The journey to sustainable packaging: synergies between humanitarian organizations and the private sector.

Tuesday 11th October
15:00–16:15 CET
09:00–10:15 ET
https://tinyurl.com/Register-JI-Webinar
Bringing sustainable changes to the humanitarian assistance packaging is a collaborative effort which needs to involve and consider various stakeholders including private sector partners such as suppliers of packaging and materials, and service providers. This webinar will present examples of how private sector partners are helping humanitarian organizations to incorporate sustainability into their work, thereby reducing their environmental footprint, using collaborative and holistic approaches.

Two private sector partners (Alpinter & Mondi) will provide their insights into how they can help to make changes to packaging to encourage sustainability, drawing on collaboration with their humanitarian partners. This will be followed by open questions and answers session aimed at identifying possible challenges and enabling factors for the humanitarian sector to make sustainable changes to packaging. An outcome document and the webinar recording will be shared later.

**Speakers**
- Agathe Tiberghien, Director of Operations, Alpinter Group
- Tim Van Cauwenberghe, Technical Account Manager, Alpinter Group
- Carole Manceau, Packaging Expert, World Food Programme
- Susan Brunner, Senior Sustainability Positioning Manager, Mondi Group

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>15h-15h10 CET</td>
<td>Opening and scene-setting</td>
</tr>
<tr>
<td>15h10-15h30 CET</td>
<td>Introductions to Alpinter and Mondi</td>
</tr>
<tr>
<td>15h30-15h50 CET</td>
<td>Practical examples of how partnerships for packaging sustainability</td>
</tr>
<tr>
<td>15h50-16h10 CET</td>
<td>Questions, answers, and discussions</td>
</tr>
<tr>
<td>16h10- 16h15 CET</td>
<td>Wrap up</td>
</tr>
</tbody>
</table>
What potential challenges are there in making humanitarian assistance packaging more sustainable?

- **FUNCTIONALITY** (need for sturdy packaging to protect items): 18
- **COST** (sustainable packaging costs more): 24
- **LOCAL PREFERENCES** (beneficiaries may prefer individually wrapped items): 7
- **LACK OF INFO** (or guidance on sustainable packaging options): 22
- **CAPACITY** (in emergencies we need packaging we can rely on, no time to think about sustainability): 19
Together we make MONDI... SUSTAINABLE by DESIGN

WFP Aid Organisations Talk
11 October 2022
What does MONDI do?

Sustainable by Design
A market leader in sustainable packaging and paper

**Corrugated Packaging**
We produce containerboard which we use to make a broad range of solutions designed to keep our customers' products safe and differentiated in-store and online.

- **€2.510m** Segment revenue
- **#1** virgin containerboard producer in Europe
- **#1** containerboard producer in Emerging Europe (EE)
- **#2** corrugated solutions producer in EE

**Flexible Packaging**
We produce kraft papers for strong, paper-based packaging, such as paper bags, and plastic-based flexible solutions for extra functionality and protection.

- **€2.889m** Segment revenue
- **#1** kraft paper producer globally
- **#1** paper bag maker in Europe/global leader
- **#3** consumer flexible packaging maker Europe

**Uncoated Fine Paper**
We produce sustainable home, office, professional and converting printing papers, tailored to the latest digital and offset technologies.

- **€1,652m** Segment revenue
- **#1** uncoated fine paper supplier in Europe
- **#1** uncoated fine paper producer in South Africa
What is Mondi’s approach to sustainable packaging?
Why **packaging** is needed

- **No packaging** = **Less protection!** = **More food waste!**

- **More forests** are converted for **agriculture**

- **Forests** soak up **$CO_2$**

- **Less forests**

- **More Trucks**

- **CO$_2$** **more emissions**

- **More tire abrasion**

- **Microplastics in the ocean**
Packaging as part of the solution

The problem
- Over-packaging
- Barrier requirements
- Insufficient usage of material alternatives
- Pollution/waste in environment and oceans

Part of the solution
+ Product protection
+ Transport optimisation
+ Optimal material usage
+ Effective communication
There’s no single route to sustainability

It’s all about…

Which technical requirements need to be met in terms of machinery and logistics?

What is the end application, and are barrier properties needed to protect or extend your product’s shelf life?

How is your product transported and how can we ensure packaging is delivered as efficiently as possible?

What are the storage conditions?

Are the right materials being used? Are there lighter-weight or less material-intensive alternatives?

Can design for recycling have a positive impact on the total costs of your packaging?

Are there certifications available to verify sustainable packaging features?

What certifications are required to ensure responsible sourcing?

What is the best end-of-life scenario?

Does sorting and recycling infrastructure exist in the markets where products will be produced and sold?
EcoSolutions

customer-centric approach

CHALLENGE
Define your route towards sustainability

Our customer-centric approach for packaging that is sustainable by design

ANALYSE
Deep dive into your supply & value chain

IDENTIFY
The right solution for the relevant impact areas

REVIEW
Product evolution to meet future requirements

Prove the solution is sustainable by design

DEMONSTRATE

The power of collaboration
We offer unique solutions ranging from renewable paper to recyclable plastic

PAPER WHERE POSSIBLE...

...PLASTIC WHEN USEFUL

Moisture Grease Mineral Oil Gas

High Renewable Recyclable Barrier functionality Low

High Recyclable Barrier functionality Low

Low Barrier functionality High

Paper Added barriers Material Barrier films Aluminium foil
Replacing plastic with paper based solutions

**EcoVantage:**
Replacing plastic bags with sustainable and efficient paper alternatives

**Advantage Smooth White Strong:**
Paper based packaging for pasta, with the option for a large paper window

**PerFORMing Monoloop:**
Formable paper-based food tray that reduces CO₂ emissions, with a plastic layer which can be separated from paper. Paper & plastic to be disposed in respective waste streams.
Reducing environmental **footprint**

**Advantage Stretch Wrap**
Alternative to the plastic stretch film (62% lower greenhouse emissions compared to a pallet wrapped in conventional virgin plastic film)

**Envelope Mailer**
A 100% renewable, recyclable and highly protective alternative to LDPE or paper mailers that use bubble foil protective padding

**TwinBox**
Joining hood and tray through special gluing technology, this SRP allows usage of different papers. More sustainable brown paper for the hood, which is disposed after transport. White papers where print is needed for display.
Solutions designed for recycling

RetortPouch Recyclable:
A mono-material recyclable pouches to replace multi-layer and unrecyclable packaging, with innovative high-barrier films that substituted the aluminium used in most solutions

ThermoFORMing
A fully-recyclable mono-material high barrier film which has a significantly lower carbon footprint compared to existing solutions

Alu Replacement:
Replaces aluminium with a high-barrier mono-material that offers food protection and is recyclable where recycling streams are in place
Our new ‘Path to circularity’ scorecard, provides a harmonised approach to the definition of recyclable, reusable or compostable solutions, including thresholds and other key parameters.

**Mondi’s path to circularity scorecard**

For a Mondi product to be deemed circular, it has to have a sustainable end-of-life. The below table sets out our defined parameters applied across our portfolio of packaging and paper solutions.

### Sustainable end-of-life

**(Recyclable and/or compostable and/or reusable)**

<table>
<thead>
<tr>
<th>Material</th>
<th>Recyclable:</th>
<th>Unacceptable:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>&gt;80% paper content</td>
<td>PVDC, Wax coating, Aluminium foil, Fluorochemicals, Adhesives which plasticise, Permanent wet strength, Silicon, 2-sided polymer coating</td>
</tr>
<tr>
<td>Plastic</td>
<td>&gt;80% PE or PP (mono materials), PO (mixed PE and PP)</td>
<td>PVC, PVDC, PET, PA, Aluminium foil, Biodegradables</td>
</tr>
<tr>
<td>Biowaste</td>
<td>Compostable: In accordance with EN13432</td>
<td>Unacceptable above 5%: Other polymers*(EVOH, PVOH, acrylic, etc.)</td>
</tr>
</tbody>
</table>

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### Recycled and/or renewable

We are also focused on increasing the usage of renewable materials and recycled content across our portfolio. To monitor progress, the thresholds defined below guide our classification when a product is considered to be made of recycled content or from renewable content.

<table>
<thead>
<tr>
<th>Material</th>
<th>Recycled content</th>
<th>≥51%*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>Renewable content</td>
<td>≥60%</td>
</tr>
<tr>
<td>Plastic</td>
<td>Recycled content</td>
<td>≥30%*</td>
</tr>
<tr>
<td>Biowaste</td>
<td>Renewable content</td>
<td>≥30%</td>
</tr>
</tbody>
</table>

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*a. Paper content includes fibre, fillers and binders  
b. Unacceptable as co-material with polyolefins  
c. >15% for glassine, since larger share is not available  
d. Includes industrial, post consumer and chemical recycled content  
e. Should not interfere with recycling processes*
Sustainable packaging of the future is shaped by

**Re-definition of sustainable packaging**

- From a materials view to a holistic view:
  - End of life consideration
  - CO₂ impact
  - Food waste & damage considerations
  - Costs of ownership (incl. EPR)

**Infrastructure & technology advancements**

- New recycling streams & initiatives
  (Digital watermarking, Advanced mechanical & chemical recycling)
- Alternative raw materials
  (more paper-based innovations, recyclable mono-material, bio-based, compostable)

**Circular economy initiatives**

- Closed Loop projects
- Design for recycling guidelines
- Collaboration with Cepi, 4evergreen, Ceflex

**Other factors**

- Geo-political instability
- Responsible sourcing & shortage of raw materials
- Demands for responsible eCommerce solutions
- Supply chain optimisation (e.g. cargo space optimization, transport emission reduction)

... and Mondi is the right partner for the journey to sustainable packaging
For questions please contact:
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Mondi Group Sustainable Development
susan.brunner@mondi.group.com
www.mondigroup.com
Mondi & WFP
A partnership to optimize packaging solutions
2022 October
Performance based challenges

Packaging failure due to:
- Poor sealing quality
- Microperforation
- Low barrier properties
- Pest infestation
- Wrong usage
- Inefficient sizing
- ...

Technical specification and quality processes
Environmental footprint
Supply chain efficiency
Beneficiary convenience
Leaking sachets
Demetalization
Different size of packaging
Pest infestation
Packaging waste
Partnership approach

**Review and assessment**
- Assessment of packaging existing in WFP’s portfolio and review if suitable in terms of:
  - Format and size of packaging
  - Technical performance
  - Supply chain requirements (loading in container, in land transport, storage)
  - Focus on industrial bags, carton boxes, flexible packaging

**Testing and quality implementation**
- Based on the assessment, undertake testing to define if packaging types are suitable for WFP and identify improvements: packaging material, size, design.
  - Packaging improvement Implementation and training
  - Technical and quality guidance

**Development and sustainability**
- Develop a plan for reducing the impact of packaging on the environment (design, material, format)
- Building on the phases above, look to continually drive improvements
- R&D work to assess, analyze and trial packaging alternative materials to reduce environmental footprint of WFP packaging (e.g. flexible metallized material)
Project 7: Quality processes
Project 7: Quality processes

Case study: HEB

• Objective
Investigate options to improve packaging definition in specification and technical expectation

• Achievements
- Improved process controls recommendations to food manufacturers
- Reinforced internal quality protocols
- Consolidated best in class specification

• Benefits
- Increase shelf life of biscuits
- Reduce food waste and loss
THANK YOU
01 ALPINTER INTRODUCTION
02 LOGISTICS OPTIMISATION
03 PACKAGING MATERIAL
04 SECOND LIFE PACKAGING
ABOUT ALPINTER

• Leading designer, manufacturer and supplier of tents and core relief items to the main NGOs and governments worldwide since 1988.

• Permanent stocks in its warehouses at strategic locations around the globe: Belgium, UAE, Pakistan, China, Bulgaria.

• Range of products: Family tents, Multipurpose tents, Blankets, Jerrycans, Tarpaulins, Shelter tool kits, Kitchen sets, Hygiene kits, Bedding items.
ABOUT ALPINTER

Weekly Production Capacity

- 2,500 Family Tents
- 250 Multipurpose Tents
- 60,000 Blankets
- 50,000 Tarpaulins
- 20,000 Hygiene Kits
- 30,000 Jerrycans
- 40,000 Mattresses
ONGOING PROJECTS

1. New fleece blanket made of 100% recycled material
   Partners: Closed Loop fashion / GIZ / Nizam

2. Blanket life cycle assessment

3. Single use plastic removal. Partner: Shelter Box

4. “Greener” collapsible jerrycan
   UNICEF Standard

5. Sustainable Hygiene kits

6. Eco tarpaulin project. (Led by ICRC)

7. Sustainable packaging
PALLET OPTIMISATION

WHY? 85% of the goods are shipped by sea

Core Relief Items Pallet (CRI Pallet)
- Developed by Alpinter & approved by main agencies
- Measuring 117 x 75 cm instead of 80 x 120 cm
- Increasing container loadability by 25%

Metal Stackable Pallet
- Developed by Alpinter & approved by main agencies
- Container-optimised footprints
- Facilitating easy handling and stacking
PALLETS OPTIMISATION

Impact | Figures 2021

High thermal fleece blankets
• 1 million in 2021
• Result: 86 x 40ft HC containers less thanks to CRI pallets vs standard EURO pallet

Collapsible jerrycans
• 1 million in 2021
• Result: 10 x 40ft HC containers less thanks to CRI pallets vs standard EURO pallet

Tarpaulins
• 1.5 million in 2021
• Result: 62 x 40ft HC containers less thanks to CRI pallets vs standard EURO pallet

REDUCING HUMANITARIAN AID DELIVERIES CARBON FOOTPRINT + TRANSPORT COSTS SAVINGS
Packing Unit Optimisation

High thermal fleece blankets
• 15 units per bales instead of 12
• 25% increased loading rate
• Transport costs savings + less packaging waste
  80 x 40ft containers saved on a year production

Sleeping Bags
• 8 units per carton box instead of 4 units.
• 15% increased loading rate
• Transport costs savings + less packaging waste
  20x40ft containers saved on a year production

Hygiene kits components
• 1 shampoo bottle of 60ml instead of 2x30ml
• 1 body soap bottle of 60ml instead of 2x30ml
• Less expensive + less packaging waste
  20000 euros saved on a year production
PACKAGING MATERIAL

1. Reusing Production Waste Material

- Tarpaulins bales made of production waste material (approx. 15K bales per year)
- Tent bags accessories made of production waste material (approx. 100K bags per year)
## Packaging Material

### 2. Plastic Reduction

<table>
<thead>
<tr>
<th>Item Category</th>
<th>Quantity</th>
<th>Description</th>
<th>Removed Per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitchen Sets</td>
<td>75,000</td>
<td>Shipped Per Year</td>
<td>15</td>
</tr>
<tr>
<td>Jerry Cans</td>
<td>1,000,000</td>
<td>Shipped Per Year</td>
<td>4</td>
</tr>
<tr>
<td>Shelter Tool Kit</td>
<td>60,000</td>
<td>Shipped Per Year</td>
<td>7</td>
</tr>
<tr>
<td>Small Items (ropes, jugs, wash basins)</td>
<td>12,000</td>
<td>Shipped Per Year</td>
<td></td>
</tr>
</tbody>
</table>
PACKAGING MATERIAL

3. Recycled Material

- Hygiene kit cardboard boxes: 80% recycled material (1 million boxes per year). White / colored printed boxes are still required.

- Switch for R-PET bottle for hygiene kits components (4 millions bottles per year)

- Recycled plastic strap material : in study

- Recycled material for blanket bales: in study
SECOND LIFE PACKAGING

- Tent wooden boxes being reused as benches, storage, tables...
- Metal stackable pallet being reused as shelves or tables
- Tent bag designed to be possibly reused as back pack
CONCLUSIONS

- SMALL & SIMPLE CHANGES CAN HAVE A HUGE IMPACT: Let’s start with it!
- POSITIVE ECONOMICAL IMPACT
- NGOs TO ALIGN ON STANDARD PACKAGING
THANK YOU

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