Our investment in technology offers you the opportunity to be the change

As the leading paper and plastics recycler in South Africa Mpact gives effect to a true circular economy and hope for a brighter future for generations to come. Through state-of-the-art investments in recycling and packaging technologies, Mpact converts post-consumer PET beverage bottles, liquid cartons and paper packaging into new products.

Creating jobs.
Reducing landfill.
Closing the loop right here in South Africa.

So much more than packaging.

info@mpact.co.za | www.mpact.co.za
OVERVIEW

The largest paper and plastics packaging and recycling company in Southern Africa

Mpact

Paper

Primary product categories
- Recovered paper collection and recycling
- Packaging and industrial papers such as cartonboard and containerboard
- Corrugated packaging
- Paper bags, sacks and quick service restaurant (QSR) packaging

Plastics

Primary product categories
- PET bottle-to-bottle recycling
- PET bottles and preforms, hot fill bottles, PET jars and closures
- Large injection moulded containers
- Trays, fast food containers and clear plastic films

CENTRES OF EXCELLENCE
Human Resources, Safety, Health, Environment, Energy

SHARED SERVICES
Finance, IS&T, Stellenbosch R&D
Leading market positions with scale to enable competitiveness on a decentralised basis

**OVERVIEW**

- **40 SITES**
- **5 062 EMPLOYEES**

*Mpact Operations Pty (Ltd)*
Mpact’s integrated business model is uniquely focused on closing the loop in plastic and paper packaging through recycling and beneficiation of recyclables.
## OVERVIEW

Over R1.6 billion invested over past three years to Reduce, Reuse and Recycle

<table>
<thead>
<tr>
<th>Project</th>
<th>Cost</th>
<th>Description</th>
</tr>
</thead>
</table>
| Felixton Paper Mill rebuild                       | R800m | - Enhance quality and product offering  
- Advanced lightweight containerboard  
- Increase capacity by 60,000 tonnes  
- Replace virgin bagasse fibre with additional 100,000 tons of recycled fibre |
| rPET recycling plant                              | R350m | - PET recycling operation which produces rPET plastic for food grade packaging  
- New washing equipment (R35m) has been ordered and is expected to be commissioned early 2019. |
| New corrugator in PE                               | R150m | - Increase capacity to service the growing citrus volumes in the region  
- Ability to run lighter and stronger |
| Plastics converting projects                      | R155m | - New 5500T injection mould machine export jumbo bins; new integrated wheelie bin injection moulding  
- Recycling extrusion line for recovered crates and wheelie bins  
- 2 new lightweight closure lines completed in 2017. |
| Remade acquisition                                | R130m | - Complements Mpact Recycling to expand collections of paper and plastic packaging  
- These initiatives are in support of the Mpact Polymers rPET operation and the Felixton paper mill upgrade. Strategic objectives are being met. |
| Liquid Packaging recycling plant                  | R50m  | - Additional source of recycled fibre to the Spring’s paper mill.  
- Post-consumer liquid packaging feedstock still sub-optimum |
Paper Business
Paper Business Overview

- **Cartonboard, containerboard**

- **Standard and customised cases, fruit and vegetable trays, retail ready packaging**

- **Paper bags, sacks and Quick service restaurant (QSR) packaging**

**Divisions**:
- Recycling (17)
- Paper Manufacturing (3)
- Paper converting (corrugated and other) (13)

**Key products**:
- Cartonboard
- Containerboard
- Retail ready packaging
- Regular slotted cartons
- POS packaging and displays
- Die-cut solutions
- Paper bags and sacks
- Quick service restaurant packaging

**Key customers**:
- Packaging converters (containerboard and cartonboard)
- Agricultural producers
- FMCG companies
- Quick service restaurants
- Other consumer and industrial packaging companies

**External Revenue (2018)**: R8.3bn
**EBIT (2018)**: R694m
74% 76%

Leader in recovered paper collection, production of cartonboard, recycled containerboard and corrugated packaging
Additionally, Mpact distributes all containerboard products of Mondi Group’s Richards Bay Mill, selling mainly into South Africa and selected markets in sub-Saharan Africa and Indian Ocean Islands.
Felixton Paper Mill
FELIXTON MILL

1953

FELIXTON PAPER MILL WAS ESTABLISHED, SITUATED NEAR EMPANGENI, IN NORTHERN KZN

100% Recovered fibre-based packaging and industrial paper grades

200 000 - 215 000 tonnes per annum production capacity

ISO 9001 AND 14001 CERTIFICATION

Forest Stewardship Council (FSC®) certification
This emphasises the responsible management of raw materials throughout the product lifecycle of our products.

250 000 tonnes Recovered fibre pulping capacity
SAVING 750 000m³ of landfill space per annum

PROJECT KHULISA – “WE ARE GROWING”

R800 million expansion project

0 Lost time injuries

112 containers and flat racks of new equipment fitted

734 050 man hours worked

4700m of pipe length installed

0 Environmental incidents

782 pipe lines installed

795 peak construction workers on site per day

5150 engineering drawings used

74km of electrical and instrumentation cables installed
History of the Felixton Paper Mill

- **1950**: Felixton Paper Mill was built as Ngoye Board Mills, 2.2m wide machine.
- **1953**: Felixton Paper Mill was built as Ngoye Board Mills, 2.2m wide machine.
- **1970**: A new paper machine was built, 4.5m wide.
- **1973**: A new paper machine was built, 4.5m wide.
- **1979**: The Mill was purchased by the Huletts Group.
- **1980**: The Mill was purchased by the Huletts Group.
- **1984**: The Mill was purchased by Mondi.
- **2000**: Mondi demerged from Anglo American.
- **2005**: Formation of Mondi Packaging South Africa (MPSA) with Shanduka as the black empowerment shareholder.
- **2007**: MPSA demerged from Mondi and listed on the JSE as Mpact.
- **2010**: MPSA demerged from Mondi and listed on the JSE as Mpact.
- **2011**: MPSA demerged from Mondi and listed on the JSE as Mpact.

Mill with combination of bagasse and recycled fibre
Investments through the years

1996
- Bagasse washing plant R30m

1998
- New headbox and cleaners R70m

2000

2004
- Bagasse belt washer R40m

2005
- Cationic starch cooker R10m

2007
- Khulisa 1 RCF Plant R80m

2008
- Paper Machine Rebuild (Khulisa 1) R170m

2010
- Effluent Clarifier R26m

2011
- Phase 1 Khulisa 2.15 R80m

2013
- New fully automated winder R40m

2015
- Phase 2 Khulisa 2.15 R800m

2017
- Increased recycled fibre storage facility R25m
Project Khulisa 2.15 – R800m investment
Transformation of the Felixton Paper Mill

• Increased capacity by 60,000 tonnes to 215,000 tonnes.

• Conversion from using bagasse fibre in our products to a fully recycled fibre product.

• Improved product quality and cost competitiveness.

Bagasse Fibre

Recycled Fibre
### Strategic Project Considerations

<table>
<thead>
<tr>
<th>Cost competitiveness</th>
<th>- Scale, energy efficiency and other variable costs.</th>
</tr>
</thead>
</table>
| Domestic market demands | - **Products**: high quality lightweight recycled fluting and liners.  
- **Capacity**: to meet growth requirements. |
| Fibre availability | - Uncertainty regarding bagasse availability and supply (green energy and drought). |
| Environmental footprint | - Improve water and energy usage, effluent quality and increased recycling. |
| Latest technology | - Reviewed by international industry experts and major international machine suppliers. |
Project benefits

› Attractive return on capital.

› Increased capacity by up to 60 000 tonnes:
  - to between 200 000 and 215 000 tonnes grammage mix dependent.

› Enhanced paper strength properties (two-ply sheet and starch film size press).

› Improved cost and energy benefits positioning the mill as a low-cost paper producer.

› Provides light weight production capability in-line with international trends.

› Environmental benefits include reduction in energy, water, COD and CO₂.

› Qualified for Section 12I tax incentive.

› Automated warehouse - efficient storage, stock control and productivity.
Recovered fibre pulping process

Pulping

Screening & Cleaning

Fibre Preparation
Paper making process

Sheet Formation & Dewatering

Starch Application & Drying

Winding, Finishing & Storage
Automated Product Storage Warehouse

Production / Warehouse Interface

- Roll data
- Set data
- Shipping lists
- Roll data change
- Roll movement

Warehouse Management System

- Transport orders
- Shipping lists
- Inventory of storage
- Status of the system
- KPI (Input/Output)

Crane Management System

Operator Interface

Roll Movement System

FELIXTON MILL
Operational excellence in action

- Completed without injuries, on time and within budget
- Project shut 46 days
- Start-up July 2017
- Focus on paper machine availability and paper quality
- Head count reduced from 230 to 200 permanent employees following closure of bagasse pulp plant
### Project Khulisa

**Paper machine speeds achieved against design**

<table>
<thead>
<tr>
<th>Basis Weight</th>
<th>Paper Machine Speed (indexed m/min)</th>
<th>Paper Machine Run Rate (indexed tonnes/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grams per square meter</td>
<td>Pre Project</td>
<td>Design</td>
</tr>
<tr>
<td>100</td>
<td>83</td>
<td>109</td>
</tr>
<tr>
<td>112</td>
<td>85</td>
<td>106</td>
</tr>
<tr>
<td>125</td>
<td>83</td>
<td>100</td>
</tr>
<tr>
<td>140</td>
<td>78</td>
<td>93</td>
</tr>
<tr>
<td>155</td>
<td>70</td>
<td>81</td>
</tr>
</tbody>
</table>

*all values are indexed at 125 grams per square meter*
Energy benefits

- Equipment selection process considered energy efficiency
- Exit from bagasse reduced electrical and steam energy usage per unit
- Achieving 12I Tax Incentive Allowance requirements of minimum 15% energy reduction against baseline period
Environmental performance

- Project design included the reuse of water
- Culture of continuous improvement of water utilisation
- State of the art equipment ensures minimum fibre loss thus improving wastewater quality
Paper quality enhancements

• Significantly enhanced paper profile with substantially reduced mass and moisture variations across the width of the sheet.

• This is critical for box manufacturing and enhances converter performance.

• Overall improvement in paper strength leads to a stronger box with lighter weight paper.

<table>
<thead>
<tr>
<th></th>
<th>Paper Profile Variation (cross direction 2 sigma)</th>
<th>Flat Crush Resistance (CMT)</th>
<th>Compressive Strength (SCT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Improvement</td>
<td>82%</td>
<td>10-12%</td>
<td>15-20%</td>
</tr>
</tbody>
</table>
Mpact Paper and Packaging Innovation Centre

- Pulping
- Fibre morphology
- Chemical optimisation

- Testing of boxes to meet end user performance requirements

- Paper making
- Paper testing

- Food Safety
- Benchmarking
- Competitive database
- Predictive testing
- Printing

- Correlation between paper and board properties
Recycling
Recycling making a difference

70% SA’s paper recovery rate in 2017.

1.3 MILLION TONNES of recoverable paper

In 2017, Mpact recovered approximately 600,000 tonnes of recyclable paper fibre and PET bottles.

7x The number of times paper fibre can be recycled before they degrade.

6,000 ENTREPRENEURS AND COLLECTORS
Trained through PRASA’s Entrepreneurship Training Course since 2010.

150,000 PEOPLE
Employed by the forestry, paper and paper recycling industry.
Recycling increases earnings of waste collectors, usually their only source of income.
Mpact buys waste paper from OVER 100 independent dealers across SA.

150,000 HOUSEHOLDS
Within cities of Ekurhuleni, Tshwane and Johannesburg supported by Mpact programmes.

464,000 CHILDREN
Number of children reached since the 2013 re-launch of Mpact Recycling’s ‘Ronnie Recycler’ schools programme.

1,900 MPACT PAPER BANKS
At schools and communities countrywide

MPACT HAS OVER 45 BUY BACK CENTRES IN GAUTENG ALONE
supporting a total of 1,000 COLLECTORS EACH DAY.

R46 million
Invested by Mpact in its liquid packaging recycling plant.
It has capacity to recycle approximately 25,000 tonnes per year of liquid board packaging (milk and juice cartons and cups).
Recycling Overview

<table>
<thead>
<tr>
<th>Raw materials</th>
<th>Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recycling</td>
<td>Recycling</td>
</tr>
<tr>
<td></td>
<td>630,000 tonnes in 2018</td>
</tr>
<tr>
<td></td>
<td>623,000 tonnes in 2017</td>
</tr>
<tr>
<td></td>
<td>607,000 tonnes in 2016</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Staff numbers</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>Recycling</td>
</tr>
<tr>
<td>626 (permanent)</td>
<td>Bales corrugated boxes, old newspapers and magazines, office papers and mixed papers, bottle glass, cans, PET, LDPE, HDPE, PP and liquid packaging.</td>
</tr>
</tbody>
</table>

Geographic Footprint - Recycling
Nature of Recycling Business

Collecting recyclable material is a local activity

Characterised by SMME’s who depend on reliable off-take and prompt payment

Strong dependence on good logistics

Provide a service in exchange for access to material

- Technical advice
- Supply equipment – Mpact placed over 100 balers with dealers
- Reliable market – take all paper grades, plastic etc.

Some materials have become globally traded commodities

Two main types of business

- Pre-consumer collections
- Post-consumer collections
Business objective

To provide our mills and operations with the right quantity of material for recycling, at a price and quality to maintain their competitiveness.
Recycling Business Model

Pre-Consumer

Post-Consumer
- Schools
- Offices
- Churches
- Kerbside
- Malls
- others

Independent Collectors

Owner Drivers

Reclaimers

Buy-Back Centres

Mpact Recycling Branches

Transporters

Paper Mills and Polymers

Dealers
Recycling preparation for Felixton & rPET

- **2014**: Investment in equipment such as balers, bins and vehicles allowing us to expand our collection footprint.
- **2016**: Remade acquisition – allowing us to extend our branch network from 7 to 16 branches.
- **2017**: Felixton RCF storage upgrade expansion (19 200m²).
- **2019**: Pinetown branch – allowing us to expand our collection footprint and now up to 17 branches.

**2016 - 2019**: Springs RCF storage upgrade (3 phases -53 000m²).
Key developments in global recovered paper market

China used to import 45%-50% of globally traded recovered paper (26 million tonnes)*

Current Chinese imports for recovered paper estimated 11-12 million tonnes*

Environmental pressures
  › National Sword 2017 – inspections especially around plastics
  › Blue Sky 2018 – inspections; increased quality standards; quotas restricted

Consequence
  › Recovered fibre had to find a new home
  › Prices have dropped
  › Leading to reduced exports from South Africa

* RISI
Partnerships

- POLYCO
- Tetra Pak
- ETHEKWINI MUNICIPALITY
- NEW GX CAPITAL
- Sustainable Tomorrow
- PETCO
- PIKI TUP
- City of Cape Town
- RecyclePaperZa
- IDC
- City of Tshwane
- mpact
- FNB
- Hulamin
- Coca-Cola
- Economic Development Department
- Department: Environmental Affairs
- Department: Social Development
- Department: Trade and Industry
- Department: Social Development
- Department: Agriculture and Rural Development
- Department: Economic Development
Hi!
I’m Ronnie Recycler.
Safety, health & wellness and CSI
**CEO’s SHE PHILOSOPHY**

*ALL* injuries, occupational illnesses, safety and environmental incidents are preventable and our target for them is **ZERO**
Mpact’s Safety Structure

Mpact’s safety systems rely on three levels of intervention:

**Primary**
- Physical interventions to provide a safe working environment

**Secondary**
- Safety systems that control the way people interact with work hazards

**Tertiary**
- Creating a safety culture

Primary and secondary interventions are guided by, and comply with, the Occupational Health and Safety Act. Tertiary interventions are Mpact initiatives to lead change in safety culture.
Mpact’s Safety Culture

Situational Awareness.

John, do you know that you're in danger? Why are you standing on the railing?

Yes, but the platform is unsteady!

Can I submit a Behaviour Based Safety Observation Form to report it to management?

But I don’t want to get into trouble.

That’s okay, Management don’t want us to report names on the OBS Form. Just the situation so they can fix it.

I want to be safe doing this job, so please go ahead and report it.

That’s right, peer observation in the OBS system are No-Name-No-Blame reports of situations that cause unsafe behaviours and need to be corrected.
Working with the community in which we operate

Felixton CSI Projects
› Career day for local schools
› Wellness days for local community
› Community garden project
› Water tank installation for community farmers
› Annual “Back to School” stationary collection
› “Build a home” project