# Carbon Footprint Measurement Report Scope 1, 2 & 3

# Y2024



Group

Carbon Footprint Measurement Report Scope 1, 2 and 3 2024

**TWG** was founded to provide a personalised and high-quality service for the transportation, storage and distribution of goods. Currently, **TWG** is a well-established international organisation in the logistics and transport sector (Truck & Wheel Logistics, S.L., hereinafter referred to as **TWL**) and in the production and delivery of automotive components (Truck & Wheel Automotive, S.L., hereinafter referred to as **TWA**).





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	Logi	stics		TW automotive				
01.	02.	03.	04.	01.	02.	03.		
3PL	4PL	FTL	In Night Delivery	Module assembly.	Sequential assembly of complete wheels.	MRP- management.		
)5	06.	07.	08.	04.	05.	06.		
LTL	eCommerce	Forwarding	Multimodal	Sequencing of production.	JIS delivery to OEM production lines.	Full traceabilit for each component.		





## **Base year selection**

**TWG** has previously calculated and registered its Carbon Footprint, so the year 2022 will be the base year for subsequent carbon footprint calculations for Scope 1 & 2. This Y2024 is the first year with Scope 3 calculated.

# General description of the chosen organisational boundaries (approach)

The greenhouse gas inventory of TWG has been carried out under the operational control approach, since its companies have full authority to introduce and implement their operational policies in the operation.

# General description of the chosen operational limits (scope)

There are three levels of scope according to the type of GHG emissions (direct and indirect) recorded. The GHG Protocol, the reference standard used for the drafting of this report, establishes that emissions falling under scopes 1 and 2 are mandatory for inclusion in these inventories, while emissions falling under Scope 3 are voluntary.

# **Quantification methodology**

The carbon footprint of an organisation measures the total Greenhouse Gases (GHG) emitted by direct or indirect effect from the development of the organisation's activity. It is measured in CO2 equivalent (CO2e).

In choosing the quantification methodology, the specifications indicated in the GHG Protocol, developed by the World Resources Institute and the World Business Council for Sustainable Development, have been taken into account. The methodological basis for calculating the carbon footprint is to apply the following formula:

Where;

The activity data is the parameter that defines the degree or level of activity generating GHG emissions and its units can be very varied (kWh, m3, km, kg...).

The emission factors used have been those communicated by the Department for Environment, Food & Rural Affairs (DEFRA version 1.1 year 2024) and the Spanish Office for Climate Change (OECC version 30 year 2024) in line with the Intergovernmental Panel on Climate Change and the National Commission for Markets and Competition (CNMC).

#### Direct GHG emissions and removals. Scope 1

Direct GHG emissions and removals occur from sources or sinks of GHGs within the organisation's boundaries that are owned and controlled by the organisation. **TWG** has no sinks, but does have the following direct emission sources:

Emissions associated with fossil fuels, which are generated from the following sources:

- Forklift trucks, leased and owned vehicles: Emissions associated with petrol, diesel and liquefied petroleum gas (LPG) consumption
- Fixed installations (boilers and generators): Emissions associated with the consumption of natural gas and diesel C.
- Y Fugitive emissions, which are generated from the following sources:

• Refrigeration and air-conditioning equipment, distributed throughout the different delegations and using fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF6).

• CO2 extinguishers: All companies covered by the report have CO2 extinguishers. Water and dry chemical powder (ABC) extinguishers do not emit greenhouse gases.

#### Indirect emissions caused by imported energy. Scope 2

The calculations of GHG emissions associated with the electricity consumption of the different TWG delegations are based on the activity data associated with each town, adding up the invoices month by month (kWh) for each supply point. This activity data is multiplied by the emission factor associated with the trader used in each delegation for the market-based calculation.

## Other indirect emissions. Scope 3

To calculate TWG's Carbon Footprint, the most significant categories for the group, belonging to Scope 3, are listed below:

#### **Category 1**

Supply of products and services

#### Category 3

Fossil fuel production

#### Category 4

Transport and distribution "upstream"

#### **Category 5**

Management of waste generated

#### Category 6

Business travel

#### **Category 7**

Commuting of employees to and from work

#### **Category 8**

Leased assets "upstream"

#### Category 9

Transport and distribution "downstream"

## **Uncertainty Analysis**

The emission factors used were taken from official sources. In other words, we have taken those reported by the Spanish Office for Climate Change (OECC) version 30 and the Department for Environment, Food & Rural Affairs (DEFRA version 1.1). Both versions from 2024. The GWP used is the one provided by MITECO version 30, updated in 2024 (IPCC AR6) for global emission factors.

The probability density functions are assumed to be normal and therefore the uncertainty of the emission factors is assumed to be low, especially considering that this is an indirect approach. Given the emission factors used, the possibility of gaps or errors in the records is minimised by the existence of an environmental management system subject to regular third party audits and being subject to regulatory verification.

## **Exclusions**

The GHG Protocol allows for the exclusion of GHG sources and sinks whose contribution to GHG emissions is not relevant. No significant GHG emissions have been excluded in this report within the scope considered (i.e. Scope 1 and Scope 2). **TWG** has not included in the calculation emissions from Scope 3 for which no information is available and therefore cannot be accounted for.

# **QUANTIFICATION OF TWG GHG EMISSIONS FOR** Y2024

The Carbon Footprint of **TWG** in the year 2024, i.e. the sum of the emissions accounted for in 2024, amounts to 1,072,907 Tn  $CO_2$ -eq

тwg	(Tn CO2eq)
Derivatives of fixed equipment	194.05
Derivatives of mobile equipment	506.38
Direct emissions generated	700.43
Indirect emissions from electricity consumption	2525.84
Indirect emissions from the value chain	1069681
Total emissions	1072907

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Total Emissions **TWG** 

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Total Emissions **TWG** 

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Total Emissions **TWG** 



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#### Comparative Summary of total emissions by Scope 1, 2 and 3 (Year 2024 vs. Year 2023 and Year 2022)

#### Emissions Ratio (Year 2024 vs. Year 2023 and Year 2022)

	2024	2023	2022	Difference 2024 vs. 2023	Difference 2024 vs. 2022	% change Year 2024 - Year 2022
Derivatives of fixed equipment	194.05	225	69	-30.95	125.05	181%
Derivatives of mobile equipment	506.38	370	408	136.38	98.38	19%
Indirect emissions from electricity consumption	2525.84	1978	3061	547.84	-535.16	-21%
Indirect emissions from the value chain	1069681	-	-	-	-	-

	2024	2023	2022	Difference 2024 vs. 2023	Difference 2024 vs. 2022	% change Year 2024 - Year 2022
Turnover (million €)	312	284	204.87	+28	+107.13	+34.33 %
Emission ratio (t CO2 eq. /million € turnover) Scope 1 and 2	10.33	9.06	17.27	+1.27	-6.94	-67.18 %
Emission ratio (t CO2 eq. /million € turnover) Scope 3	3424.45	-	-	+3424.45	+3424.45	100%
Total Emissions Datio						

Total Emissions Ratio (t CO2 eq. /million € turnover)

3434.78



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## Improvement plan

In the case of **TWG**, the improvement plan is focused on emissions produced in the last year of calculation 2023. In this case, the main GHG emissions are those from Scope 3, namely raw material consumption and transport of goods. However, within each of the scopes, the activities with the highest emissions are the consumption of fuels from stationary sources (Scope 1) and the consumption of electricity with respect to Scope 2.

After examining the alternatives for reducing emissions at the indicated sources, an improvement plan has been drawn up that includes the following actions (Table 1).

# Table 1. Actions foreseen in the improvement plan

Type of GHG emission	Source of emission	Action
Scope 1. Direct emissions.	Fleet of vehicles	10% reduction in the consumption of the company's own fleet of vehicles.
Scope 2. Electricity consumption	Indirect	Promote the purchase of electricity from renewable sources. It is proposed to procure 100% renewable energy at the sites in Germany.
	Consumption of raw materials	10% increase in recycled raw material is envisaged
Coora 7	Waste management	A 10% reduction in total waste is envisaged.
Scope 3	External travel	A 15% reduction in employee travel is envisaged.
	Transport of goods	A new freight procurement policy is proposed. which will increase to a total of 15% of transport to hybrid vehicles.





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For the following years, a gradual reduction of these categories by **5%** is proposed.

With the measures envisaged in this plan, it is estimated that the organisation will reduce its emissions in the following way:

Annuity	2024	2025	2026	2027	2028	2029	2030
Scope				t CO2e			
Scope 1							
Fixed installations	177.30	177.30	177.30	177.30	177.30	177.30	177.30
Vehicle fleet	506.29	455.66	410.10	369.09	332.18	298.96	269.07
Refrigeration/cooling equipment	16.19	16.19	16.18521	16.19	16.19	16.19	16.19
Fire-extinguishing equipment	0.56	0.56	0.56	0.56	0.56	0.56	0.56
Scope 2							
Electricity consumption	2,509.88	2,357.06	2,239.20	2,127.24	2,020.88	1,919.84	1,823.84
Scope 3							
WTT Fuel	569	569	540.82	513.78	488.09	463.69	440.51
Raw material	980,632	976,348.64	976,348.64	976,348.64	976,348.64	976,348.64	976,348.64
Upstream transport	2,774	2,774	2,774.02	2,774.02	2,774.02	2,774.02	2,774.02
Transport of goods	83,158	83,158	83,158	83,158	83,158	83,158	83,158
Waste management	549	494	496.30	445.84	423.54	402.37	382.25
Internal travel	1,389	1,389	1,389	1,389	1,389	1,389	1,389
External travel	457	410.92	390.38	370.86	352.32	334.70	317.96
Renting	138	138	138	138	138	138	138
Total emissions (kg CO2-eq)	1,072,876	1,067,726	1,068,070	1,067,847	1,067,637	1,067,440	1,067,253



The report has been verified, with limited assurance level, by European Quality Assurance Spain, S.L. (EQA), accredited as a Verifier of European Greenhouse Gas Emissions Trading Scheme Reports (EN ISO 14065:2021, Implementing Regulation (EU) 2018/2067 as amended by Implementing Regulation (EU) 2020/2084 and by Implementing Regulation (EU) 2024/90300 and EA-6/03), under No. 1/VV028 (previously No. 6/VCDE010).



#### Carbon Footprint Measurement Report Scope 1, 2 and 3

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You can find more information on sustainability at TW Group at:

https://tw-group.com/sostenibilidad/

