

# Reflections on building a zero-carbon, intelligent, international cold chain logistics system

## ——Upgrading scheme for green cold chain logistics carriers

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# Shenzhen Zhaohang Logistics Co., Ltd.

Zhaohang Logistics's development strategy is to develop international cold chain logistics business

Founded in 1999, Shenzhen Zhaohang Logistics Co., Ltd. is a national high-tech enterprise, China's AAAA logistics enterprise, and a national digital warehouse pilot enterprise. Shenzhen Zhaohang is also the director member on the board of the Entry-Exit Inspection and Quarantine Association.

Shenzhen Zhaohang has outlets covering more than 200 Chinese cities, and has established a center in Vietnam, radiating to Southeast Asian countries such as Laos, Singapore, Thailand, Malaysia, and Myanmar. Our company opened the "China-Vietnam blocktrain", "China-Laos block train", "China-Europe blocktrain", building an efficient logistics and transportation network between China and the world.



# The current major bottlenecks, pain points, difficulties restricting the development of cold chain logistics

Fake cold chain  
people's  
complaint



Using  
chemical  
preservatives  
to keep fresh

Real cold chain  
Unaffordable  
by people



High logistic  
cost

High carbon emission  
Negative impact on  
the environment



Unable to realize  
the two carbon  
goals

Asymmetry of  
information  
Imbalanced flow of  
import and export



Unable to fully  
integrate the cold  
chain logistic  
resources; broken  
information chain  
resulting in waste  
of resources

How to realize low carbon emission and achieve the two carbon goals for cold chain logistics

How to use intelligent methods to empower, integrate existing cold chain logistics resources, and improve comprehensive adoption and enhance the value of cold chain logistics ?

How to seek a solution to the effective integration of the logistics systems of the five Lancang-Mekong countries and build an intensive, efficient, logistics network integrating domestic and international markets, with high-quality, safe and reliable services? and how to improve the utilization rate of logistics facilities, circulation efficiency and supervision of the cold chain logistics?

## Our solution

Innovation drives break-through to achieve the green cold chain logistics mode

Build an intelligent cold chain logistics information platform

Upgrade the international cold chain logistics network

# Option 1: Innovate and make breakthrough into the green cold chain logistics transportation mode

40'  
reefer  
contai  
ner

移动无源冷链方舱



Emission  
reduction

0

Cost  
reduction

0

Air  
contro  
lled  
500  
hours

传统冷链运输车



59.79 ton  
Carbon  
emission

Cooling oil  
consumption  
2000 litres

# Option 1: Innovate and make breakthrough into the green cold chain logistics transportation mode

Efficiency enhancement

Intelligent level

移动无源冷链方舱



Diversification of transportation modes. Separation of vehicle and container, using trailer and multimodal transport of road+rail+sea, improve the operation efficiency of fleet. It's widely used.

Each container has its ID, the temperature can be adjusted, trajectory can be followed, products can be known,; It allows the customs automation processing, convenient for fast customs declaration and clearance

传统冷链运输车



Single mode of transportation, need to be cooled  
The vehicle and the container cannot be separated. It's not suitable for multi modal transport, high freight rates, constitute a cold chain logistics bottleneck

Increase management cost and difficulty,  
Not conducive to automated processing

# Option 2: Build an intelligent cold chain logistics information platform

——Mobile passive cold chain cabin control tower

## Ex Ante

Shipper looking for cargo  
Convenient touring  
leasing, providing cold  
chain logistics round-trip  
vehicle pooling and LCL  
loading information.  
Provide protection for  
international import and  
export and commercial  
enterprises.  
Improve cold chain  
logistics facility efficiency  
and utilization

Cargo looking for  
shippers.  
Two-way stowage,  
nearby delivery, and  
centralized  
deployment. Support  
traders to place orders  
by themselves, realize  
seamless connection  
between warehouses  
and refrigerated  
vehicles, and reduce  
cargo damage. Speed  
up the flow of goods  
and improve overall  
operational efficiency

## Interim

Flow, trajectory and  
traceability  
Realize the joint supervision  
of enterprises and  
government , and whole  
process traceability.  
Quarantine treatment after  
landing to cut off the  
transmission of the virus.  
Automatically generate credit  
rating + payment settlement

## Ex Post

Repair, training, after sale  
services  
  
One stop solution

# Option 3: Upgrade the international cold chain logistics network

Recent Case of Thai Customs Declaration

The six countries have unified standards to solve the problems of mutual connection and recycling, unified container numbers, mutually recognized code, information sharing, and interconnection.

*Intelligent mobile cabin quality standard*

*Intelligent mobile cabin clearance standard*

*Intelligent Mobile Cabin Access Mutual Recognition Standard*



Upgrade the logistics network connecting domestic and foreign markets to realize international information connection. Form effective connections to achieve efficient two-way communication, and promote the low-carbon transformation of cold chain enterprises

## Discussion, consensus, concerted actions

Protect environment and ecology, benefit farmers and other people, assure food safety

Low temperature treatment rate

Two way flow rate

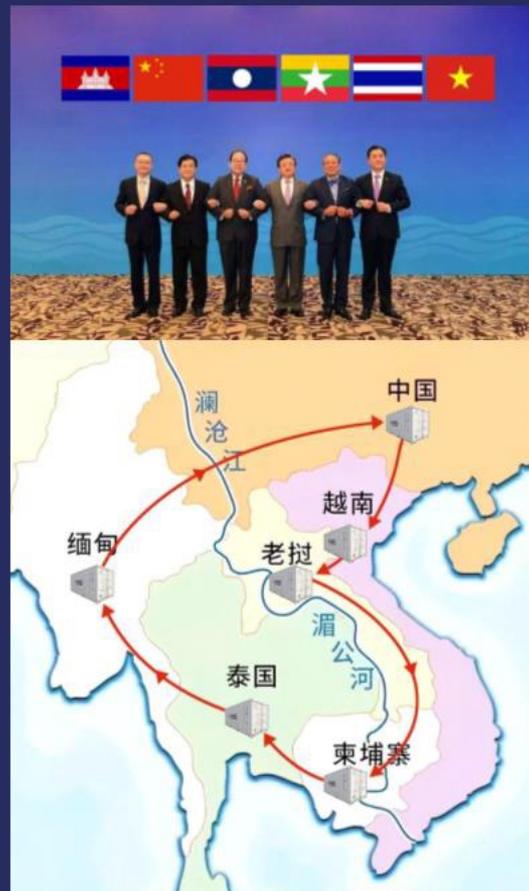
Cold chain logistics standardization rate

Emission reduction contribution rate

Damage rate of agro products

Build a zero-carbon intelligent international cold chain logistics system; achieve consensus to build and share such a system. Promote the green transformation of cold chain logistics industry, promote the construction of a community with a shared future for mankind,

And to contribute Chinese wisdom and Chinese solutions for a beautiful and low-carbon world.



Zehoo<sup>®</sup> Logistics<sup>®</sup>  
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企业仓储运输外包服务商

20<sup>1999</sup>  
2019  
th  
干净透明 不负所托

Thank you

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