

# MATERIALS WEEK EUROPE



**The next speaker is...**

**Alexander Litvinov**

Global Business Director, Chemicals  
**Goodpack**

*Sustainable Circular Supply Chains*



Scan below for  
Conference Agenda



# Sustainable Circular Supply Chains

**Mr. Alexander Litvinov**

Global Business Director

Goodpack Europe

This presentation explores how smarter, circular supply chain models can improve efficiency, resilience, and sustainability.

Drawing on Goodpack's experience in reusable packaging and supply chain optimization, it highlights practical pathways to reduce cost, carbon, and complexity across international operations.

- *How can circular supply chain models unlock cost optimization and operational efficiency?*
- *What role does reusable packaging play in decarbonizing supply chains while improving visibility and control?*
- *How can companies' future-proof their global supply chains while meeting sustainability and emissions targets?*



# »» What circularity means in practice?

CREATING **CIRCULAR** SUPPLY CHAINS

## Reuse before recycle

Extend asset life through reusable systems before considering recycling or disposal.

## Design for logistics, not only for chemistry

Packaging, filling, transport, and discharge must be engineered as part of the product system.

## Closed-loop responsibility

Clear ownership and accountability across producer, logistics provider, and end user.

## Waste prevention at source

Eliminate one-way packaging, unnecessary cleaning, and product losses.

## Measurable impact

Circularity must deliver quantifiable reductions in CO<sub>2</sub>, waste, and total cost of ownership.



## Number of market players are committed to reducing waste and drive circular economy:

- Zero waste;
- Increasing reuse and recycling in supply chains;
- Collaborate with suppliers and contractors to get rid of plastic waste;
- Increase the amount of recycled plastic;

*It becomes not just a commitment,*

*but an important advantage and competitor's differentiator;*

# Best practices across the value chain

CREATING **CIRCULAR** SUPPLY CHAINS

Majors are driving circularity and lower emissions across product value chain through the following sustainability initiatives:

## Increasing use of Circular solutions

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- Waste management through operators or self-collections;
- Creation circular supply chains;

## Sustainable packaging Through Reduce, Reuse and Recycle

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- New packaging formats and refill solutions;
- Using recycled content in packaging;
- Increasing bag-in-box solutions which helps to decrease plastics;
- Drums/pails/IBC recycling programs;

## Lowering emissions and Reducing Waste in the Operations

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- Reduce carbon footprint across production and supply chain;
- Life Cycle Assessment tools;
- Processes optimization and digitalization;
- Green energy;

# Goodpack reusable IBC

CREATING **CIRCULAR** SUPPLY CHAINS



Designed for 1600 liters / 1400-1600 kg

Practical and effective bag-in-box solution for non-dangerous chemical applications.

Examples of payloads with a wide range of viscosities:

- Emulsions
- Additives
- Oils
- Liquid Silicone rubber
- Greases
- Raw materials
- Catalysts
- Polymers
- Others

# ▶▶ Payload assumptions

CREATING **CIRCULAR** SUPPLY CHAINS



Goodpack



Drum



Plastic IBC



|  |       |      |      |
|--|-------|------|------|
| Unit volume (liters)                             | 1600  | 200  | 1000 |
| Product net weight (kg)<br>(density 870 kg / m3) | ~1400 | ~175 | ~870 |

**Payload capacity is the equivalent of 8 drums and**

**1.6 times better than a standard bottle in cage!**

# ➤ Liquid liners for Goodpack

CREATING **CIRCULAR** SUPPLY CHAINS

- A bladder, 3 layers, 80 microns each;
- Temperature resistant (up to 85C / 95C);
- Cartridge liner for a quick installation;
- More product – less time;
- Bigger batches – fewer changeovers;



# ➤ Filling examples

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## Robotic boom arm

## Semi-automated boom arm



# ➤ Benefits of IBC foldable design

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Less space for storage



Stackability 4-5 high without warehousing racks



Designed for FTL / FCL shipments



# Design for logistics

CREATING **CIRCULAR** SUPPLY CHAINS

ONE-WAY PACKAGING



NON-STANDARDIZED PACKING & LOADING



WEAK SHIPPING CONTAINER UTILIZATION



DAMAGES & CONTAMINATION DURING TRANSIT



UNSAFE STORING



WASTE & PACKAGING DISPOSAL

DELIVERY OF EMPTY



ORIGIN COUNTRY



MULTI-MODAL PAY PER USE SERVICE



DESTINATION COUNTRY

COLLECTION OF EMPTY

GOODPACK SERVICE



SAFE, EFFICIENT & STANDARDIZED PACKING & LOADING OPERATION



MAXIMISE SHIPPING CONTAINER UTILIZATION



PREVENTING CARGO DAMAGE



REDUCE STORAGE SPACE



COLLAPSIBLE

# Returnable pallets

CREATING **CIRCULAR** SUPPLY CHAINS



*Images are illustrative*

**RP3**

**RP4**

**RP5**



|                                    |               |               |               |
|------------------------------------|---------------|---------------|---------------|
| <b>Base dimensions (mm)</b>        | 1,150 x 1,125 | 1,390 x 1,110 | 1,465 x 1,150 |
| <b>Height – extended arms (mm)</b> | 1,100         | 1,100         | 1,100         |
| <b>Max cargo height (mm)</b>       | 950           | 950           | 950           |
| <b>RPx net weight (kg)</b>         | 60            | 68            | 72            |
| <b>Max cargo weight (kg)</b>       |               | 1,000 – 1,500 |               |
| <b>Fit in 40 ft container</b>      | 40            | 32            | 32            |

# How we create circular supply chains

CREATING **CIRCULAR** SUPPLY CHAINS

## Reuse

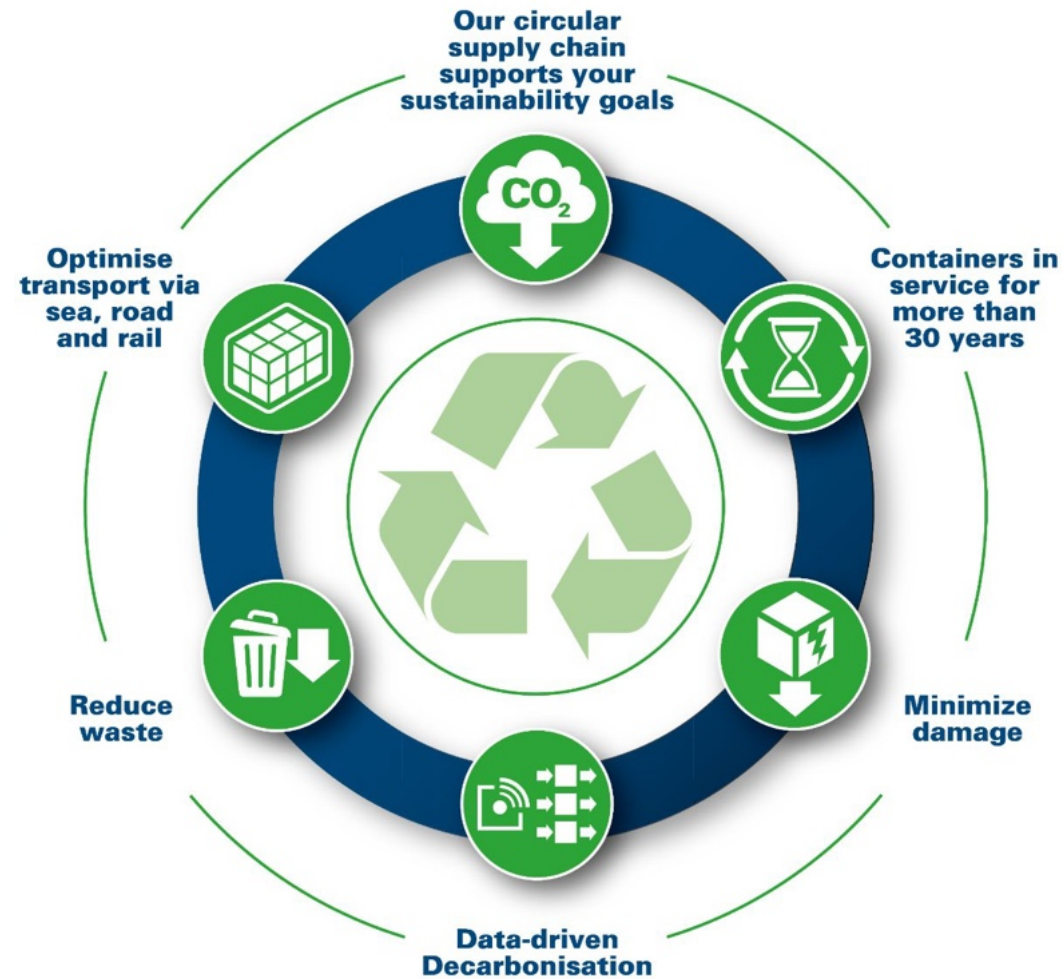
All our containers are reused, for decades.

## Repair

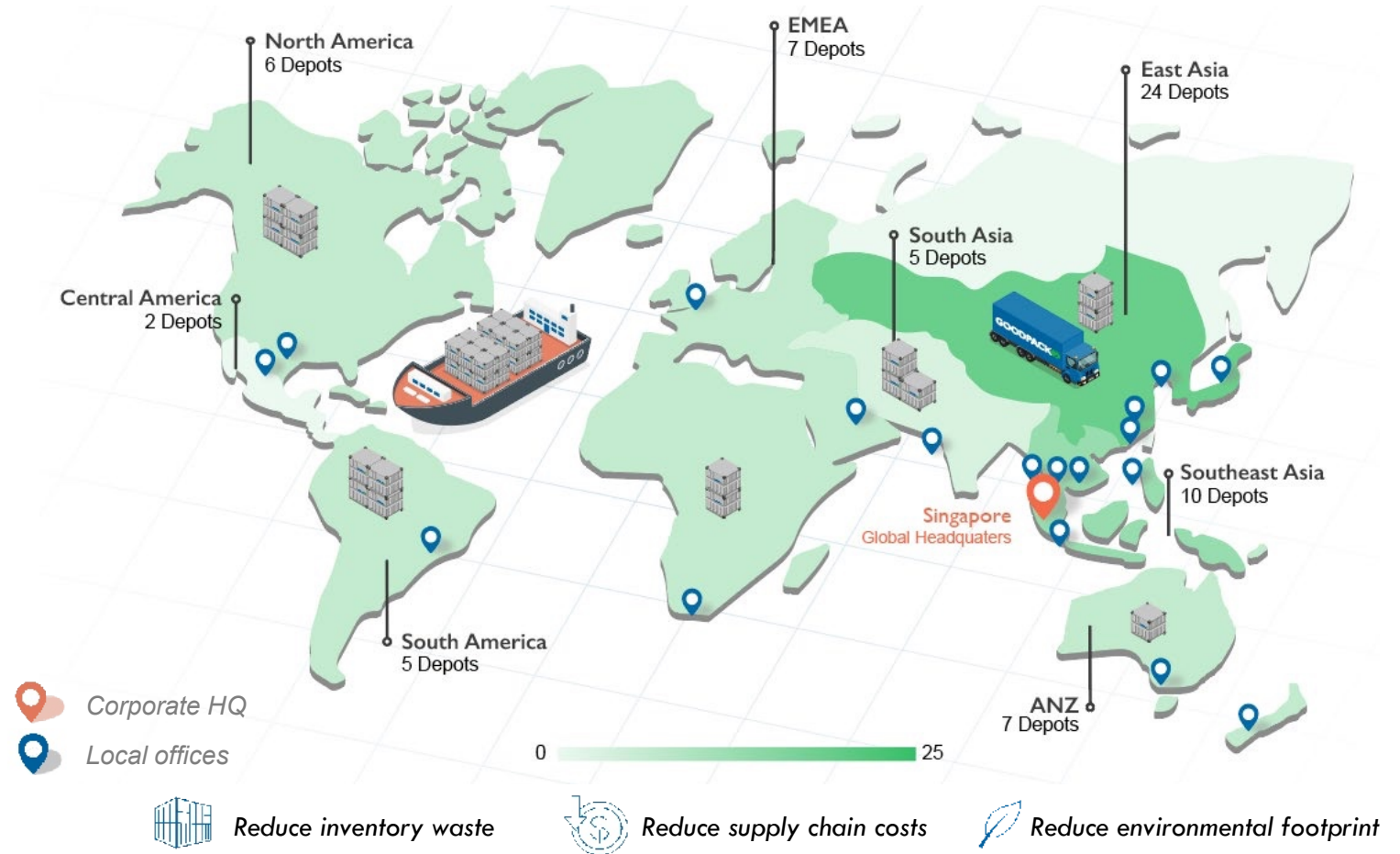
If damaged, a container is repaired and returned into use.

## Recycle

If damaged beyond repair, all materials used to manufacture a container are appropriately recycled.



*We deliver & collect Goodpacks from anywhere in the world.*



*A Carbon Calculator that provides numbers to drive decision making and support reporting*

Tracking and reporting **Scope 3 emissions** is a major challenge as packaging moves beyond company control:



**Scope 3 Emissions:** Accurate measurement across the entire supply chain is critical for climate disclosures.



**Data Gaps:** While benefits like reusable packaging and optimized transport are clear, quantifying actual emissions is difficult.



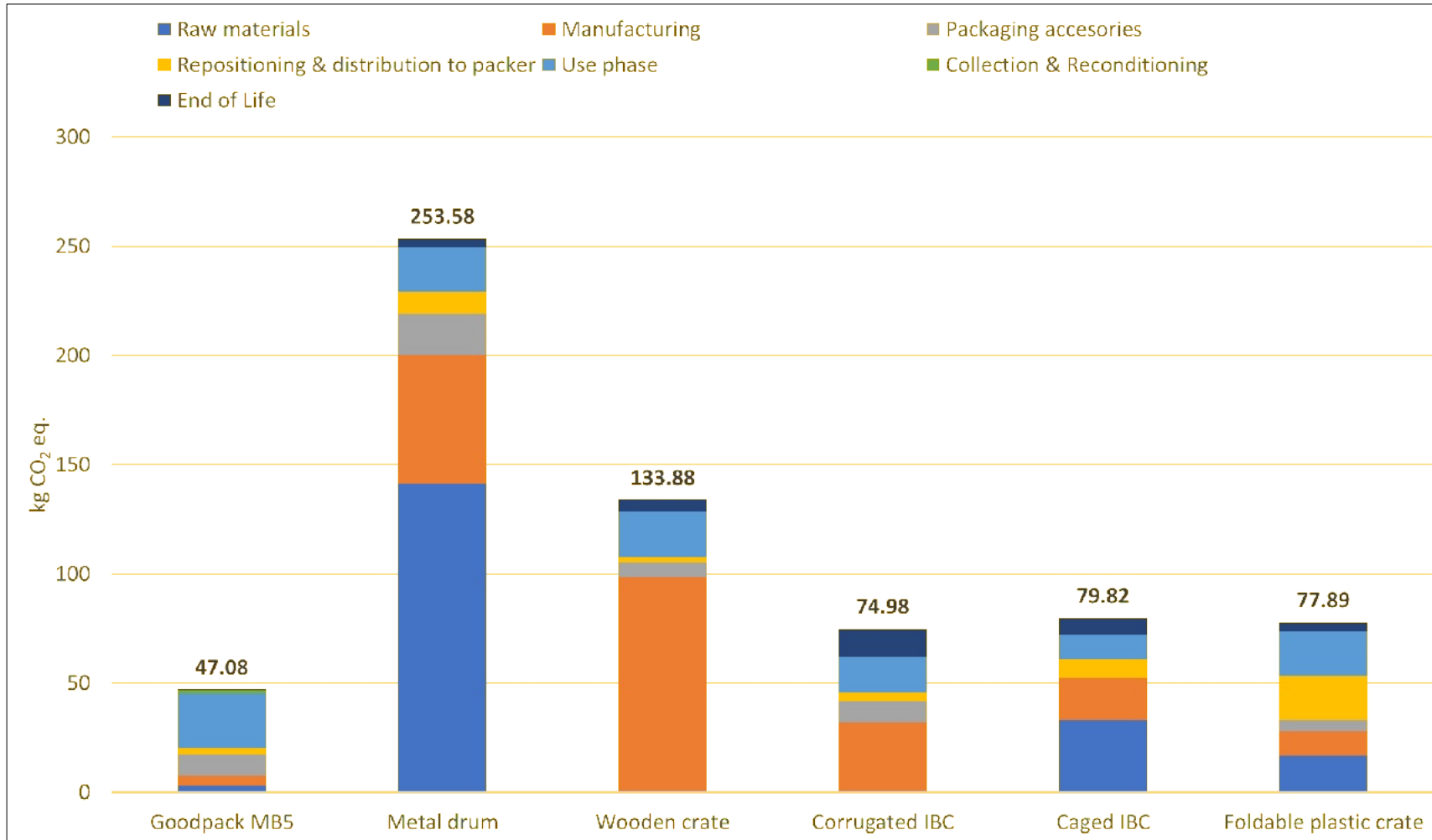
**Reporting Challenges:** Collecting reliable data and identifying improvement areas, such as packaging and payload optimization, remains complex.



## Solution: Carbon Calculator



- Based on **Life Cycle Impact Assessment (LCIA)**, aligned with **ISO 14040 & 14044**, and reviewed per **ISO 14071**.
- Evaluates emissions from **production, transport, payload efficiency, and end-of-life**.
- Provides **data-driven insights** to optimize supply chains and meet **climate goals**



## Global Warming Potential (GWP) of Packaging Solutions for Liquid Transport

- The **Goodpack MB5** packaging solution demonstrates the lowest GWP, emitting **64% less CO<sub>2</sub>** than wood and **81% less CO<sub>2</sub>** than steel drums. This reduction is due to two key factors:
  - **Reusability:** Reduces impact on raw materials, manufacturing, and end-of-life stages.
  - **Product Design:** Maximizes loading efficiency during transport (both full and empty) with its collapsible design.

# Value proposition

## Goodpack as a solution for circular economy



- 1 Total Cost of Ownership optimization** ~30% TCO optimization vs. plastic IBCs (~50% vs. drums) mainly through reduction of **packaging, warehouse & handling** and freight cost per metric ton
- 2 Sustainable impact** ~80% CO<sub>2</sub> emissions, contributing to an achievement of **ESG goals, compliance to Green legislation / PPWR**
- 3 Supply Chain efficiency and transparency** **Easier storage and warehousing space optimization; Convenient and safe handling; RFID tagged;**
- 4 Quality control** Enhanced **isolation** of products from oxidation and moisture, **reducing the risk of contamination** by rust or dust.
- 5 Digital Solutions** **Seamless online platforms** for orders and return requests, dashboard of containers' traffic and usage performance, analytics

## What does the implementation of various regulations mean for the industry?

|                                       | PLASTIC PACKAGING WASTE REGULATION  | EU DEFORESTATION REGULATION   |
|---------------------------------------|---|---|
| <b>What companies will have to do</b> | <ul style="list-style-type: none"> <li>Companies must use reusable packaging and ensure their packaging can be recycled</li> </ul>  | <ul style="list-style-type: none"> <li>Implement and maintain a due diligence system to verify commodities in question have not originated from deforested/forest-degraded land</li> <li>Continual monitoring and reporting system to track and reduce risk in the supply chains</li> </ul> |
| <b>Goal of Legislation</b>            | <ul style="list-style-type: none"> <li>To increase the recyclability of packaging, reduce packaging waste, and enhance the overall sustainability of packaging materials used within the EU.</li> </ul> | <ul style="list-style-type: none"> <li>To significantly reduce the impact of the EU market on global deforestation and forest degradation.</li> </ul>   |
| <b>Challenge posed</b>                | <ul style="list-style-type: none"> <li>Packaging has to be reusable, recyclable, optimised (limits on empty space when laden)</li> </ul>  | <ul style="list-style-type: none"> <li>Could affect packaging derived from regulated commodities. For example, logistic transport solutions made of wood, like crates or pallets, may impact manufacturers of those packaging and logistics systems. .</li> </ul>                           |
| <b>Implementation</b>                 | <ul style="list-style-type: none"> <li>Reduction to be demonstrated from 2030 onwards and increases</li> </ul>  | <ul style="list-style-type: none"> <li>Entered into force on 29 June 2023</li> <li>Applicability of certain Articles will enter into application on 30 December 2024, and 30 June 2025 for micro- and small enterprises.</li> </ul>   |

## Why your company must act now – PPWR overview

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- **What is PPWR?**  
EU regulation making producers responsible for the full packaging lifecycle – including recyclability, reuse, and end-of-life management.
- **Current Issue:**  
Most industrial packaging (steel/plastic drums, IBCs) is used once, with no tracking or return — a model that PPWR will no longer support.
- **What's Changing:**
  - Mandatory recyclability & reuse targets;
  - Extended Producer Responsibility (EPR);
  - Eco-modulated fees for non-sustainable packaging;
  - Required labeling and traceability;
- **Risks of Inaction:**
  - Increased compliance costs & fees;
  - Reputational impact as clients demand sustainability;
  - Operational stress when regulations are enforced;

## Goodpack proposal

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- **What is Goodpack?**  
A global leader in **returnable IBC packaging solutions** for industrial sectors, including lubricants;
- **Key Benefits of Goodpack Packaging:**
  - **Sustainability:** Fully reusable packaging that supports circular economy principles;
  - **Cost-Efficiency:** Reduces total cost of ownership through reuse, minimizing the need for new packaging;
  - **Logistical Efficiency:** Streamlined return and reuse system, reducing waste and transport costs;
  - **Regulatory Compliance:** Fully aligned with PPWR goals, including recyclability and reuse targets;
  - **Brand Advantage:** Demonstrates commitment to sustainability and ESG (Environmental, Social, Governance) values;
- **Why Choose Goodpack?**
  - Widely used by leading petrochemicals companies worldwide – a proven & reliable solution;
  - Seamless integration into existing logistics and packaging systems;

**Some companies have developed the plans and invest a lot of efforts for transition to more sustainable supply chains.**

**The transition is ongoing and more companies are adopting their supply chains to new regulations, high sustainability commitments targets.**

**Creation of circular supply chains using sustainable packaging is reality to meet the cost efficiency and decarbonization targets!**

# Thank you!

# Do you have any questions for us?

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