The Swedish Internet Foundation Climate report 2024

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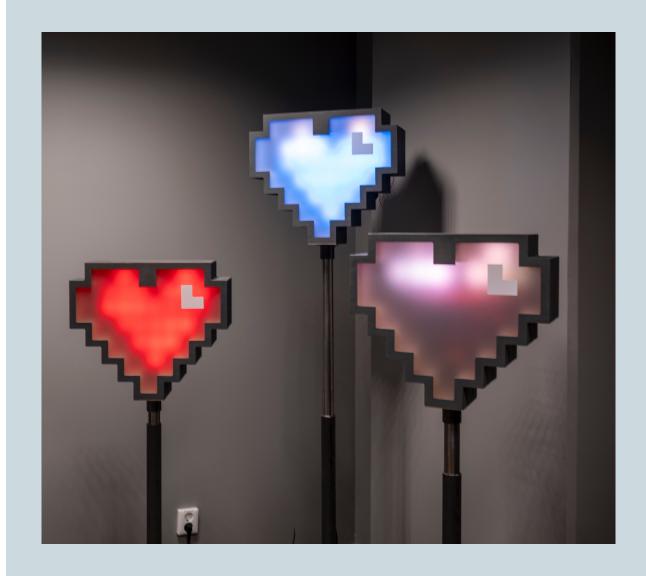
1. Executive summary (1/2)

Background, methodology and scope

The Swedish Internet Foundation oversees the Swedish top-level domain .se and manages the top-level domain .nu. This climate report covers The Swedish Internet Foundation and data from its subsidiary MetaSolutions, in which the Foundation acquired a majority stake in 2020.

The report presents the climate data for both The Swedish Internet Foundation and MetaSolutions, measured in tonnes of carbon dioxide equivalents (tCO2e) for the 2024 reporting year, as well as tracking climate progress over time.

The Greenhouse gas (GHG) emissions are calculated using the CENTR methodology, with primary alignment to the standards set by the Greenhouse Gas Protocol (GHGP).



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Key results

Key results

The Swedish Internet Foundation and MetaSolutions' largest share of GHG emissions are found in their value chain (scope 3 emissions¹) for the 2024 reporting year. These emissions account for 95% of the total GHG emissions.

1. Executive summary (2/2)

Methodology	Total emissions	GHG emissions per headcount	GHG emissions per active domain (.se and .nu)
GHG (CENTR)	243,6 tCO2e	2,12 tCO2e	145,54 gCO2e
GHG (GHGP)	219,4 tCO2e	1,91 tCO2e	131,09 gCO2e

Rationale behind change in GHG emissions

Methodology	Decrease in emissions from 2023 to 2024	Percentage change
GHG (CENTR)	83,4 tCO2e	-25%
GHG (GHGP)	77,2 tCO2e	- 26%

The largest contributors to the decrease are the following:

- Reduction in business travel, particularly air travel
- Reduction in commuting due to higher percentage of work from home and accounting for public holidays
- Reduction in office space from July 1, 2024²
- Lower purchasing volume of goods, particularly office IT³

2.0 Introduction

2.1 About this report

This climate report includes The Swedish Internet Foundation's and MetaSolutions' climate data for the reporting year 2024.

The report was prepared following the Greenhouse Gas Protocol (GHGP) Corporate Standard and Corporate Value Chain (Scope 3) Standard as well as the Council of European National Top-Level Registries (CENTR) methodology. The data presented in this report refers to the underlying supplier specific, activity data and spend based data used to calculate GHG emissions (tCO2e).

This is the eleventh climate report published by The Swedish Internet Foundation. The 2024 climate report was prepared with support from Fthos.

Council of European National Top-Level Registries (CENTR) is the association of European country code top-level domain (ccTLD) registries.

The Swedish Internet Foundation actively participates in CENTR where national top-level domains collaborate on technical, legal, security and sustainability issues. While the organisation has a European focus, it also includes national top-level domains outside Europe as members.

2.2 Background

About The Swedish Internet Foundation

Internet Foundation is a private, independent foundation that works for the positive development of the internet. The organisation is responsible for the Swedish top-level domain .se and the operation of the top-level domain .nu.

The Foundation ensures a strong and secure infrastructure for Sweden's internet, while also enabling people to use the internet in the best possible way.

In 2020, The Swedish Internet Foundation acquired the majority stake in the subsidiary MetaSolutions, which is a software company that develops cloud-based solutions which support organisations to publish and manage data.

In 2024, The Swedish Internet Foundation had 1674 011 active domains in total.

At the end of the 2024 reporting year, The Swedish Internet Foundation had 103 employees, while MetaSolutions had 12 employees.

Purpose of this report

The purpose of this report is to disclose the impact of The Swedish Internet Foundation, including MetaSolutions, on the climate for the 2024 reporting year. It also details the organisation's progress over time.

The results of this report can be used by The Swedish Internet Foundation, MetaSolutions, and their stakeholders to assess and communicate their climaterelated efforts.

2.3 Methodology and scope

Methodology

The underlying activity data used to calculate the greenhouse gas (GHG) emissions for the 2024 reporting year have been reported in the software platform Atlas, developed by Ethos. When suppliers have been able to provide supplier-specific GHG emissions data, this data has taken precedence over activity-based data.

GHG emissions, reported in tonnes of carbon dioxide equivalents (tCO2e), were calculated in accordance with the Greenhouse Gas Protocol Corporate Standard and Corporate Value Chain (Scope 3) Standard.

Office IT emissions have been calculated first using the CENTR methodology, under the impact category "Capital goods - ICT hardware" to enable benchmarking between registries, followed by the GHG Protocol under 'Purchased goods and services' Scope 3.1 to enable comparison with other, more general companies.

This report uses the CENTR methodology and the Greenhouse Gas Protocol for data collection, calculation, verification and compilation of the results.

Scope of the calculations

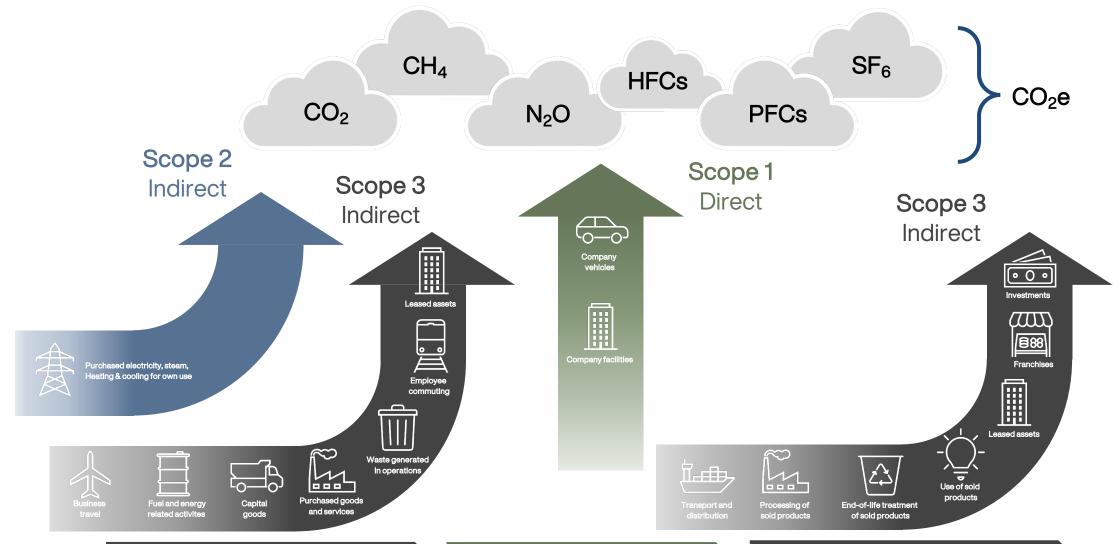
The Greenhouse Gas (GHG) Protocol methodology assesses GHG emissions throughout a company's entire value chain. The standard defines three different scopes, which have been used to calculate the GHG emissions of The Swedish Internet Foundation and MetaSolutions.

The three scopes are:

- Scope 1: Direct GHG emissions from owned or controlled sources.
- Scope 2: Indirect GHG emissions from purchased energy.
- Scope 3: Indirect GHG emissions occurring upstream and downstream in the value chain, not already included in Scope 1 and Scope 2.

The impact categories, based on the CENTR methodology, are detailed on page 10. These categories are the main focus of this climate report.

2.4 Scope-based emissions according to the GHG Protocol



Upstream Activities

Reporting company

Downstream Activities

Figure: The Greenhouse Gas Protocol.

2.5 Impact categories according to CENTR

The impact categories according to the CENTR methodology are outlined in Table 1.

The underlying activity data used to calculate GHG emissions have been collected in accordance with CENTR methodology, with the following reservations:

- Heating: District heating consumption from MetaSolutions was not available for 2024. Consumption data from 2023 has been used instead.
- Electricity consumption: Electricity consumption from the secondary name servers (.se and .nu) and third-party cloud suppliers was not available. However, the third-party cloud suppliers did provide direct GHG emission data, and for secondary name servers, data from 2023 was used.
- Mobility (commuting): Calculated based on the average means of transportation and national statistics by Svensk Trafikanalys.
- Business travel: The data for The Swedish Internet Foundation was reported in supplier-specific GHG emissions.
- Business travel (train): Underlying activity data has been reported in passenger kilometres.
- Capital goods (company cars): Neither The Swedish Internet Foundation nor MetaSolutions has purchased or owns any company cars.
- Refrigerants (cooling system): Data has not been collected for the 2024 reporting year, as it was assumed that neither The Swedish Internet Foundation nor MetaSolutions had any GHG emissions associated with refrigerants.

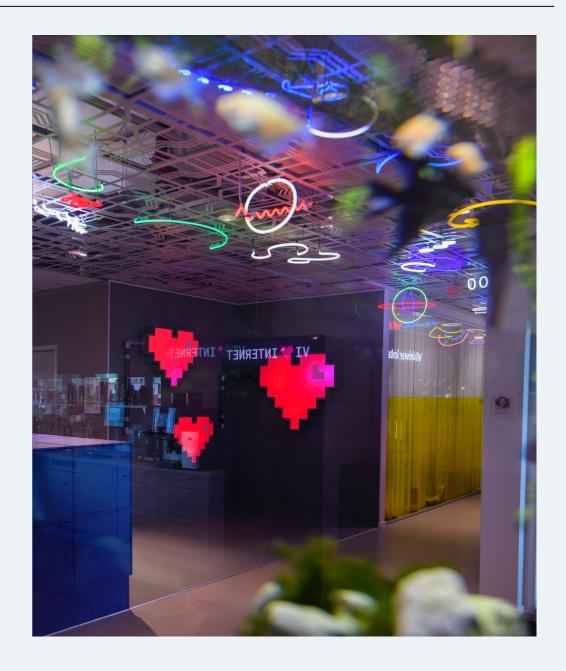
Impact categories according to CENTR Unit		
	Electricity office	kWh/year
Energy	Electricity data centre	kWh/year
	Heating	kWh/year
Inputs	Paper	kg/year
Waste	Paper	kg/year
	Car	km/year
Mobility (commuting)	Train	passenger km/year
(00000000000000000000000000000000000000	Bus	passenger km/year
	Airplane travel	km/year by type of flight
Business travel	Car	litres fuel
	Train	km/year
	Buildings (optional but required for climate compensation)	m ² floor surface area
Capital goods	Parking area (optional but required for climate compensation)	m ² parking area
Capital goods	ICT hardware	number of computers and ICT equipment
	Company cars	amount of cars converted in weight kg
Refrigerants	Cooling systems	cooling power (kW)

Table 1: Impact categories according to CENTR

2.6 Additional GHG emission sources

In addition to the categories defined by CENTR methodology, the following categories defined by the sources of GHG Protocol are presented as:

- Scope 3.11: Purchased goods and services.
 - Food and beverages
 - Other office equipment and electrical items (not ICT hardware)
 - Furniture
 - Internetdagarna
- Scope 3.3¹: Fuel- and energy-related activities not included in Scope 1 or 2, e.g., generation of energy, transmission and distribution losses.
- Scope 3.61: Hotel nights.
- Scope 3.7¹: Energy used by employees working from home.



3.0 Climate data 2024

3.1 Energy use - Offices

Activity data

The Swedish Internet Foundation has offices located in Stockholm, Malmö, and Linköping. MetaSolutions has an office in Stockholm.

The energy consumption in these offices is categorised into electricity, district heating, and district cooling. Only The Swedish Internet Foundation's office in Stockholm uses district cooling. No office location uses steam.

In total, 98,7 % of the energy purchased in 2024 is from renewable sources.

Climate data

The GHG emissions in CO2e have been calculated according to the market-based approach, resulting in a total of 11,2 tCO2e.

The emission factors used are from the International Energy Agency (IEA) (2024) for electricity, Energiföretagen (2024) for district heating and Environmental Product Declaration (EPD) (2024) for district cooling.

Emissions from energy use in office locations have increased by 4% compared to 2023 due to an increase in district heating consumption.

The Swedish Internet Foundation Offices	kWh	tCO2e
Electricity	184 439	0,1
District heating	208 200	9,5
District cooling	34 573	0,3
Total	427 212	10,0

MetaSolutions Offices	kWh	tCO2e
Electricity	6 106	0
District heating	27 000	1,2
District cooling	-	-
Total	33 106	1,2

The tables show the energy consumption for each energy type and the corresponding GHG emissions according to the market-based approach (in metric tonnes CO2e) for 2024. GHG emissions according to the location-based approach are 18,63 tCO2e. GHG emissions from the production of energy are reported in Scope 3.3, see page 15. Note that the data may include rounding differences.

3.2 Energy use – Data centres – own co-located servers

Activity data

The Swedish Internet Foundation does not own any data centres but operates several own co-located servers at third-party data centres.

The underlying data was provided by the third-party suppliers in kilowatt-hours (kWh). During 2024, 99 634 kWh were consumed. Supplier-specific greenhouse gas (GHG) emissions were also reported this year.

MetaSolutions did not have any own co-located servers.

Climate data

The co-located servers use renewable energy, therefore the GHG emissions are 0 tCO2e, which was also the case in 2023.

The Swedish Internet Foundation Own co-located servers	kWh	tCO2e
Third party supplier 1	99 634	0
Total	99 634	0

3.3 Energy use - Data centres - cloud services and secondary name servers

Activity data

The Swedish Internet Foundation utilises cloud services and secondary name servers for the .se and .nu domains in its operations.

MetaSolutions also uses cloud services. Due to a lack of data from suppliers, The Swedish Internet Foundation could not report energy use for the third-party cloud service suppliers. However, supplier-specific greenhouse gas (GHG) emissions were reported.

For secondary name servers, neither energy use nor supplier-specific emissions were available in 2024, therefore, data from 2023 were used.

The data for MetaSolutions' cloud services was collected based on spend.

Climate data

The GHG emissions for cloud services and secondary name servers total 3,61 tCO2e, which represents a small increase from 3,54 tCO2e in 2023.

The source of the emission factor is based on internal calculations based on benchmarks performed by Ethos as well as the IEA (2024).

The Swedish Internet Foundation Cloud services and secondary name servers	kWh	tCO2e
Secondary nameserver (.se and .nu)	0,122	0,00004
Third party supplier 2	142,2	0,066
Third party supplier 3	842,5	0,391
Total	984,8	0,46

MetaSolutions Cloud services	kWh	tCO2e
Third party supplier 4	18 625	1,8
Third party supplier 5	2 914	1,35
Total	21538	3,16

The tables above show the GHG emissions in tonnes CO2e for each third-party supplier. Note that the data may include rounding differences.

3.4 Inputs paper

Activity data

The Swedish Internet Foundation reported a total of 70 kg of paper purchased in 2024.

MetaSolutions did not report data related to paper consumption.

Climate data

The total GHG emissions were 0,09 tCO2e, which represents a 96% decrease from 2023. The reason for the decrease is a lower reported quantity of paper inputs in 2024 as compared to a reported quantity of 2804 kg in 2023.

The source of the emission factor is DEFRA (2024).

The Swedish Internet Foundation Inputs - paper	Kg	tCO2e
Office paper (mixed)	6	0,0077
Paper to printer and copy machines	64	0,086
Total	70	0,093

3.5 Waste paper

Activity data

To calculate the greenhouse gas (GHG) emissions from paper waste, it was assumed that all the paper purchased by The Swedish Internet Foundation in the reporting year 2024 was sent for recycling.

Climate data

The total GHG emission was 0,00045 tCO2e, which represents a 96% decrease from 2023. The reason for the decrease is a lower reported quantity of paper in 2024 as compared to a reported quantity of 2804 kg in 2023.

The source of the emission factor is DEFRA (2024).

The Swedish Internet Foundation Waste - paper	Kg	tCO2e
Office paper (mixed)	6	0,00004
Paper to printer and copy machines	64	0,0004
Total	70	0,00045

3.6 Mobility- Commuting

Activity data

The Swedish Internet Foundation continues to use the following methodology to calculate GHG emissions from employee commuting:

Taking into account the average number of working days in a reporting year, the average percentage of work done from home and the share of workspace located in cities, the emissions are calculated based on statistics on Swedish commuting habits by Svensk Trafikanalys.

Climate data

The total GHG emissions for employee commute equal 18,5 tCO2e which represents a 23% decrease from 2023. This decrease is driven by an adjustment in the number of workdays per year to account for public holidays and by an increase of remote work from 50% to 60%.

The source for the emission factors used depending on different commuting options included in the study by Svensk Trafikanalys, such as car and public transport, are from DEFRA.

The Swedish Internet Foundation Mobility - commuting	tCO2e
Employee commute	16,79
Total	16,79

MetaSolutions Mobility - commuting	tCO2e
Employee commute	1,72
Total	1,72

3.7 Business travel

Activity data

The Swedish Internet Foundation conducted business travel by air, train and car (taxi) during the 2024 reporting year.

The travel agency Egencia provided the GHG emission data for air travel. Taxi Stockholm provided GHG emission data for travel by taxi. GHG emissions from travel via train were provided by Egencia and SJ.

MetaSolutions conducted travel by air and train in 2024 for which they provided activity-based data.

Climate data

The total GHG emissions were 117,34 tCO2e, which represents a 38% decrease from 2023. The decrease is driven by a reduction in air travel.

Since The Swedish Internet Foundation could provide supplier-specific GHG emission these factors have been used. The GHG emissions data for air and train travel by MetaSolutions have been calculated by using emission factors from DEFRA (2024).

The Swedish Internet Foundation Mode of business travel	tCO2e
Air	115,034
Car (taxi) ¹	0,221
Train	0,014
Total	115,269

MetaSolutions ² Mode of business travel	tCO2e
Air	1,67
Car (taxi)	-
Train	0,4
Total	2,07

Note that the data may include rounding differences.

Includes taxis running on hybrid, gas, and diesel.

²MetaSolutions activity data corresponds to 8 000 passenger kilometres via air and 9 000 passenger kilometres via train.

3.8 Capital goods-ICT hardware

Activity data

During the 2024 reporting year, The Swedish Internet Foundation acquired various ICT hardware. According to the CENTR methodology, the GHG emissions from these purchases are depreciated, which deviates from the Greenhouse Gas Protocol¹. The depreciation period is three years for computers, laptops, mobile phones, screens, and servers, and five years for printers.

GHG emissions for ICT hardware purchased during 2024 will therefore be depreciated until 2026 (no printers were purchased in 2024). Hardware purchased during previous reporting years is included in the 2024 emissions according to their purchasing year and depreciation period.

MetaSolutions did not purchase any ICT hardware during 2024 or in relevant previous periods.

Climate data

The total GHG emissions were 30,21 tCO2e, which represents a 3% decrease from 2023. The reason for the only small decrease compared to the much lower purchasing volume is the depreciation rule according to the CENTR methodology which results in ICT hardware purchased in previous year being proportionately included in 2024.

The emission factors used are from DEFRA (2024) as well as product environmental reports from DELL and Apple.

The Swedish Internet Foundation Purchases of ICT hardware by type	2024	2023	tCO2e (2024)
Computer/laptops	36	53	9,97
Mobile phones	27	14	1,61
Printers	0	1	2,47
Servers	0	12	1,73
Screens	2	101	14,43
Total	65	181	30,21

The table shows the number of ICT hardware purchased during 2024 and 2023, and the corresponding GHG emissions (in tonnes CO2e) for 2024. The GHG emissions represent purchases made between 2021 and 2024, taking the depreciated time for each ICT hardware into consideration.

Note that the data may include rounding differences.

ICT hardware purchased in 2021 and 2022 represents 4,51 tCO2e and 12,53 tCO2e respectively.

3.9 Capital goods - Buildings and parking area

Activity data

The Swedish Internet Foundation and MetaSolutions lease office spaces, and The Swedish Internet Foundation also leases one parking area.

According to the CENTR method, office space and parking area are optional to report on. By disclosing the categories, the comparability between other registries reporting in line with the CENTR methodology increases. Reporting on these categories is a deviation from the Greenhouse Gas Protocol¹ which only accounts for purchased assets, not leased ones.

As outlined within the CENTR methodology, the depreciation period for leased buildings and parking areas is 40 years.

Climate data

The total GHG emissions were 62,67 tCO2e which represents a 6% decrease from 2023. The reason for this decrease is the reduction in space of The Swedish Internet Foundation's Stockholm office in 2024.

The emission factor used is from CENTR.

The Swedish Internet Foundation Leased space	m ²	tCO2e
Office space	3 620,82	58,84
Parking area	11,67	0,16
Total	3 632,47	59,0

MetaSolutions Leased space	m ²	tCO2e
Office space	226	3,67
Parking area	0	0
Total	226	3,67

The tables show the number of square meters of leased office and parking space and the corresponding GHG emissions (in tonnes CO2e) for 2024. The depreciation time for office space and parking area is 40 years according to the CENTR methodology.

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3.10 Additional GHG emissions sources

Activity data

The Swedish Internet Foundation and MetaSolutions have reported on additional GHG emission sources for the reporting period of 2024 in accordance with the Greenhouse Gas Protocol¹. This includes the following categories:

- Purchased goods and services (Scope 3.1), which includes food and drinks, furniture, office equipment and electrical items other than ICT hardware and the event Internetdagarna.
- Fuel- and energy-related activities not included in Scope 1 or 2 (Scope 3.3), e.g., generation of energy and transmission and distribution losses.
- Remote work (Scope 3.7).
- Hotel nights (Scope 3.6) (emissions provided by travel agency Egencia).

Climate data

The total GHG emissions were 58,24 tCO2e which represents a 304% increase from 2023. The increase is driven by higher reported quantities of purchased food and drinks, and furniture.

The emission factors used are DEFRA (2024) and FIRA International (2011).

The Swedish Internet Foundation Additional GHG emission sources	tCO2e
Scope 3.1 Purchased goods and services	48,4
of which food and beverages	18,4
of which other office equipment and electrical items (not ICT hardware)	0,007
of which furniture	27,0
of which Internetdagarna	3,0
Scope 3.3 Fuel- and energy-related activities not included in Scope 1 or 2	4,9
Scope 3.6 Hotel nights	2,4
Scope 3.7 Energy from working from home	0,46

MetaSolutions Additional GHG emission sources	tCO2e
Scope 3.1 Purchased goods and services	1,89
Of which food and beverages	1,85
Of which furniture	0,04
Scope 3.3 Fuel- and energy-related activities not included in Scope 1 or 2	0,08
Scope 3.6 Hotel nights	0,09
Scope 3.7 Energy from working from home	0,06

4.0 Analysis and results

4.1 Overview of greenhouse gas emissions for 2024

According to CENTR methodology

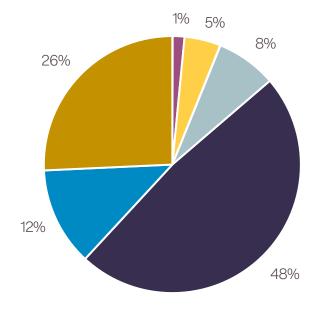
The diagram shows the distribution of GHG emissions for The Swedish Internet Foundation and MetaSolutions based on CENTR's impact categories for the 2024 reporting period.

Business travel (48%) and Capital goods – buildings and parking area (26%) constitute the largest share of GHG emissions. Emissions from business travel have decreased compared to 2023 due to a reduction in air travel. Emissions from Capital Goods – buildings and parking area reduced, due to a decrease of the Stockholm office space from the July 1, 2024.

The impact categories: Energy – electricity office, Inputs – paper, and Waste – paper, are not displayed in the diagram as they each make up less than 0,1% of GHG emissions.

The GHG emissions per active domain 2024: 145,54 gCO2e

The GHG emissions per Headcount 2024: 2,12 tCO2e



- Energy electricity office (<1%)
- Energy data centres (own co-located servers, cloud services and secondary name servers) (1%)
- Energy heating and cooling (5%)
- Inputs paper (<1%)
- Waste paper (<1%)
- Mobility commuting train, bus and car (8%)
- Business travels train, air and car (48%)
- Capital goods ICT hardware (12%)
- Capital goods buildings and parking area (26%)

4.2 Overview of greenhouse gas emissions for 2024

According to CENTR methodology

The table provides an overview of the GHG emissions for the 2024 reporting year, for each impact category as defined by the CENTR methodology (in tCO2e).

The table also shows the GHG emissions per active domain¹ (in gCO2e).

Impact category according to CENTR	Total CO2e (tCO2e)	CO2e per active domain (gCO2e)
Energy – electricity office	0,1	0,06
Energy – data centres (own colocated servers, cloud services and secondary name servers)	3,6	2,16
Energy - heating (and cooling)	11,1	6,62
Inputs - paper	0,1	0,06
Waste - paper	0,0004	0,0003
Mobility – commuting – train, bus and car	18,5	11,06
Business travels – train, air and car	117,3	70,09
Capital goods - ICT hardware	30,2	18,05
Capital goods – buildings and parking area	62,7	37,44
Totalt ton CO2e	243,6	145,54

¹ Active .se- and .nu-domains in 2024: 1674 011

4.3 Overview of greenhouse gas emissions for 2024

According to the Greenhouse Gas Protocol

The diagram shows the distribution of GHG emissions for The Swedish Internet Foundation and MetaSolutions based on the Greenhouse Gas Protocol for the reporting period 2024.

Business travels (scope 3.6) and Purchased goods and services (scope 3.1) make up the largest shares of GHG emissions with 55% and 29%, respectively. Note that Office IT is reported in Purchased goods and services (scope 3.1.) under the GHG Protocol, instead of capital goods as according to the CENTR methodology.

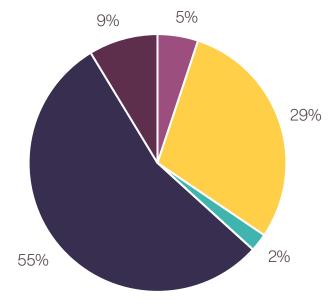
Emissions form purchased capital goods (scope 3.2) are zero, since The Swedish Internet Foundation and MetaSolutions lease capital goods instead of purchasing.

Emissions from waste (paper) (scope 3.5) account for less than 0,1% of overall emissions and are therefore not illustrated in the diagram.

Neither The Swedish Internet Foundation nor MetaSolutions have any scope 1 emissions.

The GHG emissions per active domain 2024: 131,1 gCO2e

The GHG emissions per Headcount 2024: 1,88 tCO2e



- Scope 1 (0%)
- Scope 2 (market-based) (5%)
- Scope 3.1 Purchased goods and services (29%)
- Scope 3.2 Capital goods (0%)
- Scope 3.3 Generation of energy and transmission and distribution losses (2%)
- Scope 3.5 Waste (paper) (<1%)
- Scope 3.6 Business travels (55%)
- Scope 3.7 Employee commuting and remote work (9%)

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4.4 Changes in emissions over time for Scope 1, 2 and 3

According to Greenhouse Gas Protocol

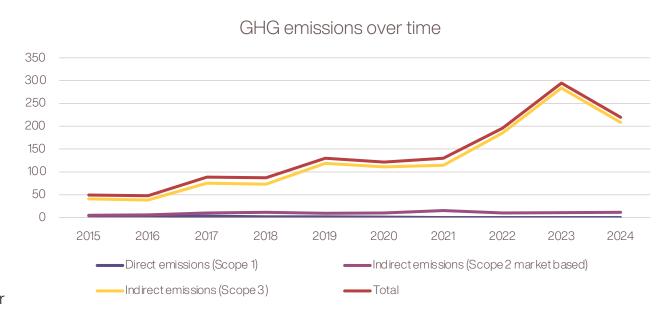
The diagram illustrates The Swedish Internet Foundation's and MetaSolutions' GHG emissions¹ across Scope 1, 2, and 3 between 2015 to 2024.

The Swedish Internet Foundation and MetaSolution are continuously improving their data coverage and quality which leads to more accurate emissions data over time but the comparability of emissions values from years further apart is limited.

Scope 1 emissions have consistently been zero as no fuel combustion or refrigerant leakage has occurred.

Scope 2 emissions (market-based) increased by 4% compared to 2023, due an increase in district heating consumption by The Swedish Internet Foundation.

Scope 3 emissions decreased compared to 2023 after a continuously upwards trend. The main drivers of the decrease were a reduction in air travel, lower purchasing volume of office IT, and higher percentage of work from home together with an adjustment to account for public holidays when calculating emissions from commuting.



5.0 Summary

5.1 Summary of the climate report 2024

This climate report details the greenhouse gas (GHG) emissions (in tCO2e) for The Swedish Internet Foundation and MetaSolutions for the 2024 reporting year. The report follows the CENTR methodology, with GHG emissions calculated primarily according to the Greenhouse Gas Protocol Corporate Standard and Corporate Value Chain (Scope 3) Standard.

The **GHG emissions decreased** in 2024 compared to 2023 mainly due to the following factors:

- Reduction in business travel, particularly air travel
- Reduction in commuting due to higher percentage of work from home and accounting for public holidays
- Decrease in office space from July 1, 2024¹
- Lower purchasing volume of goods, particularly office IT²

Total emissions for the reporting year 2024 according to CENTR methodology:

243,6 tCO2e

Total emissions according to the **Greenhouse Gas Protocol**, in Scope 1, 2 and 3:

219,4 tCO2e

6.0 Appendix

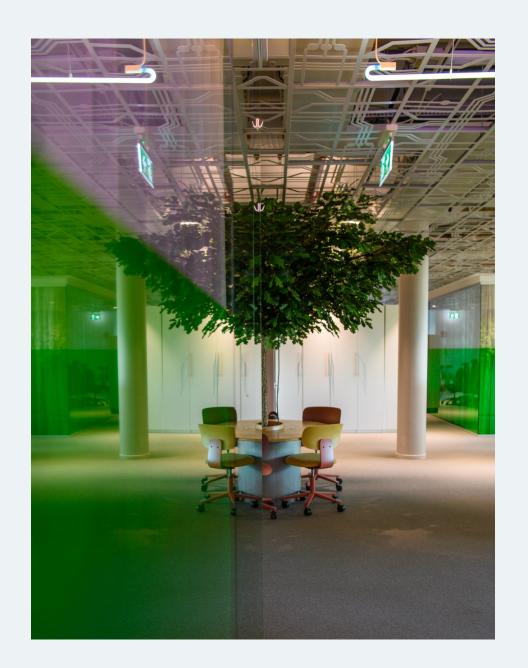
6.1 Limitations in the report

The Swedish Internet Foundation and MetaSolutions have reported the underlying supplier-specific and activity-based data for each impact category defined by CENTR, as well as the underlying data for additional GHG emission sources defined by the Greenhouse Gas Protocol.

Ethos verified this activity data to assess its completeness and quality. However, the data has not undergone third-party assurance. Therefore, Ethos cannot guarantee the absence of errors in the data presented in this climate report.

Emission sources for which no data (supplier-specific emissions, activity or otherwise) was available were approximated:

- District heating, MetaSolutions: approximated with 2023 data
- Secondary name servers: approximated with 2023 data



6.2 Comparison between 2023-2024: CENTR method

The total GHG emissions (tCO2e) decreased in 2024 compared to 2023, mainly due to:

- Consumption of electricity from fossil sources has roughly halved since 2023.
- Large decrease in business travel during 2024, particularly air travel.
- Increased percentage of work from home and accounting for public holidays in commuting.

Note that the 2023 reported figures for Inputs – paper and Waste – paper were likely overestimated. Therefore, there is a significant reduction in the percentual change.

Additional GHG emissions increased substantially, mainly due to the rise in purchased furniture, and food and drinks.

Impact category	2023	2024	Percentual change
Energy – electricity office	0,2	0,1	-52%
Energy – data centres (own co-located servers, cloud services and secondary name servers)	3,5	3,6	2%
Energy - heating (and cooling)	10,6	11,1	5%
Inputs - paper	2,6	0,1	-96%
Waste – paper	0,01	0,0004	-96%
Mobility – commuting – train, bus and car	24,2	18,5	-23%
Business travels – train, air and car	187,9	117,3	-38%
Capital goods - ICT hardware	31,2	30,21	-3%
Capital goods – buildings and parking area	66,7	62,7	-6%
Total ton CO2e (excl. additional GHG emissions)	327,0	243,6	-25%
Additional GHG emissions	14,4	58,2	304%
Total ton CO2e (incl. additional GHG emissions)	341,4	301,9	-12%

Rounding differences may occur in this table compared to the data presented in chapter 3.

6.3 Comparison between 2023-2024: GHG Protocol

The total GHG emissions (tCO2e) decreased in 2024 compared to 2023, mainly due to:

- Large decrease in business travel during 2024, particularly air travel.
- Increased percentage of work from home and accounting for public holidays in commuting.
- Overall lower volume in purchased goods and services, particularly office IT.

There was a slight increase in district heating consumption by The Swedish Internet Foundation.

Note that the 2023 reported figures for Waste (paper) were likely overestimated. Therefore, there is a significant reduction in the percentual change in scope 3.5.

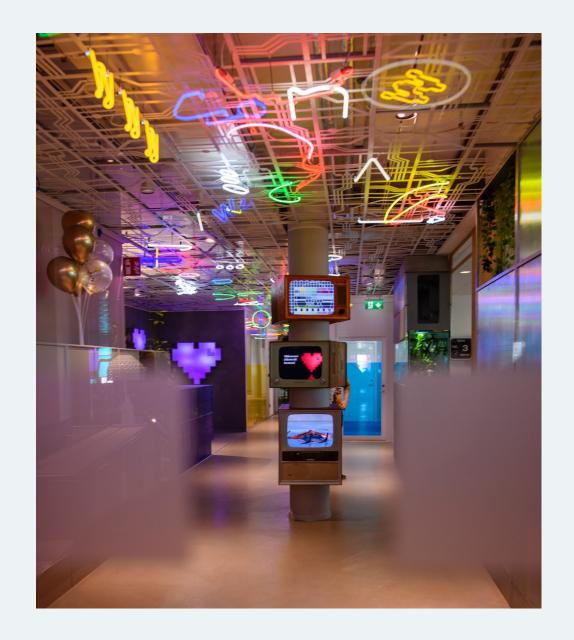
Scope category	2023	2024	Percentual change
Scope 1	0,0	0,0	-
Scope 2 Market-based	10,8	11,2	4%
Scope 3.1 Purchased goods and services	69,8	64,4	-8%
[Optional sub-category: Cloud computing and data centre services	3,8	3,6	-4%
Scope 3.2 Capital goods	0,0	0,0	-
Scope 3.3 Generation of energy and transmission and distribution losses	3,8	5,0	30%
Scope 3.5 Waste (paper)	0,0100	0,0004	-96%
Scope 3.6. Business travel	187,9	119,8	-36%
Scope 3.7 Employee commuting and remote work	24,2	19,0	-21%
Total ton CO2e	296,6	219,4	-26%

Rounding differences may occur in this table compared to the data presented in chapter 3.

6.4 Methodology for estimating energy consumption from data traffic and data storage

- No data on secondary name servers (.se and .nu) was available for 2024.
- Therefore, the figures for data traffic and data storage reported in 2023 were used to estimate the energy consumption in kilowatt-hours (kWh) by applying the conversion factors outlined in the table below.
- These conversion factors are collected from the peer reviewed study conducted by Malmodin, J. et al. (2014) Life Cycle Assessment of ICT. Journal of industrial ecology. [Online] 18 (6), 829–845.

Data	Conversion factor	Unit
Data traffic	1	kWh/GB
Data storage	0,08	kWh/GB



6.5 Activity data - Additional GHG emission sources

Scope 3.1 Purchased goods and services

The table shows the activity data used to calculate GHG emissions in Scope 3.1. The Swedish Internet Foundation and MetaSolutions collects data from the following categories:

Category	tCO2e	Amount
3.1 Purchased goods and services	50,3	
Food and beverages ¹		
	20,3	5478 kg
Other office equipment and electrical items (not ICT hardware)		
	0,007	1,25 kg
Furniture	27,0	513 items
Internetdagarna ²	3,0	-

¹ The consumption of food and beverages was calculated based on n estimated weight per serving of food and beverage.

² The emissions from the event Internet dagarna are calculated by ZeroMission.

6.6 Activity data - Additional GHG emission sources

Scope 3.6 Hotel nights

The table shows the activity data used to calculate GHG emissions in Scope 3.6 from The Swedish Internet Foundation and MetaSolutions hotel nights during the year.

2024	Unit	Amount
The Swedish Internet Foundation ¹	tCO2e	2,366
MetaSolutions	Number of nights	7

¹ The Swedish Internet Foundation reported GHG emissions as provided by Egencia and therefore did not report any activity data.

6.7 Sources of emission factors (1/3)

Categories		Sources of emission factors
Energy	Electricity office	 Market-based approach – electricity: a total of 0,1 tCO2e. The emission factors used are from the International Energy Agency IEA: IEA, Emissions Factors 2024, IEA, Paris https://www.iea.org/data-and-statistics/data-product/emissions-factors-2024, Licence: Terms of Use for Non-CC Material) Location-based approach – electricity: a total of 4,95 tCO2e. The emission factors used are from the International Energy Agency IEA: IEA, Emissions Factors 2024, IEA, Paris https://www.iea.org/data-and-statistics/data-product/emissions-factors-2024, Licence: Terms of Use for Non-CC Material).
	Electricity data centre	 Own co-located servers: GHG emissions were provided directly by the supplier. Cloud services: GHG emissions were provided directly by the suppliers for The Swedish Internet Foundation. The emission factor used for MetaSolutions is based on spend and developed by Ethos. Secondary name servers: GHG emissions were based on 2023, when suppliers provided emissions data directly.
	Heating and cooling	 Market based and location-based approach – district heating: Emission factors used from Energiföretagen (2024). Market based and location-based approach – district cooling: Emission factors used from District cooling EPD (2022) by Norsus as a proxy for The Swedish Internet Foundation's office in Stockholm.
Inputs	Paper	 Mixed paper and board: 1,2827 kgCO2e / kg collected from <u>DEFRA 2024</u>. Paper: 1,3393 kgCO2e / kg collected from <u>DEFRA 2024</u>.
Waste	Paper	0,0064 kgCO2e / kg collected from <u>DEFRA 2024.</u>

6.7 Sources of emission factors (2/3)

Categories		Sources of emission factors
Mobility (commuting)		 The calculating method takes into account the average number of working days in a reporting year, the average percentage of work done from home and the share of workspace located in cities. The method is based on statistics on Swedish commuting habits by Trafikanalys. The source for the emission factors used depending on different commuting options, such as car and public transport, are from DEFRA.
Business travel	Air	 CO2e emissions are collected directly from the travel agency Egencia (applied for The Swedish Internet Foundation). Air travel (short-haul): 0,18592 kgCO2e/passenger.km (tank-to-wheel) and 0,02286 kgCO2e/passenger.km (well-to-tank), collected from DEFRA 2024 (applied for MetaSolutions)
	Car	 CO2e emissions are collected directly from the travel agency Taxi Stockholm (applied for The Swedish Internet Foundation).
	Train	 CO2e emissions are directly collected from from SJ as well as travel agency Egencia, (applied for The Swedish Internet Foundation). National train: 0,03546 kgCO2e/passenger.km (tank-to-wheel) and 0,00897 kgCO2e/passenger.km (well-to-tank, collected from DEFRA 2024, (applied for MetaSolutions).

6.7 Sources of emission factors (3/3)

Categories		Sources of emission factors
Capital goods	Buildings	650 kg CO2e per m2 collected from CENTR. Depreciation time 40 years.
	Parking area	13,925 kg CO2e per m2 collected from CENTR. Depreciation time 40 years.
	ICT hardware	 Mobile phones: Apple 2022. Depreciation time: 3 years. Laptops: DELL 2019. Depreciation time: 3 years. Screens: DELL 2019. Depreciation time: 3 years. Servers: 133 kgCO2e/piece collected from CENTR. Depreciation time: 3 years. Printers: 588 kgCO2e/piece collected from CENTR. Depreciation time: 5 years.
Additional sources	Purchased goods and services	 Food and beverages: Average food and average drink 3,7014 kgCO2e/kg collected from DEFRA 2024 Other office equipment and electrical items other than ICT hardware: 5,6479 kgCO2e/kg (small electrical items); 6,308 kgCO2e/kg (batteries lithium ion); 4,6334 kgCO2e/kg (batteries alkaline) collected from DEFRA 2024. Furniture: 72 kgCO2e/piece (office chair); 35 kgCO2e/piece (office desk); 90 kgCO2e/piece (sofa); 50,83 kgCO2e/piece (average furniture) collected from FIRA International Ltd (2011). Internetdagarna: 3,0 tCO2e as calculated by ZeroMission.
	Hotel nights	 CO2e emissions are directly collected from from the travel agency Egencia, (applied for The Swedish Internet Foundation). Hotel stays in Europe: 13,11 kgCO2e/hotel night from <u>DEFRA 2024</u>, (applied for MetaSolutions).
	Energy from working from home	 The emission factors used are from the International Energy Agency IEA: IEA, Emissions Factors 2024, IEA, Paris https://www.iea.org/data-and-statistics/data-product/emissions-factors-2024, Licence: Terms of Use for Non-CC Material).

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