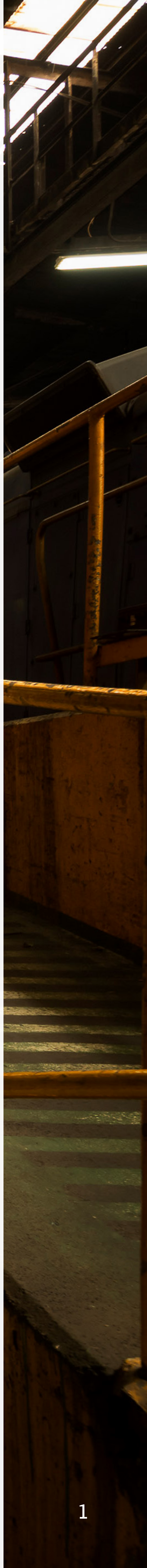
TRANSNET

ENGINEERING REPORT **2022**

Contents



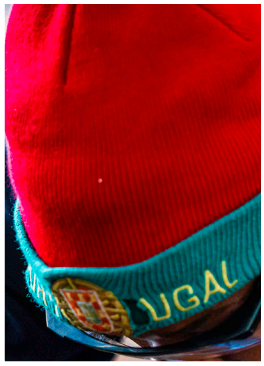
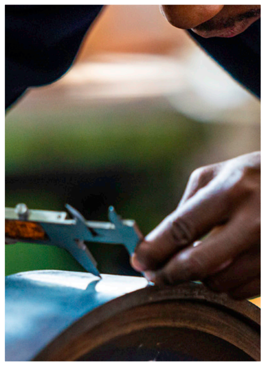
Highlights

Revenue increased by **8,7%** to **R8,9 billion** (2021: R8,2 billion)

EBITDA loss increased by **1,6%** to **R1,497 billion** (2021: R1,474 billion EBITDA loss)

Transnet Engineering achieved the Shareholder's Compact targets on train reliability and efficiency as summarised below:

Key performance indicator	Target 2022	**Actual 2022**
Volume lost due to traction (%)	≤7,0	**8**
Train delays due to traction (faults per million kilometers travelled)	≤40	**61**
Train cancellations (%)	≤6,0	**5,6**


Business overview

Transnet Engineering (TE or the Division) is one of Transnet's six Operating Divisions (ODs). TE is an advanced manufacturing division of Transnet, with a rich and proud heritage spanning more than 150 years. The Division's vision to be the preferred brand in rail and related engineering solutions in Africa and beyond remains key to its growth. This entails:

- Enhancing the Transnet value chain by delivering reliable rolling stock, port and pipeline equipment;
- Focusing on market segments and supply chains that generate the best returns;
- Becoming a preferred maintenance, repairer and overhaul partner for all rail and related equipment in Africa;
- Establishing centres of excellence for technical and engineering skills development in Africa; and
- Driving economic development and growth in sub-Saharan Africa.

TE uses its capabilities to assist Transnet in achieving its mandate of lowering the cost of doing business in South Africa. It offers maintenance and services to Transnet's other Operating Divisions for rolling stock, port and pipeline-related equipment. Delivering on its core capabilities positions TE as a leader in the growing African logistics market.

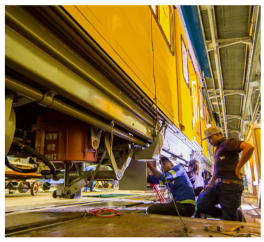
The Division's strategically positioned maintenance depots enable it to focus on improving operational efficiencies throughout Freight Rail's key corridors. The maintenance ensures reliable rolling stock that will minimise train delays, cancellations and loss of volumes. With the capacity to maintain approximately 70 000 wagons and 2 500 locomotives annually, the Division has created a solid base for a maintenance philosophy that is comparable to global standards.

Transnet Engineering remains committed to aligning with and supporting Transnet's strategic pillars of customer service, safety, people, asset utilisation and cost optimisation as well as the Company's segment strategies which form the basis of its Growth and Renewal Strategy. The achievement in these focus areas is supported by initiatives that improve operational efficiencies while maintaining relevant quality standards such as the International Organization for Standardization (ISO) and European Standards across all its operations. The revitalisation of continuous improvement will be a cornerstone to continually achieve and maintain the desired operational standards. TE advocates a safe working environment. The automation of operational processes is an integral part of integration and a seamless service offering to customers. The Division will continue to place customer needs at the centre of its business activities by ensuring good quality products and service delivery.

Over the past few years, TE has faced several challenges including reduced orders from Freight Rail and minimal sales from the rest of Africa. The COVID-19 pandemic also had a negative impact on the business. Considering these challenges, the Division must speedily realign with the shifts in demand. The current business model is no longer sustainable and immediate interventions are required to turn the business around.

TE is approaching these challenges in two distinct phases. Phase 1, the reorganisation phase, entails restructuring the Division into clearly defined business units that can be measured with appropriate performance metrics. This phase entails a definitive culture shift that will result in a value-driven organisation where extreme ownership and asset care are key priorities. It drives rightsizing the business to eliminate added costs while capacitating to offer efficient customer service.

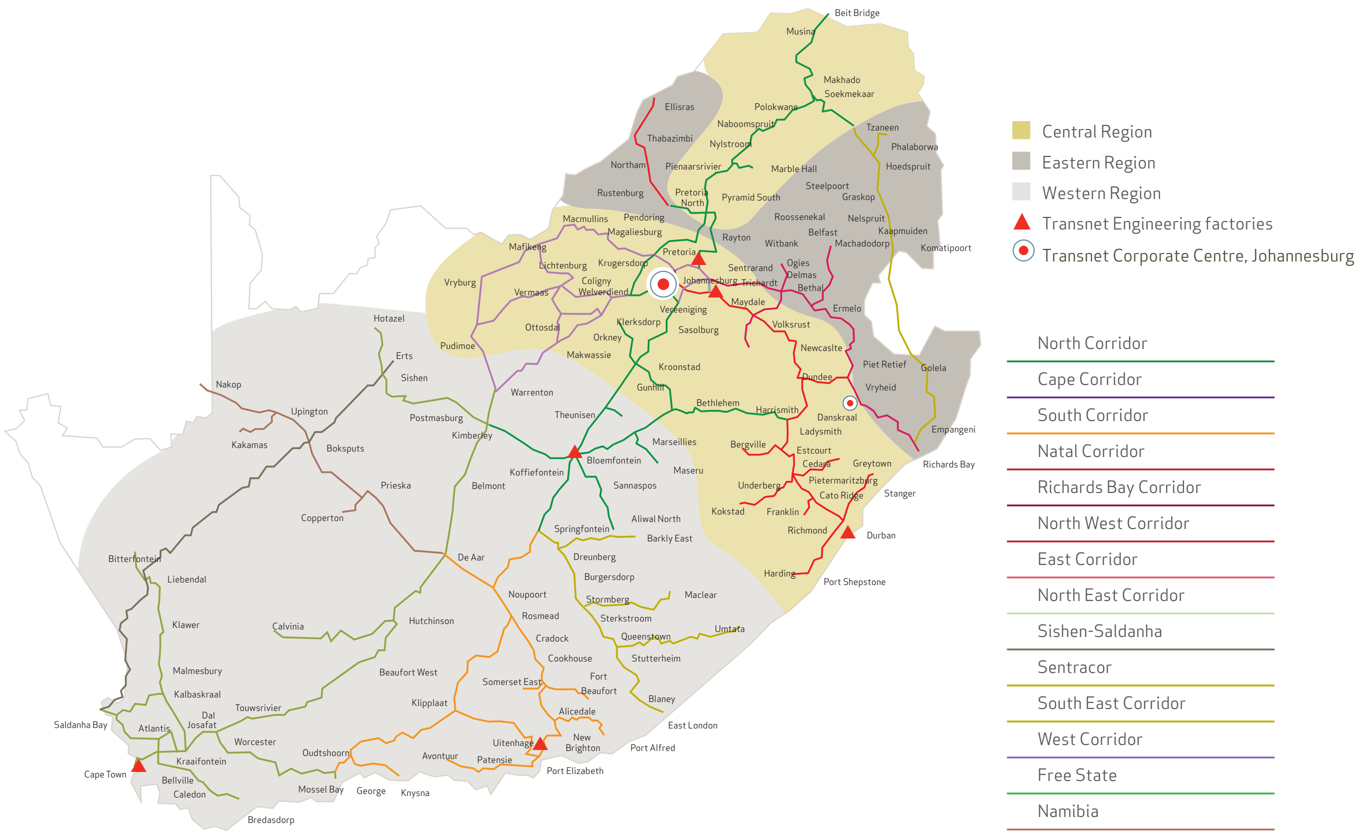
Phase 2, the remodelling phase, will include the implementation of the phase 1 outcomes and address excess capacity. This phase includes undertaking activities that contribute to the long-term sustainability of the Division. The new TE's operations will be underpinned by the growth plan that aims to expand its offerings to other businesses in Transnet and to adjacent industries in South Africa, eventually operating as one of the largest engineering firms in South Africa.



Where we operate

TE has plants and depots throughout South Africa, creating a network of sites that serve the main rail corridors and ports. The six main plants (referred to as centres) are located in Cape Town, Durban, Germiston, Pretoria, Bloemfontein and Uitenhage. These plants serve as regional centres for their satellite depots and provide them with support services. There are 132 maintenance depots and 11 yards. Out-of-service heavy maintenance and manufacturing are undertaken at the plants while the depots concentrate on in-service maintenance of rolling stock.

Figure 1: Transnet Engineering's geographic spread



Regulatory environment

Two Bills, namely the Railway Safety Bill and the Railway Levies Bill are expected to come into effect during 2022/23 following public comment. These Bills were initially published by the Department of Transport in 2016, and over the years there have been engagements with stakeholders and several amendments have been made.

The objectives of the Railway Safety Bill are to:

- Promote safe rail operations;
- Encourage the collaboration and participation of interested and affected parties in improving rail safety;
- Recognise the responsibility of rail operators in ensuring the safety of rail operations;
- Facilitate a modern, flexible and efficient regulatory regime that ensures the continuing enhancement of safe rail operations; and
- Align the railway safety regime of South Africa with the objectives and requirements for safe rail operations in the Southern African Development Community (SADC).

The objectives of the Railway Levies Bill are to:

- Provide for the imposition of levies, penalties and interest by the Rail Safety Regulator; and
- Provide for matters connected therewith.

Core initiatives

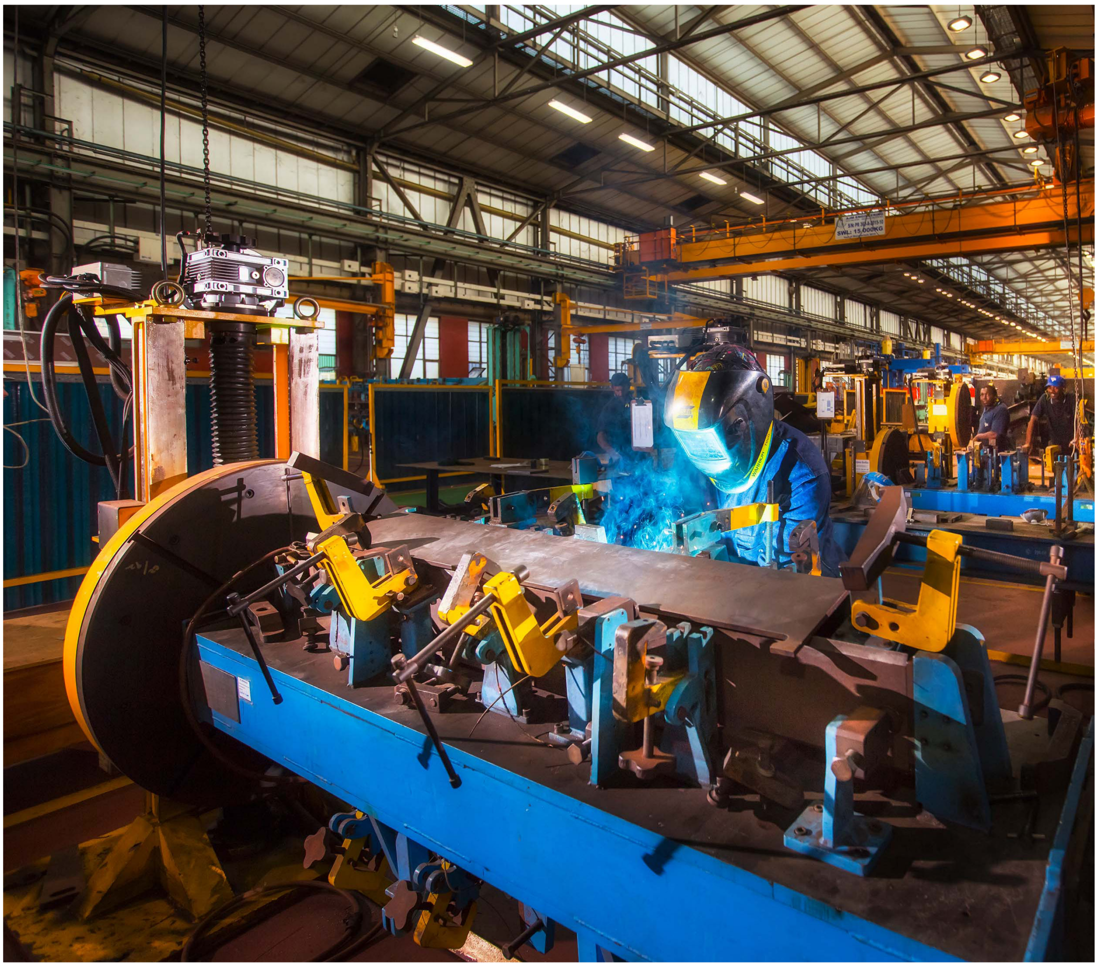
TE will focus on:

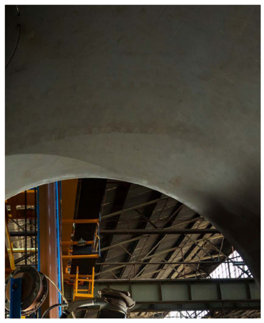
- Providing solutions from pit to port, including port and rail equipment, and predictive maintenance initiatives to expand maintenance services;
- Extending its maintenance services to other Operating Divisions to ensure that they leverage the available technical knowledge embedded in TE. This includes establishing the ports business in TE;
- Running efficient operations, introducing stringent cost-control measures, and creating more value for customers within the manufacturing and maintenance operations;
- Leveraging its R&D capabilities and partnerships to enhance its product offerings;
- Developing and implementing cost-control initiatives;
- Reaching a steady state with Freight Rail to improve operational performance;
- Cascading Transnet's values into the business to shift culture and support the strategy; and
- Exploring the concept of running a leasing business.

Overview of key performance indicators

Key performance area and indicator	Unit of measure	2021/22 Target	**2021/22 Actual**	2022/23 Target
Financial sustainability				
EBITDA margin	%	(14,5%)	**(16,8%)**	(7,7%)
Operating profit margin	%	(23,3%)	**(25,8%)**	(13,2%)
Gearing	%	57,8	**79,9**	79,9
Net debt to EBITDA	times	(5,4)	**(6,7)**	(10,2)
Return on total average assets	%	(13,1%)	**(13,9%)**	(8,0%)
Asset turnover	times	0,6	**0,5**	0,6
Cash interest cover	times	0,6	**(3,8)**	6,6
Total revenue	R million	7 645	**8 901**	8 733
– External	R million	579	**459**	101
– Internal	R million	7 066	**8 442**	8 633
Capacity creation and maintenance				
Capital expenditure	R million	81	**53**	105
Planned maintenance	R million	150	**155**	158
Operational excellence				
Train cancellations due to traction				
Cape Corridor	%	≤ 6,0	**2,79**	≤ 6,0
Central Corridor	%	≤ 6,0	**2,01**	≤ 6,0
Container Corridor	%	≤ 6,0	**6,43**	≤ 6,0
North Corridor	%	≤ 6,0	**11,89**	≤ 6,0
North-east Corridor	%	≤ 6,0	**5,74**	≤ 6,0
Ore Corridor	%	≤ 6,0	**0**	≤ 6,0
Net volume lost due to traction				
Cape Corridor	%	≤ 7,0	**2,1**	≤ 7,0
Central Corridor	%	≤ 7,0	**0,8**	≤ 7,0
Container Corridor	%	≤ 7,0	**5,4**	≤ 7,0
North Corridor	%	≤ 7,0	**10,7**	≤ 7,0
North-east Corridor	%	≤ 7,0	**6,8**	≤ 7,0
Ore Corridor	%	≤ 7,0	**26,3**	≤ 7,0
Traction delays				
Cape Corridor	(faults per million kilometers travelled)	≤ 40	**69,00**	≤ 40
Central Corridor	(faults per million kilometers travelled)	≤ 40	**57,00**	≤ 40
Container Corridor	(faults per million kilometers travelled)	≤ 40	**67,00**	≤ 40
North Corridor	(faults per million kilometers travelled)	≤ 40	**55,00**	≤ 40
North-east Corridor	(faults per million kilometers travelled)	≤ 40	**76,00**	≤ 40
Ore Corridor	(faults per million kilometers travelled)	≤ 40	**40,00**	≤ 40
Human capital				
Employee turnover	%	6	**16**	6
Employee headcount (permanent)	permanent	9 337	**8 392**	8 549
Revenue per employee (permanent)	R million	0,8	**1,1**	1,0
Transformation				
Total blacks	%	90	**86,1**	90
Total females	%	35	**26,8**	35
Total people with disabilities	%	3,3	**2,0**	3,3

Key performance area and indicator	Unit of measure	2021/22 Target	**2021/22 Actual**	2022/23 Target
Skills development				
Apprentice trainees	headcount	200	**199**	200
Technician trainees	headcount	30	**30**	30
Engineering undergraduate trainees	headcount	20	**22**	20
Sector specific	headcount	200	**184**	250
Training spend	% of personnel cost	2,50	**2,64**	2,50
Risk, safety and health				
Cost of risk	% of revenue	4,3	**N/A**	N/A
DIFR	rate	0,72	**0,63**	0,7
Regional integration				
Africa sales revenue	R million	183	**262**	24
Industrial capability building				
R&D costs	R million	99	**98**	79





Financial performance review

Salient features		Year ended 31 March 2022 R million	Year ended 31 March 2021 R million	% change
Revenue		**8 901**	8 191	8,7
– Internal		**8 442**	7 961	6,0
– External		**459**	230	99,4
Operating expenses		**(10 398)**	(9 665)	7,6
– Energy costs		**(190)**	(224)	(15,0)
– Maintenance		**(155)**	(181)	(14,2)
– Materials		**(3 406)**	(2 787)	22,2
– Personnel costs		**(5 779)**	(5 618)	2,9
– Other		**(868)**	(855)	1,5
Profit from operations before depreciation, derecognition, amortisation and items listed below (EBITDA)		**(1497)**	(1 474)	1,6
Depreciation, derecognition and amortisation		**(799)**	(594)	34,4
Profit from operations before items listed below		**(2 295)**	(2 068)	11,0
Impairments and fair value adjustments		**25**	(774)	(103,3)
Net finance costs		**(549)**	(564)	(2,7)
Profit before taxation		**(2 820)**	(3 406)	(17,3)
Taxation		**590**	915	(35,6)
Profit after taxation		**(2 229)**	(2 490)	(10,5)
Total assets (excluding CWIP)		**16 847**	15 964	5,5
Profitability measures				
EBITDA margin[1]	%	**(16,8)**	(18,0)	1,2
Operating margin[2]	%	**(25,8)**	(25,2)	(0,6)
Return on total average assets (excluding CWIP)[3]	%	**(13,9)**	(12,3)	(1,6)
Asset turnover (excluding CWIP)[4]	times	**0,54**	0,49	10,1
Capital investments[5]	R million	**53**	191	(72,4)
Employees				
Permanent employees	number	**8 392**	9 660	(13,1)
Revenue per employee	R million	**1,06**	0,85	24,8

1 *EBITDA expressed as a percentage of revenue.*
2 *Profit from operations before impairment of assets, fair value adjustments, net finance costs and taxation expressed as a percentage of revenue.*
3 *Profit from operations before impairment of assets, fair value adjustments, net finance costs and taxation expressed as a percentage of total average assets, excluding capital work in progress.*
4 *Revenue divided by average total assets, excluding capital work in progress.*
5 *Actual capital expenditure (replacement + expansion), excluding borrowing costs.*

Performance commentary

Financial sustainability

Revenue increased by 8,7% to R8,9 billion (2021: R8,2 billion) in the year under review. This is mainly due to the inflationary 6% increase for our main customer, Transnet Freight Rail; TE achieved a 6% year-on-year increase in internal/TFR revenue from R8 billion to R8,4 billion as well as a 99% increase in external revenue from R230 million to R459 million. The year-on-year increase in external revenue was facilitated by the delivery of 300 high-sided wagons in the current year.

Net operating expenses increased by 7,6% to R10,4 billion (2021: R9,7 billion). A significant portion of the increase was due to a once-off employee cost of R372 million associated with voluntary severance packages incurred because of TE's rightsizing initiatives. When this cost is stripped out, the normalised operating cost increase is only 3,7%, which is below inflationary increases.

Consequently, an EBITDA loss of R1,497 billion (2021: R1,474 billion) is 1,6% higher than the prior year.

Looking ahead

Activities to improve TE's financial sustainability include:

- Ongoing implementation of on-edge manufacturing to be closer to the customer and reduce response time and costs to serve;
- Exploring repurposing and optimising centres, depots and sub-depots and implementing recommendations from the investigations;
- Aligning the Division's R&D strategy on technology to meet the needs of its current and future customers;
- Engaging with the ODs in the Group and with other state-owned companies such as Eskom, Denel and SAA to find synergies and diversify the Division's products and services offering and to also test business models; and
- Finalising the establishment of its ports maintenance business, which has a potential healthy revenue stream.

Operational performance

Train cancellations due to traction in the North and Container Corridors were above the threshold of 6%. The performance in the rest of the corridors was within target. The net volumes lost due to traction for the North Corridor and the Ore Corridor were above the threshold of 7%. TE will continue its efforts to reduce the occurrences of train cancellations, delays and volumes lost.

Looking ahead

TE will focus on the following initiatives to improve operational performance:

- Continue to engineer solutions to lessen the impact of theft and vandalism on rolling stock
- Improve the procuring process that supports the maintenance operations ensuring the right material is available at the right time
- Explore strategic partnerships that will add value to TE's operational performance
- Improve TE's business model with the other Transnet ODs

Capacity creation and maintenance

The Division aims to spend R79 million in the 2022/23 financial year on its balanced portfolio of projects that cover R&D initiatives that aim to grow its customer base for maintenance and services, optimise its operational efficiency, create more value for customers and increase its revenue streams.

Looking ahead

- R&D is invested in a project to focus on sustainable energy alternative to power rolling stock.

Sustainable development outcomes

Human capital (employment and transformation)

- TE achieved a permanent employee headcount 8 392 against a target of 9 337
- Black employees represented 86% against a target of 90%
- Female employees represented 27% against a target of 35%
- People with disabilities represented 2% against a 3,3% target

Skills development

- Training spent as a percentage of labour cost: 2,64% (target: 2,5%)
- Artisan (apprentices) trainees: 199 (target: 200)
- Engineering trainees: 22 (target: 20)
- Technician trainees: 30 (target: 30)
- Sector-specific training: 184 (target: 200)
- Employees trained against the Annual Training Plan: 2 608 (target: 4 985)

Regional integration

The Division achieved cross-border revenue of R262 million (2021: R173 million) against a target of R183 million.

Industrial capability building

R&D expenditure of R98 million (2021: R142 million) against a target of R99 million.

Environmental stewardship

TE continues to ensure environmental compliance and minimises adverse impacts on the environment in which it operates. This is facilitated by implementing and monitoring various environmental initiatives such as waste management, water management, energy efficiency, air quality monitoring and pollution management

Waste management

The implementation of TE's Waste Management Improvement Plan is ongoing. The primary objective remains that of improving waste management practices across the Division. In line with this plan, some waste streams have been diverted away from landfill and are undergoing environmentally friendly treatment options like reuse and recycling. There are robust engagements with the service providers to ensure that the concept of waste minimisation versus that of disposal is embedded. The implementation will continue to be monitored until significant changes are realised.

Water management

TE continues to monitor ground, surface and portable water and industrial effluent to ensure compliance with municipal by-laws and discharge permits. Most of the results have shown a high degree of compliance and are within the parameter limits. Where there are abnormalities, these have been investigated and addressed accordingly.

Energy efficiency

Energy-efficiency improvements cover both electricity and fuel (i.e. petrol, diesel and oil). Electricity and fuel contribute 90% and 10% respectively to TE's total energy consumption.

TE achieved a 9,67% improvement in electricity savings and 8,98% decline in fuel savings during the year under review. The improvement in electricity savings was due to reduced operational activities in the manufacturing centres. The most energy significant users remain Koedoespoort, Durban and Bloemfontein, mainly due to high decline in fuel savings can be attributed to increased fuel prices and high operation of in-service vehicles in the corridors.

Air quality monitoring

Ambient air quality monitoring

Ambient air quality monitoring is undertaken in areas that are deemed potential sources of air pollution to assess emissions. Monitoring is scheduled for TE regions from August 2020 to July 2023. Monitoring takes place for three months in summer and three months in winter. Monitoring was conducted for Bloemfontein from August 2020 to May 2021 and reports were finalised. Elevated levels of nitrogen oxide were detected in Beaconsfield and filters were installed to reduce the emissions. Monitoring was initiated in November 2021 for Uitenhage and in February 2022 for Durban and Salt River; it is still in progress and completion is scheduled for the end of July 2022. Preliminary results show elevated levels of nitrogen dioxide in Saldanha. The environmental specialist will investigate the cause of the elevated levels of nitrogen dioxide. The ambient air quality monitoring in the Germiston and Koedoespoort regions is scheduled to commence in November 2022 until July 2023.

Atmospheric emission, greenhouse gas emissions and dust fallout monitoring

The monitoring of atmospheric emission, greenhouse gas emissions and dust fallout are undertaken in Koedoespoort and Bloemfontein Foundry in compliance with the Atmospheric Emission Licence (AEL). This is done in line with the requirements of the National Environment Management: Air Quality Act, No 39 of 2004. Koedoespoort is in the process of applying for an AEL from Tshwane Municipality, and the monitoring will take place in line with the AEL once it is issued. Monitoring was undertaken in Bloemfontein in April 2021 and August 2021 and no potential pollutants were detected above the emission limits. Monitoring was scheduled to take place in February 2022, but was cancelled due to the foundry furnaces not being functional. Monitoring is scheduled for August 2022 and will be dependent on the foundry furnaces being functional.

Pollution management

TE is committed to ensuring that past and current pollution is well managed and that sites that have been identified as contaminated are appropriately remediated and cleaned up. Site contamination assessments, including site characterisation, plume delineation and soil analysis were undertaken and concluded in the Germiston, Uitenhage, Bloemfontein and Salt River regions. An order was granted by the Department of Forestry, Fisheries, and the Environment (DFFE) for Germiston to monitor the contamination. An implementation plan has been developed to track the actions and ensure compliance with the issued order. Site contamination assessment reports for Salt River were sent to the DFFE and TE is awaiting a remediation order or a monitoring order. The site assessment reports are currently being concluded for Uitenhage and Bloemfontein; once concluded they will be sent to the DFFE to issue a remediation order.

Community development (social accountability)

At the heart of TE's corporate social investment philosophy is its commitment to make conditions and life better for vulnerable communities living next to its operations. TE's approach is that impactful social investment can contribute positively to nation-building and to drive positive change in communities. We align our social development projects with national developmental imperatives underpinned by a need to make a measurable impact through investment that empowers the nation to reach its social development and economic upliftment goals.

In line with the National Development Plan, TE's drive for social transformation and shared value finds expression in the empowerment and upliftment of those who are most vulnerable, especially those in areas of the greatest need. The Company achieves its CSI intent through five focus areas: health, sports, employee volunteerism, social infrastructure and education.

Key risks and mitigating activities

The top five risks below were identified during the year under review with appropriate mitigating plans:

Top enterprise risks	Mitigating activities
The impact of theft and asset vandalism on operations and revenue	• Continue to execute new security structures and tactical interventions to improve the security of assets and strengthen responses to incidents • Continuously identify engineering initiatives that can minimise the impact of vandalism • Drive a culture of duty of care to decrease theft and vandalism incidents caused by employees
Major business interruptions due to unplanned events such as strikes, storms, pandemics, etc.	• Implement a new ERM plan with designated risk champions and coaches to broaden the awareness of risk management across the Division • Continuously update TE-specific risk assessments and implement treatment plans including mitigating actions • Conduct BCM simulations to test the effectiveness of response plans throughout the organisation • Roll out BCM training and awareness at all relevant levels of the organisation • Develop and implement contingency or crisis management plans per occurrence • Facilitate the appointment of key BCM leadership roles within the crisis management team and appoint BCM champions
Operational challenges as a result of procurement-related matters	• Streamline internal procurement processes to reduce lead times • Establish long-term demand and contracts for material to ensure continued supply in line with demand • Improve demand management processes in the Division to ensure supply of the right material and quantities
Misaligned organisational culture that does not support the new business model and strategy	• Roll out the culture change journey which aims to build a culture of extreme ownership in the Division • Provide principles to drive a high-performance culture and reward employees appropriately to ensure that they are motivated and that Transnet Engineering remains an employer of choice
Excess capacity of assets and people leading to redundancy of resources	• Implement the reorganisation and optimise headcount to align with available work and revenue opportunities • Conduct asset utilisation assessments and develop an asset utilisation management plan to optimise the utilisation of assets and seek alternatives for underutilised assets • Conduct an analysis to verify that assets procured are fit for purpose • Develop a standard approach to calculate financial losses incurred because of asset unavailability

Opportunities

- Mining companies purchasing their own rolling stock and not relying on traditional railway operators provide an opportunity to explore a leasing business
- Rolling stock overhauls and upgrades are in demand in Africa
- Exploit prospects of synergies with other state-owned enterprises
- Improve the turnaround times of turnkey products and services solutions for locomotives, wagons and maintenance by resolving identified bottlenecks
- Improve TE's technical skills of port equipment manufacturing and maintenance
- Develop strategic partnerships that will build value, increase investment funding and improve access to market.
- Rightsize the business to operate from an optimised baseline

Abbreviations and acronyms

CWIP	Capital work in progress
DIFR	Disabling injury frequency rate
EBITDA	Earnings before interest, taxation, depreciation and amortisation
GFB	General freight business
OEM	Original equipment manufacturer
Prasa	Passenger Rail Agency of South Africa
R&D	Research and development
TE	Transnet Engineering
TFR	Transnet Freight Rail