

Innovative Milestones – Gemini Corporation

Achieved Milestones

Giving Plastics Waste a Second Life

Giving Materials a Second Life

1. Historically, a substantial portion of European plastics waste was being dumped at the landfill.
2. Gemini gave plastics waste a second life by recognizing that it could be recycled and used as an environment-friendly raw material in place of oil-derived virgin plastics.
3. Through its expertise in logistics and network, **Gemini created an international market for plastics waste as a raw material** giving value to something that was destined for the landfill.

Supply of Shredded Steel Scrap in Containers

1. Shredded steel scrap is used to produce steel. It was supplied in bulk to steel mills on chartered vessels. Minimum purchase quantity was 10,000 – 15,000 metric tonnes.
2. **Gemini is the leading promoter to use containers** (20-ft Heavy-Tested) in transporting shredded steel scrap, which brought down the minimum purchase quantity to 26 metric tonnes.
3. Unlike vessels, containers are not restricted to the sea. They can also be transported via rail and truck to inland destinations.
4. The flexibility of containers allowed Gemini to pick up material from yards deep inland and serve customers who were previously ignored due to their low purchase horizon.

Rubber Tyre Powder as a Raw Material

1. Tyre powder is a byproduct of tyre recycling.
2. Local markets for tyre powder is oversupplied due to limited applications.
3. Through its network, Gemini found applications for this material in the shoe industry, rubber mats industry among others.
4. **Gemini increased the value of tyre powder as a raw material by creating an international market for it.**

Finding a Home for Unwanted Tyre Wire

1. Tyre wire is the metal byproduct of tyre recycling.
2. Historically, this material had a negative value i.e. tyre recyclers had to pay a fee for the material to be taken off their recycling plant.
3. Gemini has found several applications for this product in the international market. As a result, **Gemini has given tyre wire a positive**

value and solved tyre recyclers' problem of removing this previously unwanted material.

PVC Cable Scrap

1. Electric cables are made of metals and plastics, namely polyvinylchloride (PVC).
2. The metal components are separated from PVC components at metal recycling plants. The PVC scrap used to be dumped at landfill in Europe.
3. Gemini found applications for this material in PVC industry itself. Gemini diverted the material from landfill to this industry. Rather than being dumped, this material could now be used as a raw material.

Inspection of Recyclable Raw Materials by own personnel

1. Pioneered a Proprietary Inspection Policy in the supply of recyclable raw materials.
2. Developed a team of Quality Inspectors who inspect each and every container of Gemini's shipments on behalf of the customer.

Unique Insurance Products

1. Creative use of customized insurance products in risk management and mitigation.

Automated Invoice Management System

1. Created software which directly processes invoices as they are received on the company's network and sends them on to the appropriate person for approval leading to efficiency and improvement.

Logistics Process

1. One of the promoters of barge transportation for recyclable raw materials which is the most eco-friendly mode of transport.
2. One of the leaders in containerized shipment, which are loaded in a vertical position from the top.

Upcoming Developments

Reprocessed Plastics

1. Reprocessed plastics are made from recycling plastic scrap. They are found in granule form, much like virgin plastics. Reprocessed plastics are used in the production of plastics products such as dashboards, pallets, furniture in conjunction with virgin plastics.
2. Currently, reprocessed plastics are mostly sold within the domestic markets of production.
3. We are working to develop an international market for this material.

Natural Inner Tube Rubber

1. Large vehicle and bicycle tyres contain rubber inner tubes, which are

used to retain air pressure.

2. Gemini has created an international market for Synthetic Rubber and is currently developing acceptability for Natural Rubber too.
3. Gemini contributes to improve the imbalance in markets of inner tube by internationally marketing Natural Rubber and Synthetic Rubber.

Letter of Credit Automization

- a. Creation of Bank documents based on LC Swift Copies
- b. Accuracy and Efficiency will be ensured

Expense Management System

- a. Will enable en-route employees to create user-friendly Expense Report
- b. Enhance accounting and supporting documents.