



IPIC 2023

9th International
Physical Internet Conference

June 13-15, 2023
Athens, Greece



PHYSICAL INTERNET

The  EXPERIENCE

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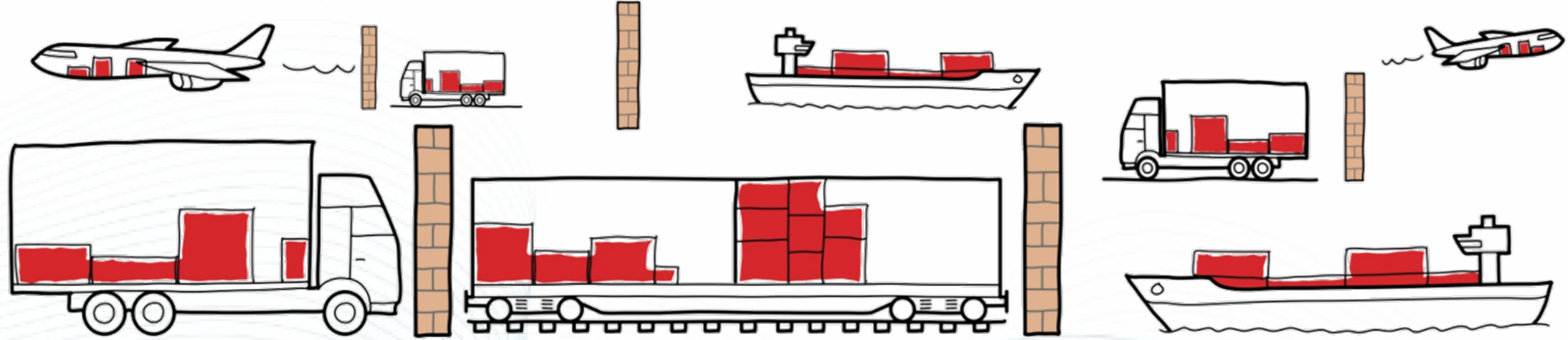


13-15 JUNE 2023 Athens, Greece
www.pi.events/IPIC2023

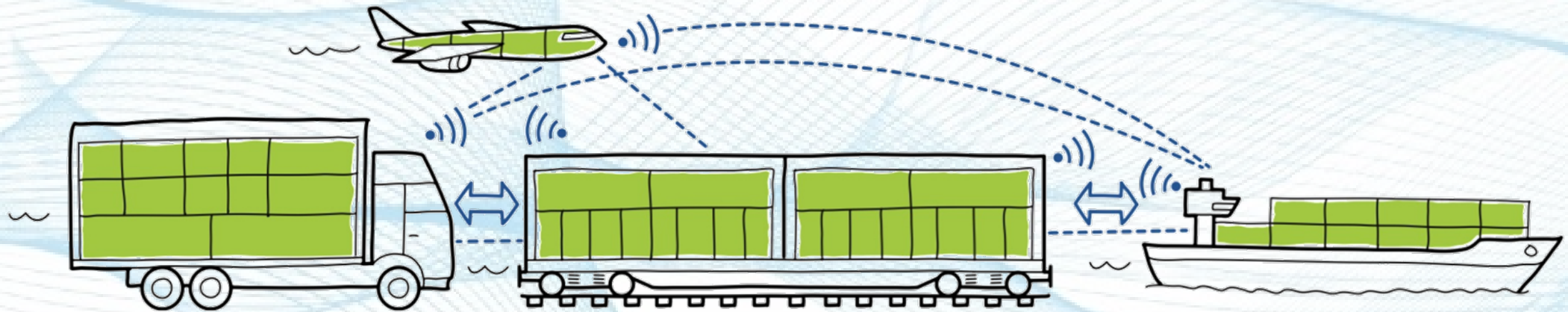
alice | Alliance for
Logistics Innovation
through Collaboration
in Europe



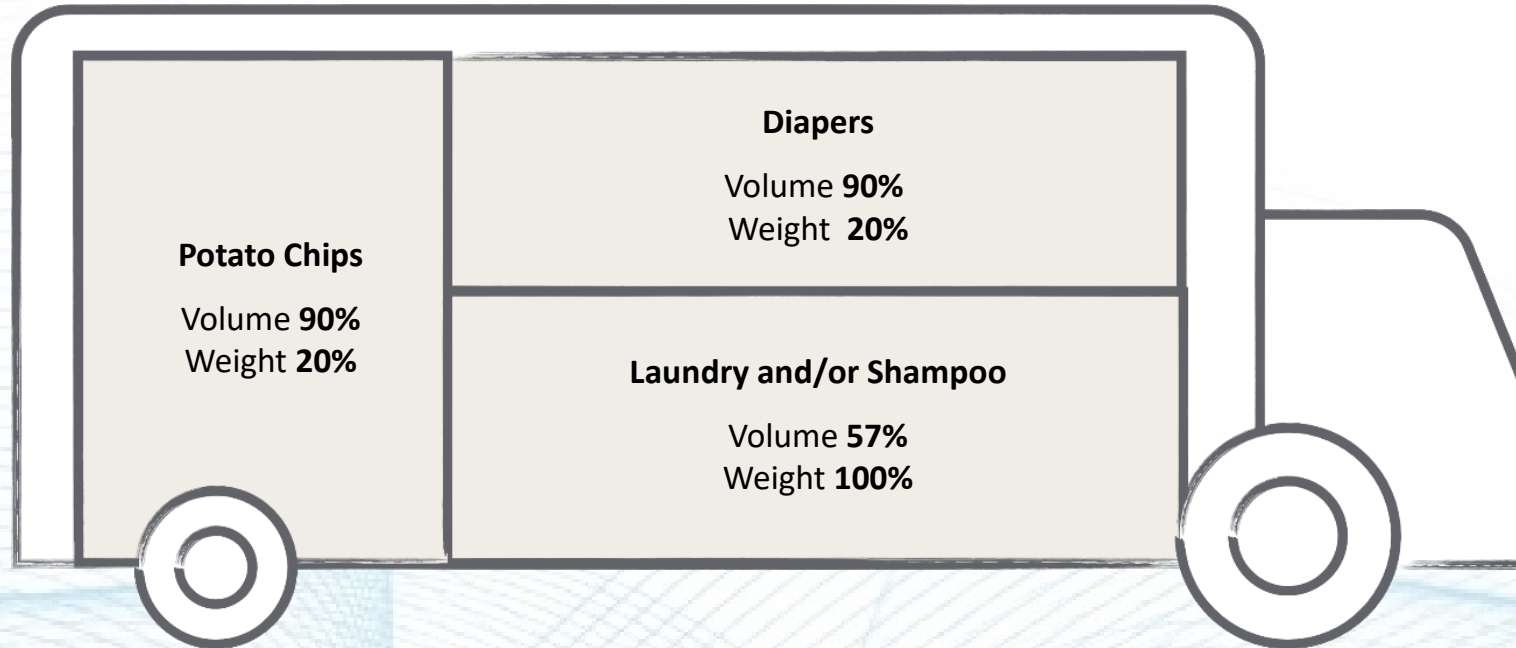
Expanding the logistics Scope



Challenge



“Cube-Fill” Concept



Container limit: **87m³ & 24 tonnes**

Overall efficiency: **80% weight & 80% volume**

“Cube-Fill” Concept



Container Limit = 87m^3 & 24 tonnes
Overall efficiency = 80% weight & 80% volume

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"Cube-Fill" Concept



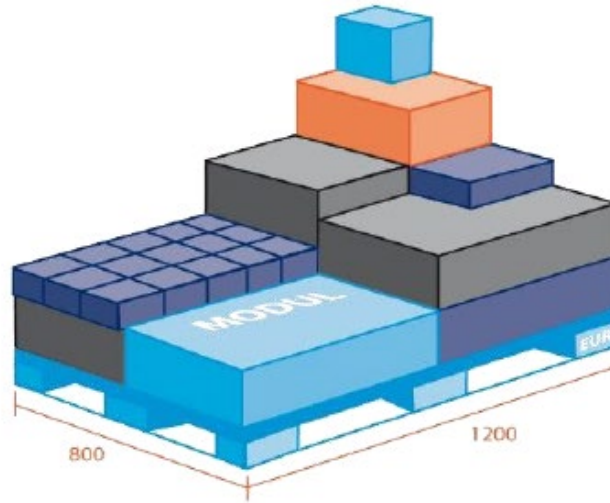


But it's not always easy...

Physical Internet

A practical approach

Compelling Business Need For Encapsulation



REDUCING PACKAGING WASTE
(Transport + Secondary + Primary)



Vehicle Fill Rate & Pallet Stability
(Double stacking + Mixed Pallets + Stretch Film removal)

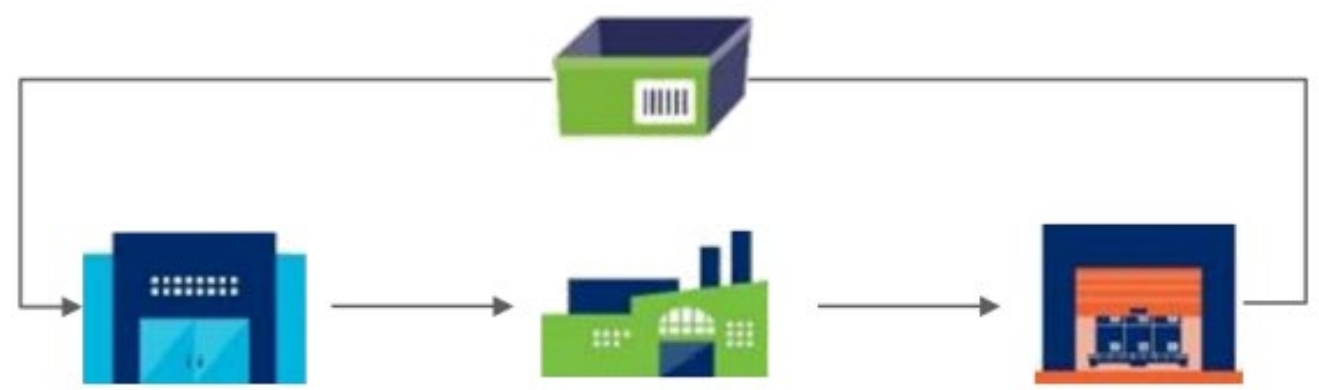
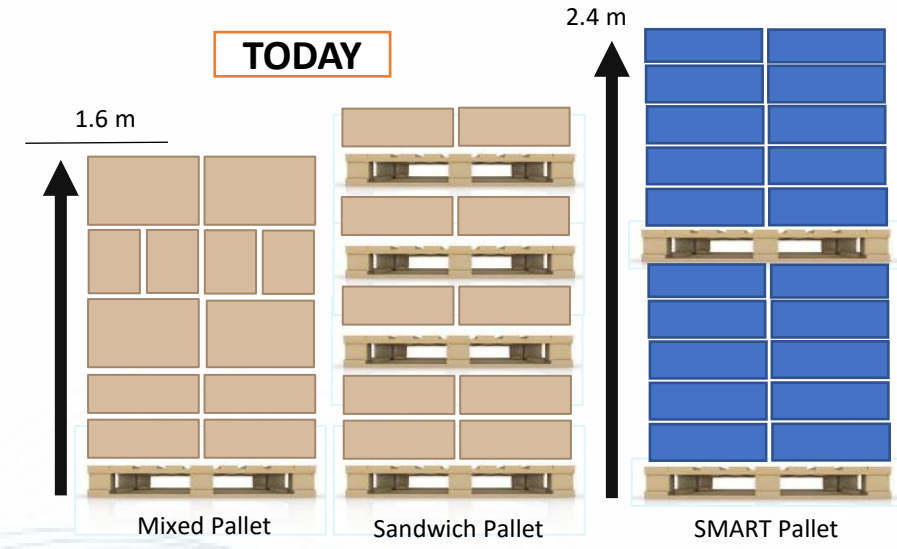


Strong Future Business Case
(Dehydration + Compaction)



A NEW INDUSTRY STANDARD: GS1 SMARTBOX

TOMORROW Use



Pooling provider

Manufacturer

Retailer

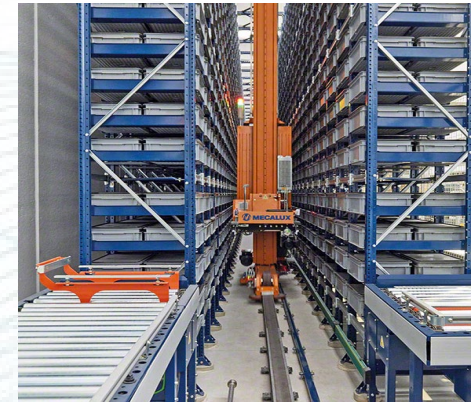
Core benefit of the SMART Box



Up to -35% CO2e reduction



Less packaging



Automation Ready

PPWR= Single use transport packaging elimination



SMART Box is part of the solution to enable industry to do the transition into a less packaging, less plastic & less cardboard logistic paradigm as per upcoming PPWR revision



*Example of an actual standard pallet:
cardboard, pallet edges, plastic film, area
utilisation of the pallet not optimised...!*

SMART Box
integration

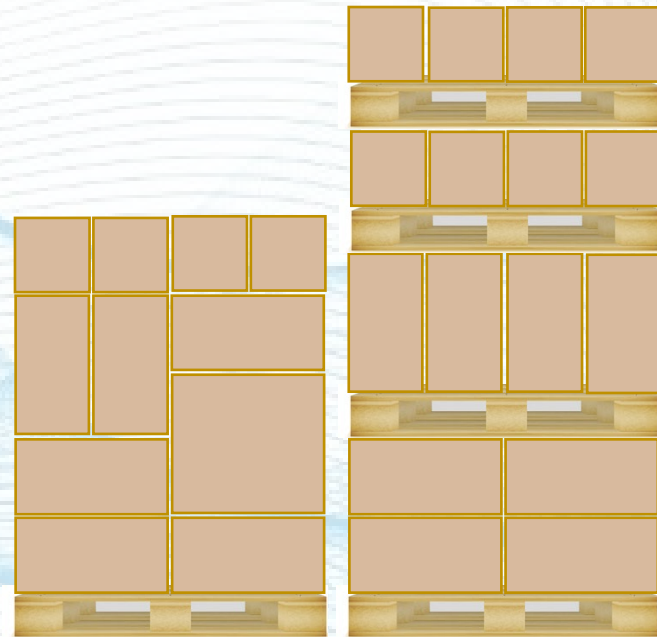


Example of SMART Box Pallet in P&G LODZ Plant

An Opportunity for a better use of materials!

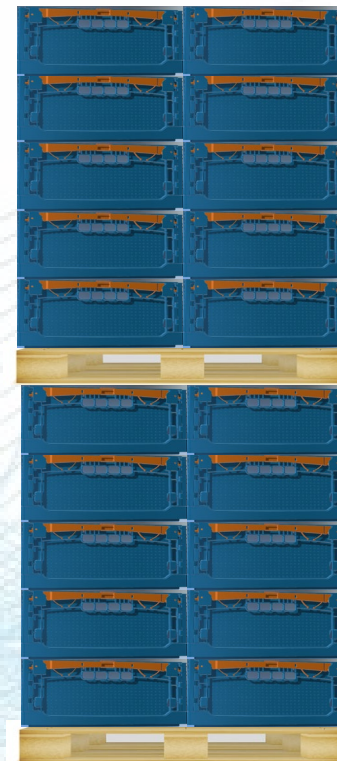
PAST UP TO NOW
CARDBOARD OUTSIDE – PLASTIC INSIDE

FUTURE TREND
PLASTIC OUTSIDE – CARDBOARD INSIDE



Mixed Pallet 1.6m

Sandwich Pallet



Double Stack 2,40m



INNOVATION ON TRADITIONAL MODULAR BOXES



AELER

Thinking the box out.

AELER CONTAINER



up to
20%
reduction in CO2
transport emissions



15%
lighter &
4t
extra flexitank
payload



10x
better thermal
protection



4%
road fuel
reduction



TEMPERATURE



PRESSURE



HUMIDITY



LUMINOSITY



IMPACT



DOOR OPENING
DETECTION



PRECISE GPS
POSITION



VOC GAS



5-10 MIN
WORLDWIDE
UPDATES



HIGHEST
SECURITY



SELF
CHARGING



RFID
CAPABLE

Insulated container with higher payload

Problem to be Solved:

- Use Case: Carry more bulk liquid

Solution:

- New 20 Foot std. container for ocean or land in composite materials allows increased payload of up to 4-6 more tons (+15-20%) better Temperature insulation, -20% lower CO2 per ton of material, less waste

Pilot Approach:

Enters the **AELER Unit One**.
The most **efficient, smartest and greenest** container in the world.



up to **20%** reduction in CO2 transport emissions

15% lighter & **4t** extra flexitank payload

10x better thermal protection

4% road fuel reduction

TEMPERATURE PRESSURE HUMIDITY LUMINOSITY IMPACT DOOR OPENING DETECTION PRECISE GPS POSITION VOC GAS 5-10 MIN WORLDWIDE UPDATES HIGHEST SECURITY SELF CHARGING RFID CAPABLE

Ship test to London- Turkey with MSC/MEDLOG

Test Shipment Results:

Successfully completed on time with

- ✓ No safety issue
- ✓ No leakage and no quality issue
- ✓ No damage/deformation on the container
- ✓ No issue about Loading/Unloading/squeezing
- ✓ No impact on going lead time

- Commercial exploitation starting



TODAY

Problem:

1.

Steel containers are obsolete. Their 50 year old design is weak • heavy • badly insulated • dumb



2.

Service quality is a disaster

3.

Inefficiencies cost users up to \$2000 per shipment

**If you want to go fast,
*go alone.***

**If you want to go far,
*go together.***

African Proverb

Questions?

