

WORLD OF PALLETS

plasgad[®]
SMART PACKAGING
YOUR WAY

PLASGAD AT A GLANCE

- Established in 1982.
- Plasgad develops and manufactures packaging, storage and transportation cutting-edge reusable solutions. Our solutions are among the most advanced in the world and are fully tailored to the unique requirements of each customer.
- Plasgad products are used in variety of industries and commercial markets such as: agriculture, food & beverage, pharmaceuticals, textiles, e-commerce companies and DIY market.
- We produce solutions designed for reuse and recycling. We are proud to lead the trend that recognizes the environmental value of smart plastic packaging solutions



GLOBAL PRESENCE



Manufacturing
Plants



Sales Distribution



Sales Offices

3

Production sites:

Gadot
Gesher-Haziv
Statesville, NC

3

Subsidiaries:

Spain
Germany
USA

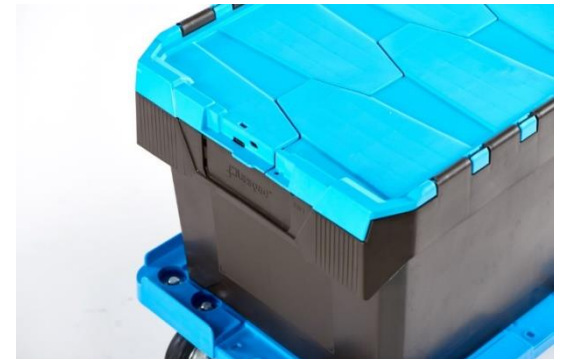
More than
60
distributes
around
the globe

A close-up photograph of a black, perforated rubber mat, likely a component of a vehicle's interior floor or a specialized industrial mat. The mat features a grid of small, evenly spaced holes. Two bright red, circular fasteners or caps are visible on the surface, one in the foreground and one slightly further back. The background is blurred, showing more of the mat and some indistinct shapes.

PLASGAD'S MAIN PRODUCTS & SOLUTIONS

WIDE RANGE OF CRATES & BOXES

- **The foldable family** Delivers a clear functional advantage thanks to the rapid and convenient folding mechanism and highly efficient storage space savings. The series is perfectly suited for automation systems, designed for cross stacking to protect goods and ensure stable columns
- **The ventilated family** ensure maximum ventilation making it an ideal solution for packing and transport of agricultural produce. The crates' ventilated walls are well-suited for cooling rooms and facilitate ripening process
- **The solid family** excels in preventing commodity contamination, providing an outstanding solution for sensitive products that demand strict hygiene conditions



COMPREHENSIVE LINES OF PALLETS

- **The light logistics family** have many logistical advantages: they are compact, convenient and environmentally friendly. The lightweight family is characterized by an excellent space saving ratio, providing a significant advantage in storage and shipping savings
- **The durable pallet family** - Sturdy, strong and designed to perform multiple work cycles, the Durable pallets have an especially high price-performance ratio compared to other solutions
- **The heavy logistics family**, innovative and extremely robust, the Heavy Logistics pallets are ideal for heavy duty processing at automatic warehouses and conveyors. These pallets are designed to withstand a lot of handling cycles and are particularly suitable for racking



R&D MILESTONES



The advanced foldable series

PATENT

☆ PACKAGING STAR IL



Picker Crate

PATENT



Breeze Crate

PATENT ☆ PACKAGING STAR IL



PS Series / Racking pallet



—2014—2015—2016—2017—2018—2019→

955 Pallet – Coca-Cola



Magnum Pro



Neptune Pallet

® REGISTER DESIGN



Power Pallet

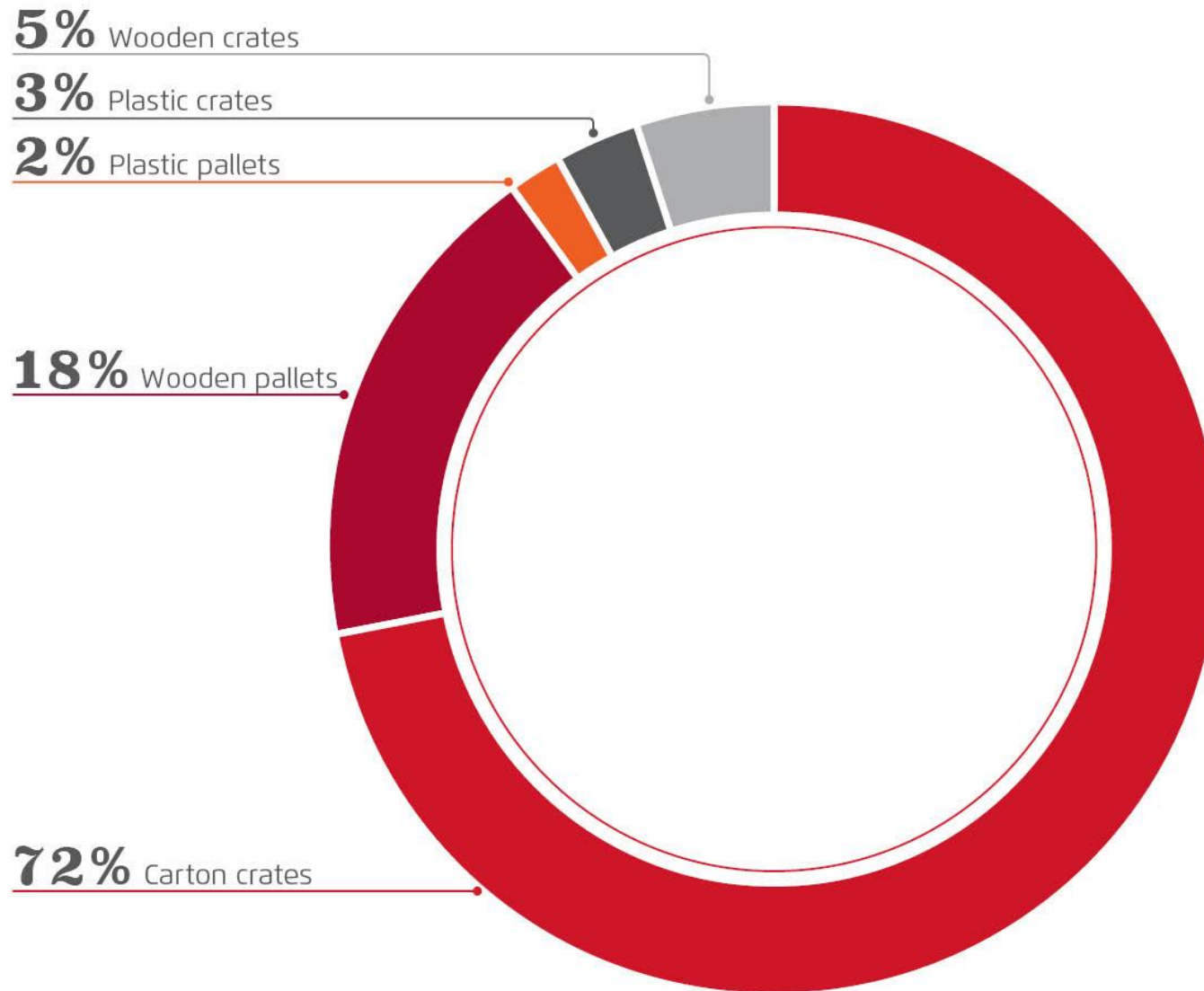
☆ PACKAGING STAR IL



RS pallets series



THE GLOBAL MARKET OF REUSABLE PACKAGING



- Market size is estimated at 250 billion dollar per year
- **90%** of the market today is carton crates and wooden pallets
- Plastic is estimated at 5% crates and pallets ~ **12.5\$ B USD**
- This is the immediate size of Plasgad market today

A close-up photograph of a black, perforated metal surface, likely a pallet deck. The surface is covered in a grid of small, circular holes. Two red, circular fasteners with central holes are visible, secured into the deck. The background is slightly blurred, showing more of the same structure.

TYPES OF PALLETS

Types of pallets



	Metal pallets	Plastic pallets	Wooden pallets
Dimensions	Custom made	Custom made 1200X1000 / 1200X800	Custom made
Industries	Milk industry, Bakery's	Food & beverage, Retail, Pharma, Logistics, E-commerce, Agriculture	Food & beverage, Retail, Logistics, Agriculture
Advantages	Super-strong, Custom made	100% recyclable, Long life, suitable for many industries needs, Wide range of sizes	Custom made, cheap solution
Disadvantages	Short life cycle, Corrosion, Expensive solution	Costs vs. Wooden pallet	Requires maintenance, Sensitivity to weather conditions, Doesn't meet regulatory requirements

THE ADVANTAGES OF PLASTIC PALLETS

- **Longer shelf-life:** suitable for longer pallet pooling for multiple trips
 - **Up to international regulations:** hygienic, non-absorbent, easy to clean
 - **Customizable options:** colors, graphic elements (company logo, etc.)
 - **Supports technology**
 - **Durability:** resistance to moisture, humidity, rain and chemicals (ideal for meat and dairy, wet environments)
 - **Lightweight:** 40% less heavy than wood, significant benefit in export via air
 - **Lower maintenance & repair between shipping rounds**
-

INDUSTRIES EMPLOYING PLASTIC PALLETS



INDUSTRIES EMPLOYING PLASTIC PALLETS

Industry	Relevant benefits of plastic pallets
Food & Beverage	<ul style="list-style-type: none">- Impact resistance- Cleanliness- Weight- RFID – for improved product identification and tracking purposes in the supply chain- Space saving
Meat Industry	<ul style="list-style-type: none">- Distribution pallet- nestable and as durable as H1 - save 2 out of every 3 loads!- Special safety perimeter for chicken crate- Film wrapping and strapping feature- Suitable for use in automated systems
Pharma Industry	<ul style="list-style-type: none">- Hygienic pallets that hold up to stringent regulation standards- Nestable multi-trip, hundreds of turns with a single pallet- Durable
Electronics Industry	<ul style="list-style-type: none">- Resilience and consistency- Maximum protective of valuable products- No protruding nails

INDUSTRIES EMPLOYING PLASTIC PALLETS cont.

Industry	Relevant benefits of plastic pallets
Fashion & textile	<ul style="list-style-type: none">- Light and efficient pallet- Maximum saving in space- Easy to wash & clean
Packaging & distribution	<ul style="list-style-type: none">- Light and efficient, maximum space saving- Heigenic- Multi-trip
Retail	<ul style="list-style-type: none">- Lightweight- Nestable- Efficient pallet, designed for DISPLAY

THE USE & GROWTH POTENTIAL OF PLASTIC PALLETS Driven by the following parameters:

Hygienic demands & progressive regularization standards

- Widespread use at all food industry production sites is expected
- Suited for fully automated production lines where size uniformity is required
- Limited weight allowances requiring a low weight solution
- "Certificate of disinfection" required for export

Profitability model

- In conditions where plastic pallet reusability proves to be cheaper than wood
- Matching the suitable raw materials to customers' needs.
(recyclable vs. virgin)

Environmental consciousness

- Increasing awareness and expectations both in legislation and social norms
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TECHNOLOGIES

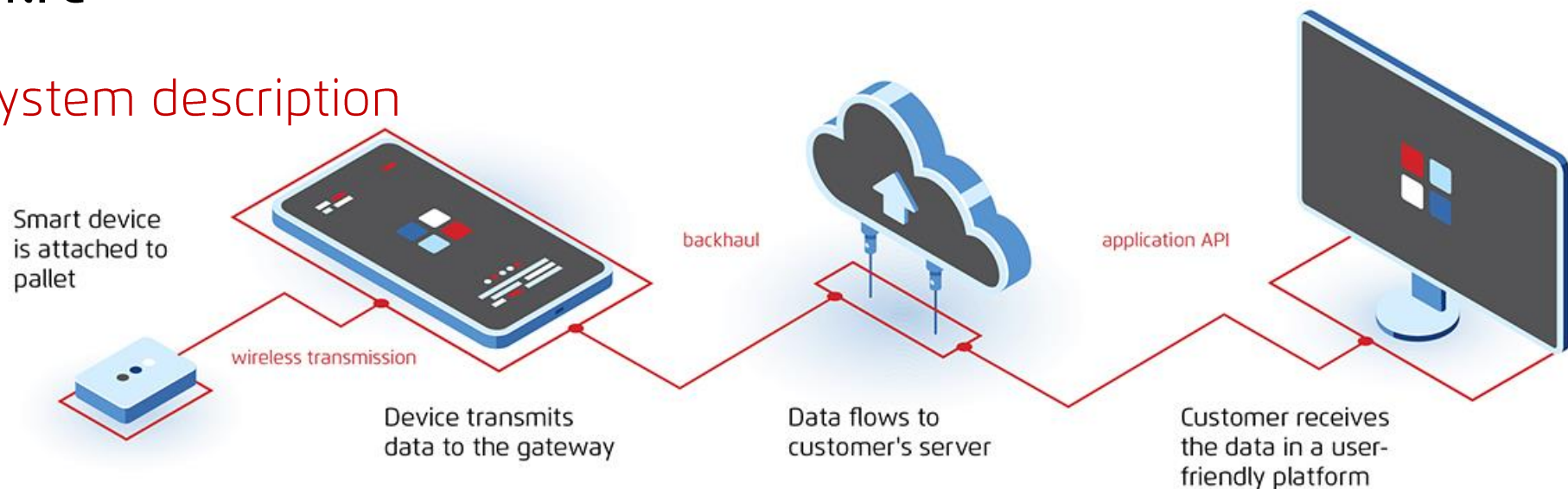
Tracking & ID solutions

- **LPWA** - low power wide area
- **Wi-Fi**
- **GPS**
- **RF-based identification and tracking** - advanced solution enables automatic identification of track crates and pallets
- **NFC**

Real-time alerts

- **Movement recognition**
- **Shock alert**
- **Temperature alert**

System description



A close-up photograph of a black plastic pallet deck. The deck is covered in a grid of small, raised black dots. Two red, circular fasteners with a central hole are visible on the right side of the deck. The background is blurred, showing more of the pallet structure.

NESTABLE PALLETS VS. WOODEN PALLETS

From Wooden pallets to Nestable Pallets

What would happen if a retail company used nestable pallets?

KNOW FIRST

ABOUT RETAIL COMPANY (*)

Name: SuperFresh

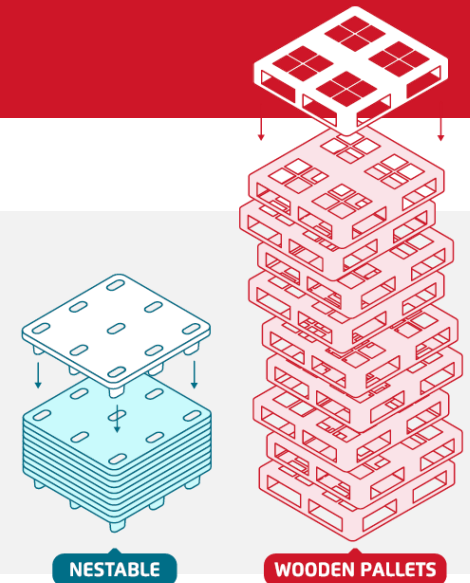
Shops: 200

Average trips: 5 trips/shops/day

Average distance: 200km/shop

ABOUT NESTABLE PALLETS

They take
almost **3** times **LESS**
space on return trips
and warehouses



WHAT WOULD A EUROPEAN RETAIL COMPANY LIKE SUPERFRESH SAVE WITHIN A YEAR?

LOGISTIC SAVINGS

**SUPERFRESH
WOULD MAKE**

13,976

return trips **LESS**
over the year →

**SUPERFRESH
WOULD ARRANGE**

13,976

Transports **LESS**
over the year →

**SUPERFRESH
WOULD MAKE**

13,976

truck unloading &
handlings **LESS**



TRANSPORT SAVINGS

SUPERFRESH WOULD MAKE

2 7 9 5 2 9 4

kilometers less over the year

COST SAVINGS

02

SUPERFRESH WOULD SAVE

1,019,639€

Every year (considering average gas price in Europe)

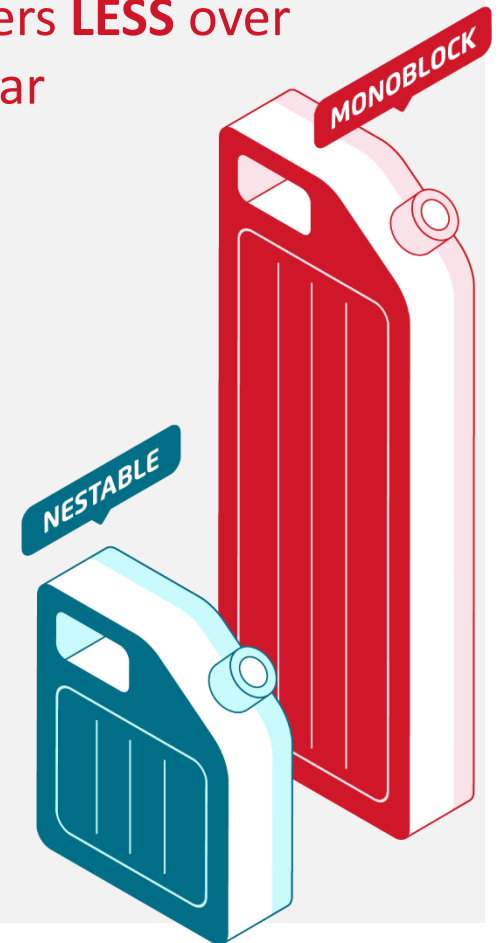


01

SUPERFRESH WOULD CONSUME

754,729

gas liters **LESS** over the year



03

SUPERFRESH WOULD ISSUE

7,295,718

CO₂ kg **LESS** to the planet within a year, lowering
their footprint!



Sources:

(*) Estimated for case study. Nestable vs monoblock pallets

01. MITMA data 31.12.2018

02. A study of Comisión Interdepartamental del Cambio Climático by Generalitat de Catalunya

03. Ministerio para la transición Ecológica, Gobierno de España 31.12.2018 (page 23) with data from European Comission



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