



Smart Freight Forum  
Shippers' Dialogue and Workshop on Safe,  
Compliant and Sustainable Transportation  
Services  
Summary Report



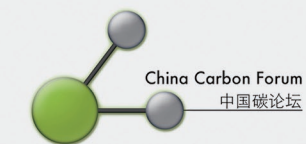


## Smart Freight Forum:

The China Smart Freight Forum seeks to gather executives and professionals dedicated to a more sustainable and efficient freight sector. The 2019 Forum series is organised by Smart Freight China to join hands with other key partners leading China's freight sector development to:

- Facilitate information sharing and collaboration among key partners on smart freight and logistics development;
- Present and showcase progress made on sustainable and green freight by business leaders, i.e. green shippers, LSPs and carriers;
- Inform participants of policy and regulatory trends, discuss industry development pathways, and introduce fuel efficient technologies, measures and sustainable freight solutions.
- Agree collaboration actions among participating organisations

## Forum Partners



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# 智慧货运论坛 - 安全、合规和可持续的运输服务

## Smart Freight Forum - Safe, Compliant, and Sustainable Carrier Service



### Summary Report

The Smart Freight Forum Shippers' Dialogue and Workshop on Safe, Compliant and Sustainable Transport Services was held in Shanghai on August 1, 2019. The forum was directed by the Smart Freight China Expert Committee, co-organized by the Smart Freight Centre and the China Federation of Logistics and Purchasing (CFLP), and sponsored by the Energy Foundation China, IKEA China, Scania China and Nike China. More than 40 people from IKEA China and other shippers; technology and vehicle providers such as Scania China and Wabco; development agencies including the Energy Foundation and GIZ, participated in the forum.

The forum was divided into two sessions. A shippers' dialogue was held in the morning, and the afternoon workshop focused on "Safe, Compliant and Sustainable Transportation Services". The Forum was facilitated in charette style, focusing on the participants' experiences, challenges and responses to sustainable development in the freight transport sector.





## Shippers' Experience: Sustainable Development and Green Freight

### 1. "Road-to-rail, Road-to-waterway" multimodal transport practice

IKEA introduced its Dongguan project which focused on shifting from land-based diesel truck transport to water barge transport in the Dongguan area, under the assumption that while transport of goods would take the same length of time, transport costs could be reduced, challenges related to road traffic congestion could be avoided, transport-related carbon emissions could be decreased. IKEA also replaced road transport with rail container transport between Guangzhou and Chengdu, eliminated non-compliant 17.5-meter transport truck, and monitored carbon emissions to ensure that they were decreasing.

Lenovo has implemented a transport demand management system, shipping products that are less time sensitive by rail instead of road, effectively reducing transport costs as well as transport-related carbon emissions.

### 2. Transport visualization software, system construction and management practices

IKEA has developed a transportation visualization platform, which makes use of the

Beidou navigation system on trucks to view vehicle trajectory in real time, thus giving the company transparency on what used to be the "black box" of truck transport. The application not only reduces the risk of losing vehicles, but also reduces the cost of information communication because it enables staff know in real-time when the vehicle is arriving at the warehouse, allowing them to properly arrange unloading without the need for additional communication with the truck driver.

Lenovo has many less-than-truckload shipments that can be difficult to track. The company makes use of mobile vehicle tracking and positioning devices to ensure it knows where its goods are. A tracker is attached to each load, then when the load has been successfully received, the device can be used on other loads, thus achieving visibility across the entire transport process.

### 3. Controlling carrier subcontractors

Nike's transportation contracts clearly state that subcontracting is not permitted by the carrier, and that carriers must provide vehicle-specific information, thus strengthening vehicle scheduling management and effectively reducing the risk of loss of control that occurs when transport services are subcontracted.

In contrast, Lenovo directly manages the second-tier carriers, establishes relevant requirements and conducts assessments of second-tier carriers, thus reducing the risk associated with subcontracting.



#### 4. Application of electric heavy-duty trucks and logistics and distribution vehicles

IKEA has put electric heavy-duty trucks into use at port for short-haul trips. The company leases the trucks in order to reduce its up-front costs and operational risks. The vehicles are now largely capable of covering costs while reducing carbon emissions.

IKEA and H&M promote the use of electric logistics and distribution vehicles and have incorporated these criteria into their bidding requirements and pricing quotation systems. The companies offer guidance to carriers on the proper use of electric vehicles and have seen an increased proportion of electric vehicles to diesel vehicles used in their distribution systems.

#### 5. Vehicle light weighting

IKEA has partnered with vehicle equipment companies to develop new vehicles and trailers using lightweight technology meaning that more goods can be loaded on a single truck while ensuring that the total weight of the vehicle does not exceed its weight specification.

#### 6. Efficient fleet management system practices

Nike requires carriers to have their own Transportation Management Systems (TMS) and to interface with Nike's TMS so that they can observe the real-time status of the order and ensure that the transportation is performed as planned.

The fleet management system is increasingly powerful, and can provide relevant technical support for shippers in the aspects of vehicle fuel consumption management, cargo loading measurement, driver behavior, vehicle maintenance, path optimization and so on.

## Challenges Facing Shippers in Transportation Sustainability

#### 1. Lack of credible third-party evaluation criteria for sustainable freight

Each time a new carrier is recruited, the shipper needs to start from scratch to ensure that the carrier can meet sustainability requirements and compliance – a time- and energy-intensive process for the shipper. At the same time, sustainability standards are difficult for carriers to achieve because shippers' requirements are not necessarily all the same, and carriers' services are not all the same. Carriers may be operating under various conditions that make them slower to reduce emissions, and they need to be treated differently. In addition, due to the lack of common carbon emission measurement tools, the lack of reliable carrier emission reduction data sources, the lack of commonly recognized environmental indicators, and difficulty in carrying out horizontal comparisons of carbon emissions between companies, it is



difficult to objectively measure the baseline and improvement of shippers.

#### 2. Multi-level subcontracting makes sustainable freight difficult to achieve

Multi-level subcontracting is a common practice in the freight industry in China, where the shipper will outsource transport business to the carrier, but due to insufficient capacity or other needs, the carrier often then subcontracts out part of the business to another level of carriers, and the next level of carriers may even continue to subcontract. As a result, the control that shippers have over carriers is weakened and mutual trust is difficult to establish, resulting in the shipper's sustainable development goals being difficult to achieve. The top-level carrier directly managed by the shipper may be "green", but when the work is subcontracted to the next level carrier it becomes difficult to know if the carrier is green or "yellow" or even "black" – i.e. non-compliant.

#### 3. Opaque transportation information leads to insufficient supply chain visibility

Multi-level subcontracting of transportation service results in opaque transportation information. Some less-advanced carriers are not willing to link their data to shippers or their "client" carriers; sometimes they have no transport management system. As a result, freight goes into a "black box" where shippers do not know how to locate their goods in real-time, and optimization and integration becomes impossible. As a result, delivery time can be unpredictable and traffic accidents and emergencies may be more likely with poor-quality carriers, thus increasing overall supply chain uncertainty, and goods are at higher risk of theft, fraud or other illegal acts which may bring economic or reputational damage to the brand.





#### 4. Green Freight is not yet cost effective for companies

Sustainable development requires initial investment which will increase short- to mid-term costs to companies. What companies need are improvements that can directly improve supply chain cost control, timeliness, services quality and other dimensions of freight that improve product competitiveness. In many cases there is a contradiction between green freight and corporate cost-effectiveness. Some companies find it is still unrealistic to consider greening freight when it does not come with cost-effectiveness improvements.

#### 5. Lack of policy communication and government initiative for sustainable freight

In recent years, the state has attached great importance to environmental protection and sustainable development, with many departments and agencies introducing policies and measures such as the green "Belt and Road", "Transport Structural Adjustment", "Diesel Vehicle Pollution Prevention" and "Over-size, Overload Control", which have had significant impacts on transport logistics planning and management of cargo. Some companies that follow policy trends benefitted by making timely adjustments, but most shippers are not adequately sensitive to policy, and lack means of learning about new policies, requiring them to behave reactively rather than proactively. This type of behaviour increases the difficulty of transport structural adjustment and increases the risk of uncertainty in the supply chain.

#### 6. Lack of an experience sharing and cooperation platform for sustainable freight

Shippers have explored various areas of sustainable development, but with the lack of a regular communication mechanism with other shippers, it is difficult to learn from each other, green freight promotion across industries a challenge. Lack of a business-oriented resource-sharing platform makes it difficult to cooperate effectively on resources, capacity, technology, transport mode, etc. It is also difficult to share high-quality freight transport service, freight routes, idle warehouses and other resources. Sharing information on baseline costs, freight practices, technology and development would help create mutual benefit between companies and reduce the initial start-up risk of green freight and sustainable development.





## Contradiction Between Transport Compliance and Sustainable Development

Being sustainable should improve transport compliance, non-compliance behavior brought risks for shippers. Today, due to the unreasonable formulation of policies and regulations, the low cost of non-compliance, and the general phenomenon of non-compliance in freight is pervasive. There is a problem of lawlessness, and non-compliant vehicles account for a relatively large percentage of the fleet. These non-compliant companies can bring lower prices because the costs of compliance are high. If only procurement-compliant vehicles are used in providing actual services, transport prices may become unreasonably high, or it is possible that there may not even be adequate supply of transport capacity.

Yet, the development of transport compliance is a trend, as is the trend towards more greener freight. With the gradual improvement of national transport compliance requirements and tightening of implementation (especially through the initiative of shippers) conditions should improve. Additionally, the establishment of a regular communication and coordination mechanism with the government could create opportunities to redefine and optimize the scope of compliance and shrink the gap between transport compliance and sustainable development. It will be key to determine the reasonable expectations of society and maintain an achievable pace of change, while also giving a certain degree of tolerance and understanding through the process of improving compliance. This poses a challenge for shippers that wish to actively participate in green freight while also guarding against the risk of violations.

## Risks to Transport Compliance and Green Freight

### 1. Truck driver fatigue and speeding

According to the "Truck Driver's Employment Survey Report" produced by the CFLP Road Freight Branch, 67.53% of drivers spend more than 10 hours a day driving, which is more than the daily working hours in many other industries. Among them, the proportion of drivers with travel time of more than 12 hours per day exceeded one third, reaching 38.56 percent. Many long-distance trucks with trips over 1,000 km have reduced the number of drivers on-board from two drivers to one, making it impossible for drivers to take a break even after 10 hours of continuous rest, this increased the risk of fatigued driving and the risk of goods damage caused by traffic accidents.

### 2. Illegal vehicle modification and overloading

In 2016, the crackdown on illegal overloading of road trucks achieved positive results. However, there is no clear next step in governance to stop the illegal retrofit of vehicles that exceed length, width and height limits. Industry is uncertain on how to proceed, and it is difficult to make investment decisions. Some companies have





taken the opportunity to modify vehicles to increase freight volume, making oversized, overloaded vehicles a more and more serious problem. Prices for freight are falling, but also greatly increasing transportation safety risks. Some local officials have been carrying out oversized vehicle regulation enforcement, seizing oversized vehicles and requiring goods to be unloaded and increasing security risk to the shipment. It has been discovered that some carriers, after sub-contracting, will combine the loads of two trucks and two shippers onto one vehicle, resulting in a risk of traffic violations and penalties for being overloaded.

### 3. Unreasonable price and competition

Due to the widespread non-compliance in the transportation market, there is unreasonable price competition. Non-compliant carriers upset the normal pricing mechanism and cause a race to the bottom in quality and price. If compliant service prices rises too quickly, it will be difficult to control costs of carriage.

### 4. Vehicle environmental compliance

On December 30, 2018, eleven departments, including the Ministry of Ecology and Environment and others, jointly issued the Action Plan for the Fight against Diesel Trucks Pollution. The policy required the acceleration of the phase-out of older vehicles and deepen management practices. Below-standard diesel vehicles accounted for 53.6% of all China's diesel vehicles, making the phase-out a huge challenge. Various local governments have sped up the elimination of freight vehicles and placed passage restrictions on non-compliant vehicles to encourage the use of new energy logistics vehicles in cities, which brought challenges for shippers to control the transport cost.

### 5. Fuel price fluctuations

Due to market volatility of fuel prices, it is not possible to accurately estimate the next year's costs. If price fluctuations are too large, shippers and carriers face unpredictable losses.

## High-Quality Freight Transport is Required for Sustainable Development in the Freight Sector

The "Star Fleet" index conducted by the CFLP Road Freight Branch classifies carriers according to six dimensions including scale, efficiency, sustainability, safety, integrity and information technology. The top-ranked companies were recognized as "stars". With the increasing demands of shippers, carriers with more modern equipment, improved efficiency, energy intelligence, and specialised management, should be labeled as "high-quality carriers", reflecting positively on their reputations. Among them, the pursuit of sustainability should guarantee high-quality service and can lay the foundation for green freight across the whole supply chain. Carrier management still lacks an objective evaluation index system, and there is little follow-up with green freight training, guidance and exchange. The "Star Fleet" recognition and active participation of shippers in the safety, compliance and sustainability efforts of transport companies is an important driving force for the industry's efficient and green development.







## Co-operation Needs for Building Compliant and Sustainable Transport Services

### 1. Build a Smart Freight Alliance for cooperation and sharing

Strengthen the communication between shippers and other stakeholders, and establish an "information exchange channel" and "information sharing platform" to finally become a mutually beneficial alliance ecosystem. This ecosystem should include sharing of beneficial experience in the areas of information management, business practices, resources, technology and other aspects of in-depth cooperation, to help shippers to jointly promote industry compliance and sustainable development.

### 2. Development of green sustainable freight assessment indicators

Relying on CFLP, initiated by the Smart Freight Centre and shippers, and with the coordination of the Secretariat of the Smart Freight Alliance, Green Sustainable Freight Assessment Indicators is suggested be developed in order to improve the selection of green sustainable carriers, according to the dimensions of green sustainable development design. At the same time, these indicators can help carriers continue to improve the level of green and sustainable transport services.

### 3. Cultivate and lead the construction of green, sustainable high-quality transportation service

Using the green sustainable freight evaluation index to form a pool of high-quality green freight transport companies, the shippers should share freight resources and deepen coordination and cooperation. A Shippers' Alliance along with high-quality transportation companies should create a virtuous cycle that improves collaboration and sharing throughout the transport ecosystem.

### 4. Explore an objective road transport pricing model

Price quotations generated through data modelling, industry benchmark quotations, and logistics information platform quotations will be used by the CFLP to collect information and establish the benchmark transportation service price models that the industry can use as a relatively fair and reference guide price. This will be the initial establishment of fair and neutral road freight rates in China.

## Next Steps: Work Schedule

1. The Smart Freight Centre will work with Energy Foundation China, the CFLP, IKEA, Scania, Nike, H&M, Lenovo and other shippers to negotiate and determine the alliance's charter, strategic direction, management structure, work plan and other specific arrangements.

- Draft the Alliance charter and confirm the founding members
- Develop strategy and management structure
- Draft the 2020-2023 Work Plan

### 2. Launch the green sustainable freight assessment criteria

CFLP and Smart Freight Centre will summarize the opinions of the shippers at this meeting:

- Set up the criteria work project team to obtain project financial support;
- Conduct research through the Shippers' Alliance to collect corporate standards and related initiatives;
- Research and develop the green sustainable freight assessment indicators and certification methods for pilot application in the Alliance;
- The green sustainable freight evaluation index will be gradually promoted in the industry, to help shippers choose a green fleet, to help government departments make environmental decisions, and for the development of the industry to optimize the market environment to provide important support.

### 3. Launch research and feasibility studies on an objective and fair transport pricing model

- Learn more about the demands and expectations of shippers and the industry for the model;
- Research the historical development and current operation of the freight market pricing system in Europe and the United States;
- Hold stakeholder workshops to identify the scope and objectives of feasibility studies and make recommendations for action.





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