

PROJECT

## UPALET

### Strong, sustainable and waterproof cardboard pallet that equals load carrying capacity of wooden pallets

**Funding:** European (Horizon 2020)

**Duration:** Mar 2017 - Jul 2017

**Status:** Complete

**Total project cost:** €71,429

**EU contribution:** €50,000



[CORDIS RCN : 208151](#)

#### Background & policy context:

According to the United Nations Economic Commission for Europe (UNECE), there are 4 billion wooden pallets in circulation in Europe right now, this means 108 billion kg of dead weight. To transport this weight 100 km, trucks will require 334M litres of fuel that will emit 880M kg of CO<sub>2</sub>.

#### Objectives:

Upalet will be the first commercial cost-effective and recyclable cardboard pallet that is as strong and has the same load capacity as wooden EUR pallets (1500 kg), yet it is 19 mm lower (13%) and 21.5 kg lighter (80%).

Currently, there are several models of cardboard pallets on the market, but none of them offers all the benefits as Upalet has: strength and durability; massive CO<sub>2</sub> reductions and fewer trucks on the road (traffic congestion, wear and tear to highways...); 100% recycled (corrugated cardboard and cardboard tubes attached only with green adhesives); suitable for heavy loads (1,500 kg); waterproof and resistant to wet conditions; do not need special forklift attachment; no need for any thermal or phytosanitary treatment; 25% cheaper than EUR pallets.

#### Methodology:

The project provides significant returns. By 2023 there will be 20 people employed directly in manufacturing and selling UPALET, with many more employed indirectly, both within the company, their suppliers and the companies that license the technology. Considering total project costs of 2M, by 2023, the project earns a return on investment of over 1000%, an internal rate of return of 66% and a net present value of over 15M€.

#### Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

**Institute type:** Public institution

**Institute name:** European Commission

**Funding type:** Public (EU)

#### Lead Organisation:

**Mandriladora Alpessa SI**

**Address:**

CALLE L'ESTACIÓ  
46760 TAVERNES DE LA VALLDIGNA  
Spain

**EU Contribution:** €50,000

## Technologies:

Unclassified Non-technology
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Vehicle design and manufacturing, Other

**STRIA Roadmaps:** specified

**Transport mode:** Multimodal transport

**Transport sectors:** Freight transport

**Transport policies:** Environmental/Emissions aspects

**Geo-spatial type:** Other