Prepared by

Supercritical

July 2022

2021 Carbon Footprint Report.

Overview

The climate crisis is the single-biggest threat to humanity. As a forward-thinking company, OxfordSM recognises this. You've partnered with Supercritical to measure, reduce, and offset your emissions.

The first step is to understand your current impact. We've calculated OxfordSM's carbon footprint for the 2021 calendar year.

296

Total tonnes CO_2e emitted

That's the equivalent of powering 93 homes for a whole year[1]

16%

of emissions were created from software & digital partners

Emissions associated with OxfordSM's software & digital partners generated 47 tonnes of CO_2e emissions.

5.06 t CO_2e

per employee

ABOUT AVERAGE

Your total footprint equates to 5.06 tonnes CO_2e per employee over 2021. The average footprint for a person in the UK is 12.7 tonnes per year, and the average footprint of an employee in a tech company is ~5.5 tonnes.

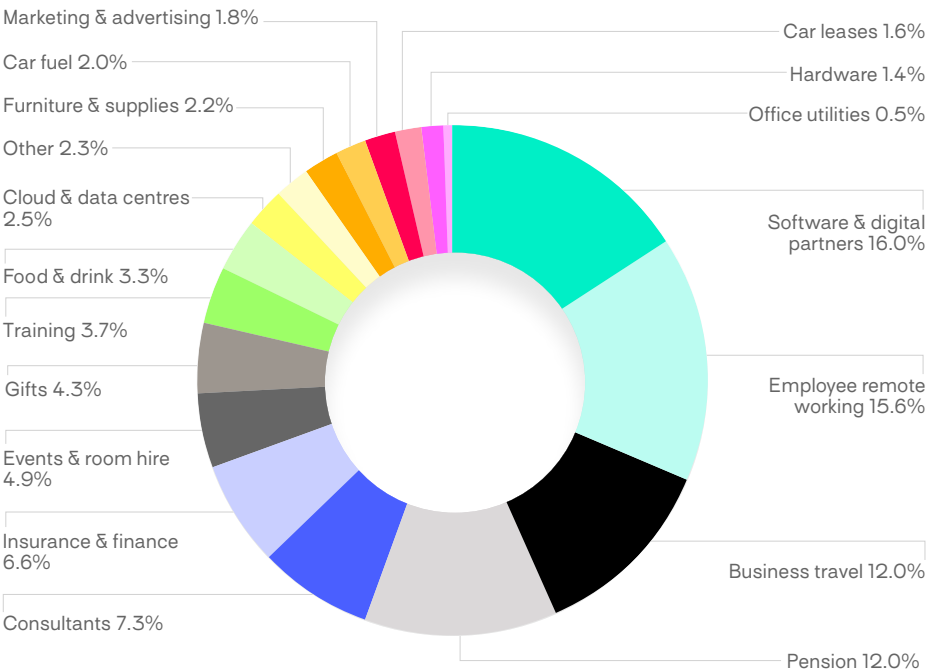
0.02

GHG intensity ratio

ABOUT AVERAGE

The ratio between your footprint and revenue in 2021. This is an industry standard way to normalise your footprint so you can track progress over time.

Emissions breakdown



(See Appendix A for data and categorisation by scope)

GHG protocol breakdown by scope

	(t CO_2e)
Scope 1	5
Scope 2	0
Scope 3	291

Reporting period: 1st Jan 2021 - 31 Dec 2021

Emission boundary: Company operations and supply chain; Financial control approach.

Notes on scopes: Scope I include purchased fuel for company cars. Energy used in rented office is included in Scope 3.

Location based Scope 2 emissions
= 0 tonnes CO_2e

Our methodology

Supercritical's methodology is aligned with the GHG Protocol standard, the standard developed by the World Resources Institute (WRI), and used by governments & cities all over the world as well as over 92% of Fortune 500 companies.

Base year footprint

We begin by calculating a base year footprint; the total CO_2e emissions released as part of a company's activities over the period of a specified year. Companies choose the base year as the earliest whole year for which they have reliable data: for OxfordSM this is 2021. Calculating a base year footprint is necessary to set and track progress towards future emissions reduction goals. But since 2021 was a highly unusual year, you can expect many emissions categories to change going forward. We can use backcasting next year to help you understand which of the changes are due to your climate actions, and which are due to other background changes.

Emissions calculations

Most business activities don't have a direct measurement of the GHG emissions recorded for them. Instead, we use emission conversion factors to calculate the equivalent emissions created for activities. A number of governments & organisations create and maintain official GHG conversion factors, and the majority of emissions factors we've used to calculate OxfordSM's footprint have been provided by the UK Government's Department for Business, Energy & Industrial Strategy (BEIS) team[2].

For example, converting a 15km taxi ride into the amount of CO_2e emitted into the atmosphere, using the BEIS taxi km/kg CO_2e conversion factor (0.20369):

GHG emissions = activity data x emission conversion factor

3.05 kg CO_2e = 15 x 0.20369

Our approach to emissions scope

We use a comprehensive and progressive approach to mapping emissions, aiming to capture the majority of emission sources in your sphere of influence. Emission sources such as home-working and pension investment are often overlooked. However, they present a huge opportunity for your positive influence!

Deeper dive: Remote working approach

We wanted to provide more information on our remote working methodology, so you can understand one of the largest contributors to your footprint.

Working from home uses additional electricity (charging laptops and powering external monitors) and heating compared to homes being empty during working hours.

To calculate the impact of employee home-working, first we estimate the additional electricity used. This additional electricity comes from laptops, lighting and monitors.

We have estimated the hours that the OxfordSM team worked from home from the data collected in your employee survey.

Total home office usage (kWh) = 150 watts x number of employees working from home x working hours per month

Next we translate energy use into CO_2e emissions using the conversion factors. We take into account the prevalence of renewable electricity providers in the team and their geographical distribution using national grid intensity factors. For example, in the UK this is set by BEIS at 0.212 kg CO_2/kWh.

We then calculate the impact of the additional energy required to heat employees' homes during this period. An average gas boiler uses 0.5 kW to heat a home. We used information from your employee survey to calculate the total hours of additional heating. Using this information, we can calculate additional heating:

Total heating usage (kWh) = 0.5 kW x (Total number of hours employees had heating on while working from home)

Lastly, we translate additional heating into CO_2e emissions using the BEIS natural gas conversion factor (0.184):

Work from home gas emissions (kg CO_2e) = Total heating usage (kWh) x 0.184

This gives us the total emissions created as a result of your employees working from home.

Reduction recommendations

Emissions reduction plays a vital role in tackling the climate crisis. In order to limit global warming to 1.5˚C, the world needs to halve CO_2e emissions by 2030 and reach net zero CO_2e emissions by 2050. This requires companies like Oxford SM to both reduce emissions and offset those that can't be avoided.

Summary

		Potential reduction (t CO_2e)	Impact	Effort
Digital Partners, Software (& Consultants)				
1	Engage with your suppliers	4.7	Med	Med
Business travel				
2	Formalise a business travel policy	8.0	High	Med
Working from home				
3	Consider heat pumps and insulation	15.0	High	High
Pensions				
4	Switch or lobby your provider	2.7	Med	Med

Footprint per employee (t CO_2e)

~~5.06~~

4.79

Total potential reduction

Digital Partners, Software (& Consultants) Engage with your suppliers

1

A large part of your footprint is related to embodied emissions from your suppliers. The largest part (57% of your suppliers) is from your digital partners and software suppliers. This is because the companies you hire generate their own emissions associated with their corporate operations, software product manufacturing and hosting, offices, and travel. These all count towards your Scope 3 emissions under the GHG Protocol.

The best way to influence these emissions is to engage with these organisations and encourage them to measure their own emissions. Beyond this, you can set standards for the companies you work with going forward. This will send a market signal that this is something their clients care about! Having a better idea of their climate goals and footprint can also help improve the accuracy of your footprint next year.

Engaging your suppliers could save 27.1 tonnes CO_2e emissions per year (~5% of your footprint in 2021).

How can you implement this?

1. Identify the suppliers that jointly contribute to 80% of your contractor footprint (see below)
2. Prepare an email (suggested template here) to send out to suppliers asking:
   - If they have measured their carbon footprint
   - About their total emissions, emissions intensity metric (per revenue) and detailing which emission sources are included
   - What their net zero journey and goals are
   - If they already do any offsetting, or invest in any carbon removal
3. Follow up with a list of suggested companies they can use to footprint, details about your experience of the process, and suggested reduction options e.g. reducing their scope 2 by switching to renewable energy
4. Draft a policy that requires consulting firms you work with to have a formal Net Zero target

Impact Med

Effort Med

Potential total reduction* (estimated)

4.7 tonnes CO_2e

Reduction per employee implementing this change*

0.1 tonnes CO_2e

Potential total cost/savings*

Neutral unless you change suppliers as a result

*Assuming your suppliers can reduce their emissions by 10%

Emissions tracking

If you can gather data on your main consulting firms, we can generate supplier-specific emission factors that will enable us to accurately calculate your emissions and track reductions.

Team responsibility

Operations

Further reading

- Example Net Zero planning

Case studies & best practices

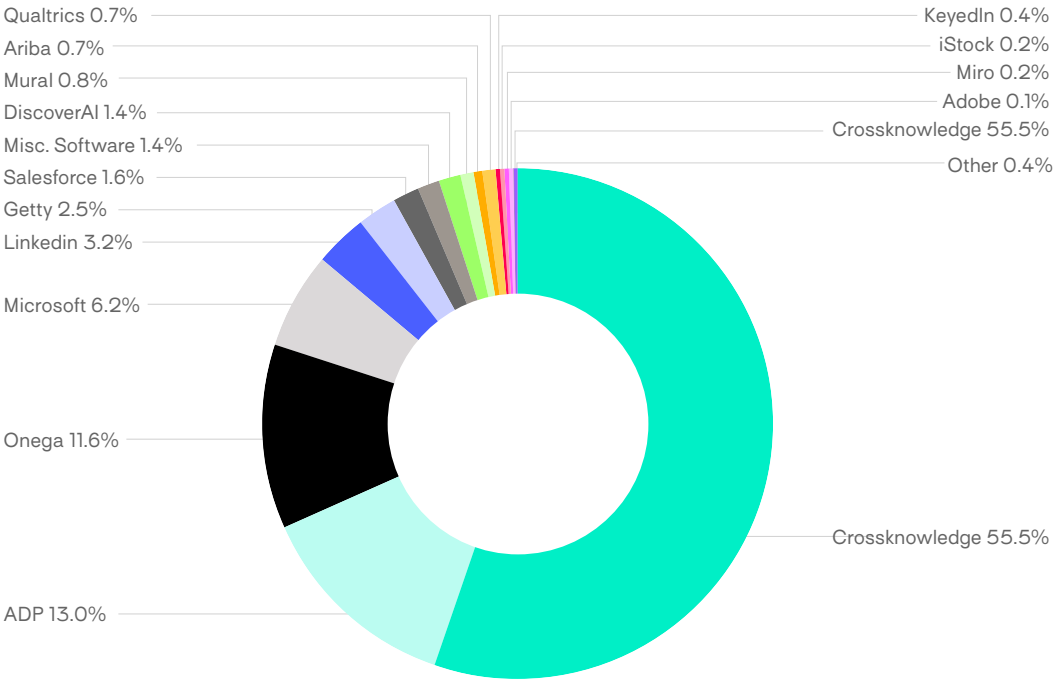
- Salesforce email template
- PWC hosted an event for their suppliers
- Albert procurement policy
- Use of a software to map supply chain

Digital Partners, Software (& Consultants) 1

Engage with your suppliers

(continued)

Breakdown of suppliers



"Other" includes:

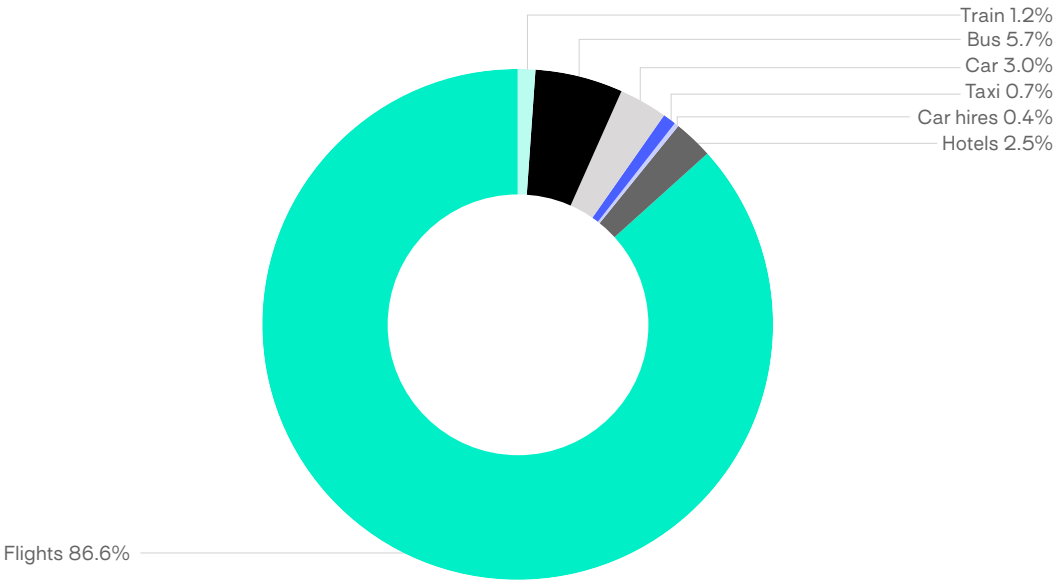
Think Cell 0.1%
Sage 0.08%
Shutterstock 0.07%
Hunter IO 0.07%
Epidemic Sound 0.05%
Jotform 0.04%
Spotify 0.03%
Otter AI 0.02%
SurveyMonkey 0.02%
Loom 0.01%
Mailchimp 0.01%

Business travel
Formalise a business travel policy

2

The greenest trip is the one you didn't make! Your team flew 18 legs between London and New York, totalling 21.4 tonnes (60% business travel emissions).

Travel breakdown



We assumed these trips were for the company get together (based on event data and travel dates). We noted you have no formal travel policy and there are some reduction opportunities here. We'd encourage you to consider the following policies:

- Introduce an approval process for travel, requiring a carbon estimate for the whole trip. This will help increase accountability and reduce non-essential flights.
- Implement a train first policy. For example if a train journey would take under 6 hours, use the train instead of flying. Train journeys of less than 5h tend to overall take less travel time door-to-door compared to flying, once travel to the airport, time for security and check-ins are taken into account. Train travel is also more reliable, comfortable and offers more productive time while travelling.
- Promote virtual meetings and invest in digital tools (Miro, Fellow etc.) and training that will make remote meetings more productive.
- Optimise unavoidable travel: Try to include numerous relevant meetings within a single trip
- Implement a 1-person travel policy for longer flights e.g. only send the most relevant team member to a conference

Impact High

Effort Med

Potential total reduction

8.0 tonnes CO_2e

Reduction per employee implementing this change

0.13 tonnes CO_2e

Potential total cost/savings

~£1.5k saving

Emissions tracking

Reductions will track automatically, through your flight log or list.

Team responsibility

Operations

Further reading

- Managing our travel emissions
- Responsible Business Travel - 9 Ways to Reduce Your Carbon Footprint

Case studies & best practices

- How to build a sustainable business travel policy
- Use a third party provider with sustainable business travel policy options
- Edinburgh University Sustainable Travel Policy
- WWF Sustainable business travel policy

Business travel
Formalise a business travel policy

2

(continued)

How can you implement this?

1. Draft and approve your internal travel policy and checklist that asks:
   - Can this trip be avoided by meeting or virtually?
   - Can this trip cover several combined meetings and events?
   - Can it be done by train (for European journeys)
2. Set up internal carbon pricing or budget (optional)
3. Organise a lunch and learn to educate your team on your new travel policy

Scaling impact

a) Travel for internal meetings, client meeting etc.

Example journey (1 person) London → New York	Business*	Economy*	Video Call**
Total emissions (t CO_2e)	5.3	1.8	0.0012

*If a hotel stay is also required, that adds ~30kg CO_2e / night
**2h, 3 participants

There were also some distances which could have been covered by train e.g. London → Amsterdam and London→ Aberdeen

Example journey (1 person) London → Amsterdam	Business*	Economy*	Train*	Video Call**
Total emissions (t CO_2e)	0.17	0.11	0.0013	0.0012

*If a hotel stay is also required, that adds ~ 30kg CO_2e / night
**2h, 3 participants

Business travel
Formalise a business travel policy

2

(continued)

b) Company events and holidays

	Team getaway to Lisbon (flight)	Team getaway to Brussels (train)**	Team getaway held in London (US team takes flight)
Whole company*			
Total emissions (t CO_2e)	393.2	156.7	10.5

*Assuming all members of company travel excluding occasion associates (from employee survey list)
**Including flights from America to location

Scenario analysis

Scenario	Business travel emissions (t CO_2e)	Per employee (t CO_2e)
Current	36	1
Replace shorter distances with train travel and replace 25% all flights with video call	28 (-21% ↓)	0.5 (-21% ↓)
US team members attend virtually, all other travel remains	14 (-60% ↓)	0.2 (-60% ↓)

Working from home
Heat pumps and insulation

3

Best practice is to combine electric heat pump installation with insulation upgrades of the homes themselves: this maximises energy efficiency gains and reduces overall costs.

To be eligible for The Boiler Upgrade Scheme, your employees' homes will need a valid Energy Performance Certificate (EPC) – typically one which has been issued in the last 10 years. This EPC must have no outstanding recommendations for loft or cavity wall insulation (two insulation improvements that are relatively easy to implement and could also be covered by the loan).

A quarter of heat is lost through the roof in an uninsulated home. Insulating lofts, attics or flat roofs is an effective way to reduce heat loss, save energy and reduce heating bills (energy saving trust). If you encouraged 20% of your UK team to improve their insulation and 5% to install a heat pump, you could reduce your WFH emissions by **~30%**. Some energy companies offer free insulation/grants that help UK residents improve the energy efficiency of their homes (see the government's Energy Company Obligation Scheme). As an employer you could support your employees by providing resources or time off to complete these applications.

Insulation included in the scheme includes:

- Loft / attic insulation
- Cavity wall insulation
- Roof insulation
- Solid wall insulation

Heat pumps offer an efficient and cost-effective way to heat homes by replacing boilers that use gas or other fossil fuels. A 2021 survey conducted by the UK Department for Business Energy & Industrial Strategy (BEIS) found that 87% of UK households still use gas to heat their homes. Speeding up the replacement of gas boilers with heat pumps is also on the IEA's list of top 10 things to do in Europe in order to reduce the reliance on Russian natural gas. In order to be eligible for the Boiler Upgrade Scheme, your employees may need to improve their insulation (as mentioned above).

The UK Government already incentivises the uptake of electric heat pumps by offering up £5000 or £6,000 off the price of heat pumps through the Boiler Upgrade Scheme. Installing a typical heat pump system costs around £10,000 to £13,000, so your employees would still need to cover **~£6,000 in upfront costs**. You could help your team overcome this by offering an interest-free loan for the remainder, to be repaid from net salary via salary sacrifice. In the UK, an employee loan is not treated as taxable earnings if the total balance outstanding on all the loans does not exceed £10,000 during the tax year.

Impact	Effort
High	High

Potential total reduction*

15.0 tonnes CO_2e

Reduction per employee implementing this change*

0.25 tonnes CO_2e

Potential total cost/savings*

~£3.8k saving on energy bills

* Estimates based on insulating a gas-heated home with 120mm of loft insulation to 270mm of loft insulation for a semi detached house and converting from new electric store to ground source heat pumps

Emissions tracking

You should track the number of employees taking part in the scheme.

Supercritical will model reduction in heating requirements from your baseline.

Team responsibility

Operations

Further reading

- Energy Company Obligation
- Financial support for home energy efficiency
- Home energy grants
- Insulation Grants – available grants
- ECO scheme – British Gas
- Heat pumps

Working from home
Heat pumps and insulation

3

(continued)

How can you implement this?

1. Survey employees on home suitability, willingness and saving potential, (we made a template survey here).
2. Determine which employees are eligible for insulation and ground source heat pump schemes
3. Identify what energy provider they are on and whether their provider supports energy insulation grant
4. Set a budget with your finance team for those whose provider does not offer an energy insulation grant and for heat pump installation costs; seek board approval if necessary
5. Draft a policy & advice document, possibly including additional days off to support the fitting of insulation and heat pumps
6. Publish a policy & advice document
7. Organise a lunch and learn on insulation and heat pump policy & advice for those it applies to

Scaling impact

Example journey (1 person) London → New York	Loft insulation increases from 0 → 270mm (UK semi detached house)	Loft insulation increases from 120 → 270mm (UK semi detached house)	New A rated gas supply to ground source heat pump (UK house)
Total emissions (k CO_2e)	55	600	3000

Read more here

Scenario analysis

Scenario	**WFH, office and commuting emissions (t CO_2e)**	**per employee eimssions emissions (t CO_2e)**
Current	47	0.81
10% of UK houses update insulation* and 5% install a heat pump**	40 (-15% ↓)	0.68 (-15% ↓)
20% of UK houses update insulation* and 10% install a heat pump**	33 (-31% ↓)	0.56 (-31% ↓)

*Estimates based on insulating a gas-heated home with 120mm of loft insulation to 270mm of loft insulation. for semi detached house

**Estimates based on converting new A rated gas to ground source heat pumps

Pensions
Switch or lobby your provider

4

Your pension contributions are investments that fund different activities: these are powerful tools to both encourage climate positive investment and discourage environmentally harmful industries and activities, such as fossil fuels or deforestation. As an employer, you choose your pension provider and you also have some influence over their policies.

According to the Green Pensions Guide, a greener approach to pensions investments has 4 key characteristics your provider should adopt:

- Net zero target across the entire portfolio of pension assets, including halving emissions by 2030
- Pension investments into climate change solutions (renewable energy, sustainable mobility, carbon removal, regenerative farming, etc.)
- Active engagement with investee companies to push them to reduce emissions
- Controlled divestment from those companies or industries (such as coal) that have no intention to reduce their high emissions

Looking at your UK pension providers, you work with B&CE Holdings who are the parent company of The People's Pension. The People's Pension have stated that they are moving 'towards' Net Zero investment by allocating more money to the Multi-Factor ESG Low Carbon fund. This is a start, but is not on par with best practice as outlined in the 4 points above.

They need to outline short-term plans for reaching net zero emissions across their portfolio so that your money is invested more sustainably. They should also communicate how they are going to engage their investee companies and encourage them to reduce their emissions. If they are unable to do so, we recommend you look into switching providers to one of the best practice leaders, which currently include: Nest, Scottish Widows, Aviva, Standard Life, Smart Pension and Cushon. Given you are already with Standard Life for some of your employees, we would recommend transferring more of your pension contributions to them.

If your provider is actively pursuing a Net Zero goal, you should see your pension-related emissions reduce by about **8%** year on year.

How can you implement this?

1. Sign up to the Green Pensions Charter
2. Set up a meeting with your provider representative to discuss their concrete plans on emission reduction, active engagement and controlled divestment
3. Ensure that the default fund for your employees is covered by a Net Zero target
4. Ask for your funds' emission intensity metrics to ensure better tracking
5. If the above proves challenging, switch your provider.

Impact	Effort
Med	Med

Potential total reduction*

2.7 tonnes CO_2e

Reduction per employee implementing this change*

0.05 tonnes CO_2e

Potential total cost/savings*

Neutral

* Potential refers to reduction in the first year, but reduction will increase year on year

Emissions tracking

We will investigate the policies and emission intensity of your provider's funds at next footprint.

Team responsibility

Operations or People/HR

Further reading

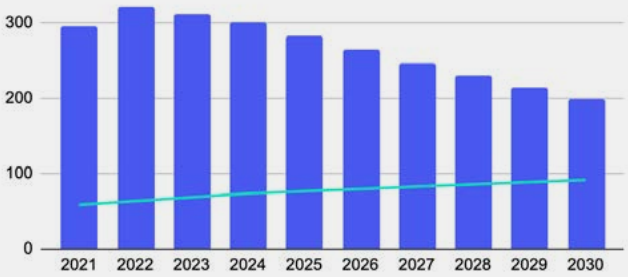
- The Green Pensions Guide
- A study comparing footprint of a standard global fund and sustainability focused equity fund
- How your pensions can help tackle climate change by UK Governement

Emission trajectories

The charts below compare OxfordSM's emissions between now and 2030 for two routes; implementing reduction recommendations vs making no reductions to your emissions.

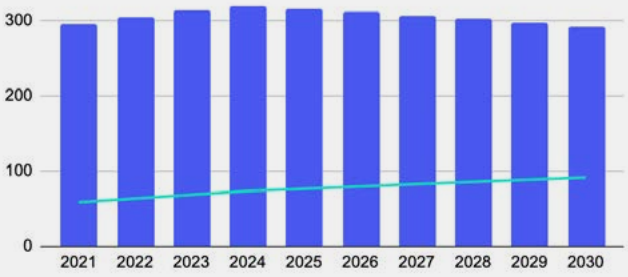
With reduction

If you do commit to continuous reductions (in addition to the passive reductions that will take place as the world decarbonises), your emissions over the next 10 years will look something like this.



Without reduction

If you do nothing, as your business grows your emissions will look something like this. The rate of increase will naturally lessen as your various scope 3 sources decarbonise.



Emissions trajectory, growth & reductions — Number of employees

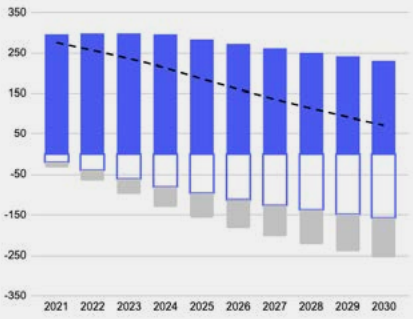
The path to net zero

To be carbon neutral, companies need to match their total emissions with offsets. Carbon neutral is much less ambitious than reaching net zero because there is no requirement to invest in high-quality permanent carbon removal; avoidance offsets like clean cookstove projects are acceptable.

The most ambitious companies are making net zero commitments. To reach net zero, you need to balance the emissions you create with the same amount of carbon permanently removed from the atmosphere. This requires OxfordSM set reduction targets and timelines (50% reduction this decade, which roughly equals 7.5% reduction year on year), and remove all emissions you cannot reduce with permanent carbon removal offsets.

Carbon neutral by 2030

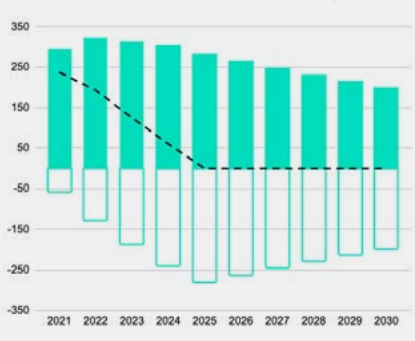
Reduction + gradual removal



Emissions — Carbon removals — Net emissions — Avoidance and non-permanent removal offsets

Net zero by 2025

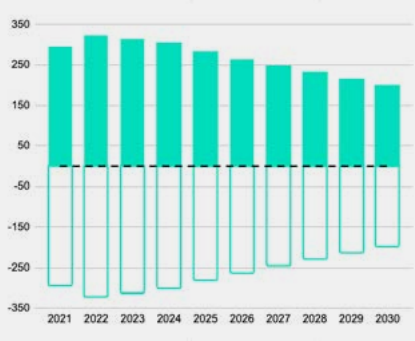
Reduction + accelerated removal



Emissions — Carbon removals — Net emissions

Net zero today

Reduction + total removal this year



Appendices

Appendix A:

Emissions breakdown by category

Category	Footprint (t CO_2e)	Scope
Software & digital partners	47.27	3
Employee remote working	46.31	3
Business travel	35.57	3
Pension	35.46	3
Consultants	21.49	3
Insurance & finance	19.59	3
Events and room hire	14.49	3
Gifts	12.78	3
Training	10.99	3
Food & drink	9.69	3
Cloud & data centres	7.48	3
Other	6.70	3
Furniture and supplies	6.46	3
Car fuel	5.87	1
Marketing & advertising	5.46	3
Car leases	4.65	3
Hardware	4.29	3
Office utilities	1.53	3
Employee commuting	0.00	3
Total	**296.09**	

Appendix B:

Breakdown of Scope 3 emissions into GHG protocol categories

GHG protocol Categories	Footprint (t CO_2e)	Notes
1. Purchased goods & services	34.65	Water, Software, Cloud, Marketing, Advertising, Food and drink, Cleaning, Shipping, Accomodation, Consultants, Financial services
2. Capital goods	4.29	Hardware
3. Fuel- and energy-related activities	53.04	Electricity and fuel used when working from home, T&D, WTT
4. Upstream transportation & distribution	-	Assumed to be to small to warrant monitoring
5. Waste generated in operations	0.01	Wastewater generated in rented office
6. Business travel	35.60	Flights, train, car, taxis, company car rent etc. (accomodation included in Purchased goods and services, WTT in Fuel related)
7. Employee commuting	-	Assumed to be to small to warrant monitoring
8. Upstream leased assets	0.65	Energy used in leased office
9. Downstream transportation & distribution	-	Assumed to be to small to warrant monitoring
10. Processing of sold products	-	Assumed to be to small to warrant monitoring
11. Use of sold products	-	Assumed to be to small to warrant monitoring
12. End of life treatment of sold products	-	Assumed to be to small to warrant monitoring
13. Downstream leased assets	-	No reported leased assets
14. Franchises	-	No reported franchises
15. Investments	35.46	No reported investments
Total	**163.70**	

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Sources

[1] https://bulb.co.uk/carbon-tracker/

[2] https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021