

CARBON FOOTPRINT ASSESSMENT

Prepared for Reunert Limited
December 2020

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Carbon footprint summary



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EXECUTIVE SUMMARY

Terra Firma Solutions (Pty) Ltd were commissioned by Reunert Limited to assist and develop their carbon footprint for the reporting period 01/10/2019 to 30/09/2020.

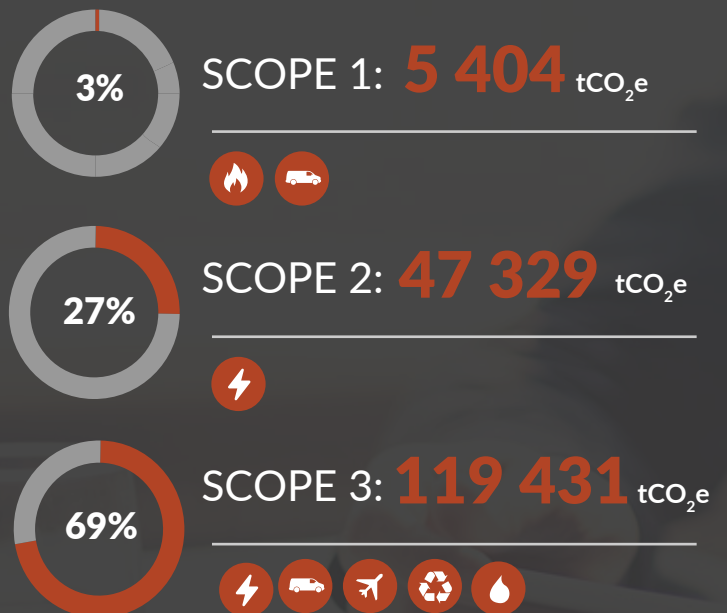
The carbon footprint inventory includes 53 Reunert Limited entities, excluding entities for which emissions are deemed immaterial or entities for which non-financial data is reported as part of another entity. Reunert has 100% financial control over all entities included in the carbon footprint, with the exception of CBI Electric Telecom Cables (Pty) Ltd, which is a joint venture (50% financial control). Only franchises where Reunert holds majority of share have been included in the scope of this carbon

footprint assessment.

The carbon footprint is based on the financial control approach.

The operational boundaries include scope 1 direct emissions (mobile combustion and stationary combustion), scope 2 indirect emissions (electricity consumption in Reunert owned buildings) and scope 3 indirect emissions (electricity consumption in leased buildings and warehousing facilities, mobile combustion in leased vehicles, business travel, employee commute, waste, water and material use).

CARBON FOOTPRINT
2019 - 2020
172 164
 tCO₂e
 FOLLOWING THE GREENHOUSE GAS PROTOCOL



RECOMMENDATIONS



Reduce carbon footprint



Improve data quality



Set KPI's & targets



Annual reporting

ENERGY EFFICIENCY

Energy efficiency assessments are a valuable exercise to obtain a detailed database of energy opportunities. The assessments investigate voltage and power, lighting, heating ventilation and air conditioning (HVAC) and IT equipment to ensure the building is efficient and is being billed the correct amount.



RENEWABLE ENERGY

Reunert has installed a 297 kWpeak solar PV system in Reunert Park, another smaller solar PV system in Reunert Park and a 429 kWpeak solar PV system in Fuchs Electronics facilities.

In 2019-2020, Reunert generated 1 198 MWh's of renewable energy, resulting in an electricity cost saving of R1 529 081, and saving 1 222 tonnes of CO₂e from being released into the atmosphere.

1 222 tCO₂e saved in 2019-2020.



INTRODUCTION

PROJECT BACKGROUND

Businesses around the world are increasingly confronted with the topic of climate change, social investment and environmental issues.

It has become apparent that more businesses are fast recognising that their response (or lack thereof) to these issues, poses both risks and opportunities to their triple bottom line.

People, planet and profits.

Reunert has decided to embark on this journey by engaging with Terra Firma Solutions to undertake a Carbon Footprint Assessment (CFA).

Embarking on the aforementioned assessments is an important step in determining the environmental impact of the company as it highlights key areas to focus on emission reductions and can ultimately lead to increased profits from lower energy and fossil fuel costs.

THE KEY COMPANY DRIVERS FOR EMBARKING ON THE CARBON FOOTPRINT ASSESSMENT ARE:

- Set emission reduction goals against which the company can be measured
- Increase operational efficiency and reduce operating costs
- Implement carbon management plans
- Position Reunert Limited as a climate change leader in its sector
- Enhance the level of data accuracy throughout the company
- Differentiate and increase possible market share

CLIENT BACKGROUND

The Reunert Group manages a portfolio of businesses in the fields of Electrical Engineering, Information Communication Technologies (ICT) and Applied Electronics.

The group was established in 1888 by Theodore Reunert and Otto Lenz, and has contributed to the South African economy in numerous ways over the past 130 years.

The group was listed on the JSE in 1948, and is included in the industrial goods and services (electronic and electrical equipment) sector of the JSE. The group primarily operates in South Africa with smaller operations in Australia, Lesotho, Mauritius, the USA, Zambia and Zimbabwe. Reunert's offices are located in Woodmead, Johannesburg, South Africa.

Electrical Engineering manufactures and sells a comprehensive range of power and telecommunications cables and low-voltage circuit breakers.

ICT offers a range of office automation, business communication, connectivity and asset backed finance products and services.

Applied Electronics develops, supplies and maintains high-precision electronic products for defence, commercial applications and renewable energy solutions.

PROJECT TEAM

NAME	COMPANY	RESPONSIBILITY
Karen Smith	Reunert Limited	Project Sponsor
Caitlin Keam	Terra Firma Solutions	Head of Analytics and Sustainability
Grete Simanauskaite	Terra Firma Solutions	Analytics Reporting Manager

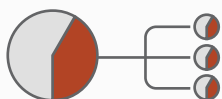
<https://www.reunert.co.za/group-overview.php>

PROJECT DESCRIPTION

PROJECT SCOPE

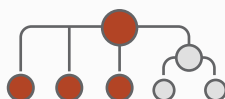
ORGANISATIONAL BOUNDARIES

Organisational boundaries determine whether Greenhouse Gas reporting is done according to one of these approaches:



EQUITY SHARE APPROACH

A company accounts for the emissions from operations according to its share in equity of the operation, where equity share reflects economic interest.



CONTROL APPROACH

Emissions are accounted for from operations which are under the direct control of the parent company; this can be based on either financial control or

CONTROL APPROACH

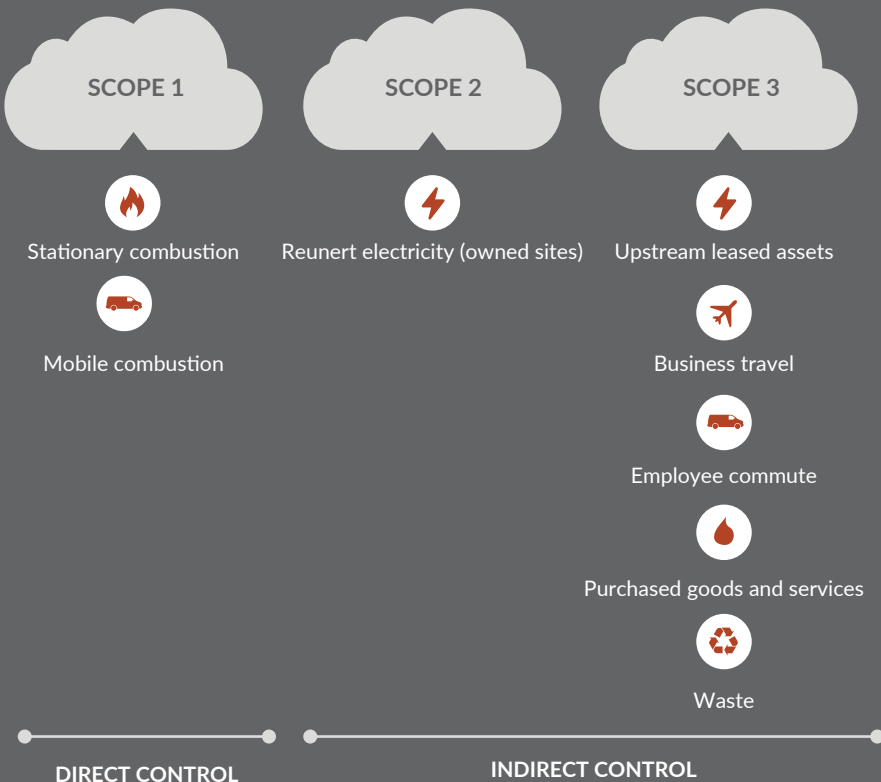
FINANCIAL AND OPERATIONAL

Financial: Can direct the financial policies with the view to gaining economic benefit.

Operational: Can direct operational policies at the operation.

REUNERT HAS CHOSEN THE FINANCIAL CONTROL APPROACH TO MEASURE THE ORGANISATIONS CARBON FOOTPRINT

OPERATIONAL BOUNDARIES



DATA SOURCES

ACTIVITY DATA

- Electricity usage (lightning bolt icon)
- Fuel usage (fuel pump icon)
- Transport (truck icon)
- Waste (recycling icon)
- Goods and Services (water drop icon)

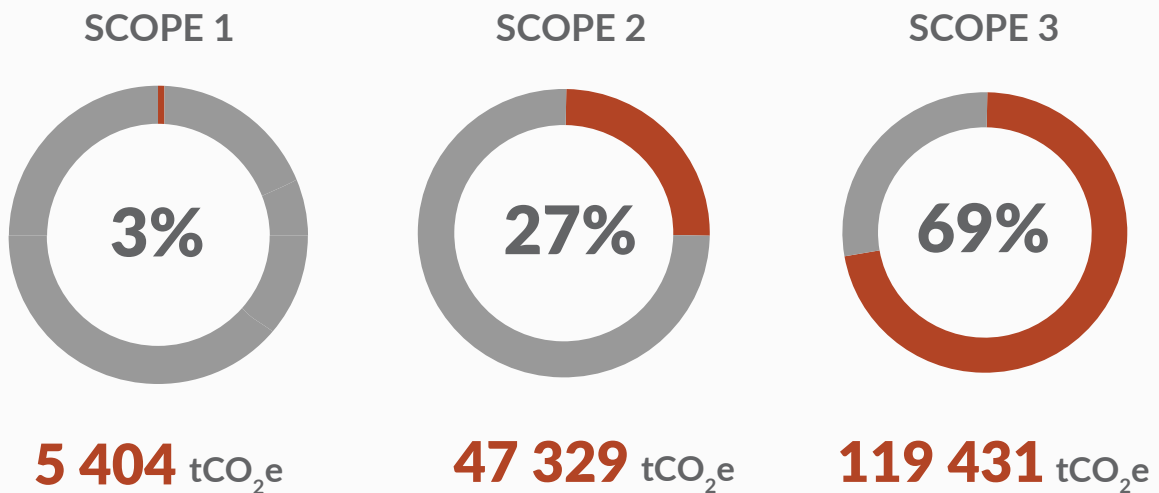
EMISSIONS FACTORS

- defra DEFRA 2020
- Eskom Eskom Annual Report 2020
- ipcc IPCC 2006

CARBON FOOTPRINT RESULTS

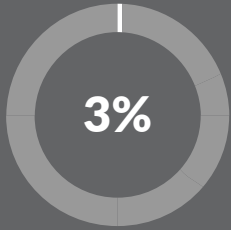
The total greenhouse gas emissions for Reunert Limited have been calculated at **172 164** tonnes of CO₂e, following the Greenhouse Gas Protocol.

172 164 tCO₂e
 FOR THE PERIOD 2019- 2020
 FOLLOWING THE
 GREENHOUSE GAS PROTOCOL





Emissions associated with material use were the highest contributor to Reunert's carbon footprint at 96 524 tCO₂e (56% of emissions). Electricity consumed by electricity consumption in Reunert owned sites followed at 47 329 tCO₂e (27% of emissions).

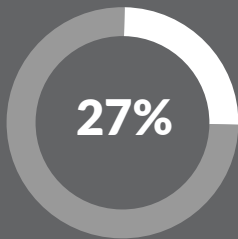
SCOPE 1 % OF TOTAL EMISSIONS



SCOPE 1 EMISSIONS

- 67%  Reunert stationary consumption [3 598 tCO₂e]
- 33%  Reunert mobile consumption [1 806 tCO₂e]

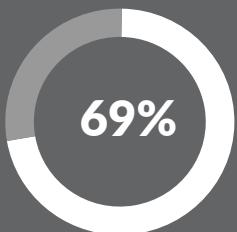
SCOPE 2 % OF TOTAL EMISSIONS








SCOPE 2 EMISSIONS

- 100%  Reunert Electricity (Owned sites) [47 329 tCO₂e]

SCOPE 3 % OF TOTAL EMISSIONS



SCOPE 3 EMISSIONS

- 81%  Purchased goods, services [96 726 tCO₂e]
- 12%  Employee Commute [13 925 tCO₂e]
- 0.2%  Waste [183 tCO₂e]
- 1%  Business Travel [1 146 tCO₂e]
- 6%  Upstream Leased Assets [7 451 tCO₂e]

BENCHMARKING

YEAR-ON-YEAR EMISSIONS

Scope	Emissions Source	Total tCO ₂ e				2019 vs 2020 % Change
		2017	2018	2019	2020	
Scope 1	Diesel	426	404	336	301	-10%
	Natural Gas	3 761	3 690	3 466	3 130	-10%
	LPG	130	210	139	109	-21%
	Stationary Combustion	4 317	4 305	3 941	3 540	-10%
	Stationary Combustion JV		2	17	13	-23%
	Oil	7	240	22	42	92%
	Lubricants	2	9	1	1	-9%
	Stationary Fuel Non-Energy	21	250	23	43	87%
	Stationary Fuel Non-Energy JV		3	3	1	-49%
	Diesel (mobile)	1 156	1 172	1 178	944	-20%
	Petrol (mobile)	1 147	1 050	1 069	747	-30%
	LPG (mobile)	22	-	-	12	100%
	Mobile Combustion	2 325	2 223	2 247	1 703	-24%
	Mobile Combustion JV	169	131	131	103	-21%
Total Scope 1 Reunert		6 493	6 777	6 211	5 287	-15%
Total Scope 1 JV		169	136	150	118	-22%
Total Scope 1		6 662	6 913	6 362	5 404	-15%
Scope 2	Electricity	51 778	43 641	48 816	44 025	-10%
	Electricity JV	4 509	2 928	3 594	3 305	-8%
Total Scope 2 Reunert		51 778	43 641	48 816	44 025	-10%
Total Scope 2 JV		4 509	2 928	3 594	3 305	-8%
Total Scope 2		56 297	46 570	52 410	47 329	-10%
Total (Scope 1 & 2) Reunert		58 281	50 419	55 027	49 312	-10%
Total (Scope 1 & 2) JV		4 679	3 064	3 745	3 422	-9%
Total (Scope 1 & 2)		62 960	53 483	58 772	52 734	-10%
Scope 3	Material use	181 778	138 812*	100 742*	96 524	-24%
	Outsourced warehousing	129	231	185	146	-21%
	Water supply	100	107	70	56	-20%
	Purchased goods, services	182 007	139 150	100 997	96 726	-24%
	Employee Commute	-	15 099	18 801	13 925	-26%
	Transport and distribution	319 542	-	-	-	-
	Water treatment	290	476	155	116	-25%
	Waste disposal	336	231	19	67	254%
	Waste	626	707	174	183	5%
	Business Travel	2 654	2 986	2 192	1 146	-48%
	Mobile Fuel	68	208	196	382	95%
	Purchased electricity	6 226	6 145	6 090	7 069	16%
Upstream leased assets	6 294	6 353	6 286	7 451	19%	
Total Scope 3		191 580	164 295	128 450	119 431	-23%
Total tCO₂e emissions		254 531	217 778*	187 222*	172 164	-19%

* Emissions from material use were recalculated for 2018 and 2019, due to a more accurate emission factor for aluminium becoming available. As a result, total emissions for 2018 and 2019 have been recalculated as well.

NOTES

- Mobile fuels and stationary fuels show a reduction, mainly due to lower production levels due to lockdown.
- Reunert Management Services (RMS) fuel consumption data in owned vehicles was not available this year. While it is important to ensure data completeness in conducting carbon footprint assessments, in 2019 these emission sources accounted for less than 0.001% of the total emissions. Considering that the materiality threshold for carbon footprint assessments is 5%, this data could be regarded as having no material impact on the overall emissions. However, next year's carbon footprint assessment should include this data.
- Fugitive emissions were present but not reported due to immateriality and lack of data.
- Scope 2 emissions have decreased due to lower production levels due to lockdown and solar energy generation in solar PV systems.
- Eskom's grid emission factor in 2020 has decreased from 1.04 tCO₂e/MWh to 1.02 tCO₂e/MWh.
- Electricity consumption data was extrapolated for missing months. For sites with no electricity data, electricity consumption was extrapolated using kWh/m² values for the same type of building within the Group.
- Water data was not extrapolated for sites with no water data.
- Water emissions have decreased due to lower production levels due to lockdown. Biggest decreases have been observed in Fuchs Alrode and African Cables Vereeniging entities.
- Employee commute survey was conducted as part of the carbon footprint assessment. Data was extrapolated for employees who did not respond.
- Transport and distribution emissions were not accounted for in 2020 carbon footprint assessment.
- Emissions from material use have been recalculated for 2018 and 2019, due to a more accurate emission factor for aluminium becoming available.
- Purchased electricity (Scope 3) emissions have increased because of increased output levels in CBI Lesotho entity and due to the fact that in 2019, CBI Parow was not included in the building list for buildings included in 2019 carbon footprint assessment. CBI Parow was included in the building list for 2020 carbon footprint assessment.
- Waste to landfill and recycled waste emissions were included.

BENCHMARKING

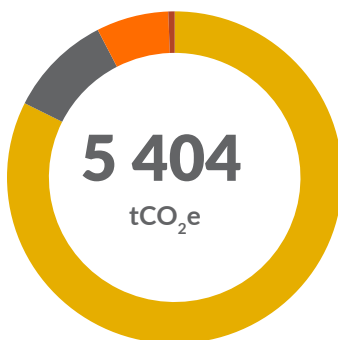
KEY PERFORMANCE INDICATORS

Emissions per square meter, 'mill revenue and per full time employee.

	2017	2018	2019	2020	% change
 SCOPE 1 & 2 tCO₂e PER METER SQUARED	0.28	0.19	0.21	0.20	-4%
 SCOPE 1 & 2 tCO₂e PER FULL-TIME EMPLOYEE	11.25	9.72	9.54	8.92	-7%
 SCOPE 1 & 2 tCO₂e PER 'MILL REVENUE	6.12	4.95	5.32	6.42	21%

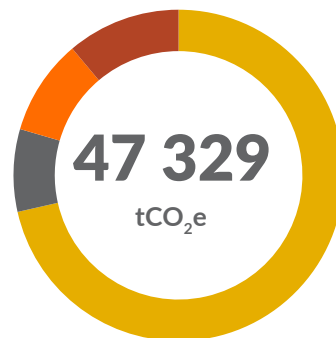
BENCHMARKING PER DIVISION

SCOPE 1 EMISSIONS



- 82% ● Electrical Engineering [4 452 tCO₂e]
- 7% ● Applied Electronics [377 tCO₂e]
- 10% ● ICT [543 tCO₂e]
- 1% ● Group Services ('Other') [33 tCO₂e]

SCOPE 2 EMISSIONS



- 71% ● Electrical Engineering [33 818 tCO₂e]
- 9% ● Applied Electronics [4 431 tCO₂e]
- 8% ● ICT [3 812 tCO₂e]
- 11% ● Group Services ('Other') [5 268 tCO₂e]

BENCHMARKING

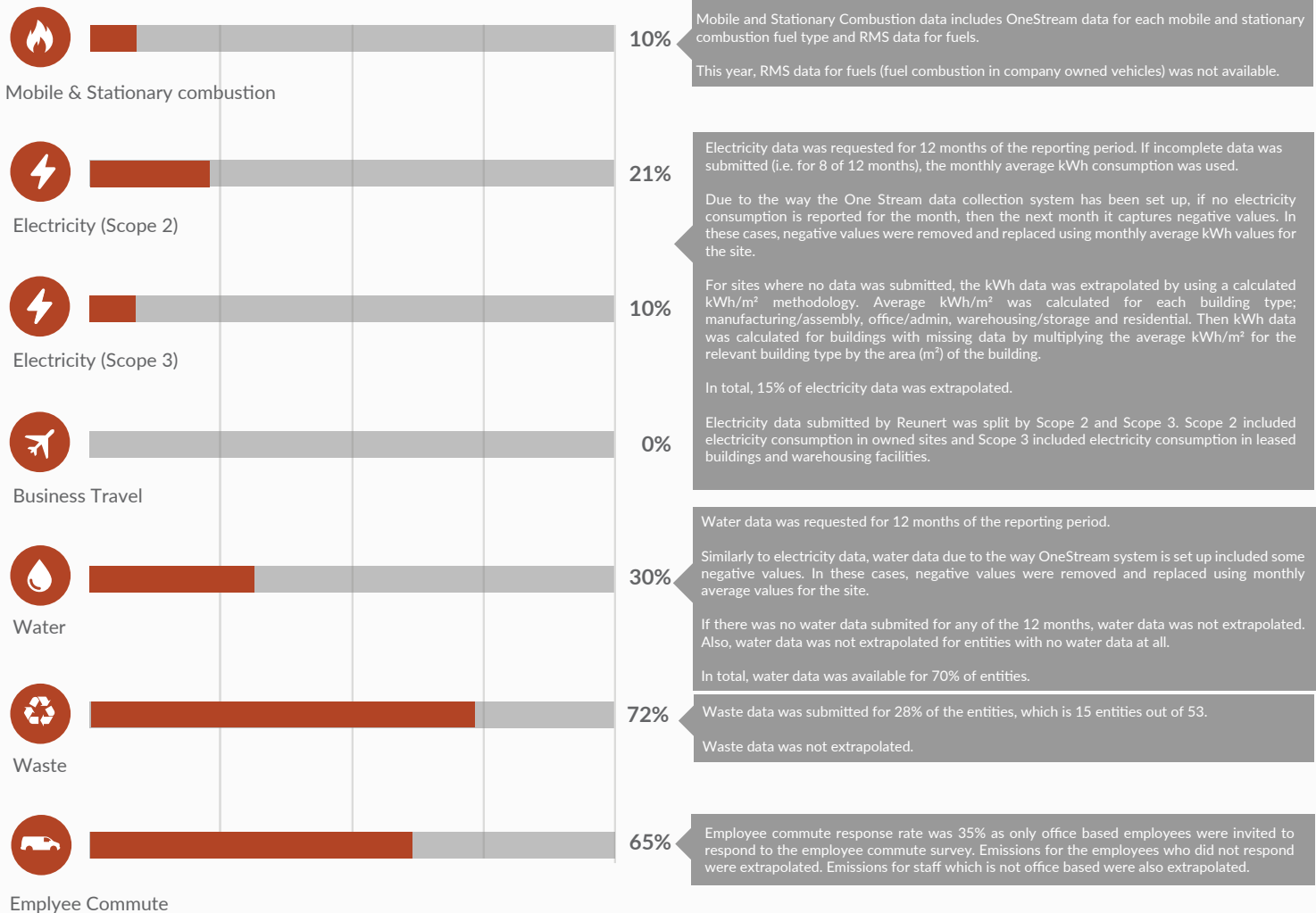
ENTITIES BENCHMARKING

Reunert's entities were benchmarked using Scope 1 and Scope 2 emissions and compared to last year's emissions. Only entities where electricity data was available (not extrapolated) were benchmarked. Also, only entities where data was available last year are compared below.

Building Name	2019 Scope 1 & 2 tCO2e	2020 Scope 1 & 2 tCO2e	% change
African Cables: Vereeniging	23 584	20 244	-16%
Zamefa Zambia	11 479	8 429	-36%
CBI Low Voltage: Johannesburg (Head Office)	5 845	6 170	5%
CBI Telecom Cables Brits	3 745	3 422	-9%
Reutech Communications: New Germany (9 Valley) - Old building	3 091	2 018	-53%
Nashua Eastern Cape: Port Elizabeth	114	2 009	94%
ECN Midrand + Pops	1 526	1 151	-33%
Reutech Solutions: Midrand	1 255	1 010	-24%
Reunert Park: Midrand	86	787	89%
Reutech Radar Systems: Stellenbosch	1 085	573	-89%
Reutech Communications; New Germany (19 Valley) - New building	635	435	-46%
Dynatech	New entity	374	
Ryonic Robotics: Midrand	92	374	75%
Fuchs: Alrode	1 606	371	-333%
Nashua Communications: Midrand	308	302	-2%
Reunert College: Boksburg	68	270	75%
SkyWire: Roodepoort	9	198	95%
Nashua Central: Ferndale	125	128	2%
Nashua Paarl and West Coast: Paarl	28	55	49%
Nashua Durban Warehouse 25 Imvubupark Place, Riverhorse Valley, Durban	67	39	-72%
Dopptech: Alrode	52	19	-167%
Sterkspruit Farm	80	15	-440%
Nashua West Rand: Weltevreden Park	47	13	-248%
Nashua Cape Town	8	5	-51%
CBI - Australia	18	5	-263%
Omnigo: Waltloo	5	5	-13%
Nashua Tygerberg: Tygervalley	2	1	-137%

DATA GAP ANALYSIS

The image below shows gaps in the data collection process. It is recommended that non-financial data is collected and reviewed on a monthly, or at least quarterly, basis to avoid missing data or appearance of negative values. Monthly data capture and review will enhance data quality and completeness.



DATA IMPROVEMENT RECOMMENDATIONS

DATA COLLECTION

- Include transport and distribution data in the next year's carbon footprint.
- Improve electricity and water data by ensuring that data is captured by all entities.
- Waste reporting should be obligatory for all facilities. Waste reporting should also capture a method of waste disposal (e.g. landfill, recycled, etc.).
- Include explanations fields in OneStream system so that those inputting data can provide explanations behind the data.
- Increase the employee commute survey response rate.

DATA REPORTING

• CONTINUOUS MONITORING AND REPORTING

It is recommended that data is reviewed and captured regularly, for example each quarter. Furthermore, quarterly or half-annual data validation would allow identification and correction of any data discrepancies or insufficiencies.

This would also allow year-on-year activity data comparison for the same month and timeous identification of variances.

RECOMMENDATIONS

REDUCE AND VERIFY CARBON FOOTPRINT



ENERGY EFFICIENCY AND RENEWABLE ENERGY

Energy efficiency assessments are a valuable exercise to obtain a detailed database of energy opportunities. The assessments investigate voltage and power, lighting, heating ventilation and air conditioning (HVAC) and IT equipment to ensure the building is efficient and is being billed the correct amount.

Another great energy reduction opportunity is renewable energy. Reunert Park and Fuchs Electronics already have solar PV systems installed. Further owned sites should be considered, especially, for facilities with highest electricity consumption.

CARBON FOOTPRINT VERIFICATION

It is recommended that Reunert undertakes a carbon footprint verification. It is an independent third party Greenhouse Gas Inventory Verification which ensures that carbon emissions data is accurate and consistent over time for management decision making. It ensures transparent and credible reporting to external stakeholders and allows organisations to increase CDP Climate Change Programme score.

IMPROVE DATA QUALITY



NON-FINANCIAL DATA REPORTING

Reunert has implemented One Stream's non-financial data system. It is recommended that improvements to the system (see section on Data Gap Analysis) are implemented.

ENERGY AND WATER MONITORING AND MANAGEMENT

An automated energy and water monitoring and management system rolled out across the Reunert portfolio of businesses will enhance the accuracy of electricity and water data. In addition, monitoring consumption may highlight energy and water reduction opportunities and ensure your sites are being billed correctly by council.

SET TARGETS



tCO₂e PER SQUARE METRE, REVENUE, EMPLOYEE

Reunert already annually reports its emissions per revenue, employee and per square meter. Setting emissions reduction targets using these metrics is a representative way to monitor progress on performance over time.

SCIENCE-BASED TARGETS

Companies aiming to achieve the highest scoring in CDP submissions should be considering setting science-based targets for their emissions management.

ANNUAL REPORTING



CDP CLIMATE CHANGE AND CDP WATER DISCLOSURE

Reunert already responds to CDP Climate Change and CDP Water Programmes annually. This reporting platform houses over 765 investors holding \$92 trillion in assets to help reveal risk in their investment portfolio.

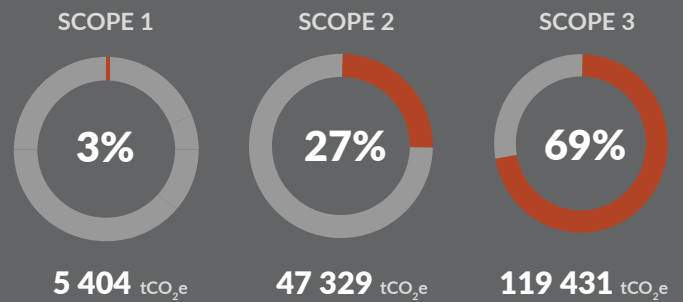
Continuous Reunert's efforts around improving activity data quality for carbon footprint will enable more accurate reporting to CDP Climate Change and CDP Water Programmes.

INTEGRATED REPORTING

Integrated Reporting demonstrates the linkages between an organisation's strategy, governance and financial performance and the social, environmental and economic context within which it operates. By reinforcing these connections, Integrated Reporting can help businesses to make more sustainable decisions and enable investors and other stakeholders to understand how an organisation is really performing. Reunert already includes its carbon footprint figures annually in the organisation's Integrated Annual Report.

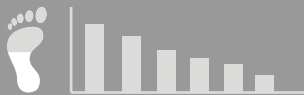
CONCLUSION

CARBON FOOTPRINT
2019-2020 FOLLOWING THE GREENHOUSE GAS PROTOCOL
172 164 tCO₂e



ENERGY EFFICIENCY

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In 2019-2020, Reunert generated 1 198 MWh's of renewable energy,

1 222 tCO₂e saved in 2019-2020.



Additional information may be provided upon the clients request.

DISCLAIMER

This report has been based on the information supplied to Terra Firma Solutions (Pty) Ltd (TFS) by the client. TFS has exercised all due care in reviewing the supplied information.

This applies to the site conditions and features as they existed at the time of TFS's investigations, and those reasonably foreseeable. This report does not necessarily apply to conditions and features that may arise after the date of this report, about which TFS had no prior knowledge nor had the opportunity to evaluate.

TFS does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them.

This report is meant to be read as a whole, and sections or parts thereof should thus not be read or relied upon out of context.

TFS disclaims any liability to the Client and to third parties in respect of the publication, reference, quoting, or distribution of the report or any of its contents and reliance thereon by any third party.

A 5% threshold has been used to determine the concept of materiality.

This report is for the sole and exclusive benefit of the Client.

The carbon footprint assessment is based on data provided by the Client.