

Environmental impact update 2022/23



We're committed to reducing our scope 1,2 and 3 emissions by 50% by 2030 and achieving net zero by 2050

Our emissions are down 16.2% on 2019 baseline levels

Our 2022 emissions are up 20.8% on 2021

100% of our electricity to our head office and retail estate has been renewable since 2019

139 more of our stores have been upgraded to using LED lights

2 of our wholly operated labs have achieved the LEAF Silver award and all 3 are aiming for the LEAF Gold award in 2024

Our emissions reporting is independently compiled and then independently assessed

87% of our staff said it's important to them we aspire to be sustainable in all our activities

Environmental sustainability at Cancer Research UK

Climate change is important to our supporters, partners and the communities and people affected by cancer we serve. We know our responsibilities to support the global effort to reduce emissions and negative environmental impact.

Being a responsible and sustainable organisation helps us achieve our mission to beat cancer for everyone. Embedding this within our work drives efficiency, reduces costs and risks, and helps us meet the expectations of all we serve. We also know that what is good for our health is good for our planet.

We're committed to making decisions that both maximise our positive impact, minimise our negative impact and to continuously improve our performance in this area. Our environmental approach forms part of our wider sustainability strategy and approach to being a responsible organisation, which in turn is a key part of our vision to bring about a world where everyone can live longer, better lives, free from the fear of cancer.

'Sustain' is one of our five strategic pillars. It is about making choices now that will give us the platform from which to make progress in the years and decades ahead. We must become a truly sustainable organisation – environmentally, financially and operationally – if we are to make our vision a reality.

This means considering the environmental sustainability of our operations, research, fundraising activities, supply chains, investments, products and partnerships. This will allow us to become more efficient, reduce waste and better achieve our mission, while being a responsible charity to all our stakeholders. We will:

- think long term so we can keep beating cancer in the future
- become as efficient and low waste as possible
- understand how supporting good health and longer, better lives also fights climate change
- work with our partners, stakeholders, communities, and other charities to be sustainable together

Our approach to being a responsible organisation

We choose to be sustainable in how we work

We exist to beat cancer, and we know beating cancer is a long term game. We must become a truly sustainable organisation – environmentally, financially and operationally – if we’re to achieve our mission. We believe that sustainability is everyone’s responsibility and is lived through every decision we make. We’re a responsible organisation and continuously improve our ESG performance.

We work in partnership



Equality, diversity and inclusion

Long-term sustainability means being a diverse and inclusive organisation, bringing in the best ideas and being reflective of the people and communities we serve.

Environmental commitment

Embed environmental sustainability in all we do, and influence our partners to do the same. Committed to 50% reduction by 2030, net-zero 2050.

Our sustainability foundations



Part of the Sustain pillar of our strategy, building the foundations for long-term progress against cancer.

Developing our long-term strategy

– our actions in 2022/23

This year, we took the first steps towards developing our long-term sustainability strategy. We started by measuring our existing performance using a standard environmental, social and governance (ESG) framework. We then conducted a 'double materiality study' with Corporate Citizenship, our sustainability consulting partner. This is a way of assessing both how we're affected by sustainability issues, and how our activities impact society and the environment, then prioritising our strategic activities accordingly.

We also benchmarked our current progress against a variety of industries, including charities, grant-makers, research institutes and retailers. All of this has helped to feed

into a consultation process that allowed us to identify one and three-year objectives which will form part of our strategy.

We're currently mapping our scope 1,2 and 3 emissions in detail to develop a roadmap to net zero. We will set science-based targets and submit them for validation by the Science Based Targets initiative for our trading and research activities. We're also researching what our communities expect of us for environmental impact. Bringing all this together will allow us to set a long-term strategy for being a responsible and sustainable organisation.

The UN Sustainable Development Goals

As an organisation that strives to have a positive impact on the world, our mission of beating cancer is where we make the most difference. However, we also know we contribute to, and have a responsibility to consider, several other of the UN Sustainable Development Goals (SDGs). These are set out on the next page.

As one of the UK's largest charities, it's important we're active on climate change and show our communities and other charities the benefits of being sustainable. It's also important we contribute to the UK's efforts on carbon reduction and feed into national policies.

That's why we've aligned with the following Goal 13 Climate Action targets:

- "13.2: Integrate climate change measures into national policies, strategies and planning – specifically indicator."
- "13.2.2: Total greenhouse gas emissions per year."
- "13.3: Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning."

Committed to impact

Our objectives are aligned to global United Nations Sustainable Development Goals (SDGs)



Note: For more information, please click on each of the squares below.

Primary goals

(how our mission works towards each goal)



Our mission is to beat cancer

We work to prevent and treat cancer supporting target 3.4. We also try to do this for everybody, understand how air-pollution impacts cancer and campaign to reduce the number of people who smoke.

► **Targets**
3.2, 3.4, 3.8, 3.9, 3a & 3b



We do this through research

We fund and enhance scientific research and fund and support more researchers to help beat cancer.

► **Target 9.5**

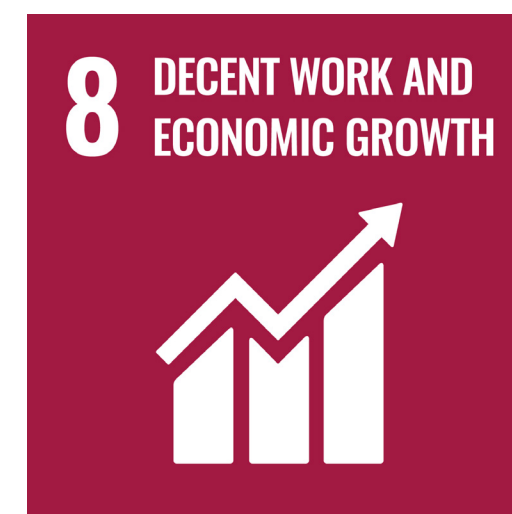
Secondary goals

(how we work to achieve our mission supports each goal)



We aim to reduce the impacts of cancer inequalities and be inclusive in how we beat cancer including patients and researchers, our volunteers and charity leaders.

► **Targets 5.1 & 5.5**



We look to be an inclusive and diverse charity where everyone feels like they belong and have equal opportunities and pay.

► **Target 8.5**



We exist to beat cancer for everyone and look to promote policies and practices that tackle cancer inequalities and include anybody in our organisation and activities.

► **Target 10.3**



Through our nearly 600 shops, in 2022, we redirected around 25,000 tonnes of pre-loved clothes to new owners. We work with our research, charitable and commercial partners to adopt sustainable practices and promote sustainable procurement.

► **Targets 12.5, 12.6 & 12.7**



Through our 4,000 staff and working with our partners, we strive to raise awareness of climate change and how we can mitigate its impacts. We contribute to the UK's efforts on carbon reduction and feed into national policies.

► **Target 13.2 & 13.3**



We support collaborative access to science and innovation to enhance knowledge sharing in health research and our approach promotes effective public-private and civil society partnerships, targeted capacity building in developing countries and improve domestic tax revenue through tobacco tax policy.

► **Targets 17.1, 17.6, 17.9 & 17.17**

Headlines from our materiality study

Beating cancer and reducing cancer inequalities are the two ways we can have the biggest positive impact. But these aren't the only ways. Considering climate change, as well as sustainable and reproducible research, is very important. As are our commitments to working in partnership, involving patients and striving to be a diverse and inclusive workplace that attracts and retains the best talent.

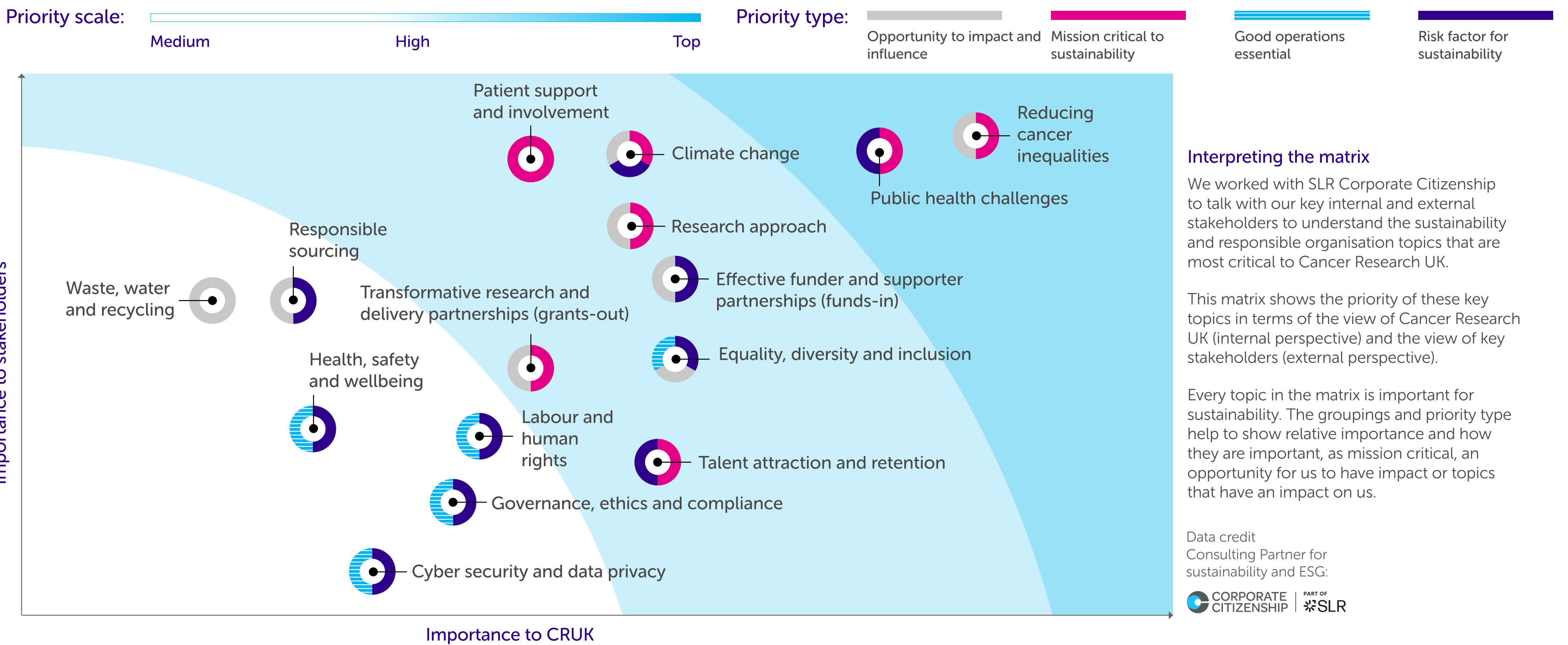
Generally, the study showed that we have good alignment on priorities between internal and external stakeholders. On environment, the report showed that while all stakeholders thought it important, our external stakeholders consistently rated all aspects of it as more important. We're addressing this with our increased activity over the past year and the strategy we're developing.

The study also investigated what emerging issues internal and external stakeholders expected to see impact, and be impacted by, Cancer Research UK in 10 years' time. Some issues remained critical, including: reducing cancer inequalities, effective funder and supporter partnerships (funds-in) and public health challenges, which include issues like diet, lifestyle, poverty and the impact of climate on health.

However, both groups listed climate change as the key future ESG priority with waste, water and recycling also much more important. This reinforces our recognition that being a responsible and sustainable organisation helps us achieve our mission to beat cancer for everyone and that what's good for our health is also good for our planet now and in the future.

Our sustainability priorities

Double materiality matrix





Reducing our environmental impact on the planet

Our environmental impact targets

In our organisation-wide strategy,

we commit to:

- embedding environmental sustainability in all that we do and influence our partners to do the same.

This means that we will:

- develop and implement an ambitious road map to improve our environmental sustainability and reduce our carbon footprint, including working with the institutions that we fund
- deliver fundraising and trading initiatives that are environmentally friendly and socially sustainable

Our emission commitments

As mentioned, we're committed to reducing our scope 1, 2 and 3 emissions by 50% from our 2019 baseline by 2030, joining the UN Race to Zero. We've also committed to achieving net zero by 2050 and, for our commercial activities, setting science-based reduction targets to be validated by the Science Based Targets initiative. We're signed up to Textiles 2030, looking to reduce the aggregate greenhouse gas of our new products by 50%, which is sufficient to limit global warming to 1.5°C in line with the Paris Agreement on Climate Change and to achieve net zero by 2050. For more detail on our emissions commitments, go to page 15.

Our emissions in 2022

During 2022 we continued to try to reduce our emissions, working towards our net zero target. We're using industry-recognised initiatives until we accurately baseline our own emissions, which will allow us to target our emissions hotspots.

In 2022 our SECR reporting emissions increased by 20.8% to 7,382 tCO2e compared to 2021, however decreased by 16.2% compared to our 2019 levels (8,805 tCO2e). Our energy use was up 14.6% in 2022 (31,431 MWh) compared to 2021 but the increased greening of the UK energy grid meant that this was a 11.9% increase in emissions. Our energy use increased 6.9% from our 2019 levels (29,376 MWh).

This increase in emissions was due to a number of factors during the past year:

- All our locations were operational for much more of the year compared to 2021, where the impact of Covid-19 restrictions were far higher.
- Our emissions from travel increased as events and conferences returned.

- We opened three new super-stores in Birmingham, Swindon and Aberdeen, which increased our carbon and energy use.
- We closed 11 stores.
- We continued our programme of replacing store lighting with LEDs upgrading a further 139 stores. This means that 370 of our 581 stores are now LED upgraded, saving approximately 1,406 MWh per year.

The Beatson Institute of Cancer Research is our biggest overall source of emissions, 26%. 16% of our emissions are from our head office at 2 Redman Place in Stratford, which is a BREEAM 'Outstanding' rated building scoring 94% against the sustainability criteria.

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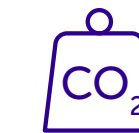
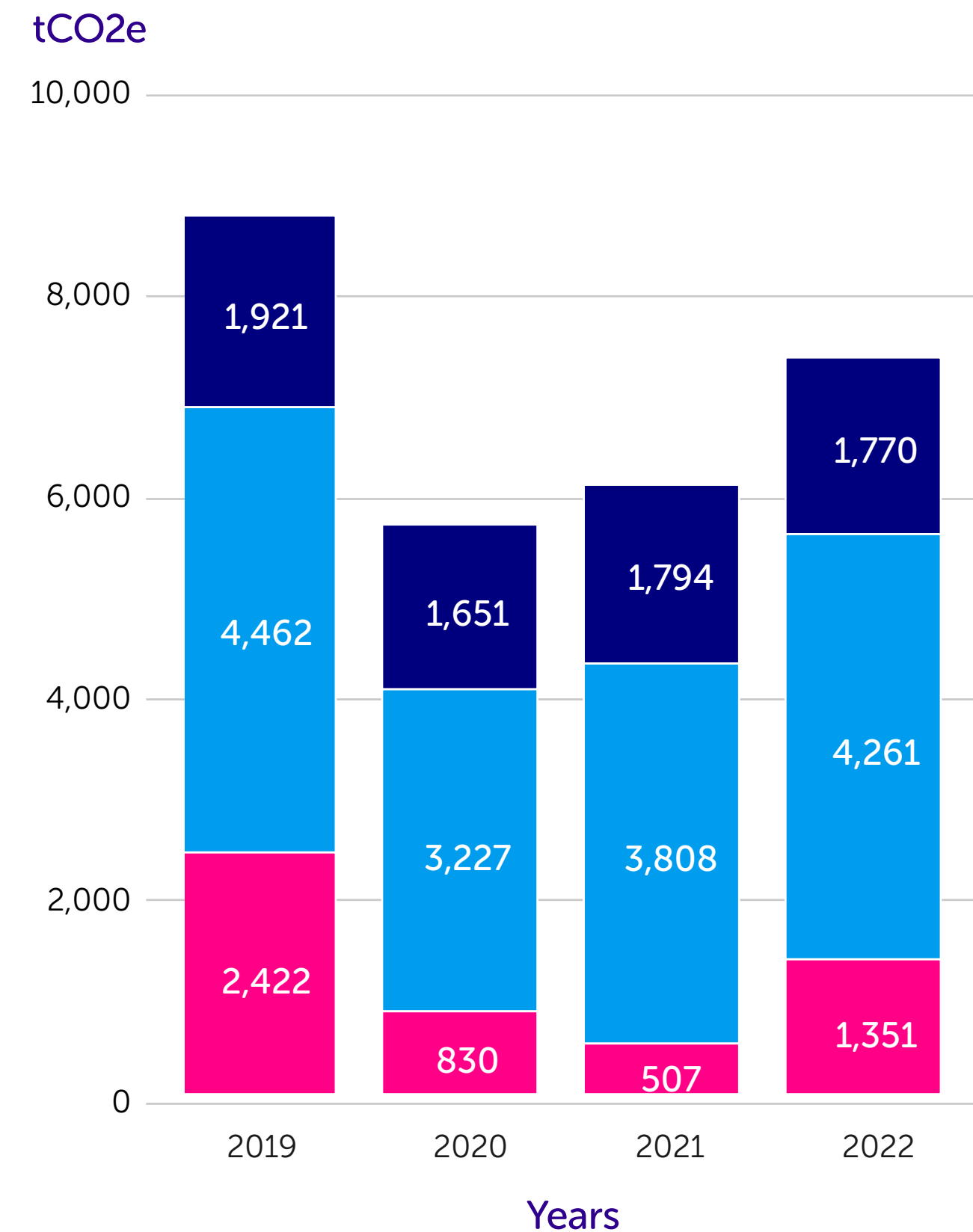
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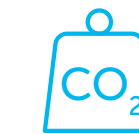
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Carbon emissions by scope 2019 to 2022
(location-based method)



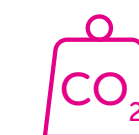
Scope 1

All direct emissions from our activities or activities under our control, including fuel combustion, gas boilers, fleet vehicles and air-conditioning leaks.



Scope 2

Indirect emissions from electricity we bought and used. Emissions are created during the production of the energy and eventually used by us.



Scope 3

All other indirect emissions from activities that we do not control. These cover emissions related to business travel, procurement, waste and water. So far, from 2019 to 2022, we've only measured a small part of our scope 3 emissions focusing on transport. We're in the process of establishing a comprehensive measurement.



Our actions in 2022

In 2022/23, we continued our programme of replacing store lighting with LEDs, upgrading a further 139 stores. Now, 370 of our 581 shops are now LED upgraded, saving approximately 1,406 MWh per year. We have a sustainability network of employees from across the organisation who champion awareness, activities and innovation around the organisation.

Our sustainability actions as a research funder:

- To reduce the environmental impact of the research we fund, we set out a new position statement on the environmental sustainability of research. We expect all people involved in Cancer Research UK-funded research to consider the impact of their work on the environment and, where appropriate, take actions to mitigate or manage this impact.
- We collaborated with other funders and organisations to help shape the development of a sector framework on the environmental sustainability of research.

We continued to make our laboratories, fundraising events and trading activities more sustainable. We:

- reviewed our plans to remove, reduce or replace single-use plastic consumables, including within our laboratories, by:
 1. replacing certain single-use, plastic-based alcohol wipes with a reusable solution
 2. trialling centrifuge tubes made from 90% recycled feedstock rather than virgin plastic
- planned the roll-out of further sustainability improvements for our 2023/24 events programme including:
 1. an improved waste-management strategy with further segregation of waste and clear labelling, directing people to the right waste disposal
 2. rolling out reusable cables across all our events after our trials in 2022 and 2023, reducing our use of single-use cable ties to less than 5%
- increased the recycled content of paper-based print marketing materials
- signed a new multi-year electricity contract to maintain 100% renewable electricity for our retail estate and head office (REGO (Renewable Energy Guarantees of Origin) certificates) which we've been doing since 2019



“Although smoking remains by far the biggest cause of cancer in the UK, air pollution increases the risk of lung cancer in both people with and without a history of smoking. This causes almost 1 in 10 lung cancer cases in the UK. With more ambition and a willingness to tackle air pollution head on, we know that this can be different.

“Air pollution is one of the biggest environmental threats to health in the UK, and although substantial progress has been made to reduce harmful levels of pollutants, more must still be done. The adoption of national and local strategies is needed to reduce outdoor air pollution across the country. But that has to start with the UK Government setting new, bold targets into law as quickly as possible.”

Michelle Mitchell,
Cancer Research UK Chief Executive



Climate and health

What is good for our health is also good for our planet

A diet based around fruits, vegetables and pulses, combined with using walking and cycling more for travel can help to improve your health as well as the health of the planet.

The preventable diseases include Alzheimer’s disease, asthma, a range of cancers, chronic obstructive pulmonary disease (COPD), dementia, diabetes, heart attack, heart failure, hypertension, kidney disease, obesity, osteoporosis, sarcopenia, stroke and more.

While we can all play our part, a population-wide approach is the most impactful with the adoption of national and local policies to help make it easier to be healthy and to fight climate change.

We are proactive in contributing to policy and information where climate and health overlap:

- We conducted an internal scoping project for our air pollution policy in late 2022. To better understand policy and connections between climate and health, we spoke with teams across Cancer Research UK, as well as external advocacy and political stakeholders, future opportunities, and research questions. This reconfirmed our current approach which we’ll continue to take when considering air pollution policy and influencing.
- Our internal air pollution working group continues to be a valuable forum for issues in air pollution and lung cancer issues and the group supports a cross-organisational approach to corporate partnership opportunities.
- We include links between climate and health in our information on air pollution, including actions we can take to reduce exposure to air pollution. We also include links in our information on diet and physical activity to help support people to understand the link between human health and the environment. As part of this, we have highlighted initiatives like Meat-free Mondays and walking or cycling instead of driving.
- We are a member of the Healthy Air Coalition, a collective of over 20 leading health, environment and transport charities committed to raising awareness of the health, societal and economic consequences of air pollution. The Healthy Air Coalition are calling for urgent and ambitious healthy air targets that align with World Health Organization (WHO) guidance to clean up the air we breathe. They also call for a focused cross-departmental approach to tackling air pollution and better monitoring and reporting of air pollution. We co-sign letters from the Healthy Air Campaign to relevant Ministers on PM2.5 targets.
- We continue to highlight why the tobacco industry should foot the bill for the damage it causes – primarily by funding the stop-smoking services and public health campaigns needed to help people quit and prevent cancer across all UK nations. The tobacco industry should have no control over how the money is spent. Part of this work includes supporting, where appropriate, a separate call for the tobacco industry to be made to pay for the environmental damage of single-use plastics connected with its products, such as cigarette butts.



Investing in ESG

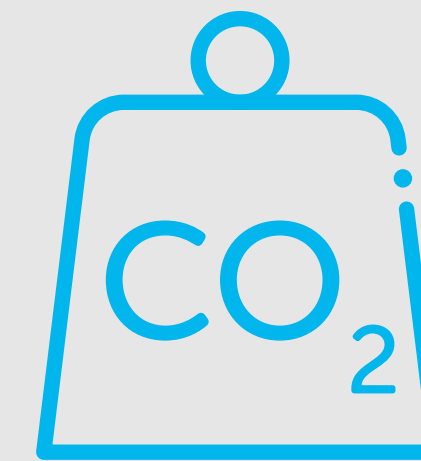
We continue to improve the sustainability of our investment portfolio

As an organisation dedicated to beating cancer, we have a longstanding policy of not investing in any company that grows, trades or sells tobacco. In addition, along with our investment managers, we take account of the ESG credentials of specific companies and pooled funds before investing. In particular, we don't invest directly or indirectly in companies that are predominantly engaged in the production and sale of weapons, alcohol or coal, nor in sectors such as gambling, adult entertainment, oil sands, palm oil, nuclear power or for-profit prisons. And this year, we took further steps to improve the sustainability of our investments, to better align them with the UN Sustainable Development Goals.

Our ESG approach to investing means we have already seen a significant drop in the carbon exposure of our portfolio. The portfolio has a carbon intensity that is 23% lower than the reference benchmark achieved

through roughly half a lower allocation of high emitting sectors. This includes energy, utilities and metals and mining, and half by lower than average emission securities selected within all high intensity sectors. In addition to current emissions, the portfolio has 87% lower potential emissions of the fossil fuel reserves of portfolio companies compared to the reference benchmark.

The reference benchmark is a composite of the underlying strategy benchmarks – used to represent the non-ESG investment universe to match the asset allocation of the portfolio. The resulting difference of the portfolio versus the benchmark therefore reflects the ESG decisions of each manager and strategy within the portfolio, rather than any asset allocation decisions.



Carbon intensity – technical information

Our portfolio has a carbon intensity that's 23% lower than the reference benchmark.

The portfolio carbon intensity is a weighted average of each portfolio company's most recently reported or estimated Scope 1 + Scope 2 + Scope 3 greenhouse gas emissions¹ normalised by sales in USD, which allows for comparison between companies of different sizes.

This lower carbon intensity is around 50% driven by lower allocation to high-emitting sectors and 50% driven by security selection within high-emitting sectors. The sector allocation decisions include an underweight to energy, utilities and metals and mining, whilst security selection reflects lower than average emission securities selected within all high-intensity sectors.

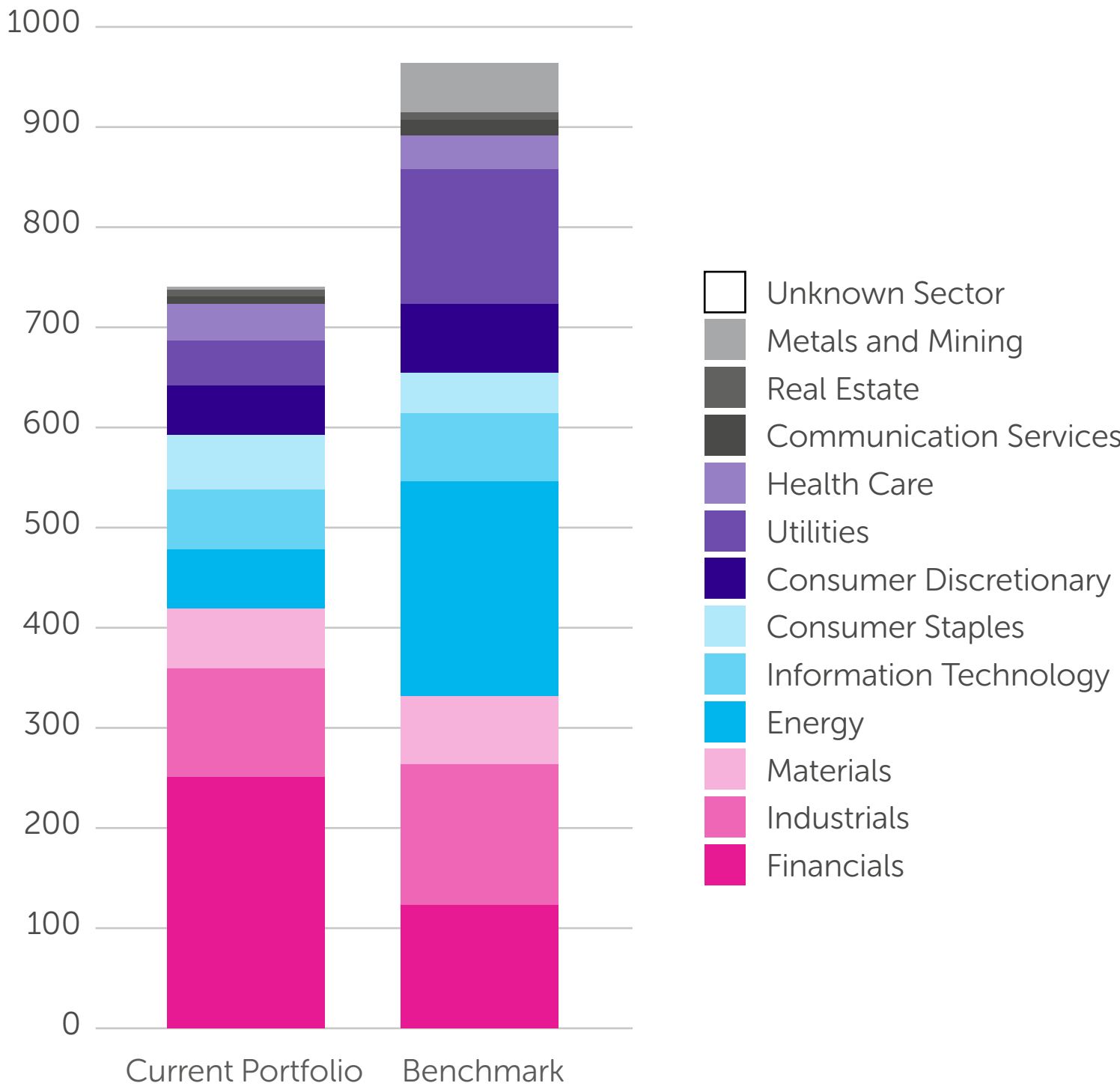
In addition to current emissions, our portfolio has 87% lower potential emissions of the fossil fuel reserves of portfolio companies compared to the reference benchmark.

This metric is calculated by summing the potential emissions generated if each portfolio company's fossil fuel reserves were produced. This metric is also an indicator of stranded asset risk, as companies may not be able to utilise these reserves in the future if the global economy transitions away from high carbon activities.

1. **Scope 1 emissions** are those from sources owned or controlled by the company, typically direct combustion of fuel as in a furnace or vehicle.
Scope 2 emissions are those caused by the generation of electricity purchased by the company.
Scope 3 emissions include an array of indirect emissions resulting from activities such as business travel, distribution of products by third parties, and downstream use of company products (such as by customers).

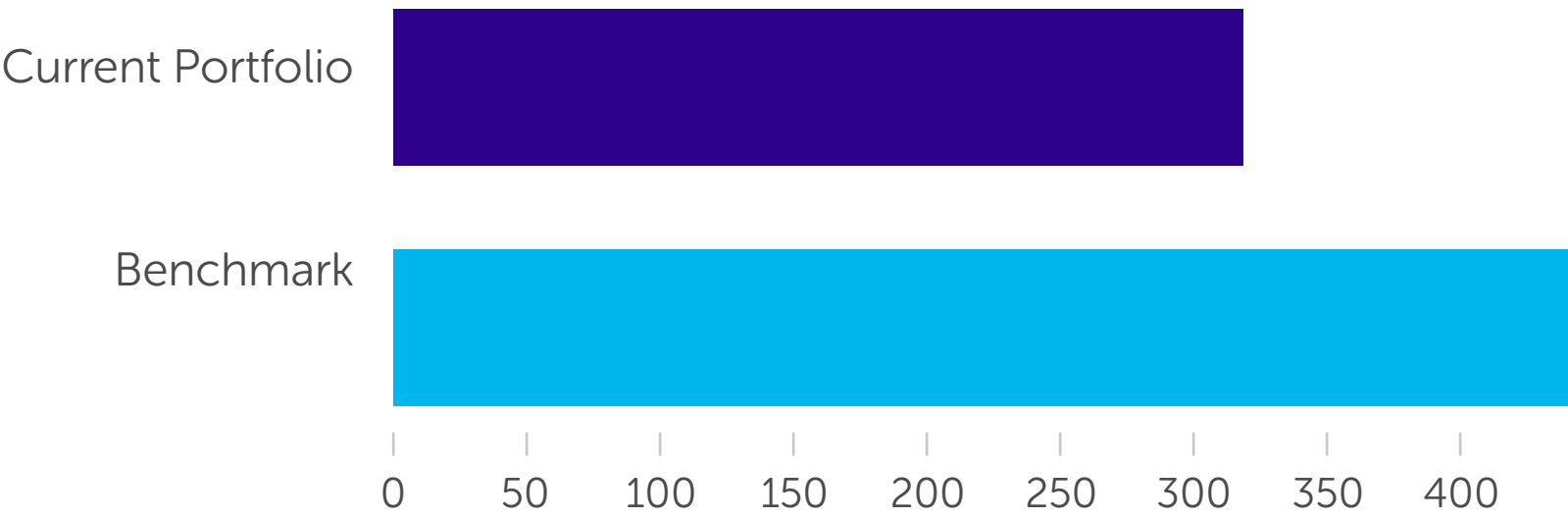
ESG approach: carbon metrics

Carbon Intensity (tCO2 / \$mm sales)
Scope 1 + 2 + 3 emissions normalized by revenue



	CO ₂ Conversion Metrics		
	Portfolio	Benchmark	Difference
Greenhouse gas Emissions (Scope 1 + Scope 2 + Scope 3) (Metric Ton)	134,803	182,897	-26%
Carbon Footprint of Fossil Fuel Reserves (Total potential Scope 1 + 2 + 3 emissions) (Metric Ton)	64,856	515,305	-87%

Carbon Footprint (tCO2 / \$mm invested)
Scope 1 + 2 + 3 emissions normalized by portfolio size



Data credit
Goldman Sachs and MSCI ESG. April 2023. Please see 'ESG investing' page in this report for further information.

What we'll do in 2023/24

Publishing our long-term strategy – we will continue to develop and refine our long-term sustainability strategy and delivery roadmap, including publishing our goals, targets and key performance indicators.

Setting science-based targets and reducing our emissions – we will set validated science-based emissions reduction targets and have a reduction roadmap to achieve net zero.

Moving towards best practice – we will move towards best practice across most areas of our operations using the Business in the Community (BITC) Responsible Business Tracker® to help guide us.

Our emission commitments

We're committing to reduce all our emissions (scope 1, 2 and 3) by 50% by 2030 and to achieving net zero by 2050. We aim to be as transparent as possible in our plans to achieve this and how we're measuring and evidencing our progress. Today we have good, and externally collected and assessed, scope 1 and 2 emissions and some scope 3 transport emissions. Our commitment is to reduce our emissions by 50% from our 2019 levels. For scope 1 and 2 baselines, these are based on the 2019 levels, and we'll develop a comprehensive scope 3 map during 2022 for our scope 3 baseline. At the same time, we're doing a more comprehensive assessment of our scope 1 and 2 emissions and following best practice in moving to align emissions reporting to our financial reporting cycle.

We have some activities already in place for reducing some of scope 1 and 2 emissions, and we'll continue to look for sensible initiatives which we can get on with quickly. However, we expect our indirect upstream and downstream activities (scope 3) to make up the majority of our emissions. That's why we're continuing to take the time in 2023 to comprehensively understand these and develop a strategy based on data to allow us to make better decisions and more effective use of time and resources.

We decided to use our 2019 data as a baseline as this was a key year in our existing sustainability planning and investment. We moved into our new head office, which is designed to excellent sustainability standards – being rated BREEAM Outstanding 94% in the independent assessment of scientifically-based sustainability metrics and indices covering a range of environmental issues. Our move to the

ESG investment portfolio also produced a large drop in our carbon exposure in scope 3 emissions. We also planned our investment to put LED lighting into all our 581 shops.

We've initiated our expansion of Cancer Research UK superstores, opening 11 in 2019–2022 with more planned in 2023. As a result, we feel it's important to also capture our growth which increases our emissions since 2019. During COVID-19 we saw reductions in our emissions through office, lab and shop closures, but we don't expect to see long-term reductions from this as our shops and labs return to pre-COVID working patterns with 2020–2022 not being representative of our typical Green House Gas (GHG) profile. While some long-term reductions will come from more flexible working in our head office, we'll include estimates of the energy use of staff working from home for a more accurate picture.



Collaborating to cut emissions

Dr Claire Heride and Dr Sylvie Lachmann are part of the Therapeutic Innovation Sustainability Network at Cancer Research Horizons, our new innovation engine launched in April 2022.

Considering the size, scale and breadth of our operations, cross-departmental collaboration is key to ensuring we work efficiently, effectively and sustainably across our organisation. As part of the sustainability network, Claire and Sylvie are helping to deliver several initiatives to reduce environmental impact across our network of research institutes.

We've put an ongoing programme in place working towards achieving the Gold Laboratory Efficiency Assessment Framework (LEAF) award by 2024 for all our own operations. Out of our

wholly operated research institutes, one achieved Silver in 2022 and of the remaining in 2023, one will submit Gold and the other Bronze.

Another focus this year was reviewing the use of single-use plastic in our laboratories and exploring options to remove, reduce or replace. For example, we've replaced single-use, plastic-based alcohol wipes with a disinfectant solution and, after trialling and testing performance, we've decided to replace current centrifuge tubes made from 90% recycled feedstock rather than virgin plastic.

These steps on the road to sustainability have been made possible by people like Claire and Sylvie coming together to make positive changes which reach across our whole organisation.

Cancer Research Horizons Therapeutic Innovation Sustainability team

Principal scientists:



Dr Claire Heride



Dr Sylvie Lachmann

"I'm proud of how the sustainability group has grown over the last year with representatives from all our lab operating sites. It brings together knowledge and enables a better exchange of ideas for how we can further reduce the number of consumables, energy and water required for research and minimise our waste. We aim to lead by example with LEAF gold certifications at all Cancer Research Horizons sites in Q4 2024. Shifting people's mindset to challenge how we can work more sustainably without compromising on quality is key."

Dr Sylvie Lachmann, Principal Scientist

Our 2022 environmental data and methodology in detail

We're reporting our energy use and emissions on a calendar basis (1 January 2021 to 31 December 2021) to ensure we have a complete reportable data set.

Our environmental data is compiled and analysed by ECA Business Energy. All our environmental reporting data, methodological approach and final figures are independently audited by CLS Energy.

Reporting period

We currently report our energy use and carbon emissions on a calendar year basis – from 1 January 2022 to 31 December 2022 – to ensure we have a complete and comparable data set, following the previous year’s reporting and Streamlined Energy and Carbon Reporting (SECR) submission.

This year, we’ve also compiled energy use and carbon emission data based on the 2022/23 financial year. From next year, we will move to reporting on financial years.

Our environmental data is compiled and analysed by ECA Business Energy. All our environmental reporting data, methodology and final figures are independently audited by CLS Energy.

The intensity measurement of FTE has been selected in order to compare emissions with organisation growth and for consistency with similarly reporting organisations.

We have previously reported their emissions intensity ratio using annual turnover. However, upon evaluation of typical business activity across all emissions sources within Cancer Research UK’s scope, they have deemed full-time employees a more accurate business metric. As such, all future reports, including the 2022/23 report, will be submitted using tCO2e per FTE. The current 2022 reporting period has been submitted with both tCO2e per £M Turnover and tCO2e per FTE.

Emissions Detail by Scope

		Location based method					Market based method		
Scope	Units			Previous Year	Current Year		Previous Year	Current Year	
		2019	2020	2021	2022	2022/23	2021	2022	2022/23
Scope 1 Combustion	tCO2e			1172	993	953	1172	993	953
Scope 1 Transport	tCO2e			622	777	740	622	777	740
Scope 1 Facility Operation	tCO2e	-	-	-	-	-	-	-	-
Total Scope 1	tCO2e	1921	1651	1794	1770	1693	1794	1770	1693
Total Scope 1	kWh			9030679	8695393	8328013	9030679	8695393	8328013
Scope 2 Purchased Electricity	tCO2e			3321	3632	3624	1407	1704	1841
Scope 2 Purchased Heat	tCO2e			436	305	290	436	305	290
Scope 2 Purchased Cooling	tCO2e			51	324	424	51	324	424
Total Scope 2	tCO2e	4462	3227	3808	4261	4338	1894	2333	2555
Total Scope 2	kWh			18151079	22257495	22621294	18151079	22257495	22621294
Scope 3 Mandatory Transport	tCO2e		130	57	111	119	57	111	119
Scope 3 Voluntary Transport	tCO2e		368	114	850	1016	114	850	1016
Scope 3 Transmission and Distribution	tCO2e			336	390	397	336	390	397
Total Scope 3	tCO2e	2422	830	507	1351	1532	507	1351	1532
Total Scope 3	kWh			230257	448288	481263	230257	448288	481263
Total All Scopes	tCO2e	8805	5708	6109	7382	7563	4195	5454	5780
Total All Scopes	kWh	29376106	23733671	27412015	31401176	31430570	27412015	31401176	31430570

Emissions Detail by Fuel Type

		Location based method					Market based method		
Fuel type	Units			Previous Year	Current Year		Previous Year	Current Year	
		2019	2020	2021	2022	2022/23	2021	2022	2022/23
Electricity	tCO2e			3,321.33	3,632.05	3,623.78	1,406.85	1,704.24	1,840.99
Natural Gas	tCO2e			1,169.24	990.25	950.61	1,169.24	990.25	950.61
Transmission & Distribution	tCO2e			336.70	389.54	396.65	336.70	389.54	396.65
Purchased Heat - Electricity	tCO2e			432.02	302.18	287.87	432.02	302.18	287.87
Purchased Cooling - Electricity	tCO2e			51.41	324.09	424.37	51.41	324.09	424.37
Biomass Wood Pellets	tCO2e			0.00	0.00	0.00	0.00	0.00	0.00
Biomass Wood Chips	tCO2e			3.51	2.50	2.10	3.51	2.50	2.10
Fuel Oil	tCO2e			0.00	0.00	0.00	0.00	0.00	0.00
Kerosene	tCO2e			1.99	2.36	2.33	1.99	2.36	2.33
Diesel	tCO2e			370.46	437.19	435.32	370.46	437.19	435.32
Petrol	tCO2e			178.16	204.45	205.16	178.16	204.45	205.16
Unknown Vehicle Fuel	tCO2e			151.59	299.83	279.44	151.59	299.83	279.44
Rail	tCO2e			16.43	61.05	61.10	16.43	61.05	61.10
Air	tCO2e			75.90	736.28	893.86	75.90	736.28	893.86
F-Gas	tCO2e			0.00	0.00	N/A	0.00	0.00	0.00
Total All Scopes	tCO2e	8,805	5,708	6,108.75	7,381.78	7,562.58	4,194.27	5,453.97	5,779.79
Electricity	kWh			15,642,314.74	18,781,927.77	18,739,164.44	15,642,314.74	18,781,927.77	18,739,164.44
Natural Gas	kWh			6,383,724.52	5,424,828.14	5,207,654.34	6,383,724.52	5,424,828.14	5,207,654.34
Purchased Heat - Electricity	kWh			2,034,660.00	1,562,619.00	1,488,640.00	2,034,660.00	1,562,619.00	1,488,640.00
Purchased Cooling - Electricity	kWh			242,129.00	1,675,948.00	2,194,490.00	242,129.00	1,675,948.00	2,194,490.00
Biomass Wood Pellets	kWh			0.00	0.00	0.00	0.00	0.00	0.00
Biomass Wood Chips	kWh			231,974.94	237,000.00	199,000.00	231,974.94	237,000.00	199,000.00
Fuel Oil	kWh			0.00	0.00	0.00	0.00	0.00	0.00
Kerosene	kWh			8,060.20	9,546.40	9,433.37	8,060.20	9,546.40	9,433.37
Diesel	kWh			1,564,083.51	1,812,969.34	1,805,210.00	1,564,083.51	1,812,969.34	1,805,210.00
Petrol	kWh			775,252.25	899,858.96	902,975.50	775,252.25	899,858.96	902,975.50
Unknown Vehicle Fuel	kWh			529,815.70	996,477.94	884,002.25	529,815.70	996,477.94	884,002.25
Total All Scopes	kWh	29,376,106	23,733,671	27,412,014.85	31,401,175.55	31,430,569.89	27,412,014.85	31,401,175.55	31,430,569.89

Year on Year Emissions

				Previous Year	Current Year		% Change 2022 vs 2019	% Change 2022 vs 2021	% Change 2022/23 from Baseline (2019)
Country	Units	2019	2020	2021	2022	2022/23			
Location Based	tCO2e	8,805	5,708	6,109	7,382	7563	-16%	21%	-14%

The carbon figures have been calculated using the BEIS 2021 carbon conversion factors for all fuels.

The intensity measurement of turnover has been selected in order to compare emissions with organisation growth and for consistency with similarly reporting organisations.

2022

Intensity Ratio - tCO2e / FTE

Year	Location based	% Change vs previous year
2022	2.02	13%
2021	1.78	9%
2020	1.63	-28%
2019	2.28	
FTE's 2022:	3659.57	

Green House Gas breakdown totals

	tCO2e	tCO2	tCH4	tN20
	7143.73	7074.42	24.15	45.16
Cash Figure	238.04			
	7381.77	7074.42	24.15	45.16

Green House Gas in detail

		Unit	Figure	tCo2e	tCO2	tCH4	tN20
	Electricity	kWh	17,932,213	3807.55	3768.63	14.35	24.57
	Natural Gas	kWh	8,392,172	1537.11	1534.26	2.10	0.84
	Purchased Heat - Electricity	kWh	2,034,660	432.02	427.60	1.63	2.79
	Purchased Cooling - Electricity	kWh	242,129	51.41	50.89	0.19	0.33
	Transmission and Distribtution	kWh	20,209,002	379.73	375.89	1.41	2.43
	Biomass Wood Chips	kWh	231,975	3.51	0.00	3.51	
	Kerosene	kWh	8,060	1.99	1.98	0.00	0.00
	Diesel	kWh	1,564,084	370.47	364.98	0.03	5.46
	Petrol	kWh	775,252	178.15	177.04	0.58	0.53
	Unknown Vehicle Fuel	Miles	472,333	130.35	129.39	0.13	0.83
Air	Domestic	Km	93,455	22.98	22.85	0.01	0.11
Air	Short Economy	Km	1,960	0.30	0.29	0.00	0.00
Air	Short Business	Km	2,816	0.64	0.63	0.00	0.00
Air	Long Economy	Km	94,338	13.95	13.88	0.00	0.07
Air	Long Premium Economy	Km	57,951	13.71	13.64	0.00	0.07
Air	Long Business	Km	41,499	17.80	17.71	0.00	0.09
Rail	Rail Domestic	Km	443,478	15.74	15.57	0.03	0.14
Rail	Rail International	Km	688	0.003	0.003	0.000	0.000

Green Electricity Tariff Detail UK

Tariff type	kWh	kWh percentage for electricity	kWh overall percentage	tCO2e	tCO2e reduction %*
Green	9,963,616	53.05%	31.73%	0	-53%
Brown	8,818,312	46.95%	28.08%	1704	

*Market based emissions vs location based emissions S2 Electricity

2022/23

Intensity Ratio - tCO2e / FTE

Year	Location based	% Change vs previous year
2022/23	2.03	14%
FTE's 2022/23:	3721.66	

Green House Gas breakdown totals

	tCO2e	tCO2	tCH4	tN20
	7238	7168	24	46
Cash Figure	324			
	7562	7168	24	46

Green House Gas in detail

		Unit	Figure	tCo2e	tCO2	tCH4	tN20
	Electricity	kWh	18,739,164.4	3,623.8	3,583.1	15.0	25.7
	Natural Gas	kWh	5,207,654.3	950.6	948.8	1.3	0.5
	Purchased Heat - Electricity	kWh	1,488,640.0	287.9	284.6	1.2	2.0
	Purchased Cooling - Electricity	kWh	2,194,490.0	424.4	419.6	1.8	3.0
	Transmission and Distribtution	kWh	22,422,294.4	396.7	392.4	1.6	2.7
	Biomass Wood Chips	kWh	199,000.0	2.1	0.0	2.1	2.1
	Kerosene	kWh	9,433.4	2.3	2.3	0.0	0.0
	Diesel	kWh	1,805,210.0	435.3	429.0	0.0	6.3
	Petrol	kWh	902,975.5	205.1	203.8	0.7	0.6
	Unknown Vehicle Fuel	Miles	794,109.1	218.1	216.5	0.2	1.4
Air	Domestic	Km	456,312.0	112.2	111.6	0.0	0.6
Air	Short Economy	Km	418,692.0	63.2	62.9	0.0	0.3
Air	Short Business	Km	8,442.0	1.9	1.9	0.0	0.0
Air	Long Economy	Km	1,572,707.0	232.6	231.4	0.0	1.1
Air	Long Premium Economy	Km	666,569.0	157.7	156.9	0.0	0.8
Air	Long Business	Km	152,882.0	65.6	65.2	0.0	0.3
Rail	Rail Domestic	Km	1,660,234.0	58.9	58.3	0.1	0.5
Rail	Rail International	Km	10,547.8	0.0	0.0	0.0	0.0

Green Electricity Tariff Detail UK

Tariff type	kWh	kWh percentage for electricity	kWh overall percentage	tCO2e	tCO2e reduction %*
Green	9,282,365	50%	29%	0	-49%
Brown	9,456,799	50%	30%	1,841	

Methodology and disclosure summary

We are reporting in line with the Department for Business, Energy & Industrial Strategy (BEIS) March 2019 ‘Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance’. Our reporting is also in line with the Energy Managers Association methodology for SECR Reporting and the World Resources Institute/ World Business Council for Sustainable Development’s ‘Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (revised edition)’. All measured emissions from activities which the organisation has financial control over are included as required under ‘The Companies (Directors’ Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018’, unless otherwise stated in the exclusions statement.

The carbon figures have been calculated using the BEIS 2022 carbon conversion factors for all fuels, other than the market-based electricity which has been taken from Scottish Power, Business Power & Gas, E.ON, Total Gas & Power, Airtricity, SSE, Guernsey Electricity, Jersey Electricity, EDF Energy and Centrica/British Gas as the UK suppliers.

We’ve taken an operational control approach, meaning that 100% of emissions from operations over which Cancer Research UK and its subsidiaries have operational control have been reported.

Fuel type	Emissions conversion factor source
UK Electricity – location based (excluding transmission and distribution), UK gas, petrol, diesel, unknown vehicle fuel	Department for Business, Energy and Industrial Strategy (BEIS) 2022
Travel expenditure - emissions conversion factors	UK Government BEIS ‘Environmental Reporting Guidelines 2019’

All emissions calculations are taken from activity data. In 2022, pro-rata extrapolation has been used for 90 days of natural gas and electricity consumption at Sterling House in Oxford, and 123 days of electricity consumption at the Cori Building in Cambridge, totalling 0.23% of natural gas consumption and 0.97% of electricity consumption in estimations. This totals 0.63% of total consumption estimated across all scopes. We’ve made the assumption that all travel expenditure categorised as “unknown” is road transport. Location-based emissions factors have been used for electricity supplied by landlords.

Our emissions are reported as metric tonnes of carbon dioxide equivalent, which incorporates all six gases regulated by the Kyoto Protocol.

Exclusions statement and voluntary disclosures

Other than the Beatson, we don’t include Cancer Research UK-branded research institutes and centres, as these are not part of our organisation structure and don’t have operational control over them. Additionally, we’ve excluded all managed offices and laboratories – those where we don’t receive a separate charge for energy. Our leased fleet includes our company cars and vans. Business travel mileage includes staff and volunteers driving their own vehicles for Cancer Research UK business (known as ‘grey fleet’).

Scope 2 purchased electricity doesn’t include the transmission and distribution element as this is owned by the supplier.

As in previous years, we’ve voluntarily included some Scope 3 emissions from business travel by staff and volunteers (other than travel by van, company car or private car), such as air, rail, coach, public transport and taxis. Most air and rail travel data were provided by our travel agents, whereas most public transport and taxi data was collated from expense claims.

Historical alterations

- The natural gas and electricity consumption at Wolfson Wohl Garscube for the 2019, 2020 and 2021 report figures have been historically removed, resulting in lower reported figures for those periods in this report than has been previously disclosed. This is because this site has been deemed outside of the operational control boundary of CRUK.
- For 2020, the Wolfson Wohl consumption for gas and electricity, as well as the associated emissions, were removed directly from the total figures. For 2019, Wolfson Wohl consumption was removed using estimations based on the percentage difference of subsequent reporting periods following the removal of Wolfson Wohl data. The percentage reductions for 2019 were as follows: Scope 1 - 13%, Scope 2 - 16%, total kWh - 14%.

The intensity figures for 2019, 2020 and 2021 have been amended accordingly following the adjustment of historical tCO₂e calculations for those years. The FTE figures were also revised for each year to ensure they were appropriate for the included sites.

2019 Original Total: 9,942 tCO₂e; 2.71 intensity.
2019 Adjusted: 8,805 tCO₂e; 2.49 intensity.

2020 Original Total: 6,584 tCO₂e; 1.82 intensity.
2020 Adjusted: 5,708 tCO₂e; 1.80 intensity.

2021 Original Total: 6,917 tCO₂e; 1.98 intensity.
2021 Adjusted: 6,109 tCO₂e; 1.95 intensity.

Exclusions statement and voluntary disclosures

We don't include Cancer Research UK brand research institutions and centres as these aren't part of our organisation structure and we don't have operational control over them. We've also excluded all managed offices and laboratories – those where we don't receive a separate charge for energy. Our leased fleet includes our company cars and vans. Business travel mileage includes staff and volunteers driving their own vehicles for Cancer Research UK business (known as 'grey fleet').

Scope 1 exclusions: F-Gas consumption hasn't been collected or included in the SECR report - however some air conditioner service reports had been noted, concluding no leaks or refrigerant refills. F-Gas was also not included in the previous 2 years SECR reports. We will gather data on F-Gas consumption and include this in future reports.

Scope 2 exclusions: None.

Scope 3 exclusions: As in previous years, we've voluntarily included some Scope 3 emissions from business travel by staff and volunteers (other than travel by van, company car or private car), such as air, rail, coach, public transport and taxis. Most air and rail travel data was provided by our travel agents, whereas most public transport and taxi data was collated from expense claims.

kWh conversions for rail and air travel have not been included, as conversion factors aren't provided in the UK Government Carbon Conversion Factors. This is consistent with previous reports.



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