

# ECONO-Biz

Angaz to lantrepriz pou vinn Ekolo ek Ekonom

## CASE STUDIES

Implemented by 10 Small and Medium Enterprises  
for Environmental Sustainability and Economic Prosperity

OCTOBER 2023







# TABLE of CONTENTS

FOREWORD BY NPCC	4
AAH - COMFORT ZONE	6
<ul style="list-style-type: none"> <li>• Efficiency leads to money and energy savings</li> <li>• Minimising Wastes through Improved Inventory Management System</li> </ul>	
AASII	12
<ul style="list-style-type: none"> <li>• Waste Fabric Upcycling Brings Benefits</li> <li>• Resource Efficiency through 5S Implementation and Utilisation of Dead Stock</li> </ul>	
ADA CREATIONS	16
<ul style="list-style-type: none"> <li>• Finding Value in Dead Inventory</li> <li>• Improving Production Processes for On-Time Deliveries</li> </ul>	
BISENCO	20
<ul style="list-style-type: none"> <li>• Efficient Raw Material Management and Waste Reduction</li> <li>• Towards Sustainability: Reducing Potable Water Consumption for a Greener Future</li> </ul>	
DIVANO UPHOLSTERY AND INTERIORS CO LTD	24
<ul style="list-style-type: none"> <li>• Fuel Efficiency</li> <li>• Increasing Revenue from Wasted Fabric</li> </ul>	
FIELD GOOD FRESH FOODS	30
<ul style="list-style-type: none"> <li>• Order Deliver Process Automation of organic wastes dumped through composting</li> <li>• Reduction of organic wastes dumped through composting</li> </ul>	
ISLAND MILK & ALLIED PRODUCTS LTD	34
<ul style="list-style-type: none"> <li>• Minimising Raw Material Wastage through Better Control</li> <li>• Harvesting the Sun: Energy Savings Through Solar Water Heaters</li> </ul>	
SS BUSINESS SCHOOL	38
<ul style="list-style-type: none"> <li>• Waste Minimization through the 3 Rs (Reduce, Reuse And Recycle)</li> <li>• Improve Productivity and Efficiency through 5S</li> </ul>	
STEEL PLUS	42
<ul style="list-style-type: none"> <li>• Improving material efficiency by disposing &amp; re-using of metal scraps</li> <li>• Reducing scraps by establishing a proper inventory management system</li> </ul>	
POLYTOL PAINTS AND ADHESIVES MANUFACTURERS CO. LTD	46
<ul style="list-style-type: none"> <li>• Water Efficiency for Eco-Friendly Paint Manufacturing at Polytol</li> <li>• Raw Material Efficiency at Polytol</li> </ul>	





Econo-Biz has been successfully implemented across ten selected enterprises in Mauritius. The range of projects undertaken by these enterprises is diverse, encompassing initiatives aimed at reducing water and electricity consumption, as well as recycling and upcycling fabric and scrap wastes among others.





# EconoBiz

To ensure the successful implementation of these projects and to help these enterprises achieve their desired impact, the NPCC provided invaluable hand-holding support and training over a period of three months. The training was based on the **International Labour Organisation's Sustaining Competitive and Responsible Enterprises (SCORE) 4 Climate** programme.

The case studies presented in this document offer valuable insights into how SMEs are strategically integrating environmental and economic considerations into their day-to-day operations.

We extend our sincere gratitude to these enterprises for their active participation in the Econo-Biz project. Their willingness to embrace eco-friendly practices and incorporate them into their business operations exemplifies their unwavering commitment to sustainability. We hope that their dedication to sustainability and responsible business practices will serve as an inspiration to others.

Additionally, we would like to express our heartfelt appreciation to the Ministry of Environment, Solid Waste Management and Climate Change and the HRDC for their steadfast belief in our vision and their unflinching support to the Econo-Biz project. Their collaboration has been instrumental in raising awareness, facilitating action, and promoting responsible business practices among SMEs. Together, we are paving the way for a more sustainable and prosperous future.



# AAH-COMFORT ZONE

## Efficiency leads to energy savings

1

### ABOUT THE COMPANY

AAH-Comfort Zone, located in Plaine Lauzun, has been manufacturing custom-made and designer furniture since 2000. The company operates two distinct departments: one specialising in home furniture, while the other focuses on boat upholstery.

### CHALLENGE

AAH-Comfort Zone faced a constant increase in their energy bills, primarily due to issues on the shop floor. To tackle this challenge, the Enterprise Improvement Team (EIT) conducted a walk-through energy audit. This audit aimed to understand the energy consumption pattern and identify areas for potential savings. The audit included a thorough examination of light switch locations in all workspaces, storage areas, kitchens, washrooms, and other spaces where electricity consumption could be controlled.

### SOLUTION

Following the analysis of the energy audit, the following measures were implemented:

- 1. Lighting System Upgrade:** AAH-Comfort Zone hired an electrician to upgrade their outdated lighting system. New switches were installed in the offices to ensure that lights are switched on only when required, a practice that was not followed previously.
- 2. Employee Awareness Sessions:** The company conducted awareness sessions with all employees to encourage energy-saving practices. It was unanimously agreed to switch off lights on the shop floor for about one hour every day during breaks. An employee was designated to switch off the lights at the agreed-upon time.



## RESULTS

### 1. Lighting System Upgrade

#### BEFORE

Outdated lighting system

Electricity Bill for  
June 2023  
Rs 18,245

#### AFTER

A separate switch was installed to minimise electricity consumption in different areas

Electricity Bill for  
July 2023  
Rs 16,271

#### IMPROVEMENT



**A decrease of 10%  
in electricity bill**

### 2. Employee Awareness Sessions

#### BEFORE

Employees were neglecting switching off lights when not in use

#### AFTER

Employees became more conscious of the need to save energy, fostering a culture of energy conservation within the organisation.

#### IMPROVEMENT



**More conscious employees  
for energy saving**

This case study underscores the value of energy efficiency initiatives in reducing operational costs and environmental impact while promoting a culture of responsible energy consumption within the organisation.



*"We have to carefully manage the business' expenses to operate successfully. Energy costs are definitely significant for us. A small change can yield big savings in the long run. It is a win-win situation — we were able to help the environment while saving money."*

Mr. Anwar Himamalee, Managing Director



*"Embracing the habit of switching off lights may require a bit of time, but the environmental impact and the savings in both energy and money make it a truly worthwhile endeavour. I am proud to be part of this initiative."*

Mr Farook, Operator



# AAH-COMFORT ZONE

## Minimising Wastes through Improved Inventory Management System

2

### CHALLENGE

AAH-Comfort Zone faced significant challenges in inventory management. The stores were disorganised, with items haphazardly stacked, making it difficult to track stock, retrieve items efficiently or prevent the accumulation of dead stock. Raw materials were often misplaced, leading to unnecessary new orders while existing materials went unused. The absence of an accountability system allowed employees to retrieve items without oversight. Overproduction and over-purchasing led to unsold items piling up in the stores. Even usable leftover foam was neglected, and employees did not consistently incorporate it into the production process.

### SOLUTION

To address these inventory management challenges, AAH-Comfort Zone implemented several solutions:

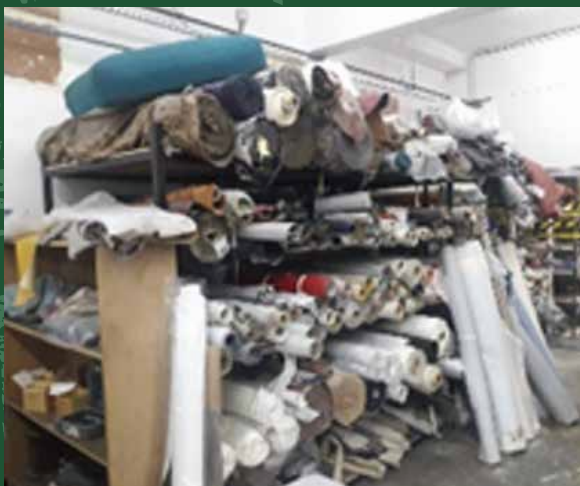
- 1. Departmentalisation:** The shop floor was departmentalised into two lines of business: boating and furniture manufacturing. Raw materials for the boating department were reorganised and stored separately to prevent mix-up. An employee in the boat division was trained to manage the department's stock.
- 2. Dedicated Fabric Store:** A separate store was established to stock fabric for furniture manufacturing.
- 3. Foam Management Policy:** A new policy was introduced for the foam store. Leftover foam was stored in a visible and separate location to encourage its use before newly purchased foam. The newly purchased foam was organised by weight and type for easy retrieval. An employee was designated to control the foam stock.
- 4. Controlled Access:** The "accessories and other items" store was reorganised and placed under lock and key to limit access.



## RESULTS

## 1. Inventory Management

## BEFORE



Rolls of fabrics were kept in a disorganised way before the inventory management.

## AFTER



The rolls of fabrics are now kept in an orderly manner, allowing better control and retrieval in lesser lead times.

## 2. Quantification of dead stock

## BEFORE

No data was available to know the amount of dead stock within the inventory

## AFTER

**The company was able to retrieve and shift dead stock amounting to Rs 50,000** to a different location. This dead stock was repurposed for manufacturing new products and as raw materials for furniture making.



# AAH - COMFORT ZONE

Minimising Wastes through Improved Inventory Management System

2

## RESULTS

### 3. Selling of unsold items

#### BEFORE

Cash was locked up in unsold items occupying space in the inventory area.

#### AFTER

An intensive marketing campaign was launched to **sell unsold items amounting to Rs 2 million**, addressing the issue of overproduction.



### 4. Upcycling leftover foam

#### BEFORE

Left over foam were scattered on the floor occupying space.



#### AFTER

Leftover foam that could not be used was given to a third party at a minimal charge for upcycling.



AAH-Comfort Zone's commitment to improving inventory management practices not only reduced waste and improved efficiency but also unlocked the potential for cost savings and additional revenue generation. This case study illustrates the value of systematic organisation and effective inventory management in manufacturing, showcasing how these practices can positively impact a company's operations and profitability.



*"The inventory investment for a small business takes up a big percentage of the total budget. We are now able to better manage our inventory and reduce wastes."*

Youshreen, Administrator



# ECONO-Biz

Angaz to lantrepriz pou vinn Ekolo ek Ekonom





# AASII LTD

## Waste Fabric Upcycling brings benefits

1

### ABOUT THE COMPANY

AASII Ltd is engaged in the manufacturing of babywear since more than 35 years. The company stands among the handful of companies that operate in this particular line in Mauritius. The company faced numerous challenges in terms of waste generation and there was no practice in place to reduce the waste to release space and to reduce its impact on the environment.

### CHALLENGE

Waste generation emanated mostly from leftover fabrics from production processes. Leftover fabrics come in different sizes, shapes and types depending on the specific manufacturing processes involved. These wastes were sent to the landfills at irregular intervals. Until and unless these wastes were not discarded, they occupied significant space at the business' premise.

### SOLUTION

The leftover fabric generated in the production process were upcycled. Wastes of less than two metres were converted into fabric strips technically known as binding. This is used to enclose or cover the edges of a garment. In baby clothes, binding is found around the edges of items including onesies, rompers, bibs, blankets, and even hats. The following steps are involved in the production of binding using leftover fabrics:

- 1. Markers efficiency:** Effective marker planning helped reduce the amount of unused fabric; this contributed to more sustainable and cost-effective production processes.
- 2. Collect and Sort Leftover Fabrics:** This involved gathering and categorising leftover fabrics from previous production runs. The fabrics were sorted based on colour, type, and size.
- 3. Binding Production:** Leftover fabrics were cut into strips of appropriate width and sewn or attached onto the edges of baby clothes as binding.



## RESULTS

## BEFORE



Leftover fabrics

## AFTER



Collected and sorted leftover fabrics



## IMPROVEMENT

Achieved  
**105 Kgs of waste**  
be converted into  
binding

**Cost Savings**  
**Rs 36,750**



Leftover fabrics collected to  
create unique and visually  
appealing binding baby  
clothes

AASII Ltd's implementation of the 5S methodology and the creative utilisation of dead stock materials significantly improved resource efficiency, streamlined processes and resulted in cost savings. This case study underscores the importance of work place organisation, waste reduction, and resource optimisation in enhancing productivity and sustainability in manufacturing operations.

# AASII LTD

## Resource Efficiency through 5S Implementation and Utilisation of dead stock

2

### CHALLENGE

The shop-floor at AASII Ltd was disorganised which resulted in time wastage during worker movements during production. Dead stock including unused fabric, trim and accessories, had accumulated over time, occupying significant space.

### SOLUTION

The company implemented the 5S methodology to address efficiency concerns. The following steps were implemented:

1. **Sort:** Valuable materials were separated from waste and dead stock.
2. **Set in order:** A logical arrangement of tools, materials, and equipment to reduce searching time.
3. **Shine:** Regular cleaning and maintenance routines to ensure equipment and spaces were kept in optimal condition.

### Utilisation of Dead Stock

To address the issue of dead stock, the following creative strategies were implemented:

1. **Inventory Assessment:** An assessment of dead stock was conducted to identify potentially usable items, which were then shifted to a specific storage room.
2. **Design Innovation:** The design team was encouraged to incorporate dead stock materials into new product lines, reducing the need for new purchases.



## RESULTS

## BEFORE



Disorganised store

## AFTER

Store properly  
arranged after 5S  
implementation.



## BEFORE

Unutilised dead  
stock

## AFTER

10 kg of deadstock was  
reused to produce a new  
design of 72 pieces for a  
cost saving of Rs 3,500



This case study highlights how a garment factory achieved resource efficiency through the implementation of the 5S methodology and innovative utilization of dead stock. By adopting a systematic approach to organization, cleanliness, and standardization, along with fostering employee involvement and creative solutions, the factory was able to enhance its operational efficiency, reduce waste, and optimize its resource utilization.

# ADA CREATION

## Finding Value in Dead Inventory

1

### ABOUT THE COMPANY

Ada Creation is a family-owned garment maker business based in Henrietta, Vacoas. They specialise in producing custom-made uniforms and accessories for corporate clients and individuals, supplying both domestic and international markets. The company employs nine individuals.

### CHALLENGE

Ada Creation faced several challenges related to inventory management:

1. **Disorganised Inventory:** The inventory was disorganised, with a mix-up of Ada Creation's fabric and that of their sister company, Kanasik.
2. **Accumulation of Dead Stock:** Leftover fabric that could potentially be used for upcycling was accumulating in the store, taking up valuable shelf space.
3. **Inefficient Retrieval:** Retrieving required fabric was time consuming.
4. **Lack of Control Measures:** The company had no control measures in place to monitor and manage its inventory effectively.

### SOLUTION

To address these inventory challenges, Ada Creation implemented several measures:

1. **Inventory Audit:** An inventory audit was conducted to assess and document available fabric.
2. **Segregation and Measurement:** Fabric from Ada Creation and Kanasik was segregated and measured separately for better stock control.
3. **Employee Training:** Employees were trained to input fabric usage information in a notebook to better control stock.
4. **Excel Sheet:** An Excel sheet was introduced to track available stock more effectively.
5. **Repurposing Dead Stock:** Dead stock fabric was repurposed to create new products, reducing wastage.



### RESULTS

#### BEFORE



No quantification of dead stock

#### AFTER

**824.49 metres** of dead stock identified.

**262.5 metres** of dead stock was repurposed in the production of new orders, resulting in **cost savings** amounting to **Rs 43,202**



#### BEFORE



No Eco-Friendly initiative

#### AFTER

**25 metres** of dead stock was **converted into 50 eco-friendly packaging bags.**



#### BEFORE

No tracking of inventory

#### AFTER

**An Excel sheet with clear information on availability of stock.**

Order no.	Quantity of fabric	Quantity of fabric	Quantity of fabric	Quantity of fabric	Quantity of fabric	Quantity of fabric
1	100	100	100	100	100	100
2	100	100	100	100	100	100
3	100	100	100	100	100	100
4	100	100	100	100	100	100
5	100	100	100	100	100	100
6	100	100	100	100	100	100
7	100	100	100	100	100	100
8	100	100	100	100	100	100
9	100	100	100	100	100	100
10	100	100	100	100	100	100

The Excel sheet provided clear information on the availability of available stock

In line with their commitment to environmental responsibility, Ada Creation plans to extend this initiative to upcoming orders. Ada Creation's initiative not only demonstrates its commitment to reducing waste but also highlights the potential for finding value in dead inventory through innovative approaches and environmentally responsible practices.



*"ECONO-Biz has improved our fabric usage. The visual catalogue and smart alerts have made our work easier, helping us serve our clients better."*  
Ansuya Bissoon-Seebchurrin, Supervisor

# ADA CREATION

## Improving Production Processes for On-Time Deliveries

2

### CHALLENGE

Between January and June 2023, Ada Creation received complaints from nearly 30% of its customer base. Most of these complaints were related to delivery delays. Multiple factors contributed to these delays:

- 1. Lack of Standardised Processes:** The absence of standardised production processes led to defects and inconsistencies in uniform manufacturing.
- 2. Inaccurate Measurements:** Incorrect measurements led to misfit uniforms, necessitating reworks.
- 3. Raw Material Shortages:** Shortages of raw materials disrupted production schedules.
- 4. Last-Minute Changes:** Last-minute changes to orders caused disruptions and increased resource and energy consumption.

### SOLUTION

To address these challenges, Ada Creation implemented several solutions:

- 1. Production Meetings:** Production meetings were introduced to plan and coordinate order execution efficiently.
- 2. Job Cards:** A job card was initiated for each order, detailing tasks, required resources and specific requirements.
- 3. Progress Tracking:** A whiteboard was displayed to track the progress of each order on the shop floor.
- 4. Standard Size Sets:** Standard size sets were introduced for two orders to reduce the need for multiple client fittings.
- 5. Shop Floor Layout:** The layout of the shop floor was reviewed to ensure smooth material flow.
- 6. Additional Overlock Machine:** An extra overlock machine was added to reduce thread change time.



### RESULTS

#### BEFORE

Delays in delivering items

No Floor markings



#### AFTER

On-Time Deliveries: Uniforms for the two pilot orders were delivered on time.

Floor markings showing new layout for production efficiency



#### BEFORE

No standardised processes

#### AFTER

The introduction of standardised processes, job cards, and standard size sets reduced manufacturing time by one week per order. **The additional overlock machine saved approximately 30 minutes daily.**



#### BEFORE

No sharing of information

#### AFTER

The planning board served as an early warning system, enabling quick actions to address potential delays, such as contacting clients when outsourced embroidery was delayed.



These improvements in production processes not only helped Ada Creation meet customer delivery expectations but also enhanced efficiency and resource management in their operations.



"I have learned a lot on wastes in production during the implementation of this project. Left overs kept on accumulating on the shop floor and I always said I would use it one day. I removed unnecessary items, which resulted into a more organised workplace. There is also less wastes in the production line."  
Christian Thandaven, Tailor



"I was given more responsibilities in this project and I was glad to work together with the employees to identify our daily problems and propose some solutions. Our workplace is more organised and cleaner and we are empowering everyone to take his/her responsibility to maintain quality and deliver on time."  
Veena Dulip, Quality Controller

# BISENCO

## Efficient Raw Material Management and Waste Reduction

1

### ABOUT THE COMPANY

Bisenco Ltd is a privately owned steel fabrication and structural engineering company based in Grande Retraite, Bon Accueil. The company specialises in bespoke architectural fabrication services to the construction industry. Established in 1980, Bisenco Ltd initially operated under the name Bissessur Enterprise until it was renamed in 2003. The company primarily serves the local market and employs 14 persons.

### CHALLENGE

Bisenco Ltd faced a significant challenge related to the management of its raw materials, particularly decorative metal parts used in the production of steel products. A walk-through survey revealed that the two main storage areas for raw materials were in a disorderly state. Employees had no clear visibility of the available materials in each store, often resulting in the unnecessary ordering of new raw materials, even when existing ones were present. This mismanagement led to material wastage, increased costs and the need to discard raw materials due to rust and wear and tear.

### SOLUTION

Bisenco Ltd's solution for addressing its raw material management challenges was based on the Japanese principle of 5S, which stands for: Sort, Set in order, Shine, Standardise and Sustain.

- 1. Training in 5S Principles:** The team at Bisenco Ltd were trained on the 5S principles. This training empowered them with the knowledge and skills to better manage the two storage areas.
- 2. Regular 5S Implementation:** The team began implementing the 5S principles on a regular basis in the storage areas. The 5S principles were applied to ensure the proper storage and organisation of different decorative spare parts, which served as raw materials for producing steel products, particularly gates.
- 3. Shelving and Labelling:** As part of the implementation, shelves within the storage areas were labelled. This labelling system helped in identifying and categorising different decorative parts. By labelling shelves, the system of storing decorative parts was improved, ensuring a systematic approach to arrangement.
- 4. Systematic Arrangement:** Employees actively engaged in sorting and arranging raw materials systematically. This ensured that each decorative part had a designated and easily accessible place within the storage areas.



## RESULTS

## BEFORE

No quantification  
of wastes



## AFTER

The new system led to a net **reduction in waste, specifically 21 kg of metal waste**, which included rusted and dented raw materials that were no longer usable and had to be discarded.



## BEFORE

No management of raw  
materials inventory



## AFTER

The 5S system enabled **better management of raw materials**, eliminating the need for unnecessary new orders and **reducing material waste**.



This case study demonstrates how a systematic approach, such as the 5S methodology, can be effectively applied to improve raw material management, reduce waste, and empower employees. By implementing these practices, Bisenco Ltd not only achieved cost savings but also aligned its operations with the principles of a circular economy, contributing to sustainability and resource efficiency.

# BISENCO

## Reducing Potable Water Consumption for a Greener Future

2

### CHALLENGE

Bisenco Ltd faced a significant challenge related to high water consumption across various activities within the company. The key areas of concern were vehicle cleaning, employee usage and industrial processes such as waterjet cutting. To understand and address this issue, the company conducted a comprehensive water consumption analysis.

The analysis revealed areas of high-water consumption and identified the waterjet machine and vehicle washing as the top consumers of potable water. It was also found that the company had not conducted a proper analysis of consumption patterns and had not performed significant maintenance or inspections of the water supply system.

### SOLUTION

Following the analysis, the company implemented the following solutions:

- 1. Regular Inspections and Maintenance:** Regular inspections and maintenance procedures were implemented to detect and repair plumbing system leaks and facility issues promptly, reducing water wastage.
- 2. Employee Education:** Employees were educated about the importance of water conservation and encouraged to report wasteful practices or leaks, recognising the role of employee engagement in achieving conservation goals.
- 3. Rainwater Harvesting:** Bisenco Ltd considered rainwater harvesting as a sustainable practice, collecting rainwater for various purposes, including supplying the waterjet machine and washing company vehicles. This initiative aimed at reducing reliance on potable water.



## RESULTS

**BEFORE**

No maintenance of water piping system

**AFTER**

**Water consumption decreased by approximately 50%**

following maintenance in June 2023.

Date	Amount	M3	Lts
03/05/2022	Rs 1,396.00	77	77000
03/07/2022	Rs 1,108.00	61	61000
01/08/2022	Rs 1,108.00	61	61000
04/09/2022	Rs 1,630.00	90	90000
03/10/2022	Rs 1,450.00	80	80000
02/11/2022	Rs 1,972.00	109	109000
01/12/2022	Rs 1,756.00	97	97000
04/01/2023	Rs 1,828.00	137	137000
02/02/2023	Rs 1,792.00	101	101000
01/03/2023	Rs 1,429.00	79	79000
03/04/2023	Rs 1,144.00	63	63000
02/05/2023	Rs 2,116.00	117	117000
01/06/2023	Rs 820.00	45	45000
03/07/2023	Rs 982.00	54	54000
01/08/2023	Rs 622.00	34	34000

**BEFORE**

Potable water was being used for washing vehicles and for waterjet machine.

**AFTER**

**The installation of a rainwater harvesting system allowed the company to use rainwater for these activities.**



Bisenco Ltd's commitment to reducing potable water consumption and implementing sustainable practices aligns with sustainability goals, optimises costs, and demonstrates a dedication to responsible resource management. This case study serves as an example of how businesses can make environmentally conscious decisions while also benefiting from cost savings and long-term sustainability.

# DIVANO UPHOLSTERY AND INTERIORS CO LTD

## Fuel Efficiency

1

### ABOUT THE COMPANY

Divano Upholstery and Interiors Co Ltd, located at Henrietta, Vacoas is specialised in the manufacturing of sofa, couch and furniture. It employs seven persons.

### CHALLENGE

Divano Upholstery faced challenges related to fuel usage and on-time deliveries. The company used to make five trips every week for sofa deliveries, purchasing fabric and accessories. The lack of effective communication between the Director and the delivery person often led to unprepared deliveries, causing delays and sometimes requiring multiple trips. This resulted in increased fuel expenses for the company.

### SOLUTION

To address these challenges, Divano Upholstery implemented the following solutions:

- 1. Improved Communication:** A new communication system was setup, involving face-to-face meetings and a planning board. This system was used to discuss new orders and plan deliveries effectively.
- 2. Floor Markings:** Line markings were drawn on the floor to create different zones, making it easier for the delivery person to pick up orders in an organised manner.



### RESULTS

#### BEFORE

The company earlier made an average of 5 trips per day for picking up raw materials and delivery.

#### AFTER

The number of trips per day has now been reduced to 2.



Delivery Planning Board

#### BEFORE

No management of fuel

#### AFTER

This initiative led to a remarkable 42% reduction in monthly fuel consumption for the company.

This case study highlights how Divano Upholstery successfully tackled fuel efficiency challenges by implementing simple yet effective solutions, resulting in cost savings and improved service delivery.



*"Our resource-efficient strategies have reduced costs, enhanced teamwork, and made us more environmentally responsible. I wholeheartedly endorse these improvements for their simplicity and effectiveness."*

Mrs. Christa Balaghee, Owner and Director





**ECON**

Angaz to lantrepriz pou v





# O-Biz

vinn Ekolo ek Ekonom



# DIVANO UPHOLSTERY AND INTERIORS CO LTD

## Increasing Revenue from Wasted Fabric

2

### CHALLENGE

Divano Upholstery observed a surge in waste fabric which took up space on shelves. Empty glue cans were also piling up in the webbing section, making it hard to organise space for semi-finished products.

### SOLUTION

The employees brainstormed on ideas for recycling waste into useful products. The following measures were implemented:

1. They introduced a system for identification, monitoring, recording and labelling waste materials.
2. A total of 250 metres of waste fabrics and 250 empty glue cans were repurposed in the making of a new product called 'pouffes.'
3. Instead of purchasing polybags, the company now sews its own bags from waste fabrics. This initiative brought savings of Rs 400 monthly.



### RESULTS

#### BEFORE

No labelling practice before

#### AFTER

**The company introduced a labelling system** starting with its fabric inventory. The leftover fabrics are now labelled and monitored.



#### BEFORE

Waste was not recycled

#### AFTER

**250 "pouffes" were produced from left over fabrics.** This recycling project **generated a revenue of Rs 100,000.**



#### BEFORE

The company was buying polybags for transporting threads.

#### AFTER

**Bags were produced from left over fabrics** to transport threads.



This case study illustrates how Divano Upholstery turned a challenge into an opportunity by implementing a sustainable solution that not only reduced waste but also generated additional revenue while promoting responsible resource usage.



*"Using leftover fabric and repurposed glue cans to make pouffes is indeed an interesting project. I'm proud to be part of a company that values responsible resource usage."*  
Mrs. Vimla Neelabhiwoo, Machinist

# FIELD GOOD FRESH FOODS

## Order Delivery Process Automation

1

### ABOUT THE COMPANY

Set up in 2012, Field Good Fresh Foods (FGFF) is a small vegetable processing company in St. Pierre. It employs 12 workers.

### CHALLENGE

A considerable portion of the delivery process was manually handled, leading to inefficiencies and delays. The processes were heavily reliant on paper - 2,500 sheets per month only for signatures. The reliance on printed documents for verification not only consumed excessive paper but also had a substantial environmental impact. Moreover, four workers were involved in manual data entry which resulted in occasional errors and confusion, compromising the integrity of delivery data and leading to potential disputes or customer dissatisfaction.

### SOLUTION

FGFF introduced the Automated Task Management, a digital system that automatically allocates delivery tasks based on priority, location and resource availability.

The system allows electronic verification thereby replacing paper-based signature verifications with electronic signature capture devices, allowing immediate and paperless confirmation of deliveries.

This case study illustrates the benefits of process automation, not only in terms of efficiency but also in terms of sustainability, data accuracy and cost-effectiveness.



## RESULTS

## BEFORE

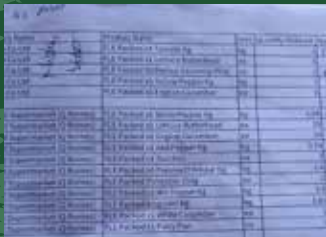
No quantification of paper usage

## AFTER

The company reduced paper consumption by 1500 sheets per month, accomplishing a 60% reduction initially, with the goal of eliminating 100% of paper usage in the future.

## BEFORE

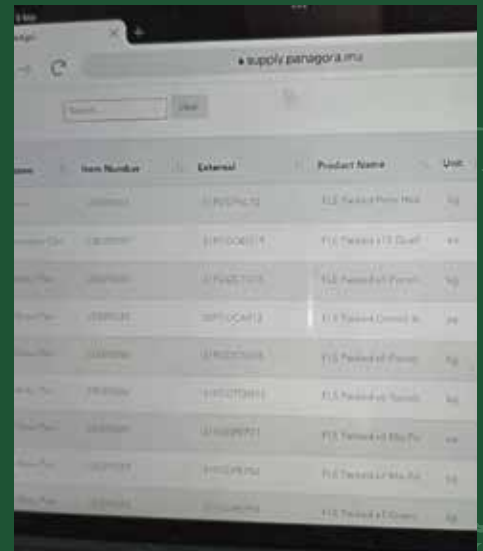
No Data Entry Automation. Earlier there was a paper based data entry system.



## AFTER

The introduction of Data Entry Automation, utilising scanning and OCR technologies, minimised manual data input. This **reduced the number of staff involved in data entry from four to one**, enhancing efficiency and accuracy.

Automation led to **fewer discrepancies in delivery data**, ensuring timely and accurate information, which, in turn, **reduced potential disputes and customer dissatisfaction**.



# FIELD GOOD FRESH FOODS

## Reduction of organic wastes dumped through composting

2

### CHALLENGE

Field Good Fresh Foods (FGFF) faced a significant challenge related to the management of organic and non-organic waste generated daily, which amounted to 44 tonnes of organic waste and one tonne of non-organic waste annually. The traditional practice of landfilling waste was becoming increasingly unsustainable due to rising costs and growing global attention to sustainable practices.

### SOLUTION

To address this challenge, FGFF implemented a comprehensive waste management solution that included the following steps:

- 1. Composting System:** The company introduced a composting system to convert organic waste into compost. This compost could be used as a soil enhancer, providing a sustainable and eco-friendly alternative to landfilling. This initiative successfully diverted 98% of organic waste from landfills.
- 2. Quality Compost Production:** FGFF aimed to produce high-quality compost with a focus on organic matter content. The newly produced compost consisted of 59.4% of organic matter. The company also conducted ongoing trials to further improve the quality of compost, ensuring it met market standards.
- 3. Collaboration with Local Recyclers:** For non-organic waste, FGFF collaborated with local recyclers to ensure proper processing and recycling of materials. In the process, 365 kg of metal waste which was lying around was sold at a rate of Rs4/kg, generating additional revenue.
- 4. Waste Segregation System:** At the processing level, FGFF implemented a waste segregation system to sort recyclable and compostable materials.



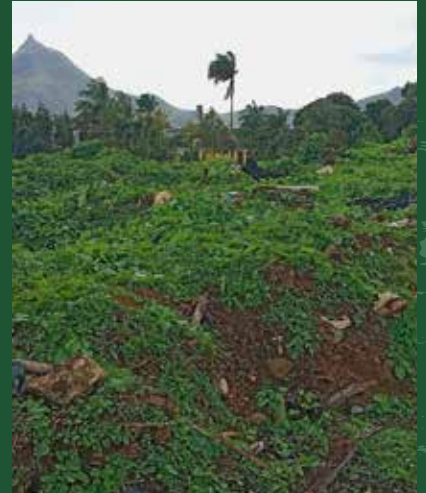
## RESULTS

### BEFORE

Organic waste not treated

### AFTER

By diverting organic waste from landfills, FGFF contributed to a **reduction in methane emissions, a potent greenhouse gas, and conserved valuable land resources.** These environmental benefits align with sustainability goals.



### BEFORE

Landfill Costs not calculated

### AFTER

**The company saved on landfill costs,** which would have otherwise been a financial burden.

Additionally, the **potential revenue generated from selling high-quality compost** further contributed to cost savings.



This case study demonstrates how a proactive approach to waste management, including composting and collaboration with recyclers, can result in significant environmental benefits, cost savings, and operational efficiency improvements.

# ISLAND MILK & ALLIED PRODUCTS LTD

## Minimising Raw Material Wastage through Better Control

1

### ABOUT THE COMPANY

Island Milk & Allied Products Ltd, operating under the 'Les Artisans' trademark, has been manufacturing and supplying homemade dairy products since 2006. The company serves retail shops, supermarkets, and restaurants across Mauritius and employs 11 workers.

### CHALLENGE

Island Milk & Allied Products Ltd faced significant challenges related to raw material wastage, primarily in the form of bottle defects. The lack of a systematic approach to monitor and manage waste was causing operational issues. Over a two-week period, the company observed defects in 40 plastic bottles. Poor storage of raw materials was identified as a key reason for these defects.

### SOLUTION

To address these challenges, the company implemented several solutions:

- 1. 5S Methodology:** Island Milk & Allied Products Ltd adopted the 5S methodology as the primary solution to better organise raw materials and reduce wastages. A training session was conducted to educate employees about the basics of 5S - Sort, Set in order, Shine, Standardise and Sustain.
- 2. Organisation and Labelling:** All items, including raw materials, were properly labelled and stored in an organised manner to prevent damage to bottles. The company made sure that raw materials were easily accessible without causing harm to the products.
- 3. FIFO (First-In-First-Out):** FIFO was implemented. This principle of effective inventory management ensured that older stock was utilised first.
- 4. Waste Tracking Mechanism:** A waste tracking mechanism was integrated into the production process. Sheets were introduced to record defects and wastages for each product. This allowed Island Milk & Allied Products Ltd to identify waste patterns and opportunities for improvement. The implementation of the 5S methodology faced resistance from employees who were reluctant to change their work habits and routines. Some employees perceived it as an additional task rather than a productivity-enhancing initiative. Effective communication by the NPCC team helped address these challenges and gain employee buy-in.



### RESULTS

#### BEFORE



Wastes were not quantified.

#### AFTER



**Wastages, particularly damaged bottles, were reduced by 30%.**

This reduction in wastage led to cost savings and improved product quality.

#### BEFORE

Too many items blocking the pathway.



#### AFTER

Unused items removed from the pathway.



The implementation of the 5S methodology and the waste tracking mechanism yielded significant positive results for Island Milk & Allied Products Ltd:

Island Milk & Allied Products Ltd successfully tackled the challenge of raw material wastage by implementing the 5S methodology and integrating a waste tracking mechanism into their production process. These initiatives not only reduced wastage but also improved overall operational efficiency, demonstrating the value of systematic waste management practices.

# ISLAND MILK & ALLIED PRODUCTS LTD

## Energy Savings through Solar Water Heaters

2

### CHALLENGE

Island Milk & Allied Products Ltd faced a significant challenge related to the low incoming water temperature (40 degrees) from solar water heaters, which was not energy efficient. The required water temperature for production was around 70 degrees and the current temperature of 40 degrees was insufficient.

### SOLUTION

To address this challenge, Island Milk & Allied Products Ltd implemented the following solutions:

- 1. Maintenance:** The company initiated a maintenance programme for the solar water heater system. This maintenance aimed at improving the efficiency of the system to ensure that it provided water at the required temperature.
- 2. Temperature Control:** Island Milk & Allied Products Ltd introduced a template for recording temperature and trained employees on how to use it. The company implemented a daily temperature monitoring process for incoming water over a one-week period. Any deviations from the required temperature were noted and promptly reported. Employees were also educated about the importance of cost savings through energy management.



## RESULTS

## BEFORE

The water did not attain the required temperature for production through their conventional system.

**The maximum temperature was at 40 degrees, which was insufficient.**

## AFTER

ISLAND MILK & ALLIED PRODUCTS LTD			
MAINTENANCE LOG		MAINTENANCE OF EQUIPMENT	
DATE	TIME	LOCATION	DESCRIPTION
2020-11-10	08:00	Plant Room	Check water level in tank
2020-11-10	09:00	Plant Room	Check water temperature
2020-11-10	10:00	Plant Room	Check water pressure
2020-11-10	11:00	Plant Room	Check water flow rate
2020-11-10	12:00	Plant Room	Check water quality
2020-11-10	13:00	Plant Room	Check water level in tank
2020-11-10	14:00	Plant Room	Check water temperature
2020-11-10	15:00	Plant Room	Check water pressure
2020-11-10	16:00	Plant Room	Check water flow rate
2020-11-10	17:00	Plant Room	Check water quality
2020-11-10	18:00	Plant Room	Check water level in tank
2020-11-10	19:00	Plant Room	Check water temperature
2020-11-10	20:00	Plant Room	Check water pressure
2020-11-10	21:00	Plant Room	Check water flow rate
2020-11-10	22:00	Plant Room	Check water quality
2020-11-10	23:00	Plant Room	Check water level in tank
2020-11-10	00:00	Plant Room	Check water temperature
2020-11-10	01:00	Plant Room	Check water pressure
2020-11-10	02:00	Plant Room	Check water flow rate
2020-11-10	03:00	Plant Room	Check water quality
2020-11-10	04:00	Plant Room	Check water level in tank
2020-11-10	05:00	Plant Room	Check water temperature
2020-11-10	06:00	Plant Room	Check water pressure
2020-11-10	07:00	Plant Room	Check water flow rate
2020-11-10	08:00	Plant Room	Check water quality

The company initiated a maintenance programme for the solar water heater system. This maintenance aimed at improving the efficiency of the system to ensure that it provided water at the required temperature.

As a result, **the company was able to achieve a consistent water temperature of 70 degrees.**

By addressing the challenge of low incoming water temperature from solar water heaters, Island Milk & Allied Products Ltd not only improved energy efficiency but also reduced energy consumption, leading to cost savings. Proper maintenance and the introduction of temperature monitoring and reporting procedures were key factors in achieving the desired results. This case study demonstrates the importance of consistent maintenance and process improvements in optimising energy usage and reducing operational costs.

# SS BUSINESS SCHOOL

## Waste minimisation through the 3Rs (REDUCE, REUSE AND RECYCLE)

1

### ABOUT THE COMPANY

SS Business School Ltd (SBS) is a higher education institution in Quatre-Bornes. Established in 2019, SBS is dedicated to offering diploma-level courses in fields such as Hospitality and Tourism, Business Management, and Computing. These courses cater for a diverse student population, including both local and international students. SBS has a workforce of 15 employees with 67% of its employees being women.

### CHALLENGE



SBS faced a significant challenge related to increasing utilities consumption (water and electricity) and paper consumption due to inefficiencies at the workplace and negligence of students and staff. Common issues included leaving computers on when not in use, failing to turn off lights and not properly closing taps. These inefficient practices resulted in high utility bills.

### SOLUTION

- 1. Paper Reduction:** To reduce paper consumption, SBS adopted digitisation in their interactions between staff and students. They created a WhatsApp group for communication, sent notes and handouts via email, transitioned from paper-based filing to e-filing, and introduced electronic signatures for documents. Printing was limited to assignments and official correspondences with relevant authorities.
- 2. Resource Efficiency Training:** A sensitisation session was organised for faculty, administration staff, and support staff on resource efficiency and responsible consumption. Faculty members then cascaded this training to students. Posters were designed to remind students about energy conservation and to utilise natural lights and ventilation. Students were encouraged to use stairs instead of elevators.
- 3. Water Conservation:** Awareness was raised about the importance of water conservation. Students and staff were encouraged to turn off faucets tightly after use, report leaks promptly, and utilise natural light and ventilation. Monitoring of the water metre helped identify patterns of excessive consumption for targeted conservation efforts.



## RESULTS

DESCRIPTION	BEFORE	AFTER	IMPROVEMENT
Expense for paper per month	Rs 6,500	Rs 3,200	50.7%
Expense of ink per month	Rs 8,450	Rs 3,600	57%
KWH of electricity per month	990 KWH	750 KWH	24%
Expense of water consumption per month	Rs 550	Rs 352	36%
Awareness & Engagement on waste minimisation	No posters in place	Posters designed and placed in selected areas	 

## Sustainability Measures

- Monitoring and Tracking:** SBS keeps track of paper usage in a log book to monitor and identify the causes of paper wastage. They have also established a roster for employees to ensure that lights and electronics are turned off when not in use.
- Awareness and Engagement:** SBS continues to spread awareness about conservation practices within the school community. They have implemented paper saving, water saving and energy-saving competitions and reward programmes to motivate students and staff to actively participate in the 3 Rs initiative.
- Recycling Initiatives:** In the future, SBS plans to introduce waste recycling bins to ensure proper segregation and disposal of waste.

SBS has taken significant steps to minimise waste through the 3 Rs - Reduce, Reuse, and Recycle. Their focus on digitisation, resource efficiency training, awareness campaigns, and ongoing monitoring and tracking demonstrates a commitment to sustainability and responsible resource consumption. These efforts not only contribute to environmental responsibility but also help in managing costs associated with resource consumption.

# SS BUSINESS SCHOOL

## Improve Productivity and Efficiency through 5S

2

### CHALLENGE

SBS, like many educational institutions, was grappling with the inefficiencies and environmental impact of extensive paper-based administrative processes. The challenges included excessive paper usage, cumbersome document storage, extended search times, misplaced files, duplicated efforts, and high printing costs. Additionally, the school needed to store documents for a minimum of three years, exacerbating the problem.

### SOLUTION

SBS recognised the need for a comprehensive solution to address these challenges. They decided to implement the '5S' methodology, which focuses on Sort, Set in order, Shine, Standardise and Sustain, as a tool to reduce, reuse, and recycle paper within the institution.

- 1. Sorting:** The first step was to sort through the existing documents. They separated important documents from obsolete ones, ensuring that nothing of value was discarded.
- 2. Set in Order:** Sorted documents were then organised properly. Important documents for archival purposes were sealed in labelled carton boxes for easy retrieval. This ensured that vital records were securely stored.
- 3. Shine:** To promote responsible paper usage, SBS organised sensitisation and brainstorming sessions among staff. These sessions aimed at raising awareness about the environmental impact of paper consumption and encouraged staff to reduce paper usage.
- 4. Standardise:** The institution committed to the '3R' campaign (Reduce, Reuse, Recycle). They implemented new rules and processes to digitise interactions with students, including sending assignments and lecture notes via email instead of printing them. Old memos were repurposed as notepads, extending their usability.
- 5. Sustain:** To monitor and maintain the improvements, SBS implemented a paper consumption log book. This allowed them to track usage and take corrective action when paper consumption exceeded predefined limits.



## RESULTS

## DESCRIPTION

## Paper Consumption

## BEFORE

60 reams per month

## AFTER

28 reams per month

## Paper recycling

No recycling of paper earlier

Approximately 5,000 kg of paper were recycled, contributing to environmental sustainability

## Other Results

- **Efficiency and Organisation:** The 'Sort' and 'Set in Order' steps led to an organised workplace, reducing search times, misplaced files, and duplicated efforts.



Items at the company were sorted and all paper-based items were filled in bin bags to be sent for recycling.



- **Improved Productivity:** The changes led to an efficient, effective, and organised workplace, boosting overall productivity.
- **Cost Savings:** Reduced paper usage translated into cost savings not only for paper but also for ink and electricity.
- **Quality Standards:** Improved organisation and efficiency translated into higher quality standards in administrative processes.
- **Space Optimisation:** By reducing physical paper storage needs, SBS was able to release additional space for new projects.
- **Employee Morale and Safety:** The streamlined processes and reduced clutter positively impacted employee morale and safety.
- **Customer Impact:** The improved efficiency and sustainability efforts had a positive impact on both existing and new customers, enhancing the school's reputation.

SBS's journey demonstrates how a systematic approach to reducing paper usage can result in numerous benefits, ranging from cost savings to environmental stewardship and enhanced workplace efficiency. By committing to ongoing monitoring and sustainability practices, they have positioned themselves as leaders in responsible paper management within the education sector.

# STEEL PLUS

## Improving material efficiency by disposing & re-using metal scraps

1

### ABOUT THE COMPANY

Steel Plus Ltd specialises in structural and mechanical engineering as well as sheet metal fabrication. Located at Montagne Blanche, the company manufactures engineering components on customer orders. Steel Plus Ltd employs 18 workers in the workshop and onsite installations.

### CHALLENGE

- 1. Scattered Metal Scraps:** Unaccounted metal scrap was scattered throughout the workshop. This not only limited space for daily operations but also posed potential hazards to employees.
- 2. Lack of Disposal and Segregation:** The company lacked a proper disposal and segregation process for these scraps, leading to uncertainty regarding whether to discard, sell, or reuse them. This situation resulted in an overstock of ageing scraps, some of which had been lying in the workplace for over three years.

### SOLUTION

- 1. Waste Audit:** A waste audit was conducted to identify areas within the workshop where scraps were scattered, helping to pinpoint "hot spots."
- 2. Categorisation and Measurement:** Different types of waste, including metals, electrodes, aluminium scraps, and plastic, were categorised. The quantity of each type of scrap was measured.
- 3. Solution Brainstorming:** After identifying the root causes and measuring the scraps, the team came up with various solutions:
  - a. Designated Scrap Area:** A specific area was allocated for scrap disposal, preventing further cluttering.
  - b. Identifying Scrap Buyers:** Potential buyers or suppliers who could purchase the scrap were identified.
  - c. Process Definition:** A defined process for scrap disposal, including lead times and minimum quantities required for disposal (e.g., 500 kg of metal scraps), was established.
  - d. 5S Implementation:** The team implemented 5S throughout the entire workshop. 5S methodology focuses on Sort, Set in order, Shine, Standardise and Sustain. The implementation of the 5S involved systematically organising and improving the workspace. This approach helped in relocating the scattered scraps from the working areas to a designated scrap zone.
  - e. Bin Placement:** Different bins were designed and strategically placed at various locations within the workshop. These bins were intended for collecting scraps that needed further disposal.



## RESULTS

## DESCRIPTION

## Sales Scrap Metals

## BEFORE

There was no such practice earlier.



## AFTER



They successfully measured and **sold 508 kg of metal scraps** to a selected supplier.

## Reused Metal

There was no such practice earlier.

**The company identified 800 kg of metals that could be reused internally.** This not only reduced waste but also contributed to cost savings as the company could utilise these materials on other jobs.

## Space Management



All materials were scattered everywhere earlier.



By removing scraps and conducting the 5S, **the company recovered approximately 25% of the workshop area**, equivalent to around 75 square metres.

Steel Plus Ltd effectively addressed the challenge of material efficiency by implementing a systematic approach to dispose of and reuse metal scraps. Their efforts not only reduced waste and recovered monetary value but also improved workspace efficiency, demonstrating the value of waste management and process optimisation.



*"We believed in ourselves and the team. With the full support of top management, we have managed to make this project a success. We feel proud seeing the results achieved."*

Sophonie Bontende

# STEEL PLUS

## Reducing scraps by establishing a proper inventory management system

2

### CHALLENGE

Challenge: Steel Plus Ltd faced a significant challenge related to metal scraps and raw material management. The key issues included:

- Poor Stock Management:** The company struggled with the high level of metal scraps due to poor stock management of raw materials such as metal bars, fittings, accessories, and paint. Overstocking of these materials led to inefficient space utilisation, increased search times, and inaccurate estimates of reorder quantities.
- Underutilised Bin Cards:** Although the company had bin cards in place for stock management, they were not being properly updated or utilised for effective inventory control.

### SOLUTION

To address these challenges, Steel Plus Ltd implemented the following solutions:

- Digital Product Database:** A digital product database was created to identify all products used within the company. This database helped categorise products as raw materials, work-in-progress (WIP), and finished products.
- Layout Redesign:** The layout of the store area was redesigned, and physical addresses were assigned for each product based on the fixed-place fixed-location principle. This approach ensured that each product had a designated and easily designated spot.
- 5S Implementation:** The 5S methodology was introduced in the store area, promoting organisation and efficiency. The 5S methodology consists of five principles that help improve workplace organisation and standardisation. They are: Sort, Set in Order, Shine, Standardise and Sustain. Additionally, two shadow boards were introduced for different tools used in the workshop.
- Bin Card Redefinition:** Bin cards associated with each physical address and product were redefined. Both physical bin cards and a digital inventory file saved on Synology were updated to reflect accurate stock levels. This digital inventory file could be accessed internally, facilitating better communication and accountability for ordering and managing raw materials.



## RESULTS

### DESCRIPTION

#### Space Optimisation

### BEFORE



Items including metal scraps, tools, equipment and other objects were scattered in different places earlier.

### AFTER



Approximately **20% of space was recovered** through efficient space utilisation and organisation.

#### Search Time for tools



**30 minutes**



**30 seconds**

#### Lead Time required to reorder materials from suppliers

**4 days**

**2 hours**

(Note: This improvement was possible because stock levels were well-defined under the bin card system)



"Before starting this project, I had a lot of apprehensions if I would be able to deliver it. However, once started, we managed to find time even when we were busy. Today, seeing the results achieved, it gives an immense pleasure to work in a clean and safe store with an updated stock making it easier to re-order materials and help reduce metal scraps in the workshop area."

Alison, Operator

# POLYTOL PAINTS AND ADHESIVES MANUFACTURERS CO. LTD

## Water Efficiency for Eco-Friendly Paint Manufacturing

1

### ABOUT THE COMPANY

Polytol Paints and Adhesives Manufacturers Co. Ltd (Polytol) started in 1993 and specialises in the production of paints and adhesives. Polytol employs 80 persons and is a prominent paint manufacturer in Mauritius, serving markets in Mauritius, Seychelles, and Rodrigues.

### CHALLENGE

Polytol identified water inefficiency as a significant challenge within their factory. After conducting a thorough walk-through survey, the following issues were identified:

1. **Inaccurate Water Metre Readings:** Inaccurate water metre readings hindered the company's ability to monitor and control water consumption effectively.
2. **Contamination Risks:** Possibility of residual paint in drainage canals posed contamination risks and resulted in inefficiencies.
3. **Overspills:** The drainage canal system was prone to overspills, leading to water wastage and environmental concerns.
4. **Waste Paint in Effluent:** The effluent from internal drainage canals required additional filtering due to the presence of waste paint, adding complexity and costs to wastewater treatment.

### SOLUTION

Polytol implemented a series of solutions based on the findings from the walk-through survey:

1. **Accurate Water Metering:** Polytol invested in a modern, accurate water metering system to precisely monitor water consumption, identify leaks promptly, and optimise usage.
2. **Improved Waste Paint Collection:** The company introduced improved waste paint collection and disposal practices to prevent paint residue from entering drainage canals.
3. **Enhanced Drainage Canal Management:** Polytol enhanced the design and maintenance of the drainage canal system, reducing overspills and conserving water.
4. **Filtration System:** A filtration system was installed in the effluent treatment process to remove waste paint particles, making the water suitable for reuse within the facility and safe for discharge into the wastewater system.



### RESULTS

#### DESCRIPTION

##### Water Conservation

#### BEFORE

There water meter before was not accurate



#### AFTER

**A new water meter was introduced. The company significantly reduced water wastage** through accurate metering, improved drainage canal management and enhanced water recycling practices.



##### Environmental Compliance

Paint residue earlier used to enter the drainage canals.



By preventing paint residue from entering drainage canals and implementing effluent filtration,

**Polytol minimised its environmental footprint** and ensured compliance with regulatory requirements.



#### Other results

- Cost Savings:** Precise water metering and reduced wastewater treatment complexity led to cost savings for the company.
- Circular Economy Alignment:** Polytol's approach aligned with circular economy principles, demonstrating the company's commitment to resource efficiency and sustainability.

Polytol successfully addressed its water efficiency challenge, achieving both environmental and economic benefits while embracing sustainable practices in its operations.



*"I am always happy to contribute towards the well-being of all employees and to encourage teamwork and continuous improvement for higher performance at Polytol!"*  
Musauweer, Store Department

# POLYTOL PAINTS AND ADHESIVES MANUFACTURERS CO. LTD

## Raw Material Efficiency at Polytol

2

### CHALLENGE

Polytol faced a challenge related to damaged tin cans within the manufacturing facility. The issues included the presence of dented cans and other defects that rendered cans unfit for their original purpose. This led to inefficiencies and increased waste, as well as the associated environmental footprint.

### SOLUTION

To address the challenge of damaged tin cans, the team implemented a series of solutions:

1. **Identification and Segregation:** Incoming tin cans were carefully inspected and segregated to identify defects such as dents, punctures, and other damages that made the cans unsuitable for their intended purpose.
2. **Analysis for Reusability:** Damaged cans that were unsuitable for packaging were analysed for potential reuse within the manufacturing facility. They were repurposed for storing non-hazardous materials or used as plant containers.
3. **Scrap Metal Collection:** The remaining damaged cans were collected and stored to be subsequently sold to a third party as scrap metal for recycling. Approximately 97.5 kg of scrap metal was collected and would be sold.
4. **Supplier Communication:** Polytol informed its suppliers about the receipt of damaged containers. This open and transparent communication helped suppliers understand the issue and encouraged collaboration in finding solutions. By involving suppliers in the process, Polytol aimed at preventing the delivery of damaged containers in the future.
5. **Worker Sensitisation:** Polytol recognised the importance of educating its workers about proper handling of tin cans and the significance of maintaining good housekeeping practices within the facility.
6. **Tin Can Handling:** Workers were trained on how to handle tin cans carefully to prevent damage during transportation, storage and usage.
7. **5S Methodology:** The 5S methodology, which stands for Sort, Set in order, Shine, Standardise and Sustain, was implemented to promote organisation, cleanliness, and efficiency at the workplace. Workers were trained on the principles of 5S and its daily implementation became a part of their routines.
8. **Daily Line Meetings and Information Boards:** Polytol introduced daily line meetings and information boards as part of its worker engagement strategy. These meetings provided a platform for workers to report the number of dented cans and discuss any issues related to damaged containers. Information boards were used to track the progress of these discussions and explore possibilities for identifying alternative suppliers who could provide better quality containers at a more cost-effective price.



# RESULTS

### DESCRIPTION

#### Waste

### BEFORE

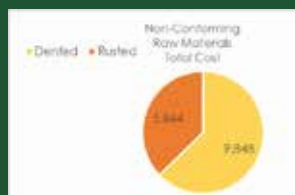
High volume of waste generated

### AFTER

The **volume of waste was significantly reduced**, contributing to a more sustainable waste management approach.



### Environmental Benefits



**Total Cost of Damaged Tin Cans (Rs 15,691) from Jan to Sept 2023**

Recycling defective tin cans as scrap metal minimised the environmental footprint associated with waste disposal, aligning with circular economy objectives.



### Raw Materials Efficiency

Damaged cans not properly stored in labelling area



**Damaged cans were Reused and Recycled**



These results demonstrate Polytol's commitment to sustainability and resource efficiency in addressing the challenge of damaged tin cans.



"I felt very proud when both Directors of Polytol appreciated my work on our team's whatsapp group. I find it more effective to share my work status on the information board with my team!"  
Chanda Rambaccasse, Ticketing Department



# ECONO-Biz

Angaz to lantrepriz pou vinn Ekolo ek Ekonom







# ***ECONO-Biz***

Angaz to lantrepriz pou vinn Ekolo ek Ekonom