



Greenhouse gas (GHG) accounting report

responsAbility
Investments AG

2021



South Pole

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Acronyms and abbreviations

AC	air conditioning
AUM	assets under management
BEIS	United Kingdom Department for Business, Energy and Industrial Strategy
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
FTE	full-time equivalent
GHG	greenhouse gas
GJ	gigajoule
GRI	Global Reporting Initiative
GWP	global warming potential
IPCC	Intergovernmental Panel on Climate Change
IT	information technology
kg	kilogram
MWh	megawatt-hour
m ²	square meter
PCAF	Partnership for Carbon Accounting Financials
pkm	passenger-kilometer
t	ton
T&D	transmission and distribution
USD	United States dollar
WTT	well-to-tank

Executive summary

This report provides an overview of responsAbility Investment AG's (responsAbility's) greenhouse gas (GHG) emissions from its operations and investments for the 2020 reporting period.

The system boundaries for the operational GHG accounting were defined following the control approach, covering all entities under responsAbility's operational control. This included its offices in Zurich, Tbilisi, Paris, Oslo, Mumbai, Hong Kong, Bangkok, Geneva, Lima, and Nairobi. The operational boundaries were set to cover scope 1, scope 2 and scope 3 emissions. Table 1 provides an overview of key numbers for responsAbility.

Table 1: Summary of key performance indicators (KPIs)

Number of employees	221.0	tCO ₂ e/employee	1.4
Number of full-time equivalents (FTEs)	205.4	tCO ₂ e/FTE	1.5
Premises area (m ²)	3,741.0	tCO ₂ e/m ²	0.1

(Source: South Pole, based on responsAbility's data, 2022)

Based on the activity data provided by responsAbility, the total GHG emissions for the 2021 reporting period are estimated to be 316.5 tons of carbon dioxide equivalent (tCO₂e). Compared to 2020, the total GHG emissions decreased by 81.4 tCO₂e (see Figure 1).

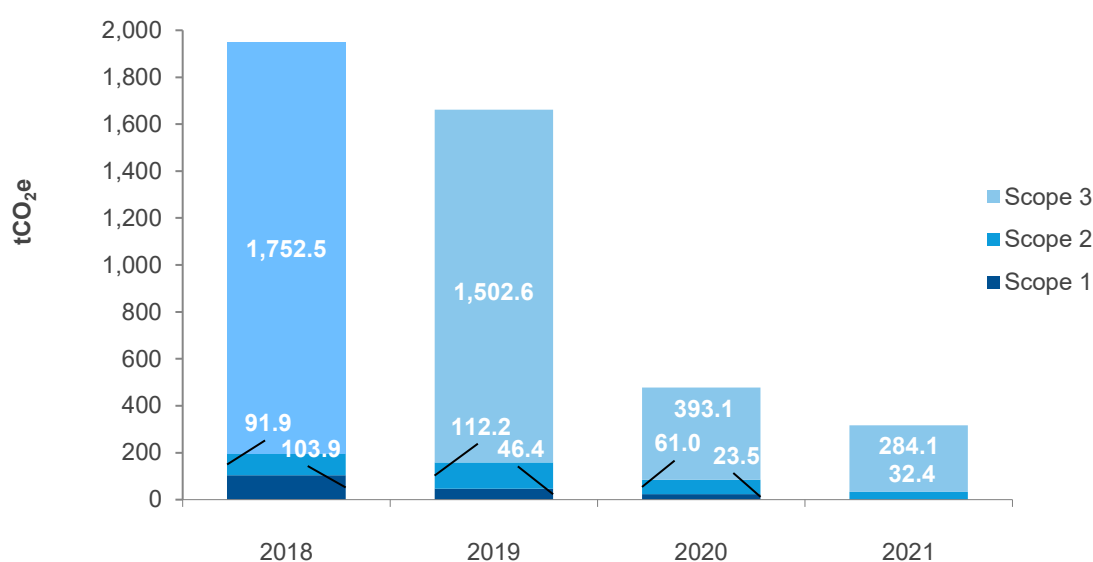


Figure 1: GHG emissions by scope between 2018 and 2021

(Source: South Pole, based on responsAbility's data, 2019-2022)

Table 2: GHG emissions by emission source

Scope	Emissions (tCO ₂ e)	% of total
Scope 1: direct GHG emissions	0.0	0.0%
Scope 2: indirect GHG emissions from purchased electricity, heating, and cooling	32.4	10.2%
Gross emissions without contractual instruments	36.2	
Avoided emissions from contractual instruments ¹	0.9	
Scope 3: other indirect GHG emissions	284.1	89.8%
Total GHG emissions	316.5	100.0%

(Source: South Pole, based on responsAbility's data, 2022)

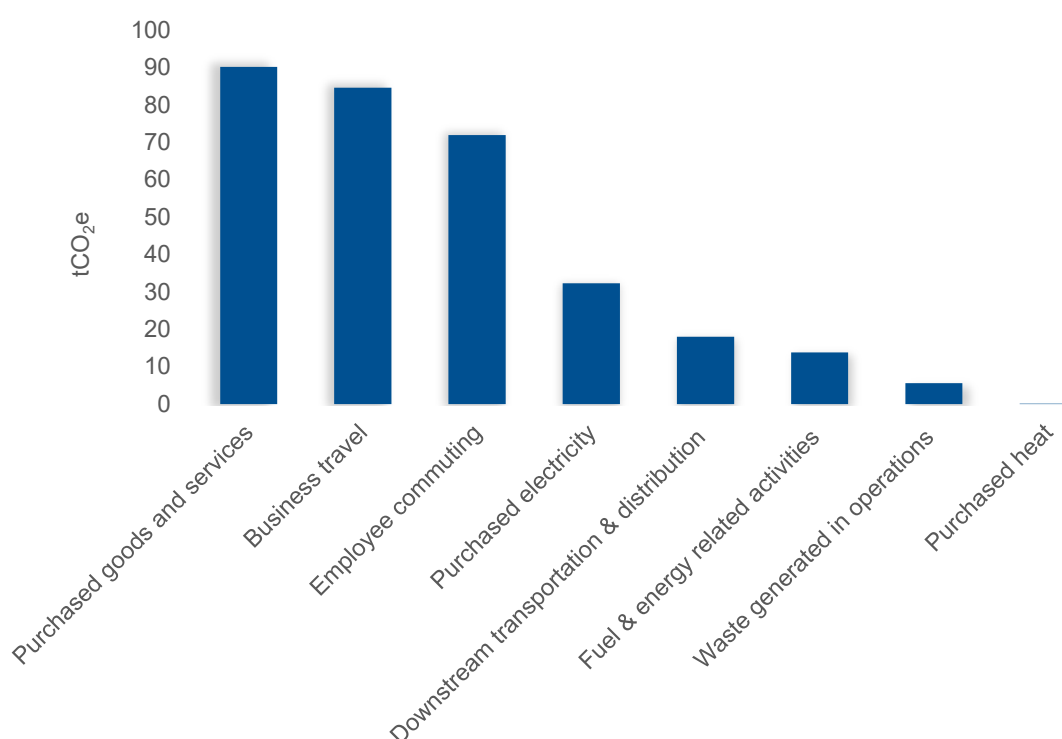


Figure 2: Sources of GHG emissions in 2021

(Source: South Pole, based on responsAbility's data, 2022)

To estimate the emissions resulting from responsAbility's investment and lending activities, South Pole carried out an analysis looking at the carbon footprint of responsAbility's portfolio, which has a value of USD 3.129 billion spread across 13 funds. The analysis covered scope 1, 2 and 3 for equity investments and for loans². The summary of aggregated results for the portfolio can be seen in Table 3 below.

¹ Contractual instruments refer to renewable energy purchase instruments and contracts such as renewable energy certificates, renewable power contracts, power purchase agreements and GoldPower offsets.

² The scope 3 coverage achieved for lending activities is 90.5% and 85.8% for equity investments due to data limitations for specific funds where scope 3 estimations were not possible.

Table 3: Estimated GHG emissions of responsAbility's investment portfolio

Indicator	Results
Total value of portfolio (USD)	3,128,239,938
Coverage as a proportion of total AUM (scope 1 and 2)	100%
Coverage as a proportion of total AUM (scope 3)	89.97%
Total estimated financed emissions (tCO ₂ e/year)	392,509
Total estimated financed emissions, scope 1 and 2 (tCO ₂ e/year)	30,626
Total estimated financed emissions, scope 3 (tCO ₂ e/year)	361,883
Portfolio's carbon intensity (tCO ₂ e per million USD invested)	125.6
Portfolio's carbon intensity, scope 1 and 2 (tCO ₂ e per million USD invested)	9.8
Portfolio's carbon intensity, scope 3 (tCO ₂ e per million USD invested)	128.6

(Source: South Pole, 2022)

Introduction

This report provides a summary of the greenhouse gas (GHG) emissions from responsAbility's operations for the calendar year 2021. responsAbility, a leading impact investor focused on developing countries, manages USD 3.5 billion of assets in a variety of investment vehicles that provide private debt and private equity to some 500 companies, with inclusive business models across 90 countries. Founded in 2003, the company is headquartered in Zurich and has additional offices in nine other locations.

Company information and the reporting period are presented in Table 4.

Table 4: Company information

Company information	
Website	https://www.responsability.com/en
Business area	Impact asset management
Reporting period	2021

(Source: South Pole, based on responsAbility's data, 2022)

1.1 Methodology

The GHG accounting and reporting procedure is based on the 'The Greenhouse Gas Protocol: GHG Protocol: A Corporate Accounting and Reporting Standard – Revised Edition' (GHG Protocol) and the complementary 'Corporate Value Chain (Scope 3) Accounting and Reporting Standard', which are the most widely used international accounting tools for government and business leaders to understand, quantify and manage GHG emissions. The standards were developed by the World Resources Institute (WRI) in partnership with the World Business Council for Sustainable Development (WBCSD).

The accounting was based on the principles of the 'GHG Protocol':

- **Relevance:** establishing an appropriate inventory boundary that reflects the GHG emissions of the company and serves the decision-making needs of users;
- **Completeness:** including all emission sources within the chosen inventory boundary. Any specific exclusion is disclosed and specified;
- **Consistency:** ensuring meaningful comparison of information over time and transparently documented changes to the data;
- **Transparency:** guaranteeing data inventory sufficiency and clarity, where relevant issues are addressed in a coherent manner; and
- **Accuracy:** minimizing uncertainty and avoided systematic over- or under-quantification of GHG emissions.

1.2 System boundaries

1.2.1 Organizational boundaries

System boundaries were defined by following the control approach, thus covering all entities under responsAbility's operational control. For 2021, the GHG accounting includes responsAbility's operations in Zurich (two different buildings), Bangkok, Geneva, Hong Kong, Lima, Mumbai, Nairobi, Oslo, Paris, and Tbilisi (see Table 5). The reporting period was set from January 1, 2021 to December 31, 2021.

Table 6 summarizes the key figures for responsAbility's offices per region.

Table 5: Offices included in the 2021 GHG accounting

Country	Location
Switzerland	Headquarters, responsAbility Investments AG, Zurich
	Branch office, responsAbility Investments AG, Geneva
Georgia	responsAbility Georgia LLC, Tbilisi
France	responsAbility France SAS, Paris
Norway	responsAbility Nordics AS, Oslo
India	responsAbility India Business Advisors, Mumbai
China	responsAbility Hong Kong Ltd, Hong Kong
Thailand	responsAbility Thailand Ltd, Bangkok
Peru	responsAbility America Latina SAC, Lima
Kenya	responsAbility Africa Ltd, Nairobi

(Source: South Pole, based on responsAbility's data, 2022)

Table 6: Key figures for responsAbility's offices per region

Region	No. of facilities	Area (m ²)	FTE	Headcount
Europe	5	2,971.0	135.5	150.0
Asia	3	481.7	45.0	45.0
Americas	1	200.0	15.0	16.0
Africa	1	115.0	10.0	10.0
Total	10	3,767.7	205.4	221.0

(Source: South Pole, based on responsAbility's data, 2022)

1.2.2 Operational boundaries

Under the 'GHG Protocol', emissions are divided into direct and indirect emissions. Direct emissions are those originating from sources owned or controlled by the reporting entity. Indirect emissions are generated because of the reporting entity's activities but occur at sources owned or controlled by another entity.

The direct and indirect emissions are divided into three scopes, as discussed below.

Scope 1

Scope 1 includes all carbon emissions that can be directly managed by the organization (direct GHG emissions). This includes the emissions from the combustion of fossil fuels in mobile and stationary sources (e.g., owned, or controlled boilers, power generators and vehicles) and carbon emissions generated by chemical and physical processes, as well as fugitive emissions from the use of cooling and air-conditioning (AC) equipment. Table 7 (below) gives an overview of the emission sources considered in scope 1, based on the information provided by responsAbility.

Table 7: Overview of scope 1 emission sources for 2021

Category	Emission sources	Boundary
Stationary combustion	Generation of electricity and heat	Not applicable

Category	Emission sources	Boundary
Mobile combustion	Company-owned or leased vehicles	Not applicable
Physical or chemical processing	Manufacturing or processing of chemicals and materials	Not applicable
Fugitive emissions	Emissions from the use of cooling systems and AC equipment, leakage from CO ₂ tanks or methane tubes	Not applicable

(Source: South Pole, based on responsAbility's data, 2022)

Scope 2

Scope 2 includes indirect GHG emissions from the generation of purchased electricity, steam, heat, or cooling purchased by the organization from external energy providers. Table 8 (below) gives an overview of the emission sources considered in scope 2, based on the information provided by responsAbility.

Table 8: Overview of scope 2 emission sources for 2021

Category	Emission sources	Boundary
Electricity	Purchased electricity	Included
Steam	Purchased steam	Not applicable
District heating	Purchased district heating	Included
District cooling	Purchased district cooling	Not applicable

(Source: South Pole, based on responsAbility's data, 2022)

Scope 3

Scope 3 includes other indirect emissions, such as emissions from the extraction and production of purchased materials and services, vehicles not owned or controlled by the reporting entity, outsourced activities, and waste disposal.

According to the 'GHG Protocol', companies shall separately account for and report on emissions from scope 1 and 2.

Table 9, below, gives an overview of the emission sources considered in scope 3, based on the information provided by responsAbility.

Table 9: Overview of scope 3 emission sources for 2021

Category	Emission sources	Boundary
Purchased goods and services	Purchased goods (e.g., raw materials and information technology [IT] equipment) and services	Included
Capital goods	Production of capital goods (machinery, etc.)	Not included (marginal)

Category	Emission sources	Boundary
Fuel- and energy-related activities	Upstream life cycle emissions from fuel and electricity generation, including transmission and distribution losses	Included
Upstream transportation and distribution	Transportation and distribution of goods and services to the company	Not applicable
Waste generated in operations	Waste management of operational waste (landfilling, recycling, etc.)	Included
Business travel	Travel and accommodation of employees/contractors	Included
Employee commuting and teleworking	Employee travel between home and work as well as employee's energy consumption during home office	Included
Upstream leased assets	Operation of assets leased by the organization (lessee) in the reporting year and not included in scope 1 or 2	Not applicable
Downstream transportation and distribution	Transportation and distribution of products sold by the organization	Included
Processing of sold products	Processing of intermediate products sold by the organization	Not applicable
Use of sold products	Use of sold goods that require energy to operate	Not applicable
End-of-life treatment of sold products	Waste disposal and treatment of sold products	Not applicable
Downstream leased assets	Operation of assets owned by the company (lessor) and leased to other entities, not included in scope 1 or 2	Not applicable
Franchises	Operation of franchises not included in scope 1 or 2	Not applicable
Investments	Operation of investments not included in scope 1 or 2	See Investment screening report

(Source: South Pole, based on responsAbility's data, 2022)

1.3 Data inventory and assumptions

Electricity activity data was provided for all offices except the Hong Kong, Paris, and Geneva offices, for which the electricity consumption was extrapolated based on the average consumption per employee of the other offices. There was only one person working remotely for the Oslo office, therefore, there was no electricity and water consumption data for Oslo and the teleworking emissions was extrapolated. For the Nairobi office, the reported electricity consumption was adjusted to account for the office space used by responsAbility. Since the Zurich office could not provide water consumption data this reporting year, the emissions were extrapolated using last year's figure. The Hong Kong office was closed at the end of 2021.

Heating data was only provided for the Paris office. In 2021, the Zurich offices switched to heat pumps for heating, therefore, energy consumption has been included in the electricity consumption. Consequently, no scope 1 emissions are recorded for this year. For the other offices, it was assumed that heating is not needed or that it is included in the electricity

consumption. There was no heating oil consumption recorded in 2021. No cooling data was provided for the offices this year as it was already included in the electricity consumption.

Business travel data was provided for all offices. For the Geneva office, no air travel was reported. The Lima, Oslo and Hong Kong offices recorded no business travel. Where hotel star rating data was not available, the rating used in the calculation was based on the average rating of hotels booked by responsAbility's employees in the country of destination.

All offices documented waste generation except for Hong Kong and Oslo, due to remote working and closure in 2021. Few offices this year reported paper consumption as there was no purchase recorded. Employee commuting data, which was collected through an online survey, was extrapolated to all employees for each office separately. Teleworking data was still accounted for this year.

The Zurich office reported that parts of their freight emissions are already offset by the DHL GoGreen Carbon Neutral Label.

The new emissions sources for this reporting period are rickshaw, which is a common mode of transport for employee commuting in India, and subway/metro.

Overall, the data inventory, emission factors and assumptions are based on the 'GHG Protocol'. The choice of assumptions and emission factors followed a conservative approach. Unless otherwise specified, all emission values in this report are given in metric tons of carbon dioxide equivalent (tCO₂e). It should be noted that GHG accounting captures GHG emission reduction efforts but excludes other important sustainability efforts, such as purchasing sustainable catering services from local providers with a focus on sustainability issues other than climate change.

1.4 Global warming potential (GWP)

GWP is a measure of the climate impact of a GHG compared to CO₂ over a time horizon. GHG emissions have different GWP values depending on their efficiency in absorbing longwave radiation and the atmospheric lifetime of the gas. The GWP values used in GHG accounting include the six GHGs covered by the United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol (see Table 10), along with any combination of these. These are the GWP used by the United Kingdom Department for Business, Energy, and Industrial Strategy (BEIS) and are based on the 'Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4)'. Although the 'AR5' is more recent, it has not been accepted internationally by all stakeholders.

Table 10: Applied GWPs

GHG	GWP (100 years)
Carbon dioxide (CO ₂)	1
Methane (CH ₄)	25
Nitrous oxide (N ₂ O)	298
Hydrofluorocarbons (HFCs)	<u>See IPCC AR4 – Table 2.14</u>
Perfluorocarbons (PFCs)	<u>See IPCC AR4 – Table 2.14</u>
Sulphur hexafluoride (SF ₆)	22,800

(Source: IPCC AR4, 2007)

2 Results

This section presents the results of the 2021 GHG accounting. 'Total emissions' in this report refers to the emissions sources covered, as described in Section 1.2. Please note that, due to the rounding of numbers, the figures may not add up exactly to the total provided.

2.1 GHG accounting results

Table 11 shows some key figures according to the Global Reporting Initiative (GRI), while Table 12 shows the emissions for the 2021 reporting period. There are no scope 1 emissions this year as the Nairobi office did not report using diesel for company-owned vehicles in 2021, and the heating source for the Zurich office has been switched to heat pump, which was already included in the electricity consumption.

For some emission sources, there is a drastic difference in emissions even though the actual consumption changed insignificantly. In these cases, a more accurate emission factor was available or the type of data provided was less accurate. For example, for freight, the data given was spend-based data and, therefore, the emission factors used were more conservative, resulting in higher emissions.

Table 11: Key figures according to the GRI

GRI G4	GRI Standards	Topic	Quantity	Unit
G4-EN3	302-1	Indirect energy consumption by primary source	597.2	GJ
			274.0	GJ
		Renewable electricity	319.7	GJ
		Grid electricity	3.6	GJ
		District heating		
G4-EN16	305-2	Energy indirect GHG emissions (scope 2)	32.4	tCO ₂ e
G4-EN17	305-3	Other indirect GHG emissions (scope 3)	284.1	tCO ₂ e
G4-EN18	305-4	GHG emission per employee	1.4	tCO ₂ e per employee
G4-EN18	305-4	GHG emission per FTE	1.5	tCO ₂ e per FTE

(Source: South Pole, based on responsAbility's data, 2022)

Table 12: GHG emissions 2021

Activity	Consumption	Unit	Emissions (tCO ₂ e)	Percentage of total (%)
Scope 2: indirect GHG emissions from purchased electricity, heating, and cooling			32.4	10.2
Electricity	164.9	MWh	32.3	10.2
Renewable	76.1	MWh	<0.1	<0.1
Grid	88.8	MWh	32.3	10.2
Heating	1.0	MWh	0.1	<0.1
District heating	1.0	MWh	0.1	<0.1
Scope 3: other indirect GHG emissions			284.1	89.8
Business travel			84.6	26.7
Flights	408,086.1	pkm	67.5	21.3
Short haul <463	1,225.7	pkm	0.3	0.1
Medium haul 463–3700	137,903.2	pkm	23.1	7.3
Long haul >3700	268,957.2	pkm	44.1	13.9
Train ³			0.4	0.1
Taxi			0.6	0.2
Staff car	74,341.9	pkm	13.5	4.3
Car rental (natural gas)	4.9	liter	<0.1	<0.1
City bus	5,830.9	pkm	<0.1	<0.1
Subway/metro	21,365.5	pkm	<0.1	<0.1
Accommodation	180.0	No. of guest nights	2.5	0.8
Purchased goods and services			90.2	28.5
Water	1,814.2	m ³	1.3	0.4
Supply	1,814.2	m ³	0.5	0.2
Treatment	1,814.2	m ³	0.8	0.3
Paper	0.5	tons	0.4	0.1
Unspecified	<0.1	tons	<0.1	<0.1
Recycled	0.5	tons	0.4	0.1
Food and beverages ³			5.9	1.9
Catering services			2.2	0.7
Food and drink products			3.7	1.2
IT equipment	963.0	No. of devices	82.6	26.1
Conference phones	2.0	No. of devices	0.1	<0.1
Desktop computer	5.0	No. of devices	0.4	0.1
Docking station	11.0	No. of devices	0.1	<0.1
Keyboard	11.0	No. of devices	0.3	0.1
Laptop	444.0	No. of devices	39.6	12.5
Mobile phone	60.0	No. of devices	1.4	0.4
Monitor or computer screen	272.0	No. of devices	14.2	4.5
Mouse	11.0	No. of devices	0.1	<0.1
Office telephone	13.0	No. of devices	0.5	0.2

³ Activity data is not displayed as the units provided vary for one emission source e.g., units and EUR

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Activity	Consumption	Unit	Emissions (tCO ₂ e)	Percentage of total (%)
Printer	27.0	No. of devices	1.8	0.6
Projector	21.0	No. of devices	0.2	0.1
Television	60.0	No. of devices	22.3	7.0
Other IT devices	39.0	No. of devices	1.7	0.5
Cloud services	524.0	No. of users	0.1	<0.1
Teleworking	36,026.0	Work-from-home days	44.3	14.0
Employee commuting	348,984.4	pkm	27.6	8.7
Bicycle	20,988.0	pkm	<0.1	<0.1
Walk	10,059.9	pkm	<0.1	<0.1
Car	74,341.9	pkm	11.2	3.5
Motorcycle	4,449.5	pkm	0.1	<0.1
E-bike	3,256.4	pkm	<0.1	<0.1
Bus (national)	5,830.9	pkm	0.7	0.2
Rail (national, including tram and subway)	181,426.0	pkm	7.5	2.4
Taxi	42,677.1	pkm	7.9	2.5
Rickshaw	5,954.7	pkm	0.2	0.1
Downstream transportation and distribution			18	5.7
Freight ³			18.0	5.7
Air			17.4	5.5
Road			0.6	0.2
Waste generated in operations	11.4	tons	5.6	1.8
General waste	11.3	tons	5.6	1.8
Paper and paper board	0.1	tons	<0.1	<0.1
PET	<0.1	tons	<0.1	<0.1
Glass	<0.1	tons	<0.1	<0.1
Aluminum	<0.1	tons	<0.1	<0.1
Fuel- and energy-related activities			13.8	4.4
Well-to-tank (WTT) and transmission and distribution (T&D)	165.9	MWh	13.8	4.4
Renewables	76.1	MWh	1.9	0.6
Grid electricity	88.8	MWh	11.8	3.7
District heating	1.0	MWh	<0.1	<0.1
Total gross GHG emissions			316.5	100.0
Emissions offset by third parties			0.9	
Total net GHG emissions			315.5	

(Source: South Pole, based on responsAbility's data, 2022)

Table 13: GHG emissions by scope and activity for 2020 and 2021 and the percentage change

Activity	2020 (tCO ₂ e)	2021 (tCO ₂ e)	Difference 2020–2021 (%)
Scope 2	61.0	32.4	-46.9
Electricity	34.4	32.3	-6.1
Renewable	<0.1	<0.1	<0.1
Grid	34.4	32.3	-6.1
Heating and cooling	26.6	0.1	-99.6
District heating	11.8	0.1	-99.2
Scope 3	393.1	284.1	-27.7
Business travel	203.6	84.6	-58.4
Flights	161.0	67.5	-58.1
< 463 km	2.3	0.3	-87.0
463–3,700 km	47.9	23.1	-51.8
> 3,700 km	110.8	44.1	-60.2
Train	0.1	0.4	300.0
Taxi	1.3	0.6	-53.8
Staff car	0.3	13.5	4,400.0
Car rental	0.2	<0.1	-95.2
City bus	<0.1	<0.1	<0.1
Subway/metro	N/A	<0.1	N/A
Accommodation	40.7	2.5	-93.9
Purchased goods and services	77.4	90.2	16.5
Water	4.0	1.3	-67.5
Supply	1.3	0.5	-61.5
Treatment	2.7	0.8	-70.4
Paper	0.5	0.4	-20.0
Unspecified	<0.1	<0.1	<0.1
Recycled	0.5	0.4	-20.0
Food and beverages	21.7	5.9	-72.8
Catering services	13.6	2.2	-83.8
Food and drink products	8.1	3.7	-54.3
IT equipment	51.1	82.6	61.6
Conference phones	<0.1	0.1	9,455.3
Desktop computer	0.6	0.4	-33.3
Docking station	<0.1	0.1	439.9
Keyboard	<0.1	0.3	1,519.7
Laptop	28.3	39.6	39.9
Mobile phone	2.0	1.4	-30.0
Monitor or computer screen	17.7	14.2	-19.8
Mouse	<0.1	0.1	400.0
Office telephone	<0.1	0.5	2,400.0
Printer	0.5	1.8	260.0
Projector	0.2	0.2	0.0
Television	0.2	22.3	11,050.0

Greenhouse gas (GHG) accounting report 2021

Activity	2020 (tCO ₂ e)	2021 (tCO ₂ e)	Difference 2020–2021 (%)
Other IT devices ⁴	1.1	1.7	54.5
Cloud services	0.1	0.1	0.0
Teleworking	36.3	44.3	22.1
Employee commuting	42.4	27.6	-34.9
Bicycle	0.0	0.0	0.0
Walk	0.0	0.0	0.0
Car	20.0	11.2	-44.0
Motorcycle	1.2	0.1	-91.7
E-bike	<0.1	<0.1	0.0
Bus (national)	2.4	0.7	-70.8
Rail (national including tram and subway)	16.2	7.5	-53.7
Taxi	2.3	7.9	243.5
Rickshaw	N/A	0.2	N/A
Downstream transportation and distribution	2.1	18	757.1
Freight	2.1	18.0	755.8
Air	2.1	17.4	727.7
Road	<0.1	0.6	8,704.8
Waste generated in operations	5.0	5.6	12.0
General waste	4.9	5.6	14.3
Paper and paper board	< 0.1	<0.1	<0.1
PET	< 0.1	<0.1	<0.1
Glass	< 0.1	<0.1	<0.1
Aluminum	< 0.1	<0.1	<0.1
Fuel and energy-related activities	21.4	13.8	-35.5
WTT	21.4	13.8	-35.5
Renewables	2.9	1.9	-34.5
Grid electricity	11.1	11.8	6.3
District heating	2.9	<0.1	<0.1
Total gross GHG emissions	477.6	316.5	-33.7

(Source: South Pole, based on responsAbility's data, 2021-2022)

⁴ Other IT devices include devices that are small in size e.g., headphones

Table 14: GHG emissions by office

Activity	Zurich (tCO ₂ e)	Tbilisi (tCO ₂ e)	Paris (tCO ₂ e)	Mumbai (tCO ₂ e)	Hong Kong (tCO ₂ e)	Bangkok (tCO ₂ e)	Geneva (tCO ₂ e)	Lima (tCO ₂ e)	Nairobi (tCO ₂ e)	Oslo (tCO ₂ e)
Scope 2: indirect GHG emissions from purchased electricity, heating, and cooling	1.2	0.5	0.8	18.8	1.5	8.6	<0.1	0.7	0.4	
Electricity	1.2	0.5	0.7	18.8	1.5	8.6	<0.1	0.7	0.4	
Renewable	<0.1						<0.1			
Grid	1.2	0.5	0.7	18.8	1.5	8.6		0.7	0.4	
Heating			0.1							
District heating			0.1							
Scope 3: other indirect GHG emissions	138.3	3.9	10.0	69.0	0.5	11.7	5.6	5.7	39.1	0.2
Business travel	27.6	2.1	9.5	13.0			<0.1		29.1	
Flights	27.6	2	8.1	12.6		3.0			14.3	
< 463 km	0.1								0.3	
463–3,700 km	11.6	2	6	1.4					2.1	
> 3,700 km	15.9		2.1	11.1		3.0			12.0	
Train	<0.1					0.4	<0.1			
Taxi	<0.1	<0.1	0.6							
Staff car	<0.1	<0.1							13.5	
Car rental				<0.1						
City bus							<0.1			
Subway/metro	<0.1									
Accommodation		0.1	0.7	0.4		<0.1	<0.1		1.2	
Purchased goods and services	61.2	0.8	<0.1	18.3	<0.1	2.5	0.3	<0.1	6.9	
Water	0.2	<0.1	<0.1	0.2	<0.1	0.3	<0.1			
Supply	0.1	<0.1	<0.1	0.1	<0.1	0.1	<0.1	<0.1	0.1	
Treatment	0.1	<0.1	<0.1	0.1	<0.1	0.2	<0.1	<0.1	0.3	
Paper	0.3	<0.1		<0.1			<0.1			
Unspecified		<0.1								

Greenhouse gas (GHG) accounting report 2020

Activity	Zurich (tCO ₂ e)	Tbilisi (tCO ₂ e)	Paris (tCO ₂ e)	Mumbai (tCO ₂ e)	Hong Kong (tCO ₂ e)	Bangkok (tCO ₂ e)	Geneva (tCO ₂ e)	Lima (tCO ₂ e)	Nairobi (tCO ₂ e)	Oslo (tCO ₂ e)
Recycled	0.3			<0.1			<0.1	<0.1	<0.1	
Food and beverages	1.8			0.4		0.2				
Catering services	1.8			0.3		0.2				
Food and drink products				0.1		<0.1				3.6
IT equipment	59	0.8		17.8		2.0	0.3			
Conference phones				<0.1		<0.1				
Desktop computer	0.4									
Docking station										0.1
Keyboard										0.3
Laptop	33.6	0.5		3.5		0.7	0.3			1
Mobile phone	1.4									
Monitor or computer screen	9.3	0.3		3.7		0.7				0.3
Mouse										0.1
Office telephone				0.1						0.4
Printer	1			0.5		0.1				0.1
Projector	0.2			<0.1						
Television	13			8.9		0.4				
Other IT devices				1.1						0.6
Cloud services	0.1									
Teleworking	29.2	0.5		7.8		1.5	0.8	2.6	1.7	0.2
Employee commuting	37.7	0.8	0.2	13.6	0.1	2.7	0.0	5.5	2.6	
Bicycle	0.0		0.0				0.0			
Walk	0.0	0.0	0.0	0.0	0.0	0.0		0.0		
Car	0.7	0.2		6.6		0.9		2.5	0.3	
Motorcycle										<0.1
E-bike	<0.1									
Bus (national)	0.7	<0.1			<0.1					

Greenhouse gas (GHG) accounting report 2020

Activity	Zurich (tCO _{2e})	Tbilisi (tCO _{2e})	Paris (tCO _{2e})	Mumbai (tCO _{2e})	Hong Kong (tCO _{2e})	Bangkok (tCO _{2e})	Geneva (tCO _{2e})	Lima (tCO _{2e})	Nairobi (tCO _{2e})	Oslo (tCO _{2e})
Rail (national, including tram and subway)	7.1	0.1	0.2	0.1			0.2			
Taxi				6.7	0.1	0.1		0.4	0.6	
Rickshaw				0.2						
Upstream transportation and distribution	8.3			9.1		0.6				
Freight	8.3			9.1		0.6				
Air	8.3			8.6		0.5				
Road				0.5		0.1				
Waste generated in operations	0.8	0.1	<0.1	<0.1		<0.1	4.4	<0.1	0.2	
General waste	0.8	0.1	<0.1	<0.1		<0.1	4.4	<0.1	0.2	
Paper and paper board	<0.1	<0.1						<0.1		
PET	<0.1									
Glass	<0.1									
Aluminum	<0.1									
Fuel and energy-related activities	2.6	0.2	0.3	7.3	0.4	2.5	0.1	0.2	0.3	
WTT and T&D	2.6	0.2	0.3		0.4	2.5	0.1	0.2	0.3	
Renewables	1.9						0.1			
Grid electricity	0.7	0.2	0.3	7.3		2.5		0.2	0.3	
District heating			<0.1		0.4					
Total gross GHG emissions	139.5	4.4	10.8	87.9	2.0	20.2	5.6	6.4	39.5	0.2

(Source: South Pole, based on responsAbility's data, 2022)

Figure 3 shows the total emissions from responsAbility's operations over the last seven years. Compared to 2020, there is a reduction in emissions for the 2021 reporting period. This is mainly due to the restrictions put in place during the COVID-19 pandemic, which contributed to a drastic decrease in emissions from business travel, electricity, heating, and cooling consumption. The change in the heating source for the Zurich office also contributed to the decrease in scope 2 emissions. For the 2018 reporting period, the data quality improved significantly for some emission sources compared to 2017. With the data quality for 2019 being equally as good as for 2018, this indicates an actual reduction of responsAbility's emissions. Figure 4 indicates a similar trend. The emissions increase from 2017 to 2018 can be attributed to including an array of new emission sources.

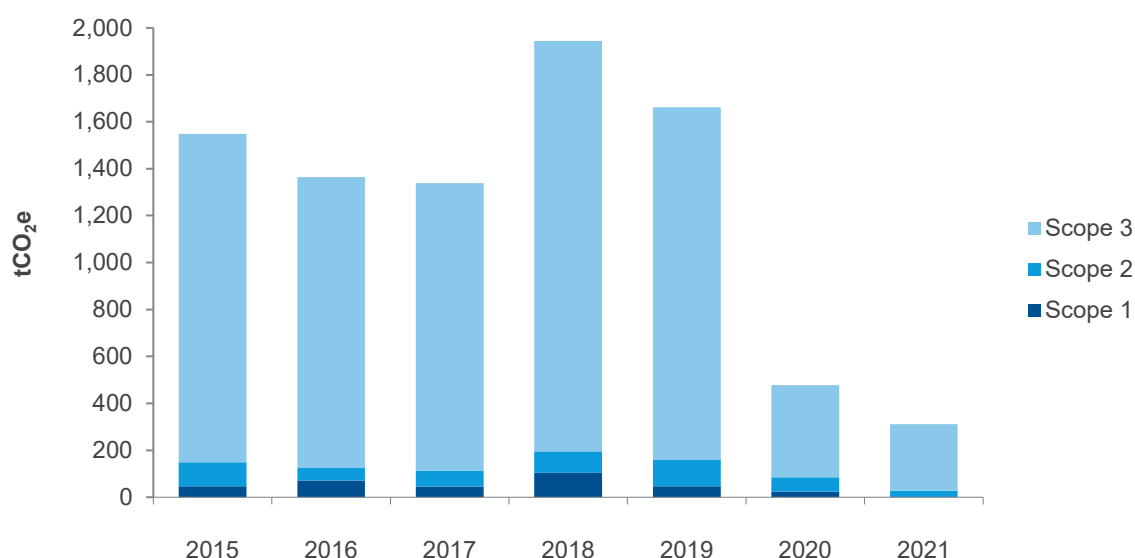


Figure 3: GHG emissions by scope from 2015 until 2021

(Source: South Pole, based on responsAbility's data, 2022)

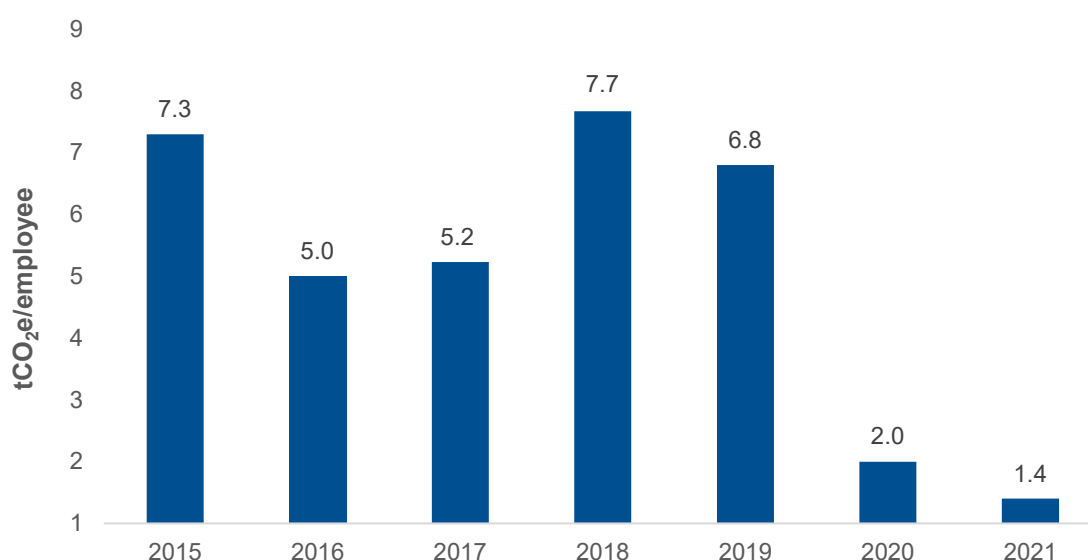


Figure 4: GHG emissions per employee from 2015 to 2020

(Source: South Pole, based on responsAbility's data, 2022)

Figure 5 presents the GHG emissions per office for the reporting period 2021. The Zurich office has the highest GHG emissions with 139.5 tCO₂e, the Mumbai office the second highest with 87.9 tCO₂e and Nairobi the third highest with 39.5 tCO₂e. For the Zurich office, the highest contributor to the total emissions was purchased goods and services, whereas for the Mumbai and Nairobi offices, the largest shares come from employee commuting and business travel, respectively. Looking at the emissions per employee, Nairobi has the most emissions, followed by Bangkok and Mumbai, while the Oslo office has relatively low emissions per employee due to the remote working setting for its only employee.

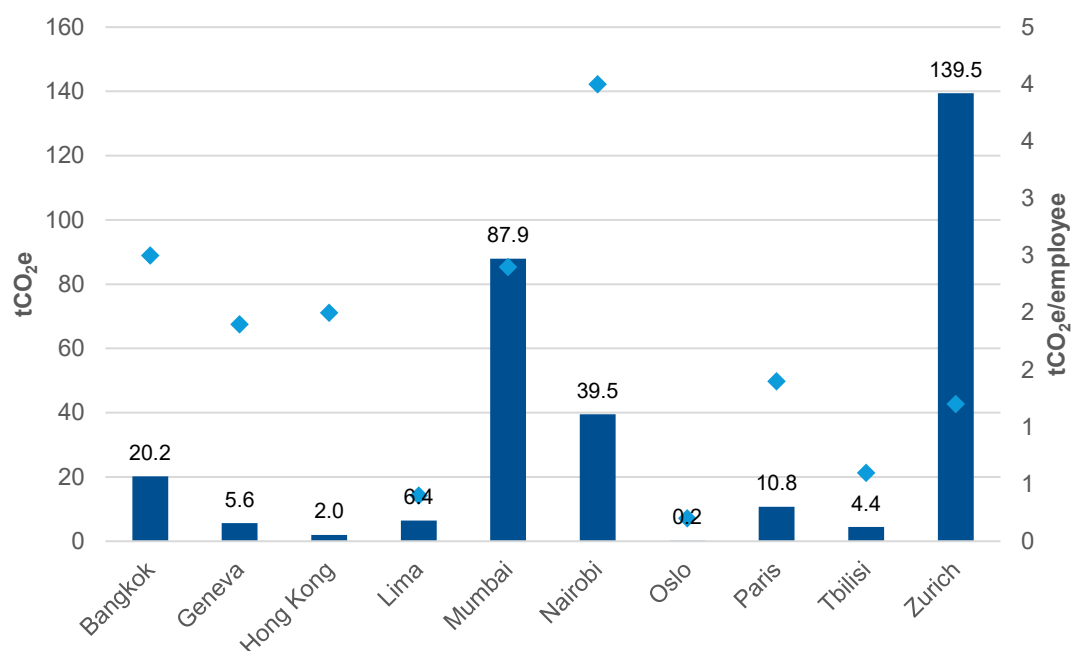


Figure 5: GHG emissions per office. Total emissions per office are shown with the columns and the values on the left vertical axis; emissions per employee for each office are presented with the dotted lines and the values on the right vertical axis

(Source: South Pole, based on responsAbility's data, 2022)

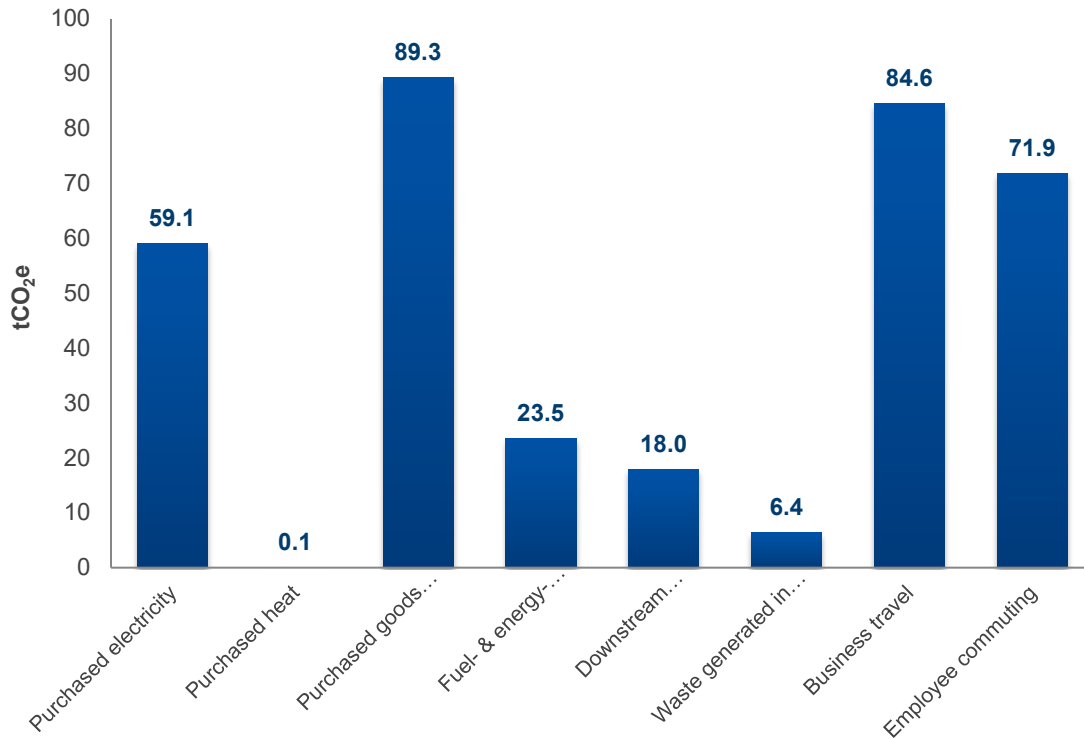


Figure 6: GHG emissions for 2021 by source

(Source: South Pole, based on responsAbility's data, 2022)

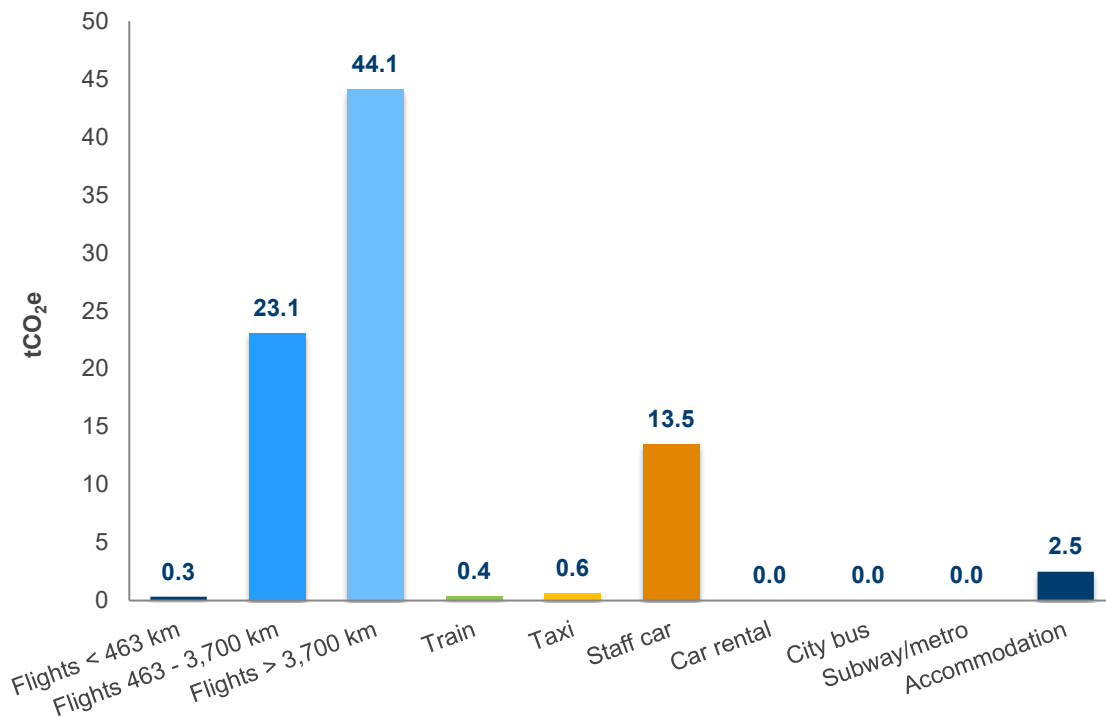


Figure 7: Sources of GHG emissions for business travel

(Source: South Pole, based on responsAbility's data, 2022)

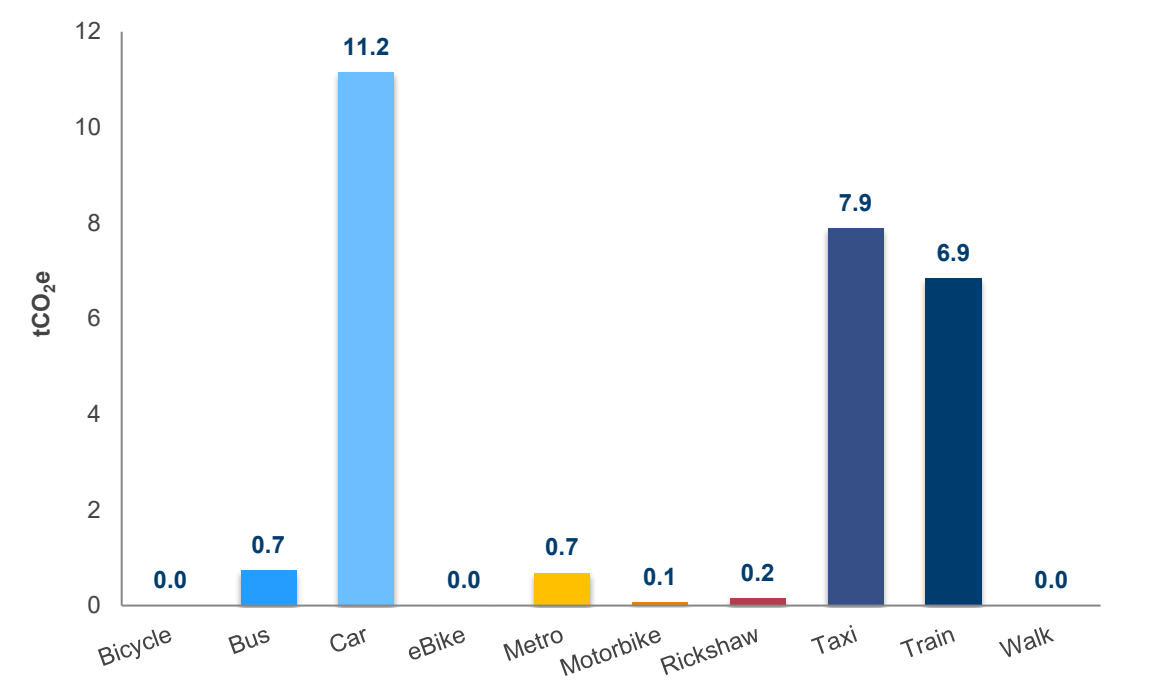


Figure 8: Sources of GHG emissions for commuter travel

(Source: South Pole, based on responsAbility's data, 2022)

3 Introduction: investments

The investment carbon accounting carried out by South Pole analyzes the climate impact of responsAbility's investment funds, composed of corporate loans and equity investments. As outlined in Section 1.2.2, GHG accounting distinguishes between direct emissions from the company's own operations (also known as scope 1 emissions) and indirect emissions. Indirect emissions are divided into scope 2 and scope 3 emissions. The latter covers indirect emissions that occur in the value chain (upstream and downstream), such as those from a company's supply chain or product usage, as well as a company's lending and investment activities.

South Pole carried out an analysis looking at the carbon footprint of responsAbility's investment portfolio for the year 2021, which has a value of USD 3,129 billion in AUM across 13 funds. The calculations were divided between unlisted equity (contained in 7 of the 13 funds) and business loans (contained in 10 of the 13 funds). The funds analyzed as part of this work are outlined in Table 15.

Table 15: Funds analyzed as part of the carbon accounting for 2021

Fund name	Assessed for unlisted equity	Assessed for business loans
rA (SICAV) Agriculture Fund		Yes
rA SICAV (Lux) Micro and SME Finance Debt Fund	Yes	Yes
rA SICAV (Lux) Micro and SME Finance Leaders	Yes	Yes
responsAbility SICAV (Lux) Financial Inclusion Fund	Yes	Yes
responsAbility Global Micro and SME Finance Fund	Yes	Yes
Microfinance Enhancement Facility S.A., SICAV-SIF		Yes
responsAbility Access to Clean Power Fund		Yes
responsAbility Agriculture I, SLP	Yes	
Global Climate Partnership Fund SA		Yes
rA Financial Inclusion Investments 2019		Yes
responsAbility Ventures I	Yes	
responsAbility Participations AG	Yes	
Financing for Healthier Lives DAC		Yes

(Source: South Pole, 2022)

3.1 Methodology

South Pole's approach is based on the methodological guidelines of the GHG Protocol and the Global GHG Accounting and Reporting Standard for the Financial Industry⁵ (hereafter referred to as the Global Standard), developed by the Principles for Carbon Accounting Financials (PCAF). The approach enables a carbon inventory for a financial institution based on the various levels data availability and quality. It delivers absolute and intensity metrics that enable responsibility to understand the carbon exposure of its portfolio and provide a platform from which future climate-related action can take place, such as starting to journey towards setting SBTs and/or aligning the portfolio with a 1.5°-pathway (i.e., Paris alignment).

The carbon accounting of lending and investment activities focuses on measuring or estimating the scope 1 and 2 emissions of borrowers and investees, as outlined by the GHG Protocol's "Category 15: investments". Scope 3 of borrowers and investees should also be measured for relevant sectors (see Section 3.2 for more details).

The protocol outlines two overarching methods to conduct a portfolio footprint: the investment-specific method and the averaged-data method. The approach used is selected based on the data availability per investment or loan.

3.1.1 Investment-specific method

The investment-specific method collects and uses reported and/or audited emissions data from the investee or borrower based on publicly available disclosure. The emissions of each investee or borrower are then attributed to responsibility based on the ownership principle and represent responsibility's financed emissions, defined as the GHG emissions financed by the loans and investments of a financial institution.

3.1.2 Averaged-data method

When company-level emissions data, or physical activity data to carry out a GHG accounting are not attainable, South Pole estimates an investee's emissions using averaged-data; industry proxies or environmentally extended input-output (EEIO) data calibrated by South Pole.

The Global Standard provides guidelines detailing various options to carry out estimations, including the type and source of average-data needed based on the granularity and quality of the investee or borrower data available (see Table 15 and Table 16).

It is worth noting that due to the nature of estimates based on averaged data, the lower the quality and granularity of the data used to estimate emissions, the more indicative the resulting emissions figures become. As part of the results, South Pole communicates the data quality scores for calculations to responsibility.

3.1.3 Attribution

In line with the GHG Protocol's "ownership principle", investee emissions are allocated to those investors who "own" them and can therefore change them. GHG emissions from equity investments are proportionally allocated "per share" to the investor. If an investor owns 0.1% of a company, 0.1% of the company's greenhouse gas emissions are allocated to them. Similarly, for loans, emissions are allocated to investors based on their share of a borrower's total equity plus debt if lending is to corporates, or the share of the project cost or project's total equity plus debt for project finance.

In cases where financial data for the investee or borrower is limited (e.g., no revenue, valuation or equity plus debt data is available), South Pole is guided by the attribution guidelines from the Global Standard, which provide an array of options to obtain an attribution factor based on data points available, with the aim of attributing investee or borrower emissions as accurately as possible.

⁵ Available at: <https://carbonaccountingfinancials.com/files/downloads/PCAF-Global-GHG-Standard.pdf>

3.1.4 Data quality

The Global Standard provides data quality scores to illustrate both the calculation approaches possible and the accuracy of the estimations given the data that is available. Score 1 represents audited emissions data from the investee and therefore a high degree of accuracy. Score 5 represents economic activity-based estimations using limited data, with a lower degree of accuracy and representing indicative results. The data available and data scores for equity and loans can be seen in Table 16 and Table 17.

Table 16: Data quality scores for listed equity investments

Data quality score	Emissions data source	Data available
Score 1	Reported emissions	Verified emissions from investee are known
Score 2	Reported Emissions	Unverified emissions from investee are known
	Physical activity-based emissions	Investee's energy consumption data is known
Score 3	Physical activity-based emissions	Investee's production data is known
Score 4	Economic activity-based emissions	Investee's enterprise value and revenue data is known. Investor's outstanding amount is known.
Score 5	Economic activity-based emissions	Investee's revenue is known. Investor's outstanding amount is known.
	Economic activity-based emissions	Revenue and/or valuation data is unknown. Sector and industry classification are known. Investor's outstanding amount is known. Asset turnover ratio is used.

(Source: South Pole's elaboration based on PCAF, 2020)

Table 17: Data quality scores for loans

Data quality score	Emissions data source	Data available
Score 1	Reported emissions	Verified emissions from investee are known
Score 2	Reported Emissions	Unverified emissions from investee are known
	Physical activity-based emissions	Investee's energy consumption data is known
Score 3	Physical activity-based emissions	Investee's production data is known
Score 4	Economic activity-based emissions	Investee's equity + debt data is known. Investor's outstanding amount is known.
Score 5	Economic activity-based emissions	Investee's value of total assets is known. Investor's outstanding amount is known.
	Economic activity-based emissions	Total assets and/or equity + debt data is unknown. Sector and industry classification are known. Investor's outstanding loan amount is known. Asset turnover ratio is used.

(Source: South Pole's elaboration based on PCAF, 2020)

3.2 Scope

As mentioned above, an investment footprint analysis for a financial entity requires reporting on the scope 1 and 2 emissions of borrowers or investees, as outlined by the GHG Protocol'

“Category 15: investments” and the Global Standard. The Global Standard follows a phased approach to borrowers’ and investees’ scope 3 emissions reporting, in alignment with the recommendations from the European Union’s Technical Expert Group on Sustainable Finance (TEG). These recommendations are sector dependent.

In accordance with Article 5 of the Supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council, investments in the oil and gas as well as mining industries should be reported from 2021 onwards. For all other sectors where reporting is not yet required, the Global Standard recommends following the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and report scope 3 emissions where this is relevant.

Given the above, and based on data availability, South Pole’s analysis estimated the scope 3 emissions of borrowers and investees where data was available, given that the majority borrowers are financial institutions for which emissions from their investment and lending activities are material.

3.3 Approach for loans

ResponsAbility’s loan portfolio provides financing to several companies across three industries: financial intermediation, agriculture, and renewable energy. To estimate emissions from corporate loans, an emission factor was generated for each borrower using the most representative industry emissions data based on the industrial classification of the borrower’s activities, calibrated to generate an accurate proxy for the estimation.

As industry proxy-based emission factors are based on a measure of production, the borrower’s annual revenue generation from loans had to be estimated for most borrowers using an asset turnover ratio for the relevant industry or activity. Financed emissions per loan were estimated using the following formula:

$$\text{Financed Emissions} = \text{Loan Amount} \times \text{Asset Turnover Ratio} \times \text{Emission Factor (e.g., kgCO}_2\text{e/USD of revenue)}$$

Wherever possible, and to improve the accuracy of the estimation, both the asset turnover ratio and emission factor were considered specifically for different industries within a certain country/region. In addition, given data availability for specific borrowers, reported emissions data for specific loans was used in cases where it was available instead of estimated figures.

It is worth noting that to capture the scope 3 emissions profile for the ‘Access to Clean Power Fund’, these were assumed to be the result of the development of solar PV capacity. Industry averages for the price per Watt and size of installed equipment were used to estimate the installed capacity based on the loan amounts and the associated emissions.

3.4 Approach for equity investments

To estimate emissions from equity investments, an emission factor was generated for each investee using the most representative industry emissions data based on the industrial classification of the investee’s activities, calibrated to generate an accurate proxy for the estimation.

As industry proxy-based emission factors are based on a measure of production, the annual revenue of each investee was used from the data provided by ResponsAbility for several funds. In the cases where annual revenue data was not available, South Pole estimated revenue using an asset turnover ratio, as recommended by PCAF’s Standard. Emissions for equity investments were estimated as follows:

$$\text{Company's emissions} = \text{annual revenue} \times \text{emission factor (e.g., kgCO}_2\text{e/USD of revenue)}$$

Financed emissions were calculated in the following manner:

$$\text{Financed emissions} = \text{attribution factor} \times \text{company's emissions}$$

4 Results: investments

4.1 Overview

South Pole's analysis was able to cover 100% of the total portfolio value for scope 1 and 2 emissions. South Pole's analysis was able to cover 89.97% of the total portfolio value for scope 3 emissions. Table 18 provides the aggregated highlights across key indicators for the portfolio. The results are provided for the positions held in the year 2021 according to the data made available by responsAbility.

Table 18: Estimated GHG emissions of responsAbility's investment portfolio

Indicator	Results
Total value of portfolio (USD)	3,128,239,938
Coverage as a proportion of total AUM (scope 1 and 2)	100%
Coverage as a proportion of total AUM (scope 3)	89.97%
Total estimated financed emissions (tCO ₂ e/year)	392,509
Total estimated financed emissions, scope 1 and 2 (tCO ₂ e/year)	30,626
Total estimated financed emissions, scope 3 (tCO ₂ e/year)	361,883
Portfolio's carbon intensity (tCO ₂ e per million USD invested)	125.6
Portfolio's carbon intensity, scope 1 and 2 (tCO ₂ e per million USD invested)	9.8
Portfolio's carbon intensity, scope 3 (tCO ₂ e per million USD invested)	128.6

(Source: South Pole, 2022)

4.2 Loans

Tables 19, 20 and 21, provide the key highlights of the results of the analysis for corporate loans and debt investments. Due to limitations in data availability, all emissions are estimated and therefore represent indicative values.

Table 19: Aggregated results for loans 2020, 2021 and 2022

Indicator	Results 2022	Results 2021	Results 2020
Total value of responsAbility's lending covered (USD)	2,782,626,389	2,505,713,038	1,497,827,878
Total estimated financed emissions (tCO ₂ e/year)	353,441	455,105	200,893
Total estimated Scope 1 and 2 emissions (tCO ₂ e/year)	26,508	12,049	6,769
Total estimated Scope 3 emissions (tCO ₂ e/year)	326,933	443,056	194,124
Carbon intensity (scope 1, 2 and 3) (tCO ₂ e/MUSD)	127.0	181.6	134.1

Indicator	Results 2022	Results 2021	Results 2020
Carbon intensity (scope 1 and 2) (tCO ₂ e/MUSD)	9.5	4.8	4.5
Carbon intensity (scope 3) (tCO ₂ e/MUSD)	117.5	176.8	129.6

(Source: South Pole, 2022)

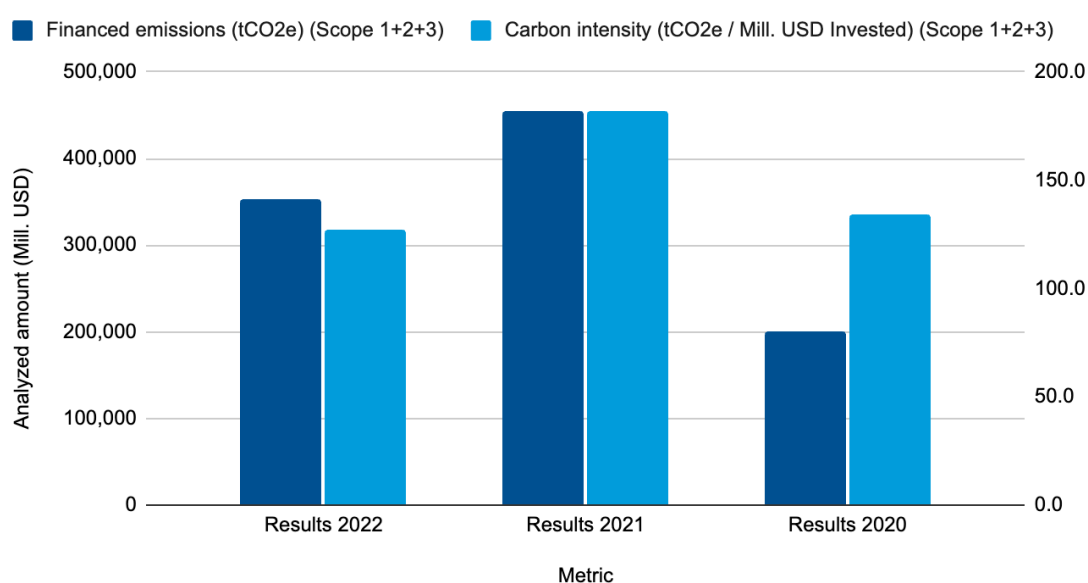


Figure 9: Financed emissions and carbon intensity per year for lending

(Source: South Pole, 2022)

Table 20: Fund-level results for loans

Fund name	rA's financing (Mill. USD)	Financed emissions, scopes 1 and 2 (tCO ₂ e/year)	Financed emissions scope 3 (tCO ₂ e/year)	Scope 1 & 2 Carbon Intensity (tCO ₂ e / Mill. USD Invested)	Scope 3 Carbon Intensity (tCO ₂ e / Mill. USD Invested)
Global Climate Partnership Fund	566.7	1,475	88,360	2.6	180.9
responsAbility Global Micro and SME Finance Fund; formerly "responsAbility Micro and SME Finance Fund"	560.1	9,051	60,127	16.2	125.4
responsAbility SICAV (LUX) Micro and SME Finance Debt Fund; formerly "responsAbility SICAV (Lux) Mikro- und KMU-Finanz-Fonds"	490.0	807	59,365	1.6	124.4

Fund name	rA's financing (Mill. USD)	Financed emissions, scopes 1 and 2 (tCO ₂ e/year)	Financed emissions scope 3 (tCO ₂ e/year)	Scope 1 & 2 Carbon Intensity (tCO ₂ e / Mill. USD Invested)	Scope 3 Carbon Intensity (tCO ₂ e / Mill. USD Invested)
responsAbility SICAV (Lux) Financial Inclusion Fund	356.1	310	42,383	0.9	119.0
responsAbility SICAV (Lux) Micro and SME Finance Leaders	239.6	288	29,161	1.2	124.5
Financing for Healthier Lives DAC	161.0	1,585	17,315	9.8	124.6
responsAbility SICAV (Lux) Agriculture Fund	85.6	11,793	2,988	137.8	151.5
responsAbility Financial Inclusion Investments 2019	165.1	161	14,291	1.0	86.6
MICROFINANCE ENHANCEMENT FACILITY SA, SICAV-SIF	90.2	59	9,672	0.6	107.2
Access to Clean Power Fund	68.2	980	3,273	14.4	48.0

(Source: South Pole, 2022)

Table 21: Top 10 individual contributors to financed emissions for loans

Loan Recipient	rA's financing provided (Mill. USD)	Weight across analyzed funds (%)	Proportion of total lending emissions (%)	Financed emissions scopes 1, 2 and 3 (tCO ₂ e/year)
Electronica Finance	10.2	0.40%	7.74%	25,601.41
EVN Finance JSC	32.0	1.27%	3.87%	12,818.46
Lionbridge Financing Leasing (China) Company Limited	63.5	2.52%	3.81%	12,595.64
Nam A Bank	51.9	2.06%	3.44%	11,395.70
NamA Bank	20.0	0.79%	3.06%	10,109.01
Prasac	20.0	0.79%	2.84%	9,390.72
XacBank	5.0	0.20%	2.77%	9,161.14
Corplease	19.0	0.75%	2.03%	6,713.62
Esskay Fincorp	20.0	0.79%	2.02%	6,690.29
LOLC	11.3	0.45%	1.85%	6,135.22

(Source: South Pole, 2022)

4.3 Equity

Tables 22, 23 and 24, below, detail the results of the analysis for equity investments. Due to limitations in data availability, all emissions are estimated and therefore represent indicative values.

Table 22: Aggregated portfolio-level results for equity investments

Indicator	Results 2022	Results 2021	Results 2020
Total value of responsAbility's lending covered (USD)	345.6	213.4	278.4
Total estimated financed emissions (tCO ₂ e/year)	39,336	-	-
Total estimated emissions, Scope 1 and 2 (tCO ₂ e/year)	4,118	5,086	4,741
Total estimated emissions, Scope 3 (tCO ₂ e/year)	35,218	-	-
Carbon intensity, scope 1,2,3 (tCO ₂ e/MUSD)	113.8	-	-
Carbon intensity, scope 1 and 2 (tCO ₂ e/MUSD)	11.9	23.8	17.0
Carbon intensity, scope 3 (tCO ₂ e/MUSD)	101.9	-	-

(Source: South Pole, 2022)

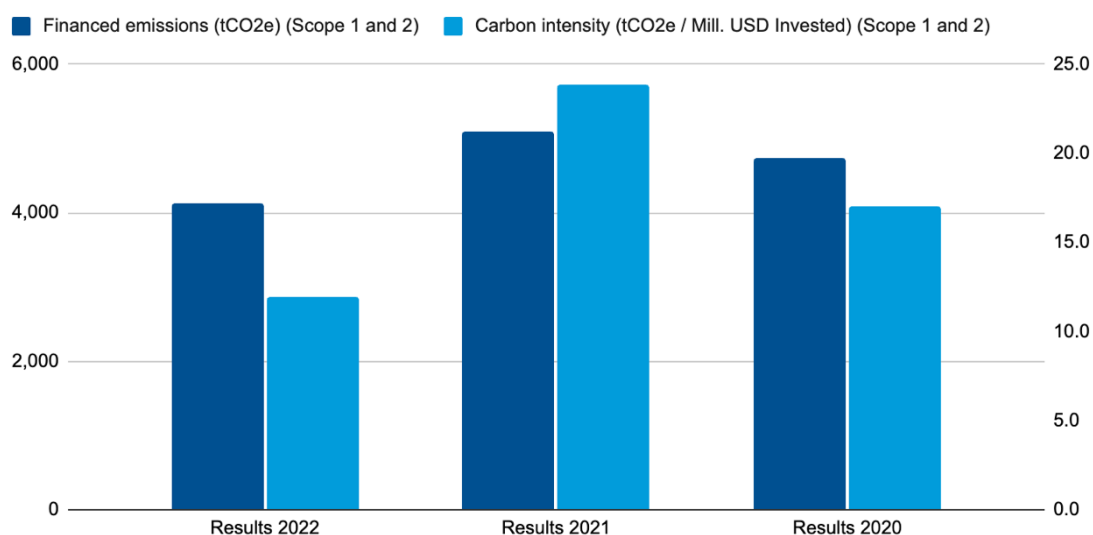


Figure 10: Financed emissions and carbon intensity per year for equity

(Source: South Pole, 2022)

Table 23: Fund-level results for equity investments

Fund name	rA's financing (Mill. USD)	Financed emissions, scope 1 and 2 (tCO ₂ e/year)	Financed emissions scope 3 (tCO ₂ e/year)	Scope 1 & 2 Carbon Intensity (tCO ₂ e / Mill. USD Invested)	Scope 3 Carbon Intensity (tCO ₂ e / Mill. USD Invested)
responsAbility Participations AG	113.5	87	15,793	0.8	139.1
responsAbility Global Micro and SME Finance Fund; formerly "responsAbility Micro and SME Finance Fund"	119.2	1,519	11,198	12.7	101.6
responsAbility Agriculture I, SLP	56.0	2,250	3,474	40.2	148.5
responsAbility SICAV (Lux) Micro and SME Finance Leaders	47.1	47	4,491	1.0	95.3
responsAbility Ventures I	8.5	213	167	25.0	129.3
responsAbility SICAV (LUX) Micro and SME Finance Debt Fund; formerly "responsAbility SICAV (Lux) Mikro- und KMU-Finanz-Fonds"	1.2	1	92	0.6	77.8
responsAbility SICAV (Lux) Financial Inclusion Fund	0.1	0	4	0.6	77.8

(Source: South Pole, 2022)

Table 24: Top 10 contributors to financed emissions for equity investments

Recipient	rA's financing provided (Mill. USD)	Weight across analyzed funds (%)	Proportion of total lending emissions (%)	Financed emissions scopes 1, 2 and 3 (tCO ₂ e/year)
Samunnati Financial Intermediation and Services Pvt Ltd	26.3	8.9%	12.1%	4,300.51
Fawry	10.9	3.7%	11.6%	4,127.15
KMF Microfinance organization, LLC	43.9	14.8%	10.1%	3,581.57
Samunnati Financial Intermediati	18.3	6.2%	7.7%	2,739.70
Khushhali Microfinance Bank Limited	15.3	5.2%	5.9%	2,087.18
SLCM	12.2	4.1%	5.1%	1,823.30
BancoSol	21.1	7.1%	4.6%	1,637.09
Center Invest Bank	13.8	4.7%	4.3%	1,531.31

Recipient	rA's financing provided (Mill. USD)	Weight across analyzed funds (%)	Proportion of total lending emissions (%)	Financed emissions scopes 1, 2 and 3 (tCO ₂ e/year)
ProCredit Holding AG & Co. KGaA	21.6	7.3%	4.0%	1,427.05
Utkarsh CoreInvest	9.4	3.2%	4.0%	1,404.84

(Source: South Pole, 2022)

4.4 Consultant's remarks

The results of the analysis illustrate that responsAbility's 2021 portfolio has an estimated carbon impact of 392,777 tons of CO₂e per year, and a carbon intensity of 125.6 tons of CO₂e per million USD invested. This represents a **13.7% decrease in absolute emissions** and **25% decrease in carbon intensity** compared to 2020 values.

The carbon intensity of the portfolio, as well as the absolute emissions are largely related to the strong weight of investment and lending directed towards financial institutions in emerging economies. Financial institutions operations are not a large source of emissions (scope 1 and 2), but their investment and lending activities (scope 3) can finance a greater degree of carbon exposure, which are attributed to responsAbility based on its share of ownership.

In addition, the data quality used in the analysis is worth analysing as it ultimately impacts the accuracy and coverage of the carbon footprint.

- For its debt and loans funds, responsAbility provided South Pole with information for its assets under management (AUM), including a breakdown of financed activities by the borrowers. Where a portfolio breakdown was not provided, South Pole was able to fill the data gaps. This was achieved by using the available data to generate industry and country-specific proxies. This led to a coverage of 100% for scope 1 and emissions and a coverage of 90% for scope 3 estimations, calculated with a data score of 5.
- For equity investments, based on the data provided by responsAbility, the data quality score achieved was a score of 5, with a 100% coverage for scope 1 and 2, and an 86% coverage for scope 3 estimations.

One of the greatest challenges when estimating portfolio emissions is data quality, which is directly related to data availability and impacts the accuracy of the results. This year's analysis had the objective to improve the data quality and do a much more detailed analysis covering a greater amount of scope 3 emissions. Improving data quality year over year will allow to estimate scope 3 emissions for certain funds (where data is available) to improve insights and better steer on reduction targets.

Measuring scope 3 emissions is of great importance since they represent the greatest share out of the total emissions. Scope 3 emissions **represent 92% of total loan emissions** and **89% of total equity emissions**.

Annex I

Emission factors

Table 25: Emission factors

Activity	Emission factor reference ⁶
Electricity	International Energy Agency (IEA), 2020; Association of Issuing Bodies (AIB), 2021; Ecoinvent v3.8, 2021; Institute for Global Environmental Strategies (IGES), 2021; IPCC, 2014
District heating	Euroheat & Power, 2017
Business travel	BEIS, 2021; Mobitool, 2020; Agence de la transition écologique (ADEME), 2020
Accommodation	Cornell Hotel Sustainability Benchmark Index, 2019
Teleworking	Anthesis, 2020; BEIS, 2021; IEA, 2021
Purchased goods and services	BEIS, 2021; Apple, 2018-2021; Casio, 2006; Dell, 2021; Konica Minolta, 2018; Lenovo, 2021
Waste	BEIS, 2021; Ecoinvent version v3.8, 2021
IT equipment	BEIS, 2021; Apple, 2018-2021; Casio, 2006; Dell, 2021; Konica Minolta, 2018; Lenovo, 2021
WTT and T&D	AIB, 2021; IEA, 2021; BEIS, 2021

⁶ South Pole derives its emission factors from reliable and credible sources. South Pole is not responsible for inaccuracies in emission factors provided by third parties.

