



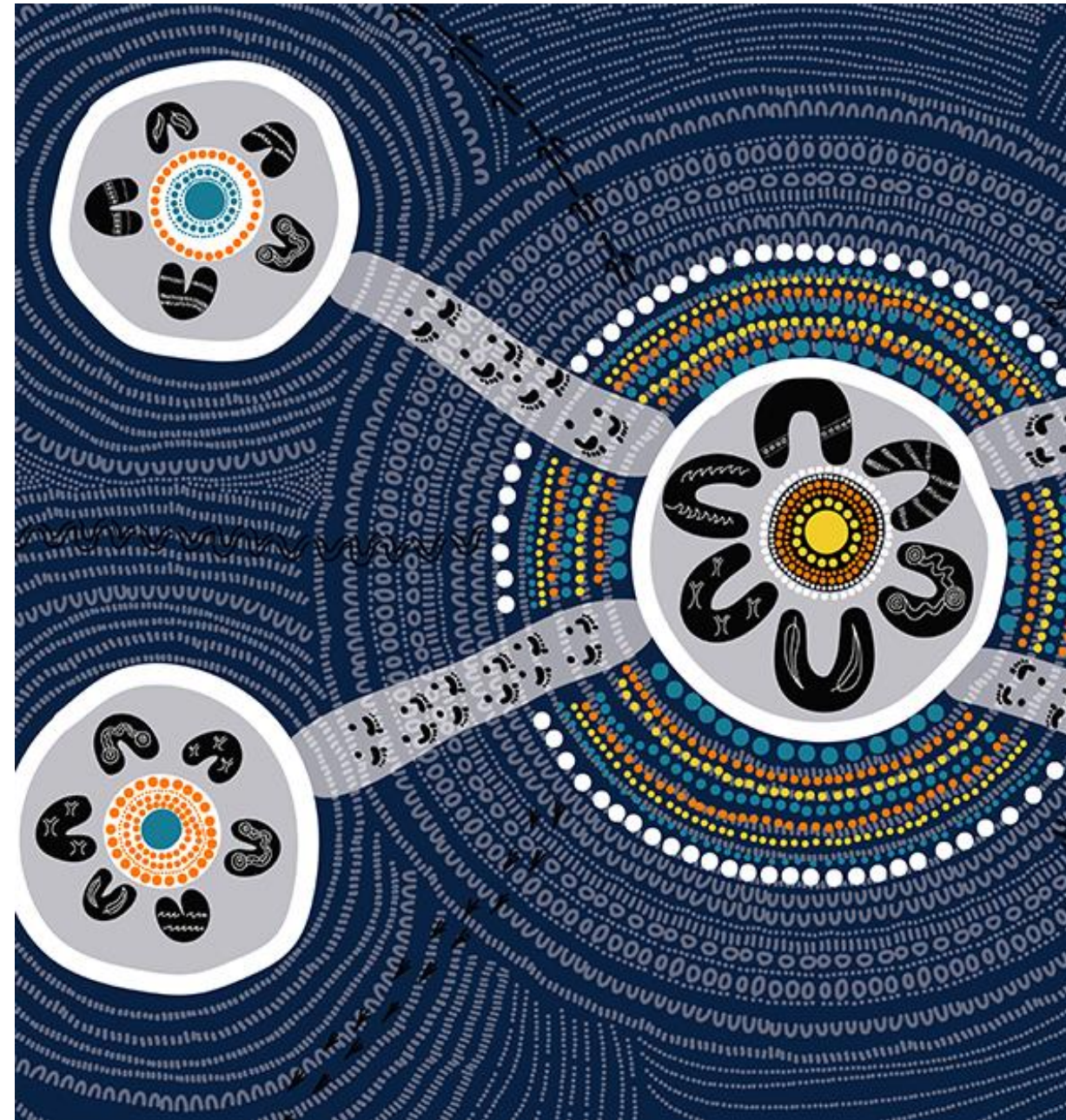
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Suppliers in the Spotlight

28 November 2024

Acknowledgement of Country

The Infrastructure Sustainability Council would like to begin by acknowledging the Traditional Custodians of the land on which we meet today. I acknowledge their deep connection to land, water and culture, and pay my respects to their Elders past and present.



Agenda



1

Cherie Lee



2

Chris Parratt



3

Melissa Herman



4

Dave Simmons



5

Morne Breytenbach





matX - Goods and Materials Exchange

Cherie Lee, Managing Director

matX



Goods and Materials Exchange

Cherie Lee

Founder, Managing Director
FIEAust CPEng EngExec

ISC Supplier – May 2020 to present
28 November 2024



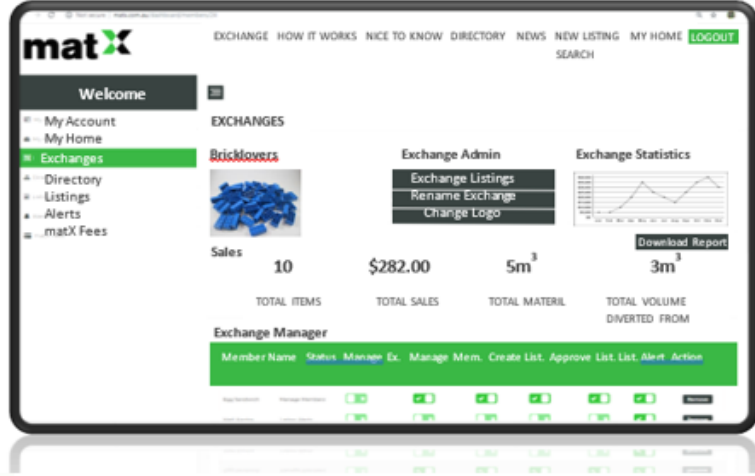
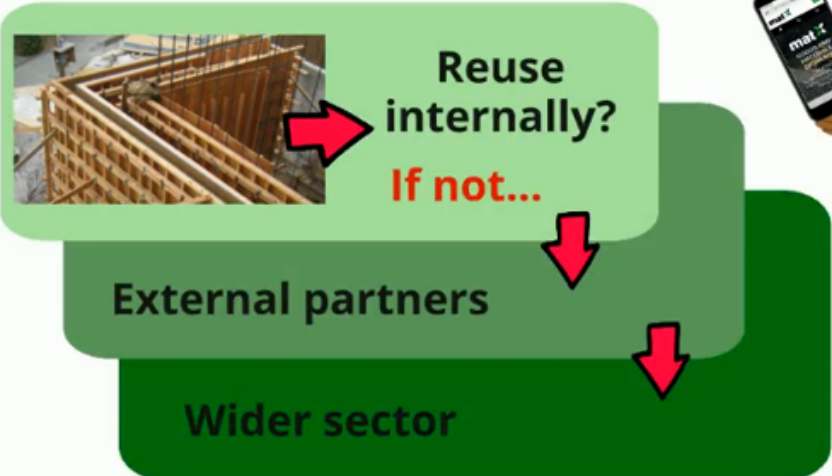
matX overview

Repositions both resource REUSE and Recycling from opportunistic and ad hoc to intentional and business as usual

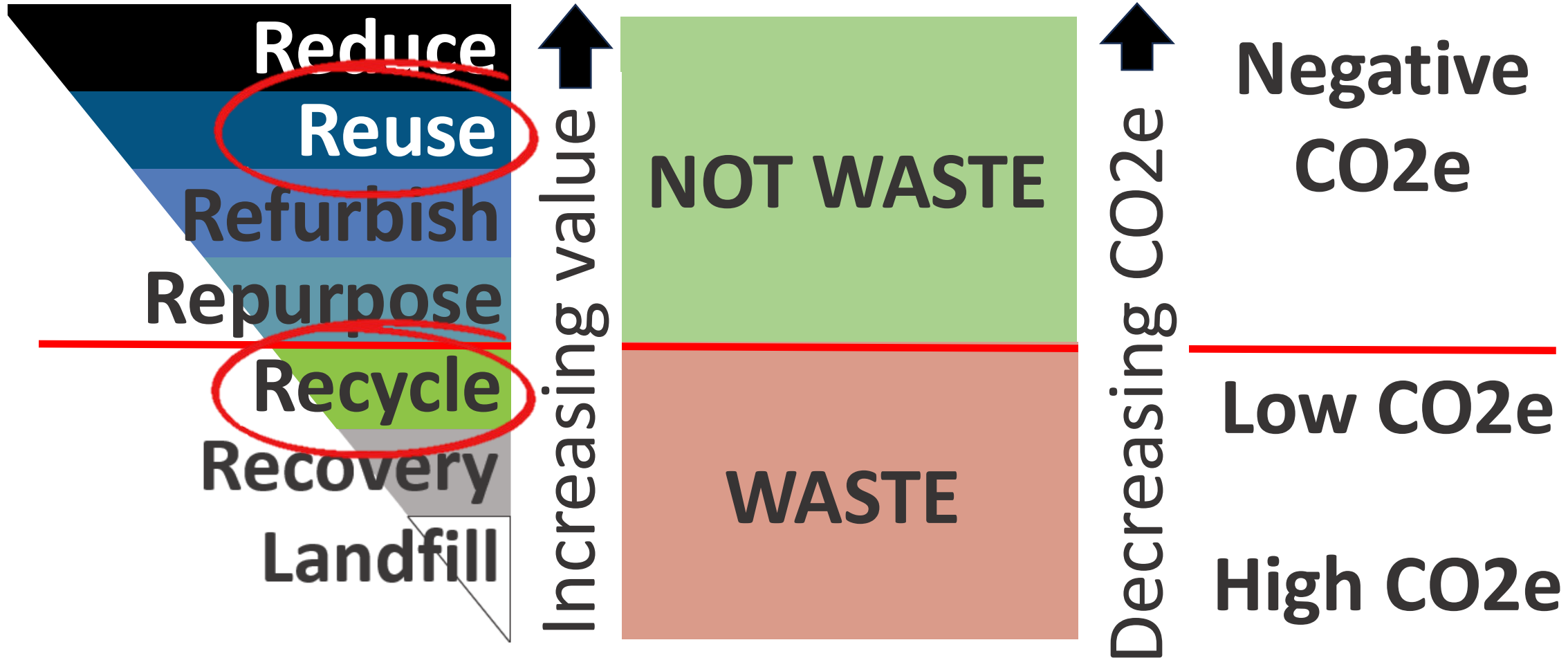
One simple, automated system to find internal and external resource reuse opportunities

Works with sector and project delivery constraints

Real-time commercial and environmental insights



Maximise commercial and CO2e outcomes - Recycling is not equal to REUSE



Applicable ISC Credits: IS v2.1 Inn-1, Rso-1, Rso-4 IS v1.2 Was-1, Was-4

Case study – METRONET MELconnx Morley Ellenbrook Line Alliance, WA

2023 - DOT Western Australia Office of Major Transport Infrastructure Delivery (OMTID) Material Reuse Platform across their \$14B road and rail portfolio.

Q4 2024 – the MELconnx Morley Ellenbrook Line Alliance recovered >\$280k for their Project/the State.

Adopting matX was the first step to:

1. Testing and improving Clients asset disposal hierarchy
2. Updating commercial process that are capable of procuring assets but not salvaging value from resale
3. Capturing environmental data in real time (kg diverted from landfill, kg CO2e-)
- 4. Recover project costs**, avoiding disposal costs, avoiding assets 'disappearing'

Contact us!

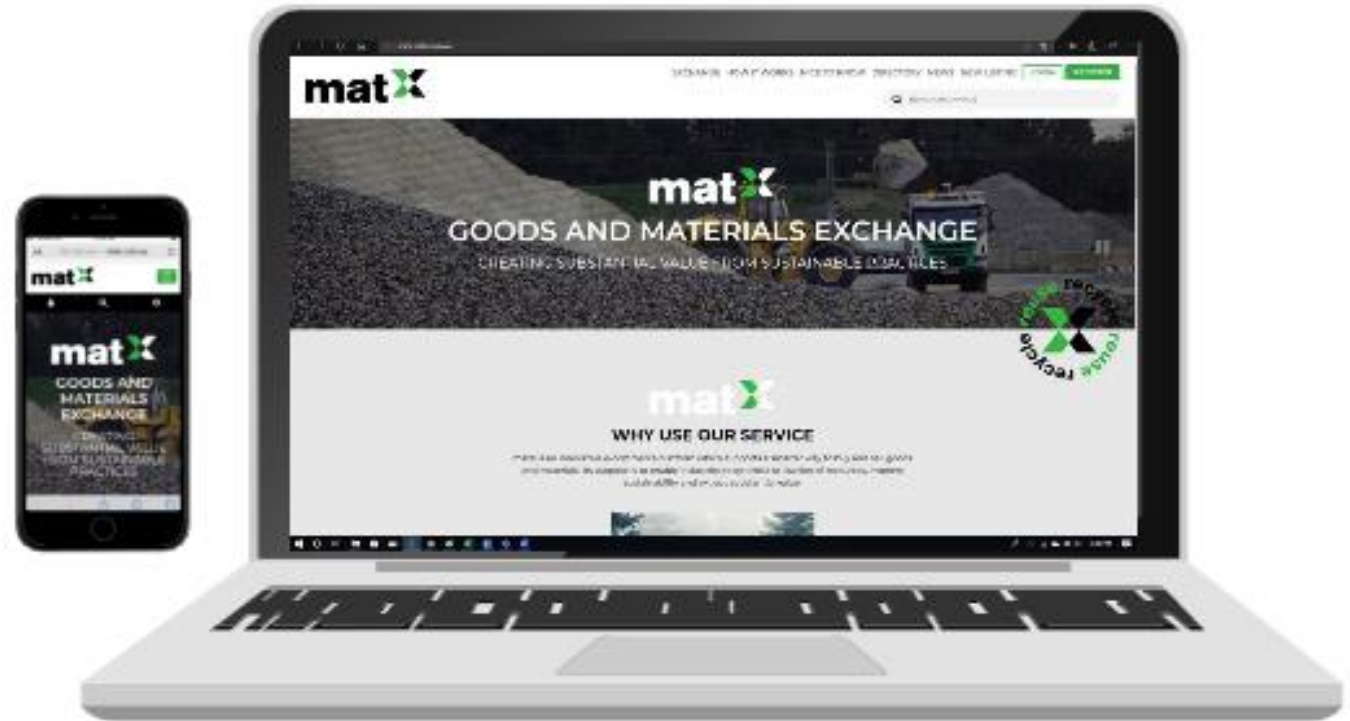
www.matx.com.au

Visit "Get Started" for information on commercial processes and Carbon accounting.

Cherie Lee

support@matx.com.au

0457559150





AMPD Energy

Chris Parratt, Country Director - Australia





THE WORLD NEEDS A GREENER SOLUTION TO DIESEL GENERATORS.
THE WORLD NEEDS AMPD ENERGY

A complete product lineup for <1,000 kVa applications

500 kVa

ENERTAINER

300 kVa

200 kVa

SILO

50 kVa



WE EXIST TO FREE INDUSTRIES FROM DIESEL.

Reduced Carbon Footprint

Up to 85% less CO₂ through reduction in Diesel

Reduced Air Pollution

Zero Nitrogen Oxide (NOx), Zero Particulate Matter reducing the likelihood of cancer and lung disease caused by diesel.

Ultra Quiet Operation

36 times quieter than a generator, enabling operations during noise sensitive periods.

Safer working environment

Zero diesel fire hazard and handling risk

Low maintenance

Lower downtime for maintenance and refueling

Efficiency

NO GENERATOR SHOULD BE WITHOUT A BATTERY.

Generators burn fuel all day for intermittent loads, batteries reduce the need to waste fuel



Applicable IS Credits ENE-1, Ene-2, Inn-1 (IS v1.2 & v2.1)

Real-time Device Monitoring and Alarming
Energy Accounting and Productivity Measurement
Monthly Reporting and API for automatic data transfer



Get unprecedented **visibility**
and control with EneNET
(web and app)

Case Study : 100-person Site Office

Hybrid: Ampd Silo/
80kVa Diesel Generator
Cycle Charging

Annual Cost Savings
\$208,800 (53.19%)

Annual CO2 Reduction
315,360kg (83.3%)



Contact Details

Ampd Energy

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Capral

Melissa Herman, Specification Manager

CAPRAL
ALUMINIUM

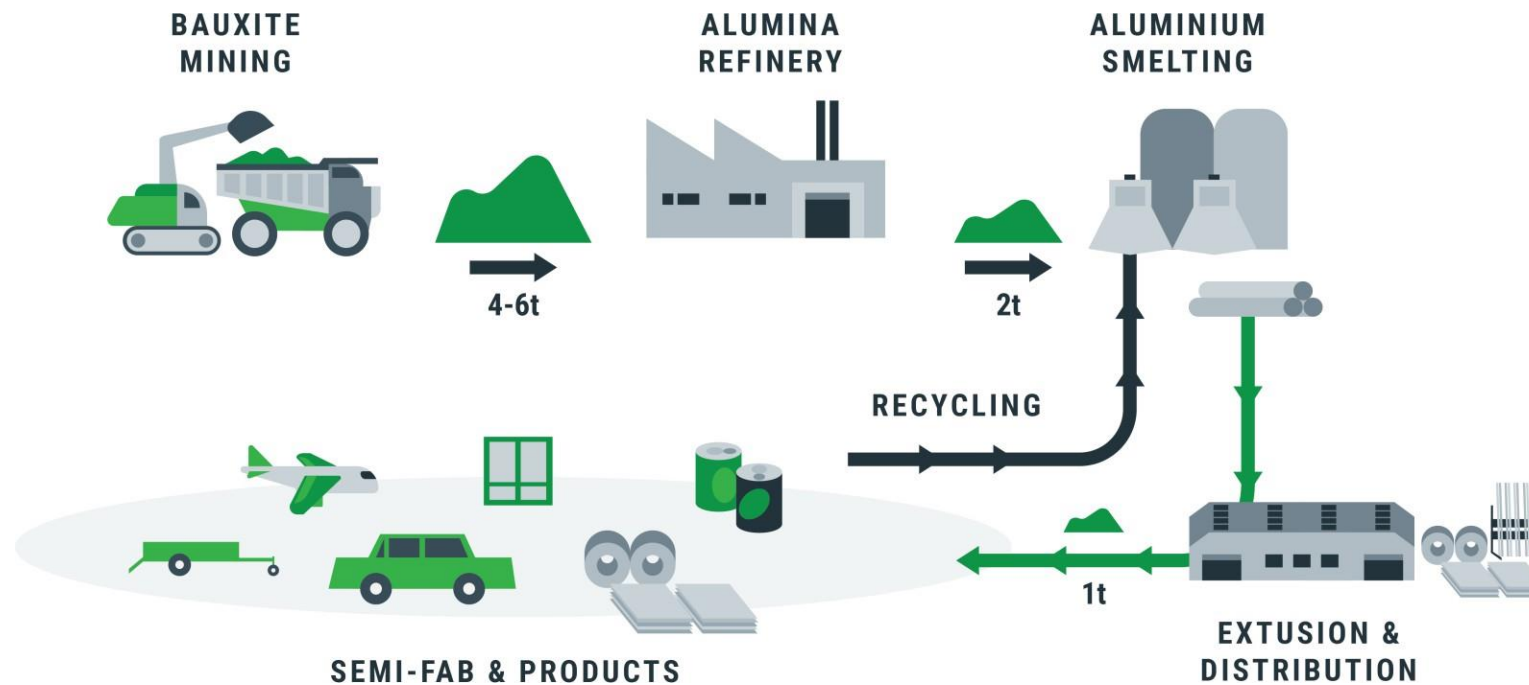


Lower-Carbon Aluminium for Infrastructure Projects

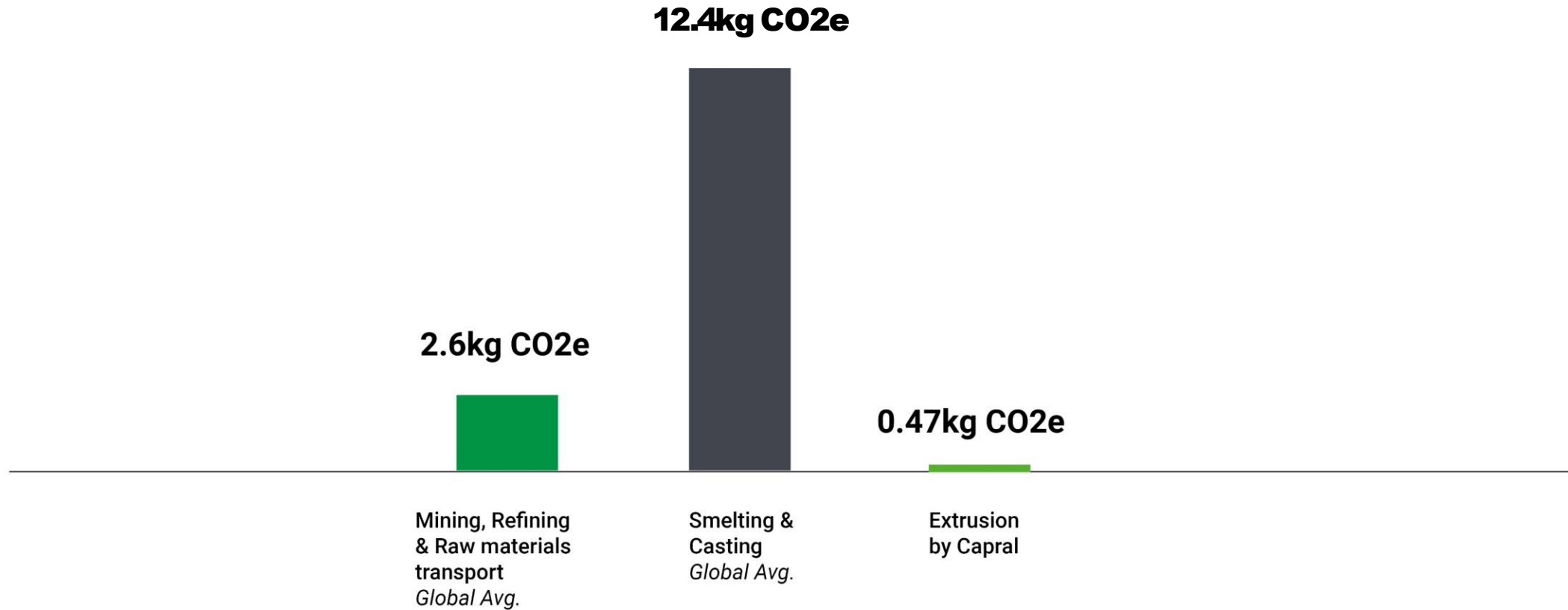
Melissa Herrmann – Specification Manager

Primary Aluminium Production

→ It takes 4-6 Kg of bauxite to make ~2 Kg of alumina, which makes 1 Kg of aluminium.



Carbon emissions of Primary Aluminium



How LocAl[®] Compares

Global Average



12.4kg CO₂e

LocAl¹³ GREEN



8kg CO₂e/1kg Al

LocAl¹³ SUPER GREEN



4kg CO₂e/1kg Al



Capral is proud to be a member of the Infrastructure Sustainability Council and have our LocAl offer listed in the Isupply database

Sustainability Outcomes

The primary aluminium billet used to provide LocAl® carries certified CO2e content at or below:*

8kg CO2e/tAL – LocAL Green

4kg CO2e/tAL – LocAL Super Green

* CO2e emissions stated are ex smelter based on kilograms emitted per kilogram of aluminium produced – Aluminium Smelting and Casting

Applicable Credits

IS v1.2	Inn-1 , Mat-1	
IS v2.1	Inn-1 , Rso-6	
Mat-1 (ISv1.2)	Materials footprint measurement and reduction	LocAl® carries certified CO2e content at or below:* 8kg CO2e/tAL – LocAL Green 4kg CO2e/tAL – LocAL Super Green * CO2e emissions stated are ex smelter based on kilograms emitted per kilogram of aluminium produced – Aluminium Smelting and Casting
Inn-1 (ISv1.2)	Innovation	Contributes to Innovation Challenge-8: Sustainable Supplier and iSupply.
Rso-6 (ISv2.1)	Material Life Cycle Impact Measurement and Management	LocAl® carries certified CO2e content at or below:* 8kg CO2e/tAL – LocAL Green 4kg CO2e/tAL – LocAL Super Green * CO2e emissions stated are ex smelter based on kilograms emitted per kilogram of aluminium produced – Aluminium Smelting and Casting
Inn-1 (ISv2.1)	Innovation	Contributes to Innovation Challenge-4: Sustainable Supplier and iSupply.

Western Sydney Airport

752t batten extrusion

Supplied in LocAl Green 8kg CO2e/1kg Al

ASI Certified supply chain





Q&A



HIWAY

Dave Simmons, GM Client Solutions & Innovation

HIWAY

HIWAY

Masters Range

MASTERCARB A

Paving The Way To Better Roads



MasterCarb A



A Paving Force To Be Reckoned With

- HIWAY is committed to actively reducing carbon emissions, optimising recycling and time efficiencies and minimising the need for new virgin materials. Sustainability and durability is at the forefront of their operations and product development.
- HIWAY are passionate about undertaking continuous R&D, allowing the development of innovative solutions that greatly benefit the community and environment.
- The Masters Range will set a new standard for pavement and infrastructure development across Australasia.
- **MasterCarb A** will transform the way we develop pavements in Australia and New Zealand, boasting a range of unparalleled benefits and making it a better, more cost-effective, resilient and sustainable choice.



MasterCarb A

The Benefits

A more sustainable, durable and resilient way to pave, with the community and planet in mind.



- Sustainable
- Resilient
- Durable
- Rut-Resistant
- Decarbonisation Benefits
- Cost-Effective
- Time-Efficient
- Withstand Heavy-Duty Loading
- High Modulus & High Fatigue Capability
- Produces Asphalt-Like Characteristics
- Surpasses Traditional Treatments (ie. Hot Mix Asphalt)
- Reduces Pavement Layer Thickness

Case Study



Watheroo, WA – Low quality Laterite.

HIWAY was able to produce a revolutionary, industry-first pavement solution that outperformed traditional treatments by way of increased strength and reduced construction time, while also boasting benefits of decarbonisation, cost-effectiveness, and a carbon-negative outcome.

Findings from the large-scale project in Watheroo, completed in September 2023, reinforce that **MasterCarb A** is a more sustainably-strengthened solution, outperforming hot-mix asphalt while delivering maximum environmental benefits. Remarkably, the project achieved a carbon-negative outcome of -54,200kg of CO₂- e, underscoring **MasterCarb A's** significant contribution to sustainable infrastructure.

Specific Performance Testing	Test Method	Typical Dense Asphalt Specified Performance	Results
			Watheroo WA Feb 2024
Deformation Resistance "Rut Development" @60 Degrees C	Wheel Tracking AGPT / T231	Target <4.0 mm for 10,000 Cycles at 60degC	0.71 mm
Indirect Tensile Modulus (Dry)	AS/NZS 2891.13.1	Target Minimum 4,000 MPa	4,500 to 5,300 (4 samples)
Resilient & Retained Modulus (4-point beam bending)	ASTM D7460-08 (AASHTO-T321-14)	Target <50% reduction at 1M cycles when tested at 250 microstrain	38% reduction after 1.76M cycles at 250 microstrain

Laboratory Results



Bromelton, QLD – High quality Basalt.

Specific Performance Testing	Test Method	What does it mean?	MasterCarb A Results	Typical Dense Graded Asphalt Results	Report Reference No
Deformation Resistance "Rut Development" @60 Degrees C	Wheel Tracking AGPT / T231	Resistance of the product to deform under traffic	0.85 mm	<3.5mm is "Superior performance" as per Austroads guide to asphalt Part 4B	23S-0785_1_ITMTRACK
Resilient Modulus (Dry) (Indirect Tensile Method)	AS/NZS 2891.13.1	Used in pavement design. A repeated vertical force is applied and the horizontal displacements are measured	5,000 to 5,500 (4 samples)	3000–7500 MPa is "Typical Range" for AC20 C320 as per Austroads guide to asphalt Part 4B	23-0785_1_ITM75D2 23-0785_1_ITM75D1 23-0785_1_ITM50D2
Beam Fatigue Test (4-point beam bending)	AGTP/T274 – Fatigue Test	Ability of a product to withstand cracking under traffic loading.	31% reduction after 1.0M cycles at 250 microstrain	Target <50% reduction at 1M cycles tested at 250 microstrain (Same as our target for MasterCarb A)	24-1831-A_1_CFS

Thank you.....

Any Questions ?

Dave Simmons

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HIWAY

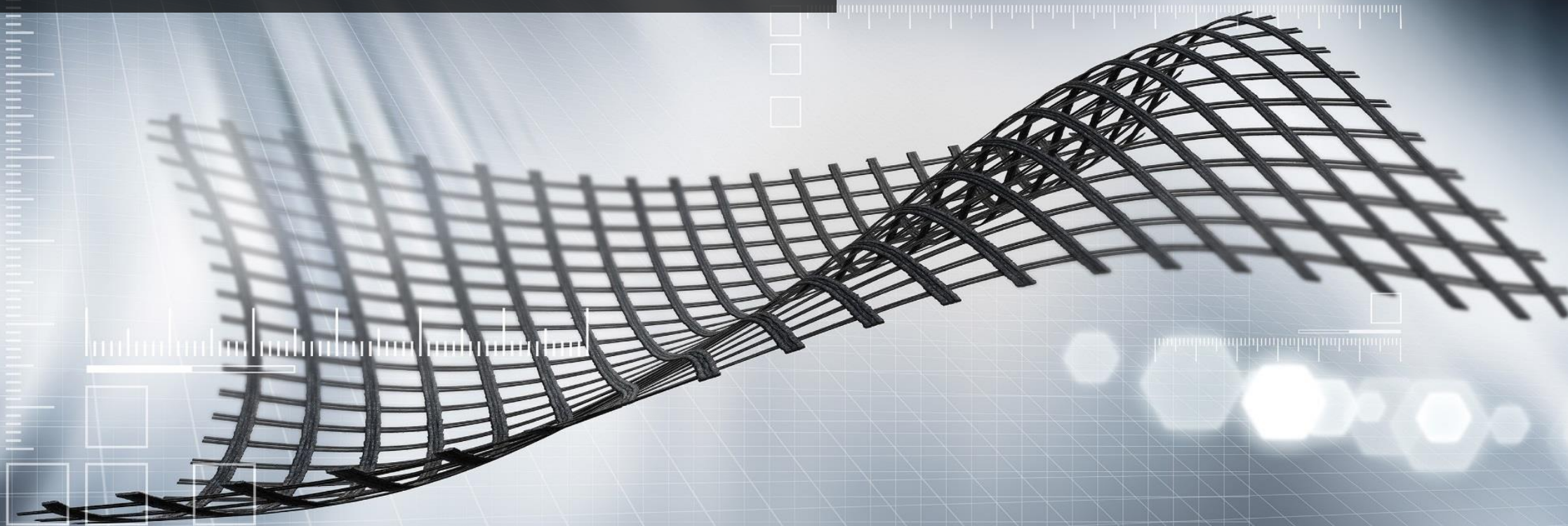


HUESKER Australia

Morne Breytenbach, Managing Director



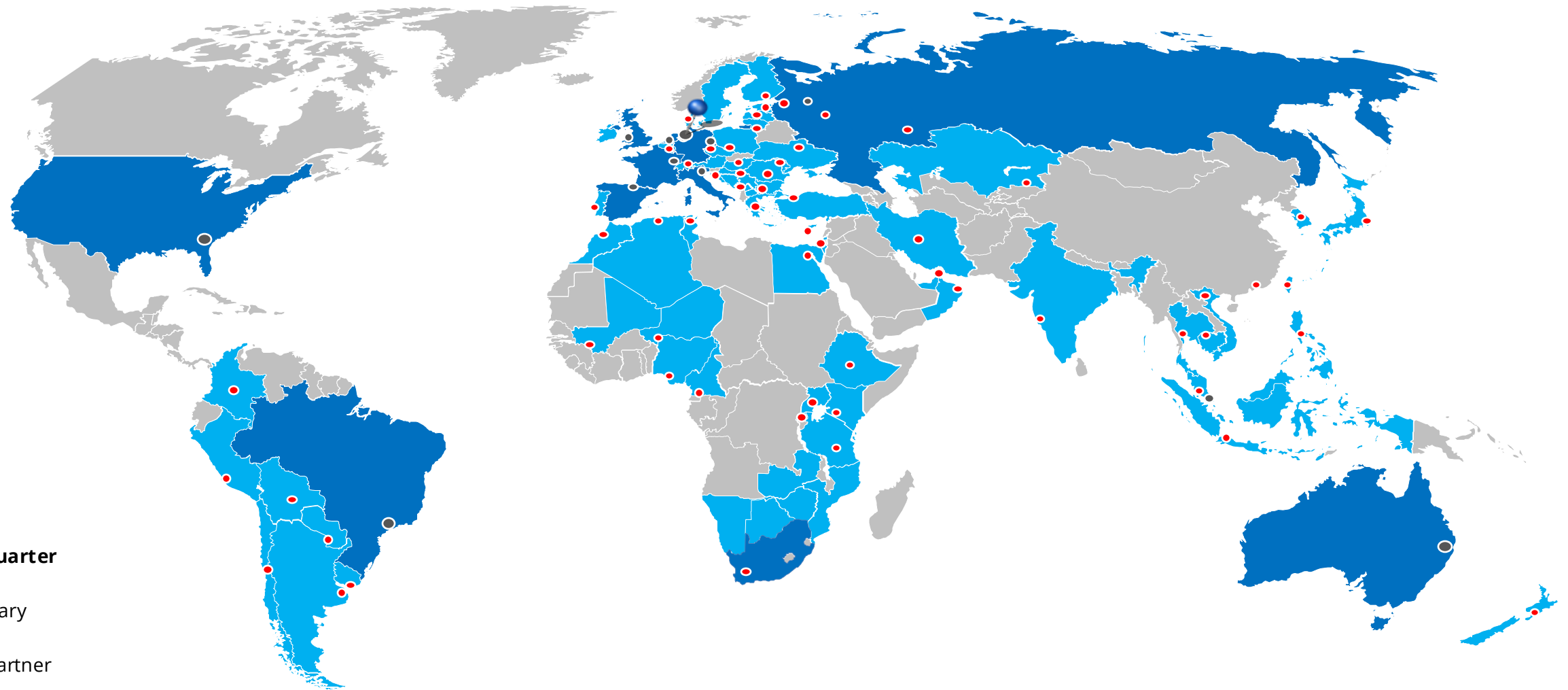
HUESKER Australia Pty Ltd




Where tradition...




... meets progress!



 **Headquarter**

 Subsidiary

 Sales partner

Our Capacity

Your Capability



We provide customers across the globe with over **40 M m²** high strength geosynthetics per year

This is equal to a one metre wide belt around the equator every year.

We have reinforced or rehabilitated more than **5,000 km of motorways** over the past few years.

Every 7th employee

at HUESKER is an **Engineer**



We provide design calculations for more than **500 projects per year**

30 % of our sales

are generated by products less than three years old



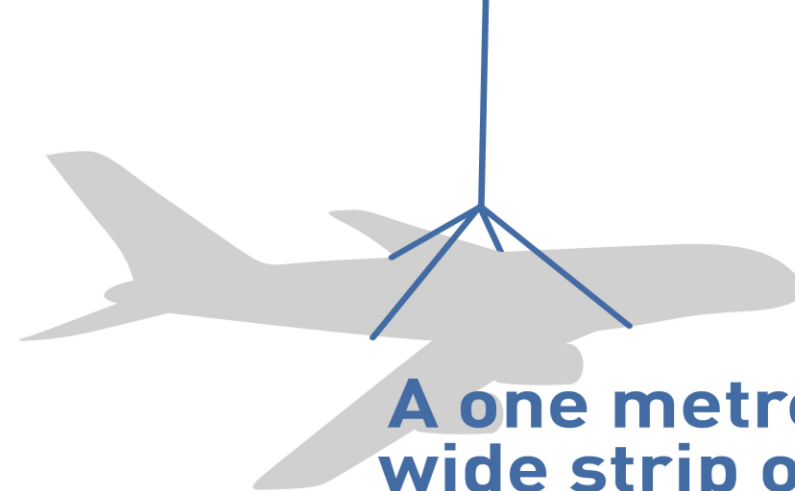
More than

500

own scientific

publications

worldwide



A one metre wide strip of our geogrid

can carry up to

300 tons

which is equal to one **Airbus A380**

We supply products with a durability of more than **100 years.**

We have even constructed reinforced soil walls with obtuse angles of **110 degrees.**

More than

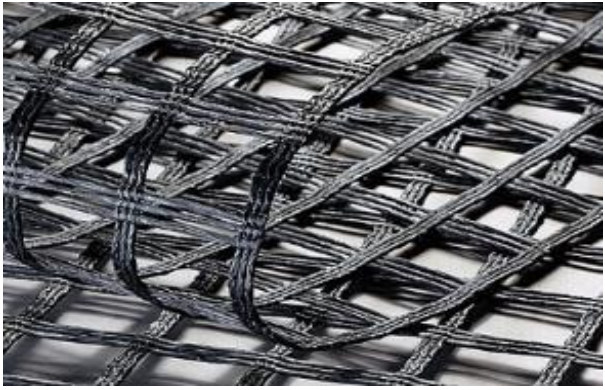
20

new products

in 3 years



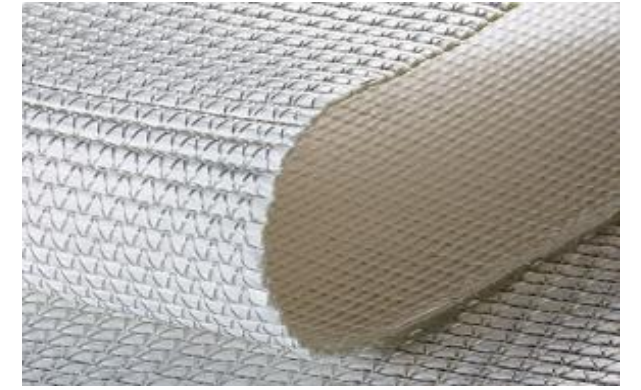
Product Groups (Geo)



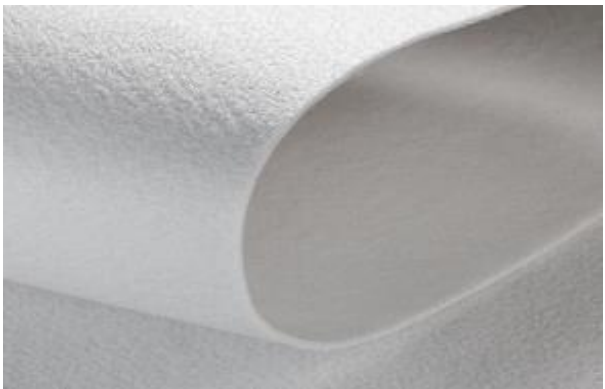
Geogrids



Container and Tubes



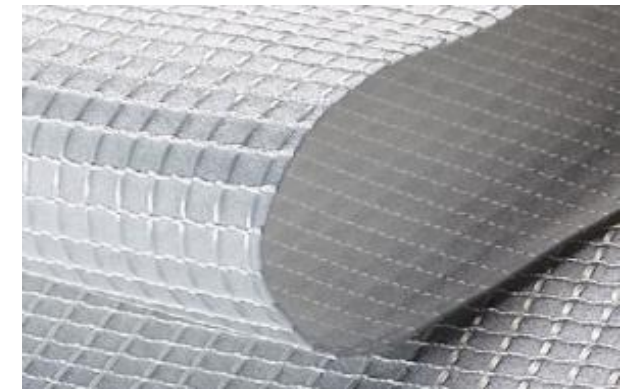
Wovens



Non-Wovens



GCL/Active barriers



Composites

Earthworks and Foundation



Road and Pavements



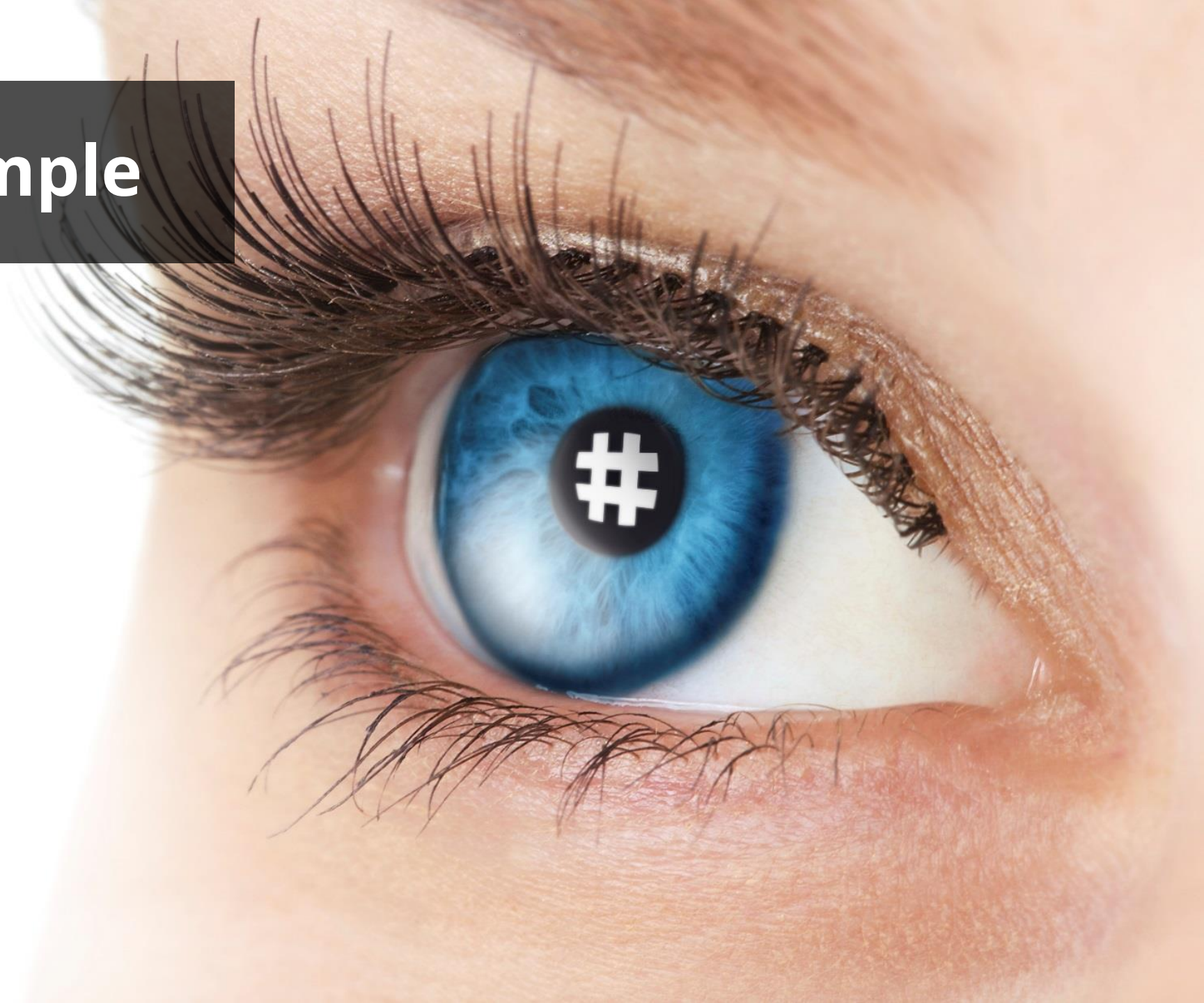
Environmental Engineering



Hydraulic Engineering



Application Example



Proven and verified benefits utilising HaTelit® C asphalt reinforcement grid



Network performance



- 100%** reduction in cracking
- 50%** reduction in construction time



Cost savings



- 54%** savings at construction
- 62%** savings per annum



Reducing emissions



- 46%** reduction at construction
- 62%** reduction per annum



Protecting the environment and our lifestyle



- 50%** less construction vehicles required
less non renewables and virgin materials
- 50%** less community disruption
less roadworker exposure

Decades of international and Australian case studies.

HaTelit® C

Bitumen coated asphalt geogrid with ultralight temporary geotextile backing.
Suitable and proven in high shear environments.

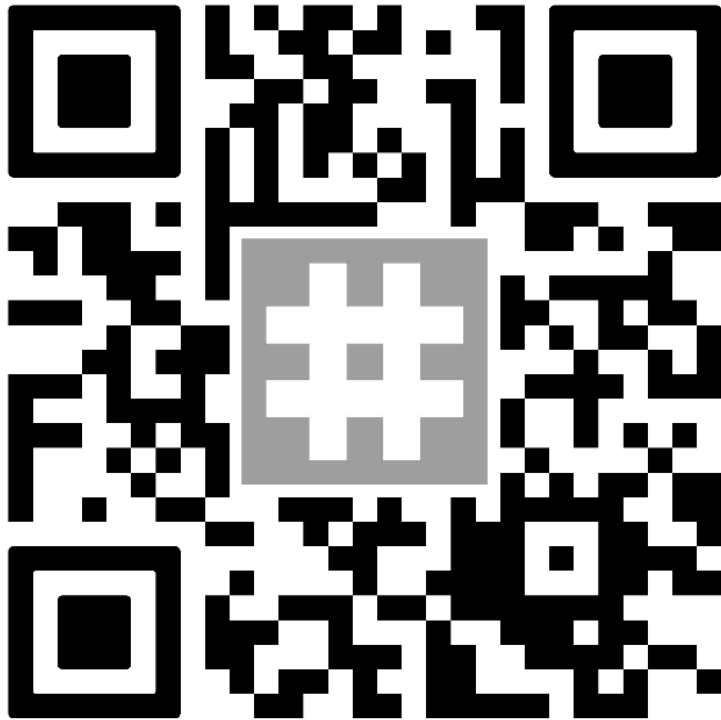
Applied directly on milled, smooth or existing asphalt.



Dedicated Australia wide specialist installers, engineering, and site support.



Contact Details



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Q&A



Thank You