
Still giving a f*ck!
Anode
Impact Report 2022-23
EVOLVE

"You cannot get through a single day without having an impact on the world around you. What you do makes a difference..."

Dr Jane Goodall, Primatologist and Anthropologist,
UN Messenger of Peace

We go again

Our reason why is still the same - because we care!

As you may be aware, this is our second Impact Report. If you want to read old news, check out the 2021-22 version here.

One fantastic outcome from releasing our impact report last year, was that customers, collaborators and observers all engage with us more on what we're doing, what they're doing, and why it matters.

Last year we drew our line in the sand, and this report is a look back to see how far we've come, and where the challenges lie.

From the beginning, we've intended on this being an honest assessment of where we're doing well, and where we can do better. We really appreciate all the feedback we got on last year's report, and we want to thank you for giving this one a read too.

If you have any comments or suggestions on this report, please ~~keep them to yourselves~~ email us at letsgo@anode.ltd.

This report has been conducted at group level, for the period April 2022 - March 2023.

Almost copy and paste

As with last year's report, we feel it's important to share what we mean when we talk about emissions and scopes

Scope 1:
The carbon emissions a company makes directly

Scope 2:
The carbon emissions a company makes indirectly

Scope 3:
All emissions the company are indirectly responsible for, up and down the value chain, in order to conduct their business operations [1]

CO2e:
There are more gases than just CO2 that contribute to global warming.
For comparison purposes, gases are converted to their equivalent amount of CO2 based on their global warming potential (GWP) [2]

Unit 51 Ltd has used certified carbon credits to offset all emissions identified in this report

Like 2022, we have focussed our attention to the scope 3 emissions where we feel we can have the biggest impact in our reduction efforts. We have assessed emissions associated with raw materials, waste processing and transportation of finished product. Additionally, we have also calculated the emissions associated with employee commuting.

41 tonnes offset through Ecologi

The emissions calculated in this report total 30 tonnes using the market based accounting method, and 41 tonnes using the location based method. This year's figures include 7 tonnes of employee commuting which was not calculated in last year's report. We are proud that relative to last year, these figures reflect an overall reduction in associated emissions.

We have again chosen to offset the emissions calculated in this report through Ecologi with certified carbon credits. We do this to increase our positive impact and to contribute to climate solutions through collective action.

Supplier charter 2.0

	2022	2023
Documented Net Zero commitments	2	3
Aware of their energy consumption	94%	91%
Have begun to measure their emissions	1	2

We're pleased to say the response rate to our supplier survey increased to 41% this year, from 30% last year. The results bring positives, and room for improvement. Overall we have noticed increased engagement from both suppliers and customers on sustainability topics.

Having changed the wording to some of our questions it wouldn't be fair to compare like for like on all responses. Some further highlights from 2023 include:

- 30% use mostly fully recyclable materials in their packaging
- 2 respondents are producing their own renewable electricity
- More than 34% of respondents have their electricity provided on a green tariff


Our mission is to engineer a
sustainable future!

Scopes 1 and 2

Our Scope 1 and Scope 2 emissions, the emissions most within an organisations control, are unchanged from last year, and remain at zero! This is due to the choices we have made when it comes to our vehicles, our electricity supply, and how we heat and cool our premises.

- In 2019 we sold the only fossil fuelled vehicle associated with the business and purchased an electric vehicle

- We purchase 100% renewable electricity, with renewable energy guarantee of origin (REGO) certificates

- We use air source heat pumps to both heat and cool our premises

- We do not use diesel generators or any other sources of energy, which emit carbon in use

Our Scope 1 and Scope 2 emissions are zero!

We're speaking to producers of renewable electricity in Oxfordshire. In future, we hope to use electricity produced locally, to power our facilities

We're doing what we believe to be the right thing, for the right reasons, but really, we think these things have been pretty easy to achieve - for us at least.

The tougher job is cultural and behavioural change.

This is why we have begun sharing stories to Anode 'On The Wall' on our website. Through this platform we are sharing more about our business, how we operate, where we struggle and where we prosper.

On The Wall

Sustainable Development Goals

17 Goals for People, for Planet

In 2015, the United Nations adopted the Sustainable Development Goals (SDGs) as part of the 2030 Agenda for Sustainable Development [3]. They are a universal call to action to governments, NGOs, businesses and civil society, to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere.

We recognise the importance of all the goals, and support them fully. Here we have included the goals we feel we can have a direct impact upon and how.

5 GENDER EQUALITY

Engineering continues to be a male dominated industry. Our team has a 50:50 gender split and we recognise the flexibility care givers may require in their work-life.

We prioritise our team's physical and mental wellbeing. We hire from a range of diverse social and educational backgrounds, and offer further training where suits. The ~~team~~ world can only progress when we all progress.

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

The manufacturing industry is still recovering from the COVID 19 pandemic, soaring energy prices, and raw material costs. We have reduced our Scope 1 and 2 emissions to zero, so that future business growth has sustainability at its core.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

We source material ethically and sustainably, targeting low carbon options. We are zero to landfill, and ensure all of our production is recyclable at end of life.

13 CLIMATE ACTION

We are aligned with the Science Based Targets Corporate Net Zero Standard and are intent on reducing negative impacts in everything we do. We fund carbon avoidance projects through our Ecologi Climate Action Workforce subscription.

17 PARTNERSHIPS FOR THE GOALS

We are all in this together.
Collective action, collaboration, knowledge sharing and holistic solutions are required to achieve true sustainability and equity for all.

Customer commitments

Since Evolve's creation in 2014, we have experienced a seismic shift in our communications with customers. Buying patterns which were once driven solely by quality and price, are slowly shifting towards local, responsible production, without compromising on quality.

In the past year we have been consciously communicating to our customers the importance we place on sustainability, and the feedback has been resoundingly positive.

We have always placed quality and responsibility at the core of everything we do. As we continue to grow, we have begun the process to become ISO 9001 Quality Management System and ISO 14001 Environmental Management System certified.

ISO 9001
ISO 14001

What do we do?

Carbon footprint estimates included in quotations for manufacture of metallic components

Use mostly fully recyclable materials in packaging, and reuse all packaging received

Consider end of life in the design phase, ensuring the longevity of each product and recyclability when it has fulfilled its purpose

"Change is brought about because ordinary people do extraordinary things."

Barack Obama, 44th President of the United States

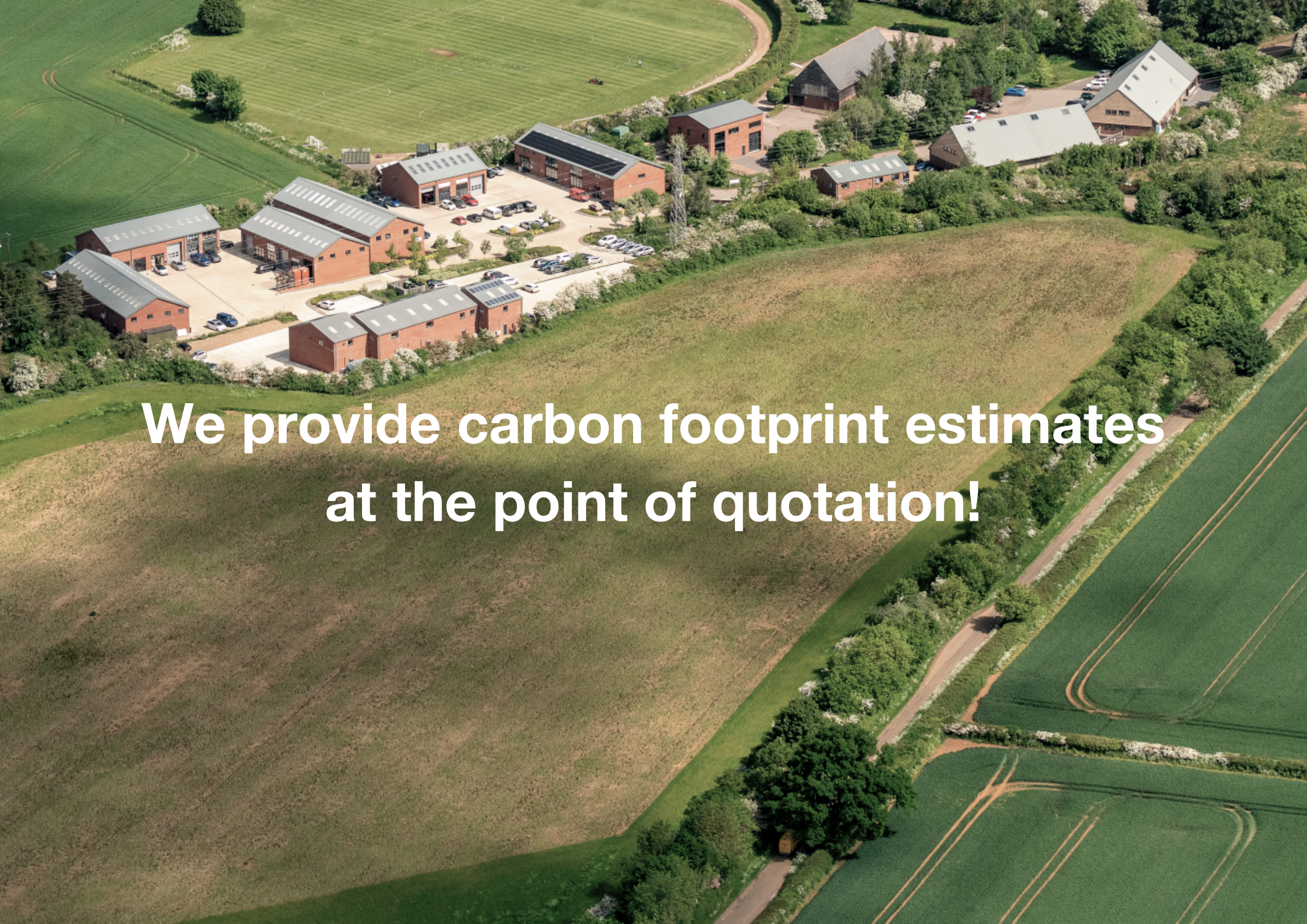
Drumroll please

Cherwell Business Awards 2022

Sustainable Business: Anode

The Good Small Business Awards 2023

Good Small Business of the Year &
Manufacturing Industry Champion: EVOLVE


We provide carbon footprint estimates
at the point of quotation!

Electricity

For the first time in a number of years, the UK Electricity CO2e factor has increased by 7% due to an increase in natural gas use in electricity generation and a decrease in renewable generation.

The conflict in Ukraine has had an impact on the global energy market, causing concerns over energy scarcity and increased energy prices. In the UK, energy production from natural gas was increased in order to alleviate some of the pressure on the National Grid.

The war in Ukraine has long-lasting humanitarian and environmental impacts - on a global scale.

Our market based emissions for energy generation are zero, and our location based emissions calculated with the latest conversion factors from GOV.UK [4] total: **11.3 tonnes CO2e**

How did we do?

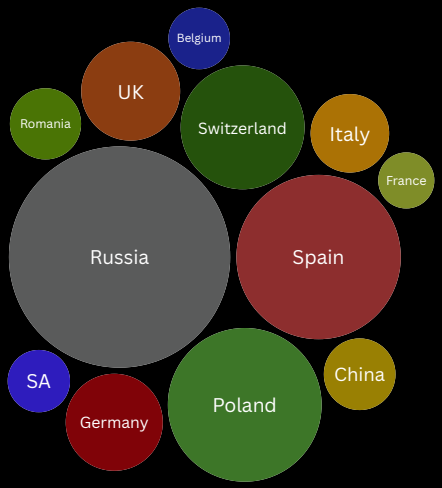
As with last year, we are proud to report that the emissions associated with electricity generation for our business are zero using the market based method.

This year we have seen a significant decrease in our normalised energy usage. We can't quite say this drop has been entirely down to our efficiency measures, as we haven't yet tracked machine utilisation. This is something we're hoping to implement in the coming year, which will give us a better understanding of where we're doing well, and where we can do better.

We will continue our efforts to work more efficiently in all aspects of our business, but we don't expect this gradient of decrease to continue.

Raw materials

Last year we took the business decision to stop accepting materials whose country of origin was one that was engaged in war activities. We also tried to target, where possible, material from countries whose energy supply is of low carbon intensity, and it went a bit like this:

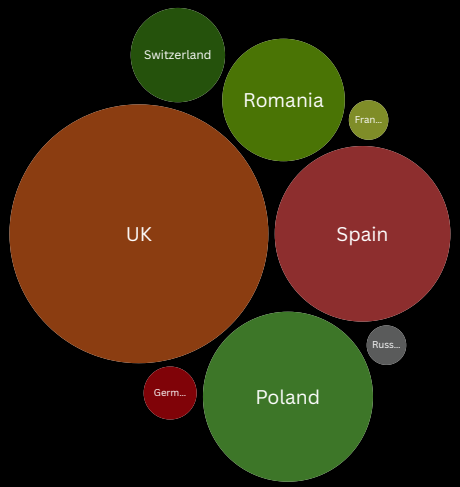


2022

Steel 745 kg
Aluminium 3,414 kg

2023

Steel 940 kg
Aluminium 3,767 kg



Our subtractive manufacturing projects continue to feature steel and aluminium heavily, so this is where we are focusing our calculations for this report.

Like 2022, we have estimated the carbon emissions associated with the production of the metals* we source, by using the carbon intensity of the electricity supply in the country of origin [5], and the global average energy consumption values for production [6] [7]. The estimated footprint for production of our raw materials is: **20.0 tonnes CO2e**

Despite our total material usage increasing by almost 12%, the associated emissions increased by only 0.7%!

Small step, big impact

Last year, we shared a very apt quote from Margaret Mead,

"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has"

In order to track where our material is being sourced from, we asked our suppliers to include the country of origin at the point of quotation. Our suppliers happily accepted our request, and now country of origin is included on quotes to all of their customers. Hopefully this small change will influence other manufacturing companies to think consciously about where they source raw material.

**processes such as smelting, forming, rolling etc*

Waste

Tax year	Raw material	Process waste*	% Raw material utilised
2022	4,159 kg	3,590 kg	13.7%
2023	4,707 kg ↑	3,290 kg ↓	30.1% ↑

In the year ending March 2023, we used more raw materials, and created less process waste than the year before.

There's a few ways we achieved this:

- Using LANG workholding vices, we can grip on a very small area of material for manufacturing (as little as 3mm of material!), reducing the raw material block/stock size required.
- Buying raw material to stock size, reduces the amount of material removal required through subtractive manufacturing.
- Sharing test blocks across projects to trial tricky tolerances improved our 'right first time' output on components, and reduced the amount of 'setters' required.

**includes scrap/incorrect parts and machine setters*

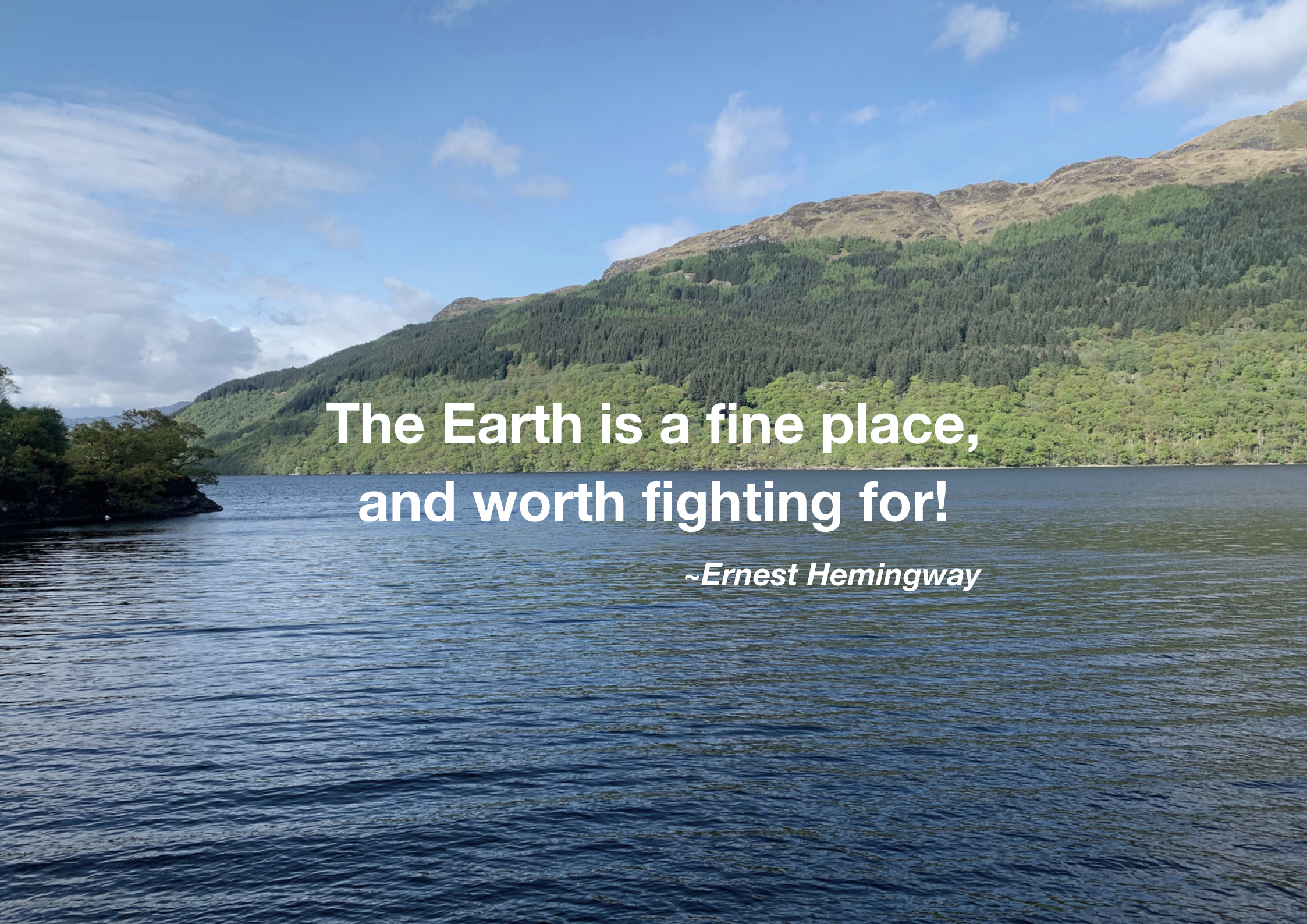
Since April 2022, we have recycled 3,290 kg of metallic waste with our local metals recycler. The emissions associated with recycling our process waste back into a usable product are: **1.65 tonnes CO2e**

What's next?

Up until now, we have assumed all of our material comes from virgin raw materials. We're working with our suppliers to understand how much stock they have of recycled aluminium and which applications would be most suitable for the material.

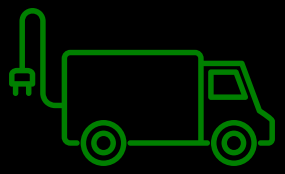
Lots of metal manufacturers are now trialling processes which will produce metals with a lower carbon footprint. We're looking forward to being able to utilise these metals in future and continue doing our bit to decarbonise the engineering industry.

The carbon footprint of recycled aluminium can be as little as 10% of that of virgin aluminium


The Earth is a fine place,
and worth fighting for!
~Ernest Hemingway

Transportation of finished product

We use two companies for distribution of our products, one in an electric van and the other with a diesel van. We also carry out local deliveries in our own electric vehicle.



DK Logistics, who we have been partnered with for a number of years and currently run a diesel fleet, have recently informed us that they're looking into purchasing an electric van to add to their same day delivery offering.

Using the UK Gov conversion factors for 2023 [3] for a class 3 van, the estimated footprint associated with transportation of our finished product is **1.43 tonnes CO2e**, a reduction from 1.56 tonnes CO2e last year.

We're thrilled that in future we will be able to reduce our emissions associated with transportation of finished product even further!

Employee centered

Octopus Electric Vehicles

We've joined the

ELECTRIC REVOLUTION

Apprenticeships

We continue to offer engineering apprenticeships through the Engineering Trust.

Flexible working

Whilst flexible working is difficult in a manufacturing environment, we try to accommodate our team member's needs whilst meeting business requirements.

Green Commute Initiative

By initiating the cycle to work and EV salary sacrifice schemes, we hope to improve accessibility to low carbon transportation options for our team members. Whilst we can't directly control emissions associated with employee commuting, we hope by improving accessibility to low carbon options, some team members may be able to chose alternative transportation methods in future. Emissions associated with employee commuting total: ***7 tonnes CO2e.***

Collective action

Charity - Prostate Cancer UK

This year we are supporting Prostate Cancer UK as our team charity. We have a number of fundraising events organised throughout the year and look forward to sharing how much we raise.

30 second risk checker

The Queen's Green Canopy

In November 2022, as part of the Queen's Green Canopy, we planted a bird cherry tree and hedgerows with the support of land owner Robert Synge, in memoriam of Her Majesty Queen Elizabeth and in celebration of her 70 years on the throne.

That’s all folks!

Thanks for taking the time to read this impact report. Through sharing knowledge and holding each other to account, we really believe we can make a positive impact. Help us engineer a sustainable future!

Get in touch with us through the links below:

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References

[1] https://www2.deloitte.com/uk/en/focus/climate-change/zero-in-on-scope-1-2-and-3-emissions.html
[2] https://www.inspirecleanenergy.com/blog/clean-energy-101/what-is-co2e
[3] https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023
[4] https://www.un.org/sustainabledevelopment/
[5] https://ourworldindata.org/grapher/carbon-intensity-electricity
[6] https://www.iea.org/energy-system/industry/steel
[7] http://wordpress.mrreid.org/2011/07/15/electricity-consumption-in-the-production-of-aluminium/