

# AJEEP Online Seminar

( Transportation Division )

## Overcoming the Logistics Crisis in Japan

### Smart Logistics Services

### "Regional Logistics" Initiatives

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**株式会社セイナー情報サービス**



# Logistics crisis is becoming apparent, and the impact on the Japanese economy is serious.

## Labor shortage

- Declining birthrate, aging population, and declining working-age population
- Serious labor shortages, especially in the logistics and retail industries

## Diversification of logistics needs

- Sophistication of consumption, development of EC and personal trading
- Progress in high-mix, low-volume, high-frequency logistics

## Unique business practices

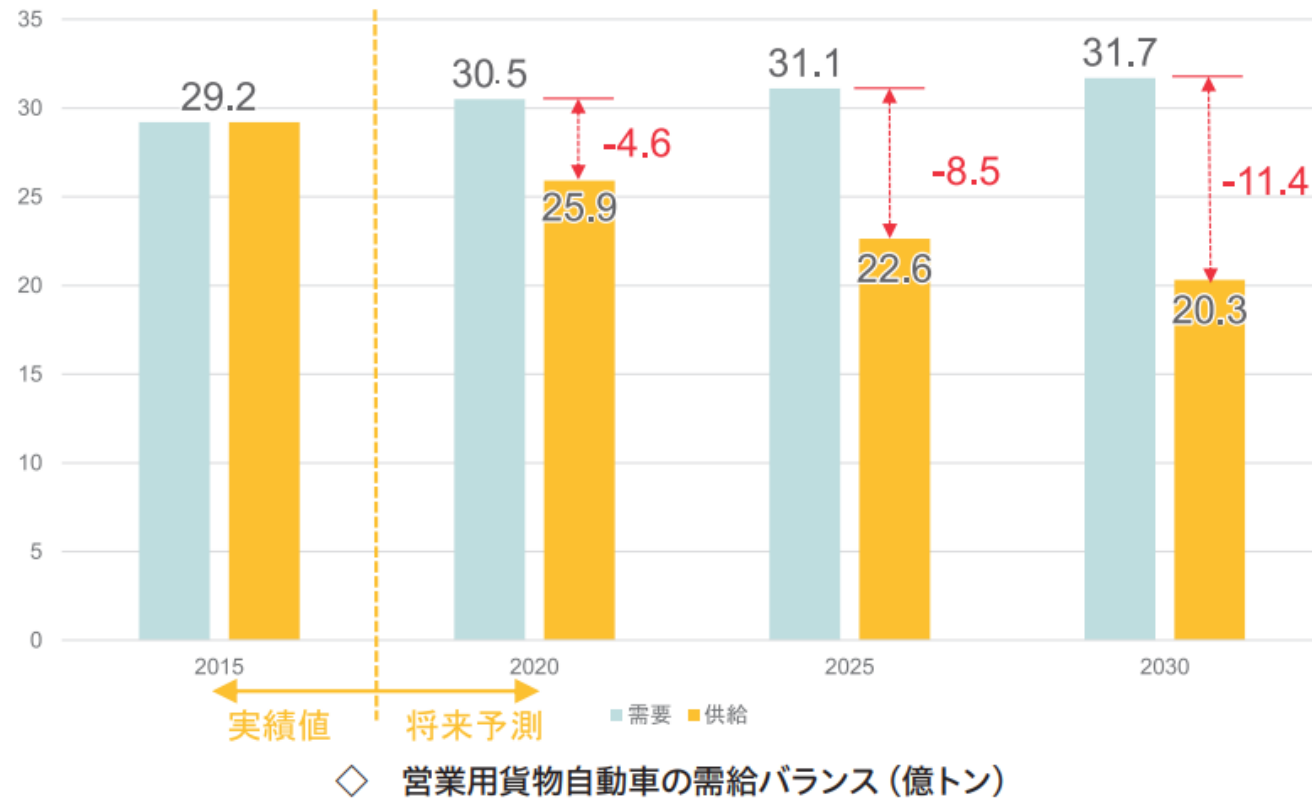
- Long cargo handling and waiting times for truck drivers
- Increased workload due to high-mix, low-volume, and high-frequency production
- Responding to tight lead times
- Responding to the different requirements of each delivery destination

**Each company is making efforts to help itself,  
but it is impossible for a single company to solve the problem.<sup>2</sup>**

# Logistics Challenges Facing Japan

Labor shortage

Growing shortage of trucking supply



# Logistics Challenges Facing Japan

Labor shortage

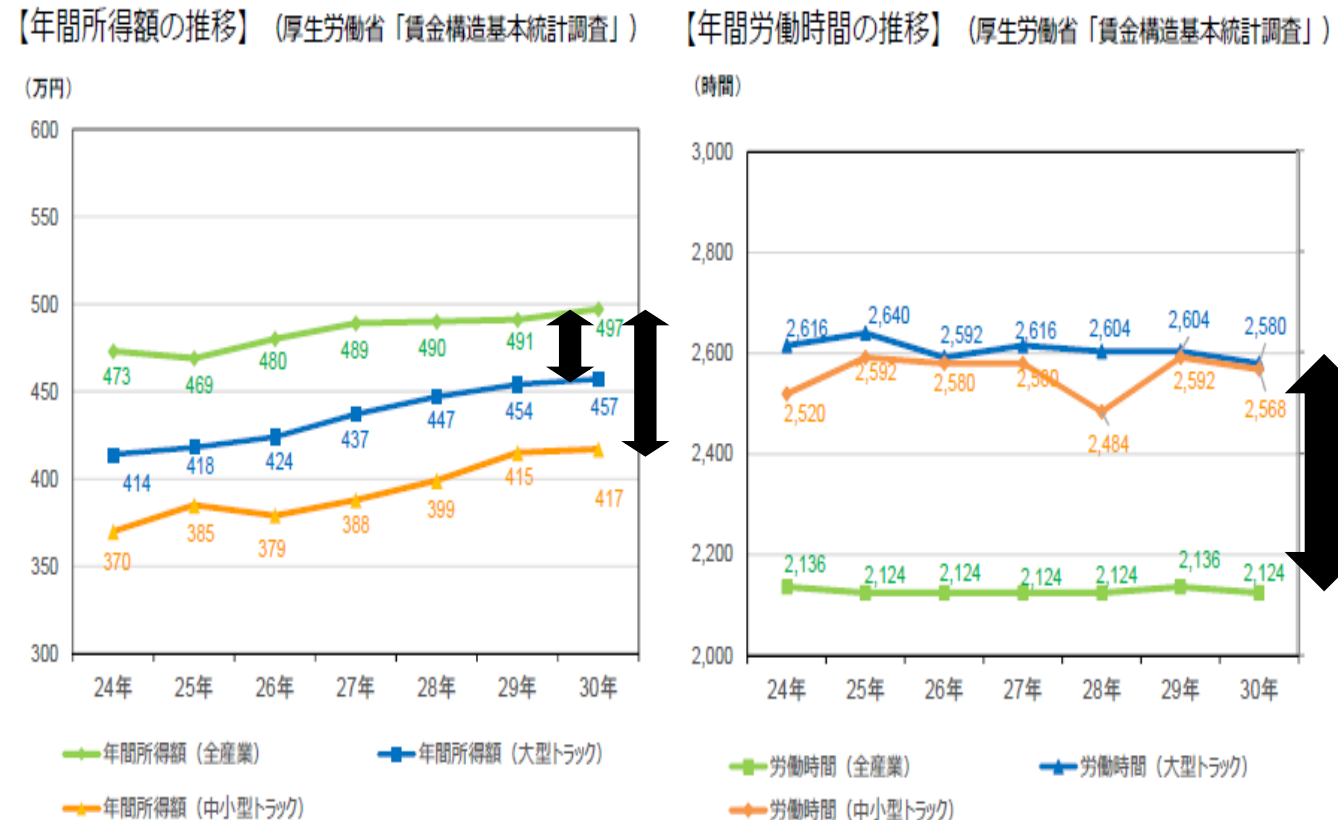
Truck drivers are underpaid and work long hours.

Legend

average for all industries

heavy truck drivers

medium and light truck drivers



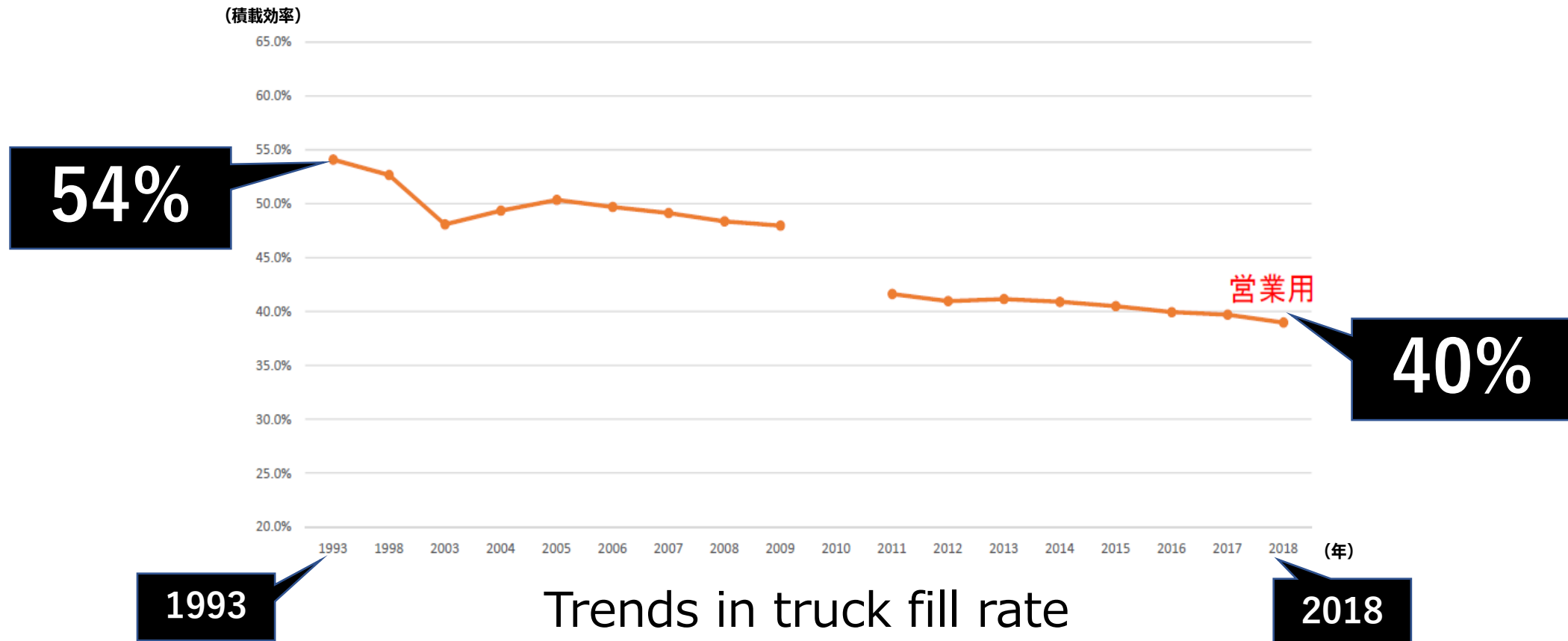
Trends in annual income and annual working hours of truck drivers

(Quoted from the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), July 2020: Trends in the Logistics Industry)

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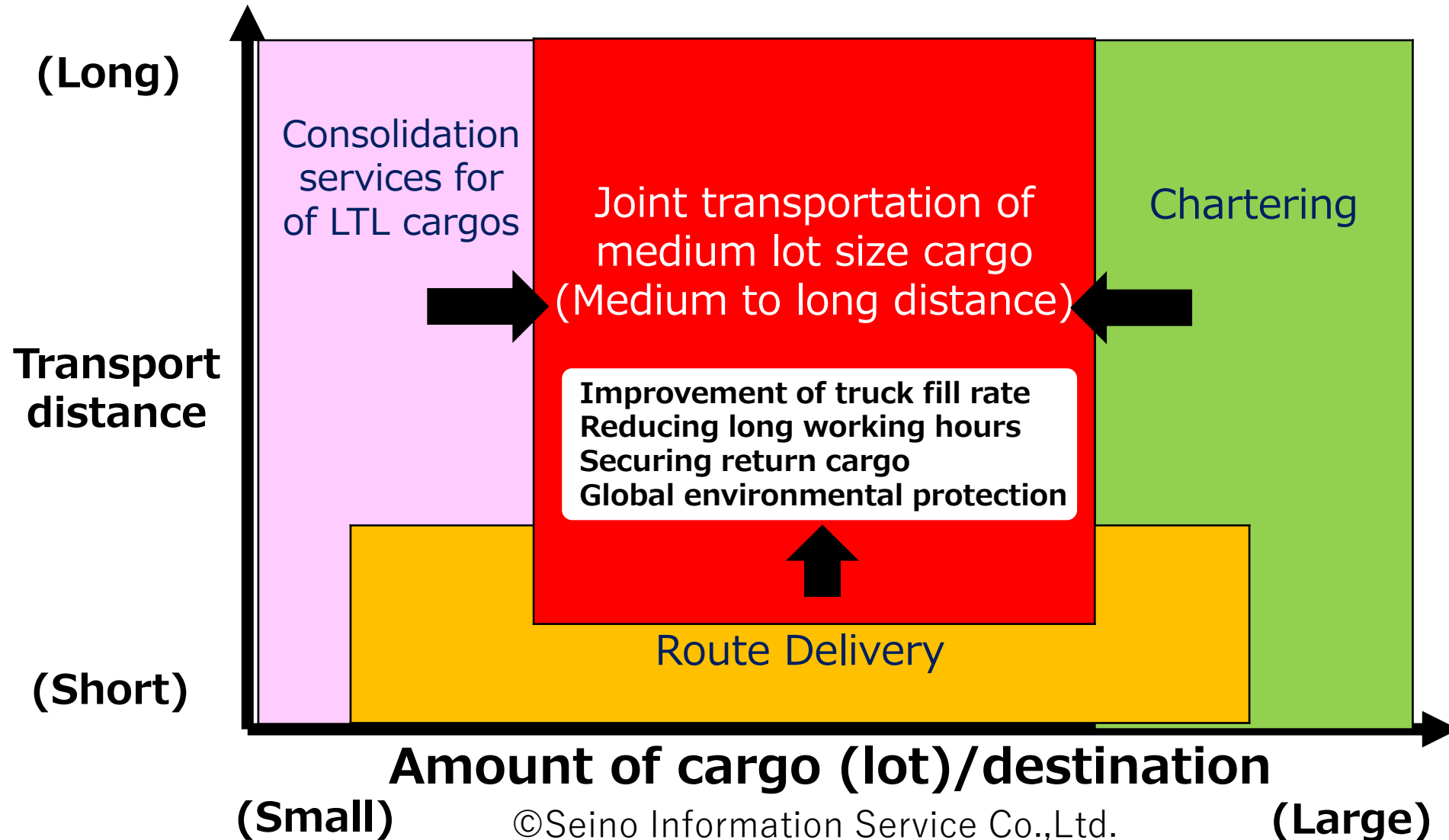
# Logistics Challenges Facing Japan

## Truck fill rate continues to decline...

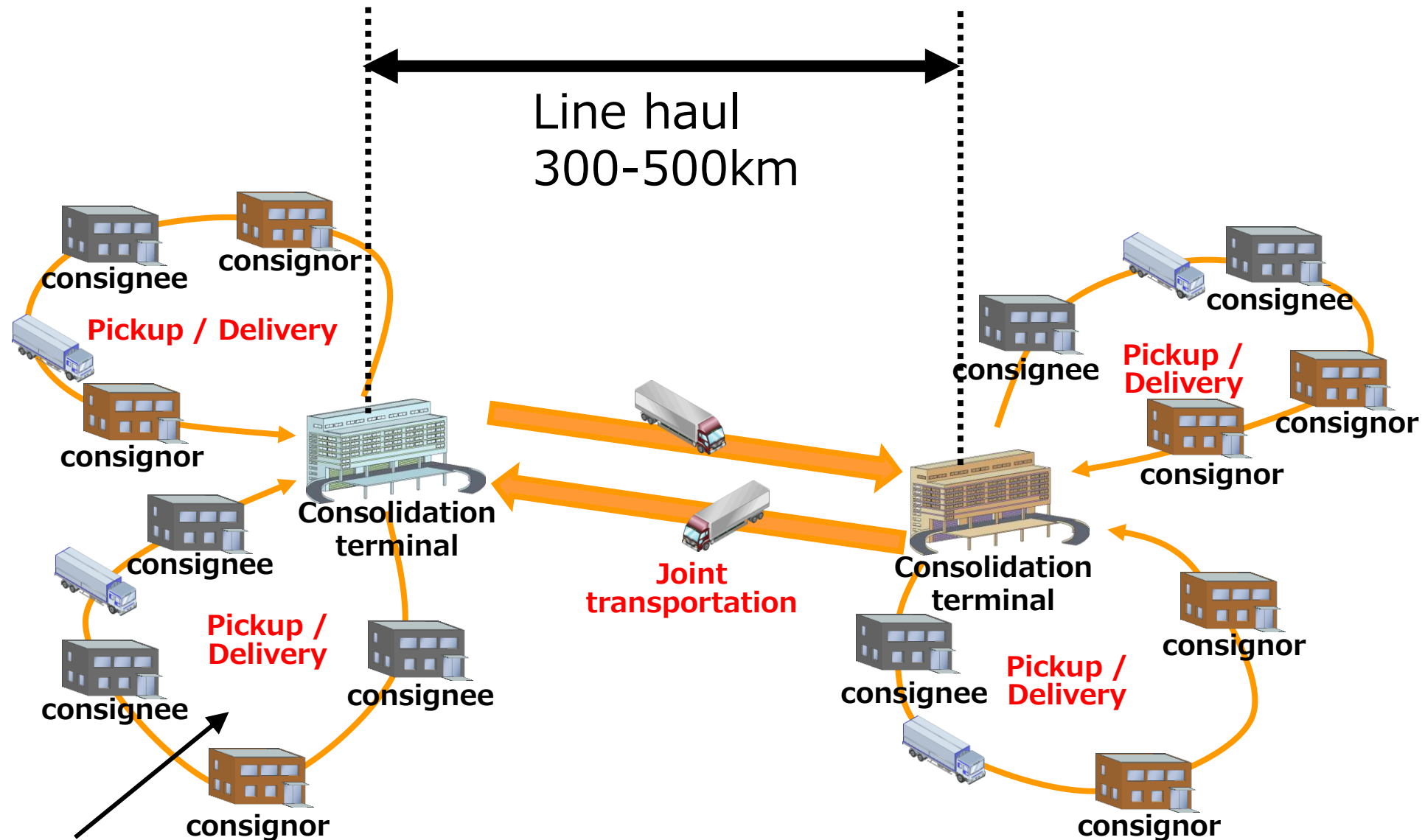


Trends in truck fill rate  
(Quoted from the Ministry of Land, Infrastructure, Transport and Tourism's July 2020 report on trends surrounding logistics.  
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# “Regional Logistics” initiatives target medium lot size moving over medium distances



# Basic network structure in “Regional Logistics”



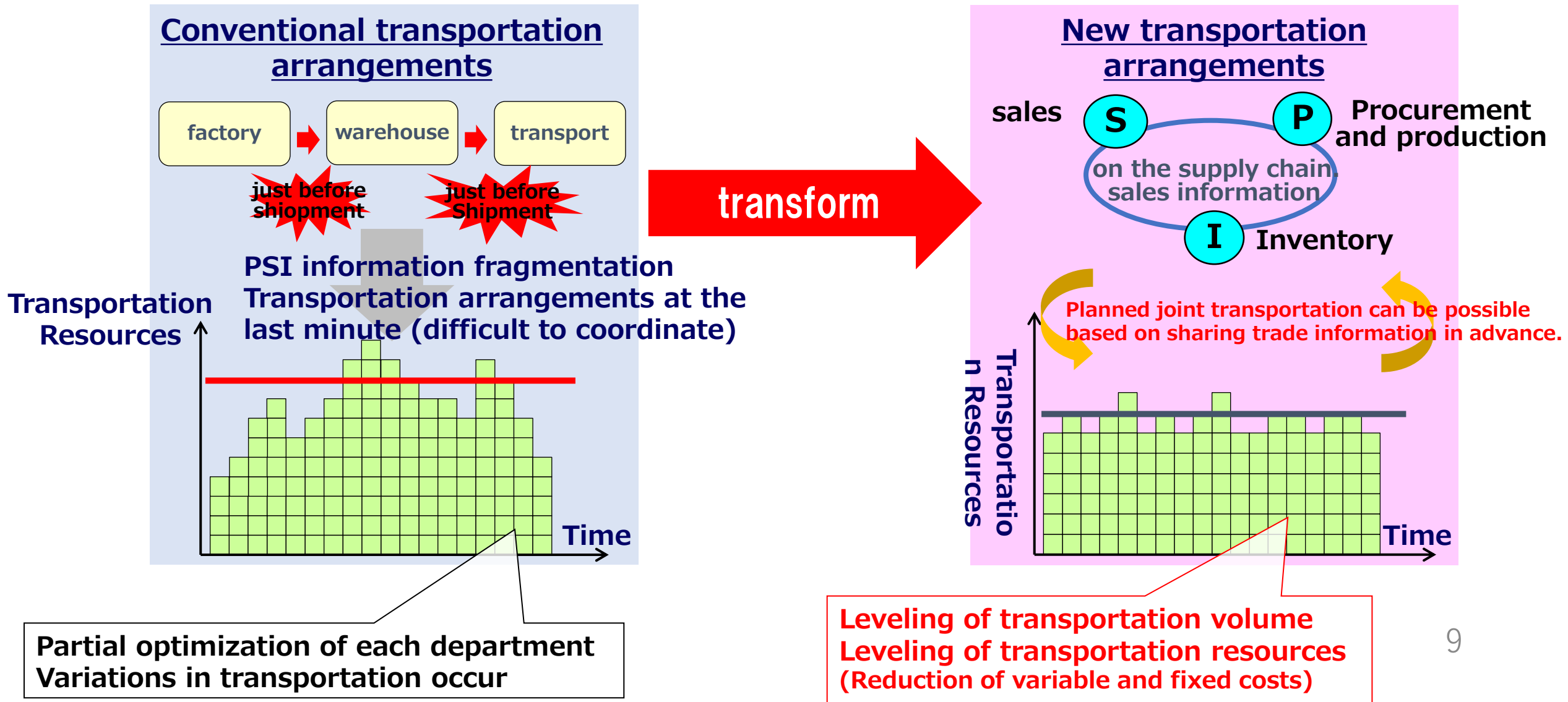
200km in diameter

# Four perspectives of problem solving in “**Regional Logistics**”

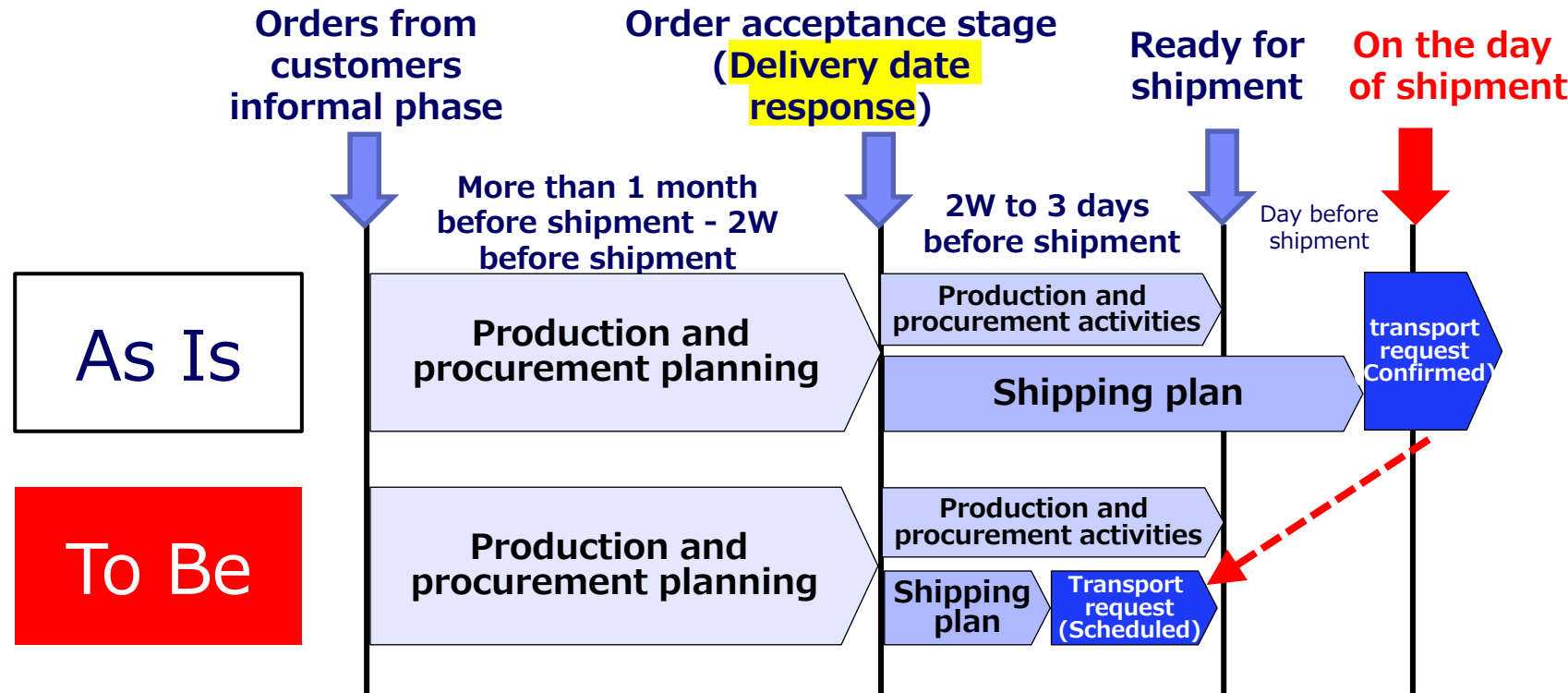
- 1. Reduction of last minute transportation requests**  
(prior sharing of transportation plans)
- 2. Relaxation of time windows**  
(reduction of inefficient time-sensitive delivery)
- 3. Securing transportation capacity**  
(securing stable medium-long range transportation capacity)
- 4. Joint transportation**  
(promotion of joint transportation by companies from different industries)



# What will be transformed in “Regional Logistics” ?

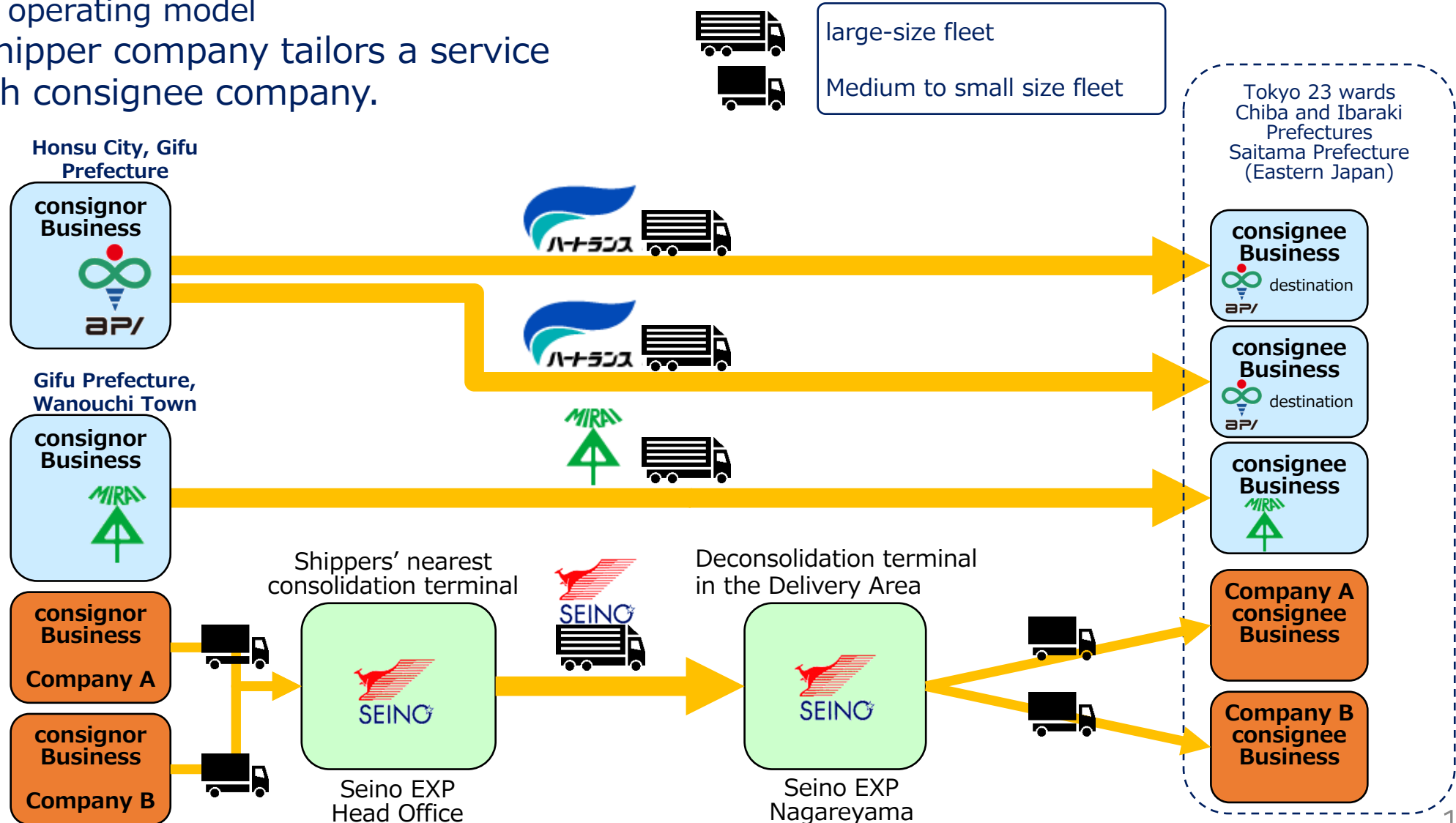


# Realization of planned transportation through sharing information in advance



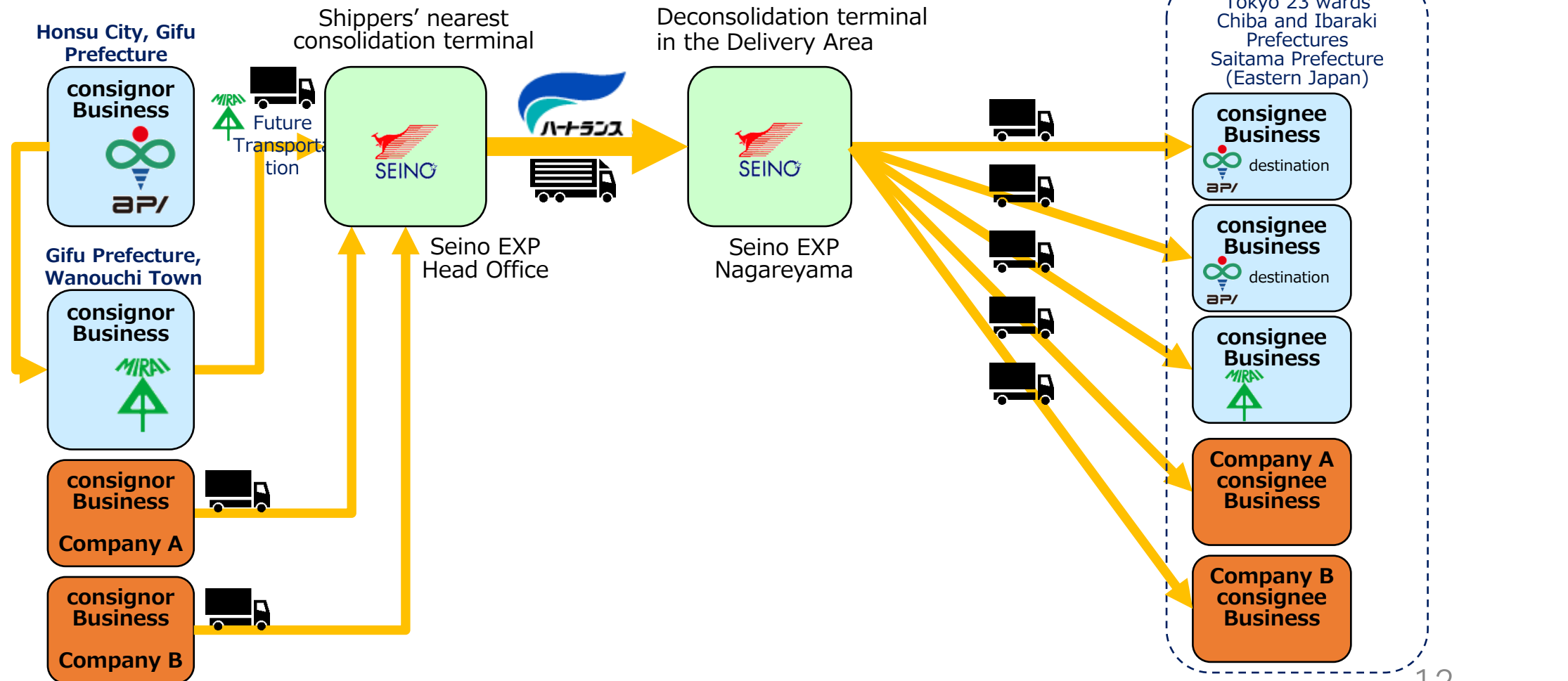
# Current operating model (AsIs)

Current operating model  
Each shipper company tailors a service  
for each consignee company.



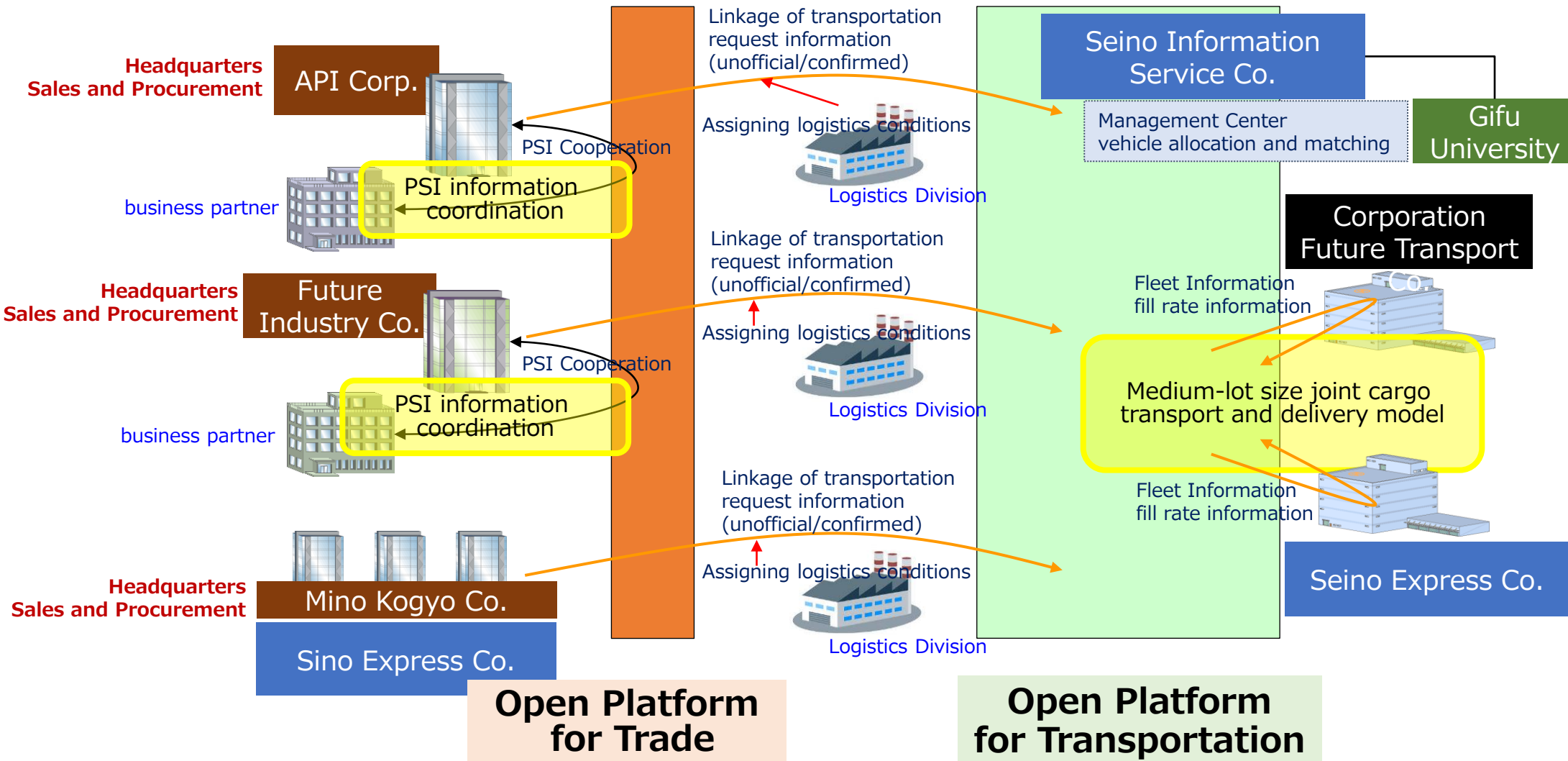
# Operating model (ToBe) to be conceptually verified

- Collection of cargo from the nearest consolidation terminal of the shipper company and line haul transportation to consolidation terminal in the delivery area
- Delivery from the deconsolidation terminal to each consignee company

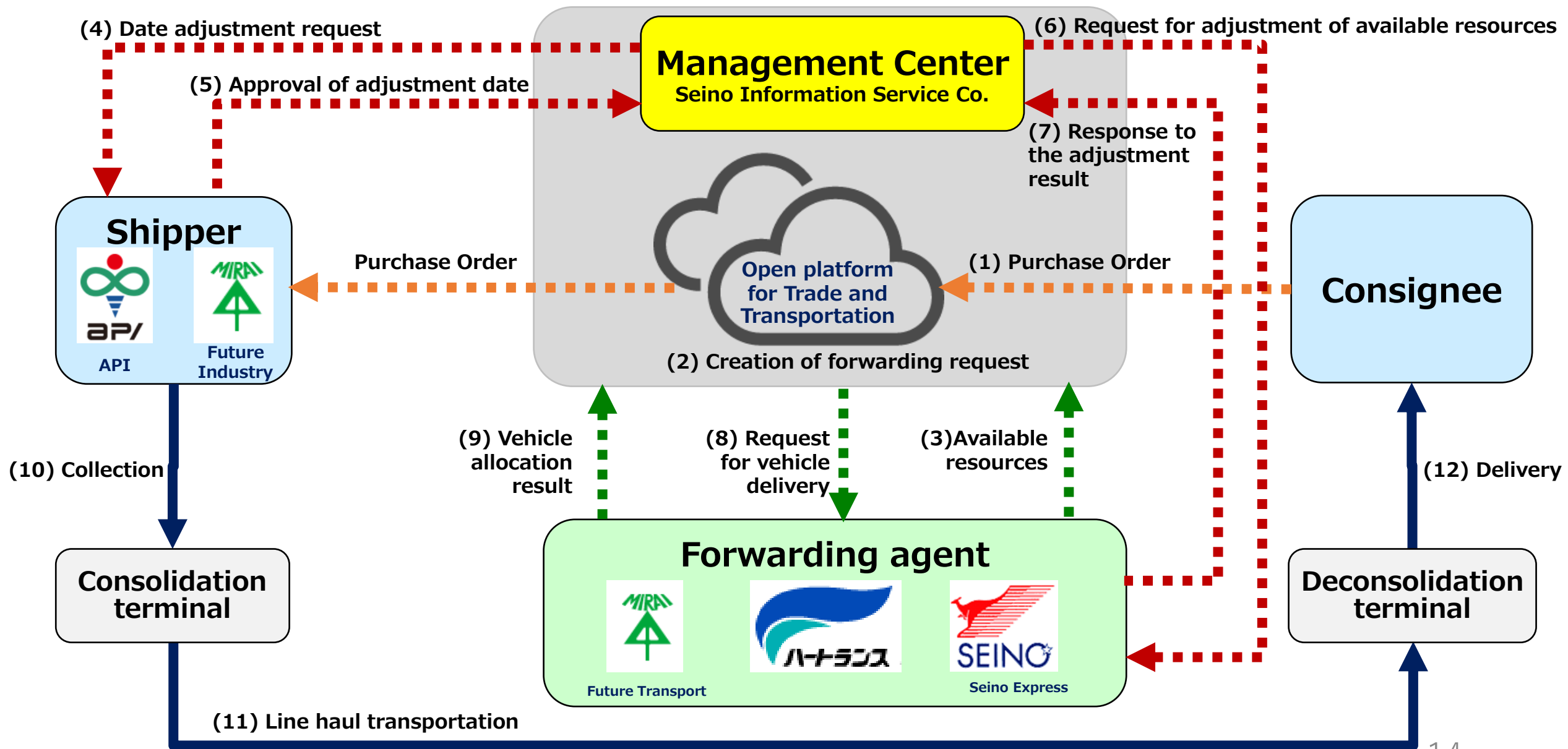




# Open platforms to realize Regional Logistics



# Flow of goods and information on Open Platform

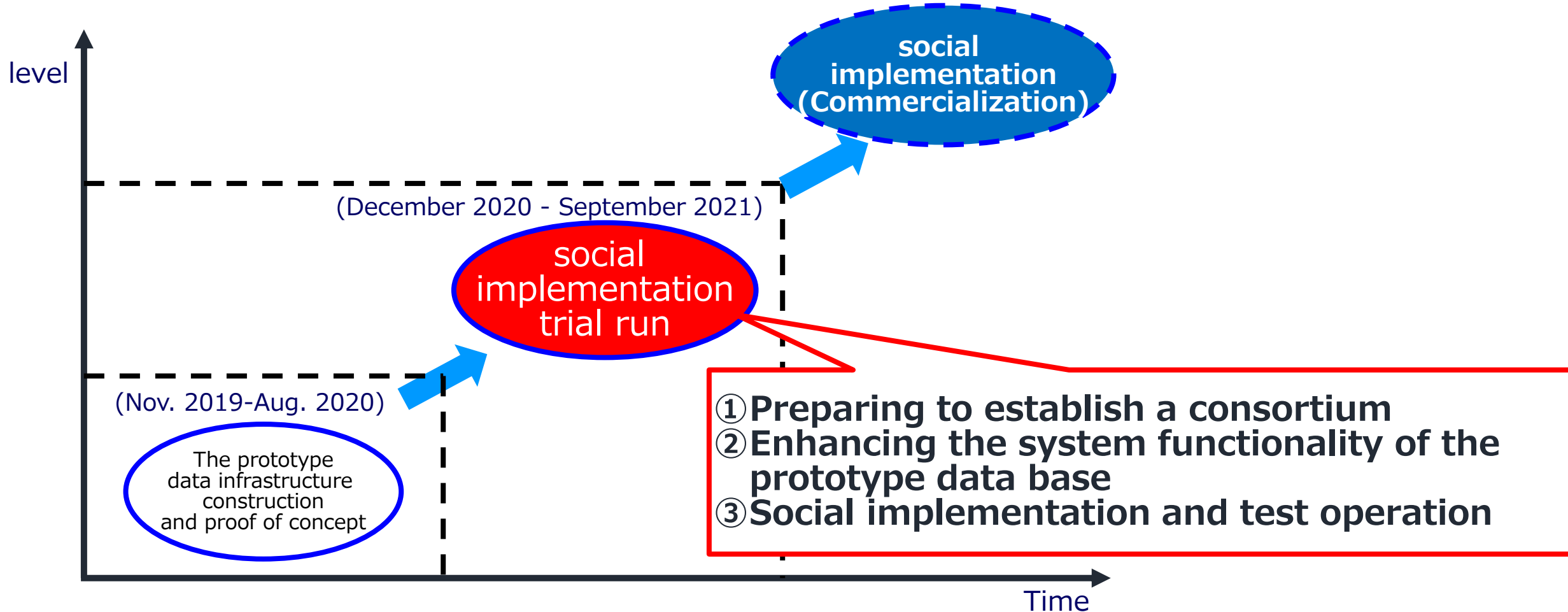


# Effects observed in the proof of concept

Truck fill rate in line haul improved by **21.9 %**  
on average

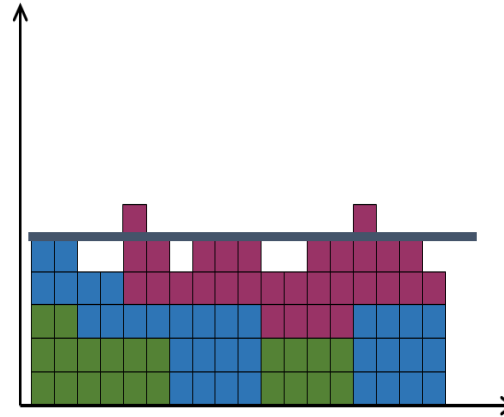
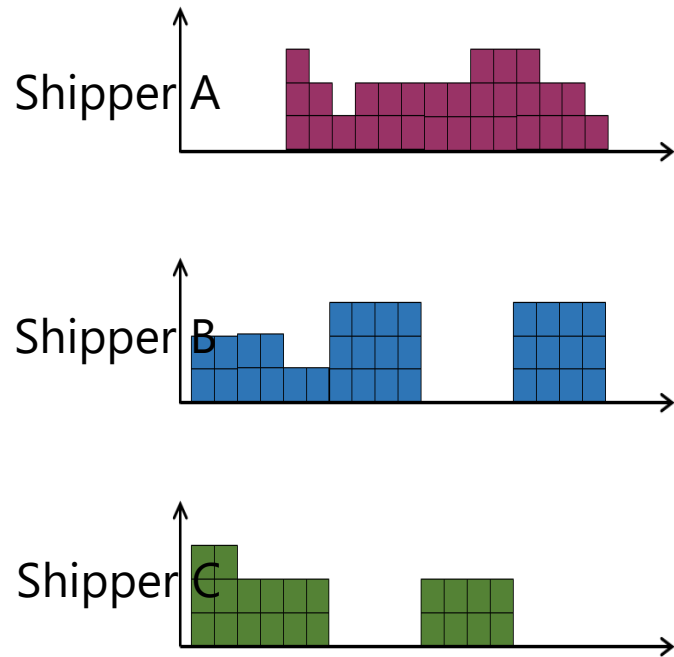
Long-distance driver restraint reduced by **18.3%**  
on average (10.3h → 8.45h)

# Steps for social implementation





# Future Challenges: Dynamic Pricing



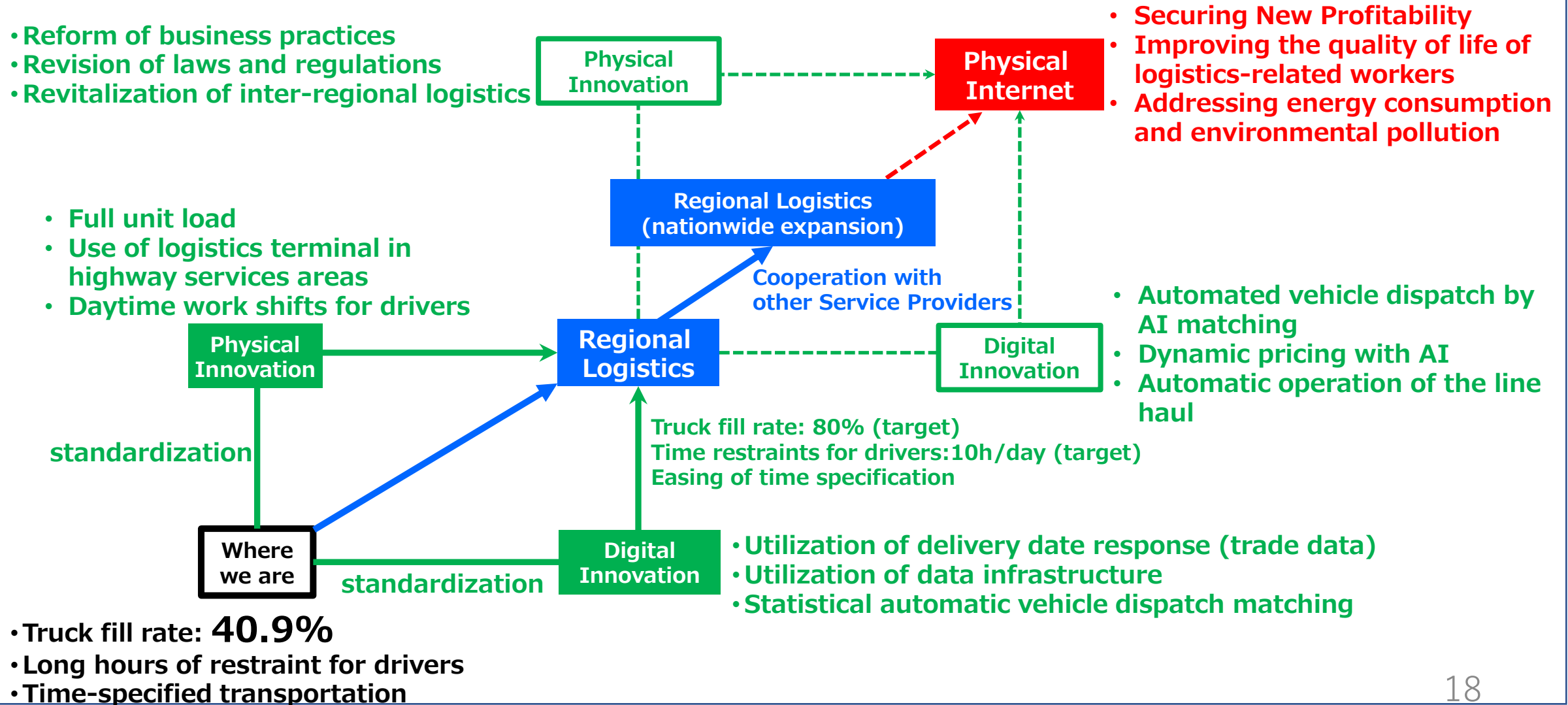
**Solve**  
**Lack of resources**



Transporters

## Offset Logistics peak

# How do we view the relationship between “**Regional Logistics**” and the physical Internet ?



**Thank you for your attention**

