlled with our standards at the date mentioned. This list of 404 mills will increase with time and, like any large database fed by several business entities, errors can creep in.

(Inditex Suppliers: Wet Processing Mills List. Image from Inditex's Official Website)

[33] For details, see the supplier qualification and screening report at the bottom of the website page.
[34] Click on each brand name to see the list of suppliers. (Links accessed September 2016.)
[35] http://www.wateractionplan.com/documents/186210/199857/6.1.INDITEX+SUPPLY+CHAIN_WET_PROCESS_v1May2016.pdf/90f1e765-5ca2-4cc3-9215-88e0f1cc12a4 (Accessed September 2016)

Environmental Sustainability Standard.[36] *The suppliers that have existing environmental violation records on the Blue Map Database will be considered by Inditex as having "level C high environmental risk." They will be allotted a period to correct their violations, but if no improvements are made, they will be dropped by Inditex.*

ZARA's publication of a list of key suppliers within its supply chain extends management of high environmental impact suppliers and increases supply chain transparency, making the supply chain more transparent and responsibility even clearer.

Establishing a Screening Mechanism

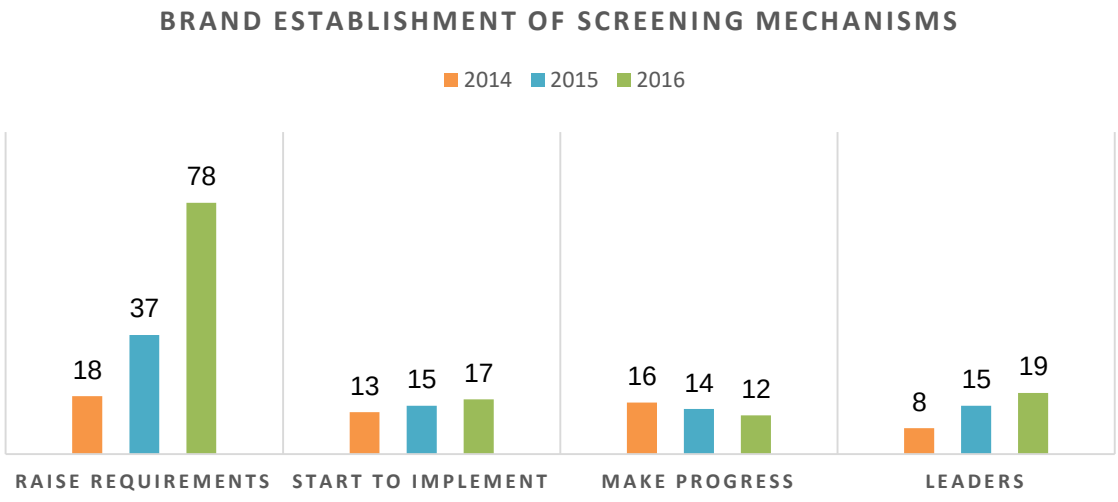
Basic Standard

Brands should communicate with stakeholders in order to effectively identify areas of environmental risk in their supply chains. Full points are awarded to those brands that use environmental supervision information published by all levels of environmental protection departments, regularly screen their suppliers' environmental compliance status, ensure that enterprises in their supply chains abide by environmental laws, and form a sound screening mechanism.

Progress and Gaps

Compared with the previous year, there is a clear increase in the number of brands that have begun to raise requirements and integrate environmental compliance into their supplier code of conduct documents. The number of brands to screen their suppliers at least quarterly has increased to nineteen.

However, there are still 150 brands that have yet to establish a screening mechanism and begin to identify areas of environmental risk.



[36] http://www.wateractionplan.com/documents/186210/187031/Standard_Green+to+Wear_wet_mills_ENG.pdf/f88341c1-3e50-4eee-9d16-d77f2bb4b2af (Accessed September 2016)

Innovative Case

Dell's Vertical Model for Green Supply Chain Management

From 2014 onward, Dell has tightly coordinated supply chain environmental performance with the brand's procurement strategies. To manage environmental compliance in the supply chain, Dell applies the Blue Map Database to screen suppliers for violations. The results subsequently influence Dell's procurement decisions. Dell will also not onboard any new suppliers into its system if they have environmental problems. Thus, environmental performance is not only a component of Dell's supplier performance assessment systems, but is also examined as an evaluated indicator by those in charge of internal procurement. Furthermore, in taking steps to extend supply chain management, Dell has integrated upstream supplier screening and follow-up work, such as pushing for corrective actions, into its quarterly supplier performance assessment indicators. Direct suppliers that don't meet Dell's upstream supply chain management requirements will see a drop in their procurement share. This encourages direct suppliers to actively push upstream suppliers for improved environmental management.

Dells internal vertical integration management contributes to the implementation of its green procurement policies. Not only has Dell established top-down systems of vertical communication, but at the same time, it has also created horizontal communication systems between different areas of the supply chain. Dell's CEO regularly assesses supply chain environmental performance, demonstrating that it is an important issue, while internal teams partake in monthly social-environmental responsibility meetings to ensure progress. Dell has also established monthly meetings with suppliers dedicated to pushing social-environmental responsibility. Dell's re-evaluation of supplier environmental performance and the pace of improvements effectively pushes forward corrective actions.

■ Pushing for Corrective Actions

Basic Standard

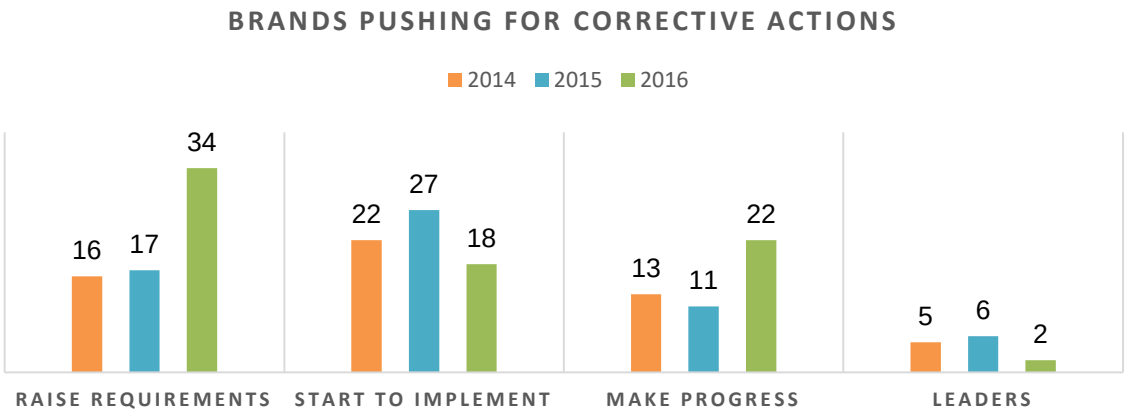
This section aims to guide brands into pushing suppliers with compliance problems to carry out corrective actions and go through the relevant GCA third-party audit process to verify the effectiveness of corrective actions, and also regularly communicate with stakeholders about progress made.

Progress and Gaps

Compared with the previous year, twice as many brands have made a commitment to push suppliers to take corrective actions and provide simple written explanations, as well as push problem suppliers to remove their environmental supervision records and regularly communicate with stakeholders about progress made. Given that version 3.1 of the CITI elevates the requirements needed by to achieve high scores, the number of leading brands has dropped from six to two. Apple still closely follows its suppliers for any new violation records and follows up on

any such new issues.

In 2016, up through the writing of this report, as many as 75 enterprises have undergone on-site GCA audits as a result of brands' requests, of which the IT industry pushed 38, the textiles industry pushed 32, and other industries only pushed 5. Related corrective actions totaled investments of 160 million RMB. The main problem in the IT industry is still heavy metals, with 40% of audited enterprises exhibiting issues with heavy metals exceeding legal standards. Air emissions exceeding standards are also a relatively prominent problem, especially issues with VOCs. In the textile industry, most problems relate to wastewater discharge exceeding standards. Apart from issues with conventional pollutants, such as COD, ammoniacal nitrogen, and phosphorous, issues with characteristic pollutants including chromium and aniline also exist.



Innovative Case

Supplier's Practical Corrections Lead to Substantial VOC Reductions

Because of instable treatment efficiency of activated carbon adsorption and the non-methane hydrocarbon concentration in its air emissions exceeding legal standards, Changzhou Isovolta Technical Composite Co., Ltd. (hereafter referred to as Isovolta) was twice in a row listed as a "yellow" enterprise in 2014 and 2015. Before conducting technical upgrades, the enterprise used traditional activated carbon adsorption methods to treat volatile organic compounds (VOCs) from the production of flexible composite insulation materials. However, this treatment method of activated carbon adsorption exhibited issues with comparatively low stability and poor efficiency in treating high concentrations of organic air emissions. Moreover, waste activated carbon was difficult to treat and dispose. Given the trend toward increasingly stringent national standards for total VOC emissions, in 2015, Isovolta spent 12 million RMB to upgrade its air emissions treatment system, replacing its original activated carbon treatment of air emissions with Regenerative Thermal Oxidizers (RTOs). RTOs have an efficiency rate of over 97% in treating air emissions, and increase air emissions capture equipment, with over 99% efficiency in treating organic air emissions. At the same time, they have reduced treatment of waste activated carbon by 8 tons per year. At the request of its customer Toshiba, Isovolta actively communicated with IPE, undergoing a GCA on-site audit in May 2016 to remove its environmental violation record and verify the effectiveness of its corrective actions.

After RTO equipment is installed and begins to operate, it cuts air emissions pollutants by the following amounts:

Pollutant	Produced (t/a)	Emissions Cut(t/a)	Net Emissions(t/a)
Toluene	119.86	117.28	2.58
Acetone	131.07	128.25	2.82
VOCs	284.48	278.36	6.12

Apart from reducing pollutant emissions, RTOs also pose economic benefits. RTOs can be highly efficient in recycling heat. When the air emissions concentration achieves a set value, the system stays in "self-maintenance" mode, and doesn't require natural gas to heat it to run. When the air emissions concentration is higher, it can take heat energy produced by burning air emissions and use it for industrial processes, steam, office heating, etc. Isovolta uses it for heating its thermic oil and steam generators. Based on calculations, the company can earn back its initial investment in 3-8 years through savings from heat recycling and reuse, and in the years afterward will continue to steadily profit by saving money.

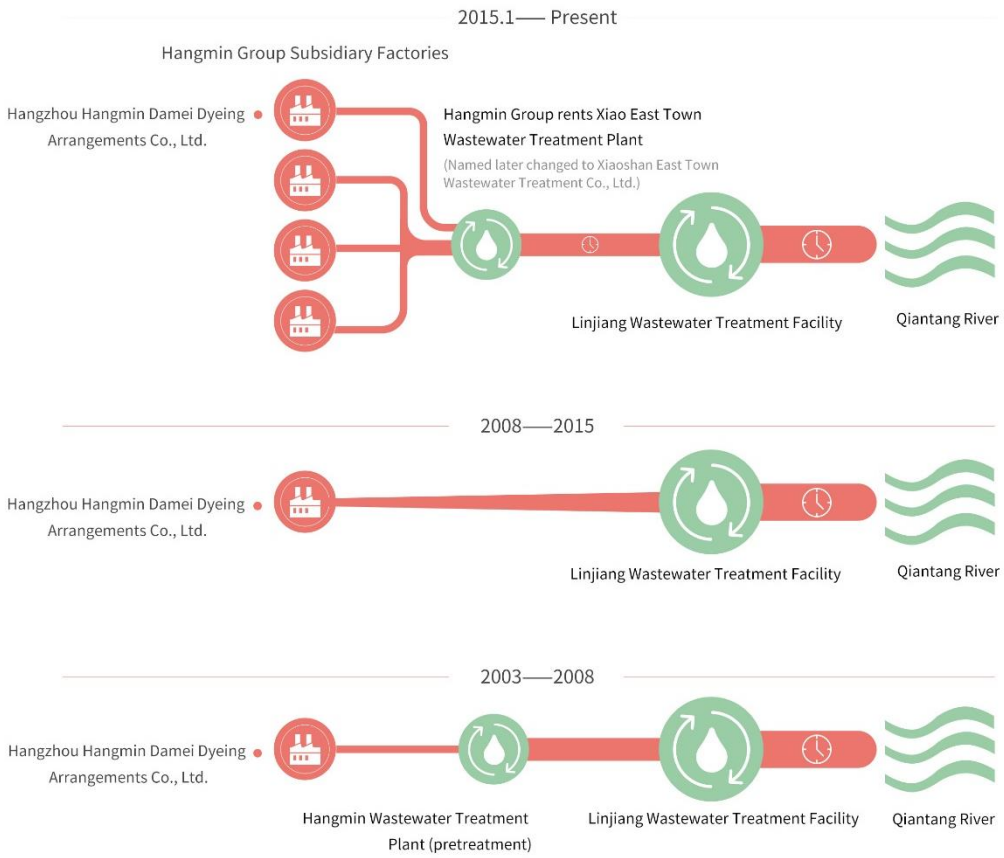
Promoting the Saintyear Model

Hangzhou Hangmin Damei Dyeing Arrangements Co., Ltd. (hereafter referred to as Hangmin Damei) is a textile dyeing and finishing subsidiary enterprise of Zhejiang Hangmin Group and supplies to many well-known international and domestic brands. Due to its wastewater exceeding standards multiple times between 2013 and 2015 on Zhejiang province's key pollution source monitoring system, it was entered into the Blue Map Database. In July 2016, under encouragement from its customer Marks & Spencer, Hangmin Damei launched an on-site GCA audit. The audit revealed that Hangmin Damei is in the process of carrying out rectifications according to the "Saintyear Model."

Between 2003 and 2008, the factory's wastewater was initially treated by Hangmin's wastewater treatment plant, and afterwards sent via municipal pipes to the Xiaoshan Linjiang Wastewater Treatment Facility to be treated again before being discharged into the Qiantang River. Beginning in 2008, Hangmin Group demolished the Hangmin wastewater treatment plant, so the factory's wastewater was directly sent via municipal pipes to the Xiaoshan Linjiang Wastewater Treatment Facility for treatment and then discharged in the Qiantang River. In June 2014, Hangmin Damei began renting the Xiaoshan East Town Wastewater Treatment Plant as a pretreatment facility and renovated it to concurrently pretreat wastewater from four of Hangmin Group's factories. Hangmin East Town Wastewater Treatment Plant was ultimately fitted with an online monitoring and "swipe card" discharge system for total discharge, COD, ammoniacal nitrogen, pH, total nitrogen, and total phosphorous. After wastewater is treated to the Discharge Standards of Water Pollutants for Dyeing and Finishing of the Textile Industry (GB4287-2012)'s standard for indirect discharge in Table 2, the wastewater is sent via municipal pipes to the Xiaoshan Linjiang Wastewater Treatment Facility for final treatment, and then ultimately discharged into the Qiantang River. Zhejiang's current supervisory monitoring[37] *and enterprise self-monitoring information disclosure platform*[38] *show that on average, the wastewater is in compliance with legal standards.*

[37] http://www.zjepb.gov.cn/hbtmhwz/hjjg/wryjc/jdxjcjg/201607/t20160711_422557.htm (Accessed September 2016)

[38] http://app.zjepb.gov.cn:8091/zxjc/ddxxAction_getddxx?id=328 (Accessed September 2016)



(Image shows a schematic of Hangzhou Hangmin Damei Dyeing Arrangements Co., Ltd.'s wastewater treatment from 2003 to present.)

■ Responsible Wastewater Treatment

Basic Standard

This section aims to guide brands into identifying the path of their suppliers' wastewater treatment (i.e. the series of treatment facilities the wastewater travels through prior to discharge to the environment) and extend environmental compliance requirements to wastewater discharged to centralized treatment facilities. When an exceedance from a centralized wastewater treatment plant occurs, brands that are able to determine what extent their supplier's discharge contributed to the wastewater treatment plant's non-compliance issue; OR push the centralized treatment plant to publish details of the violations, show initiative in taking responsibility for the treatment of their factories' wastewater.

Progress and Gaps

Compared to last year, the number of brands that have begun to recognize the management loopholes surrounding centralized treatment of wastewater has increased to 16, of which seven

have extended their supplier management to include centralized treatment facilities. In particular, Adidas has focused its supply chain management on key pollution-discharging entities and has pushed water intensive suppliers to disclose the names of the centralized wastewater treatment plants they discharge into and the wastewater acceptance standard (i.e. factory pretreatment standard) agreed upon between supplier and treatment plant, as well as carried out an analysis of whether or not these agreements comply with national standards.

Apple Adidas Levi's Walmart Gap Samsung ZARA

Still, over 90% of brands have yet to begin identifying the path of their suppliers' wastewater, which remains brands' biggest loophole in supply chain management.

Innovative Case

Production Responsibility Extends to Centralized Water Treatment Facility

Beginning on July 10, 2016, according to the self-monitoring information publication platform for key monitored enterprises in Jiangsu province, total phosphorus data for Zhangjiagang Free Trade Port Zone Sembcorp Water Reclamation Company (hereafter referred to as Sembcorp Water Reclamation) displayed data in excess of legal emissions standards for a number of consecutive days. Netizens reported that on the morning of July 14 Zhangjiagang's EPB made a response on its official Weibo account. The response stated that investigations showed there was a link between the unusually high phosphorous concentration in water entering the Sembcorp Water Reclamation Company and the fact that the Jiangsu Litian New Material Co., Ltd.'s pre-treatment facilities had not been functioning properly. On July 11, they had ordered Litian New Material to halt its noncompliant wastewater discharge into the sewage pipe network. By July 12, water discharge from Sembcorp Water Reclamation had returned to normal.

(Image from Weibo.)

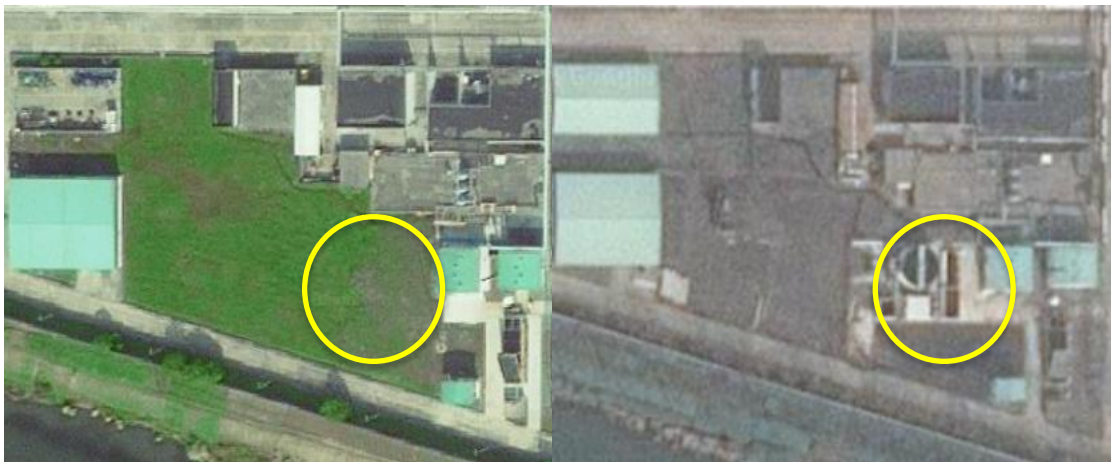
This case suggests that as more and more business clusters and industrial parks are establishing centralized water treatment facilities, but only water quality information for discharge from these plants is disclosed, the public has no way of knowing the status of water quality before it enters the centralized water treatment facilities. Applying a standard to water discharged from treatment facilities could cover up the fact that a manufacturer's discharge water does not meet the standard. Therefore, information transparency cannot just start at the level of centralized water treatment facilities; every enterprise should disclose information about the water quality of wastewater discharge. Only then can the public grasp the source of pollution in the surrounding area and polluting enterprises be supervised by the public.

Formosa Taffeta Builds Pre-treatment Facility to Rectify Wastewater Treatment Dilemma

The GCA Phase 4 Textile Industry Report[39] *highlights the dilemma faced by Formosa Taffeta (Changshu) Co., Ltd. (hereafter referred to as Formosa Taffeta) after new textile standards went into effect. The report suggests that "Formosa Taffeta, either on their own, or with another company, build and properly operate a pre-treatment facility, so that they can take full responsibility for the pretreatment of their wastewater." Under the guidance of the Opinions on Setting a Deadline for the Administration of Wastewater Standards for the Printing and Dyeing Industry in Changshu (Changshu government paper [2015] no. 109), in the second half of 2015, Formosa Taffeta began renovations to allow their wastewater treatment facilities process an extra 2800 tons of wastewater per day, using biochemical and physical-chemical processes to treat the factory's printing and dyeing wastewater. By June 12, 2016, the construction of equipment and facilities had been completed and on July 25, the corrections were accepted by Changshu's EPB and put on record as having passed through inspection. Moreover, recent monitoring data*[40] *shows that Formosa Taffeta met the requirements of all fourteen items on the new standard. Driven by the push of a number of customers, Formosa Taffeta removed all its violation records from 2013.*[41]

Formosa Taffeta installed new wastewater treatment facilities, gained approval and is now ensuring stable operations and that pretreatment standards are met. In doing so, Formosa Taffeta deserves recognition for its environmental compliance and initiative in taking responsibility for water pretreatment. In contrast to its previous discharge of untreated water directly into the wastewater treatment plant, Formosa Taffeta has taken key first steps in clarifying its rights and responsibility toward indirect water discharged by the enterprise before it reaches the centralized treatment plant.

[39] http://www.ipe.org.cn/about/newnotice_de_1.aspx?id=1766 (Accessed September 2016)
[40] http://www.cshb.gov.cn/common/FJview.aspx?mid=368&id=16537&back=1 (Accessed October 2016)
[41] http://www.ipe.org.cn/about/notice_de.aspx?id=1294&isano=1 (Accessed October 2016)



(Image shows the Formosa Taffeta site before and after installing their own wastewater pre-treatment facilities.)

Managing High Environmental Impact Suppliers

Basic Standard

Effective environmental management requires that brands identify those suppliers that have the greatest environmental risks or impacts to reduce the environmental load from high risk suppliers. This sections aims to guide brands into prioritizing monitoring of high environmental impact suppliers, including main material and raw material suppliers, hazardous waste treatment facilities and water treatment plants. Although they may not be the brands' direct suppliers, these segments could easy slip through supervision loopholes. Therefore, brands need to conduct compliance screenings of their suppliers and push those suppliers with problems to issue public statements.

Progress and Gaps

Compared with last year, 58 brands have now begun to identify high environmental risk suppliers in their supply chains and push them to publish statements about their environmental problems and corrective actions. Among these, Apple actively initiatives environmental management of its key raw materials suppliers and waste treatment facilities.

Despite this, nearly 70% of brands still have not begun identifying their high environmental risk or high environmental impact suppliers.

Innovative Case

Apple Pushes its Waste Treatment Facilities to Implement Corrective Actions

Aside from regularly screening its Top 200 suppliers and following up to delist their records, Apple also collects information on its suppliers' hazardous waste processors and includes them in its screening list. Violation records from hazardous waste processors are then used as one of the assessment criteria when reviewing supplier environmental performance. If Apple discovers any

violation records, then Apple will immediately notify the respective supplier to push its hazardous waste processor to implement corrective actions. This process awards points for that supplier on the assessment. Apple then works with the supplier to ensure the process continues moving forward until the violation record has been removed.

Additionally, Apple requires that its suppliers carry out a compliance investigation before choosing a hazardous waste processor, as well as learn how to use the Blue Map Database to screen waste processors for violation records and understand conditions at waste facilities. In addition to driving suppliers to push their hazardous waste processing facilities, beginning in 2015, Apple began using in-depth screenings and auditing to extend its direct influence and supervision to a portion of Apple's high environmental impact waste treatment facilities, prompting the enterprises to initiate contact with IPE and to follow the GCA process for implementing corrective actions and removing violation record(s). Presently, as a result of Apple's efforts, three hazardous waste processors have already completed corrective actions and removed their records.

■ Extending Screening Mechanisms Upstream

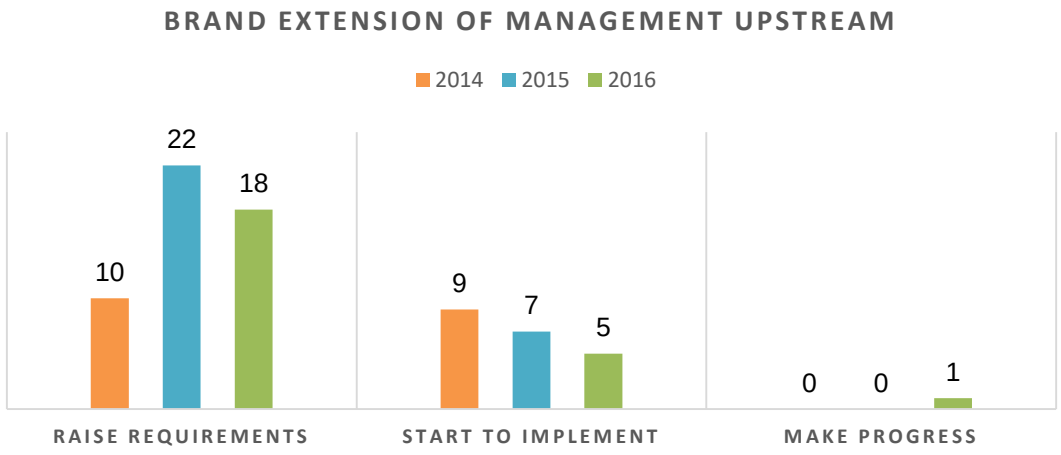
Basic Standard

The growing division of industry and specialization underscores the need for brands to extend supply chain management upstream. To gain high scores in this section, brands need to initiate supplier training, peer to peer mentoring, and other similar strategies so as to push their direct suppliers to screen their own suppliers, identify violation issues, push their suppliers with violations to provide explanations of actions taken, and to create a communication channel with stakeholders while pushing same-industry brands to manage supply chain environmental risks. Finally, for top marks, they must spur upstream and downstream companies in the same industry to work together to promote industry-wide impact to target and control the source of the environmental issues.

Gaps and Progress

In this round of the evaluation, Apple, aside from successfully pushing one same-industry brand, Foxconn, to establish its own screening mechanism, shared its experiences with many other IT brands. Apple also extended its management to leather suppliers, and is continuing to push the leather brand ecco to remove its violation records. This year Dell also began pushing its supplier Wistron to establish a screening mechanism. Following communication with environmental groups about its screening results, Wistron is currently pushing nearly ten of its own suppliers to delist their environmental violation records.

In contrast to last year, this year the number of brands passing screening mechanisms to their upstream suppliers has declined slightly. Given the difficulty in changing suppliers' mindsets, we suggest that brands continue to push suppliers and gradually integrate supplier training into their own day-to-day supply chain management.



Energy and Climate Data

Basic Standard

This section aims to guide brands into requiring energy intensive suppliers up the supply chain to disclose data on energy consumption and CO_2 emissions and to use this public information to set up their own set-up suitable and transparent energy and emissions targets.

Progress and Gaps

The Paris Agreement is about to go into effect, and China's Administrative Regulations on National Carbon Emissions Rights Trading having already entered into the legislative process. Given this context, facility-level greenhouse gas emissions data can provide much-needed data support to brands' green supply chain management and strengthen the control and management of greenhouse gas emissions.

On the basis of suppliers' data collected over several years, Adidas sets up respective emissions targets for suppliers, thus allowing the brand to receive full points in this section. Apple, Dell, Levi's, M&S, and Target have also been able to influence suppliers with relatively high energy usage to disclose energy and carbon emissions data.

However, 60% of brands have still not recognized the importance of requiring suppliers to disclose carbon and other emissions data.

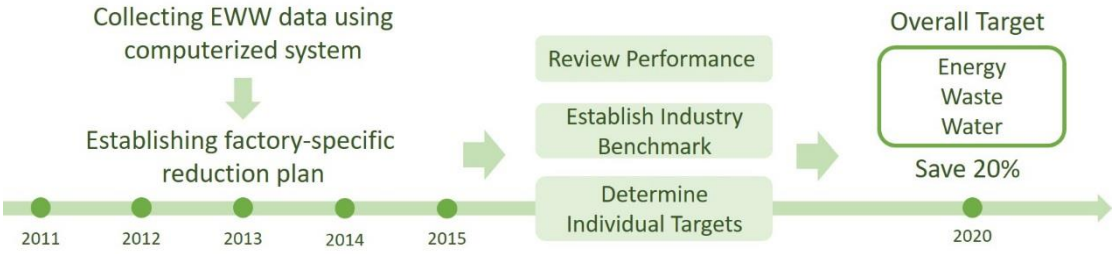
Innovative Case

Data Disclosure Helps Improve the Level of Accuracy

Most brands' suppliers are small- and medium-sized enterprises (SMEs). Emissions data from SMEs is temporarily not subject to increased supervision, so when brands collect and use suppliers' data there are significant problems with low levels of accuracy. With the help of partner organizations, a comparison and analysis was conducted on annual energy data from 2013 and 2014 in IPE's PRTR platform for enterprises from Guangdong and data that enterprises provided to government departments. The results showed that the margin of error for disclosed data was less than 10%, displaying relative accuracy, and making it clear that transparency and disclosure helps enterprises to maintain accuracy when reporting data.

Adidas Uses Data to Establish Emissions Targets for Suppliers

Since 2011, Adidas has required its supplier factories to submit details of their energy and water usage and generated waste to the brand's Environmental Metrics Reporting Tool (EMeReT). Suppliers are categorized into different groups, such as textiles, shoes, and accessories and equipment. Adidas employs emissions reduction data collected between 2011 and 2015 to calculate a baseline standard for energy and water usage and waste generation in each industry group. Adidas uses these standards as a benchmark to compare and analyze each individual supplier's situation, and then raise differentiated energy-saving and emissions reduction targets. The brand's ultimate target is a 20% total reduction in total energy and resource consumption and waste by 2020. In 2016, the brand has begun collecting suppliers' monthly data.



(Adidas' setting of targets for supplier management. Source: Adidas.)

■ Pollution Release and Transfer Registry (PRTR) Data

Basic Standard

In addition to energy data and carbon emissions data, brands should push their direct suppliers and high impact suppliers up the supply chain to fill in and disclose pollutant release and transfer (PRTR) data. Maximum points are awarded when brands push at least direct suppliers to disclose PRTR data in line with relevant regulations, fully disclose self-monitoring data and, use PRTR data to establish suitable and transparent emission-reduction targets.

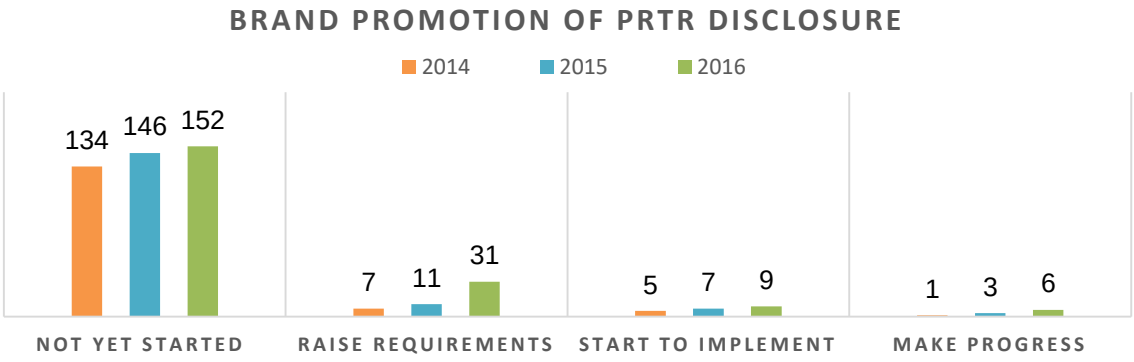
Progress and Gaps

Compared to the last CITI assessment, the number of brands that regularly push suppliers to disclose PRTR data has increased from 10 to 15. Up through September 2016, the total number of enterprises to fill out and submit PRTR data reached 1655. Data from 1286 of these enterprises had already been publicly disclosed, meaning the quantity of disclosed data has increased by 40% from the previous year. Also worth mentioning are the preliminary checks that Adidas, Levi's and Foxconn conduct toward each set of PRTR data from their suppliers. This additional verification raises the statistical and managerial capabilities of their suppliers.

Apple Adidas Levi's Gap Dell Puma Target Walmart

M&S Foxconn Samsung Kao H&M Burberry Panasonic

Despite this, 77% of brands have not yet started to push suppliers or even request that suppliers disclose PRTR data. Chinese enterprises have little awareness and capacity to disclose environmental information, making it more difficult for brands to push for PRTR data disclosure. It also means that those that have filled out the current PRTR form only fill in basic information that focuses more on primary pollutants rather than characteristic pollutants.



Responsible Recycling of Used Products

Basic Standard

A brand's supply chain management does not just concern production cycles but also the treatment of used and waste products. Brands that gain the highest scores in this section established recycling programs for their used products, tracked where waste products were sent for final processing, checked the compliance status of final processing facilities and, pushed those facilities to correct their non-compliance issues and disclose their discharge data. Brands whose main market is not in China or do not sell products in China can earn points by recycling and

tracking the processing of solid waste from their suppliers, verifying environmental compliance of final processing facilities and promoting the reuse and recycling of solid waste from production.

Gaps and Progress

Compared to the last assessment, many more brands including Adidas, Gap, Zara and IKEA have established recycling programs in China for their waste products. On top of this, most automobile brands have launched recycling and take-back programs for used vehicles. Still, the degree of transparency concerning these recycling programs requires greater attention. Only a small number of brands are tracking where waste products are sent for final processing.

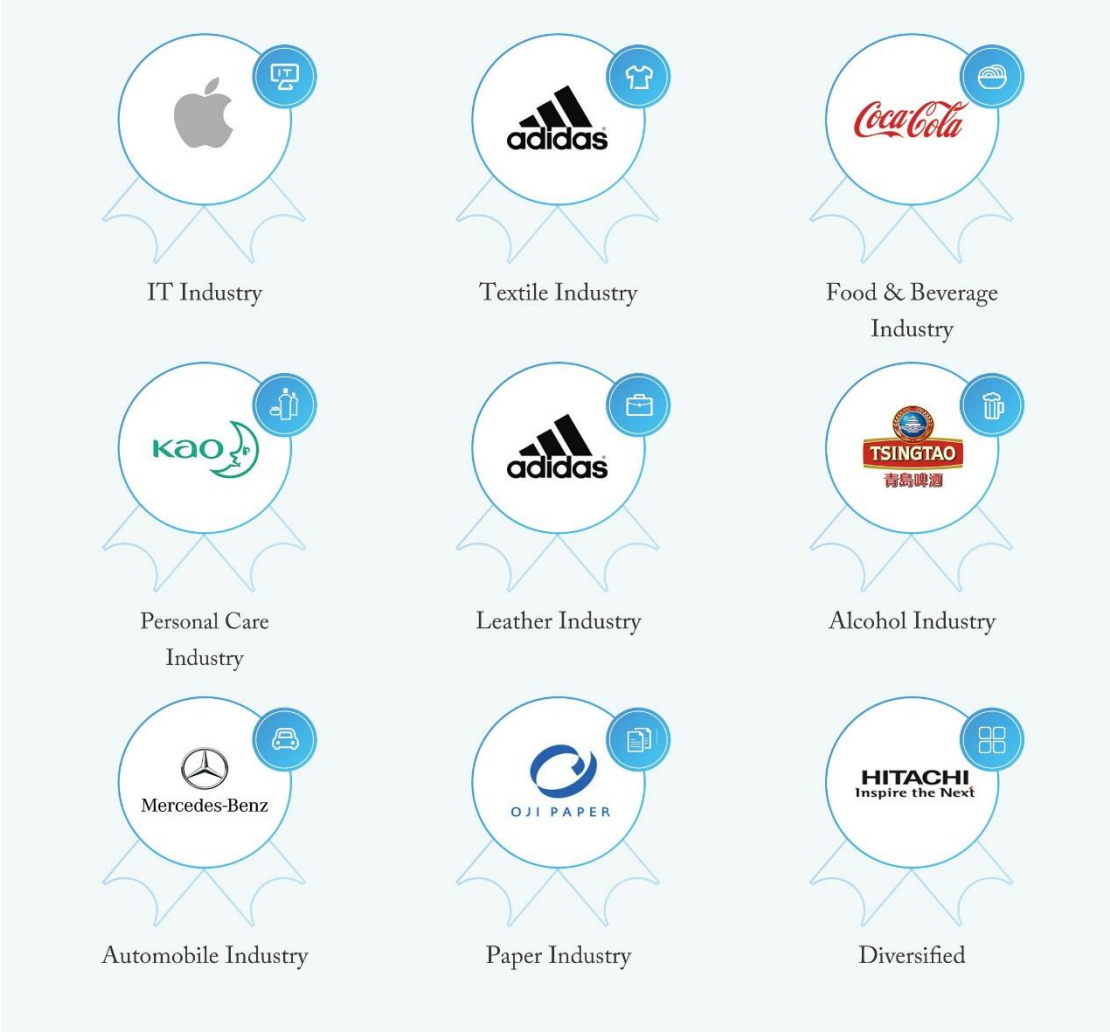
6. Industry and Regional Rankings

6.1. Rankings by Industry

This evaluation covers a total of nine different industry sectors. Supply chains within the same industry often exhibit similar production processes and pollution characteristics. As a result, performance among brands in the same industry is more comparable, and best practices among same-industry brands can be referenced and promoted.

We therefore carry out evaluations for each industry and highlight the leading brand in each industry below.

The following brands sit atop the rankings of their respective industry categories: IT – Apple; textiles – Adidas; food and beverage – Coca Cola; household and personal care - Kao; automobiles – Mercedes-Benz; paper – Oji Paper; leather - Adidas; alcohol - Tsingtao; and diversified - Hitachi.



IT Industry

CITI Criteria			Engagement & Responsive-ness	Compliance & Corrective Actions			Extend Green Supply Chain Practices		Data Disclosure & Transparency		Responsible Products
			Respond to and Engage with the Public	Establish Screening Mechanism	Push for Corrective Actions	Responsibly Manage Wastewater Treatment	Identify & Manage Main Polluting Sectors	Extend Management Upstream	Energy and Cliamate Data	PRTR	Recycling Used Products
NO.	Brand	100	12	12	14	10	14	8	10	12	8
1	Apple	80	12	12	14	5	10.5	6	7.5	9	4
2	Dell	68.5	12	12	10.5	2.5	7	4	7.5	9	4
3	Panasonic	62	9	12	10.5	2.5	7	4	5	6	6
4	Samsung	60.5	9	12	10.5	5	7	2	5	6	4
5	Huawei	54.5	9	12	10.5	2.5	7	4	2.5	3	4
6	Foxconn	53.5	9	12	10.5	0	7	2	5	6	2
7	HP	48	12	6	7	0	7	4	5	3	4
8	Microsoft	47	9	9	10.5	0	7	2	2.5	3	4
9	Canon	43.5	9	9	10.5	0	7	2	0	0	6
10	TCL	28	9	3	3.5	0	3.5	0	0	3	6
11	Cisco	25	9	6	3.5	0	0	0	2.5	0	4
12	Nokia	24.5	9	6	3.5	0	3.5	0	2.5	0	0
13	Lenovo	22.5	6	3	3.5	0	3.5	0	2.5	0	4
14	Ericsson	22	9	6	7	0	0	0	0	0	0
15	Intel	21	9	3	3.5	0	0	0	2.5	3	0
16	Sharp	20	6	3	3.5	0	0	0	2.5	3	2
17	Sony	15.5	9	3	3.5	0	0	0	0	0	0
18	ZTE	11.5	6	3	0	0	0	0	2.5	0	0
18	Vodafone	11.5	6	3	0	0	0	0	2.5	0	0
18	BT	11.5	6	3	0	0	0	0	2.5	0	0
21	Seiko Epson	11	6	3	0	0	0	0	0	0	2
22	HTC	9	6	3	0	0	0	0	0	0	0
22	LG	9	6	3	0	0	0	0	0	0	0
24	Motorola	6	3	3	0	0	0	0	0	0	0
24	IBM	6	3	3	0	0	0	0	0	0	0
26	Xiaomi	4	0	0	0	0	0	0	0	0	4
26	MEIZU	4	0	0	0	0	0	0	0	0	4
26	GREE	4	0	0	0	0	0	0	0	0	4
29	Singtel	3	3	0	0	0	0	0	0	0	0
29	BYD	3	3	0	0	0	0	0	0	0	0
29	RIM-Blackberry	3	3	0	0	0	0	0	0	0	0
29	Haier	3	3	0	0	0	0	0	0	0	0
29	Midea	3	0	3	0	0	0	0	0	0	0

The supply chain environmental management performance of brands in the IT industry is polarized.

The leading brand, Apple, not only continually conducts supplier screenings and pushes suppliers with violations to adopt corrective measures, but also extends management upstream and downstream. In addition, Dell, Panasonic, Samsung, Huawei, Hewlett-Packard and Canon have also taken steps toward more thorough environmental management of their Chinese suppliers. As a result of consistently screening suppliers for environmental compliance, IT brands have together pushed 233 enterprises with violation records to adopt corrective measures, and have also required 119 suppliers to undergo GCA audits in order to remove their violation records. Moreover, they have together motivated 185 suppliers to consistently report their PRTR data and publish it.

In July 2016, Apple, Dell, Samsung, Huawei, Canon, Hitachi, Toshiba, Ericsson, Cisco, and Sony participated in IT industry roundtable talks organized by IPE. At the meeting, these Chinese and international IT brands discussed such issues as centralized treatment of wastewater and hazardous waste, energy savings and energy use reduction, and the use of online data, as well as how to how to influence shared suppliers through brand cooperation.

However, at the same time, a number of IT and electronics brands have yet to take substantive action. Of these, mobile phone brands LG, HTC, Xiaomi and Meizu, as well as home electronics brands Midea, Gree and Haier, still do not screen their Chinese suppliers for environmental violations, nor have they actively begun developing supply chain environmental management.

Considering the average market scope of the above brands, the potential impact of their suppliers' pollution is worthy of attention.

Textile Industry

CITI Criteria			Engagement & Responsive-ness	Compliance & Corrective Actions			Extend Green Supply Chain Practices		Data Disclosure & Transparency		Responsible Products
			Respond to and Engage with the Public	Establish Screening Mechanism	Push for Corrective Actions	Responsibly Manage Wastewater Treatment	Identify & Manage Main Polluting Sectors	Extend Management Upstream	Energy and Cliamate Data	PRTR	Recycling Used Products
NO.	Brand	100	12	12	14	10	14	8	10	12	8
1	Adidas	73	12	12	14	5	7	2	10	9	2
2	Levi's	67	12	12	10.5	5	7	2	7.5	9	2
3	M&S	64.5	12	12	10.5	2.5	7	2	7.5	9	2
4	Target	62.5	12	12	10.5	2.5	7	2	7.5	9	0
5	Gap	61.5	12	12	10.5	5	7	2	5	6	2
6	Walmart	56.5	9	12	10.5	5	7	2	5	6	0
7	ZARA	56	12	12	10.5	5	7	2	2.5	3	2
8	H&M	50	12	9	7	0	7	0	5	6	4
9	Puma	48.5	12	9	7	2.5	7	0	5	6	0
10	Esquel	48	9	12	10.5	0	7	2	2.5	3	2
11	Ikea	43.5	9	12	7	2.5	3.5	0	2.5	3	4
12	Uniqlo	42.5	9	12	10.5	0	7	0	0	0	4
13	Nike	41.5	12	9	7	0	7	2	2.5	0	2
14	C&A	37.5	12	9	7	2.5	7	0	0	0	0
15	JACK & JONES	37	9	12	7	0	7	2	0	0	0
16	Carrefour	36	9	9	7	0	3.5	2	2.5	3	0
17	Columbia	35	12	6	7	0	7	0	0	3	0
18	Mizuno	34	9	9	7	0	3.5	0	2.5	3	0
19	Mothercare	28.5	9	9	10.5	0	0	0	0	0	0
20	Timberland	27.5	12	6	3.5	0	3.5	0	2.5	0	0
20	The North Face	27.5	12	6	3.5	0	3.5	0	2.5	0	0
20	Lee Jeans	27.5	12	6	3.5	0	3.5	0	2.5	0	0
23	Ann Taylor	25.5	9	6	7	0	3.5	0	0	0	0
24	Lindex	25	12	6	3.5	0	3.5	0	0	0	0
25	Tesco	24.5	9	6	3.5	0	3.5	0	2.5	0	0
25	Burberry	24.5	6	3	3.5	0	3.5	0	2.5	6	0
27	Esprit	22	9	6	3.5	0	3.5	0	0	0	0
28	Primark	19	9	3	3.5	0	3.5	0	0	0	0
29	Abercrombie & Fitch	16.5	3	3	7	0	3.5	0	0	0	0
30	Youngor	16	6	3	7	0	0	0	0	0	0

CITI Criteria			Engagement & Responsive-ness	Compliance & Corrective Actions			Extend Green Supply Chain Practices		Data Disclosure & Transparency		Responsible Products
			Respond to and Engage with the Public	Establish Screening Mechanism	Push for Corrective Actions	Responsibly Manage Wastewater Treatment	Identify & Manage Main Polluting Sectors	Extend Management Upstream	Energy and Cliamate Data	PRTR	Recycling Used Products
NO.	Brand	100	12	12	14	10	14	8	10	12	8
30	Tommy Hilfiger	16	6	3	7	0	0	0	0	0	0
30	Li-Ning	16	6	3	3.5	0	3.5	0	0	0	0
30	Benetton	16	6	3	3.5	0	3.5	0	0	0	0
34	G-Star	15.5	9	3	3.5	0	0	0	0	0	0
35	HUGO BOSS	14	9	3	0	0	0	2	0	0	0
36	Toread	12.5	6	3	3.5	0	0	0	0	0	0
37	Disney	12	9	3	0	0	0	0	0	0	0
37	Kmart	12	9	3	0	0	0	0	0	0	0
39	Victoria's Secret	9.5	3	3	0	0	3.5	0	0	0	0
40	Calvin Klein	9	6	3	0	0	0	0	0	0	0
40	Guess	9	6	3	0	0	0	0	0	0	0
42	Sears	6	3	3	0	0	0	0	0	0	0
42	Armani	6	3	3	0	0	0	0	0	0	0
42	Next	6	3	3	0	0	0	0	0	0	0
42	Cortefiel	6	3	3	0	0	0	0	0	0	0
42	Polo Ralph Lauren	6	6	0	0	0	0	0	0	0	0
47	Lafuma	3	3	0	0	0	0	0	0	0	0
47	Giordano	3	3	0	0	0	0	0	0	0	0
47	J.C. Penney	3	3	0	0	0	0	0	0	0	0
47	Macy's	3	0	3	0	0	0	0	0	0	0
47	Meters/bonwe	3	0	3	0	0	0	0	0	0	0
47	MANGO	3	0	3	0	0	0	0	0	0	0
47	Forever 21	3	0	3	0	0	0	0	0	0	0
54	361°	0	0	0	0	0	0	0	0	0	0
54	Kappa	0	0	0	0	0	0	0	0	0	0
54	ANTA	0	0	0	0	0	0	0	0	0	0
54	DKNY	0	0	0	0	0	0	0	0	0	0
54	Umbro	0	0	0	0	0	0	0	0	0	0
54	Lacoste	0	0	0	0	0	0	0	0	0	0
54	ROXY	0	0	0	0	0	0	0	0	0	0
54	River Island	0	0	0	0	0	0	0	0	0	0
54	HEAD	0	0	0	0	0	0	0	0	0	0

The textile industry is a consumer-facing industry with a heavy environmental impact. This is especially true in such segments as printing and dyeing that discharge copious amounts of wastewater, posing a significant impact to communities and the environment.

During this CITI assessment period, Adidas, Levi's, Marks and Spencer, Target, Gap, Walmart, Zara, H&M, Puma, Esquel and other leading brands confronted main environmental impacts of the textile industry by formulating relatively detailed supplier environmental management policies.

By consistently screening suppliers for environmental compliance, textile brands have together pushed 354 enterprises with violation records to adopt corrective measures, and have required 105 suppliers to undergo GCA audits in order to remove their violation records. In addition, they have pushed 162 suppliers to consistently report their annual PRTR data. Levi's also continues to pay attention to whether its suppliers' disclosed online monitoring data is in compliance or is exceeding compliance standards.

In addition, performance is strong among new brands to be added to the CITI index evaluation in the textile industry. Among such brands, Lindex releases a list of its global suppliers, and Mothercare not only established a supplier screening mechanism to check for violations but also pushed for three of its suppliers with violation records to adopt corrective measures.[42]

However, Victoria's Secret, Calvin Klein, DKNY, Polo Ralph Lauren, Armani and other well-known international brands have not launched effective supplier environmental management. Among domestic Chinese brands, Anta and 361° have yet to begin managing the environmental impacts of their supply chains.

The brands named above all have a considerable large market presence, so the potential impact of their suppliers' pollution deserves attention.

[42] Lindex and Mothercare began actively communicating with environmental groups this year of their own accord.

Diversified

CITI Criteria			Engagement & Responsive-ness	Compliance & Corrective Actions			Extend Green Supply Chain Practices		Data Disclosure & Transparency		Responsible Products
			Respond to and Engage with the Public	Establish Screening Mechanism	Push for Corrective Actions	Responsibly Manage Wastewater Treatment	Identify & Manage Main Polluting Sectors	Extend Management Upstream	Energy and Cliamate Data	PRTR	Recycling Used Products
NO.	Brand	100	12	12	14	10	14	8	10	12	8
1	Hitachi	46.5	9	9	10.5	0	7	2	5	0	4
2	Royal Philips	41	9	12	10.5	0	7	0	2.5	0	0
3	GE	30.5	9	9	7	0	3.5	0	0	0	2
4	Toshiba	30	9	6	10.5	0	0	0	2.5	0	2
5	Siemens	24	9	6	3.5	0	3.5	0	0	0	2

The supply chains of diversified brands extend to multiple industries, so the degree of difficulty in managing supply chain environmental impacts is relatively high.

Fortunately, the five brands have all either established supplier screening mechanisms or at the very least, conduct comprehensive annual screenings. Of these, Royal Philips and Toshiba have been able to extend supply chain management to multiple industries, including the heavily polluting steel, chemicals, rubber and synthetic materials industries.

However, diversified brands haven't yet started to identify suppliers' path of wastewater treatment or to extend environmental management to centralized treatment facilities. Also, brands' progress in pushing their suppliers to disclose PRTR data remains slow.

Leather Industry

CITI Criteria			Engagement & Responsive-ness	Compliance & Corrective Actions			Extend Green Supply Chain Practices		Data Disclosure & Transparency		Responsible Products
			Respond to and Engage with the Public	Establish Screening Mechanism	Push for Corrective Actions	Responsibly Manage Wastewater Treatment	Identify & Manage Main Polluting Sectors	Extend Management Upstream	Energy and Cliamate Data	PRTR	Recycling Used Products
NO.	Brand	100	12	12	14	10	14	8	10	12	8
1	Adidas	73	12	12	14	5	7	2	10	9	2
2	Puma	48.5	12	9	7	2.5	7	0	5	6	0
3	Nike	41.5	12	9	7	0	7	2	2.5	0	2
4	Columbia	35	12	6	7	0	7	0	0	3	0
5	Mizuno	34	9	9	7	0	3.5	0	2.5	3	0
6	ASICS	31	9	6	7	0	3.5	0	2.5	3	0
7	Timberland	27.5	12	6	3.5	0	3.5	0	2.5	0	0
7	The North Face	27.5	12	6	3.5	0	3.5	0	2.5	0	0
9	Burberry	24.5	6	3	3.5	0	3.5	0	2.5	6	0
10	Li-Ning	16	6	3	3.5	0	3.5	0	0	0	0
10	Clarks	16	6	3	3.5	0	3.5	0	0	0	0
12	New Balance	15.5	9	3	3.5	0	0	0	0	0	0
13	Nine West	12.5	6	3	3.5	0	0	0	0	0	0
13	Toread	12.5	6	3	3.5	0	0	0	0	0	0
15	Disney	12	9	3	0	0	0	0	0	0	0
15	UGG	12	9	3	0	0	0	0	0	0	0
17	Tiffany	8.5	3	3	0	0	0	0	2.5	0	0
17	COACH	8.5	3	3	0	0	0	0	2.5	0	0
19	Armani	6	3	3	0	0	0	0	0	0	0
19	Kate Spade	6	3	3	0	0	0	0	0	0	0
19	ecco	6	3	3	0	0	0	0	0	0	0
22	Prada	5.5	0	3	0	0	0	0	2.5	0	0
23	Aokang	3	0	3	0	0	0	0	0	0	0
23	Spalding	3	0	3	0	0	0	0	0	0	0
25	CHANEL	0	0	0	0	0	0	0	0	0	0
25	SAMSONITE	0	0	0	0	0	0	0	0	0	0
25	Belle	0	0	0	0	0	0	0	0	0	0
25	Kangnai	0	0	0	0	0	0	0	0	0	0
25	Pierre Cardin	0	0	0	0	0	0	0	0	0	0
25	Daphne	0	0	0	0	0	0	0	0	0	0
25	Umbro	0	0	0	0	0	0	0	0	0	0
25	Lacoste	0	0	0	0	0	0	0	0	0	0
25	Hush Puppies	0	0	0	0	0	0	0	0	0	0

The leather industry can be divided into two sub-types: 1) synthetic and man-made leather and 2) genuine leather made from raw materials. Of these, the brands with comparatively strong performance primarily produce athletic and outdoor goods. Apart from producing bags and shoes made of synthetic and mad-made leather, these brands also produce apparel, so the management of their supply chain environmental impacts for synthetic and mad-made leather products extends the scope of management mechanisms for textile goods. The performance of brands producing genuine leather goods is limited: only Burberry and Clarks have begun to pay attention to the environmental compliance status of their suppliers in China. Most brands have not yet begun to carry out controls toward their suppliers' pungent air emissions and heavy metal-containing wastewater and sludge.

During this CITI assessment period, we worked together with environmental groups Lvse Jiangnan and Huai River Guardians to launch desktop and field investigations targeting pollution from the leather industry and publish pollution investigation reports. In response to the groups' discovery and uncovering of environmental pollution at suspected suppliers to ASICS, representatives from ASICS not only went with third-party auditors to supplier factories to conduct on-site investigations, but also pushed suppliers to communicate with Lvse Jiangnan about how they could reduce their environmental impact. ASICS began using the Blue Map Database to comprehensively screen its suppliers in China, and pushed one factory with an existing environmental supervision record to implement corrective measures, thus achieving positive progress in the brand's supply chain management.

Coach, on the other hand, denied that the polluting factories mentioned in the investigation were its suppliers. It also refused to further communicate with and explain to stakeholders about the environmental management of its supply chain in China.

Over the course of phone meetings and a third-party platform, Disney acknowledged that three of the factories with environmental violations were authorized to produce Disney-branded products, and that it was working with its licensees to look into how to resolve the environmental issues. This shows that the brand is beginning to change its historically passive attitude toward confronting supply chain environmental pollution. In light of this, during the second phone conversation with environmental groups, Disney merely expressed that it planned to begin screening a portion of its suppliers for environmental compliance. We look forward to Disney's prompt follow-up with more substantive action and the brand's development of supply chain environmental management.

Food & Beverage Industry

CITI Criteria			Engagement & Responsive-ness	Compliance & Corrective Actions			Extend Green Supply Chain Practices		Data Disclosure & Transparency		Responsible Products
			Respond to and Engage with the Public	Establish Screening Mechanism	Push for Corrective Actions	Responsibly Manage Wastewater Treatment	Identify & Manage Main Polluting Sectors	Extend Management Upstream	Energy and Cliamate Data	PRTR	Recycling Used Products
NO.	Brand	100	12	12	14	10	14	8	10	12	8
1	CocaCola	41	9	6	10.5	0	7	4	2.5	0	2
2	Unilever	38	9	9	10.5	0	7	0	2.5	0	0
3	Danone	17	6	3	3.5	0	0	0	2.5	0	2
3	Pepsi	17	6	3	3.5	0	0	0	2.5	0	2
5	Dachan	12.5	6	3	3.5	0	0	0	0	0	0
6	BURGER KING	12	9	3	0	0	0	0	0	0	0
7	KFC	11.5	9	0	0	0	0	0	2.5	0	0
7	Nestlé	11.5	6	3	0	0	0	0	2.5	0	0
9	McDonald's	9	9	0	0	0	0	0	0	0	0
9	Dicos	9	9	0	0	0	0	0	0	0	0
11	Mars	8.5	3	3	0	0	0	0	2.5	0	0
12	Uni-president	6.5	3	0	3.5	0	0	0	0	0	0
12	Master Kong	6.5	3	0	3.5	0	0	0	0	0	0
14	Yili	6	3	0	0	0	0	0	0	3	0
14	COFCO	6	0	0	3.5	0	0	0	2.5	0	0
16	General Mills	5.5	0	3	0	0	0	0	2.5	0	0
17	Beingmate	3	0	3	0	0	0	0	0	0	0
17	Shuanghui	3	0	0	0	0	0	0	0	3	0
17	Mengniu	3	0	0	0	0	0	0	0	3	0
17	Junlebao	3	0	0	0	0	0	0	0	3	0
17	Brightdairy	3	0	0	0	0	0	0	0	3	0
17	SANYUAN	3	0	0	0	0	0	0	0	3	0
23	Fonterra	2.5	0	0	0	0	0	0	2.5	0	0
24	Nongfu Spring	0	0	0	0	0	0	0	0	0	0
24	CP	0	0	0	0	0	0	0	0	0	0
24	Nongshim	0	0	0	0	0	0	0	0	0	0
24	Modern Farming	0	0	0	0	0	0	0	0	0	0
24	Heinz	0	0	0	0	0	0	0	0	0	0
24	Want-Want	0	0	0	0	0	0	0	0	0	0

Among food and beverage brands, last year Coca Cola established a supplier screening mechanism and has since began to push its problem suppliers to remove environmental violations and to communicate regularly with stakeholders to encourage more progress.

Four fast-food brands – Burger King, Dicos, McDonalds and KFC – released a list of their Chinese suppliers[43] following the Shanghai Husi incident.[44] However, as previously mentioned, we hope that in identifying the segments of their supply chains with comparatively high environmental impacts, brands will focus on publishing lists of these suppliers, especially those upstream suppliers with comparatively severe pollution – such as livestock enterprises, sugar and food additives and other raw materials suppliers.

Overall, the majority of brands in the food and beverage industries, including McDonald's, KFC, Modern Farming, Kang Shifu, Nongfu Springs and other well-known international brands and brands from Greater China, have yet to launch effective supply chain environmental management.

43 Dico's only disclosed its suppliers for branches in Shanghai.

44 http://finance.qq.com/a/20140811/072399.htm (Accessed September 2016)

Household & Personal Care Industry

CITI Criteria			Engagement & Responsive-ness	Compliance & Corrective Actions			Extend Green Supply Chain Practices		Data Disclosure & Transparency		Responsible Products
			Respond to and Engage with the Public	Establish Screening Mechanism	Push for Corrective Actions	Responsibly Manage Wastewater Treatment	Identify & Manage Main Polluting Sectors	Extend Management Upstream	Energy and Cliamate Data	PRTR	Recycling Used Products
NO.	Brand	100	12	12	14	10	14	8	10	12	8
1	Kao	52.5	9	12	10.5	2.5	3.5	2	5	6	2
2	Unilever	38	9	9	10.5	0	7	0	2.5	0	0
3	P&G	11.5	3	3	0	0	0	0	2.5	3	0
3	Johnson&Johnson	11.5	3	3	0	0	0	0	2.5	3	0
3	L'Oréal	11.5	6	3	0	0	0	0	2.5	0	0
6	Liby	9.5	6	0	3.5	0	0	0	0	0	0
7	SC Johnson	8.5	3	3	0	0	0	0	2.5	0	0
7	Colgate-Palmolive	8.5	3	3	0	0	0	0	2.5	0	0
9	AVON	5.5	0	3	0	0	0	0	2.5	0	0
10	Nice	3	0	0	0	0	0	0	0	3	0
11	Whitecat	0	0	0	0	0	0	0	0	0	0
11	LMZ	0	0	0	0	0	0	0	0	0	0
11	Jahwa	0	0	0	0	0	0	0	0	0	0

The production and manufacture of household and personal care products such as washing powder and liquid detergents, cosmetics and oral hygiene products uses surface active agents (surfactants). Production may also give rise to wastewater-containing pollutants such as oil and aniline, or wastewater that contains disinfectants. The environmental impact of these processes is extensive yet the attitudes of household and personal care brands toward environmental supply chain management in China differ considerably.

Among these brands, Kao and Unilever have established screening mechanisms and check the environmental compliance of their suppliers at least on a quarterly basis. During this year's CITI assessment, they also pushed packaging and printing factories to remove their environmental violations and to communicate regularly with stakeholders to encourage further progress. Furthermore, Kao has also begun to identify the path of wastewater treatment processes used by its suppliers and is focusing its management on upstream suppliers that have the highest impact.

In contrast, well-known household personal care brands such as Proctor & Gamble and L'Oréal have only publicly required environmental compliance in their respective supplier code of conduct documents, but have yet to take substantive action. They have not established mechanisms to identify supplier environmental risk or confronted their responsibility to the public, so they are unable to respond substantively.

Automobile Industry

CITI Criteria			Engagement & Responsive-ness	Compliance & Corrective Actions			Extend Green Supply Chain Practices		Data Disclosure & Transparency		Responsible Products
			Respond to and Engage with the Public	Establish Screening Mechanism	Push for Corrective Actions	Responsibly Manage Wastewater Treatment	Identify & Manage Main Polluting Sectors	Extend Management Upstream	Energy and Cliamate Data	PRTR	Recycling Used Products
NO.	Brand	100	12	12	14	10	14	8	10	12	8
1	Mercedes-Benz	17.5	3	3	3.5	0	3.5	0	2.5	0	2
2	BMW	17	6	3	3.5	0	0	0	2.5	0	2
3	Ford	10.5	3	3	0	0	0	0	2.5	0	2
3	Honda	10.5	3	3	0	0	0	0	2.5	0	2
3	GM	10.5	3	3	0	0	0	0	2.5	0	2
3	TOYOTA	10.5	3	3	0	0	0	0	2.5	0	2
7	Volkswagen	8	3	3	0	0	0	0	0	0	2
8	Volvo	7.5	0	3	0	0	0	0	2.5	0	2
9	Hyundai	5	0	0	0	0	0	0	0	3	2
10	Citroën	4.5	0	0	0	0	0	0	2.5	0	2
10	Peugeot	4.5	0	0	0	0	0	0	2.5	0	2
12	BYD	3	3	0	0	0	0	0	0	0	0
12	Great Wall	3	3	0	0	0	0	0	0	0	0
14	Changan	2	0	0	0	0	0	0	0	0	2
14	Chery	2	0	0	0	0	0	0	0	0	2
14	Nissan	2	0	0	0	0	0	0	0	0	2
14	KIA	2	0	0	0	0	0	0	0	0	2
18	Mazda	0	0	0	0	0	0	0	0	0	0

Supply chains in the automobile industry extend to many industries, including the steel, non-ferrous metal, electronic metering equipment, rubber, textile and glass industries. Despite this, no automobile brands have yet actively developed environmental management of their Chinese suppliers. The majority only take responsibility through product recycling such as by recycling and reusing all or part of used vehicles.

Eight brands, including General Motors and Toyota, have requested compliance from their suppliers, while Mercedes-Benz and BMW have committed in writing to pushing their suppliers. But confronted with violation records from all their suppliers, not one automobile brand has taken substantive action. For example, from May to July in 2016, the environmental protection department of Kunshan city found that Kunshan Liufeng Machinery Industry Company Ltd., twice exceeded standards for fugitive odor emissions.[45][46] The enterprise's official website indicates that the enterprise's aluminum rim products customers include Toyota, Honda, Ford, Nissan and Hyundai. However, none of these brands have responded to their suspected supplier's environmental violations.

[45] http://www.ipe.org.cn/pollution/com_detail.aspx?id=318455
[46] http://www.ipe.org.cn/pollution/com_detail.aspx?id=321329

Paper Industry

CITI Criteria			Engagement & Responsive-ness	Compliance & Corrective Actions			Extend Green Supply Chain Practices		Data Disclosure & Transparency		Responsible Products
			Respond to and Engage with the Public	Establish Screening Mechanism	Push for Corrective Actions	Responsibly Manage Wastewater Treatment	Identify & Manage Main Polluting Sectors	Extend Management Upstream	Energy and Cliamate Data	PRTR	Recycling Used Products
NO.	Brand	100	12	12	14	10	14	8	10	12	8
1	Oji Paper	30	9	6	7	0	3.5	0	2.5	0	2
2	APP	20	6	3	0	0	3.5	0	2.5	3	2
3	Stora Enso	11.5	6	3	0	0	0	0	2.5	0	0
3	SCA	11.5	6	3	0	0	0	0	2.5	0	0
5	UPM	5.5	0	3	0	0	0	0	2.5	0	0
6	Nine Dragons Paper	5	0	0	0	0	0	0	0	3	2
7	HTRH	3	3	0	0	0	0	0	0	0	0
7	Shanying Paper	3	0	0	0	0	0	0	0	3	0
7	Long Chen Paper	3	0	0	0	0	0	0	0	3	0
7	Sun Paper	3	0	0	0	0	0	0	0	3	0
7	Chen Ming Group	3	0	0	0	0	0	0	0	3	0
12	Lee & Man Paper	2	0	0	0	0	0	0	0	0	2

We have yet to see a breakthrough in the paper industry's supply chain management.

Paper products companies only have environmental requirements as policies; there are still no brands that have taken substantive action. During this CITI assessment period, only Oji Paper pushed one packaging factory to implement corrections and issue an explanation for being rated "red" in the 2010 corporate environmental rating and disclosure assessment.[47]

[47] Also known as China's Green Watch Program: http://documents.worldbank.org/curated/en/913571468770473875/pdf/multi0page.pdf

Alcohol Industry

CITI Criteria			Engagement & Responsive-ness	Compliance & Corrective Actions			Extend Green Supply Chain Practices		Data Disclosure & Transparency		Responsible Products
			Respond to and Engage with the Public	Establish Screening Mechanism	Push for Corrective Actions	Responsibly Manage Wastewater Treatment	Identify & Manage Main Polluting Sectors	Extend Management Upstream	Energy and Cliamate Data	PRTR	Recycling Used Products
NO.	Brand	100	12	12	14	10	14	8	10	12	8
1	Tsingtao	15	6	0	3.5	0	0	0	2.5	3	0
2	Budweiser	13.5	6	3	0	0	0	0	2.5	0	2
3	Harbin Beer	11	3	0	0	0	3.5	0	2.5	0	2
4	Asahi	9.5	6	0	3.5	0	0	0	0	0	0
5	Heineken	8.5	3	3	0	0	0	0	2.5	0	0
6	Carlsberg	5.5	0	3	0	0	0	0	2.5	0	0
6	SABMiller	5.5	0	3	0	0	0	0	2.5	0	0
8	Yanjing Beer	3	0	0	0	0	0	0	0	3	0
8	Snowbeer	3	0	0	0	0	0	0	0	3	0

There has been no significant progress in the development of supply chain management by alcohol manufacturing brands.

Although the evaluation found that Budweiser, Heineken, SABMiller, and Carlsberg issue public environmental compliance requirements for their suppliers, none of the alcohol brands established supplier screening mechanisms. None have begun to discern the environmental impacts of their suppliers, and none have requested that their tier one suppliers carry out environmental compliance screenings of their upstream suppliers.

In their annual reports, Tsingtao, Snow Beer and Yanjing Beer disclose polluted emissions data, and moreover, their subsidiary enterprises also disclose self-monitoring data. However, alcohol industry brands have yet to realize responsible wastewater treatment. Yanjing Beer's trustee factory Yanjing Brewery Co., Ltd (Laizhou) (a subsidiary of Beijing Yanjing Brewery Co., Ltd.[48]) even discharges a portion of wastewater that exceeds COD standards and has not been treated through a storm sewer pipeline directly into the sea. Meanwhile, its wastewater treated to the required standard is mixing with estuary discharge.[49]

[48] http://www.yanjing.com.cn/upload/newsfile/201605/146312774656185fy7.pdf (Accessed September 2016)

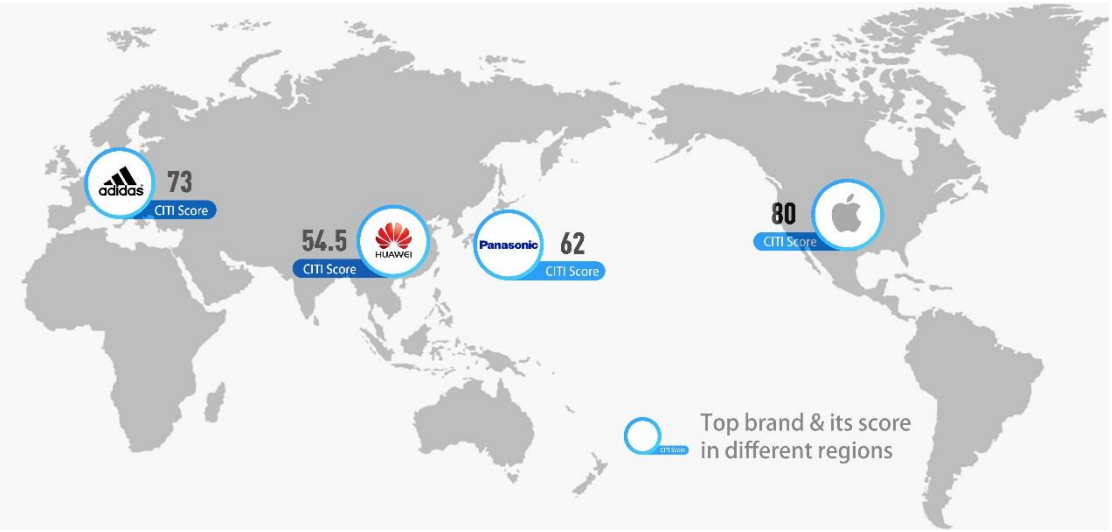
[49] http://ythjjc.gov.jiaodong.net/system/2016/09/13/010319011.shtml (Accessed September 2016)

6.2. Rankings by Region

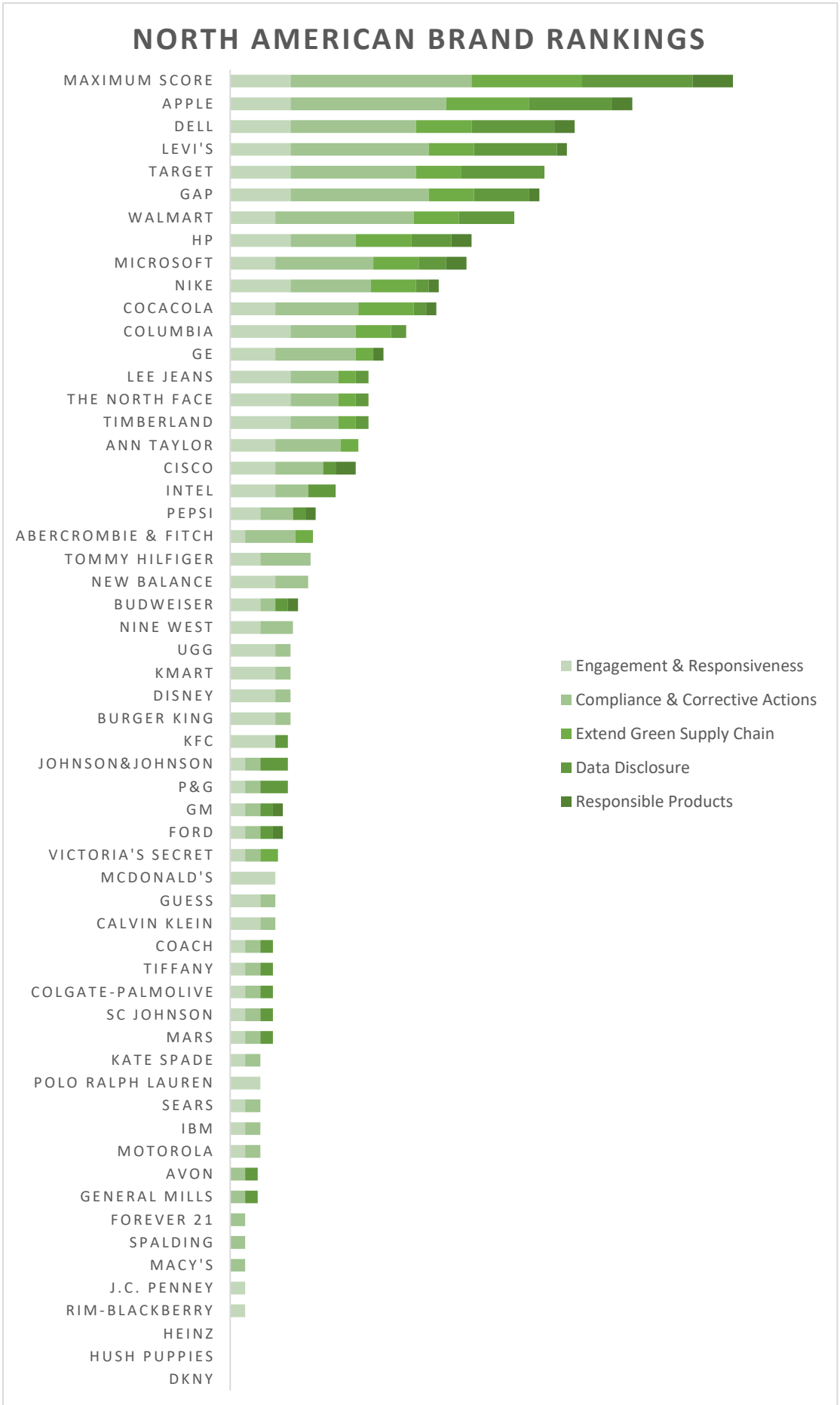
The green procurement performance of brands from the same region is also poses greater comparability. In this round of the evaluation, the number of brands increased from 167 in last year's assessment to a total of 198, with the highest number of brands – 61 – coming from Greater China.

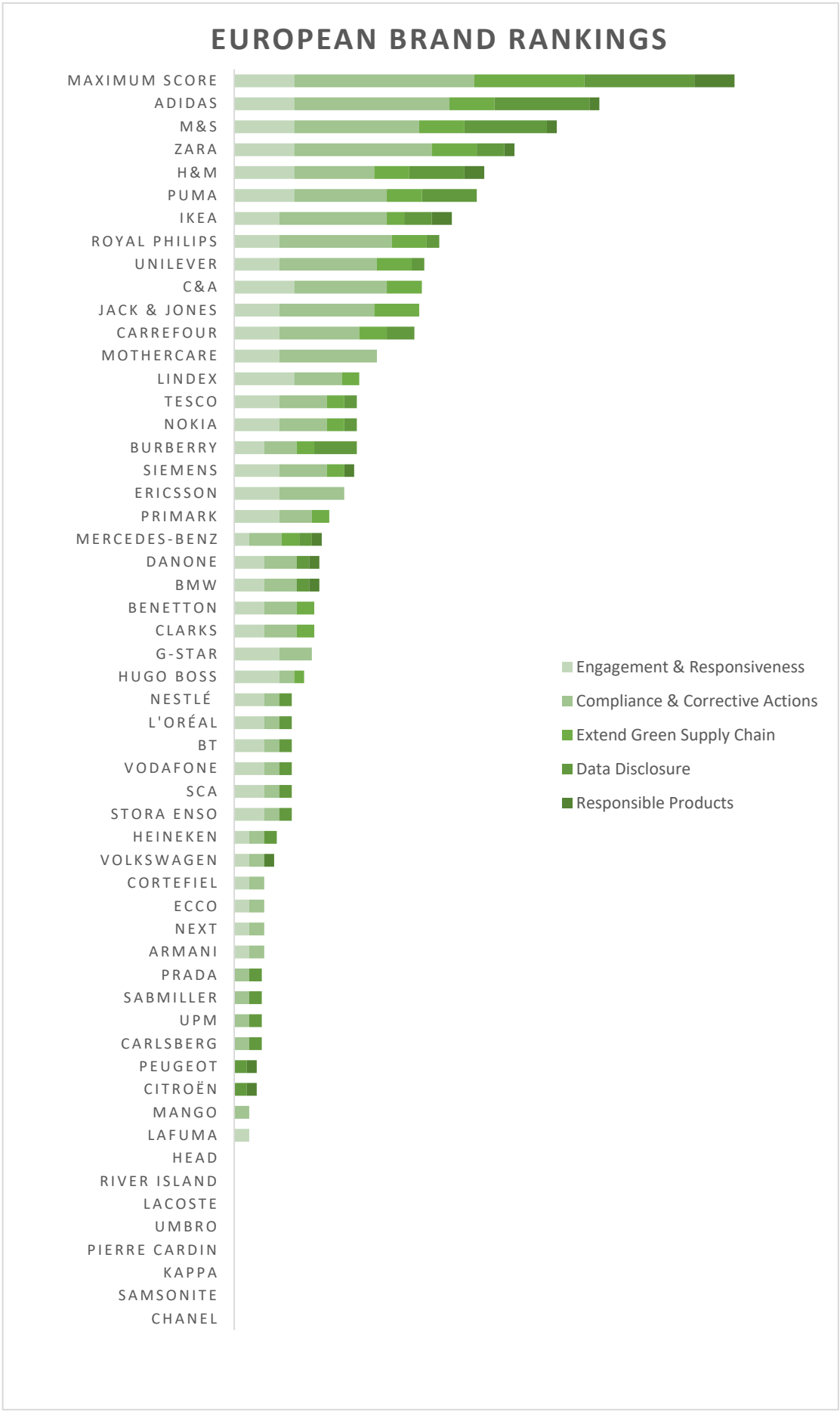
Apple, Adidas and Panasonic continue to respectively lead among brands in North America, Europe and Japan and South Korea. Among brands from Greater China, Huawei has leapt to the top, and TCL has made relatively notable progress, entering into the top 50.

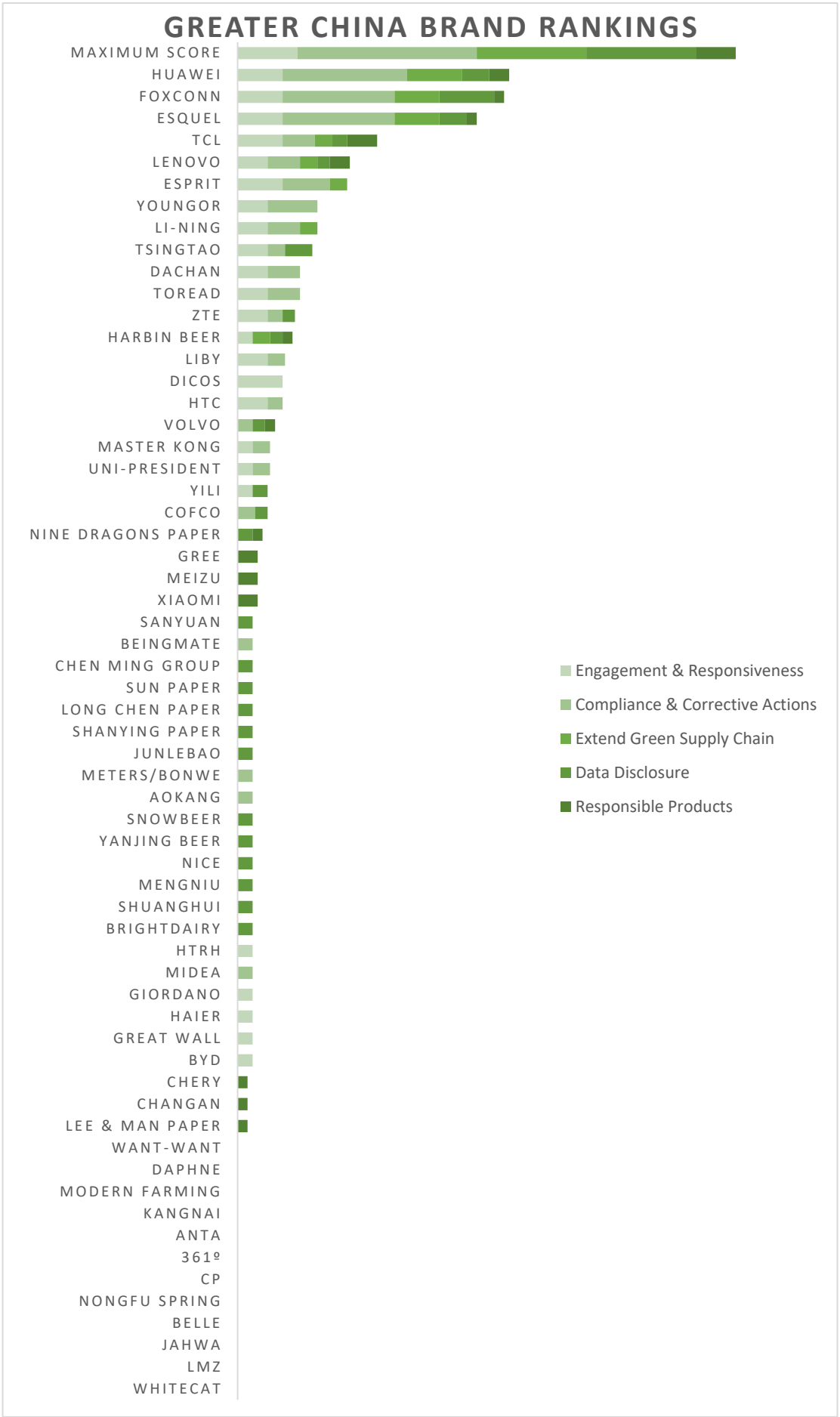
Regional Distribution Map of 198 Brands

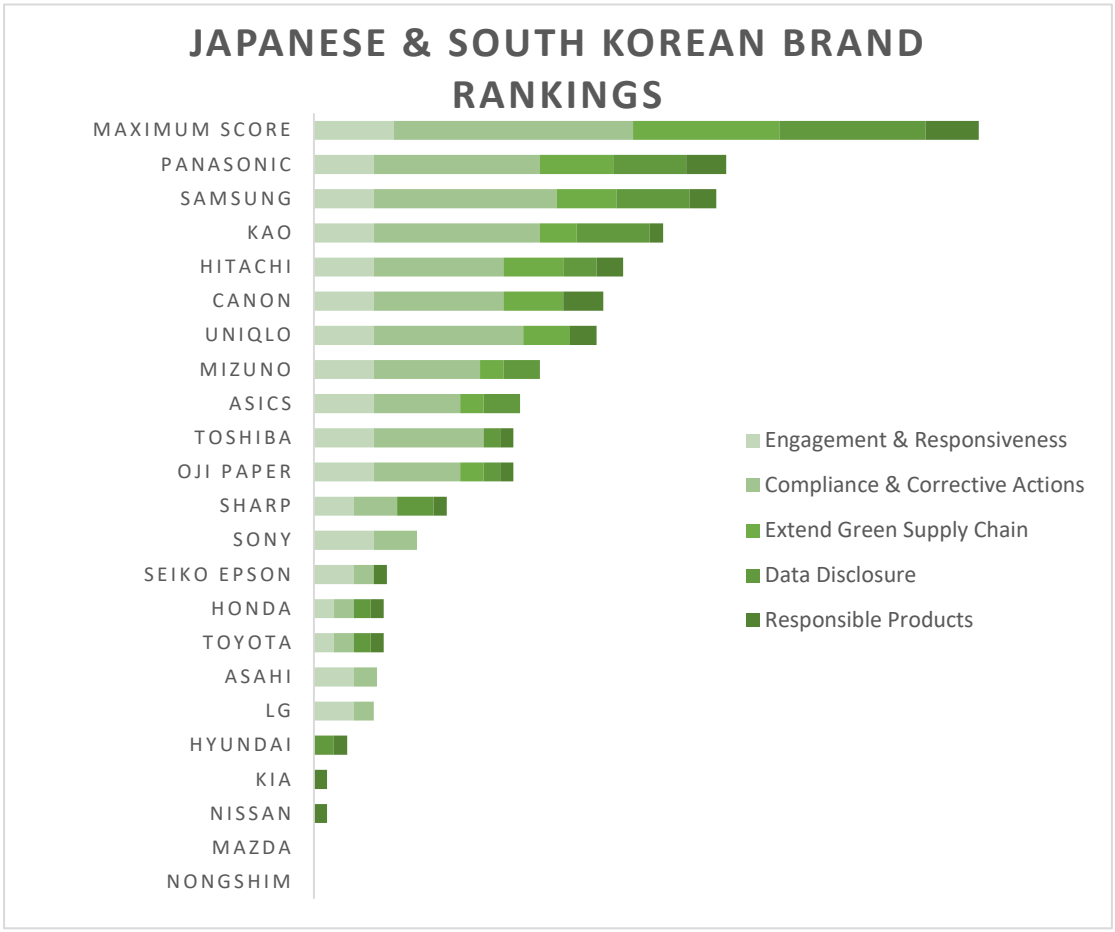


Leading Brands by Respective Region


NORTH AMERICAN BRAND RANKINGS
MAXIMUM SCORE
APPLE
DELL
LEVI'S
TARGET
GAP
WALMART
HP
MICROSOFT
NIKE
COCACOLA
COLUMBIA
GE
LEE JEANS
THE NORTH FACE
TIMBERLAND
ANN TAYLOR
CISCO
INTEL
PEPSI
ABERCROMBIE & FITCH
TOMMY HILFIGER
NEW BALANCE
BUDWEISER
NINE WEST
UGG
KMART
DISNEY
BURGER KING
KFC
JOHNSON&JOHNSON
P&G
GM
FORD
VICTORIA'S SECRET
MCDONALD'S
GUESS
CALVIN KLEIN
COACH
TIFFANY
COLGATE-PALMOLIVE
SC JOHNSON
MARS
KATE SPADE
POLO RALPH LAUREN
SEARS
IBM
MOTOROLA
AVON
GENERAL MILLS
FOREVER 21
SPALDING
MACY'S
J.C. PENNEY
RIM-BLACKBERRY
HEINZ
HUSH PUPPIES
DKNY
Engagement & Responsiveness
Compliance & Corrective Actions
Extend Green Supply Chain
Data Disclosure
Responsible Products


EUROPEAN BRAND RANKINGS
MAXIMUM SCORE
ADIDAS
M&S
ZARA
H&M
PUMA
IKEA
ROYAL PHILIPS
UNILEVER
C&A
JACK & JONES
CARREFOUR
MOTHERCARE
LINDEX
TESCO
NOKIA
BURBERRY
SIEMENS
ERICSSON
PRIMARK
MERCEDES-BENZ
DANONE
BMW
BENETTON
CLARKS
G-STAR
HUGO BOSS
NESTLÉ
L'ORÉAL
BT
VODAFONE
SCA
STORA ENSO
HEINEKEN
VOLKSWAGEN
CORTEFIEL
ECCO
NEXT
ARMANI
PRADA
SABMILLER
UPM
CARLSBERG
PEUGEOT
CITROËN
MANGO
LAFUMA
HEAD
RIVER ISLAND
LACOSTE
UMBRO
PIERRE CARDIN
KAPPA
SAMSONITE
CHANEL
Engagement & Responsiveness
Compliance & Corrective Actions
Extend Green Supply Chain
Data Disclosure
Responsible Products


GREATER CHINA BRAND RANKINGS
MAXIMUM SCORE
HUAWEI
FOXCONN
ESQUEL
TCL
LENOVO
ESPRIT
YOUNGOR
LI-NING
TSINGTAO
DACHAN
TOREAD
ZTE
HARBIN BEER
LIBY
DICOS
HTC
VOLVO
MASTER KONG
UNI-PRESIDENT
YILI
COFCO
NINE DRAGONS PAPER
GREE
MEIZU
XIAOMI
SANYUAN
BEINGMATE
CHEN MING GROUP
SUN PAPER
LONG CHEN PAPER
SHANYING PAPER
JUNLEBAO
METERS/BONWE
AOKANG
SNOWBEER
YANJING BEER
NICE
MENGNIU
SHUANGHUI
BRIGHTDAIRY
HTRH
MIDEA
GIORDANO
HAIER
GREAT WALL
BYD
CHERY
CHANGAN
LEE & MAN PAPER
WANT-WANT
DAPHNE
MODERN FARMING
KANGNAI
ANTA
361º
CP
NONGFU SPRING
BELLE
JAHWA
LMZ
WHITECAT
Engagement & Responsiveness
Compliance & Corrective Actions
Extend Green Supply Chain
Data Disclosure
Responsible Products


JAPANESE & SOUTH KOREAN BRAND RANKINGS
MAXIMUM SCORE
PANASONIC
SAMSUNG
KAO
HITACHI
CANON
UNIQLO
MIZUNO
ASICS
TOSHIBA
OJI PAPER
SHARP
SONY
SEIKO EPSON
HONDA
TOYOTA
ASAHI
LG
HYUNDAI
KIA
NISSAN
MAZDA
NONGSHIM
Engagement & Responsiveness
Compliance & Corrective Actions
Extend Green Supply Chain
Data Disclosure
Responsible Products

7. Solutions

To link this evaluation's findings and analysis, we designed the following solutions. The solutions are divided into those for government departments, brands, suppliers and consumers that touch upon green supply chain construction.

7.1. Government: Tap into the role of market mechanisms on the basis of information disclosure

We believe that the most important role for government is not using legislation and supervision to directly carry out indiscriminate micro-management of companies' green procurement. Rather, it is to improve the policy infrastructure as a means for helping establish an environment for fair competition on the basis of environmental compliance and allowing market forces to effectively guide green supply chain construction. At a press conference in 2013, Chinese Premier Li Keqiang remarked, "It is necessary to take what has been mistakenly put in the hands of the government and put it in the hands of the market." Green supply chain depends more on the market, rather than government.

As a result, we raise the following recommendations for government departments:

- In order to further green supply chain construction, the policy infrastructure must be improved. An integral component of the policy infrastructure is information disclosure. Adequate disclosure of enterprise and industry data scattered across environmental, development and reform, industry and information technology, housing and urban-rural development, and statistics ministries must be driven forward;

- When establishing their own mechanisms, other government ministries should study and learn from the information disclosure system established by MEP.

Ministry of Environmental Protection (MEP) Information Disclosure System

7.2. Brands: Adapt to the growing trend for disclosure and transparency

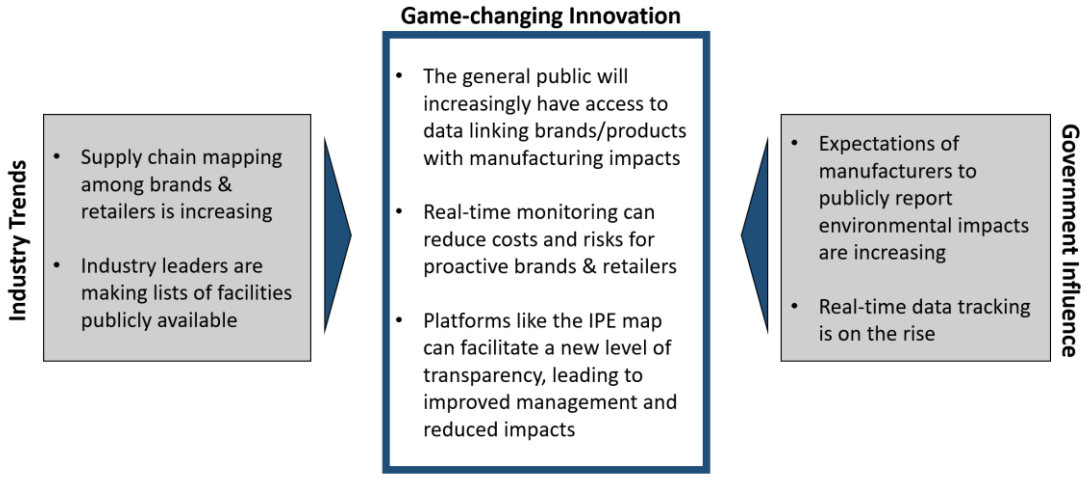
Brands began disclosing their relationships with suppliers in the early 2000's, with four companies doing so early on. Apple's 2012 disclosure of a list of 156 of its global suppliers for the first time broke through its secretive attitude toward its supplier relationships, representing a new benchmark. In 2015, the CITI for the first time included "publishes a list of suppliers in China" as one of its standards.

Disclosing relationships with suppliers is therefore a significant area of progress because it signifies that brands no longer intend to use the excuse that global supply chains are complicated as a means of avoiding responsibility for the environmental impacts brought about by their global procurement.

On its supplier map, Nike states, ""Transparency is fundamental to NIKE, Inc. business and approach to sustainability."[50]

ZARA's parent company, Inditex, states, "As a result of the collaboration with our stakeholders and being committed to the Right to Know principle […] Inditex publishes its global direct and indirect suppliers list of wet processing (dyeing, washing, tanning and printing) declared by its suppliers."

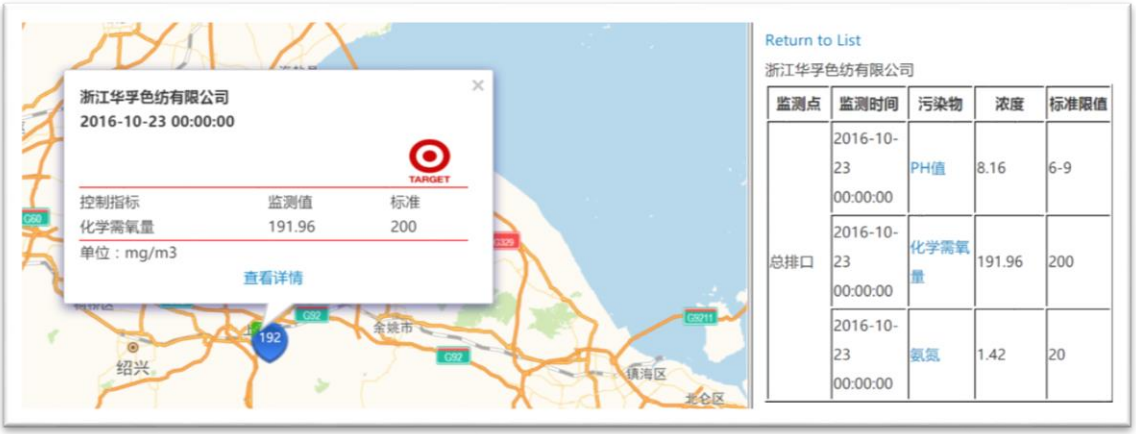
Different levels of government have forcefully promoted environmental information disclosure. Apart from strengthening current monitoring and enforcement, while launching pollution source environmental monitoring, environmental departments are successively starting to use online monitoring data. Also, more and more of the public are demanding answers from enterprises toward their disclosed environmental impacts, and are using the MEP's 12369 hotline, WeChat and other platforms to make reports and complaints about enterprises' pollution, thus putting public oversight into play. At the same time, a number of brands that pay particular attention to their environmental responsibility have already disclosed their global supplier lists, or even published supply chain maps.



(Graphic by Linda Greer)

[50] http://about.nike.com/pages/transform-manufacturingc (Accessed September 2016)

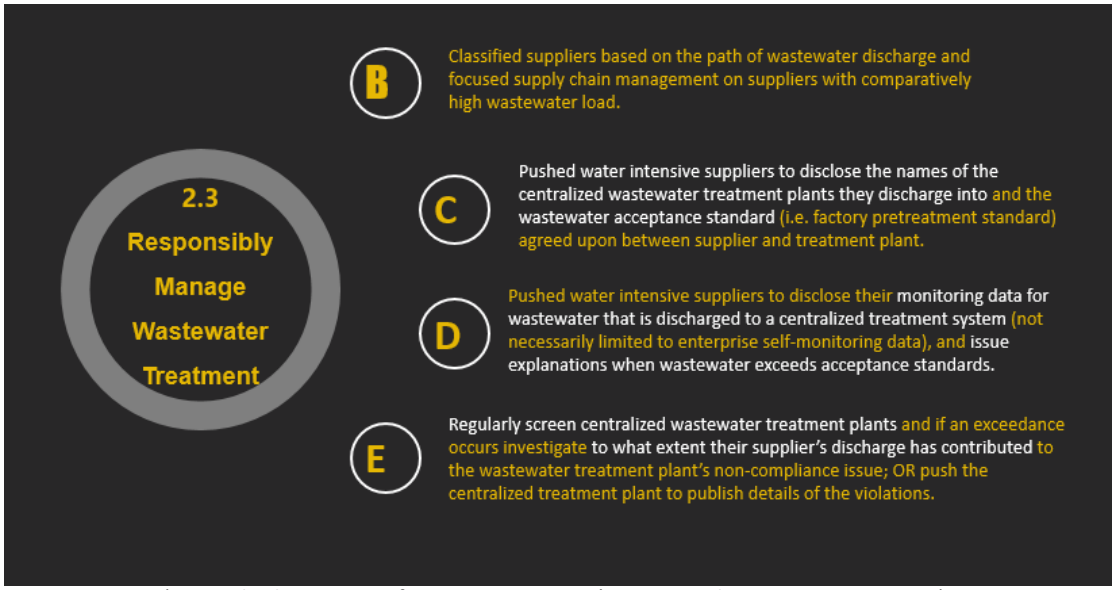
Given this context, IPE is in the process of developing an environmental map on account of online monitoring data, where brand logos will be displayed alongside online monitoring data for their affiliated suppliers. Through this platform, the public will be able to access more data about the environmental impacts of the production processes for brands' products. At the same time, brands will be able to better manage environmental risks in their supply chains, to alleviate the load on the environment and veritably realize disclosure and transparency of their supply chain environmental management.



Brand Supplier Environmental Map Illustration

In the section on critical gaps, we see that China's water quality remains severe. Responsible wastewater treatment therefore urgently demands a breakthrough, so we also raise solutions for supply chain wastewater management.

In order to guide brands into making progress in the area of centralized wastewater treatment, the CITI 3.1 has made adjustments to this evaluation indicator to focus more on brands' management, adding specific recommendations for how to do so. At the same time, upgrading brands' management responsibility toward their suppliers' wastewater treatment has made the excuse that it is difficult to influence wastewater treatment plants into taking actions no longer tenable.



(Image displays content from CITI 2.3 section's B, C, D and E assessment criteria.)

From the perspective of provincial water quality across China, the situation is not particularly optimistic, especially in the Zhejiang region where many suppliers are concentrated. Many brands have formulated water management strategies in their commitments to protecting water resources. We hope to see brands' water management strategies place an emphasis on the areas that urgently need improvement, and follow the roadmap toward responsible wastewater management that is laid out in CITI 3.1 by using the promotion of information disclosure to gradually clarify the wastewater treatment responsibility of each party. Doing so will spur factories with wastewater to discharge within legal standards, thus contributing to improvements in environmental water quality. Extending management to the ultimate joint line of defense of wastewater treatment will help to realize commitments to protecting water resources.

7.3. Consumers: Urge brands to green their supply chains

The above section points out that green supply chain construction depends more on the market, rather than on government. Consumers' green procurement endows green production with market forces, and the market force of brands' green procurement also depends on green consumption.

In order to make green consumption become a market force, it is necessary to help consumers be able to conveniently and quickly access trustworthy information about brands' green supply chain performance.

As a result, version 3.0 of the Blue Map app has added a "Green Choice" module. This module displays clear and prompt dynamic weekly updates on brands' actions to push their suppliers to improve their environmental performance.

Since the module went live in March 2016, there have been a total of ten brands that have been listed in the "Weekly Green Choice" section more than 15 times.

(Screenshot of the "Green Choice" module on the Blue Map app.)

Using the Blue Map app, consumers can not only obtain information about brands' green supply chain performance, but more importantly can use Weibo, WeChat and other social media to share brands' environmental performance.

We hope that more brands will be able to use official accounts to respond to consumers' "likes" and comments, positively interacting with consumers, and achieving "green marketing" with the help of new media mechanisms, in order to help green supply chain find market forces.

Appendix I CITI Evaluation Criteria System 3.1

Criteria		Evaluation Indicator
Engagement and Responsiveness	**1.1 Respond to enquiries and engage with the public**	A No public channel for enquiries or no response.
		B Responded stating that all environmental issues raised would be looked into.
		C Appointed someone to follow up on suppliers with environmental problems and have issued a follow-up statement.
		D Conducted in depth follow-up and appointed someone to investigate environmental issues at problem suppliers OR the brand has disclosed a list of suppliers in its supply chain in China.
		E Established an effective communication channel to provide stakeholders with details of on-going investigations and response activities AND published a list of Chinese suppliers.
Compliance and Corrective Actions	**2.1 Establish a mechanism to screen at least direct suppliers[51] for violations[52]**	A Not established screening mechanism.
		B Publically required supplier environmental compliance in writing such as in Code of Conduct.
		C Publically required supplier environmental compliance; established a screening mechanism, and have screened direct suppliers for compliance at least once a year.
		D Publically required supplier environmental compliance; established a screening mechanism and screen preferred direct suppliers[53] and potential direct suppliers[54] at least quarterly.
		E Publically required supplier environmental compliance; established a screening mechanism and have routinely screened all

[51] "Direct Suppliers" in section 2 refers to a brand's factories, subsidiaries, and upstream suppliers in China with whom they have a direct relationship. These suppliers are sometimes referred to as Tier One suppliers. Although they are often not the point of heaviest environment impact in the full supply chain, they are usually the easiest place for brands to start.

[52] Mechanism is established for the purpose of pushing suppliers to implement corrective actions and determine what relevant work has been conducted. Mechanism must include a complete process for informing suppliers of screening results.

[53] Refers to those suppliers that brands pay particular attention to in their supply chain management or have a relatively large spend with.

[54] Potential suppliers are those that have the intention of becoming official suppliers. We recommend that when a brand evaluates potential suppliers that environmental compliance should be included in the evaluation.

		direct suppliers and direct potential suppliers at least quarterly and also provided breakdown of screening results (such as number of suppliers out of compliance, etc.).
	2.2 Push direct suppliers to take corrective actions and disclose actions taken	A Not pushed for corrective action plan.
		B Made a commitment to push at least direct suppliers to take corrective actions and provide simple written explanations.
		C Pushed at least some direct suppliers with compliance issues to implement corrective actions for their environmental violations and provide public explanations of what actions have been taken.[55]
		D Pushed problem suppliers to remove their environmental supervision records and also regularly communicate with stakeholders about progress made.[56]
		E Continues to address environmental violation records for problem suppliers and regularly track suppliers' environmental performance.[57]
	2.3 Responsibly manage wastewater treatment	A Not begun to identify the path of wastewater treatment[58] at its suppliers.
		B Classified suppliers based on the path of wastewater discharge and focused supply chain management on suppliers with comparatively high wastewater load. [59]
		C Pushed water intensive suppliers to disclose the names of the centralized wastewater treatment plants they discharge into and the wastewater acceptance standard (i.e. factory pretreatment standard) agreed upon between supplier and treatment plant.[60]

[55] This means *Information disclosure*, which is one way of handling environmental supervision records and refers to the publication of supplier feedback on the reasons for their violation and corrective actions taken to comply with discharge standards.

[56] Relevant delisting processes are comprised of GCA audits. For details please see "Approaches to Record Removal".

[57] Such as continuing to push suppliers to disclose annual PRTR data or to disclose online monitoring data.

[58] The "path of wastewater treatment" refers to the series of treatment facilities the wastewater travels through prior to discharge to the environment. Sometimes suppliers treat their waste completely themselves and discharge it to the environment directly. Sometimes suppliers pre-treat their wastewater and then send it to a centralized treatment system that further reduces contaminants prior to discharge.

[59] Can compare with government-published list of key polluting entities and develop a list of suppliers for priority management. Should understand the path of wastewater discharge to the final body of water; brand must collect and analyze this information and have at least shared it with IPE.

[60] Can be published on provincial environmental protection bureau key monitored enterprise self-monitoring disclosure platforms, or through IPE's Blue Map App, and should be disclosed according to the regulations on monitoring indicators and frequency of monitoring, set out in the "Measures on Self-monitoring and Information Disclosure for Key State Monitored Enterprises".

		D Pushed water intensive suppliers to disclose their monitoring data for wastewater that is discharged to a centralized treatment system (not necessarily limited to enterprise self-monitoring data), and issue explanations when wastewater exceeds acceptance standards.[61]
		E Regularly screen centralized wastewater treatment plants and if an exceedance occurs investigate to what extent their supplier's discharge has contributed to the wastewater treatment plant's non-compliance issue; OR push the centralized treatment plant to publish details of the violations.[62]
Extend Green Supply Chain Practices[63]	**3.1 Identify, screen, and manage high environmental impact suppliers along the supply chain**	A Not identified high impact suppliers in the supply chain for priority.
		B Classified suppliers according to their relative environmental impact and started full-scale screening of suppliers that have a high environmental impact for compliance violations.
		C Pushed high environmental impact suppliers to publish statements about their environmental problems and corrective actions; OR classified shipping and logistics suppliers based on environmental impact and pushed them to issue public statements about violation problems and corrective actions.
		D Pushed key raw materials suppliers to issue public statements about their environmental problems and corrective actions; OR pushed factories'[64] waste treatment facilities to remove violation records.
		E Pushed raw materials suppliers to remove violation records; OR pushed suppliers' waste treatment facilities to issue public statements explaining their environmental problems.

For wastewater that is not treated before being discharged to a treatment plant, or where there is no treatment contract, the brand shall incorporate the treatment plant into its screening scope and treat it as if it is a supplier.

[61] "Repeated violations" refers to daily average concentration values breaching the standard more than three times in one week. A daily average concentration value that breaches the standard occurs when hourly average concentration values breach the standard at least three times in one day.

[62] Suggestions for implementation: Brands can incorporate centralized treatment facilities into their supplier screening scope. When issues occur, they can analyze the acceptance agreement and judge whether regulations were complied with. In cases where national standards are not met, the supplier should be pushed to implement corrective actions and undergo an audit, and should also raise the issue to the centralized treatment facility.

[63] "Suppliers" in section 3 refers to suppliers along the supply chain where environmental impacts are greatest, including those outside tier 1 and those that do not necessarily have a direct relationship with the brand, like waste treatment/disposal facilities and wastewater treatment plants.

[64] For brands that do not have their own factories, this could also refer to first-tier suppliers or OEM suppliers.

	3.2 Push direct suppliers to screen their own upstream suppliers	A No effective action taken.
		B Taken effective action[65] to push direct suppliers to screen their own upstream suppliers.
		C Some suppliers are screening their own upstream suppliers, identifying violation issues, and pushing their suppliers with violations to provide explanations of actions taken.
		D Some suppliers have established a screening mechanism for upstream suppliers, identified violation issues, pushed suppliers with violations to provide explanations, and they have created a communication channel with stakeholders, OR pushed same-industry brands to manage supply chain environmental risks.
		E Spurred upstream and downstream companies in the same industry to work together to promote industry-wide impact.
Data Disclosure and Transparency	**4.1 Push suppliers to disclose energy and climate data**	A Not required this of suppliers.
		B Has a written policy that requests at least direct suppliers to provide this information.
		C Has pushed suppliers to provide at least some facility-level data, which covers energy consumption and CO_2 emission data.
		D Has identified high energy intensity suppliers up the supply chain and has created a policy requiring these suppliers to provide data on energy consumption and CO_2 emissions.
		E Has pushed energy intensive suppliers up the supply chain to fill out data on an annual basis, and has used this information to set-up suitable and transparent energy and emissions targets.
	4.2 Push suppliers to disclose pollutant release and transfer	A Not required this of suppliers.
		B Publicly required direct suppliers to disclose pollutant release and transfer data.
		C Pushed direct suppliers to fill in and disclose annual PRTR data in line with relevant regulations[66]; OR pushed direct suppliers to fully disclose self-monitoring data[67].

[65] Supplier training, peer to peer mentoring and other forms of promoting supply chain management.

[66] *Measures for the Disclosure of **Env**ironmental Information by Enterprises and Public Institutions*; *Catalogue of Hazardous Chemicals Subject to Priority Environmental Management*; *National Catalogue of Hazardous Wastes*.

[67] Including pollutant discharge concentration and total volumes as well as the discharge standard.

	(PRTR) data	D Pushed high impact suppliers up the supply chain[68] to fill in and disclose annual PRTR data. Data should cover pollutants in the IPE's PRTR primary pollutants list.
		E Pushed high impact suppliers up the supply chain to continue to fill in data every year, and use PRTR data to establish suitable and transparent emission-reduction targets.
Responsible Recycling	**5.1 Establish recycling program and track used products[69]**	A No recycling program for waste products.
		B Has a recycling program in China for waste products.[70]
		C Effectively publicizes their used product recycling program on an ongoing basis, and promotes consumers to participate.
		D Tracks where waste products are sent for final processing and checks the compliance status of the facilities.
		E Pushes final processing facilities to correct their non-compliance issues and disclose their discharge data.

CITI 3.1 key upgrades:

- ✧ Adjustments were made to levels D and E of indicator 2.2, and the level of efforts required to achieve level E increased. We hope to see brands be able to continually pay attention to their suppliers' environmental performance, and recommend for brands to push suppliers that undergo GCA audits to consistently report and disclose their PRTR data so that brands can track their environmental results;
- ✧ Levels B, C, D, and E of indicator 2.3 were revised in order to strengthen brands' management and incorporate specific recommendations for how to do so;
- ✧ Indicator 3.1 is designed to provide a clear guiding path toward simultaneously extending supply chain management upstream to raw materials suppliers and downstream to waste treatment facilities, and also adds a suggestion for paying attention to logistics and transport suppliers;
- ✧ Level E of indicator 3.2 was adjusted to look at industry-wide influence. We hope to see brands be able to motivate brands in the same industry and even industry coalitions to work together, in order to advance industry-wide results;
- ✧ Indicator 5.1 places an increased focus on consistent promotion of recycling and interaction with consumers.

[68] The high impact suppliers were identified in 3.1.

[69] This evaluation criteria refers to the Chinese market. Brands for whom China is not a major market may earn credit in this section by tracking the processing of solid waste from their suppliers, checking the compliance status of disposal facilities, and promoting the reuse and recycling of solid waste.

Appendix II Industry cooperation promotes supply chain management

Trade organizations and industry groups have existed for years across all sectors represented in the CITI. Historically, such efforts included companies working together to address shared interests, such as government regulations, trade policy and safety standards. In recent years, there has been a trend towards the creation of these organizations to collectively address environmental issues. Many of these focus directly or indirectly on supply chain practices as a means of driving industry improvement.

Many brands involved in the CITI evaluation participate in at least one such industry group or trade organization. Standardizing approaches for supply chain management and sharing resources to create common tools and processes across an industry can drive change on a scale greater than any one company can do on their own. Sharing common approaches and resources is highly attractive to multinational brands. However, industry groups must take careful measures to avoid the risk of becoming a safe harbor for disengaged, inactive organizations and to establish credibility with external stakeholders such as academia and non-government organizations.

Clear objectives and a time bound commitment to action is critical for successful industry collaborations. Most collective efforts succeed in establishing goals for their work based on the original reasons for collaborating, but many struggle to create an environment of shared responsibility to achieve those objectives. In doing so, the burden of success falls disproportionately on the organizing body if one exists, a small group of the most engaged members or in the worst case no one at all. To avoid these pitfalls, clearly defined roles and responsibilities for all participants in achieving the groups shared objectives are needed, in order to effectively hold the group and its members accountable. Defining these roles should be completed as a formal process at the onset of the collaboration and intermittently reviewed as needed throughout the life of the effort.

This foundation for shared accountability is the groundwork needed for an industry group to actively track its progress, determine the effectiveness of its actions and evaluate the performance of its members. All of this information should be openly shared among the participants based on agreed upon indicators of success, allowing for the group to identify when corrective actions are needed and who is responsible for carrying them out. While the group may agree upon a specific process and timeline to review progress, in general it is best to conduct a formal reporting process at least once per year. This allows participants to share the results within their organizations and when applicable to publish the results on the organizations website or annual reports.

A formal reporting process lends itself well to what may be the most critical element in maintaining external credibility for an industry group. In order to make meaningful progress and reduce the risk of inactive participants, the group must be transparent in publicly sharing its objectives, actions, challenges and results. This includes being open about program shortfalls and any necessary corrective actions. An appropriate level of transparency will likely bring about external feedback from non-participant peer organizations, academia and non-government organizations. The

industry groups' members may also choose to actively solicit external feedback from key stakeholder groups. In either case, the group must demonstrate an openness to listen to, disclose and account for these external perspectives as a component of its formal annual reporting process. By doing so, stakeholders can recognize the brands and organizations involved in these industry efforts appropriately as leaders.

Relevant Industry Coalitions and Key Steps Taken to Date

Organization	Industry	Members	Key Steps to Date
Sustainable Apparel Coalition	Textile/ apparel, leather	Over 60 apparel brands and retailers, accounting for more than a third of the global apparel and footwear industry	Develop and implement the **Higg Index**, a module to help understand and benchmark the environmental and labor/social performance of apparel and footwear supply chains. Currently developing and improving a process for facilities' Higg score verification via third-party audit
EICC Electronic Industry Citizenship Coalition	IT	More than 100 electronics companies with combined annual revenue greater than $4.5 trillion	Develop and implement the EICC Code of Conduct. Implement the **Validated Audit Process (VAP)** to verify supplier performance and share among member brands
Leather Working Group	Leather	Over 45 brands with supply chains touching on the leather industry; has audited over 14% of global leather production	Implement LWG environmental auditing protocol to assign suppliers **LWG-verified ratings** (e.g. LWG gold, silver or bronze-rated suppliers)
ZDHC	Textile/ apparel, leather	22 textile/apparel brands	Research and develop a common **mandatory restricted substance list (MRSL)** for member brands. In process of adopting **global wastewater guidelines** and developing a platform for disclosure of wastewater testing reports
CDP Driving Sustainable Economies	Multiple	89 supply chain members with purchasing power over $2 trillion	Provide template and platform for brands to **track and disclose supply chain GHG emissions**

JAC COOPERATION BEYOND COMPETITION	IT/Telecoms	13 major telecoms companies	Developed coordinated **on-site audit and development program**, including follow-up corrective action plans. Aim to verify a set number of suppliers per year divided among member companies
TOGETHER FOR SUSTAINABILITY	Chemical	18 of the world's largest chemical companies	Implement **TfS audit at chemical suppliers** as an attempt to unify standards across the chemical industry and minimize repeat audits/audit fatigue by sharing information among member brands

Innovative Case

The Sustainable Apparel Coalition (SAC) Takes Steps toward Transparency

The Sustainable Apparel Coalition (SAC) aims to drive transformative change in the apparel, footwear and home textile supply chain. Its main focus is in building the Higg Index, a standardized supply chain measurement tool to understand the environmental and social and labor impacts of making and selling their products and services. In particular, manufacturers use the Higg Facility Modules to measure the social and environmental performance of their facilities regarding such aspects as energy use, water use, and management systems.

The SAC recently launched a transparency roadmap publicly in June 2016. The Transparency roadmap articulates how members can roll out previously confidential Higg Index scores to the general public. Based on the roadmap, Higg facilities data is set to be released by mid-2018 and brand and product tool data is to be released afterwards, with 2020 seen as a final cut-off date for full public release of the Higg Index. The SAC is currently working with members to develop a 'communication tool kit' for each of the different assessments describing how the released Higg scores can be used so that information is released in a consistent way.

Appendix III Green Choice Alliance Partner Network

#	NGO Name[71]	#	NGO Name
1	Friends of Nature	28	Green River
2	Global Village Beijing	29	Dalian Environmental Resource Center
3	Green Earth Volunteers	30	Fujian Green Home
4	Global Environmental Institute	31	South China Nature Society
5	Huaihe River Guardians	32	Green Kunming
6	Gansu Green Camel Bell	33	Chongqing Liangjiang Voluntary Service Center
7	Friends of Green in Tianjin	34	Institute for Environment & Development
8	Beijing Association of Sustainable Development	35	Zhaolu Environmental Protection and Commonweal Service Center
9	Center for Legal Assistance to Pollution Victims	36	Green Stone Environmental Action Network
10	Chongqing Green Volunteer Federation	37	Green Zhejiang
11	Green Hunan	38	Green Panjin
12	Nature Watcher Volunteer	39	Gull Protection Association of Panjin City
13	Environmental Protection Commonweal Association	40	Xiamen Greencross Association
14	Hubei Green Hanjiang	41	Hebei Green Sound
15	Xinjiang Conservation Fund	42	Nature University
16	Lvse Jiangnan	43	Wuhu Ecology Center
17	Yunnan Green Watershed	44	Wild China
18	Wenzhou Green Eyes	45	Wuling Mountains Conservation Federation
19	Dalian Environmental Protection Volunteers Association	46	Fujian Environmental Protection Volunteers
20	Green Island	47	Greenovation Hub
21	Green Beagle	48	Lanzhou University Center for Rural Development and Biodiversity Protection
22	Shanghai Oasis Ecological Conservation & Communication Center	49	Wuhan Green Canaan
23	Shaanxi Women's Federation "Red Phoenix Project"	50	Shenzhen Spring Environmental Protection Volunteer Association
24	Friends of Green Environment	51	Green Longjiang
25	Green Longjiang	52	Lvyang Environmental Protection Center
26	Green Anhui	53	Institute of Public & Environmental Affairs
27	Green Zhujiang		

[71] In no particular order.

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