

# Guidance for Introduction of Returnable Transport Items (RTI) in International Logistics (Ver.3)

**April,2024**

**International Logistics Office, Logistics and Road Transport Bureau**

**MLIT**

**Ministry of Land, Infrastructure, Transport and Tourism**

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# 1 Introduction

## 2 RTI in International Logistics

## 3 Benefits of Using RTI

## 4 Procedures for Import/Export of RTI

## 5 Examples of RTI Utilization

# Purpose of the Guidance

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- Since 2006, Japan, China and Korea have held a Ministerial Conference on Transport and Logistics every two years. The main goals of the Conference are "Promotion of a Resilient Logistics Network", "Creation of a Seamless Logistics System" and "Establishment of Environmentally Friendly Logistics".
- Promotion of Returnable Transport Items (hereafter RTI) is expected to contribute to the reduction of logistics costs, as well as to reduction of environmental burden by reducing the disposal of one-way transport materials.
- In FY 2021, MLIT prepared a "Guidance for Introduction of Returnable Transport Items (RTI) in International Logistics" to promote use of RTI in international logistics and introduced how to use RTI and examples of initiatives taken by the shippers.
- In FY 2022, in order to further promote the use of RTI by shippers, MLIT conducted a survey of the reduction effect on logistics cost and CO<sub>2</sub> emissions by using RTI, and revised the guideline based on the result of the survey.
- In FY 2023, in order to establish a scheme for the joint use of RTI internationally, a pilot transportation using RTI was conducted to verify the possibility and issues of duty exemption for re-export / re-import of rental pallets, and revised the guideline again based on the result of the pilot transportation.

# Importance of Consistent Palletization with RTI

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- In international logistics, many shipper companies **loose load**\* their cargo so as to maximize the container/trailer capacity utilization.
- However, to respond to the demand for SDGs and ESG, it is important to reduce loose cargo (manual handling) by **consistent palletization**\* and to increase RTI in international logistics to enhance environmental sustainability.
- For both production goods and consumer goods, the leading companies in the manufacturing industry make such efforts.

## Steps to Promote the Usage of RTI in International Logistics



\***Loose load** is a shipping practice of loading and unloading products by hand on a container/trailer.

\***Consistent palletization** means transporting and storing cargo from the place of departure to the place of arrival with the cargo on the same transportation device such as a pallet.

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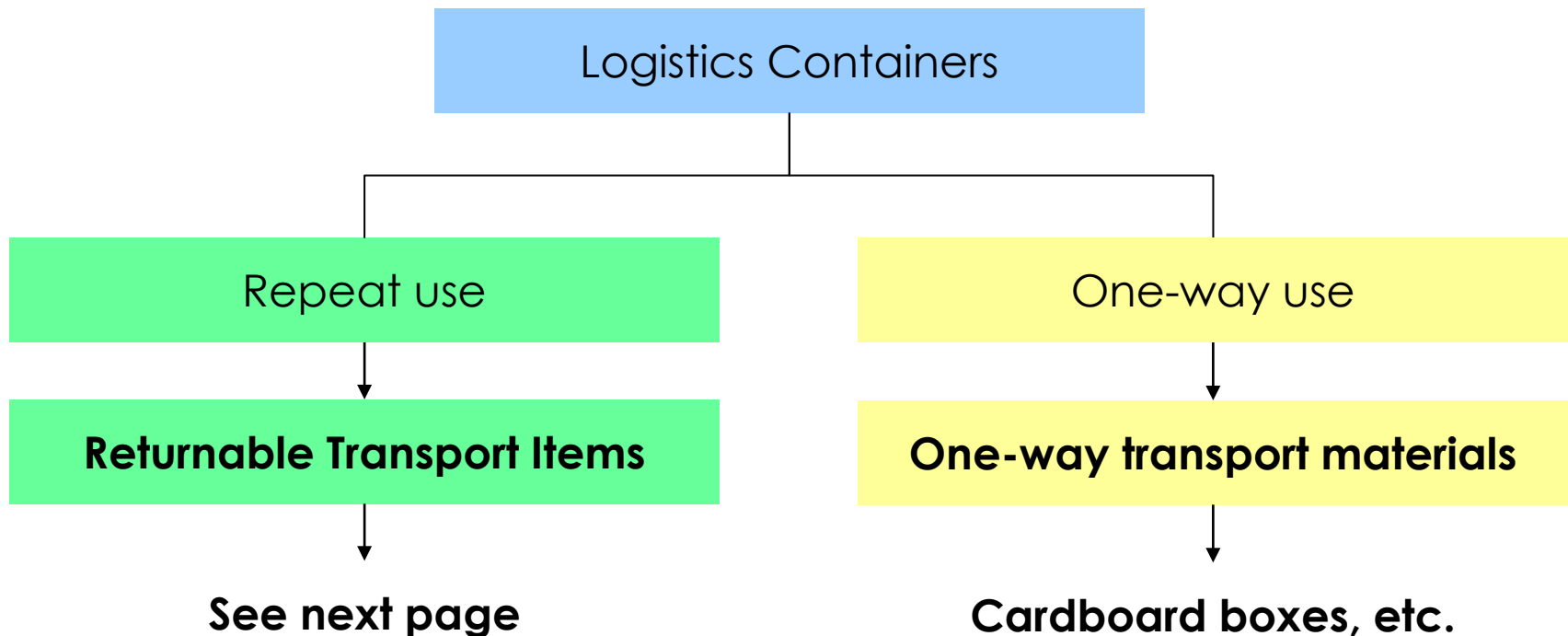
4 Procedures for Import/Export of RTI

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# RTI : What is “Returnable Transport Items”?

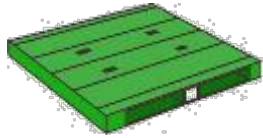
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- Logistics containers are used to efficiently handle (contain/load) when transporting and warehousing.
- RTIs are used repeatedly. On the other hand, one-way transport materials are used only once and disposed (one-way use).



# Types of RTIs

(Source: Japan Pallet Association / Japan Pallet Rental Corporation)



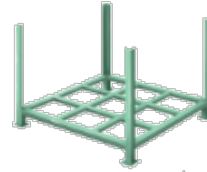
## Pallet (Standard)

A flat, low, portable platform on which goods are placed for storage or moving, as in a warehouse or vehicle.



## Box Pallet

Large robust corrugated boxes attached to wooden pallets. (Incl. mesh box pallet with steel frame construction.)



## Post Pallet

A stackable steel stillage with a rectangular base. These items have no sides, a post at each corner, and cupped feet for easy stacking.



## Pallet Slip Sheet

Thin, pallet-sized sheets made of plastic, heavy laminated kraft paperboard, or corrugated fiberboard.



## Roll-Box-Pallet

Mobile cages, used as a convenient method of moving and transporting a variety of goods, efficiently and safely within a warehouse or between various destinations



## Cart rack

Transport equipment with wheels, used between supermarket distribution centers and stores.



## Dolly

Compact equipment with wheels used to move pallets, goods or containers without the help of a tractor. Normally used in warehouses.



## Plastic Container

Stack & nest containers. Boxes from high-quality injected plastic with smaller dimensions at the base and wider at the top edge



## Folding Container

Either metal or plastic, with sides, ends, and a base so constructed that it can be folded to a flat configuration..



# Definition of RTI in Japanese Industrial Standards (JIS)

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- **“RTI” is defined in JIS as follows**  
**<JIS Z 0664 : 2015 (ISO 17364 : 2013)>**

RTI (Returnable Transport Items) Any product for transport and handling and/or distribution of single or multiple products or product packaging, which is returned for reuse.

- Examples: pallets that require or do not require a cash deposit, and all forms of reusable wooden boxes, trays, boxes, roll pallets, barrels, carts, etc.
- Note 1 : The term “Returnable Transport Items” implies that the ownership of the containers (e.g. pallets) remains with the owner (shipper) and in such cases this standard is applicable. For example, if ownership of an item of equipment such as a pallet is transferred to the customer as part of a unit load, this equipment is considered an element of that unit load and the applicable International Standard is ISO 17365.
- Note 2 : Cargo containers, trailers and other similar enclosed modules are not included in the term “Returnable Transport Items” .

# How to Use RTI in International Logistics: Using RTI Originating from home country

## ■ Three ways to use home country-originated (owned) RTIs.

### 1. Loading products for only export



### 2. Loading products for only import



### 3. Loading products for both export and import



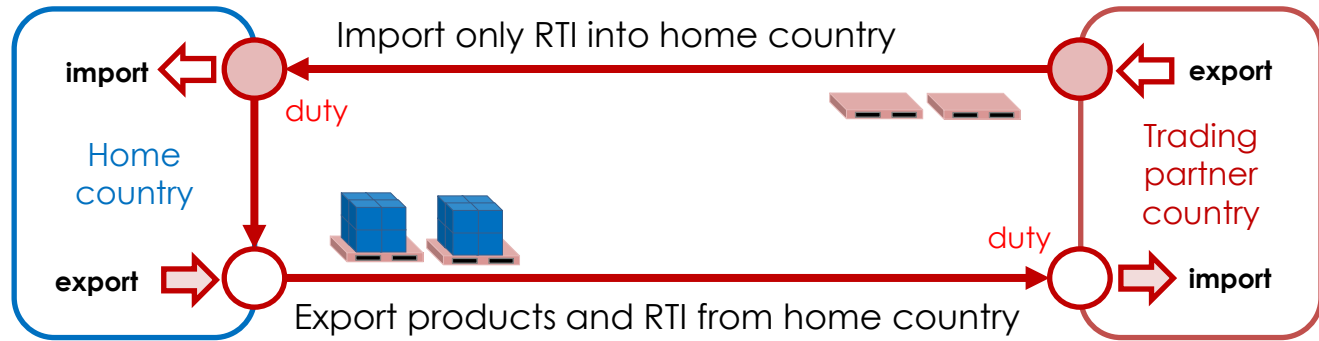
# Using RTI Originating from the Trading Partner Country

## ■ Three ways to use partner country-originated (owned) RTI.

### 1. Loading products for only import



### 2. Loading products for only export



### 3. Loading products for both import and export



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# Benefits of Using Logistics Containers / RTI

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## ■ Benefits of using logistics containers

### (compared with loose loading)

- ✓ Reduction of time required for loading & unloading
- ✓ No need for pallet preparation at the unloading location
- ✓ Reduction of manual handling, thereby reduction of cargo damage
- ✗ Less utilization of the container/trailer capacity
- ✗ Additional cost for pallets (or other materials) procurement

## ■ Benefits of using RTI

### (compared with one-way transport materials)

- ✓ Reduction of transport material disposal cost and environmental burden
- ✓ Reduction of total cost, although initial investment cost is high
- ✓ Less cargo collapse and damage due to higher quality and strength
- ✗ Additional storage cost and collection cost when RTIs are unused

→ RTI may provide significant benefits,

and its proactive utilization is highly expected.

A summary of the results of quantitative benefits of the cost and environmental impact estimates is provided on page 13.

# Quantitative Benefits of Using RTI

- We have estimated quantitative benefits of the use of RTI for imports and exports originating from home country in terms of cost and CO<sub>2</sub> emissions for the following three patterns.

Without RTI	Schematic diagram of transport route	Cost	CO <sub>2</sub> emissions
<b>Cardboard boxes and disposable pallets are used</b>	<p>Export products and disposable pallets/cardboard boxes from home country</p>	1.00	1.00
Using RTI	Schematic diagram of transport route	Cost	CO <sub>2</sub> emissions
<b>RTI one-way use: Loading products for only export</b>	<p>Export products and RTI from home country</p> <p>Import only RTI into home country</p>	0.83	1.09
<b>RTI round-trip use: Loading products for both export and import</b>	<p>Export products and RTI from home country</p> <p>Import products and RTI into home country</p>	0.60	0.96

- We assumed that we use plastic flat pallets and folding plastic containers as RTI.
- Cost and CO<sub>2</sub> emissions are ratios based on the use of cardboard boxes and disposable pallets as "1.00".
- Quantitative benefits were estimated for transportation between "Yokohama and Hong Kong" by 40ft marine container. This estimation was conducted by setting assumptions based on existing data and interviews with manufacturers and other parties.
  - Cost items: Purchase and processing costs for disposable containers and RTIs, ocean container freight, RTI transportation cost, etc.
  - CO<sub>2</sub> emissions items: Pallet/container resource production, disposal and logistics of pallet/container.

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# Duty Exemption for Re-Import and Re-Export

- Logistics containers are subject to duty, but there is a duty exemption scheme for RTI.
- There are two types of duty exemption.
  1. Re-import duty exemption
    - Duty will be exempted when re-importing RTI into home country.
  2. Re-export duty exemption
    - Duty will be exempted when re-exporting RTI of partner country.





# Duty Exemption Scheme for RTI in Japan

- The laws that provide the basis for RTI duty exemption in Japan and their contents are as follows.

Law	Types of Duty Exemption	Excerpt
Customs Tariff Act Article 14 (Unconditional Duty Exemption)	Re-import Duty Exemption	The imported goods set forth in the following items shall, pursuant to the provisions of Cabinet Order, be exempted from customs order. Item11 : containers exporting goods from Japan(including those of a similar type; omit) to be specified by Cabinet Order, used at the time of the export or being in use for import of goods.
Customs Tariff Act Article 17 (Re-export Duty Exemption)	Re-export Duty Exemption	The imported goods set forth in the following items shall, pursuant to the provisions of Cabinet Order, be exempted from customs duty, provide that they are exported within one year from the date of their import permission. Paragraph1,item2 : containers prescribed by Cabinet Order, used for import goods Paragraph1,item3 : goods prescribed by Cabinet Order, used as containers for export goods.

# Re-Export Duty Exemption Scheme for RTI in China & Korea

- The re-export duty exemption schemes in China and Korea require prior application.

	Japan	China	Korea
Law	Customs Tariff Act Article17	Customs Law Article31,59	Customs Act Article97,98
Requirements for Exemption	Export within 1 year	Export within 6 months	Export within 1 year
Advance application at customs	No need	Temporary import, export application	Prior application for duty reduction and exemption with re-export conditions
Deposit	No need	For duty amount	No need

# Procedure for RTI Duty Exemption

- In order to proceed with RTI duty exemption procedures, it is effective to consult with the customs authorities of each country in advance, as well as to utilize the practical knowledge of forwarders, rental operators, etc.
- Information such as the duty exemption scheme for RTI (denoted as "returnable container") and documents to be submitted is shown on the Japanese Customs website.

For example, "Procedures for Duty Exemption for containers exported from Japan and imported into Japan", a template of the documents to be submitted is shown.

## Documents for Duty Exemption on Customs Clearance for Re-Imported Containers (New)

We hereby submit our request to apply for Article 14, Item 11 of the Customs Tariff Act (unconditional duty exemption for containers to be re-imported) for plastic containers that we repeatedly use for the transport of imported cargo.

1. Report of re-import/export
2. Outline of Containers
3. Indication of Containers
4. How to use Containers
5. Place of distribution
6. Management of Containers
7. Main scheduled customs offices
8. Starting date

## ■ Contact information for customs of Japan

Customs Consultation Office	<a href="https://www.customs.go.jp/question2.htm">https://www.customs.go.jp/question2.htm</a>
Customs Answer	<a href="https://www.customs.go.jp/tetsuzuki/c-answer/topcontents_jr.htm">https://www.customs.go.jp/tetsuzuki/c-answer/topcontents_jr.htm</a>

# Procedure for RTI Duty Exemption

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- Specific duty exemption procedures for RTIs are shown in "Section 9/Unconditional Duty Exemption" and "Section 14/Re-export Duty Exemption" of the Basic Notification of the Customs Tariff Law of Japan.
- Effective April 1, 2022, the "Simplification of duty exemption procedures for RTI" is being implemented. This is under the AEO system. And this is reprinted on the next page as Japanese Customs Documents.  
(<https://www.customs.go.jp/zeikan/seido/menzei.pdf>)
- The following two conditions must be met for RTI subject to the simplification of duty-free procedures.
  1. The importer must be an AEO importer and the exporter must be an AEO exporter.
  2. AEO Importer's self-management of the import/export status of RTI.

## ■ What is the AEO System?

This is a system whereby customs approves and certifies businesses that have established a system for cargo security management and legal compliance, and provides them with measures to ease and simplify customs procedures.

(<https://www.customs.go.jp/zeikan/seido/kaizen.htm>)

# Simplification of Duty Exemption Procedures for RTI using the AEO system

## Simplification of Duty Exemption Procedures for RTI



Authorized  
Economic  
Operator  
Program

### 1. RTI subject to simplification of duty exemption procedures

#### They must meet both of the following conditions.

- The importer is an AEO importer and the exporter is an AEO exporter.
- The AEO importer has independent control over the import/export status of RTI.

RTI: Items used repeatedly for the carriage of import/export goods, such as returnable pallets, etc., as defined in Article 15, Item 2, Article 32, Item 1 and Article 33, Item 2 of the Order for Enforcement of the Customs Tariff Law of Japan.

### 2. Details of simplification of duty exemption procedures

#### When RTI exported from Japan is re-imported (Article 14, Item 11 of the Customs Tariff Act)

- No need to "submit documents and other related materials in advance" and "describe materials on export declaration form" at the time of export.
- No need to "present an export permit" at the time of re-import.

#### When RTI imported from abroad is re-exported (Article 17, Paragraph 1, Items 2 and 3 of the Customs Tariff Act)

- No need to submit a "Statement of Reduction or Exemption of Duty on Re-exported Shipments" and to describe application for duty exemption on the Receipt Declaration (when Using the Special Declaration System) at the time of import.
- No need to submit "Import Permit, etc." and "Notification of Export of Duty Exempted Goods for Re-Export" at the time of re-export.

### 3. Effective Date April 1, 2022

The scope has been expanded as of this date. It is not necessary to be the same person with AEO approval for both import and export. It is not limited to cases where the special declaration system is used.

**We are establishing a new "Duty Exemption Clause Code" and "Domestic Sales Tax Exemption Code". If you are taking advantage of our simplification of duty exemption procedures, please check them and enter them in the box provided. Please check the NACCS bulletin board for details.**

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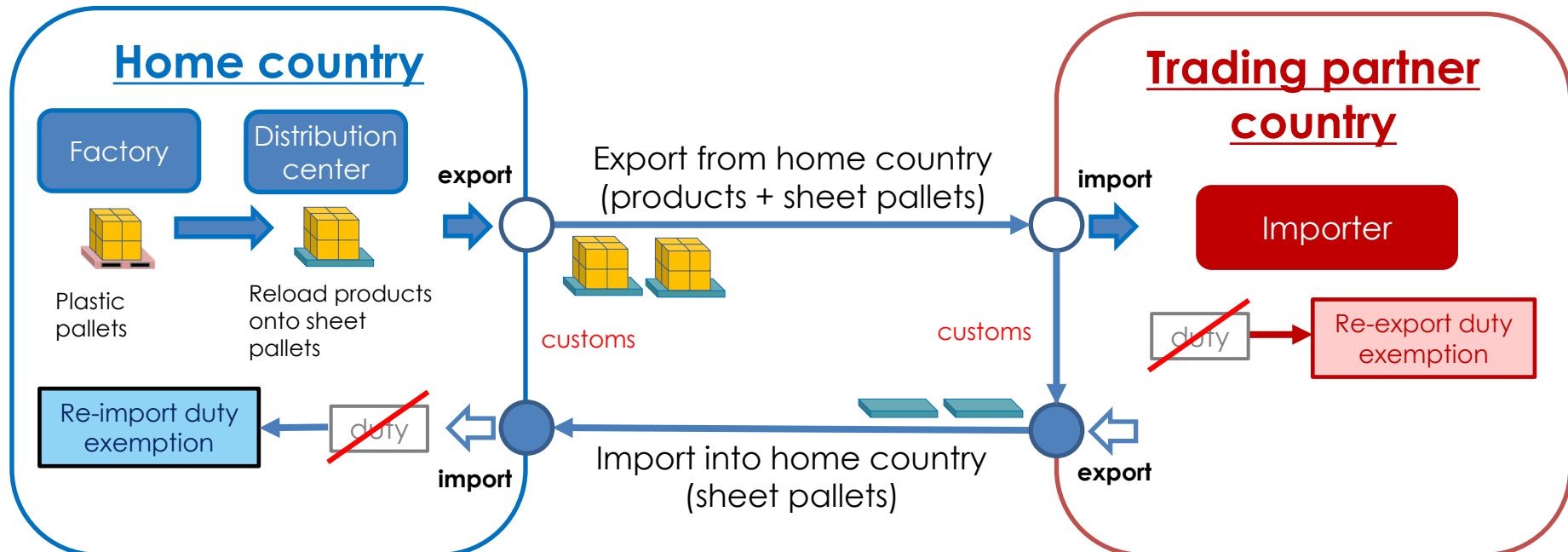
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# Example 1 : Using RTI in Exports

## ■ Case Study : Beverage manufacturing industry

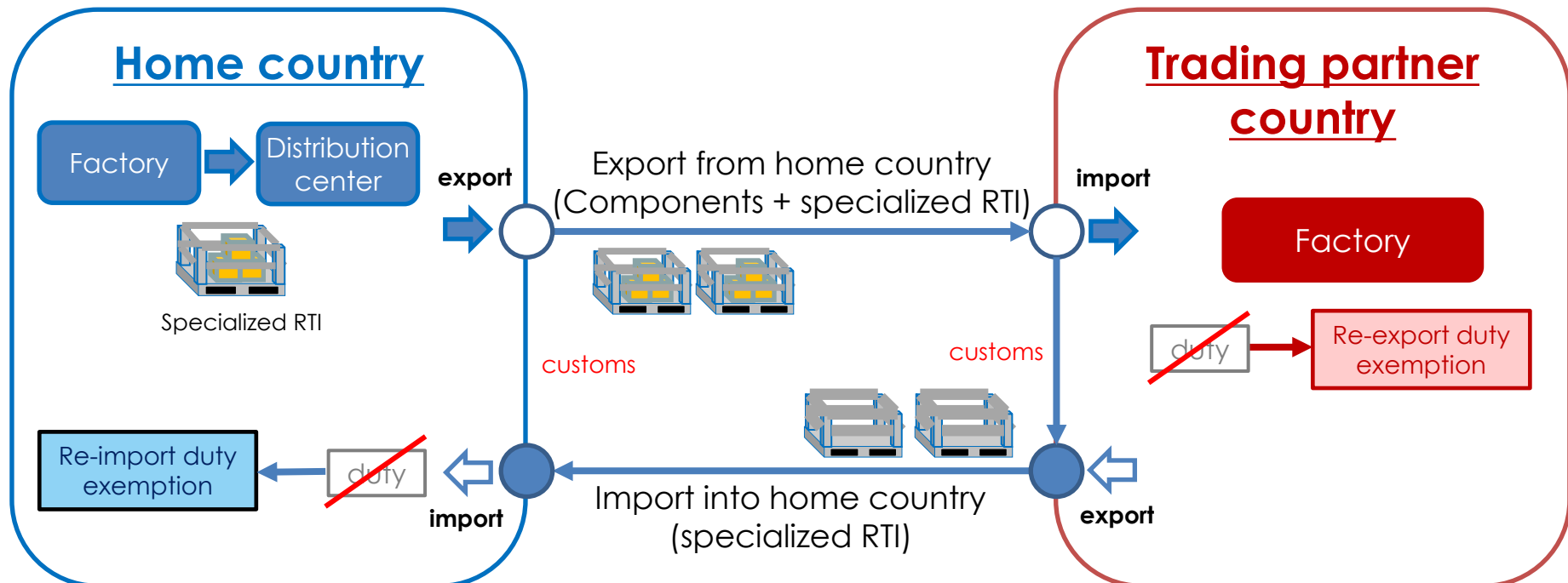
- RTI is used to reduce manual cargo handling as exports expand.
- At the factory, products are automatically loaded on RTI (plastic pallets) for domestic distribution.
- Specialized forklifts are introduced to reload products onto sheet pallets at distribution centers.
- The product and sheet pallets are exported by containers.(FOB)
- Sheet pallets are re-imported by 20ft containers.
- RTI re-import duty exemption is applied by home country's Customs, and RTI re-export duty exemption is applied by trading partner country.



# Example 2 : Using RTI in Exports

## ■ Case Study : Automobile manufacturing industry

- One-way transport materials were changed to RTI as export of components increased.
- As for RTI, several specialized containers were developed for the components.
- Size of the specialized RTI is designed to highly utilize the capacity of a 40ft container.
- Components are loaded on RTI at home country's factory and exported to trading partner country by 40ft containers.
- After unloading at trading partner country's factory, RTIs are collected and returned to home country.
- RTI re-import duty exemption is applied by home country's Customs, and RTI re-export duty exemption is applied by trading partner country.

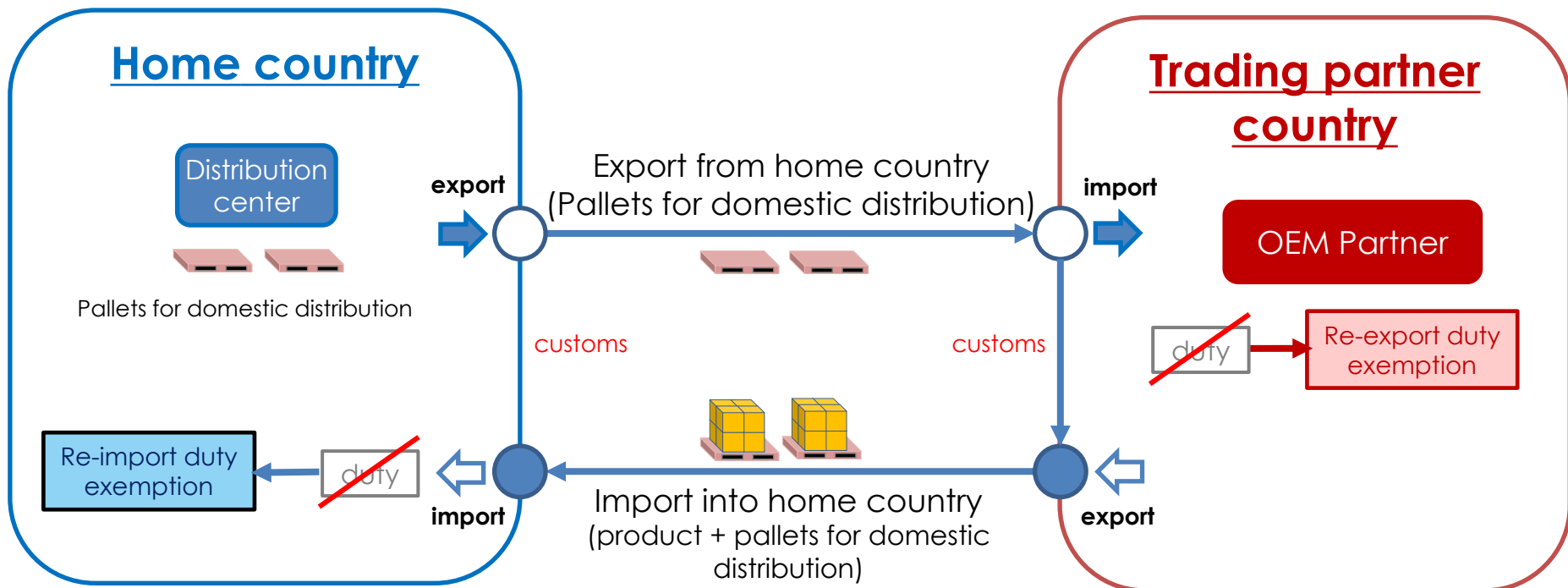




# Example : Using RTI in Imports

## ■ Case Study : Beverage manufacturing industry

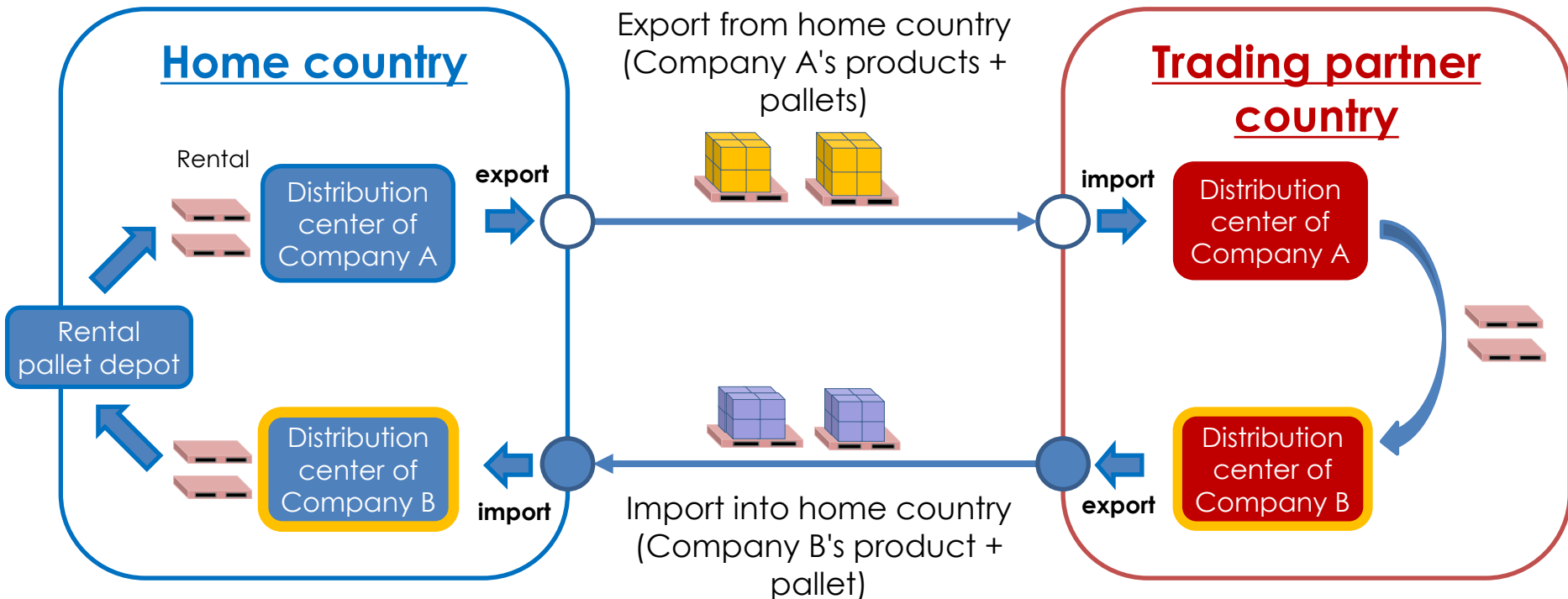
- In order to ensure consistent palletization, plastic pallets that are used for domestic distribution are exported.
- Products are loaded on the above plastic pallets at the OEM partner site in trading partner country.
- Products and plastic pallets are imported by 20ft container.
- RTI re-import duty exemption is applied by home country's Customs, and RTI re-export duty exemption is applied by trading partner country.



# Example :

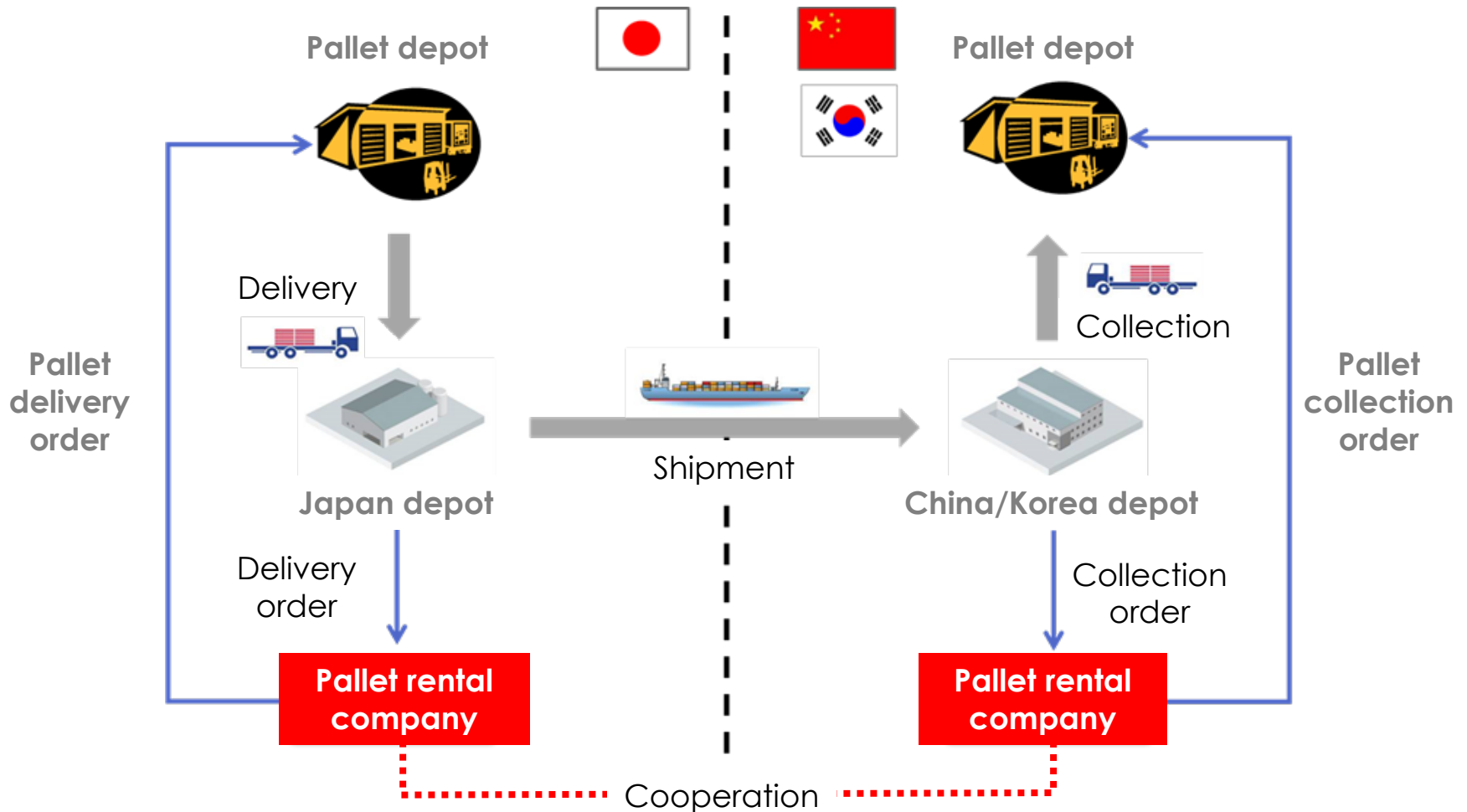
## Use of RTI by Two Shippers in Import/Export

- **Case Study : Daily commodity manufacturing companies A and B**
  - Company A considered using pallets for exporting products from home country, but the number of pallets for imports and exports did not match.
  - Therefore, Company A collaborated with Company B, which manufactures in trading partner country, to develop a scheme whereby pallets used by Company A for export are used by Company B for export to home country.
  - In cooperation with rental companies, a method has been realized whereby the same pallets are used among shippers.



# International RTI Rental : Scheme

- In international logistics between China, Japan and Korea, some major rental companies have established a scheme whereby RTI: pallets can be pooled for use.

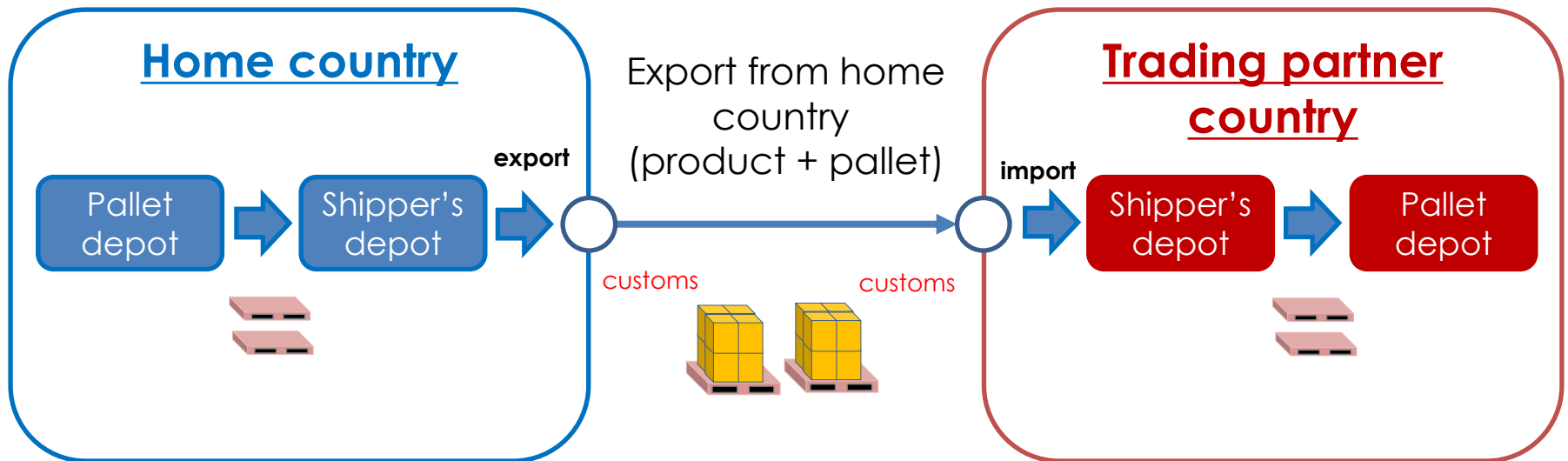


# International RTI Rental :

## Example of Use in only Export

### ■ Case study : Machine parts manufacturer

- Rental pallets are rented at the shipper's depot in home country.
  - Products are loaded on rental pallets and exported from home country.
  - Products are unloaded at trading partner country's shipper's depot.
  - The used rental pallets are returned to the pallet depot of trading partner country.
- ✂ Rental depots are linked to each other, thereby enable one-way usage of RTI.

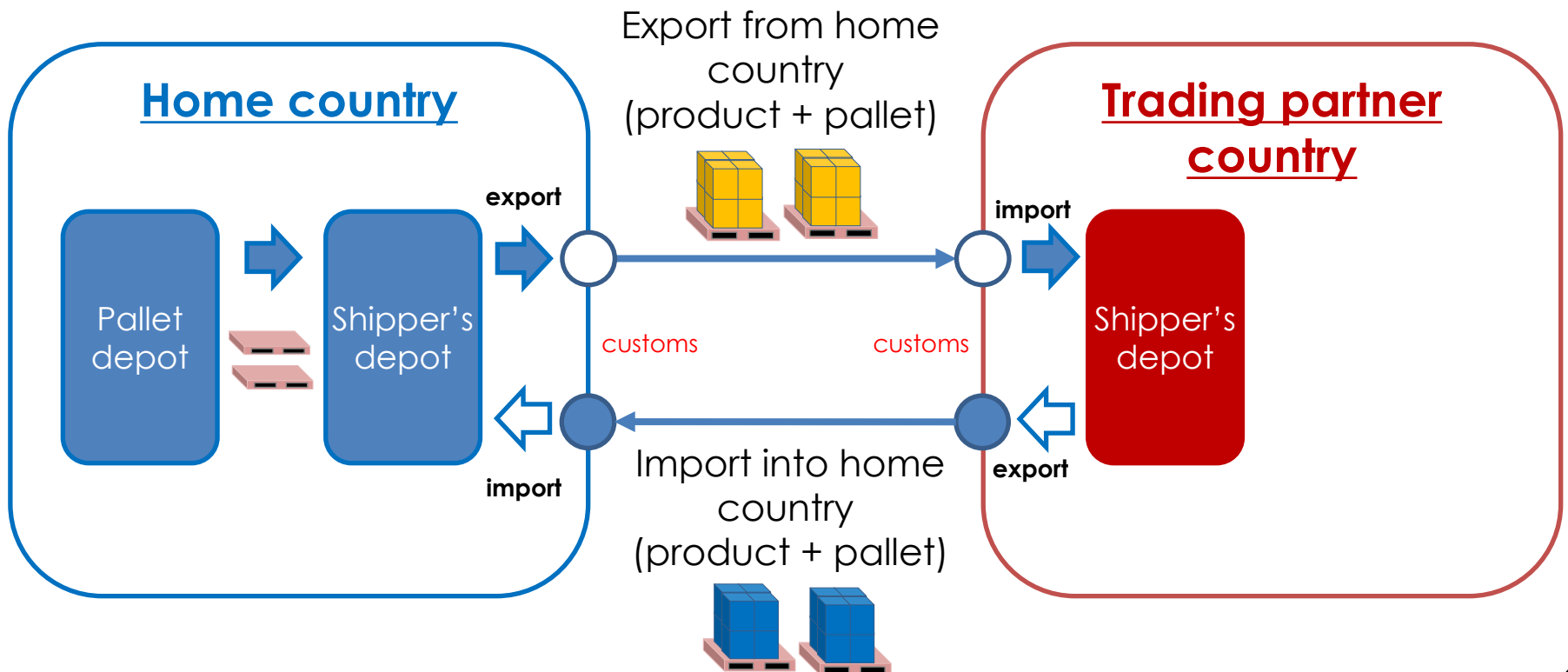


# International RTI Rental :

## Examples of Use in Import/Export

### ■ Case study : Machine parts manufacturer

- Rental pallets are rented at the shipper's base in home country.
- Products are loaded on rental pallets and exported from home country.
- Products are unloaded at trading partner country's shipper's base.
- Products manufactured in trading partner country are loaded on the used pallets and imported to home country.

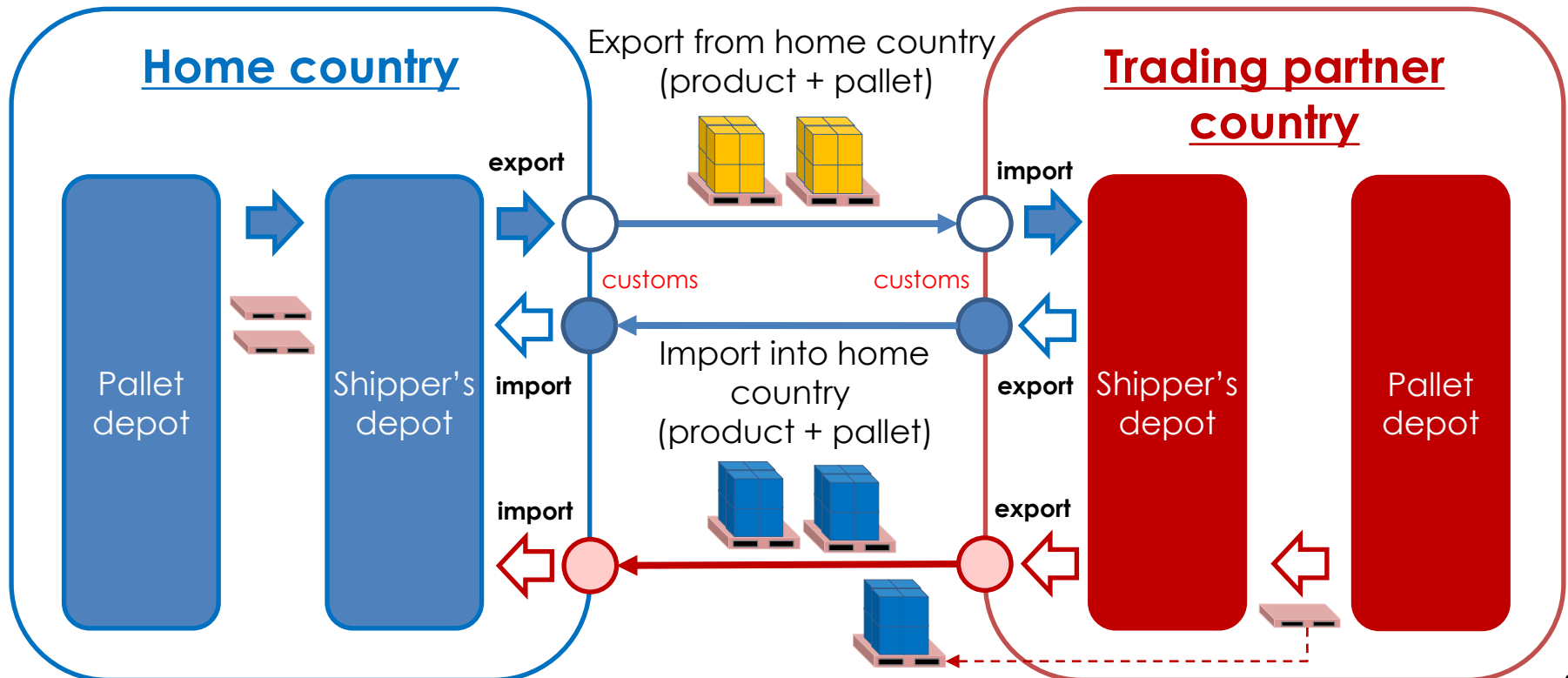


# International RTI Rental :

## Examples of Use in Import/Export with Different Cargo Volumes

### ■ Case study : Machine parts manufacturer

- The machine parts are loaded on rental pallets at the shipper's depot in home country and exported to trading partner country.
  - Products manufactured in the other country are loaded on the used pallets and imported into home country.
  - If the number of pallets is not enough, pallets will be rented additionally.
- ※ Rental depots are linked to each other, thereby RTI use will be possible even when cargo volumes differ between imports and exports.



# Validation study of an international logistics scheme using RTI

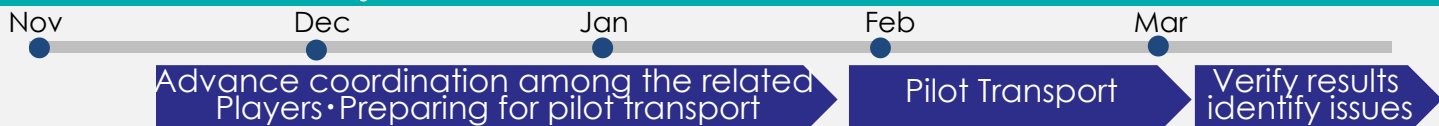
## Status of past project

FY2021	FY2022	FY2023
Documentary research		Field research
<ul style="list-style-type: none"> <li>Survey to examine the current challenges and issues of RTI in international logistics</li> <li>Preparation and publication of this guidance</li> </ul>	<ul style="list-style-type: none"> <li>Survey of cost reduction and environmental impact reduction effects</li> </ul> <p>[Purpose] To encourage the utilization of RTI by shippers</p> <ul style="list-style-type: none"> <li>Revision of this guidance</li> </ul>	<ul style="list-style-type: none"> <li>Validation study of an international transport scheme using RTI</li> </ul> <p>[Purpose] In order to further encourage the use of RTI internationally, it is necessary to establish a scheme for the joint use of RTI internationally. Therefore, in FY2023, a pilot transportation using RTI is to be conducted to verify the possibility and issues of duty exemption for re-export / re-import of pallets under the cooperation between the governments of Japan, Korea, and China.</p>

## Overview of pilot transport

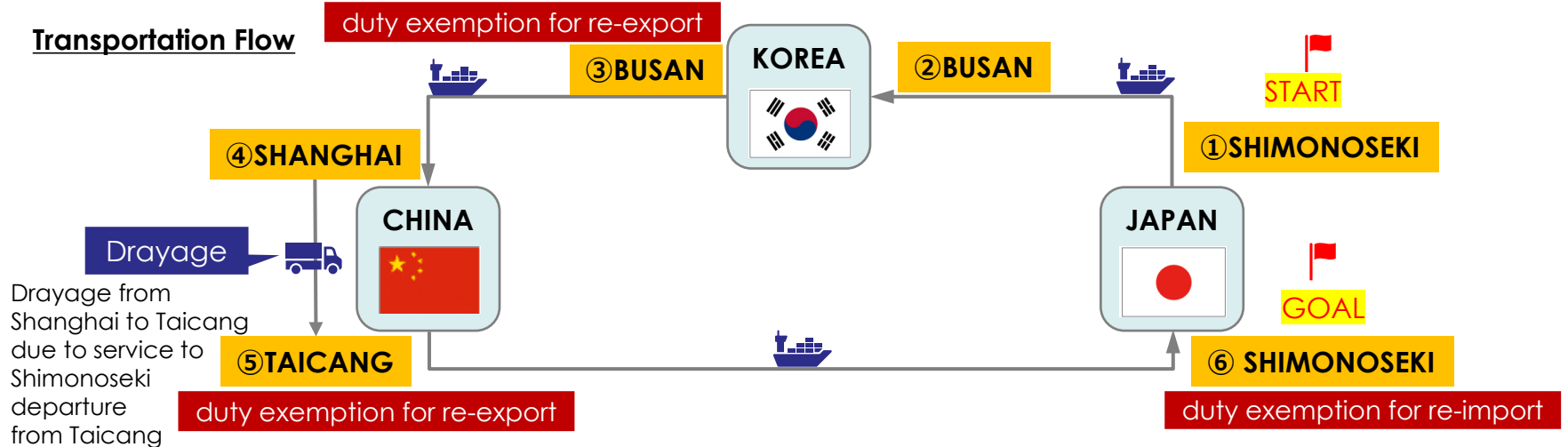
Route	Cargo / Pallet	Validation points
<ul style="list-style-type: none"> <li>Validation of transportation route between Japan-Korea-China</li> </ul>	<ul style="list-style-type: none"> <li>A plastic storage case (Reasons for selection are as follows)               <ul style="list-style-type: none"> <li>✓ Lightweight and easy to palletize (with a certain height and width)</li> <li>✓ Not subject to any other legal requirements in each country when imported</li> <li>✓ Made in Japan</li> </ul> </li> <li>Plastic pallet (Rental pallet x 1)</li> </ul>	<ul style="list-style-type: none"> <li>Separate customs clearance for cargo and pallet.</li> <li>Use shipping documents when pallet is exported as proof of duty exemption for re-import (In Korea and China side, use shipping documents when pallet is imported as proof of duty exemption for re-export)</li> </ul>

## Project Timeline (November 2023 - March 2024)



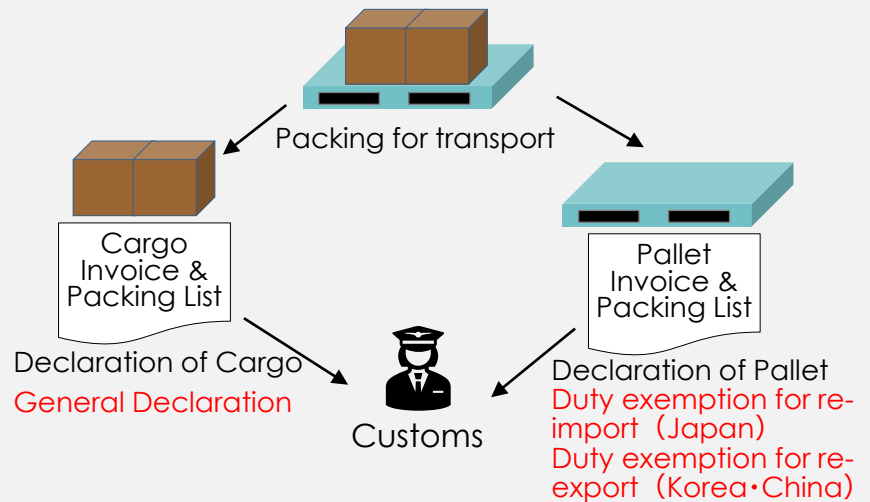
# Results of pilot transportation

## Results of pilot transportation (Period: January 26 to March 11, 2024)



## Validation result

- Customs clearance of the cargo and pallet were arranged separately (Image shown right).
- Customs clearance of pallet carried out in Japan was applied duty exemption for re-import(Above⑥).
- In Korea, pallet was also applied duty exemption for re-export(Above③).
- Since the minimum amount to be declared for the temporary import system(duty exemption for re-export) was not satisfied, these were applied duty exemption for small value(Above⑤). Also, there was no problem even if the ports of origin and destination were different (Need to be verified in case of using the temporary import system).





# Useful Links for Potential RTI Users

Purpose	Links, Inquiries, etc.
What is the CJK Ministerial Conference on transport and logistics?	<ul style="list-style-type: none"> <li>• HP of MLIT  <a href="https://www.mlit.go.jp/seisakutokatsu/freight/seisakutokatsu_freight_tk1_000019.html">https://www.mlit.go.jp/seisakutokatsu/freight/seisakutokatsu_freight_tk1_000019.html</a> </li> </ul>
About Japan's Customs System	<ul style="list-style-type: none"> <li>• Customs Consultation Office  <a href="https://www.customs.go.jp/question2.htm">https://www.customs.go.jp/question2.htm</a> </li> <li>• Customs Answer  <a href="https://www.customs.go.jp/tetsuzuki/c-answer/topcontents_jr.htm">https://www.customs.go.jp/tetsuzuki/c-answer/topcontents_jr.htm</a> </li> </ul>
About China's Customs System	<ul style="list-style-type: none"> <li>• JETRO (Japan External Trade Organization)  <a href="https://www.jetro.go.jp/world/asia/cn/trade_03.html">https://www.jetro.go.jp/world/asia/cn/trade_03.html</a> </li> </ul>
About Korea's Customs System	<ul style="list-style-type: none"> <li>• JETRO (Japan External Trade Organization)  <a href="https://www.jetro.go.jp/world/asia/kr/trade_03.html">https://www.jetro.go.jp/world/asia/kr/trade_03.html</a> </li> </ul>
What is Customs Tariff Act ?	<ul style="list-style-type: none"> <li>• e-GOV Laws and Regulations Search  <a href="https://elaws.e-gov.go.jp/document?lawid=143AC0000000054">https://elaws.e-gov.go.jp/document?lawid=143AC0000000054</a> </li> <li>• Customs Tariff Act Basic Access  <a href="https://www.customs.go.jp/kaisei/zeikantsutatsu/kihon/TU-S47k0101-09~13.pdf">https://www.customs.go.jp/kaisei/zeikantsutatsu/kihon/TU-S47k0101-09~13.pdf</a> </li> </ul>
About Utilization of Pallets	<ul style="list-style-type: none"> <li>• Japan Pallet Association  <a href="https://www.jpa-pallet.or.jp/">https://www.jpa-pallet.or.jp/</a> </li> </ul>
For Other Inquiries	<ul style="list-style-type: none"> <li>• International Logistics Office, Logistics and Road Transport Bureau            Tel : +81-3-5253-8111         </li> </ul>