



#### TheICCA&WC02025 Global Summit

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Leading Value Chain with GX and DX

# JCCA Initiatives with GX and DX

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# Agenda

Trends in Japan's corrugated industry



GX Cardboard Comparable CFP Calculation System



#### About the JCCA

#### Japan Corrugated Case Association (JCCA)

Eastern Corrugated Case Association (ECCA)

Central Corrugated Case Association (CCCA)

Western Corrugated Case Association (WCCA)

Southern Corrugated Case Association (SCCA)

#### JCCA Members

Companies 129 Corrugated Plants 253

Employees of member companies : 21,300+

◆Coverage of production volume : 85%



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#### Corrugated Board Production and Real GDP

Trends in Japan's corrugated industry



#### **Consumption by Sector**

Trends in Japan's corrugated industry



#### Japan's population estimates



Ministry of Land, Infrastructure, Transport and Tourism

#### Changing orientation of inbound tourists

#### From "Tangible goods consumption" to "Experiential consumption"





Challenges Online shopping that hit a wall Population decline Demand for Food From "Tangible goods consumption" to "Experiential consumption"

## **Demand creating**

- Functional corrugated boxes
- Superiority of corrugated fiberboard materials Renewable (Non-depleting) Biodegradable
- Conversion from other materials





Trends in Japan's corrugated industry

## Leading Value Chain with GX and DX

### **Comparable CFP calculation system for cardboard**

#### GHG emission reduction targets based on SBT

#### **CFP** Calculation System



#### Supply Chain Emissions Intensity



#### Comparable CFP calculation rules for cardboard

Ministry of Economy, Trade and Industry-supported project

Purpose	Make CFPs Comparable
Range of applications	Corrugated sheet, Corrugated box
Effective date	5 years
Unit	Corrugated sheet : per sqm, Corrugated box : per case
Stage	Material Procurement Stage, Production stage
	(Excluding distribution, maintenance of use, and disposal/recycling stages)
Data	①Measured value (Actual measured value)
(priority order)	②Theoretical value (Value assumed from catalog specs)
	③Allotment value (Assumed activity data not strictly separable)
	(4) Scenario value (Assumed activity data not calculated (1)(2)(3)
Individual Matters	[Available] Renewable Energy Certificates, Thermal recovery
	[Not available] Carbon offset, Mass balance approach, Biomass-derived carbon
Others	Verification presence/absence/methodology, required items for report, etc.

#### Image of CFP calculation system



## [Input Items]

#### Product Specifications

- Containerboard used
- Flute
- Material sheet size
- Manufacturing process
- Imposition
- Printing availability
- Packing materials etc.

## [Parameters]

- Energy used throughout the plant
- Energy used by each facility
- Material input per facility
- Sub-materials used per facility
- Emission coefficient etc.





## **Leading Value Chain with GX and DX**

Containerboard receiving system using RFID The Delivery Information Portal System (DIPs)

#### What is the 2024 problem of logistics?

- Apr.2019 Tighter caps on overtime hours (maximum720h) for all employees except truck drivers, doctors etc..
  - Drivers deferred until 2024 as maximum 960h

At this rate, 35% of all cargo will not be able to be carried by 2030.

#### **JCCA** Initiatives

- Jun. 2017 Efforts to improve logistics as part of TFP (Total Factor Productivity) improvement Improvement of incidental work in unloading at users, waiting time for cargo, etc.
- Sep.2019 Declaration of Voluntary Action on White Logistics
- Dec.2023 Voluntary Action Plan for Optimizing Logistics and Improving Productivity
- Aug.2024 Launch of Delivery Information Portal System (DIPs)

Linking order information of cardboard companies with shipping information of paper companies through EDI Instantaneous acceptance inspection upon receipt at the cardboard plant through the use of RFID Acceptance inspection data can be imported directly into the cardboard plant's production system



#### Video





#### Reducing the workload of truck drivers

#### DIP s (Delivery Information Portal System)



The Key Benefits of Introduction

- 1. Reduction of incidental work and waiting time for truck drivers
- Labor-saving inspection and acceptance of containerboard Batch acceptance inspection Automatic importing into the production system Real-time inventory reflection
- 3. Utilization in cardboard plants
  - Automated payout
  - Automated inventory operations
  - Utilization for traceability





# Conclusion

Trends in Japan's corrugated industry

 $\mathbf{2}$  GX Cardboard Comparable CFP Calculation System

DX Containerboard receiving system using RFID

Cardboard Demand in Japan has leveled off

## Revival by superior properties

## Make our industry more attractive

(with) GX : Cardboard Comparable CFP Calculation System DX : Containerboard receiving system using RFID

## Leading Value Chain with GX and DX



