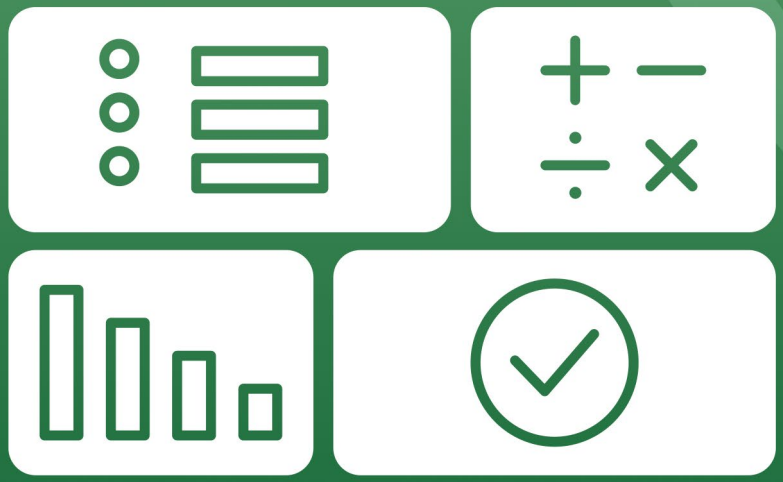
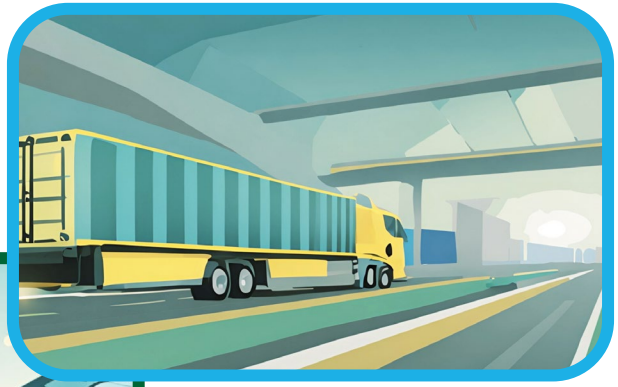
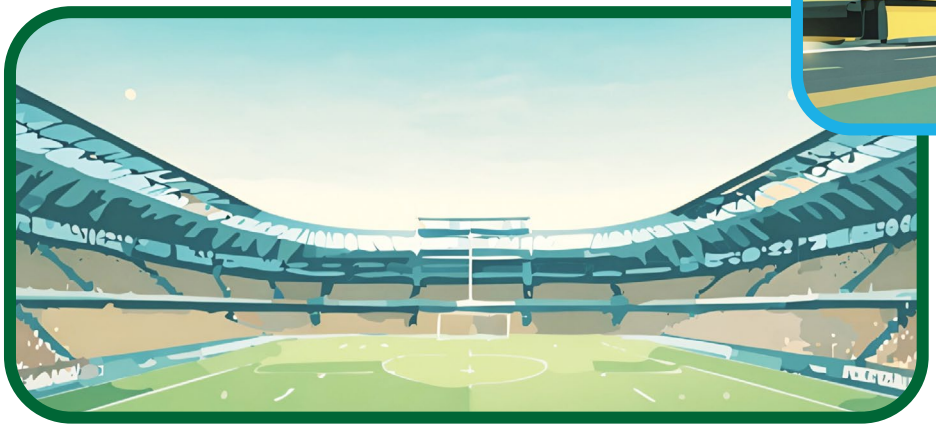


UEFA CARBON FOOTPRINT CALCULATOR

METHODOLOGY

Contents





Purpose

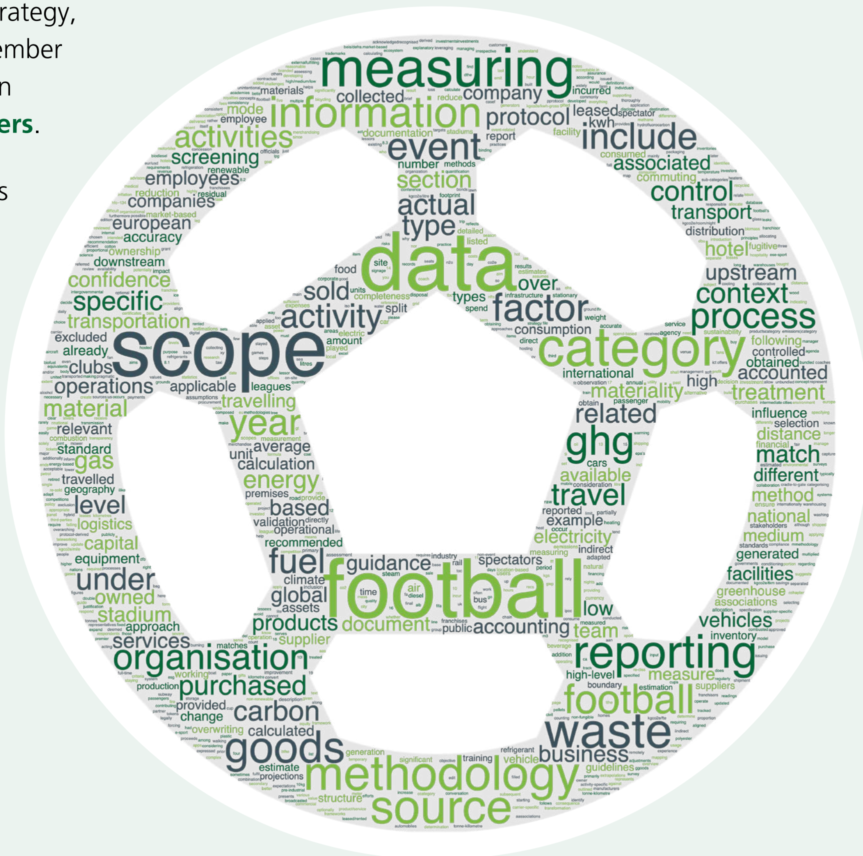
UEFA acknowledges the environment's fragility and our **responsibility to minimise our impact**, and the impact of European football. Climate & advocacy is a crucial element of the UEFA Strength Through Unity sustainability strategy, and through it we commit to actively supporting member associations and the European football community in becoming **drivers of change, not passive observers**.

It is our duty to assist clubs, leagues and associations in driving this change by providing the tools and guidance they need as every effort plays a part in the collective impact we aim to achieve.

Our ambition is to show the world that **football can be part of the solution in the collective drive towards reducing carbon emissions**. By developing the UEFA Carbon Footprint Calculator, we want to be **catalysts on the drive to reduction in football, zooming in on the importance of measurement as a key strategic step**.

That is why we have made a **significant and long-term investment in the creation of the UEFA Carbon Footprint Calculator, available to all football stakeholders as their first step on the road to reduction**.

The online tool helps users calculate and understand their emissions, particularly those related to more football-specific areas, such as **mobility, facilities, purchased goods and services, as well as logistics**.



To help users get started we have produced a **User Guide and a selection of tutorial videos**. If they want to deepen their operational understanding of the UEFA Carbon Footprint Calculator, users can read the full methodology document.

Based on the internationally recognised Greenhouse Gas Protocol, validated by a third party, and piloted by several football organisations in its development phase, the Calculator has been designed to support all endeavours to manage and reduce carbon emissions in a **simplified and cost-effective way**. This investment in a collective approach will **improve consistency, provide clarity of reported information and support efforts toward comparability over time**. The calculator is aligned with and anticipates the requirements of the new EU Corporate Sustainability Reporting Directive (CSRD).

Along the way, we want to demonstrate to governments, investors, fans and commercial partners that **football is tackling this challenge in a unified and strategic manner**.

We **encourage all actors in the football ecosystem to embark on this strategic journey**, and stand ready to support organisations in their efforts.

1. Introduction

SECTION 1

Introduction

FOOTBALL CONTEXT

The Paris Agreement on Climate Change, the UN Sports for Climate Action Framework, the European Climate Pact and the European Green Deal have sent a decisive and global signal that the transition to a thriving, green economy is imperative. Each societal actor must be part of the solution toward reduction in the crucial years ahead and football can play an important role.

Football's environmental impact is mainly related to the organisation of events as well as infrastructure construction and management, with impacts across travel, transport, energy and waste management, for example.

Acknowledging the environment's fragility and the responsibility to minimise its impacts, associations, leagues and clubs across the football pyramid can act as drivers of change – backed by tools and guidance, and leveraging the reach of the sport to raise awareness and catalyse action across communities.

CARBON EMISSIONS IN FOOTBALL – WHAT DO WE NEED TO MEASURE?

The operations of football organisations inevitably result in carbon emissions. UEFA, in collaboration with football stakeholders, has identified the main factors to consider when assessing the carbon impact of football organisations, including their headquarters, training facilities and stadiums. The emissions occurring during the construction phase are treated in further details in the Embodied carbon emissions in football infrastructure construction methodology.

THESE FACTORS ARE:

MOBILITY

Generally speaking this encompasses travel and accommodation by individuals, including employees, teams, officials, guests and spectators.

FACILITIES

Energy and water consumption, as well as the waste generated, at various football facilities, including stadiums, training facilities and offices, but also the embodied carbon emissions occuring during construction phase.

GOODS & SERVICES

Everything you buy, from the food sold at concessions to branded products and merchandising.

LOGISTICS

The transportation of goods by road, sea or air freight.

UEFA'S ROLE

As part of its Football Sustainability Strategy 2030 'Strength through Unity', UEFA is committed to contributing to environmental preservation and regeneration, leveraging the power of football to raise awareness and catalyse action.

UEFA addresses its climate impact through its Climate & Advocacy policy, implemented as part of its overarching strategy. Investments are being made to reduce both direct and indirect emissions from UEFA's operations and events, establishing the organisation as a credible partner for those engaged in climate protection.

As part of its efforts to rally European football stakeholders behind the climate agenda, UEFA has invested in the development of the UEFA Carbon Accounting Methodology (the methodology) and a Carbon Footprint Calculator tool.

The methodology has been developed in collaboration with football stakeholders and is derived from the Greenhouse Gas (GHG) Protocol, the most widely used international accounting standard to measure and report greenhouse gas emissions. (See Chapter 3 for further information on compliance).

WHY HAS THE UEFA CARBON ACCOUNTING METHODOLOGY BEEN DEVELOPED?

The methodology offers tailored guidance in a football context for measuring and reporting carbon emissions in accordance with recognised standards.

Applying this methodology allows football organisations to:

- measure, manage and disclose GHG emissions based on a single, approved framework;
- simplify and reduce the cost of compiling a GHG inventory by leveraging collective investments;
- improve the consistency and transparency of reported information, making it easier to track and compare progress over time;
- respond to voluntary reporting frameworks, fulfilling the expectations of stakeholders (civil society, football fans, media, partners) and satisfying forthcoming sustainability reporting regulations.

Additional benefits include:

- gathering input to develop a data-driven strategy to manage and reduce GHG emissions;
- contributing to a broad European benchmark.

INTENDED AUDIENCE

The methodology presented in this document is designed to be used by **football organisations, national football associations, leagues and clubs**.

A COLLABORATIVE APPROACH

The methodology has been written in collaboration with representatives of European national associations, leagues and clubs.

To help football stakeholders measure and reduce emissions, UEFA has initiated a Working Group comprising representatives of national associations, leagues and clubs who have experience in reporting their emissions. The Working Group's initial aim was to agree on a methodology based on the realities and best practices of football.

Collaboration and joint investment throughout the football ecosystem are essential to establish, refine and test a methodology in order for it to be recognised as the reference framework for GHG emissions in football organisations.

The Working Group was supported by external advisors who provided subject matter expertise and guidance on legislation and relevant databases to ensure alignment with internationally recognised frameworks.

The consultation process was based on a series of workshops. The objective was to discuss materiality concepts and the accounting approaches for GHG emissions for all carbon categories while comparing current accounting practices and sharing experiences.

THE DEVELOPMENT PROCESS IN BRIEF

The methodology development process consisted of four steps:

1. Identification of football activities that emit carbon by means of a materiality assessment.
2. Allocation of the activities deemed material to the appropriate GHG reporting category.
3. Verification of completeness to address any gaps with the GHG Protocol.
4. Elaboration of reporting guidance.
5. Recommendation on documentation procedures.
6. In a second phase, development of Embodied carbon emissions in football infrastructure construction.

NATIONAL ASSOCIATIONS

- Austria – OEFB
- Denmark – DBU
- France – FFF
- Germany – DFB
- Liechtenstein – LFV
- Netherlands – KNVB

EXTERNAL ADVISORS

- Ariela Carielo, PhD, Associate Professor, Department of Accounting, Bocconi University
- Sport Positive
- UL EHS Sustainability
- United Nations Framework Convention on Climate Change (UNFCCC)

The working group was constituted of sustainability managers of six national associations, 13 clubs and one league. External advisors supervision ensured the developed methodology remained aligned with international standards.

CLUBS

- Arsenal FC
- AS Roma
- Eintracht Frankfurt
- Mainz 05
- Manchester City
- Newcastle United
- Olympique Lyonnais
- Porto FC
- Real Betis
- RB Leipzig
- Southampton FC
- VfB Stuttgart
- VfL Wolfsburg

LEAGUES

- The Premier League

METHODOLOGY VERIFIED BY THIRD PARTY

UEFA, throughout the document "UEFA Carbon Accounting Methodology" vers 5 (date: 07.02.2024) presents a framework for the European football ecosystem to establish and implement a GHG accounting and reporting system. It is based on the "Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition (2004; 'Corporate Standard')" and the "EPA guidance on measuring direct emissions associated with events".

This methodology is proposed as a non-binding guidance to national associations, clubs and leagues to measure and report GHG emissions. No data verification and no validation of estimations and emissions factors were carried out as part of this validation. In the absence of calculated GHG emission inventories, no validation was carried out to verify the implementation of the "UEFA Carbon Accounting Methodology". SGS has planned and performed the current work to obtain the information, explanations and evidence considered necessary to validate the methodology used.

STATEMENT OF OPINION

Based on process and procedures conducted, SGS concludes that the presented "UEFA Carbon Accounting Methodology" vers 5 (date: 07.02.2024): Is based on the requirements of the "Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition (2004; 'Corporate Standard')" and the "EPA guidance on measuring direct emissions associated with events".

This opinion shall be interpreted with "UEFA Carbon Accounting Methodology" vers 5 (date: 07.02.2024) as a whole.

Full details in Appendix 8.9

2.
How to use this document

SECTION 2

How to use this document

DOCUMENT STRUCTURE

This document outlines the carbon methodology for the various emission scopes and categories. Explanatory notes on excluded emissions and category definitions are found in the overview of the UEFA Carbon Accounting Methodology (Chapter 3). Guidelines for screening for high levels of materiality are documented in the Detailed Carbon Accounting Methodology section (Chapter 4). Additional materials, including default emission factors, are provided in the Appendix.

The following headings are used throughout the document to describe the material categories of carbon emissions.

Category definition

The general definition of emissions included in the category, based on GHG Protocol reporting. This also includes the definition of the category in the context of football operations (e.g. the treatment of emissions under Scope 3 transportation and distribution categories, or other event-related activity).

Materiality of the category to the organisation

The materiality of the categories included in the reporting scope can be specified as high/medium/low or as a percentage.

Level of influence to drive reduction

This specifies the extent to which potential emission reductions could be undertaken or influenced by the organisation (applicable to Scope 3 categories only).

Confidence in data completeness and accuracy

A holistic summary of data quality using high/medium/low criteria.

Summary of calculation

The formula used to calculate the carbon emissions of the category in kgCO2e.

Activity data information	
Activity data source information	○ Where does the activity data come from, what changes are made to the activity data before being used in the carbon calculation? ○ What assumptions are made when collecting the activity data? ○ Confirmation of where the activity data evidence can be found.
Frequency of collection	○ How often will the activity data be collected?
Data ownership and validation process	○ Who is the owner of the required data? ○ Who is the validator of the received data? ○ How many levels of review are in place? For example, a specialist may collect consumption data on site and then pass it on to the facility manager for review. Once the facility manager has checked the data it is transferred to the global sustainability team for final approval.
Emission factor source information	
Geography	○ Regional information about emission factors. If the most specific factors are not used, justification is required. This is in line with best practice carbon reporting, where local emission factors from verified sources are preferable to global emission factors.
Source	○ The database from which factors are sourced. ○ Types of emission factor used. ○ The initial recommended emission factor values are described in Appendix 8.3.
Process for EF overwriting	○ How supplier-specific emission factors can replace factors from the default source (e.g. national average).

Identified areas for improvement in data accuracy, completeness and measurement

This section includes any actions or recommendations for the organisation in order to improve the completeness and/or quality of the data or improve the data capture processes to reduce the manual data burden. It is only visible when areas for improvement are identified.

Explanation of GHG accounting treatment

When relevant, this section explains why emissions are accounted for under a specific category (e.g. leased assets reported in Scope 1 and 2 rather than Scope 3).

Note: *The methodology outlined serves as a flexible, pragmatic starting point for measuring GHG emissions. While organisations can deviate if necessary, clear documentation is required, especially when measuring additional Scope 3 categories or categorising them differently. If organisations do not already have a carbon methodology document, it is highly recommended that they adapt this document to align with their practices.*

ABOUT THE METHODOLOGY

This document helps users align with ISO14064-1 for limited and reasonable assurance engagement. It was created as a central document for storing information about GHG emission accounting methods, carbon categories and data quality details. It serves as a starting point for measuring GHG emissions, without requiring organisations with advanced processes to change their approach. Additionally, the document highlights recommended areas for improvement and supports the development of public-facing materials such as sustainability reports.

Carbon methodology documents can be subject to change if the organisational structures, data processes or reporting boundaries change. Document users are advised to ensure, in each reporting period, that any changes to the methodology have been recorded and approved by relevant stakeholders. The carbon methodology should remain up to date so that each year it can present accurate information on how GHG emissions are calculated and collected (data sources used).

Changes to the methodology or carbon calculation approach could be prompted by the following:

- **Changes of the reporting boundary** – for example, deciding to include emissions from activities beyond operational control, such as spectators travelling to events.
- **Changes in activities related to Scope 1 or Scope 2 emissions** – for example, if on-site combustion of additional fuels, such as gas oil, occurs.

- **Changes of Scope 3 categories** – for example, if additional Scope 3 categories are included in the GHG emissions inventory, such as investments.
- **Changes of emission factors used** – for example, if new emission factor sources, such as IPCC, or additional types, are introduced to the existing set, for instance DESNZ/DEFRA. All emission factors are updated following the release of new factors by DESNZ/DEFRA or the IEA. Best practice recommends aligning the implementation date of new emission factors with the first day of the financial year or season. If a new version of emission factors is released mid-year, it is recommended that the factors should not be updated until the next financial year or season. This avoids using multiple emission factors during the same period.
- **Changes of data sources used/data availability** – for example, if activity data for owned vehicles relies solely on distance without considering fuel. The methodology should also be updated if there is a change in the activity data assumptions used for estimates.

DOCUMENT CHANGE CONTROL AND HISTORY

Date	Actioned by	Decription
24.11.2023	UEFA Social & Environmental Sustainability Division & Working Group	Final draft
22.12.2023	SGS Lead Auditor	Initial review
07.02.2024	UEFA Social & Environmental Sustainability Expert	Final version
08.02.2024	SGS Technical Reviewer	Statement of opinion realease

The UEFA Carbon Accounting Methodology has been validated using ISO 14064-3:2019 as addressing the principles and rules laid down in **Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition (2004; 'Corporate Standard')** and **EPA Guidance on measuring indirect emissions associated with events**; annex 8.9 disclose the statement of opinion released by SGS.

DOCUMENT VERSION CONTROL

Version	Comments	Section changed	Date
1.0	Original		06.03.2024
2.0	Integration of embodied emissions (scope 3 category 2) methodology – available as stand alone document	P47	05.06.2025
3.0	Integration of spectators' mobility carbon emissions (scope 3 category 9)	P14, 61-74, 84-86, 94	13.08.2026

3.
UEFA Carbon Accounting Methodology overview

SECTION 3

UEFA Carbon Accounting Methodology Overview

COMPLIANCE WITH INTERNATIONAL STANDARDS

Carbon footprint measurement indicates the environmental impact of activities by individuals, organisations or countries over a specific period. The process follows an internationally recognised methodology, with different standards applicable to products, services and organisations. The methodology in this document aligns with three existing international standards: the GHG Protocol Corporate Accounting and Reporting Standard (revised edition, 2004) (hereinafter the 'GHG Protocol'), ISO 14064-1 and EPA guidance for measuring indirect emissions from events.

Emissions are mainly accounted for in accordance with the GHG Protocol, a globally recognised standard for carbon emissions reporting widely used by governments, cities, sport organisations such as FIFA and companies worldwide.

Additionally, the UEFA Carbon Accounting Methodology follows EPA guidance on measuring indirect emissions for events. This guidance is primarily intended to be used by organisations to account for emissions from events they have hosted or licensed. The methodology is further informed by the ISO 14064-1 standard and its guidance for quantifying and reporting greenhouse gas emissions at organisation level.

More information about the GHG Protocol, ISO 14064-1 standard and EPA guidance on carbon methodology for events can be found in Appendix 8.1.

General carbon accounting principles

The table on this page summarises the GHG accounting principles applied by international standards and followed by the UEFA Carbon Accounting Methodology.

Direct and indirect emissions

All accounted GHG emissions adhere to the GHG Protocol's reporting treatment and are categorised as direct or indirect emissions. Direct GHG emissions arise from sources that are owned or controlled by the organisation. Indirect GHG emissions are a consequence of the activities of the reporting organisation, but occur at sources owned or controlled by another organisation.

The three scopes used for the accounting of GHG emissions are:

- **Scope 1:** direct emissions from fuel combustion by owned machines, boilers and vehicles.
- **Scope 2:** indirect emissions from the generation of purchased energy, such as electricity, steam, heat or cooling.
- **Scope 3:** indirect emissions from upstream and downstream activities, such as travel, purchased goods and services or the transportation, distribution of goods, embodied carbon emissions in football infrastructure construction and ticket holders (spectators) mobility.

PRINCIPLE	DEFINITION
Relevance	Ensure the GHG inventory appropriately reflects the GHG emissions of the organisation and serves the decision-making needs of users – both internal and external to the organisation.
Completeness	Account for and report on all GHG emission sources and activities within the chosen inventory boundary. Disclose and justify any specific exclusions.
Consistency	Use consistent methodologies to allow for meaningful comparisons of emissions over time. Transparently document any changes to the data, inventory boundary, methods or any other relevant factors in the time series.
Transparency	Address all relevant issues in a factual and coherent manner, based on a clear audit trail. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.
Accuracy	Ensure that the quantification of GHG emissions is systematically neither over nor under actual emissions, as far as can be judged, and that uncertainties are reduced as far as practicable. Achieve sufficient accuracy to enable users to make decisions with reasonable assurance as to the integrity of the reported information.

METHODOLOGY DEVELOPMENT PROCESS

This section provides a detailed description of the process steps described in the introduction.

Step 1 - Materiality assessment

The materiality assessment was based on exchanges with the various competence centres at UEFA and validated through the development of the methodology with the organisations involved (Section 1, collaborative approach).

The general criteria that normally applies led to the results described in the introduction chapters and that were summarised in what activities leads to emissions, where those activities occur and do the organisation has control over that activity.

Football carbon emissions were categorised in four categories; mobility, facility, goods and services and logistics.

Where do they occur? In the organisation offices, headquarters, summarised as "internal organisation", and then, if applicable (not applicable to all football organisation) a stadium and a training centre.

This model is for reference only, as each organisation has its own organisational model with more or less control, therefore the impact vs control mapping will vary.

Step 2 - Mapping the carbon emissions of football activities

This section outlines the relationship between football activities and the GHG Protocol reporting categories, along with the concepts of reporting boundaries in terms of scope and timeframe.

The GHG Protocol requires emissions to be reported in standardised categories, known as 'scopes', to facilitate comparisons across diverse organisations and industries.

Figure 1 shows how football activities can be reported through the GHG Protocol scopes. Figure 1 serves as a recap of the tables on the next page that provides further details:

- Scope 1 covers **direct emissions** from energy use for owned and rented infrastructure (natural gas, diesel, coal) as well as from fuel for owned vehicles (cars, buses).
- Scope 2 covers **indirect emissions from the generation of purchased electricity**, steam, heating and cooling.
- Scope 3 includes **all other indirect emissions** that occur due to the business travel of organisers (employees), officials and spectators, waste production, water consumption, purchased goods and services, and the transportation of goods (logistics).

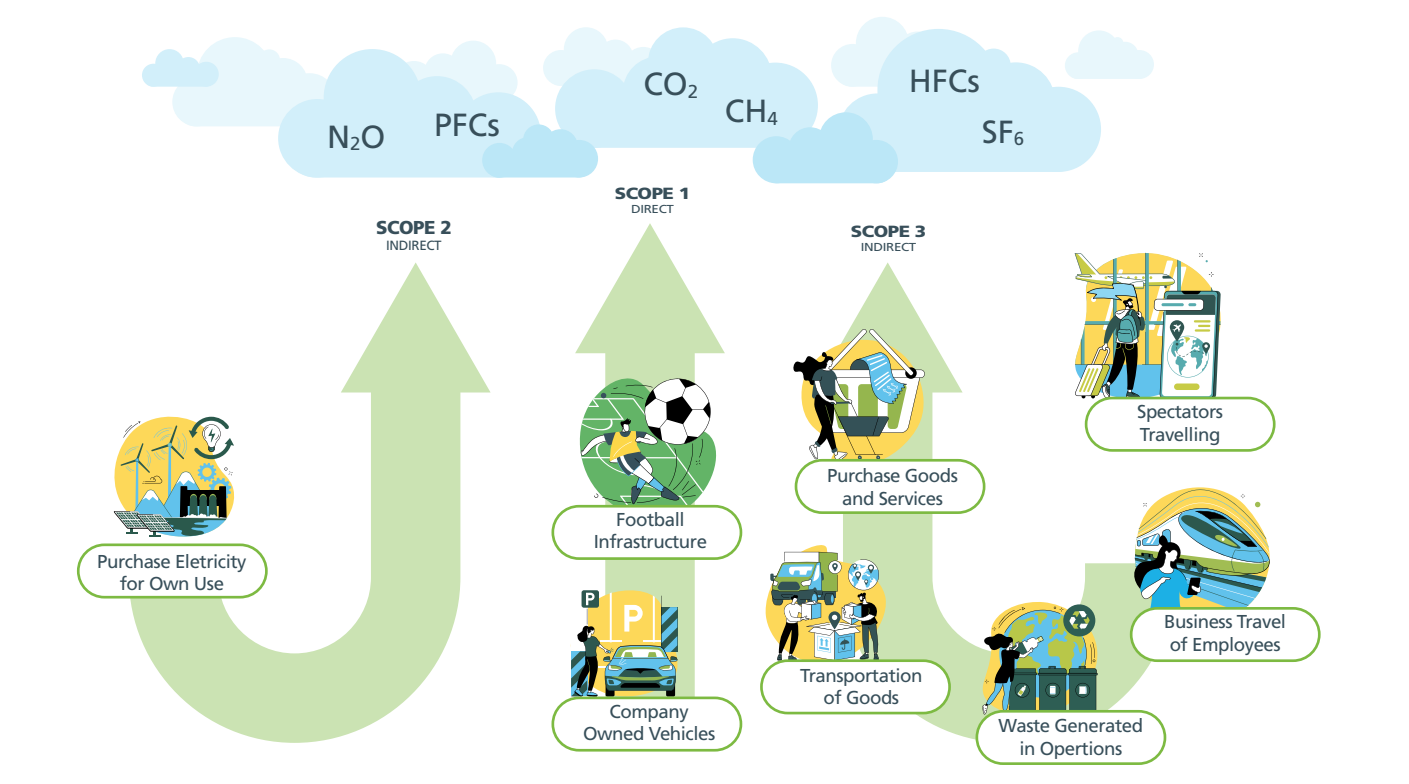


Figure 1: Scope 1, 2 and 3 emissions in the context of football

The four tables on this page and next report the results of the mapping exercise for each category identified in the materiality assessment.

Mobility: refers to activities related to travel by any mode of transport (air, rail, road) and accommodation, also called 'hotel stays'.

Facilities: refers to activities relating to facilities and assets under operational control (e.g. generators, vehicles), typically categorised as energy, refrigerants (if applicable), water and waste.

Scope 3 - category 2 capital goods is developed in more details in the Embodied carbon emissions in football infrastructure construction document that deep dive in this section in order to complement this document.

Football activity: Mobility	Greenhouse Gas Protocol category
Business travel and accommodation of employees	Scope 3 – Category 6
Business travel and accommodation of teams	Scope 3 – Category 6, or other
Business travel and accommodation of guests	Scope 3 – Category 6, or other
Spectators' mobility	Scope 3 – Category 9

Football activity: Facility	Greenhouse Gas Protocol category
Energy consumed ○ Fuel for facilities under operational control ○ Fuel for vehicles	Scope 1: ○ Stationary consumption ○ Mobile consumption
Refrigerants	Scope 1 – Fugitive emissions
Electricity	Scope 2
Waste	Scope 3 – Category 5
Water	Scope 3 – Category 1
Capital Goods	Scope 3 – Category 2
Energy (from production to point of consumption)	Scope 3 – Category 3

Goods and services: includes the value of all goods and services purchased during the accounting period for resale or consumption in the production process, excluding capital goods (the consumption of which is registered as consumption of fixed capital).

Logistics: refers to the transportation of products, raw materials and services across the supply chain. In football, it is commonly accepted that this includes transportation from the supplier to the final destination (often the stadium when referring to events).

Football activity: Goods and services	Greenhouse Gas Protocol category
Materials (e.g. signage, branded items)	Scope 3 – Category 1
Merchandising	Scope 3 – Category 1
Food and Beverage	Scope 3 – Category 1
Technical equipment	Scope 3 – Category 1
Other	Scope 3 – Category 1

Football activity: Logistics	Greenhouse Gas Protocol category
Transportation of goods to your facility	Scope 3 – Category 4 (upstream)

The emissions presented so far can be allocated to one of the standard carbon categories by means of the decision tree shown below.

Once the impact categories have been allocated to the appropriate reporting category, the organisation needs to determine the extent of the reporting effort.

Reporting boundaries

The 'operational control' concept is applied to the reporting process. Football clubs, national associations and leagues use the 'operational control' approach to account for 100% of GHG emissions from activities over which they have control. Control implies having the full authority to introduce and implement operating policies.

The organisation should establish a base year for time boundaries.

Inclusion/exclusion criteria for emission sources

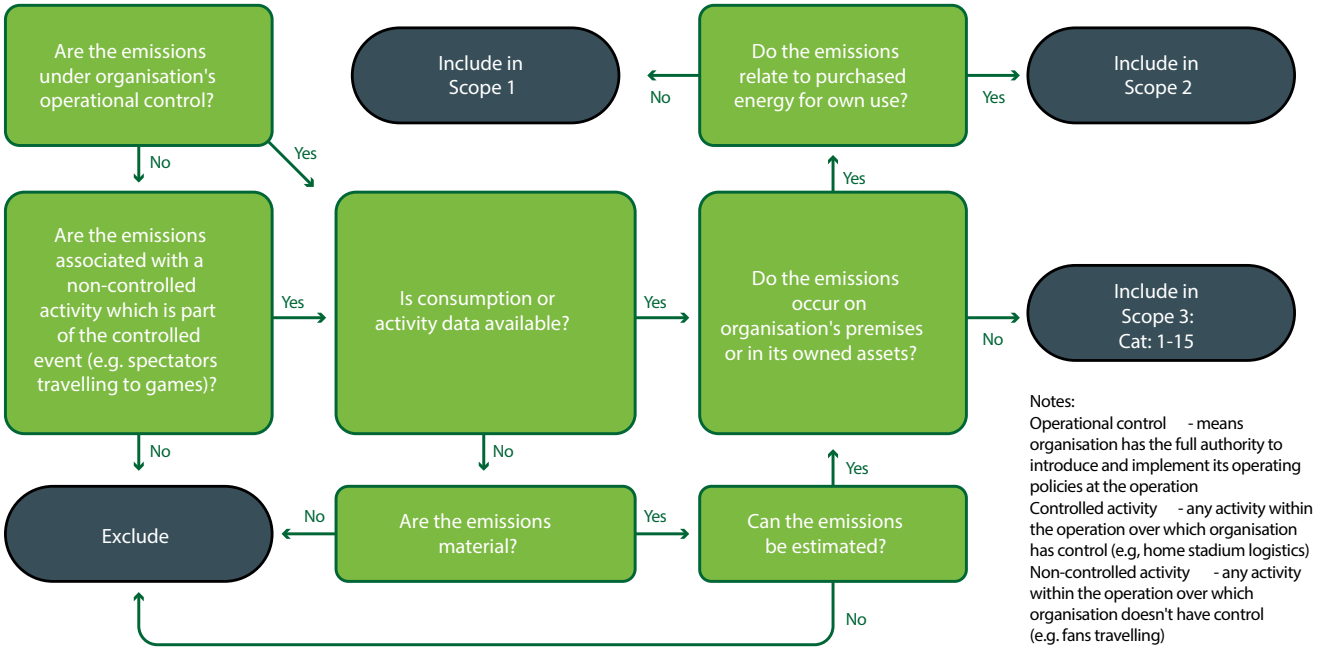


Figure 1: Decision tree for allocation of emissions to standard carbon categories (Scopes 1,2 and 3)

Base year: each organisation should select an applicable measurement period to serve as the baseline for carbon reduction targets (e.g. season 2022/23)

Guidance for base year selection:

- The general recommendation is to select a base year not more than two years in the past, as advised by initiatives such as Science Based Targets: "For targets submitted for validation in 2023, the most recent inventory data submitted must be for 2021 at the earliest."
- Build an accurate baseline using precise data for the main material categories to avoid risk and fluctuation.
- When selecting the base year, document the re-baselining policy.

Reporting period

The overall recommendation is to select the football season, July–June, for the reporting period. However, organisations can select a different reporting period. Some of the criteria to consider are:

- Alignment with the financial reporting year.
- Alignment with the data collection and reporting cycle. For example, it may take a couple of months at the season's end to complete all activities and collect data.

Side Note on Scope 3 category: Other.

Emissions related to events can be reported in a different manner, as described by the United States Environmental Protection Agency (EPA) framework. The recommended approach is to account for such indirect emissions separately under the additional Scope 3 category: Other. EPA's guidance also offers an alternative categorisation of a specific event activity if it does not fit one of the standard Scope 3 categories of the GHG Protocol.

Tracking the emissions of football matches separately from other day-to-day operations can help organisations better understand the carbon footprint of each event, although it is acknowledged that certain activities cannot always be easily classified as event or non-event (e.g. purchased goods or services). Considering these challenges, the methodology document focuses on the simplest, most pragmatic approach for allocating event emissions to one of the standard carbon categories rather than Scope 3 category: Other.

For more information, see the GHG Protocol and EPA guidance on carbon methodology for events; links provided in Appendix 8.1.

Step 3 - Verification

A comprehensive review of the GHG Protocol was conducted during the consultation process to ensure that all categories and activities have been considered. The four criteria below were applied in the verification process:

- **Relevance to football:** for example, Scope 3 Category 12 End-of-life treatment of sold products only applies to organisations that sell products.
- **Completeness:** Check nothing is missing, for example, Scope 1 Fugitive emissions, more commonly known as refrigerants, relating to the football infrastructure, may be overlooked.
- **Assumptions:** Assumptions and estimations applied need to be analysed and risk quantified to ensure consistent with the methodology and the expected results. When primary data are not available, assumptions, estimations, calculations made need to be documented, justified and transparent as per the Greenhouse Gas Protocol carbon accounting principles.
- **Quantifiable:** for example, Scope 3 Category 2 Capital goods may be temporarily excluded if they are too difficult to quantify at the time of the review.

In addition to Scope 1 and Scope 2 emissions, this document covers the methodology to calculate Scope 3 emissions in the categories most relevant to football operations. The methodology is based on the GHG Protocol Corporate Accounting and Reporting Standard (revised edition, 2004) and EPA guidance on measuring indirect emissions associated with events. In addition, the accounting methods described also align with ISO14064-1 guidelines.

Note on Scope 3: In general, Scope 3 emissions are material to most organisations. Moreover, the Scope 3 emissions inventory can be further broken down into separate categories to reveal which contribute most to the total Scope 3 emissions.

The focus of the sections of this document that deal with Scope 3 emissions is on those categories that are most material to football operations. Scope 3 categories that are less material are not included in a detailed description of the methodology and are only mentioned to explain their exclusion. A section of this document provided below offers an introduction to non-material categories and provides guidelines for screening for high levels of materiality. This allows organisations to begin measuring such categories or better identify their level of materiality.

If organisations decide to include these additional Scope 3 categories in their GHG emissions inventory, it is recommended that their methodology document should be extended in line with the approach already used to record information associated with material carbon categories.

Step 4 - Reporting guidance

In order to report its GHG inventory against GHG Protocol requirements it is recommended to:

- Align against ISO 14064-1 – 2018 chapter 9 guidances (content cannot be publicly provided due to copy rights from ISO organisation)
- Report Scope 1 and 2 emissions quantified separately for each greenhouse gas (CO2, CH4, N2O, HFCs, PCFs, SF6 and NF3.

For each scope of emissions and their associated categories, the document provides guidance on:

- The boundary considered for emission calculation
- The origin of activity data within the organisation
- Data ownership and workflows for collection and validation
- The management of emission factors, including the recommended emission factors to use (see Appendix 8.3)
- The exclusion to the reporting boundary
- Confidence in data accuracy and completeness
- Areas for improvement in the calculation methodology

Detailed guidance for each reporting category is provided in Chapter 4.

Note that two cases are rather specific and need to be reported separately:

- The GHG emissions related to biogenic emissions (usually coming from burning wood for heating) must be reported separately as those emissions are not fossil fuel related.
- The GHG emissions related to spectators travelling is directly linked to the event, even though not under control of the event organiser, considering the impact, it should be accounted in the organisation carbon footprint. Please note that it can also be reported separately. More information in Section 5 - Alternative carbon accounting methodology – out of scope (event related emissions).

Step 5 – Documentation and archiving procedures

As per Greenhouse Gas Protocol recommendation, we strongly advise your carbon footprint to contain record keeping procedures that specify what information will be documented for internal purposes, how that information should be archived, and what information is to be reported for external stakeholders. Like internal and external reviews, these record keeping procedures include formal feedback mechanisms.

METHODOLOGY DEVELOPMENT – MANAGING INVENTORY QUALITY

This section describes the process to design and implement an inventory of greenhouse gas emissions and the level of uncertainties related to each emissions. Section 4 will describe the inventory in greater details and will be updated based on stakeholders expectations, legislation and other parameters that may require expansion of enhanced details, as per Greenhouse Gas Protocol Section 7 p49.

In this paragraph, attention is drawn to uncertainties related to the emissions. Estimation uncertainty is classified into two types: model uncertainty and parameter uncertainty as per Greenhouse Gas Protocol Section 7 p55.

Model uncertainty refers to the uncertainty associated with the mathematical equations (i.e., models) used to characterise the relationships between various parameters and emission processes. For example, model uncertainty may arise either due to the use of an incorrect mathematical model or inappropriate input into the model. As with scientific uncertainty, estimating model uncertainty is extremely difficult to assess, hence the choice of the UEFA calculator to limit this aspect.

Parameter uncertainty refers to the uncertainty associated with quantifying the parameters used as inputs (e.g., activity data and emission factors) into estimation models. Parameter uncertainties can be evaluated through statistical analysis, measurement equipment precision determinations, and expert judgment. Quantifying parameter uncertainties and then estimating source category uncertainties based on these parameter uncertainties ought to be the primary focus to investigate the uncertainty in emission inventories.

For compliance with ISO14064-1 and the Greenhouse Gas Protocol guidance, to fulfil accuracy criteria, it is recommended to calculate uncertainties as per Guidance of Calculation of uncertainties document (see appendix 8.1 for reference).

4. UEFA detailed Carbon Accounting Methodology

SECTION 4

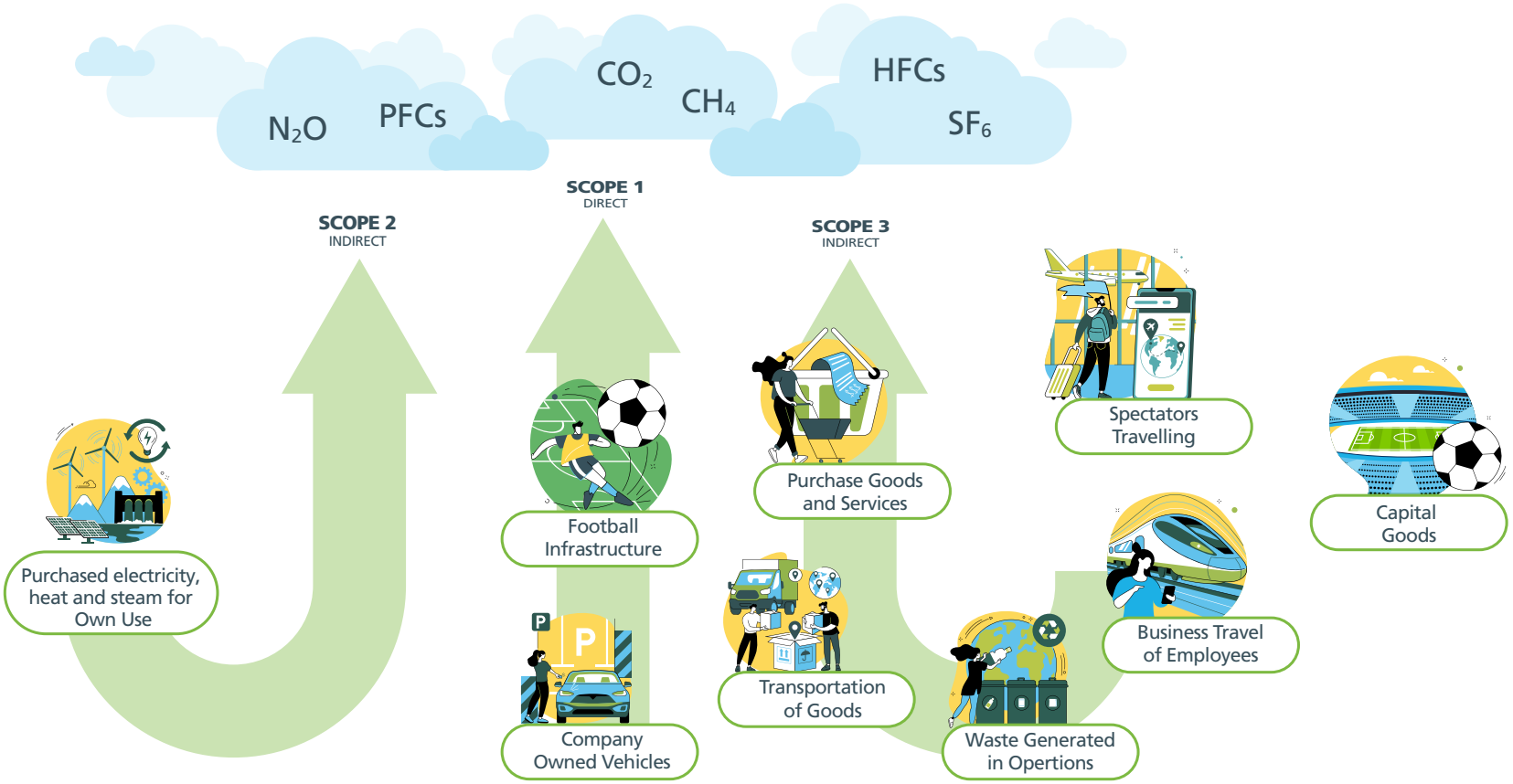
UEFA detailed Carbon Accounting Methodology

This section describes the GHG Protocol categories. We start with a summary of the items included in the inventory based on the previously described decision tree.

Each included category is then thoroughly examined to provide all relevant information for collecting and converting football activity into carbon equivalents. The exclusion process is detailed in Chapter 6 for completeness and transparency.

GHG INVENTORY SUMMARY

The diagram below shows emissions relevant to football as per the GHG Protocol.



Category	Description	Inventory
Operational Emissions		
Scope 1 Fugitive emissions	Includes emissions from refrigerant use on premises owned by the organisation. Fugitive emissions come from refrigeration and air conditioning equipment, fire suppression systems and purchased industrial gases. Activity data includes surveys of the amount of refrigerant in the equipment by facility managers. Applicable to organisations that are subject to the refrigerant use reporting requirements of national legislation.	Included
Scope 1 Mobile emissions	Emission sources include travelled distance (km or passenger km) and fuel used in different vehicle types controlled by the organisation. Activity data is obtained from internal system records. Default emission factor source: DESNZ/DEFRA.	Included
Scope 1 Stationary emissions	Includes emissions from the combustion of different fuel types on the organisation's premises, such as natural gas or heating oil. Actual consumption values are collected from the premises where these fuels are combusted. Default emission factor source: DESNZ/DEFRA.	Included
Scope 2 Indirect emissions	Emissions associated with purchased electricity, steam and heating. This category also includes electricity consumed in electric or hybrid vehicles owned by the organisation. Emissions are reported using location-based and market-based approaches. The activity data source is energy bills. **EMISSION FACTOR SOURCES** **Location-based:** IEA, DESNZ/DEFRA. **Market-based (residual mix):** RE-DISS, AIB European Residual Mixes. **Market-based (supplier-specific):** Supplier-specific emission factors	Included

Category	Description	Inventory
Scope 3 Emissions		
Category 1: Purchased goods and services	Emissions relate to acquired goods (e.g. merchandise), broadly categorised as follows: ○ Apparel ○ Catering (food and beverage) ○ Concessions (food and beverage) The primary source of information is procurement records describing the products purchased in weight, units or €. Production activity data for non-purchased goods which are received as gifts (if any), is obtained directly from the supplier. Default emission factor source: US EPA EEIO.	Included ✓
Category 2: Capital goods	This section is treated separately in the "Embodied Carbon Emission for Football Infrastructure". In the case of Football, capital goods can be summarised as investiment in infrastructure as machineries are considered non relevant. Emissions relate to materials required for the construction of the infrastructure (stadium, training facilities, offices for vast majority, but could also consider real estate if under the football entity operational and or financial control. The capital goods category includes all upstream (i.e. cradle-to-gate) emissions from the production of capital goods purchased or acquired by the reporting company in the reporting year.	Included ✓
Category 3: Fuel- and energy-related activities (not incl. in Scope 1 or 2)	Emission sources include: ○ Upstream emissions of purchased fuels ○ Upstream emissions of purchased electricity ○ Transmission and distribution losses The sources of activity data are fuel and electricity consumption collected as part of Scopes 1 and 2. Emission factor source: DESNZ/DEFRA.	Included ✓

Category	Description	Inventory
Scope 3 Emissions		
Category 4: Upstream transportation and distribution (inclusion of downstream activities might be included for simplification)	Emissions in this category relate to the shipping of goods, such as pre and post event infrastructure items,from suppliers to the organisation's premises and from the organisation's facilities back to warehouses. Calculation methods use tonne-kilometre (tkm) or the spend data associated with products shipped by third-party carriers. Information is obtained from third-party carriers or procurement records and is further differentiated by transportation mode. Default emission factor source: DESNZ/DEFRA. Other emission factor sources: US EPA EEIO (spend-based) or carrier-specific carbon information (kgCO2e or emission factor).	Included
Category 5: Waste generated in operations	Includes emissions from waste generated from operations controlled by the organisation (e.g. training grounds, offices and stadiums). The information collected includes the amount and type of waste and the waste treatment type, if known. Emission factor source: DESNZ/DEFRA.	Included
Category 6: Business travel	Emission sources include the travel and hotel stays of football teams, staff, organisation employees and officials (applicable only to national associations/leagues). Sources of activity data include records from travel agencies and other systems that hold match information (e.g. statistics on ticket sales). Default emission factor source: DESNZ/DEFRA.	Included
Category 7: Employee commuting	Includes emissions from daily commuting by staff and players to organisation-owned premises. Data sources include primary commuting data obtained from surveys or averaged national statistics. Data is differentiated by transport type and measured in distance travelled. Optionally, this category can also include the emissions associated with equipment use and heating by employees working from home. This data is based on the hours worked remotely by each employee. Default emission factor source: DESNZ/DEFRA.	Included

Category	Description	Inventory
Scope 3 Emissions		
Category 8: Upstream leased assets	Not material, based on the observation that this category is linked to operations that are less significant in the football industry. Materiality screening guidelines are presented at the end of the document should organisations wish to estimate these emissions.	Excluded
Category 9: Downstream transportation and distribution	Emissions in this category relate to spectators' mobility to reach the stadium. To ensure consistency and avoid double counting it is recommended that clubs take account of the GHG emissions from their own fans to both their home stadium and to away stadiums - also known as the 'fan-led' approach. Calculation methods use passenger-kilometre (pkm). Information is further differentiated by transportation mode. Activity data source: location data through ticketing systems and have surveyed a representative sample of supporters to determine travel mode, or travel distance and mode assumptions derived from third-party datasets (for example Premier League fan survey data) rather than club-specific supporter data Default emission factor source: DESNZ/DEFRA.	Included NEW
Category 10: Processing of sold products	Not material, based on the observation that this category is linked to operations that are less significant in the football industry. Materiality screening guidelines are presented at the end of the document should organisations wish to estimate these emissions.	Excluded

Category	Description	Inventory
Scope 3 Emissions		
Category 11: Use of sold products	Not material, based on the observation that this category is linked to operations that are less significant in the football industry. Materiality screening guidelines are presented at the end of the document should organisations wish to estimate these emissions.	Excluded
Category 12: End-of-life treatment of sold products	Note: some organisations may chose to use this category instead of category 9 for spectators travel. This is totally acceptable as it doesn't contradict the Greenhouse Gas Protocol guidances. Not material, based on the observation that this category is linked to operations that are less significant in the football industry. Materiality screening guidelines are presented at the end of the document should organisations wish to estimate these emissions. Emissions in this category relate to spectators' mobility to reach the stadium. To ensure consistency and avoid double counting it is recommended that clubs take account of the GHG emissions from their own fans to both their home stadium and to away stadiums - also known as the 'fan-led' approach. Calculation methods use passenger-kilometre (pkm). Information is further differentiated by transportation mode. Activity data source: location data through ticketing systems and have surveyed a representative sample of supporters to determine travel mode, or travel distance and mode assumptions derived from third-party datasets (for example Premier League fan survey data) rather than club-specific supporter data Default emission factor source: DESNZ/DEFRA.	Excluded

Category	Description	Inventory
Scope 3 Emissions		
Category 13: Downstream leased assets	Not material, based on the observation that this category is linked to operations that are less significant in the football industry. Materiality screening guidelines are presented at the end of the document should organisations wish to estimate these emissions.	Excluded
Category 14: Franchises	Not material, based on the observation that this category is linked to operations that are less significant in the football industry. Materiality screening guidelines are presented at the end of the document should organisations wish to estimate these emissions.	Excluded
Category 15: Investments	Not material, based on the observation that this category is linked to operations that are less significant in the football industry. Materiality screening guidelines are presented at the end of the document should organisations wish to estimate these emissions.	Excluded
Alternative Carbon Accounting Method for Events		
Category: Other	An optional category to account for emissions related to events; only applicable if information is not captured in one of the standard carbon categories described above as it would otherwise be double accounting. The sources of emissions in this category include: ○ Event energy use (if venue is rented for s shart period of time) ○ Event hotel stays ○ Travelling to and from events by teams, employees and spectators ○ Waste generated at the event premises ○ Event logistics	Included

GHG FOOTBALL INVENTORY
SCOPE 1: FUGITIVE EMISSIONS

Definition

Definition in a football context

Fugitive emissions result from intentional or unintentional releases, e.g. equipment leaks or hydrofluorocarbon (HFC) emissions during the use of refrigeration and air conditioning equipment. The most common sources of fugitive emissions are refrigerators, freezers, air conditioners, vending machines, ice makers and water coolers.

This category is likely to be more applicable to football clubs than associations or leagues, as clubs tend to have more facilities (e.g. training grounds, stadiums, etc.).

GHG Protocol definition

Fugitive emissions result from intentional or unintentional releases, e.g. equipment leaks from joints, seals, packing and gaskets; methane emissions from coal mines and venting; hydrofluorocarbon (HFC) emissions during the use of refrigeration and air conditioning equipment; and methane leakages from gas transport.

Materiality of the category to the organisation

Low

Confidence in data completeness and accuracy

Guidance on which confidence level to select:

High: When the actual consumption data of the refrigerant leakage is tracked and no data gaps are found.

Medium: When the actual consumption data is partially available and projections are used to fill data gaps.

Low: When no actual data is available and an estimate is based on the previous year's data or averaged public information.

Summary of calculation

Amount of refrigerant used per refrigerant type (kg) x emission factor per refrigerant type (kgCO2e/kg)

Activity data information	
Activity data source information	Activity data includes totalling the amount (kg) of refrigerants used in equipment on the organisation's premises. Data is obtained from facility managers and classified into different refrigerant types. The most common refrigerant types include: HFC–134 R–404a R–407c R–410a
Frequency of collection	TBD by each organisation (e.g. monthly/quarterly/annually).
Data ownership and validation process	TBD by each organisation (for an example of documentation, see the document structure section).
Emission factor source information	
Geography	Global
Source	DESNZ/DEFRA
Emission factor types	Fugitive Gas - HFC–134 Fugitive Gas - R–404a Fugitive Gas - R-407c Fugitive Gas - R-410a Unit of measurement: kgCO2e/kg. The selection of the recommended emission factors is described in Appendix 8.3.
Process for EF overwriting	n/a

SCOPE 1: MOBILE EMISSIONS

Definition

Definition in a football context

Mobile emissions include emissions from owned cars and coaches operated by the organisation.

GHG Protocol definition

Combustion of fuels in owned transportation devices such as automobiles, trucks, buses, trains, airplanes, boats, ships, barges, vessels, etc. – GHG Protocol

Materiality of the category to the organisation

Low

Confidence in data completeness and accuracy

Guidance on which confidence level to select:

High: When the actual fuel consumption in litres (preferred option) or distance in km is available.

Medium: When the fuel consumption in litres or distance in km is partially available and projections are used to fill data gaps.

Low: When no actual data is available and an estimate is based on the previous year's data or averaged public information.

Summary of calculation

Fuel-based calculation (for vehicles other than an owned or controlled team bus): amount of fuel used (litres) x emission factor (kgCO2e/kWh)

Distance-based calculation (for vehicles other than an owned or controlled team bus): distance travelled per vehicle type (km) x vehicle type emission factor (kgCO2e/km)

Distance-based calculation (for owned or controlled team bus): capacity of the bus x 0.5 (actual capacity estimate) x distance travelled (pkm) x emission factor (kgCO2e/pkm)

Activity data information	
Activity data source information	Activity data is collected from internal records used to log vehicle use over time. It includes consumption of fuel in vehicles owned/ controlled by the organisation or distance travelled (km or miles and passenger km*). **Fuel and vehicle types:** Diesel cars Petrol cars Hybrid cars Electric cars Biofuel (e.g. biodiesel) Team buses - assumes 50% or 25 seats capacity utilisation and the activity data is measured in passenger km (25 seats x pkm travelled). *A passenger-kilometre is a unit of measurement describing the passenger carrying performance of a means of transport such as a car, coach, train, boat, aircraft or any transport vehicle that carries passengers. Two people travelling five kilometres on board a vehicle generate ten passenger-kilometres, i.e. transport kilometres multiplied by the number of passengers.
Frequency of collection	TBD by each organisation (e.g. monthly/quarterly/annually).
Data ownership and validation process	TBD by each organisation (for a documentation example see the document structure section).
Emission factor source information	
Geography	Global
Source	DESNZ/DEFRA

Emission factor source information	
Emission factor types	Cars – distance-based emission factor for each fuel (average car type) Cars – fuel-based emission factor used in cars Team bus – coach-type emission factor Unit of measurement: kgCO2e/pkm; kgCO2e/km; kgCO2e/kWh; The selection of the recommended emission factors is described in Appendix 8.3.
Process for EF overwriting	n/a

Explanation of GHG accounting treatment

The scope of activities in this category includes leased or gifted vehicles where they are used solely by the reporting organisation. It is considered that the organisation has sufficient control over these vehicles for them to be accounted under Scope 1.

SCOPE 1: STATIONARY EMISSIONS

Definition

Definition in a football context

Stationary emissions occur from burning fuels, such as natural gas or diesel, in owned or controlled equipment at the organisation's site. Examples of equipment include boilers, heaters, generators and lawn mowers. Transport vehicles are excluded because they are accounted for under mobile emissions.

GHG Protocol definition

Direct greenhouse gas emissions occur from sources that are owned or controlled by the company, for example, emissions from the combustion of fuels in stationary equipment such as boilers, furnaces, burners, turbines, heaters, incinerators, engines, flares, etc. Direct CO2 emissions from the combustion of biomass shall not be included in Scope 1 but reported separately. – GHG Protocol

Materiality of the category to the organisation

Low. For football clubs owning venues, this category is usually relevant but of low materiality. For national associations without venues, this category can apply to offices where boilers or generators might be used. However, this is not common.

Confidence in data completeness and accuracy

Guidance on which confidence level to select:

High: When the actual fuel consumption in litres is available.

Medium: When the fuel consumption in litres is partially available and projections are used to fill data gaps.

Low: When no actual data is available and an estimate is based on the previous year's data or averaged public information.

Summary of calculation

General calculation (for most fuels): quantity of fuel consumed on site (litre) x conversion factor (litre to kWh) x emission factor (kgCO2e/ kWh - gross calorific value)

For natural gas and coal: quantity of fuel consumed on site (kWh) x emission factor (kgCO2e/kWh - gross calorific value)

For wood pellets: quantity of wood consumed on site (kg) x conversion factor (kg to kWh) x emission factor (kgCO2e/ kWh - gross calorific value)

Activity data information

Activity data source information	If the following fuels are combusted on the organisation's premises they are a source of stationary emissions: ○ Natural gas ○ Heating oil ○ LPG ○ Diesel for generators ○ Diesel for on-site vehicles (lawn mowers) ○ Petrol for on-site vehicles (lawn mowers) ○ Coal ○ Biofuel for onsite vehicles ○ Wood pellets ○ Other

Activity data information	
Frequency of collection	TBD by each organisation (e.g. monthly/quarterly/annually).
Data ownership and validation process	TBD by each organisation (for documentation example see the document structure section).
Units of measurement and conversions	Litres to be converted to kWh for natural gas, coal and wood pellets using standard conversion factors (m3 or ft3 to kWh).
Emission factor source information	
Geography	Global
Source	DESNZ/DEFRA Unit of measurement: kgCO2e/litre, kgCO2e/kWh - gross calorific value The selection of the recommended emission factors is described in Appendix 8.3.
Process for EF overwriting	N/A

Explanation of GHG accounting treatment

Note 1: Emissions from the on-site generation of renewable electricity, heating or steam should be accounted under Scope 1 (GHG Protocol Guidance). If football organisations use renewable sources for on-site electricity generation, then emissions are zero. However, it is recommended that organisations track generated renewable energy in kWh for energy reporting purposes.

Note 2: Consider including 'in scope' emissions (CH4 and N2O) from the combustion of biomass in the Scope 1 inventory (to be reported separately). The combustion of biomass results in net additions of CH4 and N2O to the atmosphere, and therefore emissions of these two greenhouse gases should be expressed in CO2e and accounted for in Scope 1.

Note 3: In order to develop inventories that provide an accurate and complete picture of their GHG emissions both from their direct operations as well as those along the value chain, the Greenhouse Gas Protocol provides a detail explanation on sequestered carbon from biogenic source. See appendix B of the Greenhouse Gas Protocol.

SCOPE 2: INDIRECT GHG EMISSIONS

Definition

Scope 2 emissions relate to the **generation of acquired and consumed electricity, steam, heat or cooling (collectively referred to as 'electricity')**. These emissions are termed 'Scope 2' and are considered an indirect emissions source (along with Scope 3), because the emissions are a consequence of the activities of the reporting organisation, but actually occur at sources owned or controlled by another organisation (here, they are owned or controlled by an electricity generator or utility company). For on-site generation that is owned by the organisation, the emissions (if any) from the system are direct Scope 1 emissions.

Location- versus market-based accounting

Organisations report Scope 2 emissions using both location-based and market-based methods. The results of the different methods reflect the different risks and opportunities associated with emissions from electricity use and can provide information on a range of decisions and levers in order to reduce emissions. Organisations choose which method's results to use for goal setting and other benchmarks.

A **location-based method** reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data).

A **market-based method** reflects emissions from electricity that organisations have purposefully chosen (or their lack of choice). It derives emission factors from contractual instruments, which include any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation, or for unbundled attribute claims*. If an organisation does not have contractual information, other default emission factors are used to represent the untracked or unclaimed energy and emissions (termed the residual mix).

* To learn more about market- and location-based accounting approaches, and bundled and unbundled REC claims, please see Appendix 8.1.

– derived from GHG Protocol

Materiality of the category to the organisation

Medium

Confidence in data completeness and accuracy

Guidance on which confidence level to select:

High: When the actual energy consumption in kWh is available.

Medium: When the energy consumption in kWh is partially available and projections are used to fill data gaps.

Low: When no actual data is available and an estimate is based on the previous year's data or averaged public information.

Summary of calculation

Location-based: purchased electricity use (kWh) x country-specific or global-average electricity emission factor (kgCO2e/kWh)

Note: Under location-based accounting methodology, all acquired energy, irrespective of whether it is renewable or not, should be multiplied by the country-specific or global-average electricity emission factor.

Market-based: purchased energy use (kWh) x electricity emission factor (kgCO2e/kWh)* - REC savings**

* The emission factor applied depends on the availability of sources in the order listed below:

1. Supplier-specific electricity emission factor (available from energy bills issued by utility service providers).

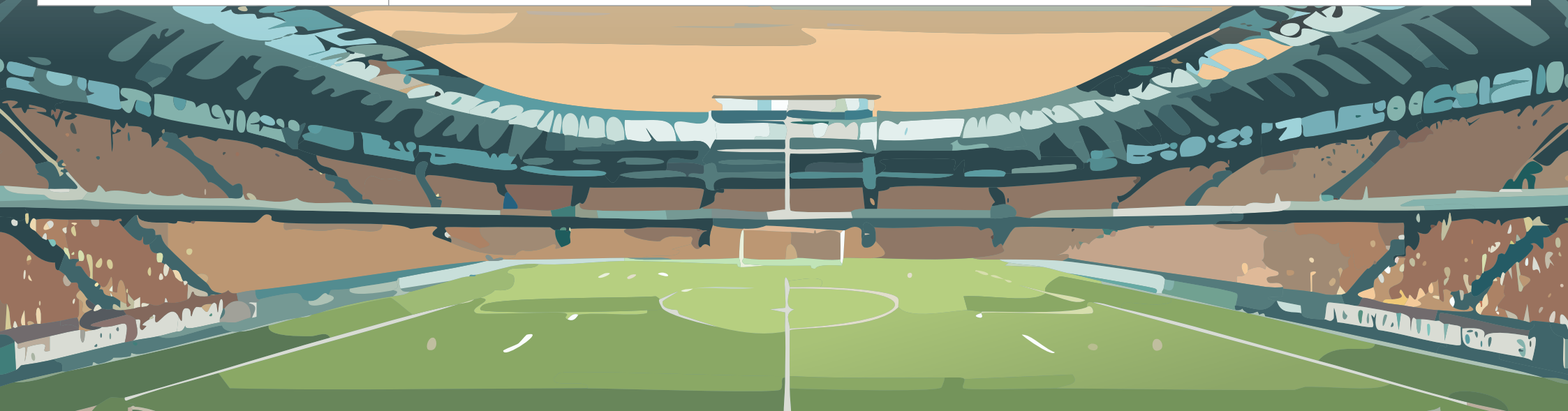
2. Residual mix factor (available for some countries and can be taken from specific factor sets, see section on emission factor sources).

3. Location-based/grid factor (country specific or, if unavailable, a global-average electricity emission factor as stated by EPA or IEA).

** Savings from renewable energy certificates (RECs), if purchased, would ideally be calculated using a location-based emission factor: quantity of RECs purchased and retired (kWh) x average grid electricity emission factor (kgCO2e/kWh)

Activity data information	
Activity data source information	Consumption information in kWh is usually available from energy bills. The source of an organisation's Scope 2 emissions relates to the following energy types (all measured in kWh unless noted otherwise): ○ Purchased non-renewable energy use* ○ Purchased renewable energy use * Non-renewable energy consumption is further split into: ○ Electricity used on site ○ Heat used on site ○ Steam used on site ○ Electricity used in electric vehicles (measured in distance travelled) **REC savings:** Unbundled Renewable Electricity Certificates (RECs) can be purchased and retired by organisations and are usually tracked in kWh. The energy amount associated with the certificate is typically specified by the supplier. Purchased and retired means the REC has been used and can no longer be sold on to another party. **Unbundled RECs**: means the non-physical REC has been separated from the physical electricity. Under this system, a solar or wind farm is allowed to sell its power to the grid and also separately sell credits against that power to companies and other organisations.
Data ownership and validation process	TBD by each organisation (for documentation example see the document structure section).
Units of measurement and conversions	Litres to be converted to kWh for natural gas, coal and wood pellets using standard conversion factors (m3 or ft3 to kWh).

Emission factor source information	
Geography	Global
Source	**Location-based reporting;** Default source: IEA (international electricity factors) Other sources: DESNZ/DEFRA (UK electricity factor and global factors for heat & steam) **Market-based reporting:** Supplier-specific emission factors (to be obtained from contracted utility service providers) RE-DISS AIB European Residual Mixes (for residual mix reporting) Unit of measurement: kgCO2e/kWh. The selection of the recommended emission factors is described in Appendix 8.3.
Process for EF overwriting	Supplier-specific electricity emission factors are prioritised over residual mix and average grid factors for market-based reporting.



SCOPE 3 CATEGORY 1: GOODS AND SERVICES

Category definition

Definition in a football context

Emissions from purchased goods and services are related to emissions from the production of the acquired goods or services during the reporting year (whether purchased or gifted by sponsors). Examples of purchased products are apparel, merchandising, food and beverages (to be re-sold during the events) or IT expenses.

GHG Protocol definition

This category includes all upstream (i.e. cradle-to-gate) emissions from the production of products purchased or acquired by the reporting company in the reporting year. Products include both goods (tangible products) and services (intangible products). – GHG Protocol

Materiality of the category to the organisation

We can assume that this category represents a material part of the overall value chain emissions of almost all clubs and associations/leagues.

Level of influence to drive reduction

Medium to high. Organisations can select products and raw materials with a lower carbon footprint or engage suppliers to incorporate their emission reduction goals in longer-term procurement contracts.

Confidence in data completeness and accuracy

Guidance on which confidence level to select:

High: When accurate supplier-specific information is provided for the upstream element of purchased products (e.g. emissions associated with the production of purchased units).

Medium: When supplier-specific information is partially available and projections are used to fill data gaps.

Low: When no supplier-specific data is available and an estimation is based on spend, the previous year's data or averaged public information.

Summary of calculation

Amount of purchased goods by type (local currency unit) x local currency unit to USD conversion rate x product-specific spend emission factor* (kgCO2e/$)

* The calculation can also include material-specific emission factors based on the weight purchased (kgCO2e/kg) or more simplistic emission factors per unit of product purchased (kgCO2e/unit purchased).

Activity data information

Activity data source information	**Expenditure data** Spend data on different types of purchased goods is collected in the local currency from the procurement team throughout the year. It is used as the default activity data for the calculation of emissions if more accurate supplier-specific data cannot be obtained. **Raw material weight or purchased unit data** Sometimes suppliers can provide specific emission factors based on the type and weight of products purchased. In this case, the reporting organisation can collect activity data in weight. It may be possible to further divide the weight of products purchased into different raw material types. Some suppliers may also be able to provide emissions calculated on the basis of the units sold. The organisation is thus advised to also record the number of units acquired. This method is applicable to goods purchased and goods received as gifts. **Categorisation of purchased goods** All acquired goods, irrespective of the activity data type used, are allocated to the following high-level item categories: Essential categories to be reported: 1. Apparel – clothing, categorised as Merchandising or Team Equipment. 2. Catering* – includes food and beverages purchased by caterers to be later re-sold during the organised event. This can be further categorised into soft drinks, alcoholic drinks, snacks, hot food, etc.

Activity data information	
Activity data source information	3. Concessions* – includes different types of food and beverages purchased to be re-sold at concession stands during the organised event. This can be further categorised into soft drinks, alcoholic drinks, snacks, hot food, etc. * If food and beverage purchases for catering and concessions are not tracked separately, they can be recorded in a single category. Recommended categories to be included: 1. IT expenses – example purchases include laptops for employees, data services for apps, paper or electronic tickets, etc. 2. Office-related purchases (e.g. stationery) 3.Medical items (more relevant for football clubs) Optional categories to be included: 1.Other items – any other additional expense categories. Some examples include event-related expenditure such as: signage, temporary infrastructures, accreditation materials, tickets. Other non-event-related purchases include pitch maintenance products (fertilizers, etc.).
Frequency of collection	TBD by each organisation (e.g. monthly/quarterly/annually).
Data ownership and validation process	TBD by each organisation (for documentation example, see the document structure section).
Units of measurement and conversions	**Currency conversions:** The primary activity data measurement unit is the organisation's local currency used for financial reporting. Purchases should be converted to USD for emissions accounting purposes. It is recommended that the conversion rate used by the organisation's accounting department should be used. **Weight conversions:** Standard conversion factors apply for different weight units (e.g. kg and tonnes).

Emission factor source information	
Geography	Global
Source	US EPA EEIO; Unit of measurement: kgCO2e/kg; kgCO2e/unit of item purchased; kgCO2e/$. The selection of the recommended emission factors is described in Appendix 8.3. If suppliers provide specific emission factors based on the amount of products purchased in kgs or units, then the organisation can collect activity data in corresponding units for a more accurate accounting of emissions. A combination of different emission accounting methods is acceptable. If the organisation identifies average emission factors for raw materials, it is advisable to follow a simplified, pragmatic approach when allocating emissions to purchased products. For example, if purchased t-shirts are made from polyester and cotton, then treating the whole item as either polyester or cotton is acceptable. This will help avoid additional complexity and the application of multiple emission factors for each material type.
Process for EF overwriting	n/a

SCOPE 3 CATEGORY 2: CAPITAL GOODS

The information in this section is an abridgement of the following document: Embodied carbon emissions in football infrastructure construction. The full document is a tiered methodology to account for the emissions, particularly embodied emissions, that result from the construction of stadiums, training facilities and other football and club-related infrastructure.

Category definition

Definition in a football context

For football organisations, emissions from capital goods are largely related to emissions from the production of fixed capital infrastructure. Examples of capital infrastructure include stadiums, training grounds, offices, hotels and housing. In this context, the buildings are treated as the capital goods and the associated emissions would arise from extraction, production and transportation of building materials and the subsequent construction processes. Therefore, emissions from capital goods may comprise of those from the activities involved in the creation of materials such as concrete, steel, cement etc in addition to the construction of the buildings in which these materials are used. The exact allocation of emissions between capital goods and Scope 1, Scope 2 and other Scope 3 categories will depend on the role of the organisation within the construction/ownership of football-related infrastructure and which activities they hold operational/financial control over.

GHG Protocol definition

This category includes all upstream (i.e., cradle-to-gate) emissions from the production of capital goods purchased or acquired by the reporting company in the reporting year.

Materiality of the category to the organisation

High (or not applicable). The materiality of this category depends on the relationship between capital infrastructure and an association, club or league. If an organisation owns or develops infrastructure, and construction occurred during the reporting year, it can be assumed that this category represents a material part of the overall value chain emissions. Equally, if an organisation purchases pre-existing infrastructure in the reporting year, there will be a need to account for the emissions associated with its development (regardless of when the construction occurred) and, therefore, it is likely significant emissions will be attributable to this category. Some organisations may not own any infrastructure as part of their business model. For example, a football club may lease its stadium and training ground facilities meaning that capital goods expenditure would be limited, leading to a lower materiality of this category.

Level of influence to drive reduction

As infrastructure development for many football organisations may be sporadic, with some years containing a significant completion (e.g. stadium construction) and other years potentially having no construction at all, this category is likely not to lend itself to the possibility for consistent year-on-year reductions.

However, to limit the magnitude of their Category 2 emissions, organisations can have influence by setting contractual requirements for products and raw materials with a lower carbon footprint or engage suppliers to incorporate their emission reduction goals in longer-term procurement contracts. The degree of separation between an association, club or league and the development of capital infrastructure can impact the level of influence. For example, an organisation directly involved in the development of its stadium with a level of control over the construction process may be able to reduce emissions via influencing the design or choice of materials. In a scenario where the developer is further removed and various subcontractors are involved, the organisation may have limited influence on the specification of the assets they procure ownership of.

Confidence in data completeness and accuracy

Guidance on which confidence level to select:

High: When accurate supplier-specific information is provided for the upstream element of purchased goods (e.g. emissions associated with the production of purchased units).

Medium: When there is limited supplier-specific information but there is accurate information on the total unit quantity of each material purchased (e.g. kg, m3, etc.) and material-specific emission factors can be sourced for different purchased goods.

Low: When no supplier-specific data or quantity data is available and an estimation is based on spend, the previous year's data or averaged public information.

Summary of calculation

Calculation approach depending on data quality level:

High: Quantity of purchased material (units) x supplier-specific emission factor (kgCO2e/unit)

Medium: Quantity of purchased material (units) x material-specific emission factor (kgCO2e/unit)

Low: Amount of purchased material by type (local currency unit) x local currency unit to USD conversion rate x product-specific spend emission factor* (kgCO2e/$)

Activity data information	
Activity data source information	**Expenditure data** Spend data on different types of purchased good used within construction of capital assets is collected in the local currency from the procurement team throughout the year. It is used as the default activity data for the calculation of emissions if more accurate supplier-specific data cannot be obtained. **Raw material weight or purchased unit data** Raw material weight or purchased unit data should be available on bills of quantities attached to invoices for all goods procured. If a mix of materials are ordered in bulk, it may be more challenging to split them down into different types of goods, but a broad level of categorisation should be possible when taking an inventory procured materials. The organisation is advised to record raw material weight or number of units, in accordance with the functional unit of the highest quality emission factors available. For example, if a supplier has a specific emission factor for one beam of its steel, the organisation should record the number of beams procured. If the supplier-specific emission factor is for 1 kg of steel, the organisation should record the kilograms of steel procured.
Frequency of collection	Annual. If desired, reporting of capital goods may be saved until the year of practical completion of an infrastructure project. Therefore, emissions from purchased goods used to construct a project over multiple years may not be reported until the year of practical completion if this approach is taken.
Data ownership and validation process	TBD by each organisation (for documentation example, see the document structure section).
Units of measurement and conversions	**Weight conversions:** Standard conversion factors apply for different weight units (e.g. kg and tonnes) **Currency conversions:** If the activity data measurement unit is the organisation's local currency used for financial reporting, purchases should be converted to USD for emissions accounting purposes. It is recommended that the conversion rate used by the organisation's accounting department should be used.

Emission factor source information	
Geography	Global
Source	Based on the activity data at your disposal, organisations should investigate if suppliers have developed cradle-to-gate emission factors for key materials. Suppliers can be contacted directly to see if this can be shared but this may also be available publicly. An organisation should check online for a published lifecycle assessment (LCA) or environmental product declaration (EPD) relating to goods purchased. If supplier-specific emission factors are not a possibility, an organisation should investigate potential datasets such as those from industry bodies, governments, or similar suppliers. There are also restricted access databases, available for a fee, containing material-specific emission factors for thousands of products. If expenditure data needs to be utilised, spend based emission factors can be used as per the US EPA EEIO.
Process for EF overwriting	There are different types of activity data that could be used to calculate emissions from capital goods and each type of activity data may have more than one source of possible emission factors. ○ **Natural gas:** Spend-based emission factors will generally be the least specific to the goods and services utilised within the construction of capital infrastructure and are susceptible to external factors such as sector-specific inflation and exchange rate fluctuations. ○ **Natural gas:** Switching from spend activity data to quantity data enables a transition to quantity-based emission factors which are generally more accurate at quantifying the emissions associated with a specific amount of product/material. ○ **Natural gas:** Utilising supplier-specific quantity-based emission factors rather than generic secondary quantity-emission factors will increase the specificity of emissions calculations further. Supplier-specific emission factors can account for differences in between the same types of goods, allowing for quantifiable reduction by switching to lower impact products/materials. Generally, organisations should aim to transition use of emission factors to those with greater specificity. However, this does not necessarily mean that these approaches produce more accurate results; for example, a supplier may collect data and feed it into the calculation of a product-specific emission factor, but if this data is of a poor quality, the result may be less accurate than if using a methodology less specific to the supplier's goods. It is important not to take a supplier's data at face value; scrutinise it to ensure that it is of an acceptable quality to be used in a footprint assessment. It is also important to note that this category can be calculated using a blend of activity data (and hence emission factors), and availability and quality of data will be the determining factor in whether or not an approach can or should be used. Over time, organisations should aim for an increased coverage of this category with high quality, specific emission factors, but should not compromise comprehensive accounting.

SCOPE 3 CATEGORY 3: FUEL- AND OTHER ENERGY-RELATED EMISSIONS

Category definition

This category includes emissions related to the production of fuels and energy purchased and consumed by the reporting organisation in the reporting year that are not included in Scope 1 or Scope 2.

Sub-categories:

- Upstream emissions of purchased fuels
- Upstream emissions of purchased electricity, heat and steam
- Transmission and distribution losses

– GHG Protocol

Materiality of the category to the organisation

Low

Level of influence to drive reduction

Low. Organisations cannot easily influence the production phase activities of purchased fuels or electricity.

Confidence in data completeness and accuracy

Guidance on which confidence level to select:

High: When the fuel and electricity consumption data used for Scope 1 and Scope 2 reporting is based on actual figures.

Medium: When the fuel and electricity consumption data used for Scope 1 and Scope 2 reporting is based on a combination of actual and estimated figures.

Low: When the fuel and electricity consumption data used for Scope 1 and Scope 2 reporting is based on many estimates and assumptions.

Summary of calculation

Upstream emissions of purchased fuels: quantity of fuel consumed on site (litre) x upstream emission factor (kgCO2e/litre) or amount of fuel used (converted to kWh) x upstream fuel emission factor (kgCO2e/kWh - gross calorific value) – to be used when emission factor in kgCO2e/litre is not available

Upstream emissions of purchased electricity: purchased electricity use (kWh) x electricity upstream emission factor (kgCO2e/kWh)

Transmission and distribution (T&D) losses: purchased electricity use (kWh) x transmission and distribution loss emission factor (kgCO2e/kWh)

Activity data information

Activity data source information	Activity data is composed of operational fuel and electricity consumption data, which is already captured as part of the Scope 1 and 2 calculation.
Frequency of collection	Annual
Data ownership and validation process	TBD by each organisation (for documentation example see the document structure section).

Emission factor source information

Geography	Global/country level.
Source	DESNZ/DEFRA Unit of measurement: kgCO2e/kWh. The selection of the recommended emission factors is described in Appendix 8.3.
Process for EF overwriting	n/a

SCOPE 3 CATEGORY 4: TRANSPORT AND DISTRIBUTION (UPSTREAM)

Category definition

Definition in a football context

Upstream emissions refer to emissions from the transportation of goods to the organisation's facilities. The transportation of all non-event goods throughout the year is included in this category. It includes transportation of event-related goods before the event commences (e.g. the delivery of temporary infrastructure and signage to stadiums prior to football matches).

Downstream emissions refer to emissions occurring during the transportation of goods from the organisation's facilities back to warehouses or other locations after the event has finished. This includes, for example, the transportation of temporary infrastructures and signage from the stadium after the football match.

Organisations should collect tonne-kilometre information for its transported products, including specification of the transportation mode used (e.g. air, road, sea).

These categories can be reported together or separately.

Please refer to the section entitled 'Compliance with International Standards' for more information on how the boundary of events organised at facilities differs based on the operational control.

GHG Protocol definition

Upstream emissions include: Transportation and distribution of products purchased in the reporting year, between a company's tier one suppliers and its own operations in vehicles not owned or operated by the reporting company (including multi-modal shipping).

Third-party transportation and distribution services purchased by the reporting company in the reporting year (either directly or through an intermediary), including inbound logistics, outbound logistics (e.g. of sold products), and third-party transportation and distribution between a company's own facilities.

Downstream emissions include: This category includes emissions that occur in the reporting year from transportation and distribution of sold products in vehicles and facilities not owned or controlled by the reporting company.

Emissions may arise from the following transportation and distribution activities throughout the value chain:

- Air transport
- Rail transport
- Road transport
- Marine transport
- Storage of purchased products in warehouses, distribution centres and retail facilities.

Materiality of the category to the organisation

Medium to high. Under the guidelines and boundaries of this methodology, both football clubs and national associations/leagues are expected to incur a significant amount of emissions in this category. Football clubs may experience higher emissions from non-event logistics because they have significant facilities requiring equipment and other goods to be delivered throughout the year. National associations/leagues are expected to incur greater emissions from event logistics as they have to account for every game played as part of their competitions unlike clubs which are only expected to account for the logistics emissions associated with their home games.

Level of influence to drive reduction

Medium. Selecting suppliers closer to the venue can reduce travel distance. Alternatively, organisations can work directly with their suppliers (carriers) to enhance routes, ensure optimised truck loads and employ fuel efficient vehicles.

Confidence in data completeness and accuracy

Guidance on which confidence level to select:

High: When the actual transportation activity data, including transportation mode or vehicle type and accurate distance, is received with supplier-specific information.

Medium: When the transportation activity data is partially available (e.g. only for one transportation mode used but not others) and projections or estimates are used to fill data gaps.

Low: When no actual transportation data is available and an estimate is based either on the spend, the previous year's data or averaged public information.

Summary of calculation

Distance-based method (TKM)

mass of goods purchased (tonnes) x distance travelled in transport leg (km) x emission factor of transportation mode and vehicle type (kgCO2e/tkm)

Spend-based method

amount spent on transportation service (€) x EUR/USD conversion rate* x EEIO spend emission factor related to the transportation mode used (kgCO2e/$)

* consider applying the same currency conversion factor used for financial reporting.

Activity data information	
Activity data source information	Logistics data is provided by the supplier (logistics company). If not available, expenditure data on the transportation of goods is used instead. Activity data includes the transported weight of the organisation's products and distance travelled (tkm*) for each shipment to and from UEFA facilities (upstream and downstream). Shipment data is further categorised by transportation mode and vehicle type. The transportation modes are: ○ Road ○ Sea ○ Rail ○ Air Organisations should consider obtaining further details about the transportation mode, such as what vehicle type was used for road transport (e.g. heavy goods vehicle running on diesel). *tkm – represents the transport of one tonne of goods by a given transport mode over a distance of one kilometre (tonne x kilometre of each trip).
Frequency of collection	Annual
Data ownership and validation process	TBD by each organisation (for documentation example see the document structure section).

Emission factor source information	
Geography	Global
Source	DESNZ/DEFRA; US EPA EEIO. Unit of measurement: kgCO2e/tkm or kgCO2e/$. The selection of the recommended emission factors is described in Appendix 8.3.
Process for EF overwriting	When available and with sufficient justification, the kgCO2e calculated by the carrier or the specific emission factor shall be applied to overwrite any emissions calculated on the basis of default average emission factors in tkm.

Identified areas for improvement in data accuracy, completeness and measurement

Consider expanding the scope to include emissions from storage activities (e.g. warehousing). Some suppliers can allocate a share of a warehouse's Scope 1 and 2 emissions to your organisation based on the floor space used and the duration of product storage. Alternatively, emissions can be accounted for based on the spend for warehousing using US EPA EEIO emission factors.

SCOPE 3 CATEGORY 5: WASTE GENERATED IN OPERATIONS

Category definition

Definition in a football context

Waste generated in operations is associated with emissions from the disposal of waste collected in stadiums during events or at training grounds or other facilities. Examples of waste are food, plastic cups, glass and packaging materials.

In the case of events such as football matches, the emissions under this category are accounted for by the organisation hosting the game. Football associations and leagues may collect this information from the home team.

GHG Protocol definition

This category includes emissions from third-party disposal and treatment of waste generated in the reporting company's owned or controlled operations in the reporting year. This category includes emissions from disposal of both solid waste and wastewater. – GHG Protocol

Materiality of the category to the organisation

Medium

Level of influence to drive reduction

High. Organisations can reduce waste in operations by increasing the use of recycled materials.

Confidence in data completeness and accuracy

Guidance on which confidence level to select:

High: When the actual waste data (in kg or supplier calculated kgCO2e) is collected.

Medium: When the collected waste data is incomplete and projections are used to fill data gaps.

Low: When no actual waste data is collected and an estimate is based on the previous year's data or averaged public information.

Summary of calculation

Generated waste per waste type and waste destination/disposal method (kg) x emission factor of the waste type with relevant disposal method (kgCO2e/kg) + tonne kilometre (tkm) of transported waste x transport type emission factor (kgCO2e/tkm)*

* The waste management company may provide previously calculated transportation emissions.

Activity data information

Activity data source information	Information on generated waste (kg) is obtained from waste management service companies which track data on the waste collected. It is recommended that waste should be separated into different types when possible (see below for more details). Activity data includes waste generated at an organisation's premises (e.g. training ground, office, stadium on match day). The different types of waste for reporting and categorising waste treatment are: Waste for recycling: ○ Glass ○ Metal (e.g. aluminium) ○ Plastic (e.g. PET, PPET) ○ Paper and cardboard ○ Timber ○ Organic waste ○ Cooking oil (legislated) ○ ICT and electronics ○ Construction/building materials

Activity data information	
Activity data source information	Waste for incineration/combustion or landfill (if an option) ○ General/unsorted waste ○ Medical waste In addition, emissions related to the transportation of collected waste should be obtained from the waste management company. This information can be provided as either kgCO2e or tkm, which can then be converted into kgCO2e using the approach defined for Scope 3 Categories 4 and 9. If actual activity data is not available, data is estimated using assumptions (e.g. a 10l rubbish bag is assumed to be 10kg general waste).
Frequency of collection	Annual
Data ownership and validation process	TBD by each organisation (for documentation example see the document structure section).
Emission factor source information	
Geography	Global
Source	DESNZ/DEFRA; waste management company specific factors Multiple emission factors are used for each waste and treatment type. Unit of measurement: kgCO2e/kg. The selection of the recommended emission factors is described in Appendix 8.3.
Process for EF overwriting	n/a

SCOPE 3 CATEGORY 6: BUSINESS TRAVEL

Category definition

Definition in a football context

Business travel in the context of football covers emissions associated with the travel and hotel stays of the following event participants:

- Teams
- Officials: referees and other officials (only applicable to leagues and football confederations)
- Employees of the organisation
- VIP guests
- Accredited individuals whose travel is not accounted for on invoices for delivered services
- Hotel stays: can be included when data is available and hotel stays can be linked to the event. However, hotel stays are excluded from the detailed calculation methodology. Some general guidance can be found in the appendix.

GHG Protocol definition

This category includes emissions from the transportation of employees for business-related activities in vehicles owned or operated by third parties, such as aircraft, trains, buses and passenger cars.

Emissions from business travel may arise from:

- Air travel
- Rail travel
- Bus travel
- Automobile travel (e.g. business travel in rental cars or employee-owned vehicles other than employee commuting to and from work)
- Other modes of travel (e.g. taxi, ferry)

Companies may optionally include emissions from business travellers staying in hotels.

– GHG Protocol

Materiality of the category to the organisation

High. Expected to be highly material due to the many participants included in the scope of the travel data and the different transport modes considered.

Level of influence to drive reduction

High. Organisations have control over their staff mobility and choice of accomodation by choosing more sustainable travel options.

Note: Leagues and clubs hare less likely to have influence over the business travel habits of clubs.

Confidence in data completeness and accuracy

Guidance on which confidence level to select:

High: When the travel and hotel stay data, is calculated using actual activity data (e.g. distance travelled per transport mode and vehicle type used).

Medium: When the actual travel data is not always available and estimates or projections are used instead.

Low: When no actual travel data is collected and an estimation is based on previous business trips or averaged public information.

Summary of calculation

Distance travelled per vehicle type and transport mode (km) x emission factor* (kgCO2e/km) +

number of nights stayed at the hotel (nights) x country emission factor (kgCO2e/room/night)

*All flight emission factors use the concept of radiative forcing to take into consideration flying at high altitudes.

Activity data information	
Activity data source information	**Travel** Business travel data for participants is measured in distance (kilometre or passenger kilometre) as reported by the travel agency and classified by the following modes of transport: ○ Air travel: short (up to 785 pkm), medium (785-3,700 pkm) and long haul (over 3,700 pkm) further divided by flight class (economy or business) ○ Train (pkm) ○ Car (km) ○ Motorbike (km) ○ Electric vehicle* (km) ○ Coach: this mode of transport only applies to teams and relates to coaches not owned or controlled by clubs. It assumes 50% or 25 seat capacity utilisation. The activity is measured in passenger km (25 seats x pkm travelled). * If the organisation has not conducted a travel survey in the past, then the proportion of individuals using electric vehicles can be estimated using the average proportion of electric cars in a given country (see Appendix 8.4). **Hotel stays** The hotel stay data for teams and staff consists of the number of days spent at hotels and their locations.

Activity data information	
Frequency of collection	Annual
Data ownership and validation process	TBD by each organisation (for documentation example see the document structure section).
Emission factor source information	
Geography	Global
Source	DESNZ/DEFRA Car or motorbike – average emission factor. Train – average international and domestic rail factors. Sometimes travel agencies supply emission calculations in kgCO2e. Emissions provided by a travel agency often lack transparency on the method of calculation and which emission factor was used. If you obtain such data, ensure that flight emissions have been calculated using the radiative forcing emission factor. If the agency cannot provide a calculation breakdown, it is recommended that emissions should be recalculated using the above methodology. Unit of measurement: kgCO2e/mile, kgCO2e/pkm, kgCO2e/night. The selection of the recommended emission factors is described in Appendix 8.3.
Process for EF overwriting	n/a

SCOPE 3 CATEGORY 7: EMPLOYEE COMMUTING

Category definition

Definition in a football context

This category includes emissions by employees travelling between their homes and work places, excluding events, e.g. staff travelling to the office or teams travelling to training. Emissions from employee commuting may arise from:

- Automobile travel
- Bus travel
- Rail travel
- Air travel
- Other modes of transportation (e.g. subway, cycling, walking)

Organisations may include emissions from teleworking (i.e. employees working remotely) in this category.

Emissions from employees or teams travelling to football matches are covered by Scope 3 Category 6: Business travel.

GHG Protocol definition

This category includes emissions from the transportation of employees between their homes and their worksites.

Emissions from employee commuting may arise from:

- Automobile travel
- Bus travel
- Rail travel
- Air travel
- Other modes of transportation (e.g. subway, bicycling, walking)

Companies may include emissions from teleworking (i.e. employees working remotely) in this category. A reporting company's Scope 3 emissions from employee commuting include the Scope 1 and Scope 2 emissions of employees and third-party transportation providers.

– GHG Protocol

Materiality of the category to the organisation

Low. Organisations are expected to incur insignificant emissions in this category when compared to other Scope 3 categories.

Level of influence to drive reduction

High. Organisations can reduce emissions by setting up an employee rideshare programme or creating incentive schemes for low carbon alternatives such as bicycles or electric vehicles.

Confidence in data completeness and accuracy

Guidance on which confidence level to select:

High: When the actual employee commuting data is available (distance, numbers of days travelled and transport mode used).

Medium: When the actual employee commuting data is partially available and projections or estimations are used.

Low: When no actual employee commuting data is available and an estimate is based on the previous year's data or averaged public information.

Summary of calculation

Commuting: full-time employees working in the office x average distance travelled each day (for a return journey) x number of days travelled per year x % of employees using a specific transport mode x average emission factor for transport mode used (kgCO2e/km)

Working from home: hours worked by each employee during the year x full-time employees x office equipment use or heating emission factor (kgCO2e/FTE working hours)

Activity data information	
Activity data source information	Employee commuting information is obtained from surveys of the commuting habits of full-time employees. Part-time employees are excluded. If primary data through surveys is not available, then the findings of secondary research are used to estimate distance travelled and transportation mode used. Modes of transportation considered*: ○ Walk/bike/electric scooter ○ Public transport: bus, metro, tram, train ○ Motorbikes or scooters (non-electric) ○ Car > Shared car (how many occupants) / Driver only – measured in pkm > Petrol/diesel/hybrid/electric – specification * Refer to Appendix 8.7 to find out what percentage of all commuting each transportation mode is responsible for across EU member states. Estimates of the emissions of employees working from home are based on the average number of full-time employees, their working hours and the consequent use of office equipment and heating.
Frequency of collection	Annual
Data ownership and validation process	TBD by each organisation (for documentation example see the document structure section).

Emission factor source information	
Geography	Global
Source	DESNZ/DEFRA Unit of measurement: kgCO2e/km or kgCO2e/pkm, kgCO2e/FTE working hour). The selection of the recommended emission factors is described in Appendix 8.3. When necessary, data gaps are filled by extrapolations (e.g. 75% respondents = 150 kgCO2e -> 100% employees ~ 200 kgCO2e).
Process for EF overwriting	n/a

SCOPE 3 CATEGORY 9: DOWNSTREAM TRANSPORTATION AND DISTRIBUTION

In Season 2025/26, UEFA invited the Premier League to develop and test a suggested methodology for measuring GHG emissions from spectator travel, with the aim of supporting future alignment across clubs and informing updates to the UEFA Carbon Footprint Tool methodology. The Premier League assembled a Fan Travel Breakout Group comprised of Premier League clubs willing to work on the development and testing of a proposed methodology. At multiple points throughout the project, the Breakout Group reported back to the Premier League's Sustainability Working Group (comprised of all clubs) to check / challenge work. The process was presented and validated by UEFA and the French Ligue de Football Professionnel (LFP). The LFP has already incorporated this approach into the carbon footprint assessment methodology that forms part of the licensing requirements for Ligue 1 and Ligue 2 clubs. Clubs within the Breakout Group represent a reasonable spread in terms of geographic location, public transport Vs car dominant destinations, and size and age of stadia.

For linguistic purpose, the use of the word "fans" designs a spectator attending the match with a valid ticket. Other terminology used are "ticket holder" or "spectator". Fans without a valid ticket are out of scope and not accounted for, unless specifically mentioned.

BREAKOUT GROUP

- Brentford FC
- Brighton & Hove Albion
- Chelsea FC
- Newcastle United
- Wolverhampton Wanders

Category definition

Definition in a football context

Greenhouse gas (GHG) emissions produced from supporters travelling to and from football matches.

To ensure consistency and avoid double counting across the Premier League recommends that clubs take account of the GHG emissions from their own fans to both their home stadium and to away stadiums (also known as the 'fan-led' approach). Another way to look at this is taking account of GHG emissions from travel associated with tickets that clubs sell directly. It is important that clubs take account of the travel footprint of their own fans across the following categories:

- Outbound and return journeys from the fan's residence to the home stadium (capturing all relevant matches such as domestic and international league competitions, domestic and international cup competitions, friendlies, and pre-season fixtures within the reporting period)- Bus travel
- Outbound and return journeys from the fan's residence to away stadiums (capturing all relevant matches such as friendlies, pre-season fixtures, cup competitions and league competitions within the reporting year).

Travel for corporate hospitality guests, media, officials and volunteers should be captured in Scope 3, Category 6 (business travel).

Accommodation associated with overnight stays is out of scope.

GHG Protocol defnition

This category covers logistics movements where your customers, retailers, or third-party logistics providers bear the freight costs. This also includes consumer travel to and from retail stores and downstream intermediate storage.

Emissions may arise from different mode of transportation:

- Air travel
- Rail travel
- Bus travel
- Car travel (including car sharing, this is why the number of passenger in the car is important while carrying survey)

Materiality of the category to the organisation

High. Evidence suggests that this category represents a material part of the overall value chain emissions of almost all football clubs.

Level of influence to drive reduction

Clubs do not directly control how spectators travel, but do have indirect influence over decisions through policy, infrastructure and incentives. For example:

- Provision of bike racks at stadiums (infrastructure)
- Advertising public transport routes (policy)
- Subsidising travel back public transport (incentive)

Confidence in data completeness and accuracy

High:: When clubs have collected supporter location data through ticketing systems and have surveyed a representative sample of supporters to determine travel mode. Travel distances can be derived from supporter location data (e.g. postcode data) reducing reliance on assumptions and improving completeness and accuracy.

Medium: When clubs have surveyed a representative sample of supporters to determine both travel distance and travel mode, but do not have access to supporter postcode data through ticketing systems. Results are reliant on self-reported travel information and extrapolation from survey responses.

Low: When clubs rely on travel distance and mode assumptions derived from third-party datasets (for example Premier League fan survey data) rather than club-specific supporter data.

Summary of calculation

Fan travel emissions should be calculated using supporter travel data collected through fan surveys and / or match day ticketing information. Survey responses should be used to determine:

- Distance travelled to and from matches
- Primary mode of transport used
- Number of supporters represented by the survey sample

Emissions should first be calculated for each individual attendance and then extrapolated to the relevant attendance population. For fans with multiple attendances, emissions should be calculated separately for each attendance before being aggregated.

It is advised that fan travel data should be organised according to each individual attendance (see table below).

Step 1: Calculate emissions for each respondent attendance
For each individual attendance across surveyed respondents:
Travel emissions = Return journey distance × emissions factor for primary mode of transport where "Return journey distance" represents the total distance travelled between the supporter's residence and the stadium, including both outbound and return travel (doubling the one-way distance).

Where multiple transport modes are used during a journey, clubs should identify the primary mode of transport, defined as the mode used for the largest proportion of the total journey distance. Where feasible, clubs should look to use road-network or rail-network distances for calculating the distance between locations. If this is not feasible, clubs might choose to use the straight-line distance between locations.

Step 2: Extrapolate survey emissions to total attendance
Once emissions have been calculated for all attendances across survey respondents, clubs should scale the surveyed emissions total to the relevant attendance population.

Total fan travel emissions = Total emissions from surveyed attendances × (Total attendance ÷ Number of surveyed attendances)

Where:
- Total emissions from surveyed attendances = sum of return journey emissions for all valid responses from surveyed attendances
- Total attendance = actual attendance for the relevant fixtures during the reporting period.

Survey response ID	Distance from home to stadium (miles)	Primary mode of transport	Home/away fixture	Match type	Travelling to/from abroad
001	25	Car	Home	Premier League	No
001	25	Car	Home	Premier League	No
001	70	Train	Away	FA Cup	No
002	255	Flight	Away	Champions League	Yes
003	5	Bike	Home	Premier League	No

Activity data information

Activity data source information

Travel – all participants excluding spectators

Travel data for participants is measured in distance (kilometre or passenger kilometre) and classifed by the following modes of transport:

The Premier League recommends three approaches to data collection. Approach One represents the lowest data quality option whilst approach three represents the highest data quality option. Over time, clubs should work towards using approach three (utilising high-quality data) wherever possible.

	Approach One	Approach Two	Approach Three
Approach	Premier League Fan Experience Data (Home fans only)	Club's own fan survey data	Club's own fan survey data + Matchday ticketing information
Data Colletcion Method	Use Premier League fan survey data	Club bespoke fan survey (capturing home and away travel)	Club bespoke fan survey (capturing home and away travel) + Fan data captured through ticketing information
Scope	Premier League Home Games and fans Only	Home, Away, Friendlies and Cup Competitions (domestic and international)	Home, Away, Friendlies and Cup Competitions (domestic and international)
Data Collection Methodology	• Attendance data (derives from actual attendance from each Club's representative, for example, Ground Safety Officer or Ticketing Teams at each matchday) • Fans distance travelled (captured from Premier League survey) • Fans mode of transport (captured from Premier League survey)	• Attendance data (derives from Club ticket information) • Fans distance travelled (captured from Club survey) • Fans mode of transport (captured from Club survey)	• Attendance data (derives from Club ticket information) • Fans postcode data (Club database) • Fans mode of transport (Club survey)
Data Quality Score (Indicative)	**Low data quality**	**Medium data quality**	**High data quality**

Frequency of collection

It is recommended that fan travel data is captured at least annually (or more frequently) as required. The frequency of data collection will vary depending on the methodological approach

Data ownership and validation process

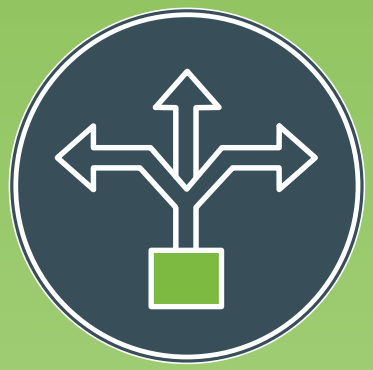
Data capture is typically supported by a Club's sustainability team, fan engagement team, and / or ticketing team.

Activity data information	
Geography	Global
Source	DESNZ/DEFRA ○ Car or motorbike – average emission factor. ○ Train – average international and domestic rail factors. Sometimes travel agencies supply emission calculations in kgCO2e. Emissions provided by a travel agency often lack transparency on the method of calculation and which emission factor was used. If you obtain such data, ensure that fight emissions have been calculated using the radiative forcing emission factor. If the agency cannot provide a calculation breakdown, it is recommended that emissions should be recalculated using the above methodology. Unit of measurement: kgCO2e/pkm or kgCO2e/pmile The selection of the recommended emission factors is described in Appendix 8.3.
Process for EF overwriting	n/a
Data reporting	To support meaningful year-on-year comparisons, clubs should report fan travel emissions separately for each competition. This helps account for variations in the number of matches played, the location of fixtures, and the associated travel distances, which can significantly influence annual emissions totals.

Methodology limitations:

• The Premier League has not yet collected sufficient data to recommend a minimum survey sample size for achieving statistically robust results. Clubs should seek to maximise response rates and obtain a representative sample of supporters, recognising that larger sample sizes are generally associated with greater confidence in the resulting emissions estimates.

• The Premier League has not prescribed a methodology for attributing emissions associated with international supporter travel. This reflects the challenge of determining the primary purpose of a trip, as supporters attending an international fixture may also combine their travel with holidays, business travel or other activities.



5. Alternative carbon accounting methods for events

SECTION 5

Alternative carbon accounting methods for events

The GHG Protocol is designed for organisational carbon accounting (with reference the private sector) and is sometimes not adapted to football activities that are mostly event based.

For events, methodology and accounting slightly differs, therefore some guidance is provided in order to be aligned with international standard addressing carbon emissions in events, such as EPA.

SCOPE 3 CATEGORY: OTHER (EVENT-RELATED EMISSIONS)

Category definition

Definition in a football context

Organisations should only account for emissions from events in this category if they are not allocated to one of the GHG Protocol categories described above.

Emissions in this section arise from activities in events which are organised by football clubs or national associations/leagues. These events are primarily football matches or tournaments played in stadiums, but could also include other events, such as esport competitions.

Event emissions are associated with travel by event participants and the facilities used for the event. The main sub-categories are:

- Event travel. This is further split into the different transport modes to and from events used by employees, football teams, guests and spectators.
- Event energy use. This includes the stationary combustion of fuels (diesel, natural gas and other non-renewable fuels) and consumption of electricity at the event facility, such as the stadium or overlay area (e.g. fan zone or food stalls outside the stadium).
- Hotel stays by event guests.

Note: Organisations could additionally include in this category emissions which arise from waste generated during the event or from logistics-related activity.

EPA definition

This category refers to GHG emissions from travel to and from an event or conference, emissions from hotel stays by attendees, and emissions from the event or conference venue. GHG Protocol identifies events and conferences as a Scope 3 activity that is not specifically included in the list of Scope 3 categories and suggests it should be reported separately such as in an "other" Scope 3 category.

Materiality of the category to the organisation

It is likely that all emissions incurred by an organisation in this category will be material due to the high number of events held throughout the year and the inclusion of travel by event participants.

Confidence in data completeness and accuracy

Guidance on which confidence level to select:

High: When the event activity information is calculated using actual data (e.g. actual distances travelled or energy consumed).

Medium: When the actual event activity data is not always available and estimates or projections are used instead.

Low: When actual event activity data is rarely used and emissions are mainly calculated from estimations using previous event data or averaged public information.

Level of influence to drive reduction

Low to medium. Organisations have more influence over the reduction of emissions from event travel for its own staff than for other participants. Influence over spectators' travel is significantly lower. National associations and leagues are likely to have low influence as clubs decide how their teams travel.

Summary of calculation

General accounting approach: activity data (unit) x activity-specific emission factor (kgCO2e/unit of activity)

Note: It is recommended that emissions from this category are reported separately and are not added together with other Scope 3 categories.

Activity data information

Activity data source information	**Event travel:** See Scope 3 Category 6: Business travel and consider obtaining information on all participants travelling to and from the event. **Hotel stays by teams and other participants:** See Scope 3 Category 6: Business travel and consider obtaining information on hotel stays by event participants.

Activity data information	
Activity data source information	**Event energy use:** Clubs can obtain information on the energy consumed on the premises during the hosted event from meters at the stadium or from energy bills. National associations and leagues can obtain energy use information from clubs hosting the event or other organisations managing the event. Examples of the energy data to be obtained include: ○ Diesel ○ Natural gas ○ Other non-renewable fuel ○ Renewable fuel (biodiesel) ○ Purchased electricity (split into renewable and non-renewable) ○ Renewable energy generated on event premises National associations and leagues may also be able to obtain a kgCO2e figure calculated for the whole event from clubs or other third parties managing the event.
Frequency of collection	TBD by each organisation if this category is used.
Data ownership and validation process	TBD by each organisation if this category is used (for documentation example see the document structure section).

Emission factor source information	
Geography	Global
Source	DESNZ/DEFRA; US EPA EEIO
Process for EF overwriting	**Event energy use:** Supplier-specific electricity emission factor to be prioritised over the residual mix and average grid factors of market-based reporting.

OUT OF SCOPE (EVENT-RELATED EMISSIONS)

Category definition
Definition in a football context This category includes emissions from fans **that do not hold a valid ticket** to attend the match travelling between their homes and the stadium and/or fan zones, accommodations and hotel stays due to lack of reliable data and the low level of accountability on the emissions.

6. Materiality screening guidance for other Scope 3 categories

SECTION 6

Materiality screening guidance for other Scope 3 categories

The purpose of this section is to offer effective guidance on activities at a club, association or league that might give rise to emissions under different reporting categories. The information below explains other GHG Protocol categories. These categories are considered optional and are not included in the initial methodology due to either:

- their low materiality,
- the lack of available data.

Clubs, associations or leagues can decide to include these categories in their reporting boundary at any point.

An overall definition of the category is provided alongside an explanation on how this category applies to football events and what information you can collect to implement an initial screening or assessment of the category's materiality. These screening results can then be used to determine whether the category is material enough to be included in the reporting boundary.

SCOPE 3 CATEGORY 8: UPSTREAM LEASED ASSETS

Category definition

Definition in a football context

Includes emissions from the operation of assets that are leased by the reporting organisation in the reporting year and not already included in the reporting organisation's Scope 1 or Scope 2 inventories, e.g. renting a team coach or a stadium for temporary use. In the case of a rented stadium, the organisation should account for all emissions incurred during the use of the stadium in this category. This category is applicable only to organisations that operate leased assets (i.e. lessees). A reporting organisation's Scope 3 emissions from upstream leased assets usually include the Scope 1 and Scope 2 emissions of lessors.

If the reporting organisation leases an asset for only a part of the reporting year, it should account for emissions for the portion of the year that the asset was leased.
GHG Protocol definition adapted to a football context

GHG Protocol definition

Upstream leased assets include emissions from the operation of assets that are leased by the reporting company in the reporting year and not already included in the reporting company's Scope 1 or Scope 2 inventories. This category is applicable only to companies that operate leased assets (i.e. lessees).

Materiality screening guidance

Supplier-specific emissions: If feasible, take on a proportionate share of the Scope 1 and 2 emissions (fuel and energy) associated with the leased asset from the owner (lessor, who may account for such emissions in Scope 3 Category 13). For example, if the leased/rented asset is a stadium, then a lessor could estimate your share of emissions arising from operating the stadium based on how long the asset was used.

Energy-based data: If it is not possible to obtain information directly from the lessor, then the fuel and energy consumption may be available from meter readings or estimates by energy providers.

SCOPE 3 CATEGORY 9: SPECTATOR HOTEL STAYS

Category definition

Definition in a football context

Spectator hotel stay emissions are incurred by fans staying at hotels before and/or after football matches. Hotel energy use per day/night is considered when quantifying emissions, which are allocated equally among the different rooms of the hotel. Emission factors are usually expressed in kgCO2e/room/night.

Hotel stay emissions are usually associated with Scope 3 Category 9: Downstream transportation and distribution or can be included as part of Scope 3 Category: Other if the Alternative Carbon Accounting Method for Events is followed (see Chapter 5).

Materiality screening guidance

Number of nights stayed at the hotel per spectator x number of spectators x average hotel stay emission factor for the country (kgCO2e/room/night)

Average hotel stay emission factors for different countries are available from DESNZ/DEFRA. Estimates of the number of nights stayed can be used. An assumption of one room per spectator can also be applied for simplicity.

SCOPE 3 CATEGORY 10: PROCESSING OF SOLD PRODUCTS

Category definition

Definition in a football context

This category includes emissions from the processing of sold intermediate products by third parties (e.g. manufacturers) subsequent to sale by the reporting organisation. Intermediate products are products that require further processing, transformation or inclusion in another product before use. This may include merchandise, such as football t-shirts, sold to third parties for further processing (e.g. adding a crest) before being marketed to the end users.
- GHG Protocol definition adapted to a football context

GHG Protocol definition

This category includes emissions from processing sold intermediate products by third parties (e.g. manufacturers) subsequent to sale by the reporting company. Intermediate products are products that require further processing, transformation or inclusion in another product before use, and therefore result in emissions from processing subsequent to sale by the reporting company and before use by the end consumer.

Materiality screening guidance

Collect Scope 1 and 2 emissions data associated with the further processing of your sold products. A fair share of emissions from the third party which bought the product and is responsible for further processing should be taken into account. This share of emissions could be calculated by the manufacturer based on expenditure, e.g. by comparing what proportion of the total manufacturing expenses incurred for the year is represented by products purchased from your organisation.

SCOPE 3 CATEGORY 11: USE OF SOLD PRODUCTS

Category definition

Definition in a football context

This category includes emissions from the use of goods and services sold by the reporting organisation in the reporting year. Examples include football matches broadcast on television and a team or league's digital non-fungible tokens (NFTs). Apparel that requires washing is also included. A reporting organisation's Scope 3 emissions from use of sold products include the Scope 1 and Scope 2 emissions of end users. End users include both consumers and business customers that use final products.

Some football clubs report the travel emissions of event participants in this category. This is an alternative way to account for emissions related to spectator travel, although it is recommended that these should be reported in Scope 3 Category 6: Business travel.
- GHG Protocol definition adapted to a football context

GHG Protocol definition

Category 11 includes the total expected lifetime emissions from all relevant products sold in the reporting year across the company's product portfolio. This can include products that directly consume energy (fuel or electricity) during use, such as automobiles. It also includes products which indirectly consume energy during use, such as apparel which requires energy for washing.

Materiality screening guidance

Information to be obtained and the calculation formula:

Product example 1: matches broadcast on TV

average viewership statistics for the football match (count) x total number of match hours broadcast (count) x average energy consumption (kWh) of TV per hour/day x global average electricity emission factor (kgCO2e/kWh)

Product example 2: digital non-fungible tokens (NFTs)

average estimated GHG emissions of the NFT over the lifespan x number of NFTs sold

SCOPE 3 CATEGORY 12: END-OF-LIFE TREATMENT OF SOLD PRODUCTS

Category definition

Definition in a football context

This category includes emissions from the waste disposal and treatment of products sold by the reporting organisation (in the reporting year) at the end of their life. It includes the total expected end-of-life emissions from all products sold in the reporting year, such as merchandise. Digital products such as match broadcasting or non-fungible tokens (NFTs) are not relevant to this category.

Waste emissions incurred in the stadium during the event (e.g. food waste or plastic cups) or waste incurred at other organisation facilities (e.g. paper) do not relate to this category and are reported under Scope 3 Category 5: Waste generated in operations.
- GHG Protocol definition adapted to a football context

GHG Protocol definition

Calculating emissions from this category requires assumptions about the end-of-life treatment methods used by consumers. Companies are required to report a description of the methodologies and assumptions used to calculate emissions. The emissions from downstream end-of-life treatment of sold products should follow the calculation methods in Category 5 (Waste generated in operations), with the difference that instead of collecting data on total mass of waste generated in operations, companies should collect data on total mass of sold products (and packaging) from the point of sale by the reporting company through the end of life after use by consumers.

The major difference between calculating upstream and downstream emissions of waste treatment is likely to be the availability and quality of waste activity data. Whereas the reporting company is likely to have specific waste type and waste treatment data from its own operations, this information is likely to be more difficult to obtain for sold products. Although the reporting company may know the product's components, it may not know how the waste-disposal behaviour of consumers and retailers varies across geographic regions.

Materiality screening guidance

Information to be obtained and the calculation formula:

Step 1: Research

Conduct primary research to understand how products are treated after consumption or consult existing research on the consumer disposal patterns of specific products.

Step 2: Formula

Total mass of sold products and packaging (kg) x average waste-treatment-specific emission factors (kgCO2e/kg) based on all waste treatment types (incineration, landfill, etc.)

SCOPE 3 CATEGORY 13: DOWNSTREAM LEASED ASSETS

Category definition

Definition in a football context

Includes emissions from the operation of assets that are owned by the reporting organisation (acting as lessor) and leased/rented to other entities in the reporting year that are not already included in Scope 1 or Scope 2. For example, a stadium leased or rented to other parties to host a concert or other event, but where the reporting organisation has no control over the event logistics and services offered during the event. This category is applicable to lessors (i.e. organisations that receive payments from lessees for the use of their facilities).

If the reporting organisation leases an asset for only part of the reporting year, it should account for emissions from the portion of the year that the asset was leased.
- GHG Protocol definition adapted to a football context

GHG Protocol definition

This category includes emissions from the operation of assets that are owned by the reporting company (acting as lessor) and leased to other entities in the reporting year that are not already included in Scope 1 or Scope 2. This category is applicable to lessors (i.e. companies that receive payments from lessees).

Materiality screening guidance

Collect operational emissions data (Scope 1 and 2) from the lessee or use actual fuel and energy consumption data from meter readings if this can be accessed directly. Alternatively, the reporting organisation can use estimates by the energy provider.

SCOPE 3 CATEGORY 14: FRANCHISES

Category definition

Definition in a football context

This category includes emissions from the operation of franchises not included in Scope 1 or Scope 2. A franchise is a business operating under a licence to sell or distribute another organisation's goods or services in a certain area. This category is applicable to franchisors (i.e. companies that grant licences to other entities to sell or distribute their goods or services in return for payments, such as royalties for the use of trademarks and other services). In the context of football, this may include opening football schools/academies as franchises with a local partner in a different country.

Franchisees (i.e. companies that operate franchises and pay fees to a franchisor) should include emissions from operations under their control in this category if they have not included those emissions in Scope 1 and Scope 2 due to their choice of consolidation approach. For example, this may include emissions from operating a football merchandise shop under a franchise structure.
- GHG Protocol definition adapted to a football context

GHG Protocol definition

Category 14 includes emissions from the operation of franchises not included in Scope 1 or Scope 2. A franchise is a business operating under a licence to sell or distribute another company's goods or services within a certain location. This category is applicable to franchisors (i.e. companies that grant licences to other entities to sell or distribute its goods or services in return for payments, such as royalties for the use of trademarks and other services). Franchisors should account for emissions that occur from the operation of franchises (i.e. the Scope 1 and Scope 2 emissions of franchisees) in this category.

Materiality screening guidance

If a franchisor:

Energy-based method: collect site-specific energy and fuel consumption (kWh or litres) x emission factor for the energy type used (kgCO2e/kWh or litre)

Emissions-based method: collect Scope 1 and Scope 2 emissions data in kgCO2e directly from franchisees

If a franchisee:

The same energy-based method as above applies. Obtain actual or estimated energy and fuel use data for the facility operated under the franchise model.

SCOPE 3 CATEGORY 15: INVESTMENTS

Category definition

Definition in a football context

This category includes Scope 3 emissions associated with the reporting organisation's investments in the reporting year, not already included in Scope 1 or Scope 2. This category is applicable to organisations that make an investment with the objective of making a profit. Investments are categorised as a downstream Scope 3 category because providing capital or financing is a service provided by the reporting organisation.

Emissions arise from investments in the following asset classes:

- Equity – providing capital to other companies where the reporting organisation has no operational control and only holds a financial interest. This can include investment in stocks and start-ups.
- Corporate debt – investments in corporate bonds or providing capital through commercial loans in order to provide third parties with funds to develop certain projects (e.g. building a football training ground).
- Project finance – long-term financing of projects in the form of equity or debt (e.g. infrastructure investments), but where funds are not strictly tied to a specific activity as in the corporate debt category.
  - GHG Protocol definition adapted to a football context

GHG Protocol definition

This category includes Scope 3 emissions associated with the reporting company's investments in the reporting year, not already included in Scope 1 or Scope 2. This category is applicable to investors (i.e. companies that make an investment with the objective of making a profit) and companies that provide financial services. This category also applies to investors that are not profit driven (e.g. multilateral development banks), and the same calculation methods should be used. Investments are categorised as a downstream Scope 3 category because providing capital or financing is a service provided by the reporting company.

Materiality screening guidance

Information to be obtained and the calculation formula:

Investment-specific method: Collect Scope 1 and Scope 2 emissions data from the invested company and allocate the emissions based on the investment share or ownership percentage.

Average data method (when invested company data is not available): collect the revenue of the invested company ($) x US EPA sector specific EEIO emission factor (kgCO2e/$ revenue) x allocate share of emissions based on the proportion of investment in the invested company*

* If the investment is related to the project financing, the share should be based on the investor's proportion of the total project costs (total equity plus debt).

7. Allocation of event-related emissions

SECTION 7

Allocation of event-related emissions

SOURCES OF EVENT EMISSIONS FOR FOOTBALL CLUBS

Table 1: Accounting for activities for home matches*

Type of event	Operational control	GHG emissions accounting treatment guidance
Home match	The organisation has full operational control over the match	Emissions incurred during the event may arise from: ○ Stadium fuel or/and energy use (Scope 1 & 2) ○ Waste generation (Scope 3, Category 5) ○ Event logistics (Scope 3, Categories 4 & 9) ○ Travel by home and/or away spectators**, ○ Travel by the team and staff (Scope 3, Category 6)

Table 2: Accounting for activities for away matches*.

Type of event	Operational control	GHG emissions accounting treatment guidance
Away match	The match is not organised by the club and there is no operational control over the event	Scope 3, Category 6 & 9 1. Team and staff travelling to the event 2. Team supporters travelling to the event (away fans, if any)**

** see scope 3 category 9 for recommendation:

SOURCES OF EVENT EMISSIONS FOR NATIONAL ASSOCIATIONS

Table 3: Accounting for activities for a national team home match.

Type of event	Operational control	GHG emissions accounting treatment guidance
National team home match (e.g. European qualifier)	The organisation has full operational control over the match.	Emissions incurred during the event may arise from: ○ Stadium fuel and/or energy use (Scope 1 & 2) ○ Waste generation (Scope 3, Category 5) ○ Event logistics (Scope 3, Category 4) ○ Travel by team, staff and officials (Scope 3, Category 6) ○ National teams supporters (ticket holders ONLY) traveling to the event (Scope 3, Category 9)

Table 4: Accounting for activities for a national team away match.

Type of event	Operational control	GHG emissions accounting treatment guidance
National team away match (e.g. UEFA European Football Championship group match)	The match is not organised by the national association and it has no operational control over the event itself.	**Scope 3, Category 6** 1. Team and staff travel to the event (Scope 3, Category 6) 2. National teams supporters (ticket holders ONLY) traveling to the event (Scope 3, Category 9)

Table 5: Accounting for activities when a match is played as part of a national association competition.

Type of event	Operational control	GHG emissions accounting treatment guidance
Any football match that is part of the competition (e.g. FA Cup or Copa del Rey)	The organisation might not have operational control over every event activity, but the football match forms part of its organised competition.	Emissions incurred during the event may arise from: ○ Stadium fuel and/or energy use (Scope 1 & 2) ○ Waste generation (Scope 3, Category 5) ○ Event logistics (Scope 3, Category 4) ○ Travel by teams, staff and officials (Scope3, Category 6) ○ Travel by spectators (Scope 3, Category 9)

SOURCES OF EVENT EMISSIONS FOR FOOTBALL LEAGUES

Table 6: Accounting for activities at league matches.

Type of event	Operational control	
Any football match of the league (e.g. Premier League or Serie A)	The organisation might not have operational control over every event activity, nor the event location, but the football match forms part of its organised competition.	

8. Appendix

SECTION 8

Appendix

8.1 INTERNATIONAL STANDARDS USED

The UEFA Carbon Accounting Methodology is aligned with the GHG Protocol for best practice emissions reporting. Information about the protocol is available at the following websites:

- Scope 2 calculation guide (incl. an explanation of location- and market-based reporting): https://ghgprotocol.org/scope_2_guidance
- Bundled vs unbundled Renewable Electricity Certificates:

https://recs.org/download/?file=RECS-International-An-introduction-to-different-ways-of-buying-renewable-electricity_FINAL.pdf&file_type=documents

- Scope 3 calculation guide: https://ghgprotocol.org/scope-3-technical-calculation-guidance
- Overall Corporate Standard: https://ghgprotocol.org/corporate-standard
- Scope 2 location- versus market-based reporting: https://ghgprotocol.org/sites/default/files/2022-12/Scope2_ExecSum_Final.pdf

In addition, the UEFA Carbon Accounting Methodology is informed by the EPA Guidance for Emissions Calculation associated with events. This offers an additional approach for organisations wishing to account for such emissions separately.

- https://www.epa.gov/sites/default/files/2018-12/documents/indirectemissions_draft2_12212018_b_508pass_3.pdf

Furthermore, the UEFA Carbon Accounting Methodology is aligned with the ISO 14064-1 standard, specifying the principles and requirements at organisation level for the quantification and reporting of greenhouse gas (GHG) emissions.

- https://www.iso.org/standard/66453.html

Finally, the UEFA Carbon Accounting Methodology is aligned with the ISO 14064-1 standard and the Greenhouse Gas Protocol in the calculation of uncertainties, as per the 'GHG Protocol guidance on uncertainty assessment in GHG inventories and calculating statistical parameter uncertainty' document.

- https://ghgprotocol.org/sites/default/files/2023-03/ghg-uncertainty.pdf

8.2 GLOBAL WARMING POTENTIAL DEFINITIONS

Values for two non-carbon dioxide GHGs, methane (CH4) and nitrous oxide (N2O), are presented as CO2 equivalents (CO2e) using the Global Warming Potential (GWP) factors of the Fourth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC) (GWP for CH4 = 25, GWP for N2O = 298).

8.3 EMISSION FACTOR DATABASE

Please refer to the **EFCM Emission Factors** excel file which presents recommended emission factors for all the material categories of GHG emissions outlined in this document. Organisations are encouraged to use these factors to convert their activity information into kgCO2e unless more accurate, supplier-specific emission factors are available.

Organisations are advised to regularly update the emission factor sets used in the excel file. There are regular updates of the values of the specified emission factor sources and the organisations issuing them (e.g. annually or every two years). The only exception is the US EPA EEIO factor set used to account for emissions based on spend data, which does not change regularly. When new factors are published, they are usually available to download from the issuer's website.

8.4 ELECTRIC CAR USAGE TRENDS

The report below contains statistics on passenger cars by fuel type across different European countries. If actual information on the transport mode used is not available, then it is recommended that the data of this report should be considered when estimating event travel for participants.

ACEA - Vehicles in use, Europe 2023: https://www.acea.auto/publication/report-vehicles-in-use-europe-2023/ (page 14).

8.5 EMISSIONS BY E-SPORT TEAMS AND FOOTBALL ACADEMIES

Any emissions associated with a club's esport team should not be accounted for separately. The activities of the e-sport team should be associated with all the other carbon categories relevant to the football club (e.g. energy use in Scope 2, travel by the e-sport team in Scope 3, Category 6).

Similarly, emissions from football academies, which are operated by the clubs themselves and not franchised to other organisations, should be accounted for under the categories described in Chapter 4: Detailed Carbon Accounting Methodology.

8.6 EEIO EMISSION FACTOR ADJUSTMENTS

Spend-based emission factors in kgCO2e/$ can be adjusted to account for changes in inflation or the exchange rates between USD and other currencies. The following sources can be used to inform the calculation:

- Calculation example (page 43): https://www.iaeg.com/binaries/content/assets/iaeg/pgs-cg-methodology.docx
- Inflation data is available at: https://data.oecd.org/price/inflation-cpi.htm

(Aerospace Industry Tool for Calculating Scope 3 Greenhouse Gas Emissions of goods and services and capital goods: Methodology, page 43, IAEG, 2021)

8.7 EMPLOYEE COMMUTING STATISTICS

Refer to the EFCM spreadsheet (Appendix 8.3) for specific references and European average.

8.8 GLOSSARY

REFERENCE	TITLE
DESNZ	Department for Energy Security and Net Zero
Defra	Department for Environment, Food and Rural Affairs (UK)
Downstream emissions	Downstream Scope 3 emissions involve an organisation's customers – or everything involved in consuming their product/service.
EEIO	Environmentally Extended Input-Output (EEIO) model
EF	Emission Factor
EPA	Environmental Protection Agency
ESG	Environment, Social and Governance
GHG	Greenhouse Gas
Green-e	A trusted global leader in clean energy certification. Provides residual mix calculations for the USA and Canada.
IEA	International Energy Agency
Re-Diss	A project by the Association of Issuing Bodies that provides annual electricity residual mix data and calculation methodology for use in all European countries for the disclosure of electricity of unknown origin.
SBT	Science Based Targets
Upstream emissions	Upstream Scope 3 emissions refer to the suppliers of an organisation – or everything involved in producing their product/service.

8.9 METHODOLOGY VALIDATION: STATEMENT OF OPINION

UEFA, throughout the document "UEFA Carbon Accounting Methodology" vers 5 (date: 07.02.2024) presents a framework for the European football ecosystem to establish and implement a GHG accounting and reporting system. It is based on the "Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition (2004; 'Corporate Standard')" and the "EPA guidance on measuring direct emissions associated with events". This methodology is proposed as a non-binding guidance to national associations, clubs and leagues to measure and report GHG emissions.

No data verification and no validation of estimations and emissions factors were carried out as part of this validation. In the absence of calculated GHG emission inventories, no validation was carried out to verify the implementation of the "UEFA Carbon Accounting Methodology".

SGS has planned and performed the current work to obtain the information, explanations and evidence considered necessary to validate the methodology used.

Scope of validation

SGS Société Générale de Surveillance SA was contracted by UEFA to conduct the evaluation of the "UEFA Carbon Accounting Methodology" against the "Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition (2004; 'Corporate Standard')" and the "EPA guidance on measuring direct emissions associated with events". This methodology is proposed as guidance to national associations, clubs and leagues to measure, report and reduce GHG emissions. Intended users of the SGS statement of opinion on the methodology's conformity with the "Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition (2004; 'Corporate Standard')" and the "EPA guidance on measuring direct emissions associated with events" will be the European football ecosystem and the public.

The "UEFA Carbon Accounting Methodology" refers to the quantification and reporting of GHG emissions of different football organisations. It consists of general recommendations as well as in-depth guidance. The in-depth guidance is provided for:

- Setting the scope and operational limits
- Identifying the GHG emissions sources
- Quantifying Scope 1 and Scope 2 GHG emissions
- Defining the 15 Scope 3 GHG Protocol categories in the context of a football organisation and guidelines to define:

– The materiality of each category

– The anticipated level of influence to drive GHG reduction

– The level of confidence (high, medium, low) in data completeness and accuracy

– The formulas to be used to calculate the GHG emissions

– The potential sources of GHG data information

– The data collection and validation process

– The emission factor source and information

The "UEFA Carbon Accounting Methodology" also provides generic recommendations in regards to the GHG emissions' data collation and validation process, the data recalculation/restatement in case of changes, the calculation of uncertainties, the records of retention and management, and the GHG emissions reporting.

Sources of GHG covered by the "UEFA Carbon Accounting Methodology"

Although it is up to each football organisation to define their GHG sources to be included in its GHG accounting and reporting, the "UEFA Carbon Accounting Methodology" takes into account the following sources that have been deemed material for a football organisation:

- (Scope 1) – mobile and stationary emissions related to fuel consumption
- (Scope 1) – fugitive emissions related to refrigerant use
- (Scope 2) – purchased electricity, steam and heating
- (Scope 3 – Category 1) – purchased goods and services
- (Scope 3 – Category 2) – capital goods
- (Scope 3 – Category 3) – fuel- and energy-related activities (not included in Scopes 1 or 2)
- (Scope 3 – Category 4) – upstream transportation and distribution
- (Scope 3 – Category 5) – waste generated in operations
- (Scope 3 – Category 6) – business travel

- (Scope 3 – Category 7) – employee commuting
- (Scope 3 – Category 9) – downstream transportation and distribution
- (Scope 3) – other (emissions related to events)

The following categories were considered as optional, and it will be up to each football organisation to assess the materiality of these categories based on a materiality screening guidance:

- (Scope 3 – Category 8) – upstream leased assets
- (Scope 3 – Category 9) – spectator hotels stays
- (Scope 3 – Category 10) – processing of sold products
- (Scope 3 – Category 11) – use of sold products
- (Scope 3 – Category 12) – end-of-life treatment of sold products
- (Scope 3 – Category 13) – downstream leased assets
- (Scope 3 – Category 14) – franchises
- (Scope 3 – Category 15) – investments

A framework to define a level of materiality and to follow the GHG Protocol principles

Although the methodology allows each football organisation to define its own materiality level and to implement the guidance based on its own context, it provides a framework:

- For limited or reasonable assurance engagements
- For following the GHG accounting and reporting principles: relevance, completeness, consistency, transparency, accuracy

Opinion

Based on process and procedures conducted, SGS concludes that the presented "UEFA Carbon Accounting Methodology" vers 5 (date: 07.02.2024):

- Is based on the requirements of the "Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition (2004; 'Corporate Standard')" and the "EPA guidance on measuring direct emissions associated with events".

This opinion shall be interpreted with "UEFA Carbon Accounting Methodology" vers 5 (date: 07.02.2024) as a whole.

Note: The statement of Opinion released was issued with the release of version 1. The changes released in version 2 and 3 are not covered.

DISCLAIMER

The information in this methodology is provided by UEFA and members of the working group and has been independently verified (see statement of opinion). While the methodology has been prepared in good faith, no warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability will be accepted, by any of the UEFA corporate group or its respective officers, employees or agents in relation to the adequacy, members of the working group, accuracy, completeness or reasonableness of any information (whether written or oral) or notice or document supplied or otherwise made available to any person in connection with UEFA or in connection with any user's involvement in the UEFA carbon accounting methodology project. Any and all such responsibility and liability are expressly disclaimed. The recipient acknowledges and agrees that no person has, nor is held as having, any authority to give any statement warranty, representation, assurance or undertaking on behalf of UEFA and members of the working group in connection with the project.

This methodology is, on its own, sufficient to achieve a carbon accounting in football and contribute to that vision and constitute an important and necessary step forward. This methodology should be considered as a minimum threshold. All stakeholders are encouraged to take additional and/or more ambitious steps to contribute to achieving the goal. This minimum threshold will be reviewed regularly and may be raised where appropriate after consultation.

UEFA CARBON ACCOUNTING METHODOLOGY

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