



Best practices about
how SMEs utilize AI and Green practices.

>>> BEST PRACTICES <<<



Transforming Tomorrow, Today

Rommtech-3s

Sector: Electronics manufacturing (turnkey box build, plastics, metals, cables, battery packs)

Area of Impact: Resource efficiency, waste reduction, CO₂ emissions (plastics processing)

Location: Vratsa, Bulgaria

<https://www.rommtech-3s.com/en/home/> 



Co-funded by
the European Union

AI4GreenSME is a collaborative project funded by the European Union. Our consortium of partners brings together expertise in AI, sustainability, and SME development. (NOV 23 - OCT 24)



From Scrap to Resource: Cutting Plastic Waste at Rommtech-3s

Rommtech-3s, established in 2007 as part of a group founded in 1994, is a turnkey electronics and components manufacturer. The company specializes in the complete cycle of production – from design files to electronics assembly, plastics and metals processing, encapsulation, programming, labeling, and market-ready delivery. The practice focuses on reducing scrap rates in plastic processing and enabling reuse of materials. Scrap levels of plastic products exceeded 9%, representing significant material waste and CO₂ emissions. Given that the company processes over 100 tons of plastics annually, the potential for environmental impact reduction was substantial.

Outcomes and Impact

- Scrap rates reduced from over 9% to **below 6% overall** and **under 4% for most products**.
- More than **4 tons of plastics saved per year**, avoiding landfill and reducing emissions.
- Increased use of **degranulated materials** in production without quality compromise.
- Enhanced culture of monitoring, accountability, and continuous improvement.

Objectives

- Reduce scrap rates in plastic processing.
- Identify root causes of production waste through systematic monitoring.
- Reuse degranulated materials where technically possible.
- Lower CO₂ emissions by minimizing unnecessary processing and landfill waste.
- Establish internal routines for continuous improvement in sustainability.

Innovation Level

Process innovation combining systematic scrap monitoring with reuse of degranulated plastics. Integrates managerial routines and technical adjustments, achieving sustainability gains without major investments. The approach is easily replicable by other SMEs in manufacturing.



Evidence of Effectiveness

- Quantified scrap rate reductions (documented internal statistics).
- Material reuse integrated into daily production.
- Tangible annual savings in raw materials (4+ tons of plastics).
- Demonstrated environmental impact reduction linked to CO₂ emissions.

Scalability and Replicability

- The practice is scalable within Rommtech-3s for other materials (metals, cables, etc.).
- It is replicable in other manufacturing SMEs processing plastics or similar raw materials.
- Requires limited financial investment – mostly managerial effort and systematic monitoring.

Activities and Approach

- Weekly management meetings reviewing scrap rates and production per shift.
- Setting product-specific targets and investigating deviations (positive and negative).
- Documenting good practices and machine regimes to improve standardization.
- Introducing trials for reusing granulated scrap in selected products.
- Continuous decision-making on product applicability for reused materials.

Alignment with International Standards

- Contributes to UN SDG 12: Responsible Consumption and Production (target: substantially reduce waste generation through prevention, reduction, recycling, and reuse).
- Supports SDG 13: Climate Action through reduced CO₂ emissions linked to waste processing.

Partnerships / collaborations

Internal cross-department collaboration between production managers, quality control, and sustainability officers.

Lessons Learned

Challenges / Lessons Learned

- Initial resistance to systematic monitoring required cultural change.
- Not all products are technically suitable for reuse of degranulated material – selectivity is key.
- Standardization of machine regimes and staff training are crucial for sustaining results.

Regular monitoring and feedback loops accelerate sustainability improvements.

Even incremental reductions (from 9% to 6% scrap) translate into large-scale resource savings when scaled annually.

Combining management routines with technical trials (reuse of granulated plastics) leads to stronger outcomes.