



**SUSTAINABILITY
REPORT 2023/24**

GEOFABRICS®
Sustainable solutions





**THE EARTH IS CORE
TO OUR BUSINESS**



The earth is core to our business.

We work to protect, contain and secure the physical environment using smart geosynthetic products. We help our clients mitigate environmental risk through world leading research and innovative product development.

Recycled material

Providing a use and a market for recycled material is integral to developing a circular economy. By incorporating recycled material into products such as Bidim® Green, Tracktex® Green, Sealmac® Green, Enduraseal® Green and Megaflo® Green, Geofabrics is helping to reduce waste to landfill.

Through technology and our enterprise software IFS we are navigating the complexities of our supply chain, transparently tracking the number of recycled bottles used and calculating our progress to report.

Over the past two years, we have utilised the recycled material from almost 70 million bottles.

Geofabrics is a proud member of the Infrastructure Sustainability Council (ISC). We are providing more sustainable products for infrastructure businesses to incorporate into their projects, reducing their own impact on the environment.

Reducing energy intensive material use

When used in infrastructure projects, geosynthetics have the additional benefit of reducing energy use and carbon emissions as they are lighter and less energy intensive to produce than traditional construction materials such as steel and cement. The use of geosynthetics can also reduce the need to transport and use high quantities of quarried materials and aggregates while achieving the same result.

Containing contaminants

Contaminated sites and landfills which may contain PFAS & other contaminants of emerging concern (CECs) can be contained and sealed using a hybrid clay liner such as Sorbseal®. This protects the surrounding environment and waterways from dangerous contaminants that don't break down.

Erosion & revegetation

Geosynthetics can be used to prevent erosion to coastal shorelines caused by extreme weather events such as heatwaves, cyclones and floods. The increase in intensity and frequency of these events is being influenced by climate change.

We have been working with coastal communities and developing countries in coastal protection for many years. In 2018, Geofabrics won the AusTrade Australian Export Award for Environmental Solutions. Recognised for the positive environmental impact our Australian made Elcorock coastal protection system had in projects in Tuvalu and New Zealand.

To increase the sequestration of blue carbon and lower atmospheric CO₂ levels we are helping to protect and re-generate mangroves, marshlands and seagrasses.

We are also collaborating with government and mining companies to rehabilitate mining sites for landholders and traditional owners. By promoting revegetation and surface protection against wind and water we are helping to re-establish native plants and animal habitats.

Energy saving

While we are utilising recycled material in manufacturing, we are also implementing changes to reduce our own impact. We have installed solar systems and LED lights across the business, improved the energy efficiency of production and reduced waste.

Product packaging

Our Packaging Policy ensures excessive packaging is avoided or reduced to optimise material efficiency. We have a goal to achieve 100 per cent recycled packaging and 50 percent recyclable packaging for Australian manufactured products. We are a signatory of the Australian Packaging Covenant and report to APCO annually.



70
MILLION
plastic bottles
recycled and
material reused

GOAL OF
100%
RECYCLED
packaging



GEOFABRICS®



“

We promote and encourage our customers to not only buy Australian made products and Australian products that incorporate recycled content, but also to look within their supply chains and to develop enthusiasm for Australian businesses that value social procurement responsibility.”

”

Dennis Grech, CEO & Managing Director

ACKNOWLEDGEMENT OF COUNTRY

In the spirit of reconciliation, Geofabrics acknowledge the Traditional Custodians of country throughout Australia and their connections to land, sea and community.

We pay our respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

MESSAGE FROM CEO & MANAGING DIRECTOR

We are proud of our local manufacturing, our R&D innovation and our capacity to provide sustainable, Australian made products to the market.

We are committed to helping solve environmental problems and reducing the impact of climate change using geosynthetics. We have been working with coastal communities and developing countries in coastal protection for many years. In 2018, Geofabrics won the AusTrade Australian Export Award for Environmental Solutions for our Australian made Elcorock coastal protection system used in projects in Tuvalu and New Zealand.

We are members of Social Traders, an organisation that leads the charge for social procurement and social enterprise procurement. Social Traders help to create employment and training opportunities for marginalised people and donate over half their profits to charity. We believe business plays an important role in all communities along with being socially responsible.

Across our business we are integrating sustainability into all aspects of the business and are working to reduce our carbon footprint. We have undertaken emission assessments giving us scope 1 and 2 baselines and a list of carbon opportunities. Our emissions reduction roadmap and capital project list has been formalised based on these carbon opportunities.

The future looks bright for the business with a number of projects on the go as we strive to reach carbon neutrality.

Looking forward

In 2022, we benchmarked energy and water consumption, carbon and waste generation in our local manufacturing facilities in Victoria and Queensland.

We have identified and begun implementing cost effective opportunities to reduce our environmental impacts whilst increasing productivity and reducing our costs.

We are demonstrating to stakeholders, staff, customers, investors, and the supply chain that we are committed to:

UTILISING RECYCLED MATERIAL



Future-proofing the business

Creating a positive brand reputation

Adding value through sustainability

Reducing carbon emissions

CAPITAL INVESTMENT IN CARBON-FRIENDLY MANUFACTURING EQUIPMENT

Goal of reaching carbon neutrality by 2050

2050
CARBON NEUTRAL

LOCAL MANUFACTURING



Albury manufacturing emission reduction targets identified

▼41%
SCOPE 1 EMISSIONS
F21/22

▼13%
SCOPE 2 EMISSIONS
F21/22



350+ LOCAL JOBS

Ormeau manufacturing emission reduction targets identified

▼64%
SCOPE 1 EMISSIONS
F21/22

▼9%
SCOPE 2 EMISSIONS
F21/22



According to the International Geosynthetic Institute (IGSI) – every year humankind generates more than 10 billion tonnes of waste from construction and demolition, much of which ends up in landfill. While mining produces approximately 200 billion tonnes of waste.



International Geosynthetic Society

How Geosynthetics are used to protect, contain and secure

Reduce energy consumption

- Reduced on-site excavation
- Less transport of bulky construction materials
- Faster and simpler construction
- Extension of infrastructure design life and reduced maintenance
- Contribution to the production and storage of green energy

Protect surface & groundwater

- Landfill lining and containment of hazardous waste
- Sludge dewatering and purification, and silt fence systems
- Construction of sludge and tailings lagoon capping reducing mine and quarry impact
- Grey water storage for use
- Preservation of potable and irrigation water supplies by lining canals, dams and reservoirs
- Prevention of run-off contamination

Environmental protection

- Facilitation of Sustainable Urban Drainage Systems (SUDS) surfaces
- Cost effective & resilient flood defense construction
- Provision of rapid emergency flooding prevention in disaster zones
- Coastal defense safeguarding property and natural habitats
- Rockslide prevention and protection
- Earthquake resistant infrastructure

Economic growth & social welfare

- Faster and more cost effective construction
- Connection of communities via more resilient infrastructure

Unequaled solutions

- Protection against contamination migration
- Permitting construction over otherwise unusable ground conditions
- Provision of 'artificial rocks' (sand-filled geosynthetics) for erosion and coastal protection



65%¹
REDUCTION IN
CARBON FOOTPRINT
WHEN USING
GEOSYNTHETICS IN
CONSTRUCTION

The UN Sustainable Development Goals

The UN Sustainable Development Goals (SDGs) were developed as a plan of action to build a global partnership for sustainable development to improve human lives and protect the environment. We are guided by the UN SDGs and are making changes where we can have the most impact.

When used in infrastructure projects and in the protection of the environment, Geosynthetics can help communities and business partners achieve a number of SDGs.



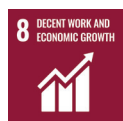
Geosynthetics can be used to help prevent water scarcity and ensure water quality is protected:

- By stopping leaks in water infrastructure – geomembrane linings have been shown to leak less than 10 times that of cement concrete linings
- By preserving water quality and supply by protecting it from contamination



By maximising the use of site-won fill and avoiding the need to import additional construction materials, Geosynthetics can help to reduce the cost and impact of building energy infrastructure.

- Less need to quarry aggregates
- Fewer machines needed to build infrastructure, reduces the carbon footprint
- Improves both short and long-term haul road performance



- Many of the products we supply are manufactured locally in our two production plants in Albury (NSW) and Ormeau (QLD).
- We employ more than 100 manufacturing staff, providing employment opportunities in regional areas for men, women and people from diverse backgrounds

- We return more than \$10 million per annum into the regional communities in which we operate
- Members of Social Traders - through our membership, we are seeking to promote supply chains that drive positive social impact and create employment and training opportunities for marginalised people



- Geosynthetic lining systems are equivalent or superior to traditional soil containment of waste and contaminants
- Sorbseal is used to protect the environment and waterways from PFAS & other emerging contaminants
- Surface erosion systems are used to prevent erosion and protect waterways from dust and sediment
- Rising sea levels and an increase in significant weather events present serious challenges to coastal communities, which Geofabrics can help them manage
- Offshore artificial reefs, sand bags and the protection and reinstatement of mangroves and marshlands can reduce the effects of coastal and estuarine erosion
- Enabling economical road and rail construction provides access and opportunities for people in remote areas



1978



GEOFABRICS
LAUNCHED

1987



BIDIM
LAUNCHED



RECYCLED MATERIAL
INTRODUCED TO BIDIM GREEN
IN PARTNERSHIP WITH VISY



RECOGNISED IN AFR'S MOST
INNOVATIVE COMPANY LIST FOR
MANUFACTURING AND CONSUMER
GOODS FOR BIDIM GREEN

2020



40 MILLION RECYCLED BOTTLES
USED IN MANUFACTURING
MILESTONE REACHED

Social Traders

BUYER FOR GOOD

JOINED SOCIAL TRADERS TO HELP
PROMOTE EQUITABLE AND SOCIAL
PROCUREMENT

2022

2025

40%
EMISSIONS
REDUCTION
TARGET

2030

50%
EMISSIONS
REDUCTION
TARGET



AWARDED AUSTRALIA AUSTRALIAN EXPORT AWARDS FOR ENVIRONMENTAL SOLUTIONS FOR ELCOROCK

2018



AWARDED AFR'S #1 MOST INNOVATIVE COMPANY FOR MANUFACTURING & CONSUMER GOODS FOR SORBSEAL

HIGHLY COMMENDED IN IFS CHANGE FOR GOOD AWARDS FOR BIDIM GREEN



AUSTRALIAN MADE FOR FILTERWRAP GREEN, ELCOROCK AND MEGAFLO GREEN



GEOFABRICS ACADEMY LAUNCHED

PLASCORP

GEOFABRICS ACQUIRED PLASCORP

2021

SCOPE 1 & 2

BASELINE EMISSION ASSESSMENTS CONDUCTED AT ALBURY & ORMEAU



70 MILLION RECYCLED BOTTLES USED IN MANUFACTURING MILESTONE REACHED



SOLAR PV AGREEMENTS IN PLACE AT ALBURY & ORMEAU - INSTALLATION TO COMMENCE

2023

2050 NET ZERO



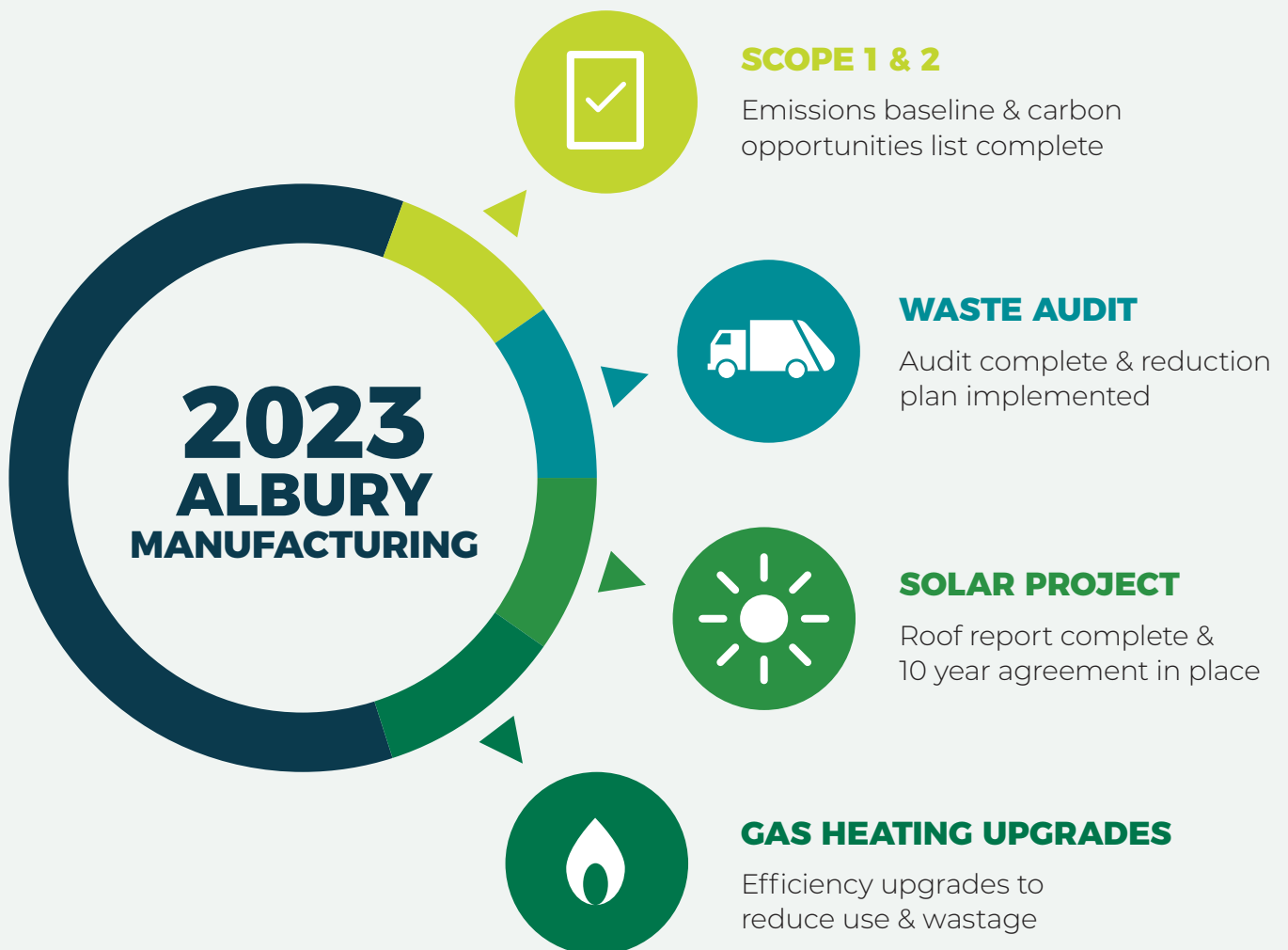
ALBURY CARBON REDUCTION OPPORTUNITIES & PROJECTIONS

6,222t

TCO₂-e
SAVINGS PA
WITH SWITCH
TO GREENPOWER

420t

TCO₂-e
SAVINGS PA
WITH AIR COMPRESSOR
UPGRADE



Local manufacturing

Geofabrics are the only geosynthetic manufacturer in Australia. We employ more than 100 local manufacturing staff, have over 1,000 active regional suppliers and return more than \$10 million per annum into the regional communities in which we operate.

Apart from providing a more reliable supply chain, shorter lead times and more flexibility, local manufacturing allows us to have more control over decisions that affect the environment. Local content, sustainability and creating local jobs are key pillars driving the Geofabrics business.

Geofabrics recently acquired Australian manufacturer Plascorp, which also has its own manufacturing sites. In total, Geofabrics now has five manufacturing plants and 350+ staff across three countries.

Three key products, Megaflor Green Panel Drains, Elcorock® Geotextile Sand Containers and Filterwrap® Green Non-Woven Geotextiles now carry the recognised Australian Made logo to inform customers they are locally produced, supporting local jobs.

We endeavour to work with organisations and suppliers that operate in a socially and environmentally responsible manner. We assess their supply chains and operations in line with our Social Procurement Framework and Modern Slavery Policy. Geofabrics is committed to diversity and support of minority groups throughout the supply chain.

We are compliant with the Australian Modern Slavery Act 2018 and ensure our key suppliers also comply. Preventing and addressing modern slavery throughout the world is central to our unwavering commitment to running a safe, socially responsible and environmentally friendly business. We are committed to meeting and exceeding our obligations and ensuring our strong corporate and social responsibility.

We have been the recipient of various State and Federal Government grants and funding to increase manufacturing of innovative and sustainable products such as Bidim Green, SorbSeal and Megaflor Green.

We are committed to continuous improvement in our manufacturing and sustainability

- Year on year per unit reduction in energy use at our Albury site
- Implemented smart lighting system at Albury site reducing electricity use by approximately 400MWh every year
- Capital expenditure program to reduce electricity usage at our manufacturing plants through energy efficient compressors
- Goal of implementing solar panels at manufacturing sites to further reduce use of electricity from the grid
- Increase year-on-year of recycled material used in manufacturing and packaging
 - Use of Australian sourced PET & HDPE recycled plastic materials
 - More than three million plastic bottles, on average, are saved from landfill every month
 - Megaflor Green is made in NSW, from 100% recycled locally sourced, plastic material
- Promote and endorse the use of recycled packaging for our Australian manufactured products
- Reduction year-on-year in waste produced by manufacturing
- Reduced transportation impact with increase in locally produced product



10,000 tonnes = 9.2 jobs

Every 10,000 tonnes of waste recycled into Bidim Green creates 9.2 Australian jobs

Proud member of



Bidim Green, Sealmac Green and Megaflor Green are now available on the ISupply directory

GEOFABRICS®



350+ LOCAL JOBS

Industry Associations:

ISC (Sustainability)
APCO (Sustainability)
Sustainability Victoria (Sustainability)
Engineers Australia
WMRR
ACIGS
AGS
Water New Zealand
Austmine

Industry Accreditations & Certifications:

GAILAP
NATA
ISO9001



Local people

Local manufacturing means we can employ more Australians. We are building a more sustainable workplace that is safe, rewarding and diverse. Across the business, we are striving to continuously improve our workplaces, support our staff and ensure the safety of our team and customers.

Our people

Our company values centre around having the power to change the game. We will show empathy and act with humility, honesty, transparency and integrity. As one team, we will break down barriers and build connections to work together. We will be open to new ideas and embrace innovation. We will celebrate successes and empower individuals to be responsible for their own work and choices.

• Diversity and inclusion in our workforce

We are committed to ensuring our recruiting practices reflect the diverse community and all employees feel valued and have equal opportunities

• AccessEAP Service

Our Employee Assistance Program is a voluntary, confidential and complimentary counselling service focused on helping employees enhance their overall wellbeing

• Mental Health Awareness

All employees complete a Mental Health and Wellbeing course to raise awareness and provide information of where help and support is available

• Safety

Significant increase in the reporting of Near Miss Incidents and Hazards demonstrating our commitment to reporting and improving our safety behaviours

• Online Training

All employees have access to on-line training modules specific to our products, processes and safe work practices to keep up-to-date

• Flexible Working Arrangements Policy

We want all our employees to be able to achieve a healthy work/life balance

• Reward & Recognition Program

Initiative to recognise employees for going above and beyond

• Group Service Awards

To acknowledge, recognise and award employees after completing 5, 10, 15, 20, 25 and 30 years of service

Our Community

Business plays an important role in all communities and being socially responsible is just part of that. Participating within the community and supporting services and charities is critical for a thriving society.

We have been working with coastal communities and developing countries in coastal protection for many years. In 2018, Geofabrics won the AusTrade Australian Export Award for Environmental Solutions. Recognised for the positive environmental impact our Australian made Elcorock coastal protection system had in projects in Tuvalu and New Zealand.

SOCIAL TRADERS

We are members of Social Traders, an organisation that leads the charge for social procurement and social enterprise procurement. Social Traders help to create employment and training opportunities for marginalised people and donate over half their profits to charity. We are proud to support an Australian organisation that promotes equitable and social procurement. Geofabrics provides a level of preference to suppliers that demonstrate social responsibility. Through our membership with Social Traders we are seeking to promote supply chains that drive positive social impact.

MENTAL HEALTH

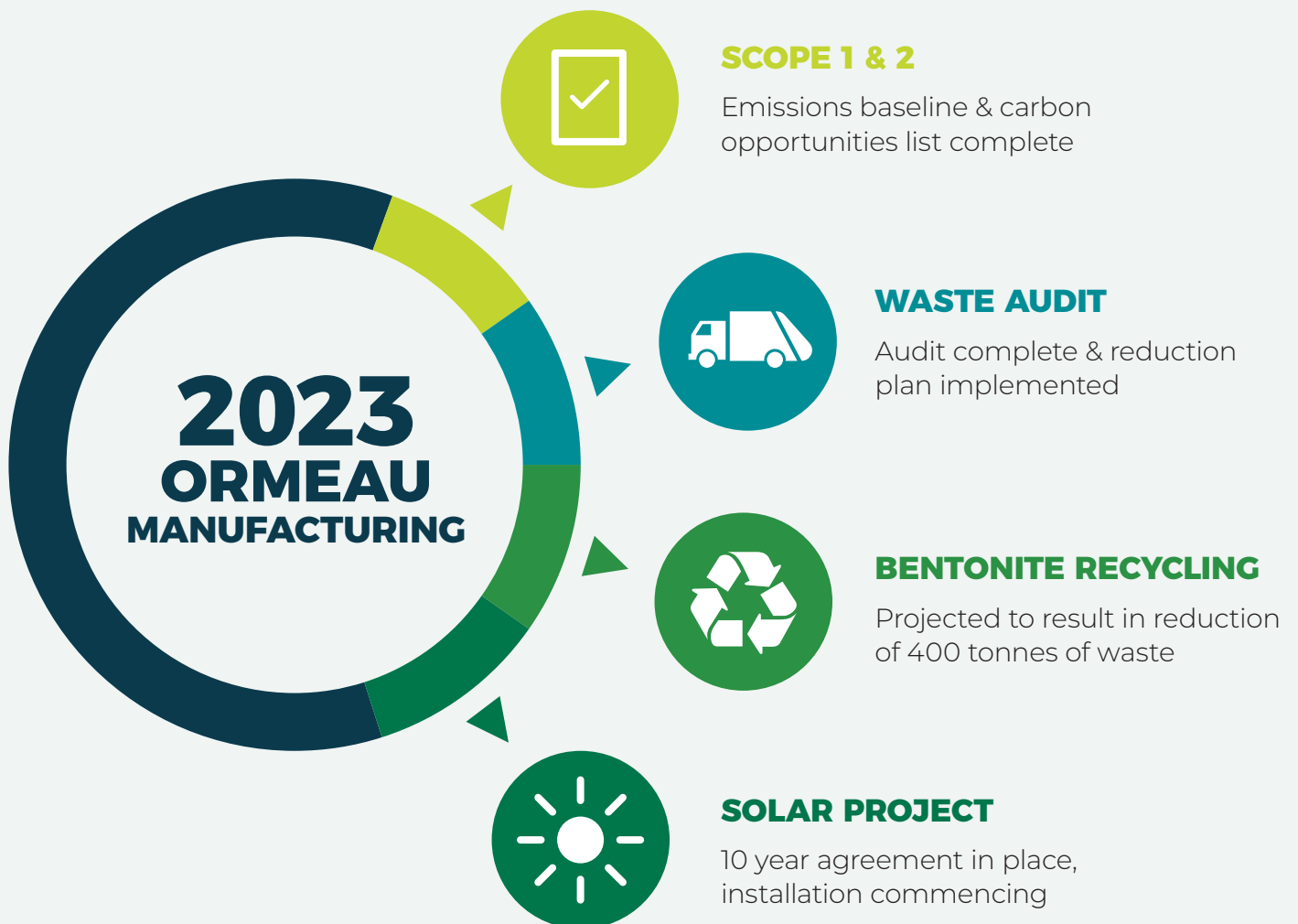
We financially support Mental Health services with a focus on industry. We recognise Mental Health is a significant challenge for the future and believe business has a role to play.



ORMEAU CARBON REDUCTION OPPORTUNITIES & PROJECTIONS

522t
TCO₂-e
SAVINGS PA
WITH BENTONITE
RECYCLING

53t
TCO₂-e
SAVINGS PA
WITH AIR COMPRESSOR
ENERGY EFFICIENCY





“

The preservation of mangrove, tidal marshes and seagrass ecosystems is critical as it both prevents the liberation of carbon while continuing to provide ongoing CO₂ sequestration.

”

Dan Gibbs, General Manager, Technical, Research & Innovation

INNOVATION & EDUCATION

We recognise the extraordinary talents of engineers and the opportunities they have to bring about change for the future. Geofabrics are committed to further education and supporting the next generation of engineers.

We have launched the Geofabrics Academy with free CPD e-learning webinars to keep engineers up-to-date with the latest in the industry.

We are in partnership with Monash University to sponsor and mentor PhD candidates. One of our projects aims to extend the use of Bidim, significantly benefiting the development of tools and techniques for pavement monitoring and assessment. Our other collaboration, the ARC Linkage Project, is designing the next generation of composite liner systems for emerging contaminants to ensure long-term environmental protection from PFAS.

We are also partnering with the University of Technology Sydney to create and sponsor the Geofabrics Australasia John Bolton Civil Engineering prize, in honour of our late colleague, John Bolton. The prize is awarded annually to the student with the highest mark in the UTS Major Design Project for Geotechnical Engineering.

For the past 10 years, we have also proudly supported the next generation of civil engineers through our sponsorship of the Monash University Geofabrics Prize for Best Geosynthetics Final Year Project in CIV4248.

GEOFABRICS ACADEMY™



In proud partnership with:



MONASH University



Combating the effects of climate change

To combat the effects of climate change we need to reduce anthropogenic carbon emissions while preserving the habitats which act as carbon sinks, or areas which capture and store carbon, effectively reducing the amount in the atmosphere.

Green and blue carbon

The two primary ecosystems responsible for sequestering this carbon are terrestrial forests and aquatic environments - colloquially known as green carbon (terrestrial) and blue carbon (aquatic).

Green carbon reflects the carbon sequestered by land ecosystems and incorporates carbon in soils and within biomass such as trees in forests. Blue carbon is a term used to describe the removal of carbon dioxide from the atmosphere by the ocean and coastal ecosystems. The plants involved in this carbon sequestration include various types of algae, seagrass and mangroves, and other plants growing in salt marshes and coastal wetlands (Duarte et al. 2013).

Coastal ecosystems are some of the most threatened ecosystems on Earth, with an estimated 340,000 to 980,000 hectares being destroyed each year.

It is estimated that up to 67% of the global coverage of mangroves, tidal marshes and seagrass meadows respectively have been lost. If these trends continue at current rates, a further 30–40% of the remaining tidal marshes and seagrasses and nearly all unprotected mangroves could be lost in the next 100 years.

Preservation of these ecosystems is critical as it both prevents the liberation of carbon while continuing to provide ongoing CO₂ sequestration.

The importance of blue carbon

- Globally, coastal ecosystems store between 4,000m tonnes and 6,300m tonnes of CO₂
- Australia's annual emissions hit a record high in 2018 of 558.4m tonnes of carbon dioxide equivalent
- Scientific assessments show that blue carbon ecosystems can store two to four times more carbon per hectare and sequester it 30-50 times faster than terrestrial forests, and thereby can make a significant contribution to global action on climate change
- Australia's mangroves, tidal marshes and seagrass meadows are absorbing about 20 million tonnes of carbon dioxide every year
- Mangroves are important nursery grounds and breeding sites for fish, crustaceans, birds, reptiles, mammals, and many other semi-terrestrial and estuarine organisms
- It is estimated that ~75% of the fish and prawns caught in Queensland spent at least some of their lives in mangroves systems (QLD Fisheries)
- Australia has the third largest area of mangroves in the world after Indonesia and Brazil, totaling around 11,500 km² representing approximately 6.4% of the world's total mangrove area
- Queensland's coastal and estuary mangroves represent around 44% or 5,060 km²
- Dead mangroves emit about eight times the amount of methane than live mangroves (methane is about 34 times more potent as a heat-trapping gas than CO₂), so protecting them is crucial

**BLUE CARBON
ECOSYSTEMS
STORE
2-4x
MORE CARBON
PER HECTARE**

**AUSTRALIA'S
BLUE CARBON
ECOSYSTEMS
ABSORB
20
MILLION TONNES
CO₂ EVERY YEAR**



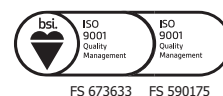
“ At Geofabrics, we see our responsibility beyond the projects we work on today, but also, to create a better world for today’s community and the generations which follow. I am passionate to encourage my colleagues, our suppliers and our customers to embrace a business model that respects the world we live in, its people today and the communities of the future. ”

Dennis Grech, CEO & Managing Director

Geofabrics is the only geotextile manufacturer in Australia, with plants in Albury and Ormeau. We pride ourselves on providing unrivalled service to our customers. We can recommend the best geosynthetic product to achieve the objectives of your project and ensure it's available when you need it.

Over 40 years of experience allows our technical staff to provide practical support, based on local conditions. We are proud to have been recognised in the AFR Most Innovative Company list in 2020 with Bidim Green and in 2021 with Sorbseal.

With a view to the future, we are committed to improving the sustainability of our business by reducing waste to landfill, lowering our carbon emissions and investing in our people.



VISIT **GEOFABRICS.CO** OR CALL 1300 60 60 20 (AU)
OR **GEOFABRICS.CO.NZ** OR CALL 0800 60 60 20 (NZ)



GEOFABRICS
Sustainable solutions

IMPORTANT NOTICE - DISCLAIMER - The information contained in this brochure is general in nature. In particular the content of this brochure does not take account of specific conditions that may be present at your site. For full disclaimer and further information regarding installation visit geofabrics.co/disclaimer
© Copyright held by Geofabrics Australasia Pty Ltd. All rights are reserved and no part of this publication may be copied without prior permission. Published July 2023.

