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CONSULTING

Will the gains for green aluminium be sustainable?

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Melanie Williams Consulting



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Sustainability consultants specialising in the processing industries;

Experts in responsible sourcing, certification, traceability, recycling, reuse;

Helping companies become certified to Aluminium Stewardship Initiative sustainability standards. ASI Registered specialist.

Small company so you know an experienced specialist will be working on your project;

Strategy, research, communications, implementation and training.



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Calculating your GHG emissions



Scope 1 – All Direct Emissions from your activities - fuel combustion on site such as gas boilers, fleet vehicles and air-conditioning leaks.

Scope 2 – Indirect Emissions from electricity purchased and used by the organisation.

Scope 3 – All other Indirect Emissions from your activities, occurring from sources that you do not own or control.

Quote the sum of Scopes 1,2,3 per unit of product.



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What metrics to use for 'green'

Carbon footprint - t CO₂ eq/t product from 'cradle to gate'

Responsible sourcing – sustainability scheme certification or other independent verification and a transparent supply chain

Recycled content - % EN 45557:2020



Use a quantified claim with details of the boundaries.



What metrics to use for 'green'

The carbon footprint of aluminium is dominated by the smelting process and the carbon intensity of the electricity.

Power source	Coal	Gas	Renewable	Recycled
Approximate carbon intensity tCO ₂ eq./t Al	20	8	4	2

Drivers for lower carbon footprint aluminium products



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Paris Agreement: commitments to < 2.0 C temperature rise. EU and national net zero targets.



Proposed extension of the EU Emissions Trading Scheme to transport and buildings. Increase in the price of carbon emissions allowances.

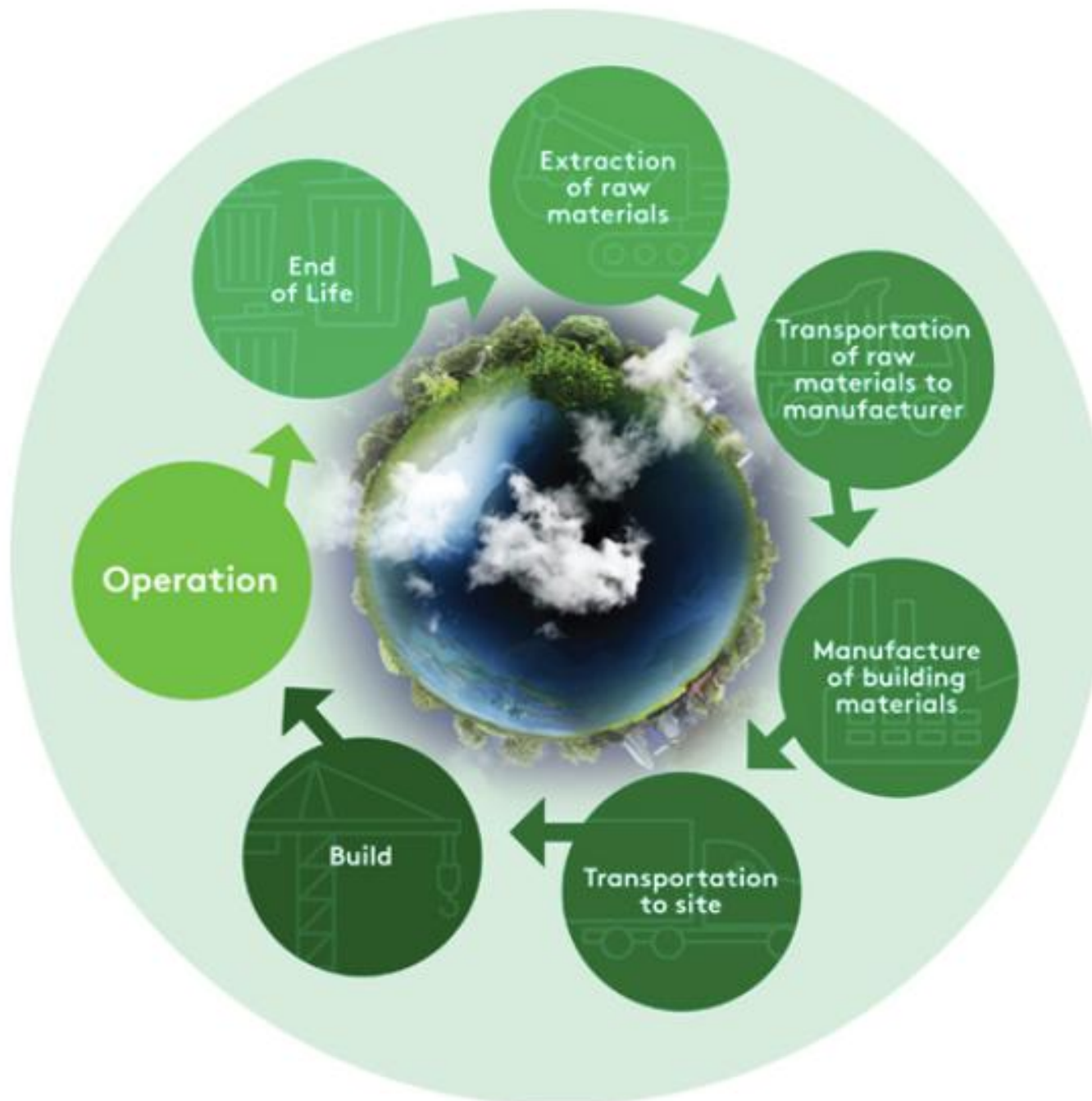


Likely EU carbon border taxes to reduce 'carbon leakage'.





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Why you should reduce the carbon footprint of your products



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Consumers are increasingly looking for products with low environmental impacts.

The carbon footprint of a product will eventually be available to consumers.



The price of a product is likely to be related to its carbon footprint.

How you can reduce the carbon footprint of your products- embedded carbon



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Buy aluminium products with a low 'cradle to gate' carbon footprint.

Request carbon footprint information from your supplier.

Maximise recycled content.

Avoid primary aluminium smelted with coal powered electricity.



How you can reduce the carbon footprint of your products- operational carbon



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Minimise energy use and have an improvement plan. Source renewable energy/certificates.

Maximise operational efficiency and minimise scrap.

Incorporate carbon emissions and recycled content considerations into the design process.

Your products at the end of their life



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Organisations now need to know where and how their products are disposed of.

Applies, in different ways, to all parts of the supply chain.

Can complex products be repaired, re-used or easily recycled?

Are your competitors recycling the aluminium from your products?



Drivers for responsibly produced aluminium



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Vigilance and supply chain due diligence laws to protect human rights and the environment, in place (France, Netherlands, Germany) or in progress (EU, Belgium).

Sustainability scheme requirements and environmental protection are being incorporated into trade agreements.

NGO pressure and consumer interest.

Producing and sourcing responsible aluminium products



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Know your supply chain and audit their operations.

Purchase products with independent certification to a sustainability scheme.

Gain certification for your own operations.

Use recycled content.





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Premiums for 'green' aluminium

The growing importance of drivers for low carbon aluminium is generating an increased demand for low carbon aluminium.

“

European aluminium buyers are starting to pay up to go green “

► Buyers pay \$14-a-ton extra premium for low-carbon aluminium

LME's 'green aluminium' plan faces producer opposition

Which green aluminium will be next to benefit -experience from other sectors



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Commodities with a high environmental or human rights risk have achieved a premium with a sustainability certification – battery metals, palm oil, timber.



The premium is greatest where the sustainable commodity is **kept separate** from conventional material.



This premium may or may not be passed onto the end consumer.

Which green aluminium will be next to benefit?



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Post consumer recycled aluminium may gain a premium as it has both a low carbon footprint and none of the environmental impacts associated with mining operations.



ASI certified aluminium may also achieve a premium. However, this is only likely to be significant if circumstances allow for it to be kept separate from conventional material.



The consumer and construction sectors will probably be the first to feel any effect.





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