



BIC Innovation Decarbonisation Strategy 2022-27

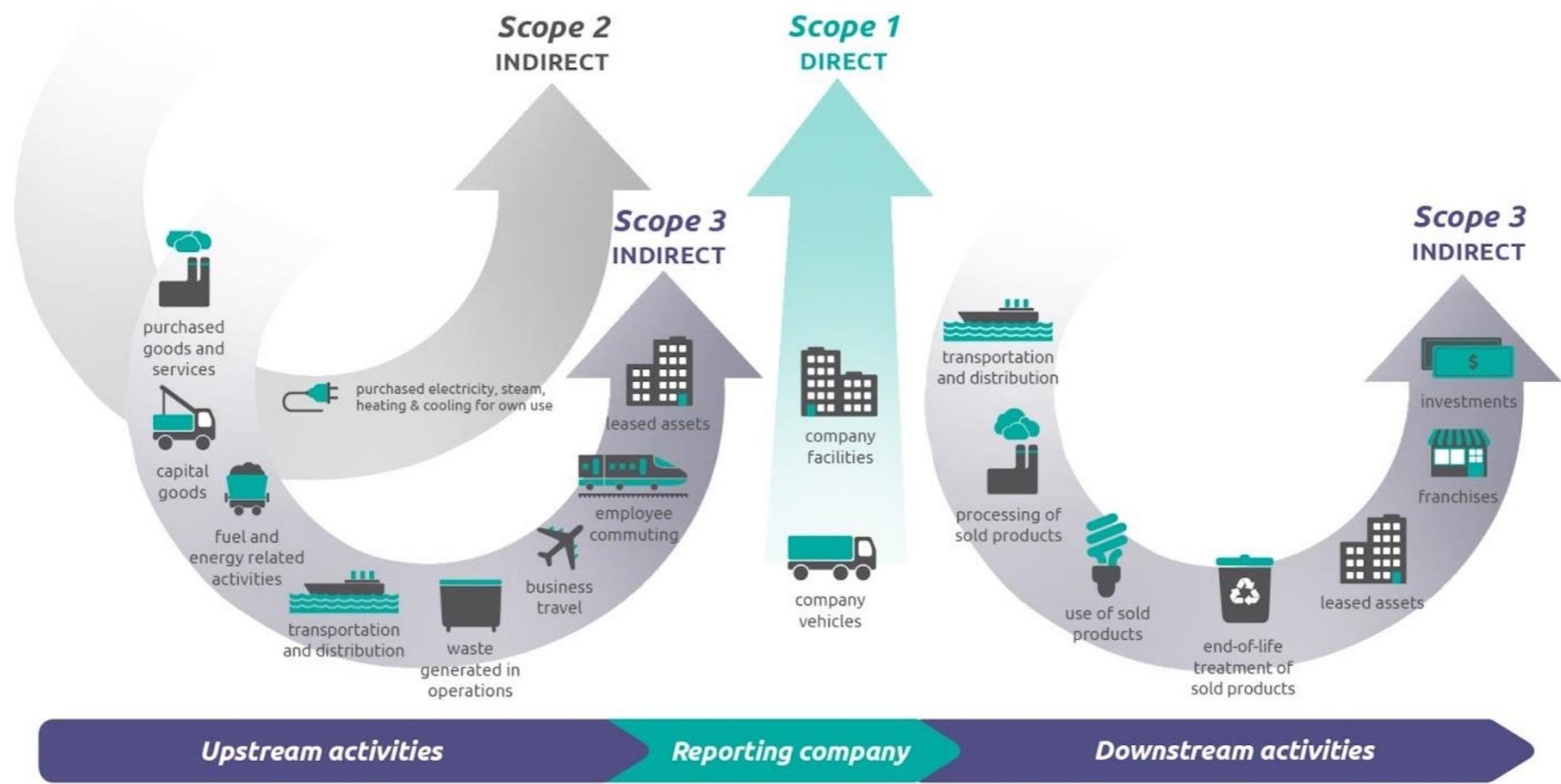
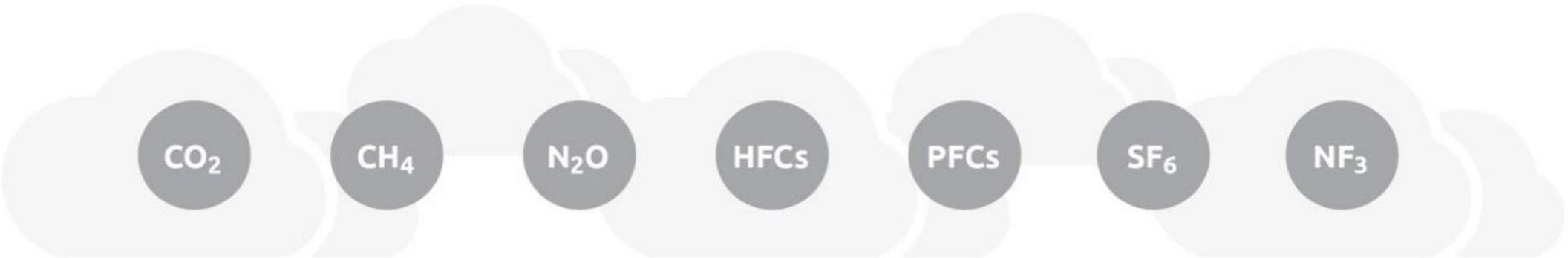
Delivering Net Zero

Identifying a route to net zero emissions for BIC by 2027 is complex and challenging but our commitment is steadfast and our goals set for the decarbonisation journey. To understand how and when BIC Innovation would reach net zero we established a decarbonization team from across the company to conduct extensive analysis and modelling.

The targets set are as ambitious as possible, while remaining realistic; and are supported by immediate action and a commitment to continuous monitoring, evaluation and innovation.

We have a number of targets:

- For the emissions we control directly (BIC Innovation Carbon Footprint), we will reach net zero by 2027, with an ambition to reach 80% reduction by 2024 to 2025;
- To become B Corporation (B Corp) certified by 2023 – 2024 and hold the gold standard within our sector.
- Conduct a feasibility study on the decarbonisation of all office space by 2023:
 - Explore the feasibility of installing Photo Voltaic Cells and Air source heat pumps on BIC premises.
 - Active exploration into EV charging initiatives such as salary sacrifice schemes and charging points for all employees.



Carbon Net Zero Strategy

The Greenhouse Gas Protocol is a widely used standard that sets out how to account for your GHG emissions. It categorises emissions into three groups or 'Scopes':

- **Scope 1:** Direct emissions that result from activities within your organisation's control. This might include on-site fuel combustion, manufacturing and process emissions, refrigerant losses and company vehicles.
- **Scope 2:** Indirect emissions from any electricity, heat or steam you purchase and use. Although you're not directly in control of the emissions, by using the energy you are indirectly responsible for the release of CO₂.
- **Scope 3:** Any other indirect emissions from sources outside your direct control. Examples of Scope 3 emissions include purchased goods and services, use of sold goods, employee commuting and business travel, outsourced transportation, waste disposal and water consumption.

Decarbonisation Roadmap and Sustainability Report

A carbon footprint report was prepared for BIC innovation by Greener Edge environmental consultants encompassing both sites North and South in 2022.

Our total Calculated Emissions **183.51 tCO₂e**

Scope 1 1 4.95 tCO₂e

Scope 2 2 2.02 tCO₂e

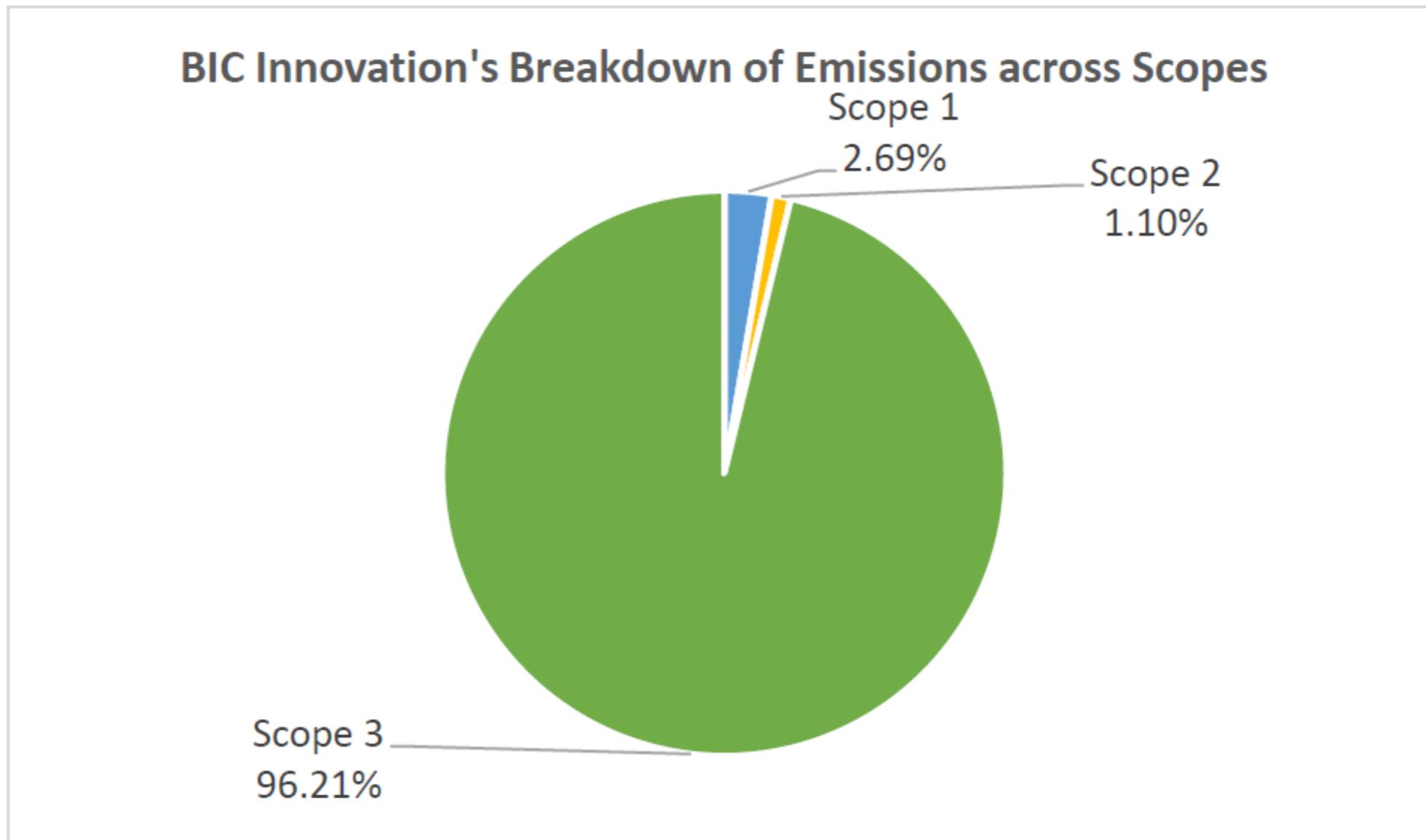
Scope 3 3 176.57 t CO₂e

Scope	Calculated Emissions (tCO ₂ e)	Percentage (%)
Scope 1	4.95	2.69%
Scope 2	2.02	1.10%
<i>Scope 1 + 2</i>	<i>6.96</i>	<i>3.79%</i>
Scope 3	176.55	96.21%
Total	183.51	100%

Table 1: BIC Innovation's Breakdown of Emissions across Scopes

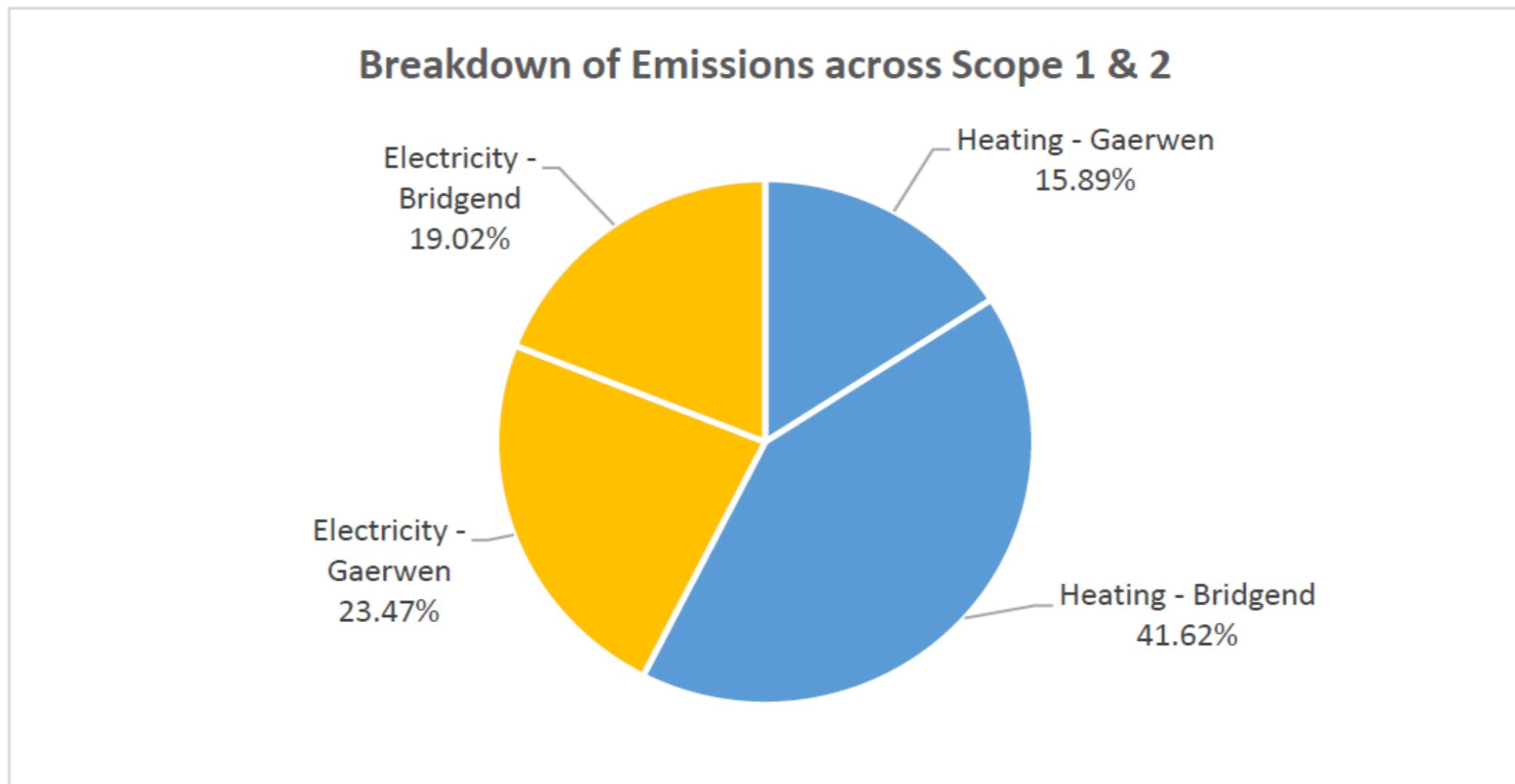
Carbon Footprint Overview

Calculated emissions have been broken down by scope, Scope 3: Indirect Emissions has the largest contribution of 96.20%, followed by Scope 1: Direct Emissions with 2.69% and then Scope 2: Indirect Emissions from Energy with 1.10%. This is represented in Figure 1 and the individual values can be seen in Table 1.



Organizational Background Priorities

The overall goals and commercial objectives of BIC Innovation are to remain commercially viable whilst reducing carbon emissions and environmental impacts. BIC Innovation is keen to lead the way by demonstrating an unwavering commitment to becoming a net zero organisation.



Breakdown of Emissions continued

From Figure 2, it is seen that Scope 1: Direct Emissions consists only of heating, generated from purchased gas. Below it can be seen that 72.37% of emissions from heating are generated at the Bridgend office whilst 27.63% are generated at the Gaerwen office.

Scope	Activity	Office	Quantity (kWh)	Calculated Emissions (tCO ₂ e)	Percentage (%)
Scope 1: Direct Emissions	Heating – generated onsite from purchased gas.	Gaerwen	6,754.80	1.37	27.63%
		Bridgend	17693.5	3.58	72.37%
	Total			4.95	100%

BIC Innovation's Scope 2: Direct Emissions from Energy are all from purchased electricity which is demonstrated in Table 3. The total annual electricity consumption for the reporting year was 18,895.80 kWh. This led to 2.09 tCO₂e. Due to the Bridgend office being on a 100% renewable tariff with Bulb, the electricity consumption generated zero emissions, therefore all emissions generated from electricity are from the Gaerwen office.

Scope	Activity	Office	Quantity (kWh)	Calculated Emissions (tCO ₂ e)	
				Location-Based Total	Market-Based Total
Scope 2: Indirect Emissions	Purchased electricity	Gaerwen	10,438.80	2.02	2.02
		Bridgend	8,457.00	1.64	0.00
	Total		18,895.80	3.65	2.02

Table 3: BIC Innovation's Scope 2: Indirect Emissions from Energy

Energy Use

Heating & Hot Water:

Head Office in Gaerwen:

BIC Innovation leases their head office within the M-SParc building. Heating, electricity and hot water are all provided for under this lease. Within the office there is a Toshiba air conditioning unit with access to a central control panel which staff are free to use to control the temperature of the room. If the air conditioning is turned on manually then the control panel is programmed to turn off after a set period to avoid being left on.

M-Sparc supply heat to the offices through a gas-fired boiler system. The head office uses an average of 562.9 kWh / month.

There is no access to hot water within the office, there are accessible hot water points across the building for domestic purposes.

Bridgend Site:

BIC Innovations has an all-inclusive lease for the Bridgend Site. There was a combi gas boiler on site and every radiator had a TRV installed for local management. There was no room temperature / thermostatic control.

Energy Use

Cooling:

Head Office in Gaerwen:

The air conditioning unit provides cooling as well as heating within the office. It was stated that they try to open windows for manual cooling instead of using the air conditioning unit. A small plug-in fan was also in the office.

Bridgend Site:

There is air conditioning available however it is claimed to not be used. There was a total of 6 air conditioning units in the offices, one large one in the glass stairway and 2 units on the top floor.

The building was single glazed throughout.

Lighting:

Head Office in Gaerwen:

The office had LED lighting which is activated with motion sensors.

Bridgend Site:

They are in the process of upgrading the lights to LEDs, lights are being replaced as and when needed.

Energy Use

Process:

Head Office in Gaerwen:

The nature of the business means that there is no process equipment and consists solely of small power equipment.

Bridgend Site:

The nature of the business means that there is no process equipment and consists solely of small power equipment.

Small Power:

Head Office in Gaerwen:

The office contained 4 computers each with a monitor, a printer/photocopier, many laptops and a kettle. All IT equipment was leased.

Bridgend Site:

The office contained multiple computer and monitor set ups, printers/photocopiers and other standard IT infrastructure to be expected within an established office setup.

There were two small staff welfare facilities with basic kitchen equipment.

Transportation of employees/goods in company-controlled vehicles

BIC Innovation does not have any company-controlled vehicles.

Energy Use

Renewables and Storage:

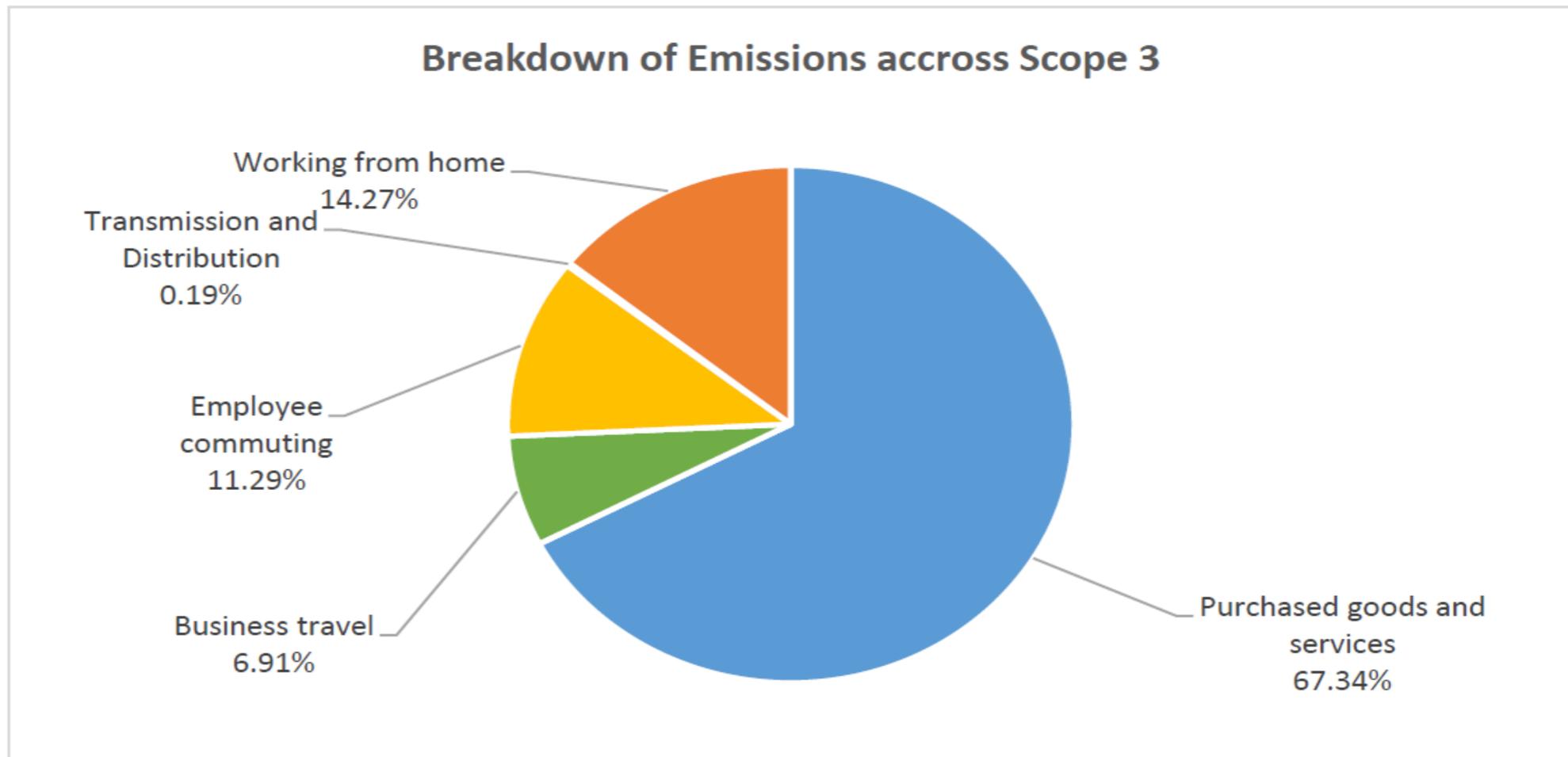
Head Office in Gaerwen:

The building in which BIC Innovation’s head office is situated has a ground mounted PV array. There are also 4 EV parking spaces with access to an EV charger as well as 4 designated car share parking spots.

Understanding the supply chain

Bridgend Site:

There were no renewables or storage facilities on site.

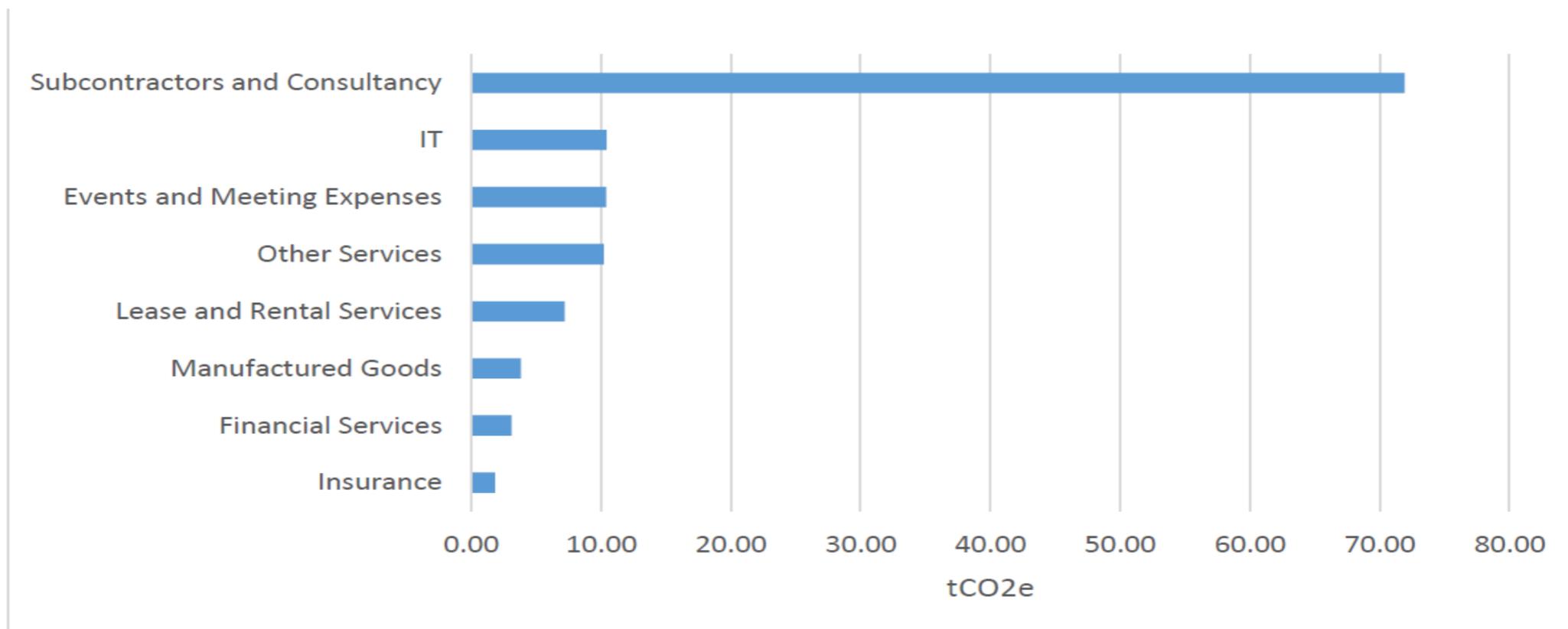


Energy Use

The largest contributor to BIC Innovation's Scope 3: Indirect Emissions is purchased goods and services making up 67.34% with a contribution of 118.90 tCO₂e. It is clear to see this has the largest impact on the total carbon footprint of BIC Innovation and therefore has been further analysed to locate the areas of highest impact.

Source	Calculated Emissions (tCO ₂ e)	Percentage (%)
Purchased goods and services	118.90	67.34%
Working from home	25.20	14.27%
Employee commuting	19.93	11.29%
Business travel	12.19	6.91%
Transmission and Distribution	0.33	0.19%
Total	176.55	100%

Breakdown of Emissions across Purchased Goods and Services



Source	Calculate Emissions (tCO ₂ e)	Percentage (%)
Subcontractors and Consultancy	71.92	60.49%
Other Services	10.23	8.60%
IT	10.42	8.76%
Insurance	1.83	1.54%
Financial Services	3.11	2.62%
Events and Meeting Expenses	10.38	8.73%
Lease and Rental Services	7.20	6.05%
Manufactured Goods	3.82	3.21%
Total	118.90	100%

Decarbonisation Roadmap

Targets

BIC Innovation has the personal target of reaching a Net Zero position by 2026.

Greener Edge always recommend that a company aims to achieve net zero by 2030 in line with the Welsh Government aspirations for the public sector.

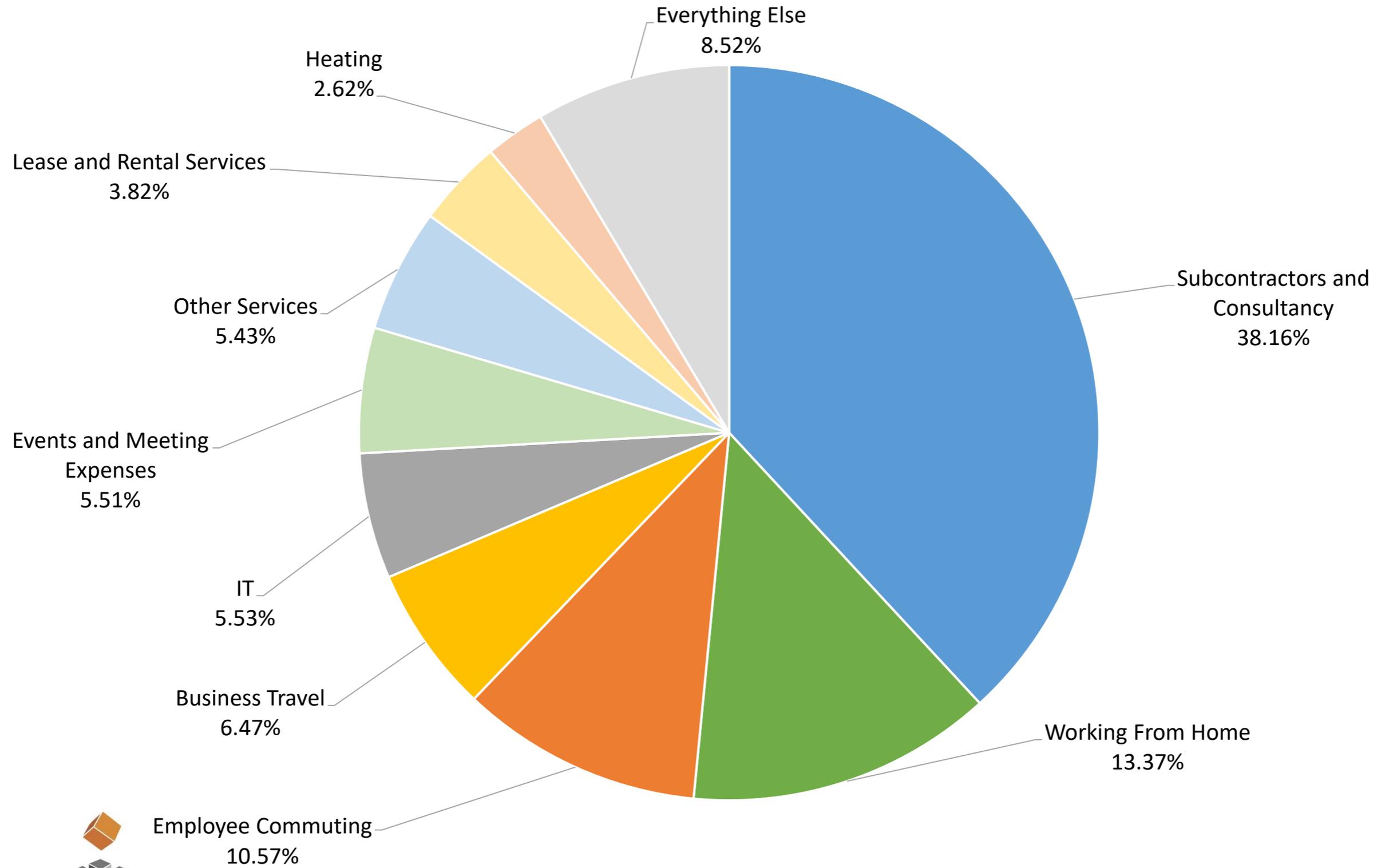
Both these targets can be achieved through the recommendations we have made along with carbon offsetting.

Recommendations

To decrease BIC Innovation's carbon footprint, short-, mid- and long-term recommendations have been made which look at all areas within the business.

The recommendations we have made to reach a net zero position are the same irrespective of target however the time frame changes respectively to the target.

GHG Emission Profile Hotspots



Top Five BIC Innovation Emission Hotspots & Reduction Strategies

Subcontractors & Consultancy

- Implement Environmental Procurement Policies

Working From Homes

- Staff education and sustainable working practices

Employee Commuting

- Staff awareness, car sharing, and incentives

Business Travel

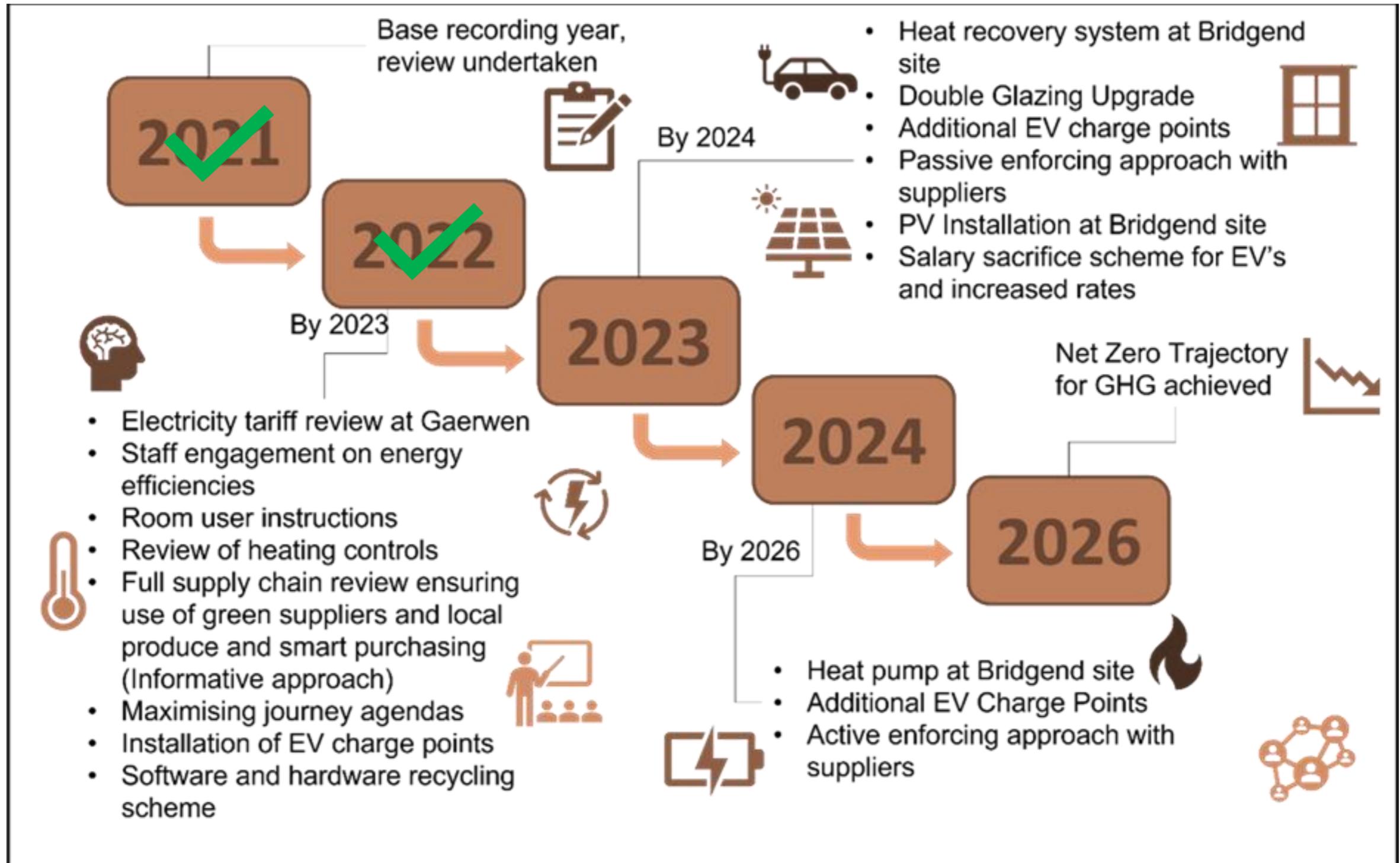
- Reduce non-essential travel where possible and offset essential journeys

IT

- Ensure hardware is ethically disposed off through various carbon friendly initiatives



Decarbonisation Roadmap Overview

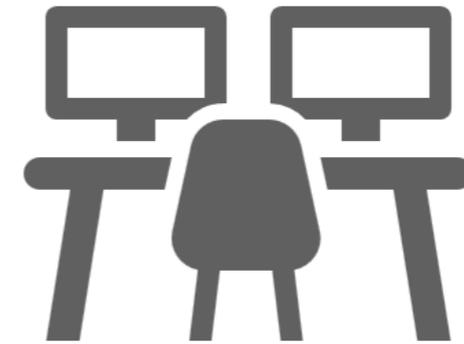


Short Term
2023-24



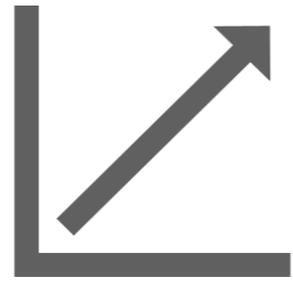
Staff Engagement &
Sustainability
Champions

Sustainable Working
Practices & Environmental
Procurement Policies



EV Charging Feasibility
Study

Medium Term
2024-25



Heat pump
feasibility study

Building Retrofit



Renewable energy
production

EV Charging
Installation



Long Term
2025-26



Air Source Heat
Pump installation

Expand EV
Charging Capacity



Annual Emission
Evaluation



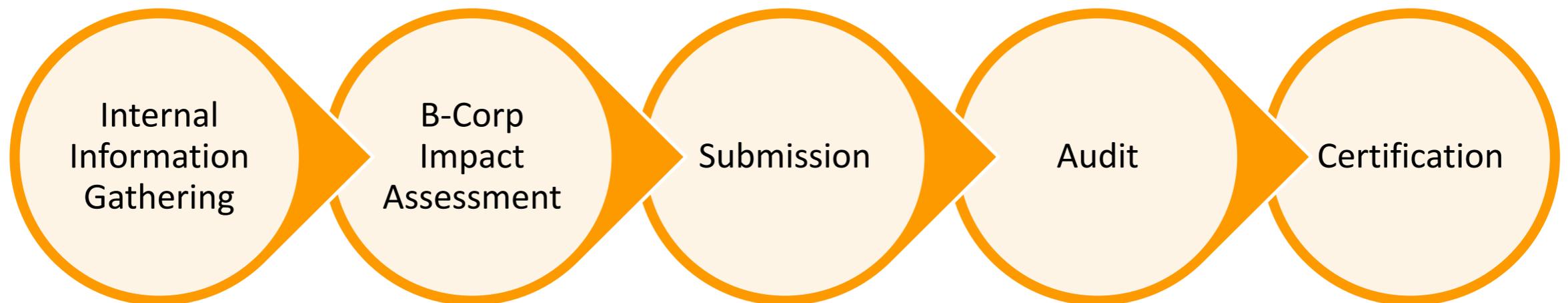
B-Corp Journey

Running parallel to our decarbonisation roadmap, we have begun our B-Corp certification journey. As part of our application we will submit a Impact Assessment which will be scored and evaluated by independent B-Corp auditors.



B-Corp Journey Timeline

In order to achieve B-Corp certification a company must score at least 80 points. BIC Innovation is currently standing at 96 points and will submit their Impact Assessment in early 2023. There is a 9 month wait for certification so BIC Innovation hopes to be B-Corp certified by late 2023. Below is a representation of the B-Corp journey.



A vital component of B-Corp certification is amending BIC Innovation's Articles of Association in line with our B-Corp pledge. Thus making a legal commitment to uphold the principles of B-Corp.