Welcome!

Wouter Schaekers
P&G
Vice President Board GS1 Belgilux

Karen Arkesteyn
GS1 Belgium & Luxembourg
Anti trust

GS1 Belgium & Luxembourg will not enter into any discussion, activity or conduct that may infringe, on its part or on the part of its members and participants, any applicable competition laws.

By way of example, members and participants shall not discuss, communicate or exchange any commercially sensitive information, including non-public information relating to prices, marketing and advertisement strategy, costs and revenues, trading terms and conditions and conditions with third parties, including purchasing strategy, terms of supply, trade programs or distribution strategy.

This applies not only to discussion in formal meetings but also to informal discussions before, during or after meetings.

https://www.gs1belu.org/nl/deontologische-code
https://www.gs1belu.org/fr/code-d%C3%A9ontologique
Practical guidance

Different tabs
- To chat
- To ask and like questions
- To answer poll questions

<table>
<thead>
<tr>
<th>Chat</th>
<th>Questions</th>
<th>Polls</th>
<th>People</th>
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</thead>
</table>

Possibility to mute notifications
Practical guidance

Full screen in browser
- Modify screen resolution
- Click on square pictogram
Our mission at GS1 Belgilux

Strategic plan 2020-2022

1. Create value
2. Bridging the physical and digital world
3. Be an enabler
4. Be an innovator

Our objective is to contribute to the efficiency in the value chain, by anticipating future trends.
Innovation at GS1 Belgilux

Focus areas
• Transport and logistics sector
• Circular economy
• Trusted data quality today & tomorrow

Innovation Café
• Build community with all stakeholders,
  • Inform and receive your feedback,
  • Partner up and start to learn!
The supply chain challenge

Feasible  Sustainable  Profitable
Why GS1 SMART-box?
Let’s have a look at the supply chain
Agenda

GS1 Germany
Nadine Rosenkranz & Matthias Haubenreißer

Colruyt Group
Dirk Leemans

GEORG UTZ
Jochen Wessels

IPP
Dirk Freda

L’Oréal
Tim Christiansen-Lenger

P&G
Reinhard Wesp

The Global Language of Business
Poll
Welcome

GS1 Germany
Nadine Rosenkranz
Matthias Haubenreißer
Transparent, sustainable and cost-effective: the GS1 SMART-Box in manufacturers to retail networks

Matthias Haubenreißer, Competence Center Supply Chain Management /Competence Center MTV, GS1 Germany GmbH
Dr. Nadine Rosenkranz, Project Management Office, GS1 Germany GmbH
2021
The process is, what matters
Business case: optimizing loading capacity

- change from stacked consignments with American boxes to EUL 1/2 consignments with the GS1 SMART-Box
- Reducing pallet space (transport)
- Reducing cost for pallet cycle (estimated av. 3,81€)*
- Reducing administration expenses

*based on a analysis of Fraunhofer IML
Business case: optimizing of processes

- change from opening the cardboard box, repacking the goods and dispose of packaging material to an optimized flow
- optimized picking process both at the manufacturer (mixed pallets) and the retailer
- saving in material costs
Business case: optimal transport and storage utilization

The criteria for modularity can be applied to primary packaging as well in the long term.

The GS1 SMART-Box Type E (211 mm) optimally meets the criteria of EUL 1 and EUL 2.
additional potential: savings on foils and labels

- using serialized GRAI for identification instead of a separate article label (GTIN) → SSCC only on pallet

- the serialized GRAI is fixed to the box across all processes

- the removal of the label is not necessary after each circulation and thus reduces the pooling costs
GS1 SMART-Box

- **6 different sizes** (based on 600x400 and 300x400 mm)
- **Process requirements**
  - fit to the conveyor system
  - Shutter for easier picking process
  - Nap field for easier removal of labels
- **GS1 identification standards**
  - Serialized GRAI for asset type and version
  - Left-/right-identification (shutter)
- **Compliance with VdS* fire protection requirements**

* VdS is an independent institution which has been ensuring safety and trust in the fields of fire protection and security
Designing returnable cycles

Optimal replenishment with highest possible sustainability in a circulating economy

- Low complexity
- High standards of quality
- No sorting effort in the supply chain
- Maximum service at low costs
- High availability even at seasonal peaks

Approach:

- Tendering
- Antitrust protected ramp up phase with one pooling provider
- Creating a body of rules for an open pool operation
- Open pool operation
- Antitrust monitoring
Future development of an innovative circular economy

What? When? Where? Why?

1. Production of SMART-Box (approved asset manufacturer)
2. Newly produced box goes to (licensed) service provider
3. Service provider supplies industry and retail
4. Supply of goods
5. Collection of returnable empties
6. Quantity balancing between pooling providers
7. Purchase and sale of used SMART-Boxes
8. Internal flows
9. Recycling of broken boxes

*MTV = Mehrweg-Transportverpackung = returnable assets
Achieving commitment between stakeholders

Pooling provider

SMART-Box manufacturer

FMCG Manufacturer

Retailer

Investment (Container tool)

Demand for SMART-Boxes

Demand for asset circles

Investment (SMART-Boxes)

Confirmation for purchase quantities

process benefits, cost benefits

process benefits, cost benefits

Confirmation for purchase quantities

Binding commitment

Binding commitment

Binding commitment

Binding commitment
Planning based on contract conclusion

Series production has started

Current status

04/2021

04/2021

from 2023

Contract stage

Ramp-up planning

Tool construction & ramp-up

Testing pre-production SMART-Boxes

Conversion to pilot regular operation

Conversion to open pool operation

Creating policy framework for open pool operation

* "Open pool operation" means that non-discriminatory access is made possible. The prerequisite for participation is a commitment to comply with the rules (still to be worked out).
We expect big things

2015

2021

from 2022

Project phase

Getting started

Successive expansion to further product lines

Drugstore

Sweets

DIY

Textile

The Global Language of Business
We believe in it!

Beiersdorf  

cosnova  

dm  

EDEKA  

Henkel  

kao  

L’ORÉAL  

MIGROS  

Müller  

P&G  

ROSSMANN  

Unilever  

GS1  

The Global Language of Business

GS1 Germany
THANK YOU
¡GRACIAS
GRAZIE
고맙습니다
OBRIGADO!
Teşekkürler
MERCI
DANKE
Germany
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www.gs1-germany.de
Q&A

GS1 Germany

Nadine Rosenkranz

Matthias Haubenreißer
Welcome

Colruyt Group
Dirk Leemans
Sustainable Supply Chain

GS1 Smartbox

Dirk Leemans
Head CoE Supply Chain
Activities

Retail 82% of group revenue EUR 9.5 Billion

Wholesale and foodservice 10% of group revenue

Other activities 8% of group revenue

France Wholesale

Belgium Wholesale

Belgium Foodservice

Participations
Sustainable entrepreneurship is in our DNA

Starting with an economic impetus, we also aim to bring about a positive social and ecological dynamism with long-term results in mind.
How did we find out about the GS1 SmartBox project?

Since 2019 member of alice

Collaboration with GS1 Germany in innovation project

Fits very well in our sustainable approach of supply chain
Potential in Nonfood assortment

- Garden
- Batteries
- Lamps
- Books/Comics
- Kitchen
- Toys
- Petshop
- Cosmetics
- Textile
- Cleaning
- Eve / Candles

19,000 references
40 miljoen pickings /year
Potential for Colruyt

- Supply of on average **4000 smartboxes every week** (nonfood low rotation)
- If we include nearfood -> 64,000/week
Study new nonfood DC (operational in 2023)
**Process** (nonfood)

- **Supplier**
- **AS IS**
- **DC**
- **Transport crate (collapsible)**
- **Crate washing**
- **Storage crate (rigid)**
- 75%
Avoid manual handling

Supplier

Process (nonfood)

TO BE

DC

Crate washing
Advantages Smartbox

- Lower cost (avoid extra handling)
- Lower complexity (only one load carrier in the entire process)
- More flexibility in peaks periods for storage
- Less waste (cardboard)
- Open pool based on GS1 standards
Next steps

• Check if the Smartbox meets all the requirements:
  • Ruggedness and user-friendliness
  • Fire safety
  • Dimensions -> ideal height for us: 32cm
• Have a look in the future, other potential assortments:
  • Nearfood
  • Newpharma
• Decision about use of Smartbox by end 2021 (for nonfood)
Welcome

GEORG UTZ GmbH
Jochen Wessels
Innovation Cafe 27th April 2021

GS1 Smartbox
Agenda

- Who is Utz?
- Project information
- GS1 Smart-Box
Who is Utz?

• Utz creates and manufactures suitable, sustainable reusable logistics packaging and technical parts made from plastic for over 70 years

• Together with our customers, we develop customized, customer-specific packaging solutions for automated and digitized logistics processes worldwide.

• 1200 employees at 8 locations on 3 continents
Project information GS1 Smart-Box

- **Start of project:** September 2016
- **Development:** until January 2020
- **Start with the tool:** August 2020
- **Order:** about 100,000 Boxen
- **First sampling:** January 2021
- **Start of production:** 20th April 2021
GS1 MTV-Smart-Box

https://3d.alchemisten.de/view/gs1

Opening the side wall with one single handle.

Unlocking the side wall with one single handle.
GS1 MTV-Smart-Box

Features

Barcode / GRAI-Code

Holes on the bottom: In case of fire, the water runs off as fast as necessary.

Nub area for other labels.

Double bottom
GS1 MTV-Smart-Box

Injection molding tool
GS1 MTV- Smart-Box

*Award 'product of the year 2021' by 'Materialfluss' (logistics magazine)*

- **Category**: Containers
- **Voted by the readers**
Q&A

GEORG UTZ GmbH
Jochen Wessels
Welcome

IPP
Dirk Freda
SMART BOX Project with GS1 Germany
IPP – your pooling partner

GS1 innovation cafe, 27.04.2021
IPP – part of the FABER HALBERTSMA GROUP

WE ARE A FAMILY OF COMPANIES

→ IPP provides sustainable closed pallet and box pooling services for the FMCG and recycling industry, covering most of Western Europe.

→ PRS, short for Pallet Return System, provides sustainable closed pallet pooling services to the European polymer industry.

→ PAKi is one of Europe’s leading sustainable open pooling services for exchangeable standardised load carriers.

→ vPOOL offers sustainable open pooling services for food grade load carriers throughout Europe.
We aim for sustainable value

All Faber Halbertsma Group members are autonomous and responsible for their day-to-day management, profit & loss and the execution of their division strategy.

However, it is our shared commitment to continuous improvement and ambitions for the circular economy that drive our corporate success.
With 61 Service Centers We Deliver Loadcarriers Across Europe

- BeNeLux
- Germany, Austria, Switzerland
- UK & Ireland
- France
- Iberia
- Poland
IPP is the nominated pooling partner for the roll-out of the Smartbox

... fitting into our strategic portfolio of load carriers and services

- Synergies with existing flows and products
- Sustainable multiple-use approach
- New, innovative technologies and options
- Road towards serialized, data-based management of returnable assets
- 7 digit initial invest into the future ...
Standards and collaboration enable pooling services

- From Intra-logistical view towards cooperative asset use and management
- Collaboration in technical and organizational development
- Acceptance & Commitment
- Gain- & Cost-Sharing
How does it look like ...

Service fee and daily rent
Unique identification within the network – optimized asset control and flows

From load carrier to data carrier ...

• Step by step ramp-up
• Identification-Software and Hardware
• Barcodes supplemented by RFID tags
• 2D barcodes enable camera based bulk-reading
• Linking the physical to the digital world
• Linking box to the goods inside

... more than a box
Our Contact Details

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Q&A

IPP
Dirk Freda
Welcome

L’Oréal
Tim Christiansen-Lenger
GS1 Smartbox Innovation Café

Tim Christiansen-Lenger
L’Oréal Germany/Austria
27.04.2021
Working at L’Oréal since 2015

**Position:** Head of Customer Supply CPD Germany & Austria

**Involvement:** Part of the GS1-Germany Smartbox Project group & internal coordinator at L’Oréal
Generic Distribution Model: E2E Supply Chain Solutions needed for Smartbox
Smartbox-Vision: Added Value along the Chain

**Sustainability:** Cardboard box waste reduction

**Cost Optimization:** Packaging materials, handling costs and waste disposal fees

**Incentivization** for automation within the Warehouse

**Standardization:** one “box” that becomes the standard

GS1-Standards
Structural Challenges to Overcome

One-Size does not fit all: box + transport utilization

Dual-Stream of Flows: MasterData, Warehouse space, manufacturing etc.

Safety: sensitive packaging’s

Quantities per Box to match a retailer’s Demand
Thank you
Q&A

L’Oréal
Tim Christiansen-Lenger
Welcome

P&G
Reinhard Wesp
GS1 SMART-Box

‘Supply Chain (R)evolution’
GS1 SMART-Box: E2E Value Stream (R)evolution

Current State
1. Reduce total cost
GS1 SMART-Box: E2E Value Stream (R)evolution

Current State

Ideal State

2. Share reduced cost between stakeholders
GS1 SMART-Box: E2E Transformation benefits

- Standardized GS1 owned
- > 80% Acceptance
- Less Waste
- Less trucks
- Less touches
- More automation

-20% CO2

-20% COST
GS1 SMART-Box: Manufacturer Opportunity
GS1 SMART-Box: Manufacturer Challenges
What's needed:
European Business case
Box Harmonization - Europe
European Reverse Logistics
Migration plan - Europe

GS1 SMART-Box: Challenge EUROPEAN STANDARD
What did we learn today?
#GS1 SMART-box?!
#feasible #profitable #sustainable

Less Waste
Less trucks
Less touches
-20% CO2
-20% COST
#GS1standards_rock, enabling circular economy

**GS1 MTV** EPCIS

- **What?**
- **When?**
- **Where?**
- **Why?**

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**8.** Internal flows

**9.** Recycling of broken boxes

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*MTV = Mehrweg-Transportverpackung = returnable assets*
Project roadmap – different roles to contribute

2015

Project phase

START

2021

Getting started

Drugstore

2022

from

Successive expansion to further product lines

Drugstore

DIY

Textile

Sweets

xxx

xxx

The Global Language of Business

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Thank you!

Contact at karkesteyn@gs1belu.org