CELEBRATING SUSTAINABILITY

OUR IMPACT IN 2024

CONTENTS

PEDALLING FORWARD

As the climate crisis intensifies, our motivation to have a positive impact on the planet grows ever stronger. At Frog Bikes, we have always believed that getting more kids cycling regularly is a powerful part of the solution. Inspiring a love of cycling from a young age helps bikes become a natural choice for everyday transportation, potentially saving a lifetime of car emissions!

As a manufacturer, we also feel it is our responsibility to reduce emissions from our materials and operations. When we first started tackling this, we focused on the quick wins: switching to renewable energy, investing in a fleet of electric vehicles, and reducing our waste and our packaging.

Now we are beginning to see the benefits of our longer-term actions, too, using lower-carbon materials in our bikes. We have been investing in post-consumer recycled aluminium for several years, and during 2024, we made our first bikes with some recycled content, paving the way to significantly lower emissions across our whole range!

Our plan is to keep expanding this year by year, whilst sharing what we're learning with other manufacturers to encourage them to make the same changes.

35%
emissions reduction
per bike*

*since baseline year, all scopes

OUR COMPANY VALUES

PEOPLE
We collaborate to find solutions, communicating respectfully with honesty, humility and integrity looking forward with positivity to the future.

PRODUCT
Innovation inspired by our customers, using our specialist knowledge, skilled manufacturing, and attention to detail to create market leading bikes.

PLANET
We protect our natural resources by integrating sustainability into all aspects of our lives, sharing best practice both at home and at work

PROFIT
We build positive, long-term relationships with our colleagues, customers, and suppliers, sourcing responsibly and spending thoughtfully

OUR HEADLINE IMPACTS

35%

Reduced emissions* by 35% per bike since 2019

75%

Reduced absolute emissions* by 75% since 2019

Reduced plastic packaging throughout our supply chain

Developed smaller boxes: less space in transit means lower emissions per bike

Launched 2 internal sustainability challenges: on energy use and food

Reduced business travel and improved EV charging on sites

THE ABSOLUTE EMISSIONS SAVINGS WE'VE MADE SINCE 2019 EQUATE TO:

Using a washing machine for 50,000 years!

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

17 PARTNERSHIPS FOR THE GOALS

*scopes 1, 2 and 3

EXPERTS IN KIDS BIKES SINCE 2013

EXPERTS IN KIDS BIKES

Our passion for cycling and commitment to quality ensures that every bike is designed with a child's needs in mind, making biking a fun and safe experience for all ages.

STRONG FROG FAMILY

With over a decade in the cycling industry, our dedicated and skilled team is committed to creating and building innovative, high-quality bikes at our cutting-edge facilities.

ADVENTURE FOR ALL AGES

With 23 different models to choose from, we offer a bike for every stage of a child's growth and development. Whether it's their first balance bike or a mountain bike for more adventurous trails, we have something to suit every young cyclist.

DESIGNED & BUILT IN GREAT BRITAIN

Proudly designed and built in Great Britain*, our bikes represent the pinnacle of British engineering and craftsmanship. Each bike undergoes rigorous testing and quality control to ensure it meets our exacting standards and surpasses safety standards.

GLOBAL REACH

Frog Bikes are available in over 30 countries, making us a global brand. Our international presence allows children from all corners of the globe to experience the joy & freedom that comes with riding a Frog bike.

HALF A MILLION SMILES (& COUNTING)

Since our inception, we have put smiles on the faces of over 500,000 children around the world. Our commitment to quality and fun ensures that every Frog bike brings joy to its rider.

SUSTAINABLE VISION

We are committed to sustainability and responsible manufacturing, read on to find out more...

INNOVATION & SAFETY

Safety is our top priority. We continually innovate, combining leading technology with ergonomic design to create bikes that are not only fun to ride but also exceptionally safe. Our commitment to research and development ensures our products consistently surpass industry safety standards.

GREENHOUSE GAS EMISSIONS PER BIKE

RAW MATERIALS & COMPONENTS

89%

LOGISTICS

7%

FACTORY, OFFICE, TRAVEL & WFH

4%

86kg CO_2e
per bike
2024

VS

131kg CO_2e
per bike
2019*

THE SAVINGS WE'VE MADE PER BIKE EQUATE TO:

The same emissions as making 6 pairs of trainers!

*2019 when we first started measuring our emissions

MATERIALS BREAKDOWN

ALUMINIUM
82%

STEEL
5%

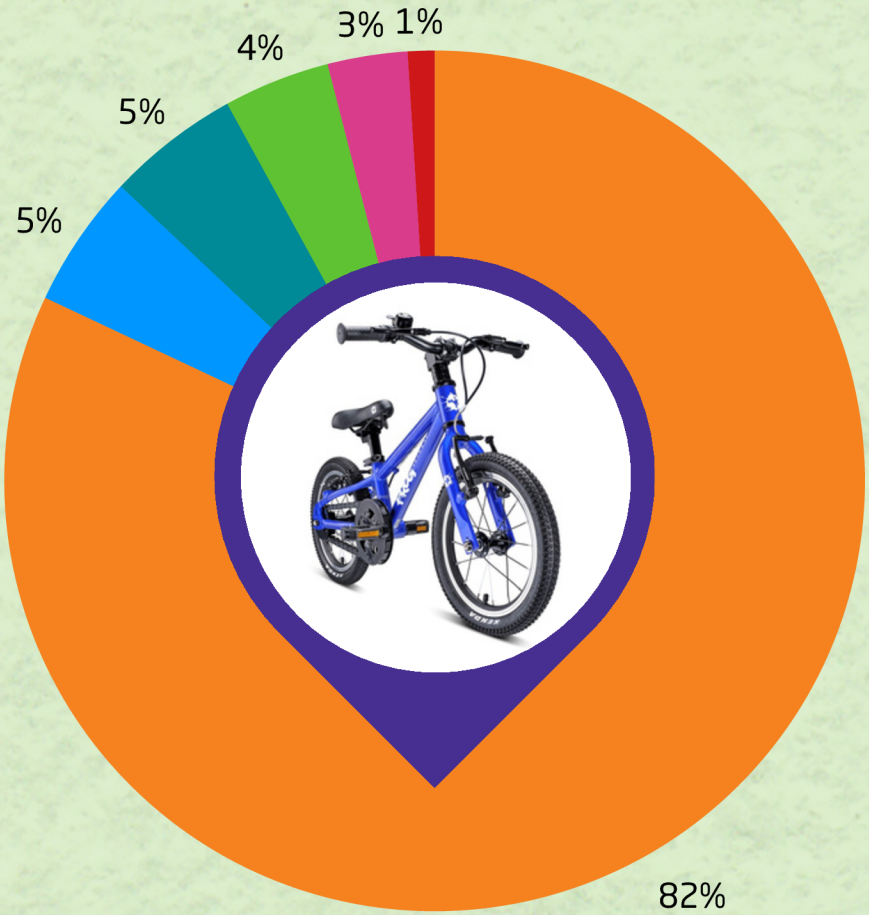
PLASTIC
5%

RUBBER
4%

CARD/PAPER
3%

OTHER
1%

ALUMINIUM IS OUR LARGEST SOURCE OF EMISSIONS



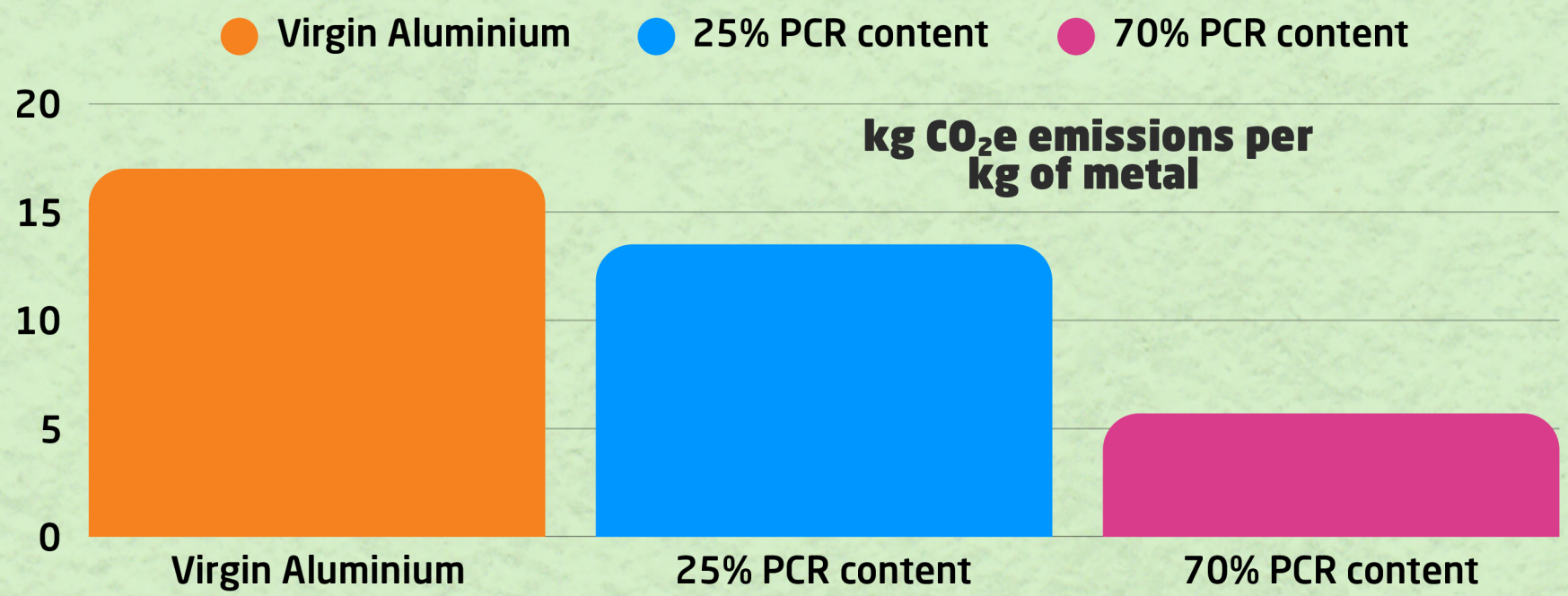
OUR PROGRESS

By using aluminium, which is at least partly "post-consumer recycled" - meaning it has previously been another product, maybe a window frame or a car door - the emissions per kg of aluminium drop.

During 2024, we introduced 25% PCR aluminium into the frames and cranks of some of our best-selling bikes (the Frog 53). Recycled aluminium has outperformed virgin aluminium in our test lab, so we know it is really strong and long-lasting.

Over the next year or two, we will be using 70% PCR aluminium in more parts of our bikes, delivering a massive emissions saving.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



ROAD TO RECYCLED ALUMINIUM

2018 - 2019
SETTING THE STAGE
We started by examining our environmental impact and quickly realised that aluminium was our biggest challenge.

2020
THE SEARCH BEGINS
We began looking for suppliers who could integrate recycled aluminium into our production. Finding the right partners and clearing up some common myths took time.

2021
FACING CHALLENGES
Although we found promising sources of lower-emission aluminium in Europe, finding suppliers who could handle frame production and painting was a challenge.

2022
BREAKTHROUGH
We finally found a supplier to produce frames and forks with 25% post- consumer recycled aluminium. To make it work, we needed to find funding for a significant upfront order to secure supply.

2023
TESTING & CERTIFICATION
We rigorously tested the new frames and forks, and they exceeded our expectations, proving even stronger than our existing ones. We gained third-party certification to confirm the recycled content and received a green loan from the Development Bank of Wales to help fund our upfront order.

2024
THE ARRIVAL
The recycled frames, forks and cranks arrived at our factory in Wales! Production of our best-selling Frog 53 hybrid bike with this recycled aluminium started this year, with more models to follow.

2025 & BEYOND
MORE RECYCLED ALUMINIUM
Will see much more recycled content including seat posts and handlebars. This big change means we'll be working closely with our suppliers and conducting rigorous in-house testing to ensure every bike meets the high standards you expect from Frog Bikes.

SMARTER PACKAGING

The less single-use packaging that's in our supply chain, the fewer of earth's resources are used up, which also means less energy is needed, and less waste goes into landfill or incineration.

So we have worked with our suppliers to improve a lot of their packaging this year.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

LESS PLASTIC

Now our bells and pedals arrive at our factory separated by cardboard or paper, instead of in individual plastic bags.

CRUNCHING DOWN WASTE

Our crinkle machine allows us to reuse cardboard when we package up our bikes to send to customers.

We can now re-use up to 70% of the cardboard boxes we receive from suppliers

BUT IT'S NOT ALL PLAIN SAILING...

Unfortunately, this year we used more air freight than in previous years. Sometimes we needed to rush components from our suppliers to our factory, and sea freight was taking longer due to geopolitical factors outside our control.

So, overall our logistics emissions have risen this year - something we will be working hard to reduce in future.

Just 2.8% of our inbound freight went by air

+

Just 1% of our outbound freight went by air

=

But this added up to 70% of our logistics emissions!

Even a very small amount of air freight adds up to a lot of emissions.

In 2024 we sent fewer bikes out by air than in previous years.

Although we have customers worldwide, we try to ship out by surface transport whenever possible.

LOTS OF SMALL STEPS ADD UP TO BIG CHANGES

The whole Frog team was encouraged to take steps towards reducing their carbon footprint. This might have involved recycling, eating less meat, commuting by bike, or even a beach clean. Every step adds up!

In total, we took 259 steps this year, avoiding over 15 tonnes of carbon emissions.

giki zero.

Steps

259

total steps completed

Achievements

CO_2			
15,433 kg	829,762 litres	11,027 m2	2,071 items
carbon avoided	less water used	less land needed	single use plastic avoided

THE EMISSIONS SAVINGS EQUATE TO:
28,300 miles driven in the average car

We carried out two team challenges to see who could make the most changes!

TAKE A BITE OUT OF YOUR FOOD FOOTPRINT CHALLENGE
1-28 JULY 24

CHALLENGE SUMMARY

14	196	75
PARTICIPANTS	STEP ACTIVITY	STEPS COMPLETED

ENERGY SAVER CHALLENGE
28 NOV - 15 DECEMBER 24

CHALLENGE SUMMARY

10	159	45
PARTICIPANTS	STEP ACTIVITY	STEPS COMPLETED

RECYCLING THE RIDE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

FACTORY OUTLET BIKES

We believe in giving every bike a chance to shine, even those with minor imperfections like paint defects and scratches. Through our factory outlet, we offer these perfectly functional bikes at a discount of up to 40% off the original price. This makes our premium bikes more affordable and more accessible, and helps reduce waste by saving these bikes from being scrapped.

BLOOMING GARDEN

In just 2 years our team has transformed a patch of unloved land next to our factory into a wildlife garden that we can enjoy on our breaks, and even use for parties!

WASTE UPDATE

In 2024, we improved our waste sorting and reduced the amount of waste we generated.

MORE THAN 1/2

We have more than halved our waste emissions per bike since 2023

RECYCLING WASTE

In total 78% of our waste by weight goes to recycling and 22% to incineration or landfill.

TOTAL WASTE EMISSIONS

1.9T

Our waste emissions totalled 1.9 tonnes

WEEE WASTE

We continuously collect electronic waste and send this to a Weee waste charity for sorting and recycling, keeping valuable components in use for longer.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

SHARING OUR SUSTAINABILITY JOURNEY

We know that working with other organisations is the best way to have a really big impact, so we are delighted to collaborate wherever possible. We now speak regularly to other manufacturers who use aluminium, encouraging them to accelerate the switch to recycled content too.

It's often by sharing what each other has learnt, and working in partnership, that barriers can be overcome.

17 PARTNERSHIPS FOR THE GOALS

We're always keen to share what we've learnt about sustainable manufacturing and talk about the issues we face delivering our ambitions.

This year we've spoken to all sorts of audiences, both public and professional, about our journey.

Cranfield School of Management

LONDON CLIMATE ACTION WEEK

Busnes Cymru | Business Wales

fsb Experts in Business

BBC WAKE UP TO MONEY

Department for Business & Trade

VOLVO

UK METALS EXPO

Shift Cycling Culture

REINVENTING THE WHEEL: FROG BIKES' JOURNEY TO NET-ZERO EMISSIONS

United Nations Climate Change

"Frog Bikes is leading by example on the road to net zero. Since measuring its carbon footprint in 2019 and joining the Race to Zero in 2021, the company has committed to cutting emissions in half by 2030 and reaching net zero by 2050. Its strategy includes renewable energy, electric vehicles, and innovative materials like recycled aluminium. Frog Bikes shows how small businesses can drive meaningful climate action."

Read the case study >>

FROG IN THE COMMUNITY

We believe that cycling is more than just a mode of transport - it's a gateway to a healthier, more active lifestyle and a brighter future for our planet. That's why we partner with like-minded organisations and community groups who share our passion for getting more kids on bikes. By collaborating with these partners, we can reach deeper into communities, making cycling accessible and enjoyable for children of all backgrounds.

BRINGING BIKES TO GLASGOW'S YOUTH

St. Paul's Youth Forum, in partnership with Frog and Cycling UK, is helping deliver cycling projects across Glasgow, with a focus on areas identified through the Scottish Index of Multiple Deprivation (SIMD). This collaboration not only supports vital cycling initiatives but also creates employment and training opportunities for local mechanics. Thanks to their efforts, thousands of children will get the chance to enjoy their first experience on a balance bike and take their initial pedal strokes on a lightweight bike. The project now has a fleet of over 200 Frog balance bikes and more than 200 Frog first pedal bikes to support this mission.

EXPANDING YOUTH CYCLING IN ABERDEENSHIRE

As part of our ongoing commitment to sustainability, we've entered a partnership with Live Life Aberdeenshire's flagship cycling programme, Bringing the Bike to You. This collaboration supports our shared goal of promoting active travel, reducing environmental impact, and encouraging healthy lifestyles from an early age.

The initiative delivers inclusive cycling sessions to schools, families, and community groups across Aberdeenshire, focusing on skills development and confidence-building through programmes like "Balance to Pedal" and "Junior Cycling." Frog bikes are already used in these sessions, and this formal partnership strengthens our role in expanding access to quality cycling opportunities for children across the region.

By supporting this initiative, we make cycling more accessible and enjoyable for young people, encouraging lifelong habits that promote physical health, reduce reliance on cars, and strengthen our communities.

Learn more >>

GET INVOLVED JOIN THE RIDE

TRAVEL FASTER

On a bicycle, you can travel three times faster than you can walk, for the same amount of energy.

DITCH THE CAR

Cycle rather than drive to school twice a week for a year to offset emissions from making a Frog bike.

BOOST BRAINPOWER

Cycling regularly can improve your memory and cognitive function, helping keep your brain sharp and boosts overall mental well-being!

AGE IS JUST A NUMBER

Cycling is a low-impact exercise that's suitable for all ages. Whether you're a young child or an older adult, biking is a fantastic way to stay active and healthy.

PEDAL YOUR WAY TO HAPPINESS

Cycling releases endorphins, the "feel-good" hormones, which can help reduce stress and improve your mood.

REDUCE AIR POLLUTION

With the average school being just over 1 mile from home, a short 10-minute cycle to and from school each day is a great way to help start reducing traffic congestion and air pollution.

BETTER SLEEP

Regular cycling can improve your sleep quality and help you fall asleep faster. A night of better rest could be just a bike ride away.

SAVE ON TRANSPORT COSTS

Cycling is not only good for the planet but also your wallet. The cost of maintaining a bike is significantly lower than that of a car, making it a budgetfriendly travel option.

MAKE PLAYTIME FUN

Children who cycle regularly tend to develop better coordination and balance. Plus, it's a great way to encourage outdoor play and family time.

STRONGER TOGETHER

Family bike rides are a great way to spend quality time together. It's a fun, healthy activity that everyone can enjoy, and it helps build lasting memories.

EXPLORE YOUR COMMUNITY

Cycling allows you to discover new places in your neighbourhood and beyond. It's a fantastic way to explore parks, trails, and hidden gems you might otherwise miss.

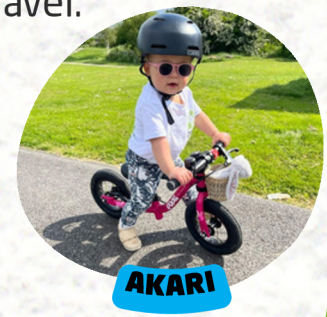
DID YOU KNOW?

If you fuel your ride with cheeseburgers the emissions per mile are similar to driving. If you're fuelled by bananas, emissions are 12 times less per mile!

How Bad Are Bananas?: The carbon footprint of everything - by Mike Berners-Lee

FUELLING FUN, NOT EMISSIONS

Welcome to the Frog Squad! Our young ambassadors are passionate about cycling and spreading the word about Frog bikes. They help inspire others to ride for fun, fitness, and a more sustainable future through eco-friendly travel.



A SPOTLIGHT ON ZACHY

Have you met Zachy, our incredible young ambassador on a mission! He's ONCE AGAIN completed a 35-mile ride to support children who are unwell or disabled, and he's been fundraising on two wheels since he was only 4 years old. Now, he's just hit his amazing £25,000 goal!

Let's cheer him on – he's a true inspiration!

METHODOLOGY

WHAT WE MEASURED

We strive for transparency in our environmental impact reporting. Here's a breakdown of what we include and exclude from our emissions measurement.

WE'VE INCLUDED EMISSIONS FROM:

- Energy used at our factory and head office (using the market-based method) and for home working
- Raw materials used in our bikes, outbound packaging and spares & accessories
- Upstream and downstream logistics
- Business travel, reps' mileage, employee commuting and daily staff lunches in the factory
- Waste from our factory

WE HAVEN'T YET INCLUDED EMISSIONS FROM:

- Supplier manufacturing processes – we've only captured the raw material inputs, as we don't have accurate data from suppliers on their emissions yet
- Emissions from running our website - no reliable data source identified yet (although we have optimised our website by hosting less energy-intensive content, e.g. videos on the high-traffic pages, which also improves loading times for users)
- Waste at our head office - we sort all of our waste; however, we have no way to measure it, as it gets combined with the other businesses operating at our site
- End-of-life treatment of our bikes - we do not currently have any estimates for this
- Use phase - whilst we have included emissions from our spares and accessories, we have not estimated the impact of servicing over the bike's lifetime, but expect this to be very low
- We don't have any Scope 1 as we have no boilers, and our company-owned vehicles are fully electric (and charged using renewables)
- Offsets - we are not offsetting any emissions, nor are we reducing our emissions to factor in future usage of our bikes, which may, in practice, take consumers out of their cars (we view this as a bonus!)

METHODOLOGY

SCOPE 1

The company has no Scope 1 emissions, as we have no company-owned boilers, and our company-owned vehicles are both EVs, which are charged primarily at our sites using renewable energy.

SCOPE 2

Energy usage at our premises.

SCOPE 3

Employee commuting and working from home
Staff lunches
Business Travel
Materials
Waste
Logistics
Capital purchases
Water (factory only)

SCOPE 2

ENERGY USAGE AT OUR PREMISES

We operate two sites in the UK, and in both cases, the electricity and gas used for heating, lighting and powering our assembly and warehouse equipment is bought by the respective landlords, and the costs were passed to us.

Having successfully persuaded our landlords to switch, we have been fully operating on renewable electricity at both sites since 2021. We have obtained certificates from our landlords showing that the renewable electricity consumed is backed by UK-certified renewable certificates of origin. We hope to switch to green gas in the future.

Using the market-based method we have included zero Scope 2 emissions from electricity (and in line with GHG Protocol Scope 2 Guidance we have captured transmission and distribution losses in the grid within our Scope 3 total). For gas, we applied the average kwh per square metre for UK offices*.

Using the location-based method (relying on average grid emissions factors), our Scope 2 emissions would have been 1.3kg CO_2e per bike (down from 1.9kg last year).

Note that we directly capture electricity usage at our factory. We do not have access to data on our electricity usage at our office so we took the average kwh per square metre for UK offices*.

*www.gov.uk/government/statistics/energy-consumption-in-the-uk-2024

SCOPE 3

EMPLOYEE COMMUTING AND HOME WORKING

We calculated emissions from employee commuting using the average number of commuting days per week for each staff member, their commute distance, and the emissions rating for their vehicle. (where known). For those who travel by EV, we used UK Government DESNZ emissions factors.

For those staff who work from home, we applied the DESNZ emission factors for heating and electricity to the number of hours we know are worked from home annually. Some of our staff are on a renewable electricity tariff, so this was taken into consideration.

BUSINESS TRAVEL

There are two key categories of travel: our reps (who are self-employed agents, but we chose to include them in our calculations), and our head office team (buyers, marketing and sales) who travel to visit customers, suppliers and promotional events.

For rep travel, our UK reps reported how many miles they each drive for work in the year, and the emissions from their particular vehicles. We used the UK rep force as a model for other countries.

For head office travel we know how many flights and train trips were booked in the year, and the destinations, and used a standard calculator of emissions per destination for those journeys. We then added all the head office mileage that was claimed as expenses in a year, and multiplied this by a standard UK car emission rate.

SCOPE 3

PURCHASED MATERIALS

This represents the majority of our emissions, so we have invested in systems to make our reporting in this category as accurate as possible.

We report on the quantity of every item of componentry and packaging that we purchased to build our bikes, and apply an emissions factor to the principle material within each component. e.g. aluminium, steel, rubber, plastic, cardboard. The emissions factor reflects whether the material has come from a post-consumer recycled source or not.

We include spare parts and accessories in our purchased materials.

Our suppliers are not able to give us detailed emissions for each product; we anticipate that this will be available in future years as more companies aim to be more transparent in their environmental footprint, and as they make improvements. Until then, we use publicly available emissions factors (see page 28).

2.8%
OF MATERIALS WERE AIR FREIGHTED

LOGISTICS

A. Inbound logistics emissions are calculated using a global average of maritime and road freight emissions for the mileage travelled from the country of origin to the UK, by weight of materials. A small minority of materials (2.8% by weight) were freighted by air, which is included in the calculations.

B. For our outbound logistics, we grouped our sales into regions and took an average mileage from our factory to each region and applied the relevant industry average emissions factor for each transport type. Most bikes sold travelled by surface (i.e. road and sea) and a small minority by air (1%, which is less than last year's 2.6%).

SCOPE 3

WASTE

We separate cardboard, plastics, metals and general waste. And we report on our waste by weight across the various waste streams. In 2024, 78% of our waste by weight was recycled, and 22% was sent to incineration or landfill.

We then applied the relevant DESNZ emissions factors. Our total waste emissions were 1.9 tonnes CO_2e, down from 3 tonnes in 2023.

78%
OF OUR WASTE WAS RECYCLED

37%
REDUCTION IN WASTE EMISSIONS

WATER (FACTORY ONLY)

We capture water usage at our factory and then apply the relevant DESNZ emissions factors for water supply and waste water. We have not captured our water usage at our head office - our facilities are shared with other tenants in the building, and we expect this to have a minimal impact on our total emissions.

STAFF LUNCHES (FACTORY ONLY)

4 days per week, our factory and warehouse staff have a hot lunch delivered. For the first time, we have estimated the emissions from these meals in our carbon footprint, based on an average weekly menu.

THE SAVINGS WE'VE MADE IN WASTE EMISSIONS EQUATE TO:

The same emissions as tumble-drying 550 loads of laundry!

EMISSIONS FACTORS

Our emissions factors are based on publicly available data. We hope to be able to use more specific factors when our suppliers are able to provide them in the future.

Aluminium (China average) 17 t CO2e/t. Triangulating from a range of sources:

- https://ore.exeter.ac.uk/repository/handle/10871/132248
- https://www.carbontrust.com/our-work-and-impact/guides-reports-and-tools/international- carbon flows
- https://international-aluminium.org/statistics/greenhouse-gas-emissions-intensity-primary- aluminium/

Aluminium (post-consumer recycled): International Aluminium Institute

Steel 1.9 t CO2e/t.

- https://worldsteel.org/steel-topics/sustainability/sustainability-indicators/

Rigid plastic averages 3.26 t CO2e / t

- https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion- factors-2022

PVC 3.41 t CO2e / t

- https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion- factors-2023

Rubber tyres 2.92 t CO2e / t

- https://iopscience.iop.org/article/10.1088/1757-899X/644/1/012001

Paint 2.09 t CO2e / t

- https://communityrepaint.org.uk/wp-content/uploads/2021/03/How-to-calculate-your- schemes CO2-savings.pdf

Cardboard 0.69 t CO2e / t

- Access and download our ESG databook - DS Smith

Paper 0.91 t CO2e / t

- https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion- factors-2023

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