



**UK EXTRUSION**  
PACKAGING & RECYCLING

 **PLASMAC**<sup>®</sup>  
MEMBER OF EREMA GROUP & SYNCRO GROUP

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INJECTION MOULDING  
CASE STUDY

05/11/2024



Do you want to increase your **efficiency**,  
remove defects and increase **productivity**,  
all from a solution that has a **payback**  
of **less than 8 months?**



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**Purchasing this machine was a no brainer - after proving the process, justifying the decision was easy.**

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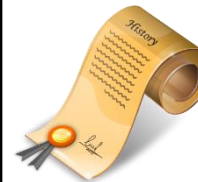
**Customer Industry**

Automotive industry parts supplier



**Customer Products**

Providing key components to their customers with zero defects and just in time delivery



**Customer History**

Injection moulder of car dashboards for over 20 years



## **THE PROCESS**

Scrap product was granulated and either fed directly back into the injection moulding machines or sent away for repelletising.

## **THE PROBLEM**

Dust from the granulation process would cause bridging in the machine throat or cause defects on the surface of the product.

Metal contamination would cause product defects.

Outsourced recycled pellet quality was inconsistent and costs of both repelletising and transport to and from the recycler expensive.

## **THE REASONING**

By bringing the process in-house, transport costs would be removed, and quality could be controlled.

By re-pelletising all granulated material, the dust issue is removed, efficiencies were increased, quality was improved and defects were reduced.

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The customer wanted  
to **increase efficiency**  
by **20%**, **reduce**  
**defects by 15%** and  
**reduce recycling costs**  
by **50%** whilst keeping  
operator interface to  
the minimum possible

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## **PROPOSED SOLUTION**

Plasmac proposed an Alpha M system with a flake feeder, manual screen-changer and water pelletiser to recycle the customer material which was PP with 30% CaCO<sub>3</sub>.

Plasmac's short screw technology makes their machines one of the most efficient systems on the market meaning the customer could keep his cost of production to an absolute minimum.

With an intuitive, simple to operate control system, automatic feeding of the flake feeder and ability to feed the repelletised material into the customers automated factory feed system, minimal operator interface was ensured.

## **AFTER INSTALLATION**

Plasmac helped train the company's technical staff to both run and maintain the Alpha M & provided ongoing support to back-up the training and give further understanding and ensure a seamless handover to the Production Team once the machine was accepted and signed off.

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The **Alpha** machine exceeded all our expectations, it's **simple** to operate, incredibly **robust** and we can simply leave it alone to run. When we have needed support, **Plasmac** were on hand to **help** and **guide** us through our issues, I can't recommend them enough!

D.B. – UK - Automotive

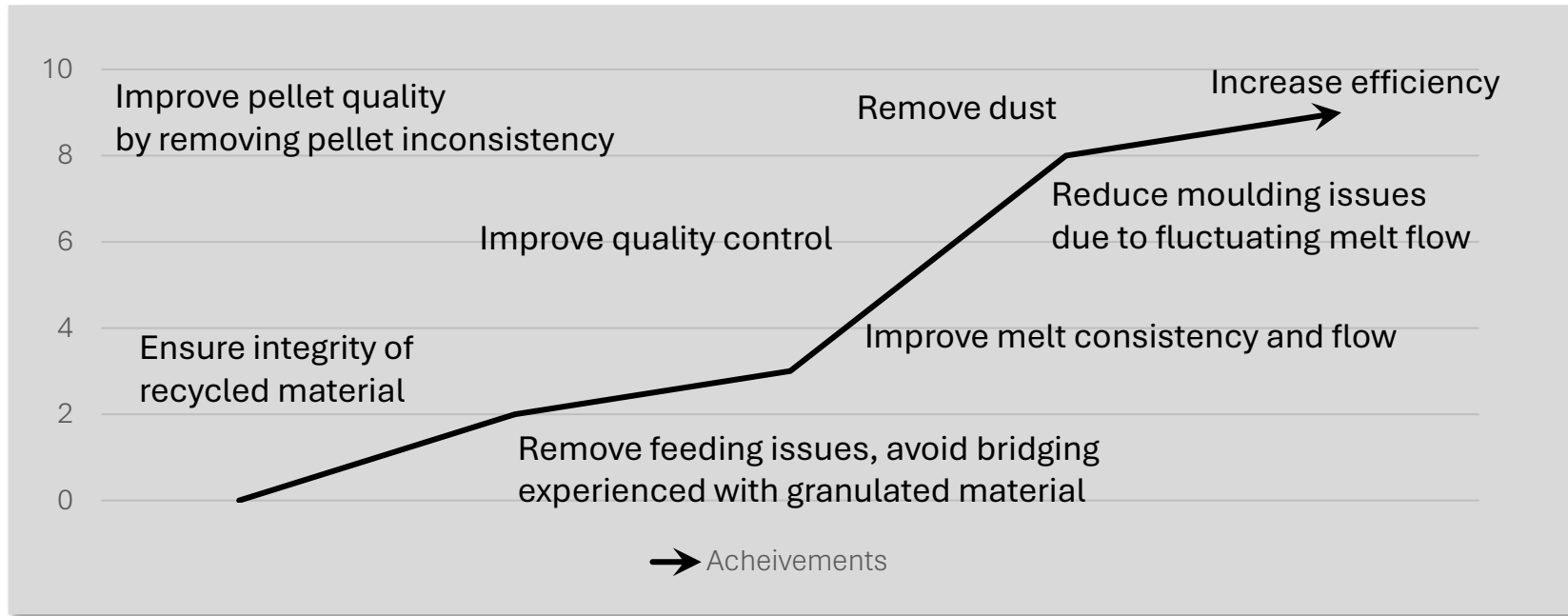
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### External Recycling

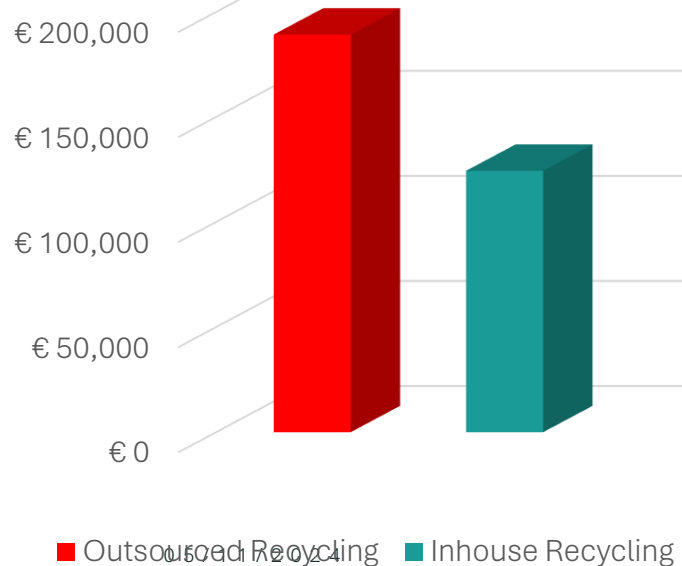
Cost of externally recycling is  
€350.00 per ton\*  
External recycling = 540.80  
tons/year = €189,280.00

### In-house Recycling

Cost of production = 0.23 €/Kg  
In-house Recycling costs = 0.23 x  
540.80 = €124,384.00



### Cost of Recycling



**Return on Investment in less than 8 months!**



**Find out how we can help you.**

**Contact us on:**

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