Carbon Assessment

2024

Qflow

A note from our CEO

At Qflow, we have always believed that sustainability and financial resilience must go hand in hand. Our vision remains clear: a construction industry that uses only the resources it needs, in the most efficient way possible—delivering a built environment that meets today's needs without compromising the future.

2024 has been a year of both progress and challenge. The construction industry continues to navigate economic pressures, with high inflation, rising material costs, and political uncertainty making investment decisions more complex than ever. In many cases, sustainability has been pushed down the priority list as businesses focus on financial survival. However, one thing has become increasingly clear—sustainability must pay its way.

Decarbonisation can no longer be seen as a 'nice to have' or an added cost. It must drive efficiency, reduce waste, and deliver tangible financial benefits. This is where data becomes critical. With better, real-time insights, construction teams can make smarter decisions—optimising material use, cutting carbon, and improving profitability in the process. In an industry that has long struggled with slim margins and inefficiencies, better data is not just a sustainability enabler—it's a business imperative.

Throughout 2024, we have seen promising momentum globally, particularly in markets like the US, Middle East, and Australia, where government and private sector commitments to decarbonisation remain strong. At Qflow, we have continued to expand our reach, supporting clients across multiple geographies while minimising our own footprint.

As you'll see in this report, we remain committed to learning, adapting, and sharing best practices with the wider industry. By collaborating with industry leaders such as UKGBC, ReLondon, and RICS, we are working to ensure that sustainability is embedded not just in policy, but in practice—delivering both environmental and financial returns.

The challenges ahead are real, but the opportunities are even greater. As we look toward 2025, our focus remains on empowering construction teams with the data they need to build efficiently, profitably, and sustainably. Thank you for being on this journey with us—I am excited to see what we can achieve together in the year ahead.

BRITTANY HARRIS
CEO

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Executive summary

In 2024, Qflow affirms the commitment to sustainability by maintaining carbon neutrality and continuing to deliver a net positive environmental impact. Since establishing our baseline in 2020, we have offset over 2.5 times more carbon than we have emitted. Through our partnership with Ecologi, which began in 2021, we have supported a diverse range of carbon reduction and climate resilience projects across the world, enabling us to maintain carbon neutrality.

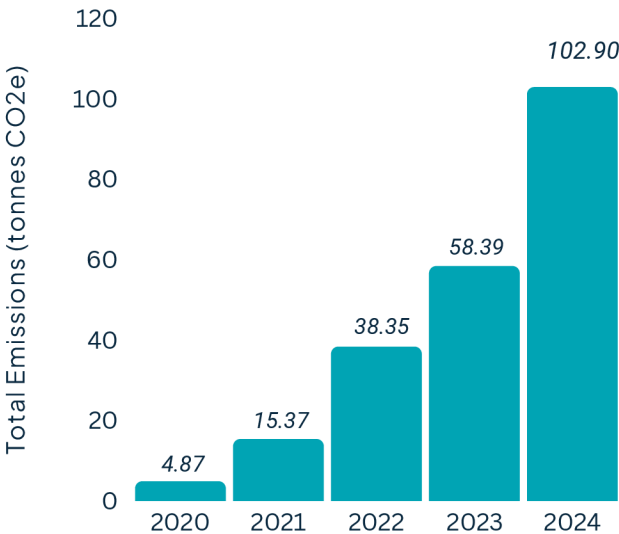Our total cumulative emissions since our 2020 baseline are calculated at **220 tonnes of CO2e.**

Our offsetting efforts have reached 629 tonnes of CO2e.

This, combined with the 262,636 tonnes of CO2e we have helped the industry avoid, means we are having a net positive impact on the world around us.
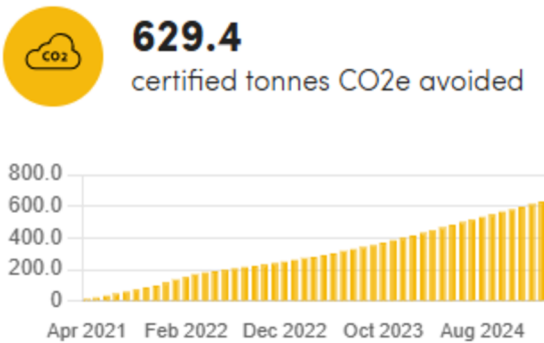
At Qflow, transparency is a core principle in how we approach our carbon footprint. We believe that openly measuring and reporting our emissions is fundamental to driving sustainability within Qflow and across the wider construction industry. In 2024, we broadened our emissions coverage to include additional Scope 3 elements, reflecting the evolving nature of our operations and commitment to full accountability.

Our annual carbon assessment enables us to measure against our 2020 baseline, monitor performance in line with targets and forecasts, and reduce emissions reductions in line with company growth. We remain committed to supporting our clients in lowering emissions on their own projects and will continue to explore innovative ways to advance a more sustainable future for the industry.

Qflow's Historical Emissions

Total Emissions (tonnes CO2e)

- 2020: 4.87
- 2021: 15.37
- 2022: 38.35
- 2023: 58.39
- 2024: 102.90

Total carbon avoided

629.4
certified tonnes CO2e avoided

Apr 2021   Feb 2022   Dec 2022   Oct 2023   Aug 2024

Ecologi. 2025.[1]

Changing regulation

With the construction industry accounting for 40% of global greenhouse gas emissions in 2024, urgent and efficient action is needed across all stages of the construction cycle to stay on track for net zero by 2050. The following outlines key regulatory developments and proposed legislation in the UK and USA that are helping to drive this transition.[2]

UK

- The UK government has committed to reducing greenhouse gas emissions by 68% by 2030 and achieving net zero by 2050.[3]

- The UK Procurement Policy Note (PPN) 06/21 – Requires suppliers bidding for central government contracts over £5 million per year to submit a Carbon Reduction Plan and demonstrate commitment to net zero. This includes large public Infrastructure and building projects.[4]

- In September 2024, the UK launched the Pilot Version of the Net Zero Carbon Buildings Standard, enabling developers to robustly prove their built assets are net zero carbon and in line with UK climate targets.[5]

USA

- Whilst there has been uncertainty over existing federal requirements for carbon disclosures with the Trump administration, there are state-level laws which continue to move forward.

- A key example is California's 2024 update to the CALGreen Building Code, which now requires embodied carbon assessments for non-residential projects over 100,000 square feet.[6]

- In New York, bills have been introduced including the Climate Corporate Data Accountability Act and the Report of Climate-Related Financial Risk.[7]

2. https://www3.weforum.org/docs/WEF_Reducing_Embodied_Carbon_in_Cities_2024.pdf
3.https://commonslibrary.parliament.uk/research-briefings/cbp-9888/#:~:text=Download%20full%20report-,The%20UK%20is%20committed%20to%20reaching%20net%20zero%20by%202050,warming%20and%20resultant%20climate%20change.
4. https://assets.publishing.service.gov.uk/media/6426d80ffbe620000c17da61/Guidance-on-adopting-and-applying-PPN-06-21-_-Selection-Criteria-April-23.pdf
5.https://www.nzcbuildings.co.uk/home#:~:text=The%20UK%20Net%20Zero%20Carbon%20Buildings%20Standard%20enables%20industry%20to,with%20our%20nation's%20climate%20targets.&text=The%20UKNZCBS%20aligns%20as%20far,Net%20Zero%20initiatives%20and%20standards.
6. https://www.stopwaste.org/sites/default/files/CALGreen-Code-Updates-Overview-May2024.pdf
7.https://natlawreview.com/article/update-us-climate-disclosure-requirements#:~:text=Pending%20Legislation%20in%20Other%20States,to%20introduce%20it%20in%202025.

Our approach to sustainability

Qflow's approach to sustainability is guided by its core mission statements, which are focused on decarbonising the construction industry through data-driven insights and leadership.

By 2030, we aim to become the world's simplest and quickest route to decarbonise construction, while providing the foundational data to support a circular economy.

At Qflow, we recognise that our purpose is to make construction more sustainable, we deliver this through cost savings, reduced risk, and efficiency. Through our technology, Qflow has helped companies avoid approximately 108,000 tonnes of wasted materials, and 262,636 tonnes of avoided carbon emissions through reduced errors and wastage on-site.

Whilst our mission is to decarbonise the construction sector, it's important we minimise our own impact alongside this. That's why we continue to release annual carbon reports showing our own Scope 1-3 emissions and how we're avoiding and eliminating as much as possible.
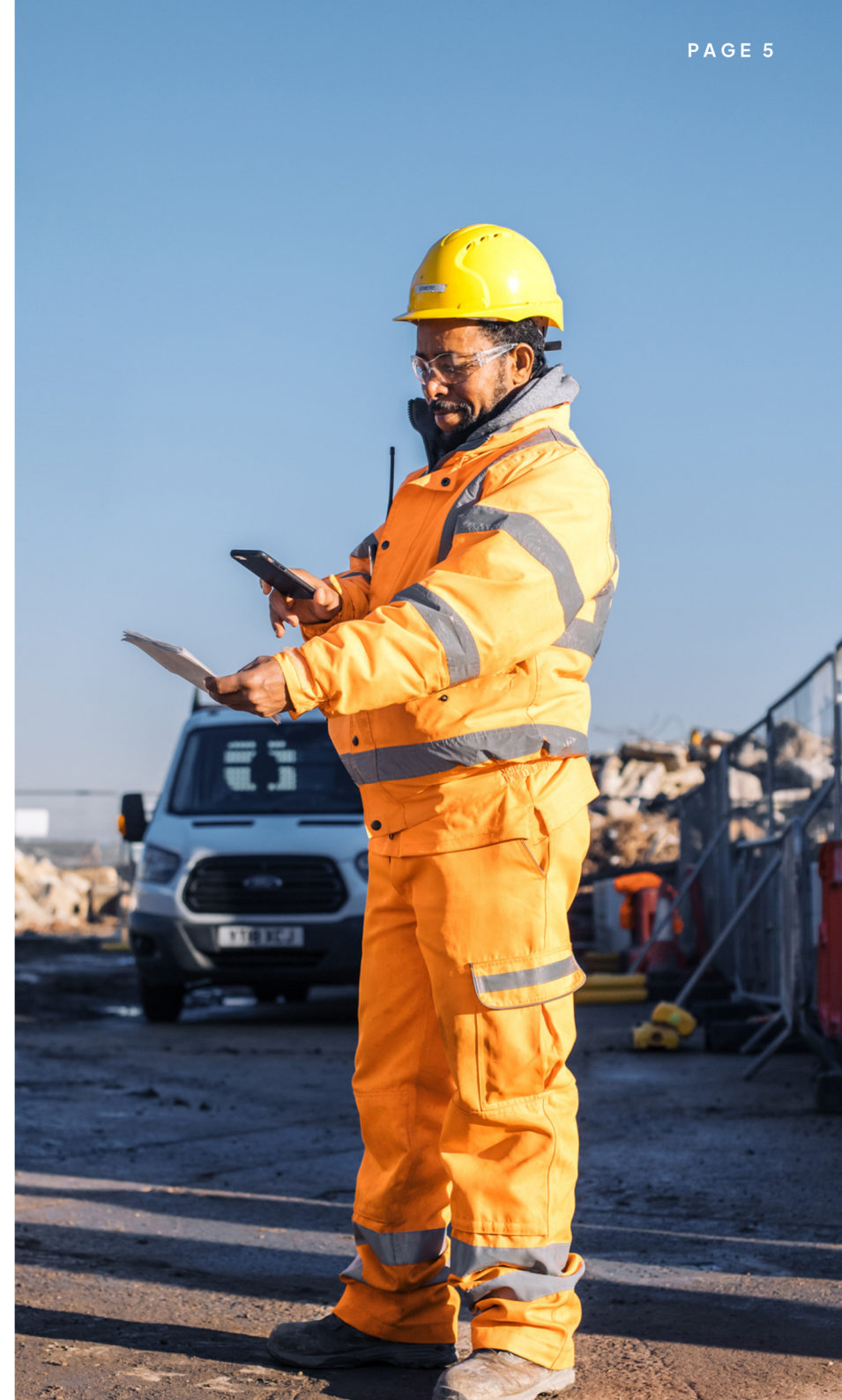
Key definitions

- **Net Zero:** Reducing carbon emissions to a small amount of residual emissions that can be absorbed and durably stored by nature and other carbon dioxide removal measures, leaving zero in the atmosphere. [10]
- **Carbon Neutral:** Ensuring any CO2 released into the atmosphere from a company's activities is balanced by an equivalent amount being removed.

Setting our boundaries

It's paramount to include all three scopes of direct and indirect emissions defined by the Greenhouse Gas Protocol (GHGP) when assessing our business' carbon footprint and maintaining carbon neutrality.

The GHGP Corporate Standard divides a company's emissions into direct and indirect emissions:
- **Direct emissions** are emissions from sources that are owned or controlled by the company.
- **Indirect emissions** are emissions that are a consequence of the activities of the company but occur at sources owned or controlled by another company.

Emissions are further divided into 3 scopes:
- **Scope 1** covers all direct GHG emissions from the activities owned or controlled by the company;
- **Scope 2** covers indirect GHG emissions associated with consumption of purchased electricity, heat, steam and cooling;
- **Scope 3** covers other indirect emissions that are as a consequence of our actions but occur at sources beyond our control.

*We have identified no Scope 1 emissions that are associated with the company at this time.

Our Carbon Reduction Strategy

- **Eliminate –** We seek to eliminate emissions at the source wherever possible. For example, we select office space providers powered by verified renewable energy sources to reduce our Scope 2 emissions.

- **Reduce –** When elimination is not possible, we work to reduce our emissions intensity. This includes maintaining a remote-first working model to minimise our travelling to work emissions.

- **Offset –** For remaining emissions, we use a verified carbon offsetting scheme to neutralise our impact. Since 2021 we have been partnered with Ecologi, who help us maintain carbon neutrality.

- **Monitor –** We continuously monitor and assess our emissions to track progress, enhance data accuracy and identify opportunities for further reduction.

1 – ELIMINATE

2 – REDUCE

3 – OFFSET

4 – MONITOR

9. https://www.un.org/en/climatechange/net-zero-coalition
10. https://plana.earth/academy/what-is-difference-between-carbon-neutral-net-zero-climate-positive#:~:text=Carbon%20neutral%20means%20that%20any,carbon%20dioxide%20from%20the%20atmosphere.

Our boundaries

It is necessary to draw boundaries around our operation as a company. At Qflow, we have defined this as the start and end of the working day. We have chosen to include all three scopes in our carbon assessment but we do not produce any emissions within Scope 1. Our emissions have been significantly affected by changes to working patterns over the years, moving from in-person, to remote, to hybrid, and we have taken this into account in our carbon assessment as well as future changes such as increased travel through expansion, and company growth.

Scope 1

FIGURE 1

Scope 2

Heating/cooling of employees' homes

Electricity in employees' homes

Scope 3

Business travel

Third Party Software and Subscriptions

Electricity used by clients

IT Infrastructure

Hotel stays

Water in office building

Hardware to employees

Company equipment

Travelling to work

Waste

Water in employees' homes
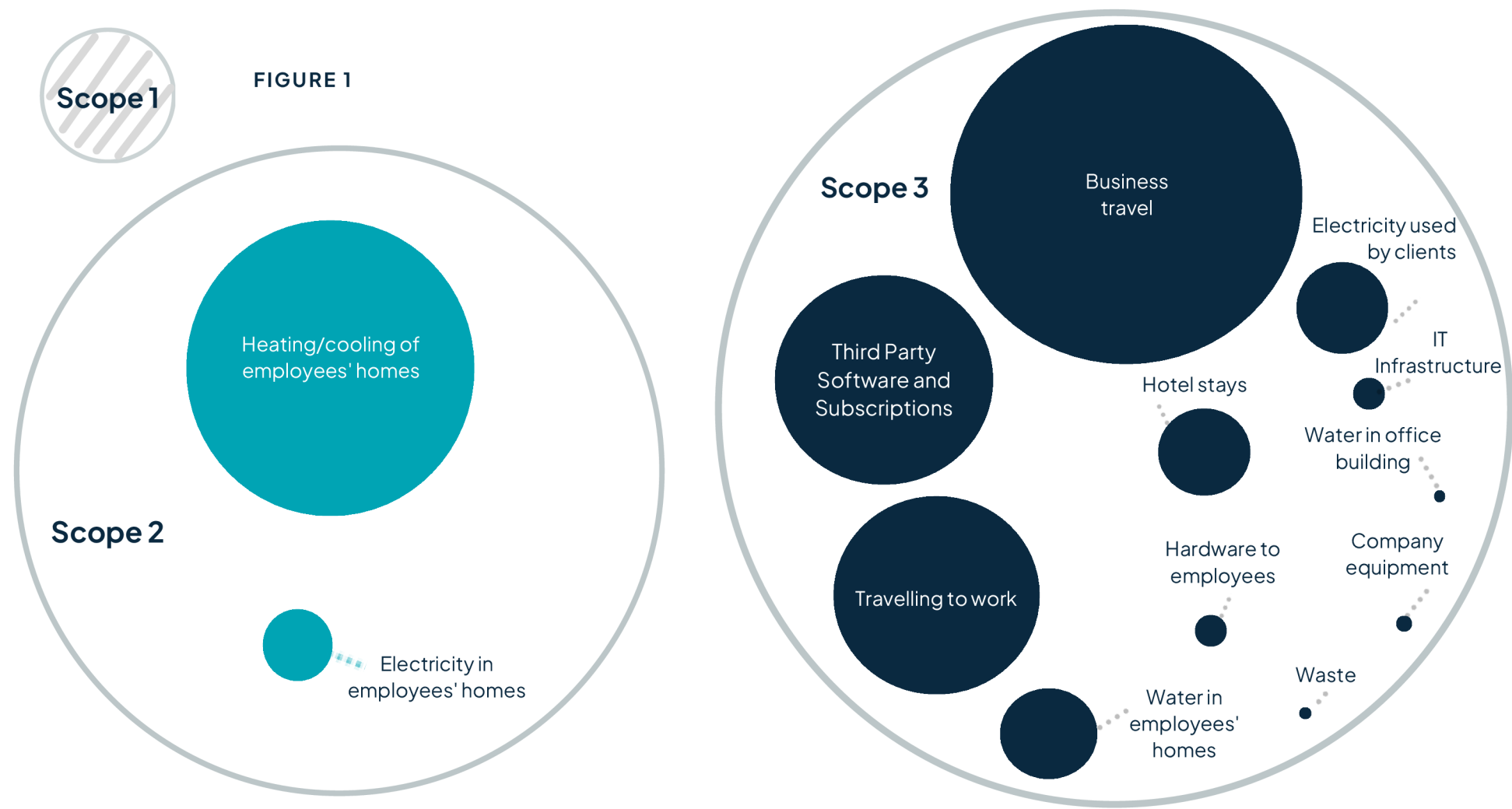
Our 2024 carbon performance

As a rapidly expanding expanding company, we continue to account for our Scope 2 and Scope 3 emissions, which includes indirect emissions from purchased electricity, business travel, waste disposal, water use and digital services. At Qflow, we aim to capture these emissions as accurately as possible, using reliable data and appropriate calculation methods.

For 2024, our total carbon impact is calculated at 102.9 tCO2e.

Alongside this, our carbon intensity (emissions per employee) rose to 2.1 tCO2e in 2024.

This represents a 76% and 26% increase compared to 2023 levels, respectively. Whilst our overall emissions are continuing to increase with the company's growth, we aim to keep carbon intensity emissions as stable as possible, ultimately aiming to reduce these over time.

As Qflow's workforce expanded to 49 employees in 2024, a direct correlation was observed with rising scope 2 emissions. As a company which prioritises remote working, the majority of these emissions were associated with the heating and cooling employee homes during working hours. Scope 3 emissions have also increased, largely as a result of additional business travel within the team. This includes both domestic travel in the UK and International travel to the US and across Europe.

To minimise our carbon footprint, we porioritise the use of public transport where possible, carefully select rented office space that prioritises renewable energy sources, alongside other strategies to eliminate and reduce emissions across our operations.

This years report represents Qflow's fifth annual carbon assessment, reflecting our ongoing commitment to transparency and continuous improvement. Our 2020 assessment serves as a baseline to track our progress towards carbon positivity and maintain our carbon neutral status. We are committed to full transparency and welcome feedback as we strive to improve carbon performance.

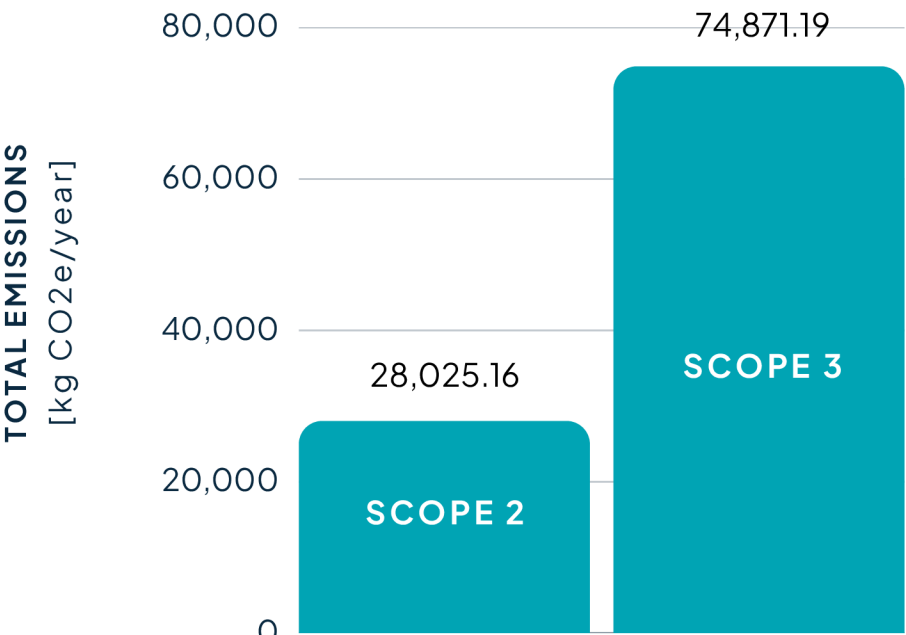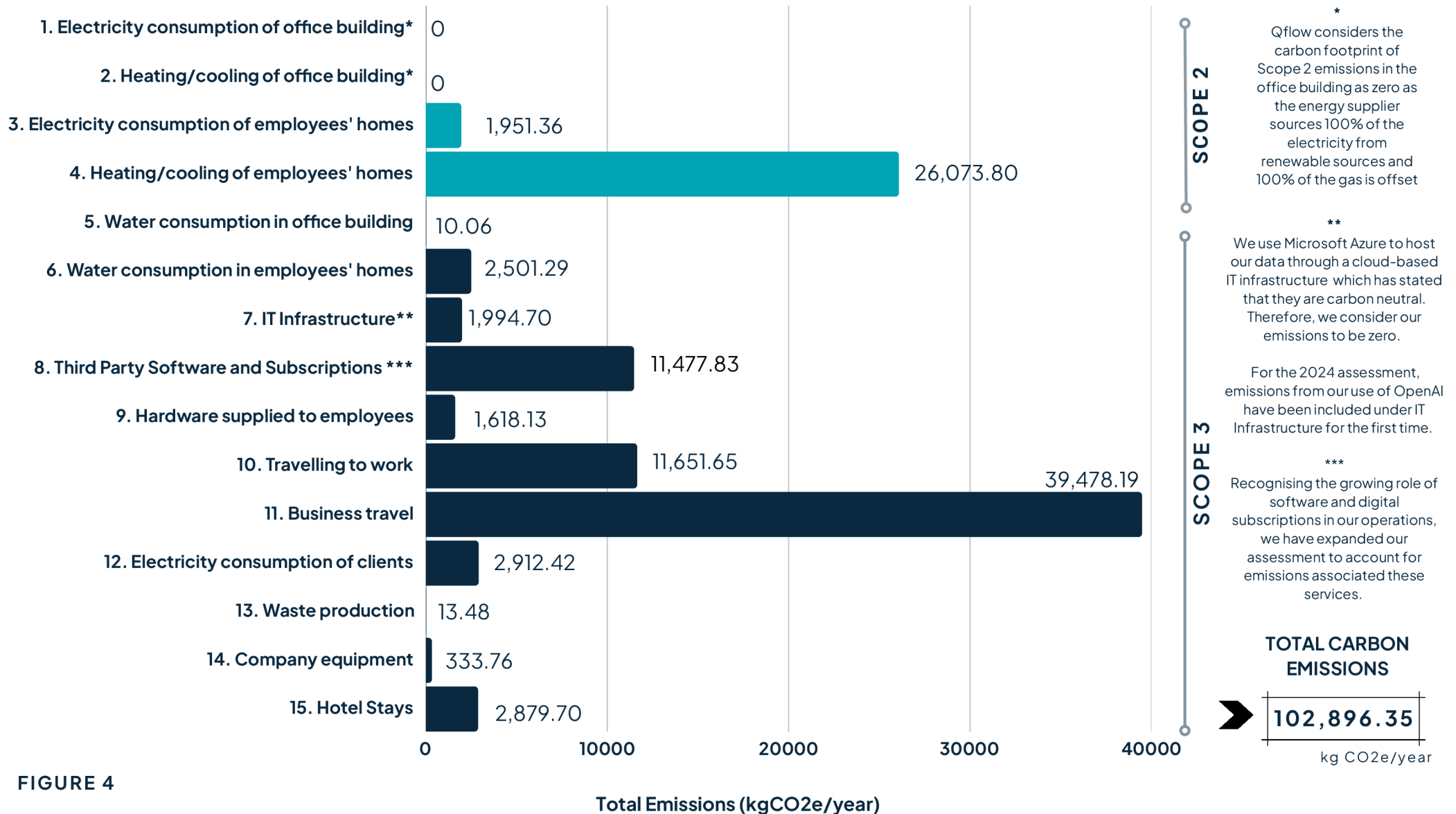## 2024 EMISSIONS BROKEN DOWN BY SCOPE

FIGURE 2

Scope	Description
2	Indirect emissions from purchased and/or acquired electricity, steam, heat and cooling.
3	All other indirect emissions in Qflow's value chain.

FIGURE 3

Breakdown of our emissions

At Qflow we believe it's important to be transparent about the sources of our carbon emissions. Below, Figure 4 breaks down the company's scope 2 and scope 3 emission sources and their calculated footprint.

Breakdown chart:

Emission source	Total Emissions (kgCO2e/year)
1. Electricity consumption of office building*	0
2. Heating/cooling of office building*	0
3. Electricity consumption of employees' homes	1,951.36
4. Heating/cooling of employees' homes	26,073.80
5. Water consumption in office building	10.06
6. Water consumption in employees' homes	2,501.29
7. IT Infrastructure**	1,994.70
8. Third Party Software and Subscriptions ***	11,477.83
9. Hardware supplied to employees	1,618.13
10. Travelling to work	11,651.65
11. Business travel	39,478.19
12. Electricity consumption of clients	2,912.42
13. Waste production	13.48
14. Company equipment	333.76
15. Hotel Stays	2,879.70

Total Emissions (kgCO2e/year)

FIGURE 4

SCOPE 2

* Qflow considers the carbon footprint of Scope 2 emissions in the office building as zero as the energy supplier sources 100% of the electricity from renewable sources and 100% of the gas is offset

SCOPE 3

** We use Microsoft Azure to host our data through a cloud-based IT infrastructure which has stated that they are carbon neutral. Therefore, we consider our emissions to be zero.

For the 2024 assessment, emissions from our use of OpenAI have been included under IT Infrastructure for the first time.

*** Recognising the growing role of software and digital subscriptions in our operations, we have expanded our assessment to account for emissions associated these services.

TOTAL CARBON EMISSIONS

102,896.35

kg CO2e/year

Our annual carbon footprint

For 2024, we have calculated our annual carbon footprint through the analysis of business operations, employee activities and IT Services. The majority of data was collected internally through data sets, invoices and internal registers, with additional information provided externally by our office space provider. Information regarding the travel to work emissions was collected using an employee survey. We have assumed that the typical working day is 8 hours and there are 250 working days in the 2024 calendar year.

To calculate our emissions, we primarily used The UK Government's greenhouse gas reporting: carbon conversion factors 2024, published by the Department for Energy Security and Net Zero (DESNZ) and the Department for Business, Energy and Industrial Strategy (BEIS). These factors were vital in translating Qflow's activities into quantifiable emission values, enabling an accurate depiction of the contribution each area makes to our carbon footprint. Where official conversion factors were not applicable, we used additional emissions factors from other recognised sources to ensure accuracy. The calculations and assumptions made within these fields are detailed in the Appendix at the end of this report.

Figure 5 shows the percentage carbon contribution for each key emission category within Qflow's business in 2024. The data is characterised according to Scope 2 and Scope 3 emissions. Each segment is numbered and corresponds to the emissions category visualised on the previous page (pg. 9), with some segments representing combined categories where appropriate.

As a new category within this year's carbon assessment, 'third party software and subscriptions' have been separated from 'IT Infrastructure'. Whilst 'IT Infrastructure' relates to our data processing and hosting, 'software and subscriptions' capture emissions linked to general business tools and applications.
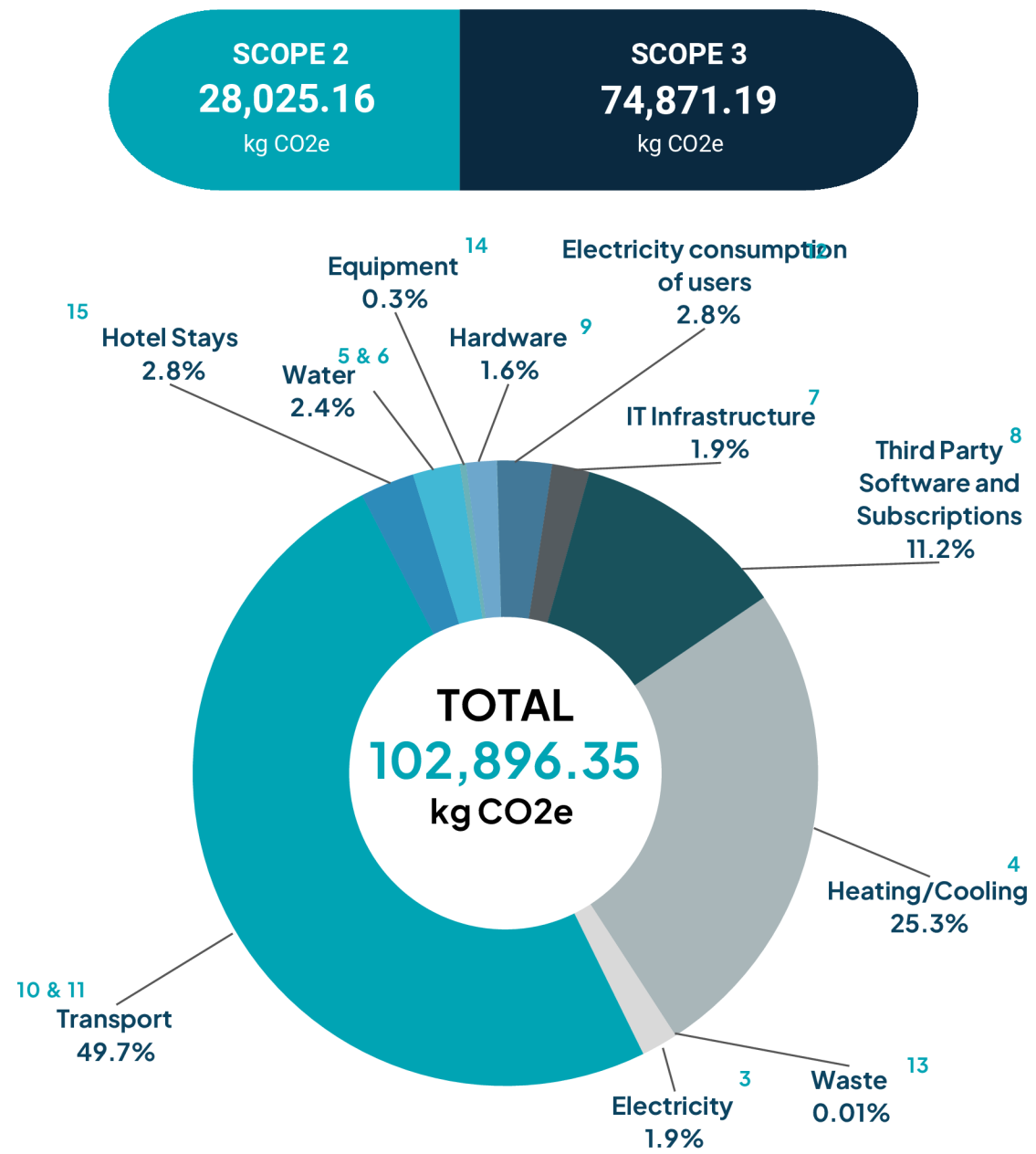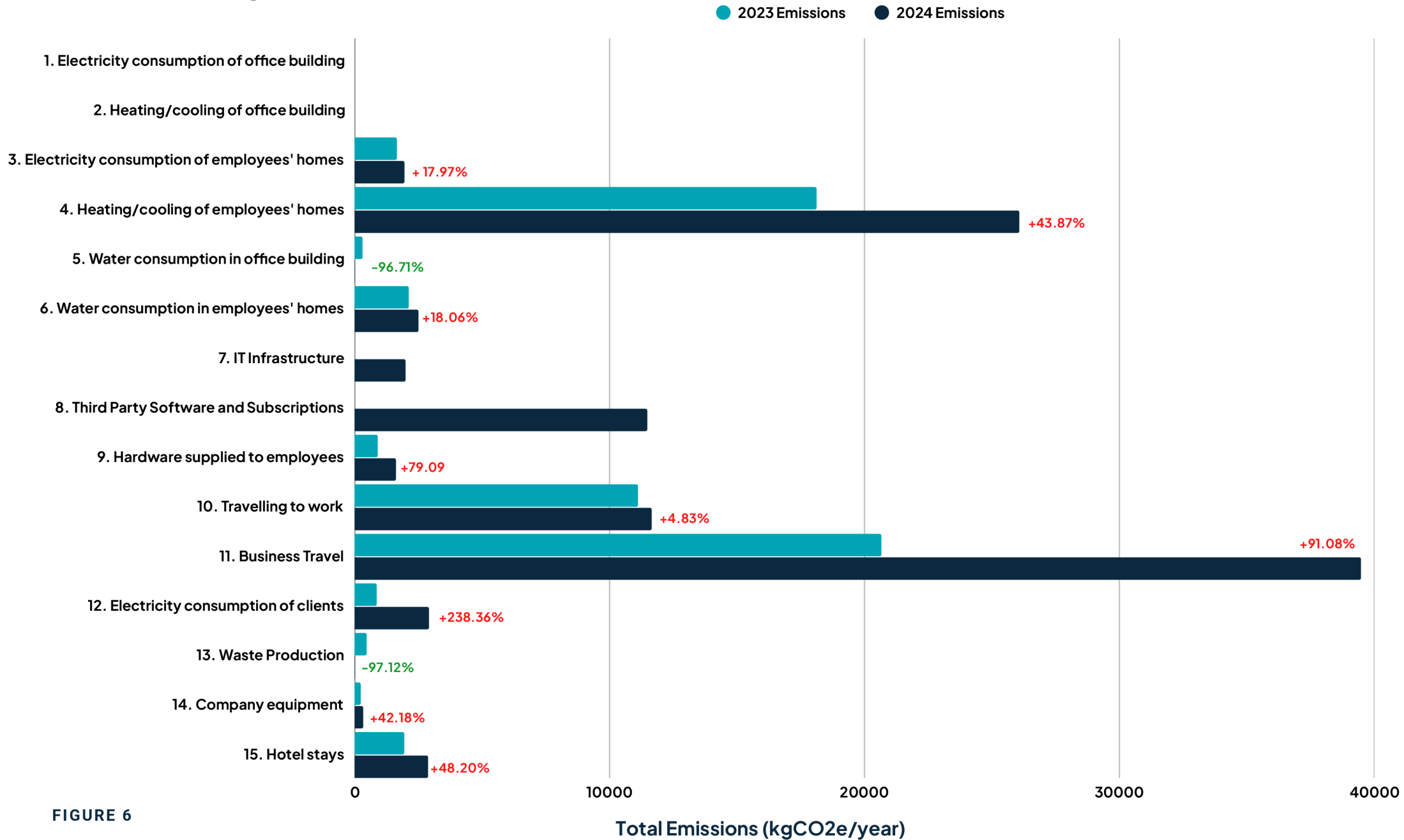
SCOPE 2	SCOPE 3
28,025.16	74,871.19
kg CO2e	kg CO2e

TOTAL
102,896.35
kg CO2e

15 Hotel Stays 2.8%
5 & 6 Water 2.4%
14 Equipment 0.3%
Hardware 1.6%
9
Electricity consumption of users 2.8% 12
7 IT Infrastructure 1.9%
8 Third Party Software and Subscriptions 11.2%
4 Heating/Cooling 25.3%
13 Waste 0.01%
3 Electricity 1.9%
10 & 11 Transport 49.7%

FIGURE 5

Comparing 2023 to 2024

● 2023 Emissions   ● 2024 Emissions

1. Electricity consumption of office building
2. Heating/cooling of office building
3. Electricity consumption of employees' homes — + 17.97%
4. Heating/cooling of employees' homes — +43.87%
5. Water consumption in office building — –96.71%
6. Water consumption in employees' homes — +18.06%
7. IT Infrastructure
8. Third Party Software and Subscriptions
9. Hardware supplied to employees — +79.09
10. Travelling to work — +4.83%
11. Business Travel — +91.08%
12. Electricity consumption of clients — +238.36%
13. Waste Production — –97.12%
14. Company equipment — +42.18%
15. Hotel stays — +48.20%

Total Emissions (kgCO2e/year)

FIGURE 6

APRIL 2025

Comparing 2023 to 2024

Between 2023 and 2024, Qflow's total carbon emissions rose from 58.4 tonnes of CO2e to 102.9 tonnes of CO2e. This represents an absolute increase of 44. 5 tonnes, a 76% increase from 2023. Figure 6 illustrates the change in emissions across all reporting categories, highlighting both the absolute and percentage increases and decreases between 2023 and 2024. Whilst absolute emissions have increased by 76%, emissions per employee have only risen by 26%.

Increases from 2023 to 2024

- Business Travel saw the most substantial rise, with emissions increasing by 18.8 tCO2e (42% of the total increase).This was primarily driven by an increase in international travel, as Qflow expanded its client engagement across the US and Europe. In 2023, only 22 flights were logged, while in 2024, this number nearly doubled to 40.

- Emissions from new Hardware purchases increased by 0.7 tCO2e. This rise corresponds with the procurement of additional laptops to support the company's expanding operations and growing workforce. In 2024, Qflow procured 43 new laptops, almost twice as many as the 22 purchased in 2023.

- Emissions from client electricity consumption rose by 2.0 tCO2e. This increase reflects the continued growth and adoption of Qflow's platform across the construction industry.

Decreases from 2023 to 2024

- Emissions from water consumption decreased by 0.3 tCO2e, while emissions from waste production fell by 0.5 tCO2e. These reductions are largely attributed to the availability of more accurate and detailed consumption data provided by our office space provider. In previous years, these emissions were estimated based on assumptions which may have led to overestimations. The improved data quality in 2024 allowed for more precise calculations, resulting in lower reported emissions for these categories.
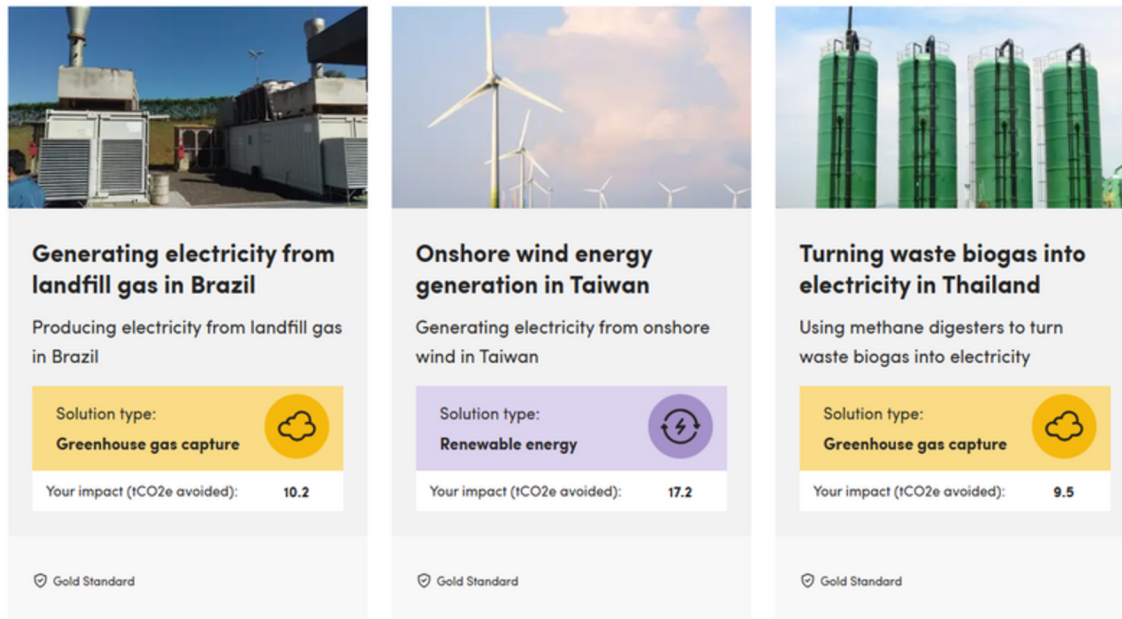
Carbon Intensity: kgCO2e per employee

- With a team of 38 employees in 2023, the carbon intensity was measured at 1.7 tCO2e per employee. By 2024, the team had expanded to 49 employees, and so did the carbon intensity, rising to 2.1 tCO2e per employee, representing a 26% rise.

Carbon offsetting

Qflow has partnered with Ecologi to maintain its commitment to carbon neutrality by offsetting residual emissions. Ecologi supports Qflow's journey towards climate positivity by providing real-time carbon footprint analysis and certified climate projects, enabling the company to retain its carbon neutral status.

Since joining Ecologi in April 2021, Qflow has offset a total of **629.4 tonnes of CO2,** and funded the planting of 6,684 trees. Offsetting contributions have supported a diverse portfolio of verified carbon reduction projects, including landfill gas-to-energy generation in Brazil, onshore wind power in Taiwan, and biogas-to-electricity conversion in Thailand. These initiatives directly contribute to the United Nations' 2030 Agenda for Sustainable Development, while supporting global efforts to mitigate climate change.

While Qflow recognises the importance of offsetting our residual emissions, the company prioritises reducing emissions at the source and remains committed to decreasing its reliance on offsetting over time.
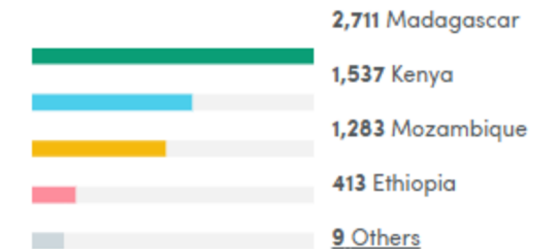

Generating electricity from landfill gas in Brazil

Producing electricity from landfill gas in Brazil

Solution type:
Greenhouse gas capture

Your impact (tCO2e avoided): **10.2**

⊘ Gold Standard

Onshore wind energy generation in Taiwan

Generating electricity from onshore wind in Taiwan

Solution type:
Renewable energy

Your impact (tCO2e avoided): **17.2**

⊘ Gold Standard

Turning waste biogas into electricity in Thailand

Using methane digesters to turn waste biogas into electricity

Solution type:
Greenhouse gas capture

Your impact (tCO2e avoided): **9.5**

⊘ Gold Standard

Examples of carbon avoidance projects with Ecologi

Total trees funded

6,684 trees funded

2,711 Madagascar
1,537 Kenya
1,283 Mozambique
413 Ethiopia
9 Others

Total carbon avoided

629.4 certified tonnes CO2e avoided

Our Microsoft Azure emissions

Qflow's data infrastructure is hosted via Microsoft Azure, and we recognise the importance of accounting for the emissions associated with our cloud-based services. Figure 7 illustrates the monthly carbon emissions linked to our Azure usage throughout 2024. Although these emissions are ultimately offset by Microsoft through their commitment to operating as a carbon-neutral cloud provider, we continue to track them internally as apart of our Scope 3 footprint to maintain full transparency .
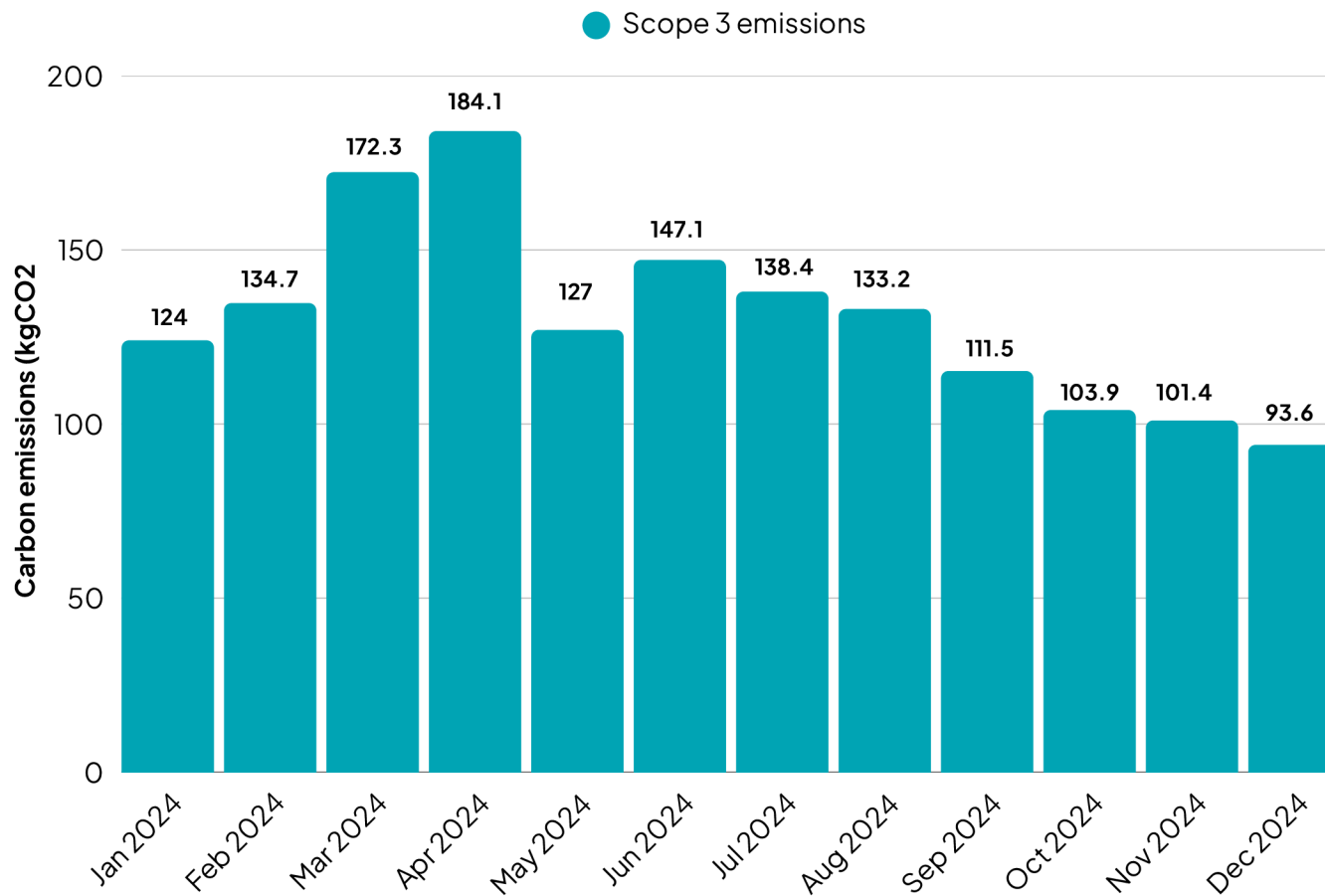
FIGURE 7

Carbon Intensity

Figure 8, shows the carbon intensity trend associated with Qflow's use of Microsoft Azure throughout 2024. The graph highlights a steady decline over the year, indicating improved efficiency in our cloud-based operations.
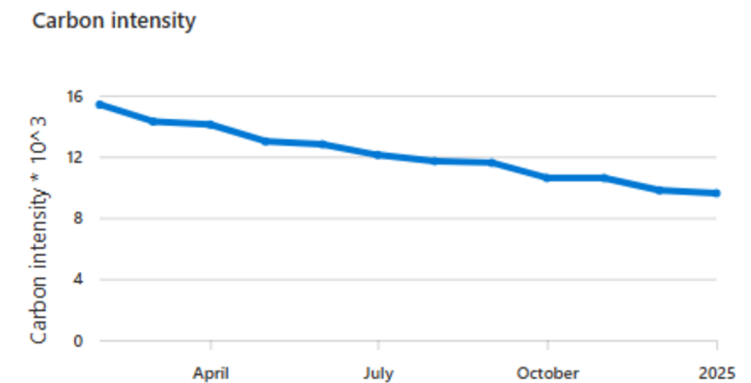

FIGURE 8

What we've done to reduce our carbon impact

- We operate as a **remote first company.** This helped avoid an estimated **44.5 tonnes of CO2e** in 2024 and therefore reduced the carbon impact of travelling to work by **79%.**

- We **combine trips** international business trips where possible to reduce the frequency of long-haul flights.

- We **prioritise public transport** to the office, events and client visits.

- We have chosen an **office with a renewable energy provider.**

- We **supply hardware using Klyk** which contributes to the circular economy by using refurbished, pre-owned or excess business IT.

- We use **local suppliers** where possible.

Maintaining carbon neutrality

Qflow recognises the need for ongoing efforts to reduce and eliminate its carbon emissions, beyond carbon neutrality. To achieve this, we have developed an action plan, as shown in Figure 9, which outlines key initiatives for each emission area. This plan will help us identify areas where funding is needed and allocate funds accordingly.

Scope	ID	Emission area	Options to eliminate, reduce, offset & Monitor
2 (Indirect)	**1**	**Electricity consumption of office building**	1. Continue to rent offices in buildings where energy is supplied by a company that use renewable sources.
	2	**Heating/cooling of office building**	1. Continue to use a carbon neutral energy supplier for office buildings.
	3	**Electricity consumption of employees' homes**	1. Encourage employees to turn off equipment completely when not in use. 2. Encourage the use of LED bulbs over traditional bulbs. 3. Provide information to employees on the availability of sustainable energy providers.
	4	**Heating/cooling of employees' homes**	1. Encourage employees to reduce their thermostat temperature and/or decrease the number of hours the heating is on when not necessary. 2. Promote the use of draught excluders. 3. Encourage employees to seal gaps around windows and doors to prevent heat loss.
3 (Indirect)	**5**	**Water consumption of office building**	1. Educate employees on the impact of single-use or unnecessary water use. 2. Encourage office owners to do regular checks to ensure no costly leaks. 3. Encourage office providers to install low-flow fixtures and motion-sensor taps.
	6	**Water consumption in employees' homes**	1. Educate the team on opportunities to improve water efficiency at home. 2. Provide employees with water efficient equipment, for example, cistern displacement devices, regulated shower heads and kitchen tap aerators.
	7	**IT Infrastructure**	1. Continue to use Microsoft Azure, which is certified as carbon neutral. 2. Continue to assess other LLM providers' carbon status.

FIGURE 9

FIGURE 9 CONTINUED...

Scope	ID	Emission area	Options to eliminate, reduce, offset & Monitor
3 (Indirect)	**8**	Third Party Software and Subscriptions	1. Audit all subscriptions regularly and eliminate unused, duplicated, or non-essential services. 2. Opt for lightweight software where possible (e.g. browser-based tools over full software downloads).
	9	Hardware supplied to employees	1. Continue to choose durable, energy-efficient, and long-lifespan hardware. 2. Procure more hardware from authenticated second-hand dealers to avoid emissions from new production.
	10	Travelling to work	1. Encourage the use of low carbon, sustainable route planning tools (e.g. RouteZero). 2. Promote the use of public transport, cycling and walking over private car use. 3. Continue to operate as a remote first company, only encourage travel into work when necessary.
	11	Business travel	1. Arrange virtual sessions with customers and partners where possible. 2. When travelling internationally, choose low-emission airlines through TravelPerk. 3. Create a green business travel programme.
	12	Electricity consumption of clients using the app	1. To accurately monitor the number of phones being used on live sites. 2. Encourage integration with existing products or software, where a single device can be used.
	13	Waste production	1. Eliminate single-use items where possible. 2. Encourage employees to bring food and drink in reusable containers. 3. Encourage the recycling of organic waste (e.g tea bags, coffee grounds and food waste).
	14	Company Equipment	1. Recycle/resell equipment after use. 2. Purchase sustainable marketing equipment (e.g. PVC-free roller banners).
	15	Hotel Stays	1. Identify and use hotels and accommodation with Green Certifications and Labels. 2. Encourage employees to adopt low-impact behaviours when staying in hotels (e.g. Turning off lights and air conditioning when not needed).

Appendix

Scope	ID	Emission Area	Description	Total Emissions [kgCO2e/year]
2 (Indirect)	**1**	**Electricity consumption of office building**	Qflow's office building is supplied by Brook Green Supply which source 100% of its electricity from renewable sources (backed by Renewable Energy Guarantees Origin). This means the carbon footprint associated with the office building is considered to be zero.	**0**
	2	**Heating/cooling of office building**	Brook Green Supply supplies 100% REGO-backed electricity to the office building and 100% of their natural gas is offset. As a company, Qflow recognises this to be carbon neutral and therefore the carbon footprint for the heating and cooling of the office space is considered to be zero.	**0**
	3	**Electricity consumption of employees' homes**	From January to December 2024, employees were estimated to have worked from home 88% of the time. Calculations have been made based on powering 1 laptop, 1 desktop screen and 1 lightbulb which each employee uses to carry out work. Average values are used for the power consumption of each item. We have assumed that these items are on for 8 hours of the working day and are connected to a power supply throughout this period.	**1,951.36**
	4	**Heating/cooling of employees' homes**	To improve accuracy, a revised calculation method was introduced for 2024 to better estimate heating and cooling emissions from employees working at home. Based on the assumption that employees worked remotely 88% of the time, we estimated 220 home-working days per person. This was then multiplied by an 8 hour working day, to calculate the annual remote working hours per employee. That figure was then multiplied by the average number of employees in 2024 to calculate the total remote working hours. Finally, this total was then multiplied by a Heating/Cooling conversion factor to give us the total emissions associated with Heating and Cooling employees homes.	**26,073.80**
3 (Indirect)	**5**	**Water consumption in office building**	Qflow's water consumption for 2024 was reported by our office space provider as 65.70m3. This figure was then multiplied by a standard carbon conversion factor for water usage, resulting in an estimated 10.06 kgCO2e .	**10.06**
	6	**Water consumption in employees' homes**	Estimates have been made based on typical values for water consumption out of toilets and taps per employee household. We assumed 3 toilet flushes and hand-washes for each working day per employee. We assumed 1.5 litres of water is consumed for drinking per employee each working day and two full standard sink volumes are used for cooking and washing-up purposes.	**2,501.29**
	7	**IT infrastructure**	Microsoft Azure hosts Qflow's data via a cloud-based IT infrastructure. MS Azure is 100% carbon neutral through carbon offsetting and reducing emissions. We consider this to have a carbon footprint of zero. For the first time, emissions associated with our use of of OpenAI have been calculated and included under IT infrastructure emissions. Using the ChatGPT model, we assume each query emits approximately 4.32 grams of CO2. With over 450,000 queries made in 2024, we estimate that our OpenAI usage emits 1,994.70 kgCO2.	**1,994.70**
	8	**Third Party Software and Subscriptions**	This years carbon assessment has been expanded to include emissions associated with software and subscription usage. Using a cost-based calculation method, emissions were estimated by multiplying total expenditure on IT services (excluding Microsoft Azure and OpenAI) by an assumed emissions factor for software and subscription use. A universal carbon convertor was applied due to the absence of detailed emissions data for each individual IT service.	**11,477.83**

Appendix (continued)

Scope	ID	Emission Area	Description	Total Emissions [kg CO2e/year]
3 (Indirect)	9	Hardware supplied to employees	This estimates the carbon emissions associated with work laptops supplied by Qflow. In 2024, we procured new laptops from companies recognised for their durability and reliability (Dell, Apple, ASUS, Lenovo and HP), to ensure devices remain fit for purpose over time despite ongoing technological development. The carbon impact of new laptops vary based on the specific model, but the average is approximately 301kg CO2e/laptop. We intend to introduce the laptops into the circular economy after use. We have assumed a 50% uptake of the carbon from these assets and that they will be in service for 4 years before they require upgrading; therefore, the annual carbon footprint of these assets is considered to be 1,618.13kg CO2e.	1,618.13
	10	Travelling to work	We have estimated this figure based on a Microsoft Forms survey to employees to understand their mode(s) of travel, the distances of each mode of transport, the frequency they travel to and from the office.	11,651.65
	11	Business Travel	This encompasses travelling to Qflow client sites in the UK, Europe and The US. The estimated carbon footprint has been calculated based on the distance travelled and the mode of transport taken from invoice data. In some cases, the distances had to be estimated using cost data. With the companies ongoing expansion, flights to and from the US increased 150%, accounting for the largest share of total emissions.	39,478.19
	12	Electricity consumption of clients using the Qflow app	With the number of active sites growing to 341 in 2024, we assume 1023 smart phones are being used to operate the app. We have assumed that these are operating at 5 watts for 1 hour of each working day across 2024. This value will likely become more significant as Qflow grows in size.	2,912.42
	13	Waste produced from work environment	We aim to eliminate waste at every possible opportunity. We do not use disposable cups and only print documents where absolutely necessary. Where possible we eliminate, reuse or recycle plastic and other packaging from procured goods. Each employee is briefed on reducing waste and can request items to support them in doing so, such as a keep-cup. Our Waste production data for 2024 was provided by our office space provider.	13.48
	14	Company equipment	Qflow has purchased various items for the office this year and so we have calculated the carbon footprint of these based on the average carbon footprint associated with the manufacturing of these products based on the predominant material it is made from.	333.76
	15	Hotel Stays	Qflow employees stay at hotels for important events and conferences and stayed a total of 216 nights across 2024. The carbon footprint was calculated based on the average carbon factor associated with each location (e.g. UK, UK (London), USA, Switzerland and Canada).	2879.70

Further information

Qflow enables a positive shift in the way teams collect and use environmental data on live construction sites.

It uses a unique combination of AI and machine learning to automate the time consuming and error prone process of data capture and analytics, enabling engineering teams to deliver quality and sustainability and minimise project risk.

By providing projects with highly granular data for materials coming onto site and waste going off, teams can proactively manage environmental risk and develop a real time image of their carbon impact. This data not only informs sustainability targets, but also aligns key business objectives such as quality, productivity and profitability.

To explore how Qflow can help you capture and get value from your data, reach out to our discovery team at info@qualisflow.com.

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