Telpark

Scope 3 Calculation Methodology

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Purpose

This document describes the methodology and assumption used, for each category, to calculate the Scope 3 emissions of Telpark value chain.

Scope

The system described applies to the calculation of Telpark Scope 3 emissions from its value chain at a global level. It considers all locations where Telpark operates and the operational centers it controls.
Telpark Scope 3 carbon footprint calculation is carried out considering the below-mentioned boundaries and scopes.

Organizational boundaries

The Telpark Scope 3 emissions calculation is carried out under the operational control approach, that is, on those activities/contracts which it has the authority to introduce and implement its operating policies.

Scope 3: Material categories

Scope 3 emissions are the consequence of the company's activity. They are neither emitted by company property sources nor by activities that are directly under its control. In 2022, Telpark estimated its Scope 3 emissions with the help of the former tool developed by Quantis and the GHG Protocol. The output of the estimation was used to identify the material Scope 3 categories.
Therefore, the considered emissions within this scope are the following:

- **Category 1 - Purchased products and services**: emissions from purchased or acquired goods necessary for the execution of the activity.
- **Category 2 - Capital goods**: emissions from final products that have an extended life and are used by the company to manufacture a product or provide a service.
- **Category 3 - Fuel and energy-related activities**: emissions from fuel and electricity production, transport, and distribution not already accounted for in Scope 1 or Scope 2.
- **Category 5 - Waste generated in operations**: emissions from waste (solid and liquid) management.
- **Category 6 - Business travel**: emissions from train and plane trips and business overnight stay of employees.
- **Category 7 - Employee commuting**: emissions from transportation of employees between their homes and their worksites.
- **Category 11 - Use of sold products and services**: emissions from the use of off-street parking lots for which Telpark has operational control.

Related documentation:

- Greenhouse Gases Protocol. Corporate Standard of Accounting and Report (GHG).
- Corporate Value Chain (Scope 3) Accounting and Reporting Standard. GHG Protocol.
- UK Department for Environment, Food and Rural Affairs (DEFRA): "Table 13" Indirect emissions from the supply chain

Methodology

Carbon footprint calculation process

Data compilation and report

All of Telpark's business areas relevant to the Scope 3 emissions calculation provided data. This relates to purchases (goods and capital goods, fuel, and electricity consumption, business travel, and waste

generation), the description of car parks and their use, the number of employees, and how they commute to the office.

Emissions calculation methodology

The methodology to calculate emissions is based on the GHG Protocol published by “The Greenhouse Gas Protocol Initiative”. All available data are included and consolidated in an Excel sheet.

To calculate the different categories of emissions, Telpark developed an Excel tool summarizing all inputs and relevant information to estimate emissions.

Factors used are published by DEFRA, the "UK Government GHG Conversion Factors for Company Reporting". All emission factors are from the latest available version at the time of the Scope 3 emissions calculation.

Category 1 – Purchased Goods and Services

Category 1: Purchased goods and services	
Scope 3 Standard category description	Upstream (i.e. cradle-to-gate) emissions from the extraction, production and transportation of goods and services purchased or acquired by the reporting company in the reporting year, where not otherwise included in category 2
Calculation status of FY2023 emissions in Telpark's value chain	Material, calculated
Calculation status rationale	These emissions are relevant as they may contribute to the exposure of our business to climate-related risk. In some instances we may have the ability to influence our suppliers or other service providers to reduce emissions from their activities. A high-level estimate has been calculated for completeness and transparency.

Calculation boundary:

This category covers emissions generated upstream of Telpark's operations associated with the extraction, production, and transportation of goods and services purchased or acquired by Telpark during the reporting year.
Emissions associated with goods and services categorized as relating to fuel and energy-related activities, waste business travel, and employee commuting are not included in this category. These are assigned to separate emissions categories (categories 3, 5, 6, and 7 respectively).

Exclusions:

None. Emissions associated with all spending on goods and services not directly attributable to another Scope 3 category have been included in this estimate.

Calculation methodology:

The 'spend-based' method is used to calculate these emissions, with industry-average emissions factors applied based on the economic value of the goods and services. The calculations are made in pounds according to DEFRA's "TABLE 13".

Spend data is broken down according to Telpark's internal description. Based on key words in the description of purchased products and services, each name of the General Ledger Account is allocated manually to the most appropriate/best available category presented within the DEFRA ("Table 13" Indirect emissions from the supply chain). "Taxes" are not included in the purchased products and services. We're not considered as they should not be accounted for in Scope 3.

The corresponding emissions factors are then applied to calculate the overall emissions estimate for this category (correspondence between purchase and emissions can be found in the sheet "*DEFRA Correspondence Table*" of the model.

Next year, Telpark will use a hybrid-method to quantify its Scope 3 emissions resulting from Purchased Goods and Services and from Capital Goods. Telpark will collect data from its top 10 suppliers and use the spend-based method leveraging the DEFRA correspondance table for the rest of purchases.

Category 2 – Capital Goods

Category 2: Capital Goods	
Scope 3 Standard category description	Upstream (i.e. cradle-to-gate) emissions from the extraction, production and transportation of capital goods purchased or acquired by the reporting company in the reporting year.
Calculation status of FY2023 emissions in Telpark's value chain	Material, calculated
Calculation status rationale	Purchases of capital goods has been captured with the same calculation methodology as for category 1.

Calculation boundary:

This category covers emissions generated upstream of Telpark's operations associated with the extraction, production and transportation of goods purchased or acquired by Telpark and which will be part of Telpark's capital during the reporting year.

Exclusions:

None. Emissions associated with all spendings on goods and services not directly attributable to another scope 3 category have been included in this estimate.

Calculation methodology:

The 'spend-based' method is used to calculate these emissions, with industry-average emissions factors applied based on the economic value of the goods and services, as described in the calculation methodology for the Purchased goods and services category (category 1).

Category 3 – Fuel and Energy-related Activities (not included in scope 1 or 2)

Category 3: Fuel and energy-related activities not included in scope 1 or 2	
Scope 3 Standard category description	Emissions related to the extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, not already accounted for in scope 1 or scope 2.
Calculation status of FY2023 emissions in Telpark's value chain	Not material, calculated
Calculation status rationale	Although this is not a material source of Scope 3 emissions in Telpark's value chain, consumption of fuels and energy represent a material contribution to our scope 1 and 2 operating emissions; the associated scope 3 emissions are therefore also of interest.

Calculation boundary:

This category covers emissions arising from the extraction, production, and transportation of fuels and energy consumed by the vehicles and facilities over which Telpark has operational control, primarily (i) upstream emissions from the extraction, production, and transportation of fuels (e.g. diesel for trucks or natural gas) we purchase for our operations, and (ii) upstream emissions from the extraction, production, and transportation of fuel (e.g. coal, natural gas, etc.) burned to generate the electricity we purchase from the grid.

Note: Emissions from the combustion of fuels at our facilities are accounted as Scope 1 emissions. Similarly, emissions from the generation of purchased electricity consumed by Telpark are accounted as Scope 2 emissions.)

Exclusions:

None. Emissions associated with all spending on fuel not accounted in Scope 1 or Scope 2 category have been included in this estimate.

Calculation methodology:

DEFRA's well-to-tank (WTT) conversion factors have been used to account for the upstream Scope 3 emissions associated with extraction, refining and transportation of the raw fuel sources to an organization's site.

These conversion factors are multiplied by the fuel, natural gas and electricity consumptions of the vehicles and facilities over which Empark has operational control:

$$\underline{Energy\ consumption\ x\ WWT\ conversion\ factor}$$

Category 5 – Waste Generated in Operations

Category 5: Waste generated in operations	
Scope 3 Standard category description	Emissions from third-party disposal and treatment (in facilities not owned or controlled by the reporting company) of waste generated in the reporting company's operations in the reporting year.
Calculation status of FY2023 emissions in Telpark's value chain	Material, calculated
Calculation status rationale	This category has been identified as not material to the Scope 3 inventory for our business. Telpark's operations generate minimal quantities of domestic waste resulting in few GHG emissions.

Calculation boundary:

This category covers emissions arising from third-party disposal and treatment of all types of waste generated in Telpark's operations in the reporting year.

Exclusions:

The emissions of car parks in Andorra and Turkey have not been considered in this report because their relevance compared to the rest represent less than 1%.

Calculation methodology:

DEFRA's conversion factors have been used to quantify the impact of waste-related emissions according to the type of the waste and the destination (closed loop, combustion, or landfill disposal).

These conversion factors are multiplied by the amount of waste generated at the facilities over which Empark has operational control.

$$\underline{Quantity\ of\ waste\ x\ Waste\ disposal\ conversion\ factor}$$

Category 6 – Business Travel

Category 6: Business travel	
Scope 3 Standard category description	Emissions from the transportation of employees for business-related activities during the reporting year (in vehicles not owned or operated by the reporting company).
Calculation status of FY2023 emissions in Telpark's value chain	Material, calculated
Calculation status rationale	This is not a material source of scope 3 emissions in Telpark's value chain. A high-level estimate has been calculated for completeness and transparency.

Calculation boundary:

This category covers emissions from all domestic and international flights and road transport undertaken by employees for business travel purposes, as well as other purchased business travel services (hotel accommodation) as identified from annual spending data.

Exclusions:

None. Emissions associated with all spending on travel and hotel accommodations have been included in this estimate.

Calculation methodology:

For flights and rail transport, the distance-based method is used to calculate these emissions, with industry average emissions factors applied based on trip distance*.

The conversion factors used are the DEFRA factors. For flight transport, emissions are calculated for each leg of the flight performed, distinguishing whether it is domestic or international flight and multiplying by the corresponding conversion factor.

For train journeys, the same criterion has been used, distinguishing whether they are domestic or international journeys.

For hotel accommodation, the average-data method is used to calculate these emissions, with hotels' average emissions factors applied based on the country. The corresponding emissions factors from the DEFRA table are then applied to calculate overall emissions for this category.

* Data source for Flights distance:
https://www.icao.int/environmental-protection/Carbonoffset/Pages/default.aspx

*Data source source for train distance:
https://www.thetrainline.com
https://es.distance.to/

*Data source for FE hotels:
DEFRA,
https://www.hotelfootprints.org/

Category 7 – Employee Commuting

Category 7: Employee commuting	
Scope 3 Standard category description	Emissions from the transportation of employees between their homes and their worksites during the reporting year (in vehicles not owned, leased, or operated by Telpark).
Calculation status of FY2023 emissions in Telpark's value chain	Material, calculated
Calculation status rationale	This is a material source of Scope 3 emissions in Telpark's value chain. A high-level estimate has been calculated for completeness and transparency.

Calculation boundary:

This category covers emissions from the different transportation means utilized by employees for commuting purposes.

Exclusions:

Emissions from employee commuting activities for which data is not available are excluded.

Calculation methodology:

To calculate the associated emissions, a survey was sent in 2022 to employees to understand their mobility patterns at country level in most of the geographies in which the organization operates (Portugal, Spain, Turkey). Andorra was accounted as Spain.
As the results do not vary much from year to year, it has been decided to send out the survey every two years. However, the data on the number of employees used for the calculation of emissions is updated on an annual basis.
The survey provided information on the number of days of commute to the office, the distance traveled, the transportation means used and type of fuel.
While not all employees responded to the survey, we estimated that the sample represented a good estimate of the overall Telpark employees and applied the same ratio for the whole company. The survey received 496 answers for 1620 at the time.

The criteria taken into account were:

- Rows with 0 km are disregarded
- Rows indicating that the transport used is a vehicle (car, bus, etc.) but with Km marked "not applicable" are disregarded.
- Rows with "on foot" indicating fuel are disregarded.
- When there are several response options for transport used, the most restrictive one is taken and the conversion factor corresponding to that option is used.
- When the answer for the transport used is "car" but no fuel type is indicated, it is disregarded.
- Only days spent in the office have been considered, not taking into account days spent working at home.
- All discarded responses are subtracted from the total number of surveys.

In future years, the questions asked will be redefined so that only one of the options is chosen, and/or each question is asked conditionally.
Based on this information, we estimated the emissions using the distance-based method, using the conversion factors of DEFRA.

Category 11 – Use of Sold Products

Category 11: Use of Sold Products	
Scope 3 Standard category description	Emissions from the end use of goods and services sold by the reporting company in the reporting year.
Calculation status of FY2023 emissions in Telpark's value chain	Material, calculated
Calculation status rationale	This is a material source of Scope 3 emissions in Telpark's value chain.

Calculation boundary:

Telpark offers parking services to its customers. Emissions from the vehicles using off-street car parks for which Telpark has operational control are estimated for this category.

Exclusions:

Emissions associated with all use of sold services have been included in this estimate.
In Iberia, on-street parking and parking for which Telpark does not have operational control have been excluded.
The following emissions have not been considered in this report because their relevance compared to the rest is minimal: car parks in Turkey and Andorra. These represent less than 1,5%.

Calculation methodology:

Telpark provides two different types of parking services: on-street and off-street. Telpark has no operational control on emissions associated with on-street parking. Hence, they have not been taken into account. This estimation therefore only includes emissions from off-street car parks. Those car parks for which Telpark has no operational control, and therefore cannot affect emissions, have been excluded as well.

Based on scientific studies[1] on cruising distance in a car park, category 11 emissions are calculated by multiplying the estimated cruising distance needed for a car to park during peak* and non-peak hours* by the emissions factors from the DEFRA database associated with the passenger vehicles' emission factors.
**Peak hours are defined as the busiest hours for the entry and exit of vehicles and non-peak hours are defined as the off-peak times for vehicle entry and exit of vehicles*.

To estimate the cruising distance, we:

- **Estimated the length of the side of each car park**. This was done by dividing the total area of each car park by its respective number of floors and making the assumption that all car parks are squared. The assumption that all car parks are squared is made to estimate the length of the side of each car park by using a square root.
- **Estimated the number of cars coming to each car park**. We have the overall number of cars coming in and out of all off-street car parks per hour and the average occupancy rate of all the car parks per hour. [2]

[1] Paidi, V.; Håkansson, J.; Fleyeh, H.; Nyberg, R.G. CO_2 Emissions Induced by Vehicles Cruising for Empty Parking Spaces in an Open Parking Lot. *Sustainability* **2022**,*14*,3742. https://doi.org/ 10.3390/su14073742

[2] DDBB of Data Science Department.

Based on the ratio of parking space between car parks for which Telpark has operational control and the ones for which it does not have operational control, we estimated the number of cars coming in car parks for which Telpark has operational control.

$$\frac{No.entries\ x\ No.total\ spaces\ with\ operational\ control}{No.total\ spaces}$$

Applying a ratio between the number of spaces of each car park and the total number of spaces, we estimated the number of cars coming in each parking at each hour for working days (Monday, Tuesday, Wednesday, Thursday, and Friday) and for the weekend.

- **Calculated the number of cars each level could host** and therefore the percentage of occupancy each level hosts at each parking. Data that will later be used to calculate the cruising distance.

$$\frac{No.entries\ per\ level * No.entries\ when\ occupation\ level\ is < \%occupancy\ per\ level}{No.total\ entries}$$

We assume here that each floor is never 100% occupied, there is always 1% vacancy.

With the above stated and based on the occupancy rate, we estimated the cruising distance in two manners of calculation:

A) The first calculation is for "old" car parks where the layout does not allow to restrict the access to full floors. Therefore, any vehicles entering the car park have to drive through one floor in order to reach the next one.

B) The other calculation approach is most suitable for modern and new car parks, where the layout allows restricting the access to a full floor, allowing incoming vehicles to go directly to the next floor that has parking spaces available.

For modern and new car parks, we estimated the cruising distance in this manner:

- If the occupancy rate is below the percentage occupancy for one level, to enter the parking lot, a vehicle travels two sides of the first floor to park. The vehicle then travels the same distance to exit the parking lot. The distance covered is therefore equivalent to the perimeter of the first floor.
- If the occupancy rate is above the percentage occupancy for one level but below the percentage occupancy for two levels to enter the parking lot, a vehicle travels two sides of the first floor and then two sides of the second floor to park and travels the same distance to exit (2 perimeters). Assuming the second floor is at 100% occupancy, the vehicle travels two sides of the first floor, two sides of the second floor and two sides of the third floor to park and travels the same distance to exit (3 perimeters). And so on, if the car park has more floors.

$$\frac{Size\ x\ 2\ x\ (No.cars\ 1st\ floor + 2\ x\ No.cars\ 2nd\ floor + 3\ x\ No.cars\ 3rd\ floor)\ x\ 2}{1000}$$

For "old" car parks, we estimated the cruising distance in this manner:

- If the occupancy rate is below the percentage occupancy for one level, to enter the parking lot, a vehicle travels two sides of the first floor to park. The vehicle then travels the same distance to exit the parking lot. The distance covered is therefore equivalent to the perimeter of the first floor.

- If the occupancy rate is above the percentage occupancy for one level but below the percentage occupancy for two levels to enter the parking lot, a vehicle circles the first parking floor and then travels two sides of the second floor to park. The vehicle then travels the same distance to exit the parking lot. The distance covered is therefore equivalent to three times the perimeter of one floor. And so on, if the parking has more floors.

$$\frac{Size\ x\ 2\ x\ (No.cars\ 1st\ floor + 3\ x\ No.cars\ 2nd\ floor + 5\ x\ No.cars\ 3rd\ floor)\ x\ 2}{1000}$$

As emissions per km traveled are dependent on the type of vehicle, we applied the Spanish and Portuguese vehicle fleet profile (share of Diesel, Gasoline, other (Hybrid/electric- cars) to the define the type of vehicles coming to our car parks.

Based on the client vehicle profile and the overall cruising distance, we used the DEFRA factors to estimate the emissions associated the use of services.

The total amount of emissions shall be the average of emissions calculated for old car parks and for modern car parks.

Appendix: References, Terms, and Definitions

References

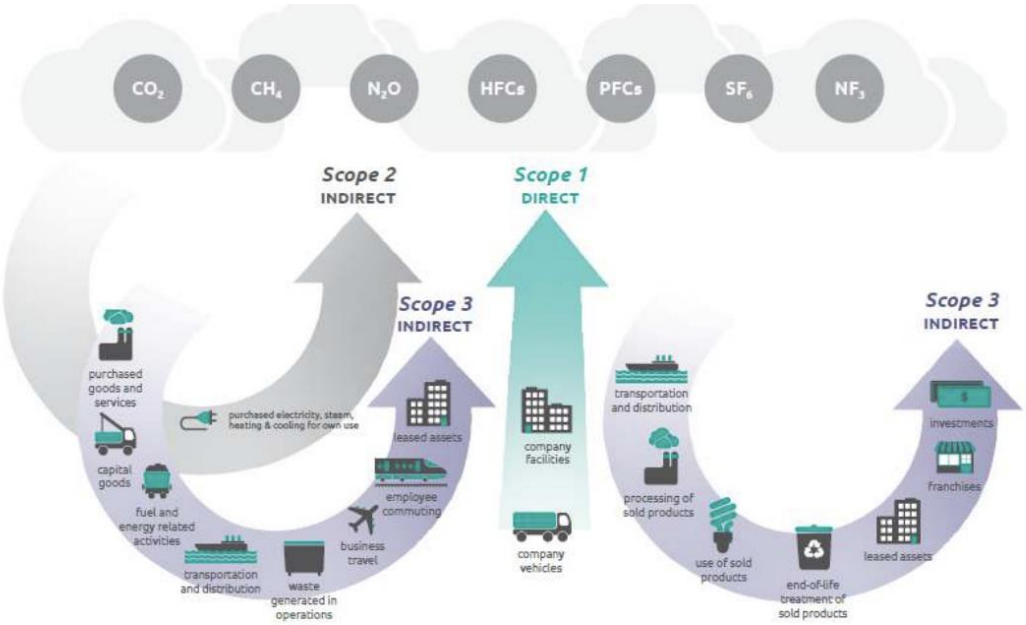
The reference to the workplace is also to site, project, service, operational center, and vice versa.

Terms and Definitions

Carbon Footprint:
The total amount of greenhouse gases emitted directly or indirectly by a company.

Greenhouse Gas (GHG):
A 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 surface of the earth, the atmosphere, and clouds. GHGs are measured in equivalent tons of CO_2 (tCO_2eq) and the six gases listed in the Kyoto Protocol are: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulfur hexafluoride (SF_6).

CO2eq Emissions:
These are the set of greenhouse gas emissions, which in the case of Telpark are made up of CO_2, CH_4, N_2O, and F-gas emissions.



Source: GHG Protocol. Corporate standard of accounting and report. WRI/WBCSD.

Scope 1: Direct emissions GHG
Scope 1 emissions are direct emissions from company-owned and controlled resources.

Scope 2: Indirect emissions GHG
These are emissions from the purchased or acquired electricity or heat generation and consumed by the company. These emissions occur in the plant where the energy is generated.

Scope 3: Other indirect emissions

This category includes the rest of the indirect emissions. These emissions GHG are the consequences of the company activity, but they are emitted neither by company property sources nor by activities that are not under its direct control. The 15 categories proposed by GHG Protocol in its standard "Corporate Value Chain (Scope 3) Accounting and Reporting Standard" are the following:

1. Purchased goods and services
2. Capital goods
3. Fuel and energy related activities (not included in scope 1 and 2)
4. Upstream transportation and distribution
5. Waste generated in operations
6. Business travel
7. Employee commuting
8. Upstream leased assets
9. Downstream transportation and distribution
10. Processing of sold products
11. Use of sold products
12. End-of-life treatment of sold products
13. Downstream leased assets
14. Franchises
15. Investments

Source of greenhouse gases
Chemical unit or process that releases GHG into the atmosphere.