

# EPA Green Enterprise

## Project: Plastic Packaging Remoulded into Pallets

Company: PALTECH Polymer Alloy Technology • Reference: 2019-ET-CP-98

### Project Objectives:

Develop a process to mould mixed waste plastics and create a demonstration pallet product.

Amount Of Grant Aid Awarded: €100,000



### Background:

Paltech is an expert in processing recycled plastics. The company set out to develop patented technology to convert waste mixed plastics into high value products.



- Mixed waste plastics present challenges due to their variable composition and quality;
- Consumers and governments want to avoid single use packaging minimise waste and prolong the lifetime of material in the economy;
- Soft plastics used for food packaging are made up of different categories of plastic and can consist of multiple layers, labels, colours and other materials such as foils, making recycling difficult;
- Soft plastic films from household and commercial sources make up more than half of all plastic waste in Ireland.

**RESPONSIBLE COMPANIES WANT TO ADOPT A SUSTAINABLE APPROACH WHEREBY THEIR WASTE CAN BE RECYCLED BACK INTO NEW PRODUCTS WITHIN THE BUSINESS SECTORS WHERE THEY ORIGINATED.**

### Project activities:

- Developed a patented Enclosed Pressure Moulding (EPM) process to handle post-consumer mixed plastic waste originating from the food sector.
- Demonstrated the feasibility of the process by producing a prototype pallet and panel boards from the recycled material.

The prototype pallet may be optimised to achieve adequate carrying capacity with less material.



**THE CIRCULAR ECONOMY PROGRAMME**  
The Driving Force for Ireland's Move to a Circular Economy



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**Project Outcomes:**

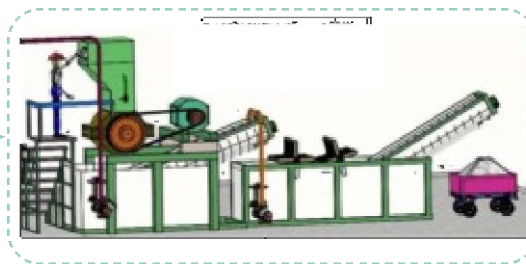
There is potential to take a low value waste plastic stream and convert the material into durable, long-life products. Waste disposal is avoided, export is avoided and secondary materials can have multiple lives as different products. The know-how is local and provides an Irish circular economy solution to a global problem.



**Plastic Packaging**



**Collect → Wash → Shred**



**Recycled PlasticPallet**



**Scale up:  
Powered by  
Renewable  
Energy**

**Next steps needed:**

Paltech has successfully developed the process and technology to manufacture products from post-consumer mixed plastic waste. Paltech is continuing its work in the development of products from such recycled materials, with a range of different products being looked at, in partnership with other organisations.

For more on the EPA's Green Enterprise programme visit [here](#)

For further information see: [paltech.ie](http://paltech.ie) or contact: [info@paltech.ie](mailto:info@paltech.ie)

