Greenhouse Gases Report

TEKNOSERVICE

Revision control					
Review	**Date**	**Changes**	**Elaborated**	**Revised**	**Approved**
00	11/11/2024	Initial version	MF	AC	MI

INDEX

REFERENCE STANDARDS

UNE-EN ISO 14064-1	Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
UNE-EN ISO 14067	Greenhouse gases. Carbon footprint of products. Requirements and guidelines for quantification
UNE-EN 16258	Methodology for calculation and declaration of energy consumption and GHG emissions of transport services (freight and passengers)

ACRONYMS

LCA	Life cycle analysis
AECOC	Manufacturers and Distributors Association
GHG	Greenhouse Gases
GWP	Global Warming Potential
ICAO	International Civil Aviation Organization

DEFINITIONS

Greenhouse Gases

Gaseous component of the atmosphere, both natural and anthropogenic, that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, atmosphere and clouds. ISO 14064-1 §3.1.1.

GHG reservoir

Component, other than the atmosphere, that has the capacity to accumulate GHGs and to store and release them. ISO 14064-1 §3.1.4.

Biogenic Carbon

Emissions related to the natural carbon cycle, as well as those resulting from the combustion, harvesting, digestion, fermentation, decomposition or processing of bio-based materials

1. GENERAL DETAILS, PURPOSE AND POLICY

1.1. Introduction

This document provides the complete global greenhouse gas inventory for the year 2023.

Teknoservice's emission reporting and classification process is consistent with international protocols and standards. This report has been prepared in accordance with Standard 14064-1:2019 - The information provided follows the requirements included in Section 9.3.1 of the Standard and 9.3.2 where applicable.

1.2. Purpose

Teknoservice's intention at this point is to demonstrate the use of best practices with respect to consistency, reproducibility and integrity with respect to greenhouse gas emissions.

This report:

- It refers to Teknoservice emissions.
- It has been prepared in accordance with the requirements of ISO 14064-1:2019.
- It prioritizes the use of primary data whenever possible but especially about the largest sources of emissions. When primary data is not available, a consistent and conservative approach has been taken in the calculations.
- It reflects Teknoservice's commitment to better understand and improve operational performance with respect to emissions.

An additional target is included to reduce annual emissions by 10% since these measurements started taking 2019 as reference year.

1.3. Description of Teknoservice

Teknoservice is a 100% Spanish capital company with more than 25 years of experience in the ICT sector. It is specialized in offering Integral Technological Solutions, based on the quality of TTL Professional products and on service excellence.

More information is available at http://www.teknoservice.es/

Company data:

Company	Teknoservice
Address	PIBO. Avda de Albaida, 1. Bollullos de la Mitación, 41110 (Seville)
CIF	B41485228
Type of footprint	Carbon footprint
Period analysed	2023
Standard used	ISO 14064-1:2019
Contact	manuel.florido@teknoservice.es

1.4. GHG policies and sustainability, strategies and programs

Teknoservice's vision as a 100-year old company is about reaching an end point. It is a daily mindset about growing a strong, iconic and lasting business. This means leaving a better place than we found it and doing everything possible to safeguard the future of people, communities and our planet.

Climate change remains a critical issue for businesses and governments around the world. For Teknoservice, this begins with the acceptance that our business is based on an activity that generates carbon emissions and therefore has the responsibility to reduce those emissions while maintaining our competitiveness and ability to provide quality services in accordance with the expectations of our customers.

Teknoservice's commitment to sustainability, safety, health and the environment has been and will continue to be a fundamental element of our successful operating practices to date.

1.5. Responsible personnel

The GHG inventory and report have been prepared at Teknoservice headquarters by the quality and certification staff.

1.5.1. Training of the team for the preparation of the GHG report and emissions inventory

Team members who have conducted the emissions inventory with awareness of all the principles and requirements of ISO 14064-1:2019.

1.6. Audience and Broadcasting Policy

This report has been made in order to provide Teknoservice's main collaborators with information about the greenhouse gas inventory, its structure and relevant explanations. It will be made public after accreditation by a third party.

1.7. Reporting period and frequency

This report covers the year 2023, from January 1 to December 31.

GHG reports will be issued annually.

1.8. Report standardization, approaches and verification

1.8.1. ISO 14064-1:2019 compliance

The GHG report for the year 2023 has been prepared in accordance with ISO 14064-1:2019. A traceability matrix with the reference standard is included in Annex 1.

1.8.2. GHG inventory audit

The GHG inventory has been verified at a reasonable level by Ecoterrae.

2. ORGANIZATIONAL BOUNDARIES

Teknoservice uses the operational control method to inventory your emissions. This method considers all emissions over which Teknoservice has control, but not necessarily financial control.

The most significant application of this approach is the inclusion of emissions from our supply chain, so that it is reflected from material extraction to the end of the product's life.

3. SYSTEM LIMITS

3.1. Emissions categorization and classification

The sources of greenhouse gases have been identified and grouped according to ISO 14064-1:2019.

- Direct GHG emissions and removals
- Indirect GHG emissions from energy imports
- Indirect GHG emissions from transport
- Indirect GHG emissions from products used by the company
- Indirect GHG emissions from the use of manufactured products
- Indirect GHG emissions from other sources

3.2. Significant factors

The following factors have been considered according to their magnitude and degree of relevance, including

- Amount of emissions
- Degree of influence of Teknoservice on the emission source
- Difficulty in obtaining data
- Validity of estimates

Based on the above, the criteria for identifying sources of significant emissions are

- When a single source has emissions likely to account for at least 1% of total Teknoservice emissions, it should be included.
- The total of non-significant sources should not exceed 5%.

3.3. Summary of included emission sources and activity data

Category	Emission Source	Activity Data	Units	Data Source	Type of Data
Category a)	Emissions issued by mobile sources	Consumed fuel	Liters of fuel	Fuel consumption accounting entries	Estimated Data
Category b)	Emissions generated in the production of consumed electricity	Electricity consumption	kWh	Monthly bills from the electricity company	Primary Data
Category c)	Emissions issued by internal transport due to fuel consumption	Consumed fuel	Liters of fuel	Internal company data	Estimated Data
	Emissions issued by external transport due to business travels	Emissions associated to the business travel	Kg CO_2 eq/passenger	Internal company data	Estimated Data
	Emissions issued by external transport due to fuel consumption	Consumed fuel	Liters of fuel	Information provided by transport companies	Estimated Data
Category d)	Emissions issued by suppliers during manufacturing of components	Emissions associated to the production of items	Kg CO2 eq	Information provided by the supply chain	Primary Data
	Emissions issued by logistics due to fuel consumption	Transport emissions of the component from supplier to Teknoservice	Kg CO2 eq	DHL Validated Transportation Emissions Calculation Tools	Calculated Data
Category e)	Emissions generated during the use of products over their lifetime	Energy consumption of products	kWh	Energy Star internal test reports	Estimated Data
	Emissions generated during the treatment of products as WEEE	Weight in tonnes of sold products	Tonnes	Internal data	Primary Data

There has not been detected CO_2 biogenic emissions or removals.

3.4. Summary of emissions factors

The emissions factors and its source have been collected in the table below.

Emission factor	Value	Data source	Year of data
Emissions associated to electricity consumption in Spain (Luzia Energía) per MWh, using market-based approach	0,259 Tn CO_2 eq	MITERD v.29	2023
Emissions associated to electricity consumption in Spain per MWh, using location-based approach	0,12 Tn CO_2 eq	Sistema Eléctrico Nacional	2023
Emissions per Liter of diesel fuel consumed	0,00324 Tn CO_2 eq	EN 16258, Table A1	2013
Business trip in Europe per passenger	0,402 Tn CO_2 eq	ICAO	2024

Business trip in Asia per passenger	0,944 Tn CO_2 eq	ICAO	2024
Emissions associated to use of the equipment in Spain (National electricity mix without GoO) per kWh	0,000260 Tn CO_2 eq	MITERD v.29	2023
Treatment of kg of WEEE	0,021 Tn CO_2 eq	euskadi.eus	2020

3.5. Summary of exclusions

The following sources of emissions are identified but excluded from the emissions inventory These sources have not been considered significant or material to the contributors, in the context of the inventory, or are not feasible or practical to calculate at this time.

As noted in Section 3.2, the total sum of emissions excluded is estimated to be less than 5% of total emissions from Teknoservice.

Category	Emission source	Comments
1	Fugitive emissions from air conditioning systems	Very difficult to obtain reliable data. It is estimated to be <0.5%.
4	Packaging	It has not been considered when assuming <1% of the emission because of its low weight and being made with recycled materials
5	Product recycling and component reuse	They have not been included as we do not know the exact center where the waste is processed, its associated emissions and the % of product used. It is estimated that in this phase the emissions are favorable and reduces the impact to the product
6	Manufacturing of buildings and auxiliary industries	It cannot be feasibly quantified. It is estimated to be <0.5%.
6	Replacement components	The failure rate of products delivered by Teknoservice is <3%, and the repair does not always involve the replacement of components. It is estimated that it contributes <2% of the

There are emissions related to CH4 and N2O that could not have been calculated separately as the emissions factors used are from table A1 from standard EN 16258, which only covers CO_2 emissions.

3.6. Selection of the quantification approach

The quantification of the data has been made from calculation based on the formula:

Emissions = ADxEF

Where:

AD: Activity data
EF: Emission factor

The mode of calculation has been made from the emission sources and associated activity data are included in the table in section 3.3.

3.7. Summary of GWC

The following table shows the GWC (IPPC) of the GHG:

GHG	GWC (IPCC)
Carbon Dioxide	1
Methane	27,9
Nitrous Oxide	273

4. QUANTIFICATION OF THE EMISSIONS INVENTORY

4.1. Consolidated GHG emissions data.

Total carbon footprint (Tn CO_2 eq)	**2.624,43**	**Tn CO_2 eq**

GHG Emissions Category 1		
Direct emissions of fuel from mobile elements	23,16	Tn CO_2 eq
TOTAL	**23,16**	**Tn CO_2 eq**

GHG Emissions Category 2		
Indirect emissions from energy consumption	43,62	Tn CO_2 eq
TOTAL	**43,62**	**Tn CO_2 eq**

GHG Emissions Category 3		
Emissions associated with shipments of finished products (criteria according to EN 16258)	27,11	Tn CO_2 eq
Emissions from commuting to work	192,78	Tn CO_2 eq
Emissions from business travel	4,30	Tn CO_2 eq
TOTAL	**224,19**	**Tn CO_2 eq**

GHG Emissions Category 4		
Emissions associated with material supplies	1107,01	Tn CO_2 eq
TOTAL	**1107,01**	**Tn CO_2 eq**

GHG Emissions Category 5		
Emissions associated with product use	1224,41	Tn CO_2 eq
Emissions associated with product waste	2,05	Tn CO_2 eq
TOTAL	**1226,45**	**Tn CO_2 eq**

4.1.1. Consolidated GHG emissions using a location-based approach

For GHG emissions included in category 2, a location-based approach calculus has been also considered, using the data of emissions per kWh of the national grid. The calculus using this approach are included in the following table:

Total carbon footprint (Tn CO_2 eq)	**2.601,02**	**Tn CO_2 eq**

GHG Emissions Category 1		
Direct emissions of fuel from mobile elements	23,16	Tn CO_2 eq
TOTAL	**23,16**	**Tn CO_2 eq**

GHG Emissions Category 2		
Indirect emissions from energy consumption	20,21	Tn CO_2 eq
TOTAL	**20,21**	**Tn CO_2 eq**

GHG Emissions Category 3		
Emissions associated with shipments of finished products (criteria according to EN 16258)	27,11	Tn CO_2 eq
Emissions from commuting to work	192,78	Tn CO_2 eq
Emissions from business travel	4,30	Tn CO_2 eq
TOTAL	**224,19**	**Tn CO_2 eq**

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Emissions associated with product use	1224,41	Tn CO_2 eq
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TOTAL	**1226,45**	**Tn CO_2 eq**

4.2. Methodology for data collection and quantification

As Teknoservice has an international supply chain, data collection is global in scope and therefore several different databases had to be used to reach the desired level of detail.

The emissions summary represents the best attempt to consolidate and standardize emissions data, providing a detailed explanation of the working methodology and estimates, in accordance with the requirements of ISO 14064-1:2019.

Section 3.3 provides an overview of emission sources and their respective data sources. Where an approximation or estimation has been required, the best available calculation methods have been used. Where two or more possible and equally valid estimates have been considered, the one that is most unfavourable in terms of the level of emissions produced has been considered.

4.2.1. Emissions from fuel consumption

The calculation of the category 1 emissions has been made according to the emission factors included in table A1 of the UNE-EN 16258:2013, relating the volume of fuel consumed to the CO_2 eq emitted into the atmosphere. The *well to wheel* factors has been considered to incorporate the consumption from the extraction of the raw material.

To calculate the volume of consumed fuel, it has been considered the data collected from the fuel invoices in Euro and applying an average value of diesel price for year 2023 (1,559 €/l), according to the data published by CETM. It has been taken as assumption that all the fuel is diesel to be conservative with the calculations.

4.2.2. Electrical Consumption

For the calculation of emissions derived from electricity consumption (market-based approach), determined as category 2, the value provided by the Ministry for Ecological Transition and Demographic Challenge has been taken as a reference, with the values corresponding to 2023, specifically for the companies that provided electricity supply to Teknoservice.

The data have been collected from invoices issued by the electrical company to Teknoservice.

4.2.3. Equipment consumption

Since the evaluated equipment is Energy Star compliant, it has been possible to establish the consumption that it will have during its useful life, which is estimated at 5 years. This value corresponds to the guarantee that Teknoservice gives to its equipment. Electric emissions per KWh has been considered as emission factor, using the emission factor provided by the Government for the country of sales.

4.2.4. Manufacture of components

The carbon footprint of the components of the product manufactured by Teknoservice have been taken in consideration for the calculations. This information has been reported by the different suppliers taking in consideration all their direct and indirect emissions. The system has been extended through the entire subcontracting chain to ensure that emissions from the extraction of the material are considered. The carbon footprints related to suppliers are not third-party verified.

4.2.5. Sending components from suppliers

The carbon footprint calculation tool created by DHL, and validated by SGS, has been used to calculate the emissions associated with the shipment of materials from the subcontractor to Teknoservice. This tool has considered the weight and volume of the packages, as well as the

place of collection and destination in order to estimate the emissions produced during transport.

4.2.6. Sending products to customers

To avoid double counting, only the emissions associated with transport companies contracted by Teknoservice have been estimated. Those deliveries made by our own vehicles are considered in category 1 emissions through fuel consumption.

The emissions associated with transport companies have been made considering the composition of the vehicle fleet. Based on this composition, the average fuel consumption has been calculated, based on the guide for calculating the carbon footprint of road freight transport, issued by the AECOC in 2017.

It has been considered the number of items produced by Teknoservice for the current year of analysis.

4.2.7. Travel

The number of business trips made by Teknoservice staff have been considered. Emissions estimates have been made through the emissions calculation tool created by ICAO.

Concerning traveling of the personnel to the workplace, it has been considered that all the worker's residences are in a 20 km radius and applying this distance to all the employees to be more conservatives with the calculus. Average number of employees in year 2023 has been considered for the calculus. In addition, it is assumed that all the workers have a diesel and petrol vehicle and they do not share vehicle. Emissions factors established for diesel and petrol emissions according to table A1 of EN 16258.

4.2.8. Waste treatment

To calculate the emissions associated with the treatment of electronic waste, the carbon footprint calculation guide created by the Basque Government has been used, considering the amount of waste produced. It has been considered that 100%of the products will be recycled at the end of its life. The emission factor used by this guide is 21 kg CO_2 eq per kg of electronic waste treated.

4.3. Information management procedures

GHG reporting and measurement has been performed to ensure compliance with the principles of ISO 14064-1:2019 and to be consistent with the intended use of the GHG inventory.

The procedures outlined below are designed to establish a structure and provide controls to ensure the accuracy and integrity of the inventory.

This GHG report also includes the following considerations:

- Responsibility and authority for the development of the inventory.
- Review and implementation of training for the team that establishes the inventory.
- Identification of organizational and system boundaries.
- Selection and review of GHG sources and sinks
- Details of quantification methods and considerations for their consistent application.

4.4. Determination of uncertainty

For this report corresponding to the year 2023, a more qualitative than quantitative evaluation has been carried out for the determination of uncertainty. With current tools and a variety of emission sources, our view is that a quantitative assessment would be complex and offer little validity in terms of statistical uncertainty. The applicability of these quantitative assessments will be reviewed in each reporting period.

The emissions inventory included in section 4.1 entails a certain degree of indetermination, especially about data provided by third parties.

Teknoservice works with a complex international network of collaborators, which involves third parties and includes a large amount of data, especially considering that this study is carried out from the extraction of the raw material to the final disposal of the product.

Available data, integration systems and business sensitivity can influence how broadcast information has been transmitted and interpreted throughout the supply chain. In any case, we have full confidence in the information provided by our partners.

Where there are uncertainties or omissions in existing data, a conservative approach has been taken.

Determination of degree of uncertainty:

Activity data	Range of uncertainty
Consumed fuel by Teknoservice's vehicles	A
Electric consumption	A
Consumed fuel due in internal transport	B
Emissions associated to business travels	C
Liters of consumed fuel by logistics companies	D
Emissions associated to the production of items	C
Transport emissions of the component from supplier to Teknoservice	B
Energy consumption of products	B
Weight of sold products	A

Emission source	Range of uncertainty
Emissions associated to electricity consumption in Spain (Luzia Energía) per MWh, using market-based approach	A
Emissions associated to electricity consumption in Spain per MWh, using location-based approach	A
Emissions per Liter of diesel fuel consumed	A
Business trip in Europe	D
Business trip in Asia	D
Emissions associated to use of the equipment in Spain (National electricity mix without GoO) per kWh	A
Treatment of kg of WEEE	C

The range of uncertainties are explained in the table below:

Grade	Level of Certainty	Description
A	Very High	Data is highly accurate and verifiable. It is based on direct measurements, reliable records, or internationally recognized standards.
B	High	Data has a good level of accuracy, though it may be subject to minor variations. It includes estimates based on accepted methodologies.
C	Moderate	Data is subject to greater uncertainty due to reliance on assumptions or secondary sources.
D	Low	Data is highly uncertain due to a lack of detailed information or reliance on generalized assumptions.

4.5. Changes from the base year

The selected base year for this analysis is 2019, which value is 1.909 Tn CO_2eq. This year is used as a reference to evaluate GHG emissions in subsequent periods, ensuring consistency and comparability of the data.

In accordance with Section 6.4.2 of ISO 14064, the base year must be recalculated under the following circumstances:

- Significant structural changes: Includes mergers, acquisitions, divestitures, or any other modifications to organizational boundaries that substantially affect reported emissions.
- Methodological changes: Adoption of new calculation methods, updated emission factors, or improvements in data accuracy that result in significant differences in estimated emissions.
- Identification of material errors: Correction of significant errors in the base year data detected through audits, reviews, or validations.
- Addition or removal of emission sources: Inclusion of new relevant emission sources or exclusion of previously considered sources due to changes in operations or system boundaries.

- Revision of operational or reporting boundaries: Adjustments to the boundaries of direct or indirect emissions (Scope 1, Scope 2, Scope 3) to more accurately reflect organizational activities.

4.6. Elimination and reductions/increases

There are not removals of CO_{2eq}.

ANNEX 1

Traceability between the report and ISO 14064-1:2019

Section of ISO 14064-1:2019	Report section	Comentarios
9.3.1 (a)	1.3	
9.3.1 (b)	1.5	
9.3.1 (c)	1.7	
9.3.1 (d)	2	
9.3.1 (e)	3	
9.3.1 (f)	4.1	
9.3.1 (g)	3.3	
9.3.1 (h)	4.6	
9.3.1 (i)	3.5	
9.3.1 (j)	4.1	
9.3.1 (k)	4.5	
9.3.1 (l)	4.5	
9.3.1 (m)	4.2	
9.3.1 (n)	NA	
9.3.1 (o)	3.4	
9.3.1 (p)	4.4	
9.3.1 (q)	4.4	
9.3.1 (r)	1.8.1	
9.3.1 (s)	1.8.2	
9.3.1 (t)	3.7	
9.3.2 (a)	1.4	
9.3.2 (b)	NA	
9.3.2 (c)	NA	
9.3.2 (d)	NA	
9.3.2 (e)	NA	
9.3.2 (f)	4.1	
9.3.2 (g)	NA	
9.3.2 (h)	NA	
9.3.2 (i)	NA	
9.3.2 (j)	NA	
9.3.2 (k)	NA	

GHG EMISSIONS REVIEW REPORT 2023:

UNE-EN ISO 14064: 2019

TEKNOSERVICE®

Tecnología en sus Manos

ecoTerrae

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Version 1
30/12/2024

1. Organization

COMPANY:	TEKNOSERVICE, S.L.
ADDRESS:	Polígono Industrial PIBO, Avenida de Albaida 1, 41110 Bollullos de la Mitación, Sevilla (Spain).
CIF:	B41485228
ORGANIZATION REPRESENTATIVE:	Manuel Florido Puig-Samper- Quality Manager
TELEPHONE:	954 54 12 12
E-MAIL:	manuel.florido@teknoservice.es
EXPEDIENTE:	Corporate Carbon Footprint
NORMA DE REFERENCIA:	UNE-EN-ISO 14064-1:2019 (ISO 14064-1:2018)
AUDIT TYPE:	Internal audit
	GHG Report 2023
INTERNAL AUDIT DATE:	December
AUDITOR TEAM:	Rocío Olmedo Vázquez

2. Object of the audit

The main objective of this internal audit is to confirm the correct calculation of Greenhouse Gas Emissions of the Teknoservice organization for the year 2023 and the preparation of the GHG Report based on the criteria of the applicable reference standard, taking into account the selected scope.

A review of the documentary system associated with the scope established for the current period will be carried out: activity data, invoices and other relevant documentation, such as the data management system and acquisition and registration, treatment and control processes.

The verification has been carried out on the greenhouse gas inventory for the year 2023 and the information contained in the 2023 GHG inventory report of the Organization.

3. Validation or internal audit criteria

- UNE-EN ISO 14064.2019 - part 1
- UNE-EN ISO 14064: 2019 - part 3
- UNE-EN 16258
- TEKNOSERVICE GHG emissions inventory report 2023

4. Level of assurance required

The level of assurance used by the verifier to determine if there are errors, omissions or misinterpretations has been “REASONABLE assurance level”.

5. Declaration of conformity

Based on the process and procedures performed, the GHG statement:

- It is substantially correct and is a faithful representation of the GHG information and data and,
- is prepared in accordance with the standard related to GHG quantification, monitoring and reporting, or with relevant national standards or practices.

6. Audit scope

The scope of the internal audit shall be the following emission sources:

GHG Report Category	Subcategory	Emission source
1. Direct GHG emissions	Consumption of fossil fuels in the mobile fleet	Consumption of fossil fuels (Diesel A) in vehicles.
2. Indirect GHG emissions from energy imports		Consumption of electricity
3. Indirect GHG emissions from transportation	Transport of employees	Transport of employees to and from the workplace (round trip)
	Business trips	Business trips, client meetings, etc.
	shipment of manufactured products	Transport carried out for the distribution of processed products to customers.
4. Indirect GHG emissions derived from products used by the company		Indirect emissions associated with supplies of materials (manufacturing and transport).
5. Indirect GHG emissions derived from the use of manufactured products		Emissions from in-use during product lifetime
		Emissions associated with product residues
6. Other indirect emissions		Not applicable

The products manufactured by Teknoservice, and that have been evaluated for this study are the following:

- Laptop
- Teknopro
- Teknoslim
- Teknopack
- Ultrabook
- Ultrazero

7. Analysis of the carbon footprint calculation

7.1. Activity data

- **Direct GHG emissions:**
  - **Fossil fuel consumption in Teknoservice's own vehicles:** In the case of fuel consumption, the data has been compiled from the amounts (in euros) of the refuelling invoices provided by the company's administrative department. These data are translated into litres of fuel using an average value of diesel (€/l) for the year 2023 from the Spanish Confederation of Freight Transport (CETM).
- **Indirect GHG emissions caused by imported energy:**
  - **Electricity consumption:** All electricity bills from the electricity supplier *Luzía Energía, S.L.* for the installations in the year 2023 are checked.
- **Indirect GHG emissions caused by transport:**
  - **Fuel consumption in the mobility of employees to their jobs (Employee mobility):** This is an estimate based on the average number of employees in 2023 provided by the Human Resources department and the distance from the employees' home to the workplace. The default distance has been set as the furthest home (20 km) and it has been assumed that all employees drive private vehicles (petrol and diesel cars) and do not share a car.
  - **Emissions on business trips:** Knowing the origin and destination of each flight, as well as the number of flights, the ICAO (International Civil Aviation Organisation) platform is used to calculate the emissions generated per passenger per journey.
  - **Fuel consumption in downstream transport for the shipment of products:** The diesel consumption of transporting products to customers is estimated based on the number and type of vehicle, the weights of products transported and the distance travelled.
- **Indirect GHG emissions caused by the use of products:**
  - **Consumption (and transport) of raw materials:** Consumption data are calculated based on the quantities (in units and weights) of each product purchased by the organisation and the place of origin and means of transport by which the shipment is made.

The emissions associated with the manufacture of each product purchased by the organisation have been provided by the suppliers of each product (these carbon footprints have not been verified by third parties).
During the internal audit it was not possible to verify the carbon footprint data provided by the suppliers or the results of the transport emissions from the suppliers calculated with the tool created by DHL and validated by SGS, as the company did not have written evidence of this data.

- **Indirect GHG emissions caused by the use of the organization's products:**

  - **Use of products:** the total number of units sold of each product type and the years of useful life of these products (based on their warranty period), multiplied by the energy consumption (kWh/year) certified by the Energy Star internal test reports of each product type to obtain the total annual electricity consumption.

  - **Product waste:** It is calculated on the basis of the weight of each type of product and the units sold of each product, assuming that all waste is treated (recycled) at the end of its useful life.

8. Results

The carbon footprint of the Teknoservice organization amounts to 2,624.43 tons of CO_2 equivalent for the calculation year 2023, of which 23.16 tCO_2e derive from direct emissions.

Total carbon footprint (Tn CO_2 eq)	**2,624.43**	**Tn CO_2 eq**
GHG Emissions Category 1		
Direct emissions of fuel from mobile elements	23,16	Tn CO_2 eq
TOTAL	**23,16**	**Tn CO_2 eq**
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TOTAL	**1226,45**	**Tn CO_2 eq**

Separate quantification of direct GHG emissions for CO_2, CH_4 and N_2O has not been possible due to the fact that the emission factors in the UNE-EN 16258 standard have been used and these are not broken down by gas type.

9. Exclusions

A significance value of 1% of Tecknoservice's total emissions is defined, so that emissions representing less than this percentage can be excluded from the calculation, as long as all emissions together do not add up to more than 5% of the organization’s carbon footprint.

GHG Report Category	Emission source	Comments
1. Direct GHG emissions	Fugitive emissions from air conditioning systems (use of refrigerant gases).	Very difficult to access reliable data source. Estimated to be less than 0.5% of the carbon footprint.
4. Indirect GHG emissions derived from products used by the company	GHG emissions associated with the use of packaging.	Not considered as it is estimated to be less than 1% of emissions.
5. Indirect GHG emissions derived from the use of manufactured products	GHG emissions from the recycling and reuse of materials.	Not included due to lack of knowledge of the exact site where the waste is processed, its associated emissions and the % of product used.
6. Other indirect emissions	Manufacture of buildings and auxiliary industries.	Not possible to quantify. Estimated to be less than 0.5% of emissions.
	GHG emissions associated with spare parts components.	It is estimated to contribute less than 1% of emissions.

10. Compliance with the reference standard

After reviewing the Greenhouse Gas Report 2023, the Carbon Footprint 2023 spreadsheet, and the respective procedures, as well as the activity data and emission factors used, the following table summarizes the observations found based on the requirements of the standard:

Information required	Compliance	Observations
Description of the organization	Yes	It is stated in the report
Person or entity responsible for the report	Yes	It is stated in the report
Period covered by the report	Yes	It is stated in the report
Limits of the organization	Yes	It is stated in the report

Information required	Compliance	Observations
Reporting limits (including criteria set by the organization to define significant emissions) for defining significant emissions)	Yes	It is stated in the report
Base year (The selected historical base year and the GHG inventory for the base year)	Yes	It is stated in the report
Changes from the base year: Explanation of any changes to the base year or other historical GHG data, or categorisation and any recalculation of the base year or other historical GHG inventory, and documentation of any limitations to comparability resulting from such recalculation.	N/A	It is stated in the report
Quantification approach: Reference to or description of quantification approaches, including reasons for their selection.	Yes	It is stated in the report
Explanation of any changes to previously used quantification approaches	N/A	-
Reference to the activity data used	Yes	It is stated in the report
Reference or documentation of the GHG emission or removal factors used	Yes	It is stated in the report

Information required	Compliance	Observations
Biogenic emissions: A description of how biogenic CO2 emissions and removals and relevant biogenic CO2 emissions and removals quantified by the GHG inventory are considered in the GHG inventory biogenic CO_2 emissions and removals and relevant biogenic CO2 emissions and removals quantified separately in tons of CO_2e separately in tons CO_2e	N/A	-
GHG removals: If quantified, the direct GHG removals, in tons CO_2e	N/A	-
Exclusions: Explanation of the exclusion of any significant sources or sinks of GHGs from the quantification.	Yes	It is stated in the report
Quantified indirect GHG emissions separated by category in tons CO_2e	Yes	It is stated in the report
Description of the impact of uncertainties on the accuracy of GHG emissions and removals data by category removals data	Yes	It is stated in the report
Description and results of the uncertainty assessment	Yes	It is stated in the report
Standard used: A statement that the GHG report has been prepared in accordance with this document.	Yes	It is stated in the report
Verification: Disclosure describing whether the GHG inventory, report or declaration has been verified, including the type of verification and the level of assurance achieved.	N/A	-
Emissions reduction plan	No	Not included in the report but proposed as a future improvement.

11. Opportunities for improvement

In addition, the following table lists opportunities for improvement in data collection, calculations and reporting:

Nº	Description
OM1	It is recommended to keep an internal record of the quantities of fuel refuelled (in litres) in the mobile fleet by fuel type.
OM2	Mobility surveys are recommended to obtain the actual kilometres travelled annually from their homes to their workplaces, as well as the type of transport used.
OM3	It is recommended that a reduction plan be drawn up and that the application and effectiveness of the proposed and implemented measures be monitored.
OM4	It is recommended to record written evidence (e-mails, certificates, bills, etc.) of all data provided for estimations and calculations, such as carbon footprints of suppliers, update of the fleet of vehicles of carriers, data provided by the different departments of the company, tickets and different means of transport used for business trips, etc.
OM5	Reference should always be made to the official sources from which the data used for calculations and estimates are drawn.
OM6	As it is not possible to know the emission factors used by ICAO for the calculation of emissions per passenger on flights, it is recommended that only the ICAO platform is used to obtain the kilometres travelled and that official emission factors (e.g. DEFRA) are used for the calculation of emissions.

TECHNICAL REVIEW STATEMENT

Commissioned by:

TEKNOSERVICE

Carried out by:

ECOTERRAE GLOBAL SOLUTIONS SL

Reviewed by:

Rocío Olmedo Vázquez. (ECOTERRAE Consultant)

Reference:

- UNE-EN ISO 14064-1: 2019 "Greenhouse gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals (ISO 14064-1: 2018)"

- UNE-EN 16258 2013 "Methodology for calculation and declaration of energy consumption and GHG emissions of transport services (freight and passengers)"

Scope:

Direct fuel emissions from moving parts	Emissions derived from business trips
Indirect emissions from energy consumption	Emissions associated with supplies of materials
Emissions associated with shipments of finished products	Emissions associated with the use of products
Emissions derived from commuting to work	Emissions associated with product waste

Analysis and verification of individual data sets are outside the scope of this review.

Products evaluated:

- Laptop
- Teknopro
- Teknoslim
- Teknopack
- Ultrazero
- Ultrabook

General evaluation:

- This evaluation is based on the final report received on December, 2024.
- The objective and scope of the evaluation are clearly defined.
- The system limit adequately includes all the emission sources contemplated according to the ISO 14064-1: 2019 standard.
- The team made every effort to break down each component included in the system for inclusion in the models.
- To calculate the emissions associated with transport, the study has been based on the criteria established by the UNE-EN 16258 standard.
- Any important assumptions that had a significant influence on the results are well justified. If not, the exclusions have been consistently justified.
- The team was always very open and responsive to my comments and all were directed to my complete satisfaction.
- They were also very open in demonstrating all aspects of the models used as part of the calculations.

Conclusion:

The study has been carried out in accordance with ISO 14064-1: 2019 standards. The critical reviewer considered the overall quality and rigor of the methodology and its execution to be well suited for the purposes of this study. The study is reported in a comprehensive manner and is transparent in its scope and in its methodological choice.

Sevilla, 30 December 2024

Rocío Olmedo Vázquez
ECOTERRAE

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