

# Impact indicators for culture, sports and business events

## A Guide Part II





## Impact indicators for culture, sports and business events: A Guide Part II

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This OECD Guide sets out a framework of indicators to measure the impact of global events on local development. Global events (including culture, sports and business events) can have a significant impact on local development. Yet measuring this impact in a consistent, reliable, and comprehensive way can be challenging. This Guide presents a set of indicators which events hosts can incorporate into their evaluation strategy to assess the economic, social, and environmental impact of their event. It offers practical guidance and advice on how to implement this framework, alongside examples of indicator use. In doing so, the Guide supports the OECD Recommendation on Global Events and Local Development, which helps countries and future hosts bring greater local benefits and legacies from global events. This Guide can be read alongside *How to measure the impact of culture, sports and business events: A Guide Part I*.

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**JEL codes:** R11; R58; Z10; Z20

**Keywords:** Global events; Mega-events; Local development; Impact assessment; Festivals; Cultural events; Sporting events; Business events



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This Guide was approved by the LEED Directing Committee via written procedure on 23 June 2023.

This Guide was authorised for publication by Lamia Kamal-Chaoui, Director, Centre for Entrepreneurship, SMEs, Regions and Cities, OECD.

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# Acknowledgements

This Guide was prepared by the OECD Centre for Entrepreneurship, SMEs, Regions and Cities (CFE), led by Lamia Kamal-Chaoui, Director. This work was conducted as part of the OECD's Local Employment and Economic Development (LEED) Programme with financial support from the International Olympic Committee (IOC).

The Guide was drafted by Martha Bloom, Economist/Policy Analyst, OECD, with substantive input from Irene Basile, Policy Analyst, OECD, under the supervision of Karen Maguire, Head of the Local Employment, Skills and Social Innovation Division, OECD. Guidance from Nadim Ahmad, Deputy Director, OECD Centre for Entrepreneurship, SMEs, Regions and Cities (CFE) is also gratefully acknowledged. The OECD is grateful to Tania Braga, Head of Olympic Games Impact and Legacy, Aurélie Lemouzy, Impact and Legacy Manager, and Andres Vergara, Impact and Legacy Manager, at the IOC, for their strategic guidance during project implementation and their inputs in developing this work.

The Guide greatly benefited from comments by: Caitlin Vaughan, Diversity Impact Manager, Australia Council (Creative Australia); Francesca Neri, Foundation Scuola dei beni e delle attività culturali, Ministry of Culture, Italy; Kai Hattendorf, Managing Director / CEO, and Christian Druart, Research Manager, The Global Association of the Exhibition Industry (UFI); Yuhei Inoue, Reader in Sport Management, Manchester Metropolitan University Business School, UK; Robert Pettersson, Director European Tourism Research Institute (ETOUR); Kai Kronenberg, Researcher, and Martin Wallstam, Mid Sweden University; Ruth Hollis, Chief Executive, and Amy Finch, Head of Policy and Impact, Spirit of 2012; Craig Cannon, Senior Program Advisor, Sport Canada; Judith Mair, Associate Professor, University of Queensland; Wladimir Andreff, Honorary Professor, University Paris 1 Panthéon-Sorbonne, and President of the Scientific Council at the Observatory of the Sports Economy, French Ministry for Sports; and Fiona Bull, Head of Unit, Physical Activity, Department of Health Promotion, World Health Organization (WHO). The Guide has also greatly benefited from input from the Paris 2024 Impact and Legacy team.

The visual design of this Guide was prepared by Katrina Baker, Communications Officer, OECD. The Guide was prepared for publication by Pilar Philip, Product and Project Coordinator, OECD.

The OECD is grateful to all those who contributed to the consultation process for this project. A list of organisations who took part in the consultation can be found in Annex B.



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# GLOBAL EVENTS



# INTRODUCTION

# Introduction

## Background to the OECD and global events

**Global events can have a significant impact on local development.** Global events are events of a limited duration that have a global reach (in terms of participation, audience and/or media coverage), require significant public investment, and have an impact on the population and built environment. They include sporting events (such as the Olympic and Paralympic Games, world cups and international championships), cultural events (such as film festivals, book fairs and European Capitals of Culture), trade fairs and world expositions. The global reach and significant investment in these types of events means that they have the potential to contribute positively to local development through economic, social and environmental impacts.

**The OECD Recommendation on Global Events and Local Development offers guidance on how to leverage local benefits of hosting a global event** (OECD, 2018<sup>[1]</sup>). The Recommendation is the first OECD internationally agreed standard for global events. Whilst not legally binding, the Recommendation provides high-level policy guidance to help countries and future hosts promote more sustainable global events, implement more effective delivery mechanisms and build stronger capacities to leverage local benefits. The Recommendation sets out a number of measures to consider when using global events as a catalyst for local development. The Global Events Toolkit (OECD, 2021<sup>[2]</sup>) helps to translate these high-level recommendations into concrete guidance for local and national governments, event organisers and hosts, supporting them in implementing the OECD Recommendation. In doing so, the Toolkit provides guidance on all areas covered by the Recommendation.

**To further support the Recommendation and complement the Toolkit, this Guide and its companion Guide** (OECD, 2023<sup>[3]</sup>) **focus on how governments, event organisers, and assessors can measure the impacts of global events.** The purpose of these twin Guides is to address the theoretical and practical considerations for measuring the impact of global events, recognising current practice and future aspirations. In doing so, these documents serve to promote good practice methods and develop consensus around common indicators which have the potential to deliver more informative and comparable impact evaluations.

**The common indicators presented in this Guide were derived through extensive consultation over a two-year period.** This document draws on a wide range of academic and policy literature, case study evidence and expert working groups convened by the OECD. A series of five workshops were held in 2021 and 2022 to gather input from the global events community, including local and national governments; event hosts, owners and organisers; international organisations; and academic experts. In addition, the Guide draws on results from a survey administered to key stakeholders in 2022 (see Annex B for full list of organisations who took part in the consultation). Where possible, the guidance stated in this document seeks to intersect with other prominent frameworks, such as the United Nations (UN) Sustainable Development Goals (SDGs) and is designed to be broadly compatible with existing guidance frameworks for measuring the impact of events, such as those by the Association of Summer Olympic International Federation (ASOIF) and the European Capitals of Culture (ECOC) guidelines.

## Structure of this Guide

**This Guide presents a set of indicators which event hosts can incorporate into their evaluation strategy to assess the economic, social, and environmental impacts of their event.** The indicators presented in this Guide are only a small selection of the very many different indicators which are used in practice to measure the impact of events (for examples see (OECD, 2023<sup>[3]</sup>)). Each event will have its own impact objectives, based on the specific geographic, cultural and political context of the event. Moreover, events of different types and scales will inevitably have different scopes for what kind and what level of impact they are able to achieve.

**The indicators set out in this Guide are offered as a set of indicators which can be incorporated into an event's wider evaluation strategy, alongside other context specific indicators.** As such, incorporation of these indicators enables some level of consistency and comparability across event impact studies, while also allowing for flexibility in impact ambitions. For example, many (though not all) global events will involve infrastructure investments, and therefore these events would need to develop further indicators to capture the impact of those investments (for example, see (OECD, Forthcoming<sup>[4]</sup>) and (OECD, Forthcoming<sup>[5]</sup>)).

**The indicators presented in this Guide are focused towards capturing issues of relevance to local development.** These common indicators have been selected based on their applicability to different types of global event (e.g. sporting, cultural, business; single vs multi-sited; short or long duration, etc.) and their ability to capture impact of specific relevance to local development. Consequently, they are centred more towards output and outcome, rather than input measures. Some of these indicators have been frequently used in almost all event impact studies, while some are less often used, but are considered to be of high importance for capturing the longer-term impact of global events.

**Indicators are categorised as either core or additional.** Core indicators are indicators which all types of events can strive to include in their measurement studies. Additional indicators are those which it would be helpful for events to measure, but are more costly or complex to implement. The list of common indicators (both core and additional) is constrained by the need to avoid too great a resource burden on events hosts in monitoring and reporting.

This Guide is structured around three general areas of impact: **Economic, social, and environmental.**

- Section 1 offers discussion of some of the overarching considerations which event hosts can take into account in developing impact indicators
- Section 2 details the **economic** impact indicators
- Section 3 details the **social** impact indicators
- Section 4 details the **environmental** impact indicators
- Section 5 presents all indicators together in the **integrated framework**
- Annex A offers an example of how the proposed indicators can be incorporated into impact strategies, using the case of the **Paris 2024 Olympic and Paralympic Games**.

There are nine core indicators and nine additional indicators, covering economic, social, and environmental impact:

Global event impact indicators	Area	Core/ additional	Indicator	
	Economic	Core	✓	Total net economic impact (net direct, indirect, and induced impact on host economy)
			✓	Total jobs created/supported
			✓	% of value of contracts paid to local suppliers, SMEs and social enterprises
		Additional	✓	% increase in visitors after event
			✓	Number of people trained in new skills through event-related programmes
			✓	M <sup>2</sup> of unused spaces repurposed for event-related activities
	Social	Core	✓	% of target groups reporting increased frequency of participation (in culture, sports, business, etc.): <ul style="list-style-type: none"> <li>○ Sport: participation in sport; increase in physical activity</li> <li>○ Culture: active participation; passive participation</li> <li>○ Business: B2B meetings; new partnerships</li> </ul>
			✓	% of target groups reporting change in health and well-being
			✓	% of event participants from underrepresented groups
Additional		✓	Change in % of community residents reporting a sense of local pride	
		✓	Change in % of public reporting positive perception of underrepresented groups	
		✓	% of volunteers motivated to volunteer more	
Environmental	Core	✓	Total carbon footprint (without discounting carbon offsetting)	
		✓	% of waste diverted from landfill	
		✓	% of target groups reporting a change towards more sustainable behaviours	
	Additional	✓	% of value of contracts awarded in compliance with sustainability standards	
		✓	Water footprint	
		✓	% change in air pollution levels linked to event	

**Event hosts are encouraged to consult the companion Guide (OECD, 2023<sup>[3]</sup>), as well as other international standards in developing impact measurement beyond the indicators presented here.**

How to measure the impact of culture, sports and business events: A Guide Part I (OECD, 2023<sup>[3]</sup>), outlines actions that event hosts can take in designing and implementing an effective overall impact measurement strategy. Moreover, it is recommended that event hosts develop multi-criteria assessments and include qualitative data to assess both tangible and intangible outcomes. In addition, there are many international frameworks of relevance to the governance of global events, which hosts are encouraged to adhere to, beyond the OECD Recommendation on Global Events and Local Development (OECD, 2018<sup>[1]</sup>). This includes for example, the OECD Recommendation on Public Procurement (OECD, 2015<sup>[6]</sup>), OECD High-Level Principles for Integrity, Transparency and Effective Control of Major Events and Related Infrastructures (OECD, 2016<sup>[7]</sup>), the OECD Recommendation on Public Integrity (OECD, 2017<sup>[8]</sup>) and the OECD Recommendation for Further Combating Bribery of Foreign Public Officials in International Business Transactions (OECD, 2021<sup>[9]</sup>).



# MEASUREMENT

# MENT



## CHAPTER 1

# OVERARCHING CONSIDERATIONS IN DESIGNING IMPACT INDICATORS

## Selecting indicators and linking them to a theory of change

**Understanding event impact requires the use of multiple indicators.** All events will use some form of indicators to understand what the event has done and what it has achieved. Moreover, good indicators can help inform decision making and funding decisions, facilitate peer comparison and mutual learning, enable knowledge transfer and exchange, and strengthen accountability.

**The Commonwealth Secretariat (2019<sup>[10]</sup>) suggests that good indicators have the following qualities:**

- **Valid:** Does the indicator measure what we want it to?
- **Consistent:** Does it measure the same thing, accurately over time?
- **Precise:** How accurate is it?
- **Reliable:** Is it consistent over time? When the results change will it be sensitive to those changes?
- **Practical:** Is the data available at a reasonable human and financial cost?
- **Useful:** Will the data be used? Will it help decision-making, accountability and learning?
- **Owned:** Is someone accountable for the data? Do all stakeholders agree that it is a useful indicator?

**Developing appropriate indicators, however, requires the use of good data.** Building indicators around reliable data, is central to the monitoring and evaluation of global events. The OECD (2011<sup>[11]</sup>) views data quality in terms of seven dimensions:

- **Relevance:** the degree to which the data serves to address the purposes for which they are sought by users
- **Accuracy:** the degree to which the data correctly estimate or describe the quantities or characteristics they are designed to measure
- **Credibility:** the degree of confidence that users place in the data, for example, that the data are perceived to be produced professionally in accordance with appropriate statistical standards, and that policies and practices are transparent
- **Timeliness:** the length of time between data availability and the event or phenomenon they describe, considered in the context of the time period that permits the information to be of value and still acted upon
- **Accessibility:** how readily the data can be located and accessed, including the suitability of the form in which the data are available
- **Interpretability:** the degree to which the user may understand and properly use and analyse the data
- **Coherence:** the degree to which data are logically connected and mutually consistent, including within a dataset, across datasets, over time, and across countries

**Selecting appropriate impact indicators entails consideration of the local context.** The indicators presented in this report offer a shortlist of the most commonly used and most relevant indicators that are applicable to all types of global events. However, it is important to stress that all impact is context specific and therefore any indicator used should reflect the specificities of the event type, location and duration, as well as the overarching objectives of the event hosts and the specific needs of the community.

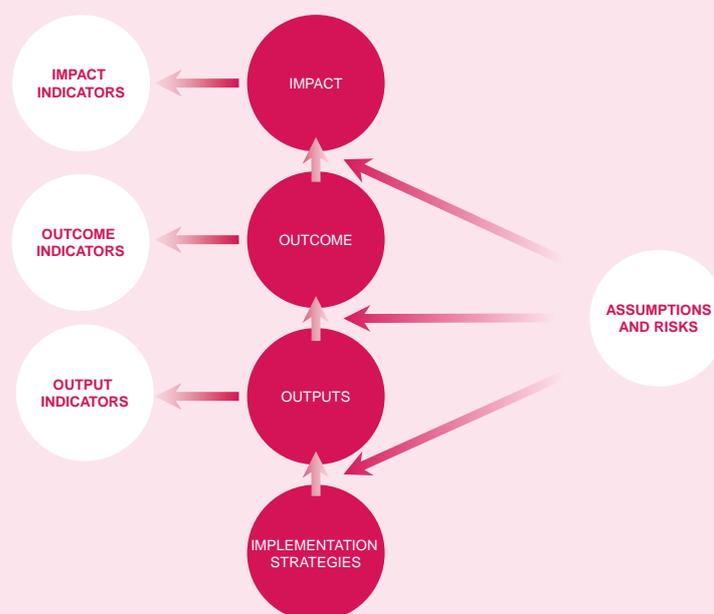
**Central to any decision around impact indicators is establishing a theory of change, or logic model.** A theory of change links the inputs of hosting a global event to the intended impact outcomes through a logic model (see box on next page). Here emphasis is on *how* change can occur, and which

actions are needed to establish this change. A strong theory of change will begin with a good situation analysis which identifies the impact goals of the event, identifies what resources, activities, etc. are needed to achieve these goals (and where barriers could arise along the way), as well as specifies specific targets to assess if these goals have been met. Establishing a theory of change can form the basis of any type of impact measurement. For example, the Games Value Framework, developed by the Commonwealth Games integrates a cost- benefit analysis approach into a broader logic model of “impact pathways” to help identify how hosting the Games can help a city achieve its ambitions, strategies and plans (The Commonwealth Games Federation, 2019<sup>[12]</sup>).

## Integrating logic models into indicator planning

**A logic model connects inputs to outputs, outcomes and impact.** It describes *how* an event can achieve its impact ambitions, and therefore can be used to help determine what needs to be measured to indicate if an event has achieved its aims.

### » Schematic depiction of a theory of change



Source: (Rogers, 2014<sup>[13]</sup>)

***The Commonwealth Games have developed a framework for measuring impact which integrates a logic model within a cost-benefit methodology***

Stages in the Commonwealth Games Value Framework:

1. Understand the baseline social, economic and environmental conditions of the host city and region
2. Review the host city / region's ambitions in the short, medium and long term
3. Assess the host city / region's existing strategies and plans for achieving its ambitions
4. Use the costs and benefits statements to identify how hosting the Games can help a city achieve its ambitions, strategies and plans
5. Use evidence from the past Commonwealth Games to assess the value from hosting the Games

Source: (The Commonwealth Games Federation, 2019<sup>[12]</sup>)

## The IAEH principles for guiding indicator development

The International Association of Events Hosts (IAEH) has identified three key principles underpinning the development of event impact indicators. IAEH guidance recommends that measurement and reporting comply with these guiding principles, stating that indicators should be:

- **Objective-driven** – the impacts of events are most effectively expressed in relation to the objectives of the organisations involved in hosting the event. For example, host organisations may support the staging of an event for health benefits to a specific segment of the population, such as inactive residents, or tourism benefits from specific target markets. Therefore, research should be tailored to understand the impacts on relevant audiences and the resulting benefits expressed in the context of these strategic aims.
- **Net additional benefit** – benefits should only be reported where they are attributable to an event, and they should also take account of any negative impacts, whether economic, social or environmental. For example, not all expenditure by event spectators in a host economy can be regarded as “economic benefit” when the expenditure from local spectators is not “new money” for the economy. Or the positive social benefits from new infrastructure may come at a cost to some communities relocated or disrupted by the construction.
- **Evidence-based** – calculations of impact should be based on robustly gathered input data. For forecasted calculations, data should be referenced to demonstrate why it is applicable. Where primary research is used for actual calculations, random sampling or convenience sampling should be representative of target audiences and the quantity of surveys sufficient to be statistically significant. Where forecasts are made to justify the business case for future events, comparable post-event research should also be carried out to review the actual outcomes from the event.

Source: (IAEH, 2022<sup>[14]</sup>)

## Components of analysis

**Designing impact assessments requires careful consideration of how each element of analysis will be measured and presented.** This includes defining and operationalising specific elements, and establishing consistent methods and systems to capture data on each component of analysis. Discussed below are a few common components of impact measurement which assessors are encouraged to take into account.

### *Participant counts*

**There are lots of different ways to engage with a global event (spectator, organiser, participant) relevant to different types of impact, but the lines between these groups can be blurry.** Broadly, we can think of engagement groups as including those watching/attending the event (e.g. spectators, buyers at trade shows, etc.), those directly involved in event activities (e.g. performers, athletes, exhibitors, etc.) and those working to create the event (e.g. organisers). However, the distinction between these groups is not always clearcut. For example, a volunteer could be considered an organiser or a participant and may also be a spectator. Moreover, each of these groups can be further subdivided and may differ depending on the type of event. For example, for some sporting and cultural events, spectators could attend in-person or engage remotely through television, radio, social media, etc. For some business events, exhibitors might be considered both participants and spectators. These considerations are important as they feed into some of the main indicators of impact.

**Accurately estimating spectator and participant counts is also important, as it is used to help calculate many of the most common impact indicators.** For example, participant counts will be used to help establish the economic impact of the event and calculate its carbon footprint. For single day ticketed events, measuring attendance numbers can be relatively straightforward. However, for multi-day, multi-sited or non-ticketed events, establishing attendance numbers can be challenging. Estimating attendance and participation numbers might mean coordinating data on ticket sales from different vendors, venue entry data across different sites and/or crowd counts from different locations at different times. The main issue to consider in these estimates is establishing how many unique attendees or participants were involved in the event. This means accounting for duplication, for example if the same person attended the same event over multiple days.

## Crowd counting

**Crowd counting can be used to estimate attendance at non-ticketed main or side events.** The type of methodology used to count crowds depends on the type of event:

- **Video analysis** – this method is most suitable for static linear events (i.e. single-session events where attendees stand in the same place along a linear route)
- **Crowd density analysis** – this method is most suitable for static non-linear events (i.e. single-session events where the entire crowd is present at the same time)
- **Tally counters and or video analysis** is most suitable for dynamic linear events (i.e. events where attendees move along a linear route)
- **A combination of tally counters, video analysis and surveys** are needed for dynamic non-linear events (i.e. multi-session and/or multi-day events)

Source: (Event Economics, 2020<sup>[15]</sup>)

### ***The target area***

**To measure the impact on a local community, the target area needs to be clearly defined.** In the majority of cases, an event's impact evaluation strategy will encompass impact at both local (city or region) and national level. While the latter generally has clearly defined administrative geographic boundaries, establishing what constitutes local impact may not be as straightforward. There are three main complications in establishing what constitutes a target area: (1) if an event is multi-sited, establishing how much impact can be attributed to each location in which the event takes place; (2) establishing what radius around the event site (or sites) is reasonable to designate as included within the target area; and (3) what data are available at which levels of geography, and how are these geographies defined.

**In practice, considerations of data availability often drive designations of the target areas.** Target area designation is particularly important for economic assessment, but also for providing baseline data to help contextualise results. Consequently, the use of official data, such as business counts, regional Gross Value Added (GVA) or contribution to Gross Domestic Product (GDP), population counts, demographic breakdowns, etc., will, to a certain extent drive which geographies are possible to use in reporting. For example, while population counts may be available at a city level, GVA/GDP may only be available at a regional level.

**Consistency in approach is important both for transparency and in order to combine multiple data sources.** A clearly defined target area, which uses officially recognised geographic categories, can be established as part of the pre-bidding, bidding and planning phase, so that ex-ante assessments can be meaningfully compared against ex-post evaluations. Moreover, by using the same geographic categories across data collection methods, evidence can be combined and cross-analysed to support more meaningful analysis. This does not mean that alternative geographies (e.g. smaller neighbourhoods) cannot be considered in analysis. Rather, it is helpful to identify all the varying geographies which might be of relevance and to plan for which data will be collected at each geographic level.

## Defining the scope of event-related expenditure

**Determining what should be considered as event-related expenditure is one of the most important decisions in economic impact evaluations.** For instance, should investment in transport infrastructure prior to the event be included, even though these facilities will be in use for many years afterwards? Should assessors distinguish between programmes implemented in the lead-up to the event and the effects of the event itself? How should assessors account for additional expenditure related to unexpected external events, such as COVID-19? Here the distinction between initiated and accelerated expenditure is of importance, with initiated expenditure relating to expenditure which has only taken place because of the event, and accelerated expenditure relating to planned expenditure which has been made earlier, or at a larger scale due to the event. Both of these categories are relevant, as they produce impacts which would not have occurred if the event had not taken place.

**The Commonwealth Games Value Framework offers guidance on how to scope event-related expenditure in cost-benefit calculations.** They specify three main types of expenditure:

- Games-related operating expenditure
- Capital expenditure on Games-related venues and villages
- Discretionary operating expenditure to achieve host cities' wider objectives where the effect of hosting the Games is to accelerate or enhance the scale of expenditure, typically to meet legacy objectives

They also specify that accelerated spending (both public spending and that made by other sectors in the economy such as charities and the wider third sector) should be considered in cost-benefit analysis, as it may deliver enhanced benefits by bringing investment and other activities forward. However, their review of existing evidence highlights that the nature and scale of acceleration and / or enhancement is difficult to identify and rarely reported in the literature.

**A well-designed procurement strategy can aid in data identification and collection of event-related expenditure.** For example, the use of e-procurement systems can help to align spending data across different areas. Establishing how such procurement systems interact across different contracting bodies is an important consideration in establishing consistency of data and in avoiding double counting.

Source: (Chappelet, 2019<sup>[16]</sup>; The Commonwealth Games Federation, 2019<sup>[12]</sup>; OECD, Forthcoming<sup>[5]</sup>)

## ***Demographic breakdowns***

**Establishing the impact of a global event on different population groups is increasingly a political and social requirement.** Any global event will have uneven impacts across different population groups. Understanding these different impacts and integrating them into reporting is important in working towards greater equality. Therefore, alongside specific indicators to measure inclusion and diversity of different population groups, it is important to include demographic breakdowns for a majority of indicators, where possible.

**To help comparison between events and across time, it is useful to include certain demographic breakdowns as standard in reporting.** Certain breakdowns will be applicable to all types of events, regardless of the specific goals and targets set. For example, an indicator on improved health and well-being may be broken down by age group, regardless of whether the event goals target young people, or older people. However, some breakdowns will depend on event type or geographic context. For example, consideration of Indigenous communities may be more relevant in some national contexts than in others.

**Again, it is important to establish early on which breakdowns and definitions will be used across indicators.** As demographic information is often gathered through survey data, definitions of the breakdowns would ideally be consistent across indicators and in line with official definitions and datasets. For example, youth unemployment is often reported for the age group 15-24, whereas physical inactivity for young people is often assessed for those under 18 years old. If the same survey was being used to capture data relating to both youth unemployment and youth inactivity, it would be of benefit to use age breakdowns which allow for comparison against the different official datasets.

## ***Reporting units and baselines***

**How each indicator is reported has significant implications for transparency and for comparability.** In reporting, careful consideration should be paid to how indicator results are presented. Some reporting units are less familiar than others and so further contextualisation may be required. For example, to provide a concrete and comparable measure of carbon footprint, it is standard to report this measure in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e). However, to a general public, it may not be clear whether such figures represent a large or small carbon footprint, and so adding equivalency data can help to support better public understanding.

**When data is reported as a proportion, it is important to understand that both the numerator and denominator can fluctuate.** It is often easier to understand the importance of a number if it is expressed in normalised form – i.e. the outcome variable is expressed as a proportion of another variable, such as the amount of money generated by an event as a proportion of regional GVA. Normalised indicators can be well suited to conveying large numbers as they are easier to comprehend and can lead to greater comparability. They are also particularly appropriate for indicators where the target is to reach parity, or totality in a particular area (e.g. female participation, or waste diverted from landfill). However, it is important to consider how small changes in the denominator could affect the overall proportions, and to keep in mind that any normalised figures with a small denominator could be less comparable. Similarly, when comparing across time, careful attention needs to be paid to what might cause a change in the denominator of an indicator. For instance, an evolution in GDP per capita could result from changes in economic activity (the numerator) or changes in population levels (the denominator).

### ***Transparency of methodology and reporting***

**Being explicit about methodology, assumptions and limitations helps to foster trust and enable comparison between events and across time.** It is important for the specific methodology used for impact evaluation and the underlying assumptions of these methods to be clearly outlined in reporting. For example, eventIMPACTS recommend that all event economic impact assessments include an overview table that clearly outlines core elements of economic impact calculations (eventIMPACTS, n.d.<sup>[17]</sup>). This includes the definition of the target area, visitor numbers, organiser spend, estimated visitor spend in different categories, etc. It also suggests to include information on the multipliers used for indirect and induced impacts, and information on how estimates have been calculated (e.g. survey sample size, etc). Reporting on other aggregate indicators, such as carbon footprint, can also use this approach to provide as much information as possible about how estimates were derived. This helps researchers in comparing impacts across events and across time, and helps the public and other stakeholders understand impact more fully.

### **Actions for effective impact measurement**

**The OECD has identified a selection of actions that event hosts can take to promote effective impact measurement.** These include:

- **Co-design impact approaches across local, national and international levels;** by engaging with local residents and stakeholder groups throughout the event lifecycle and evaluation process, and by integrating impact approaches within wider national and local strategies.
- **Establish a clear theory of change;** which links event inputs to intended impacts through a logic model, including clearly laid out risk factors. This theory of change can also act as a management tool, supporting the alignment of outputs and outcomes among partners and helping to create consistency over time.
- **Establish clear impact indicators from early on in the event lifecycle;** this is particularly important, for example, where novel survey data is required, so that baseline data can be established.
- **Consider how impact indicators can be disaggregated;** including establishing explicit definitions of sub-populations (such as what constitutes a local resident or business) to aid consistency of reporting over time and between reporting entities.
- **Include both qualitative and quantitative evidence in impact measurement;** to offer a broader understanding of impact, how impacts have arisen, and help facilitate the detection of unintended (and potentially negative) outcomes.
- **Build a clear data strategy from on in the event lifecycle;** including establishing contractual agreements with stakeholders as to data collection responsibility, ownership, collection timeframes and reporting standards, as well as consideration of legal and ethical data protection and privacy frameworks. Building a data framework, which links indicators to the theory of change on the one hand and to explicit data sources and statistical definitions on the other, is useful for establishing consistency.
- **Promote transparency in reporting;** including through third party independent verification of findings, careful consideration of how evaluations are communicated to stakeholders and the public, and consideration of how to make underlying data from evaluation studies available to researchers and future event hosts, while remaining mindful of data protection issues.

Source: (OECD, 2023<sup>[3]</sup>)



# ECONOMIC IMPACT



## CHAPTER 2

# ECONOMIC IMPACT INDICATORS

## Core indicator 1: Total net economic impact

Scale	Demographic breakdown	Reporting breakdown	Aggregate indicator	Unit	Baseline data required	Related SDG
Local National	N/A	Direct Indirect Induced	Yes	Currency (% of GVA)	no	8.1

### Definition

**Total net economic impact** is an aggregate indicator which includes the direct, indirect and induced economic impact. These three categories together capture the economic value generated by an event throughout the supply chain.

**Direct economic impact** is the amount of visitor and net organiser spending in the target area which is directly attributable to event, discounting “deadweight” – economic activity that would have occurred regardless of an event being held; “displacement” – the value of normal activity which did not occur as a result of the event; and “leakages” – event-related activity that results in money leaving the target area.

**Indirect economic impact** is the additional value generated by businesses in the wider supply chain, as a result of increased revenues from receiving direct visitor and organiser spending. While much of the additional revenue generated by businesses along the supply chain will be captured by visitor and organiser spend (final consumption), the increase in revenues throughout the supply chain enables those businesses to generate additional value, which can be captured using multipliers.

**Induced economic impact** is the additional spending in the target area made possible as a result of increased income for those living in the target area.

### Breakdowns and reporting units

**Direct, indirect and induced impact are reported separately.** This allows for greater comparability across events, as direct impact is a more consistent measure, whereas indirect and induced impacts can be calculated using different methods which can greatly impact their comparability.

**Both national and sub national levels are relevant breakdowns** for direct, indirect and induced economic impact. However, it is important to understand the differences at each level of use. Breakdowns could also include impacts on different industries.

**This indicator is expressed in national currency** but can additionally be contextualised by reporting the amount as a percentage of GVA or GDP at the local or national level.

### Calculation methods and data sources

Calculating **direct impact** requires data on organiser and visitor spend in the target area.

**To calculate net organiser spend** (i.e. expenditure minus income), data is typically collected from organisers and suppliers’ budgets to establish the amount of spend attributed to the target area, any spend leaving the target area and the amount of revenue collected by the organiser (e.g. ticket sales, etc).

**To calculate visitor spend**, a sample of visitors are asked about their spending patterns and this is then averaged and upscaled to the overall visitor numbers. This method relies on being able to accurately stratify visitor types who may have different spending patterns, and to accurately establish visitor numbers. These calculations can be triangulated with data from hospitality venues (e.g. hotels, restaurants, etc.), and with travel data and ticket sales. Some larger scale events also gather data from customs/immigration procedures and in-flight questionnaires to help filter out regular tourists from event visitors. Data from mobile phone networks and event apps can also be used to help calculate visitor numbers.

**Calculating induced and indirect impact relies on using a multiplier** to extrapolate from the direct economic impact towards the broader knock-on effects across the economy. These multipliers are generally based on official datasets of input/output tables (I/O) and household spending data. I/O tables show the flow of goods and services across an economy and so can be used as a basis to calculate how additional spend in one area of the economy can result in value generation in another area of the economy.

Some studies simply use the **information in I/O tables to calculate the multiplier** applied to the direct impact. However, these tables are typically only produced every few years and do not account for recent economic shocks. Moreover, they generally refer to national or large geographic areas and so do not always reflect the industry dynamics of the target area. Consequently, **some studies use computable general equilibrium (CGE) models**, which adjust the I/O multipliers to account for changes in the economy and external shocks. However, these methods still rely on underlying data from I/O tables, meaning similar caveats in regard to data availability apply. Other **similar methods use multipliers based on import/export capacity** of businesses in the host region. All of these approaches require some skill to calculate and all are based on certain underlying assumptions, which can be clearly communicated in reporting.

### ☑ **Success factors**

- Clearly defining the target area
- Accurately establishing visitor numbers
- Conducting surveys with a large enough sample and robust stratification method
- Conducting visitor spend surveys as close in time to the event as possible to prevent issues with visitor memory
- Clearly outlining the method and underlying assumptions of the model used

### ☒ **Pitfalls to avoid**

- Not accounting for deadweight, displacement and leakages

- Double counting of organiser spend, visitor spend, or visitor numbers
- Using multipliers which are too old or have not been developed/adjusted for the specific locality

### **Resources, tools and examples**



**EventIMPACTS** offers detailed guidance on how to calculate the total economic impact of events (eventIMPACTS, n.d.<sup>[17]</sup>). This resource includes extensive guidance on each step of the calculation, including how to account for deadweight, displacement and leakages, alongside a calculator tool and case study examples.



**Research from the International Academy of Sport Science and Technology (AISTS)** offers guidance on how to calculate total economic net injection of the Olympic Games (Derchi, Stricker and Déthier, Forthcoming<sup>[18]</sup>). They outline their method which is based on using the National Income Accounting (NIA) framework, which provides a baseline calculation of the direct contribution of sport events to the local economy, and a Keynesian model, that relies on multiplier effects.



**The Global Association of the Exhibitions Industry (UFI)** conducted an economic impact assessment of the exhibitions industry (UFI, 2022<sup>[19]</sup>). Their evaluation considered the direct, indirect and induced impact of business events, as well as offering their total contribution to GDP.



**The DHL New Zealand Lions Series 2017** evaluation report (PWC, 2018<sup>[20]</sup>) provides sensitivity analysis, which calculates economic impact using different underlying assumptions to provide an idea of how slight variations in different parts of the calculation method effect the overall results. They offered sensitivity testing based on key elements of their economic assessment: 1) the number of visitors who self-reported that the Series was the reason for their trip, and 2) the expenditure of visitors while they were in New Zealand.

## Core indicator 2: Total jobs created/ supported

Scale	Demographic breakdown	Reporting breakdown	Aggregate indicator	Unit	Baseline data required	Related SDG
Local National	Previously long-term unemployed Age Gender Abilities Socio-economic background Other context specific groups	Direct creation Indirect support Temporary/Permanent Industry sector Skill level	Yes	Number of full-time equivalents (FTE) % Temporary/permanent	No	8.5, 8.6

### Definition

**Total jobs created/supported is an aggregate indicator** which shows the number of new jobs created as a result of the event taking place. It includes both direct and indirect measures and both permanent and temporary job types.

**New jobs directly created** capture the jobs that have been directly created in order to support the main functions of the event. This could include for example, members of the organising committee, construction workers employed to build or renovate venues, etc.

**New jobs indirectly supported** capture the additional jobs created by an increase in demand in other areas of the economy. For example, increased restaurant or hotel staff needed to support additional tourists attending the event.

### Breakdowns and reporting units

**Direct and indirect employment** can be reported separately. It is also helpful to distinguish between **permanent and temporary jobs**. For example, the jobs relating to construction of a new venue may be temporary as the contract will end after completion of the venue, whereas managing the newly built venue after the event has finished would be a permanent job. Temporary and permanent jobs can be distinguished by whether they involve the use of a fixed-term or permanent contract.

Another helpful breakdown is jobs by **industry sector**, as well as the skill level of created jobs, though this latter breakdown is more complex to estimate. These additional breakdowns begin to address issues related to **job quality**, rather than simply job quantity.

**Demographic characteristics** are an important consideration in breakdowns and reporting on job creation. For example, what proportion of newly created jobs were taken up by women, people with disabilities, etc. Other demographic characteristics, such as racial/ethnic identity, or LGBTQ+ identity (see (OECD, 2019<sub>[21]</sub>)) can also be relevant. These percentages can be contextualised by referring to the demographic make-up of the local area, if data is available. However, it is also important to consider the types of roles taken up by different population groups, and whether there is demographic diversity in higher level roles.

A final category of particular relevance for this indicator is **employment for those who were previously unemployed**. Here it is helpful to differentiate between **short-term and long-term unemployment**. Typically, unemployment is defined as people reporting that they have worked in gainful employment for less than one hour in the previous week, who are available for work and who have sought employment in the past four weeks. Whereas long-term unemployment is typically defined as people who have been unemployed for 12 months or more.

To aid comparison, this indicator is **reported in full-time equivalents (FTE)**. This means that two people both working on 50% part-time contracts would equate to one FTE job. Typically, FTE is calculated based on the average number of weekly working hours in the event location. In addition to specifying permanent vs temporary FTE jobs, it is also helpful to provide the average length of fixed-term contracts, to help contextualise these figures. It can also be useful to report on the number of people newly employed and the number or proportion of full-time/part-time jobs.

### **Calculation methods and data sources**

**There are different ways of calculating the number of new jobs created.** The number of new jobs directly created is generally calculated through the use of survey and administrative data sources. This involves collating information from the organising committee, contractors, and local businesses using organisational administrative data and/or surveys. Data collected from these sources can also be used to add further contextualisation which is not possible using other methods, for example reporting on jobs created in small and medium-sized enterprises (SMEs). It is important to note however, that many demographic breakdowns relate to protected and potentially sensitive characteristics. Consequently, consideration of data protection regulation and the sharing of sensitive data (even anonymised data) should form a part of the overall data collection strategy from early on in the event lifecycle.

A second approach, of greater relevance to **indirect employment**, is to use multipliers to estimate how an increase in economic activity (demand for goods and services) might translate to an increased need for workers. Here models can be constructed to estimate the amount of full-time equivalent employment that is required to satisfy the additional demand experienced by local businesses as a result of the event, based

on net visitor and organiser spend (accounting for deadweight, leakage and displacement). This method can be used to estimate both direct and indirect employment prompted by the event, in a similar way to estimating direct and indirect contribution to GVA/GDP, and therefore similar caveats apply in the use of multipliers. Consequently, this method provides a less accurate measure of actual new jobs created, but can help to suggest the potential wider impact on employment.

### **☑ Success factors**

- Clearly defining which type of activity will be included in calculations of new direct jobs
- Early consideration of the data required to calculate full-time equivalents and demographic breakdowns, and how this data will be collected
- Consideration of including additional breakdowns/analysis concerning job quality

### **☒ Pitfalls to avoid**

- Incorporating jobs which would have existed without the event taking place
- Not considering job duration in job count data

### **Resources, tools and examples**



**Birmingham Commonwealth Games 2022** impact evaluation reports on the FTE jobs directly and indirectly created or supported by the event (Birmingham 2022, 2023<sup>[22]</sup>). They specify exactly which type of activities are considered to have directly created new jobs and take account of construction investment (i.e. jobs) which would have been made regardless of whether the event took place.

## Core indicator 3: Percentage of value of contracts paid to local suppliers, SMEs and social enterprises

Scale	Demographic breakdown	Reporting breakdown	Aggregate indicator	Unit	Baseline data required	Related SDG
n/a	n/a	Local businesses SMEs Social enterprises	No	% of total	No	10.2

### Definition

This indicator relates the proportion of the total value of contracts which were awarded to local businesses, small and medium size enterprises (SMEs) and social enterprises.

**Local businesses** are defined as enterprises whose principal place of business (e.g. registered address) is within the reference area.

**SMEs** are defined as businesses employing fewer than 250 people.

**Social enterprises** are defined as an entity, which trades goods and services, that fulfils a societal objective and whose main purpose is not the maximisation of profit for the owners but its reinvestment for the continued attainment of its societal goals (OECD, 2022<sup>[23]</sup>)

### Breakdowns and reporting units

As the categories of local, SME and social enterprises often overlap, **each of these categories can be reported separately** (i.e. % of contracts awarded to local businesses; % of contracts awarded to SMEs; % of contracts awarded to social enterprises). In reporting, it can then be helpful to make clear that these proportions will not sum to 100%, as there is overlap between the categories.

**This indicator establishes a proportion (%) of the total value of contracts awarded by the event host to each type of business.** Using a percentage-based indicator enables greater comparison between events. However, it can also be helpful to

report the **number of contracts** awarded to each of these groups and the **total value of contracts** awarded to each of these groups in units of currency, alongside the percentage.

### Calculation methods and data sources

This indicator relies primarily on **data from event hosts**. It is helpful therefore, for event hosts to establish early on which data about suppliers will be collected, and how this will be organised, so that it is possible to link the value of contracts awarded to the specific business demographics of interest.

**Where subcontracting is used**, it can be helpful to have clear reporting criteria for businesses and organisations to follow in accounting for subcontracted work and determining the business demographics of subcontractors.

### ☑ Success factors

- Establishing clear frameworks for linking accounting and business demographic data early in the event planning process

### ☒ Pitfalls to avoid

- Using a definition of a local business which does not correspond to the designated target area used in other indicators
- Using a definition of a social enterprise which is too broad and includes businesses where social impact is of secondary concern

### Resources, tools and examples



**The Gold Coast Commonwealth Games 2018** evaluation report (State of Queensland, 2019<sup>[24]</sup>) includes detailed reporting on contracts awarded to local businesses. Alongside reporting of the percentage of value of Games-wide contracts awarded, by location of business, they also show the number and value of contracts awarded to businesses in different locations. They breakdown location into three categories: Gold Coast (the primary target area), the rest of Queensland (the secondary target area) and the rest of Australia/international.



**The Paris 2024 Olympic and Paralympic Games** published initial impact figures in 2021 for the pre-games stage (Paris 2024, 2022<sup>[25]</sup>). They include figures for the proportion of contracts awarded to SMEs and social enterprises, as well as figures for the number of contracts awarded to local businesses from the Seine-Saint-Denis area (a target area for urban regeneration).

# Additional economic indicators

## Percentage increase in visitors after event

**This indicator refers to the increase in people visiting the host region or country after the event has taken place.** This does not refer to visitors attending the event (as this is captured in the net economic impact indicator), but rather reflects the ability of an event to raise the profile of a place and spur non-event-related tourism (including business-related travel) in the medium to long term.

**Visitors are defined** as travellers taking a trip to a main destination outside their usual environment, for less than a year, for the purpose of business, leisure or other personal purpose. Visitors include both **tourists** (whose trip involves an overnight stay) and **excursionists** (whose trip lasts one day or less), see (UN, 2010<sup>[26]</sup>).

An increase in visitor numbers can be assessed at the **national or local level**. At the local level, it is helpful to distinguish between **domestic and international tourists**.

It is also helpful to consider both **visitor numbers and visitor nights**. Visitor numbers can include both **tourists and excursionists**, whereas visitor nights only relate to tourists. Increase in visitor numbers gives an indication that the event prompted people to travel to the host region or country who would not have otherwise done so, whereas an increase in visitor nights give an indication of the potential impact on the tourism sector.

**International visitor numbers** are often available through official data sources. Official tourism data can be used to gain an understanding of the trends in international visitors before, during and after an event. However, it is important to account for factors impacting visitor trends, other than the event. This can be challenging as many of the factors affecting tourism flows intersect.

Capturing **tourism at a local level** can be a challenge, as it may require targeted surveys or alternative forms of data collection. Alternative ways of measuring tourism when official data is not available at the local level include surveys of hotel occupancy rates, using big data from sources such as booking websites and using geo-location and credit card data to establish local trends.

## Resources, tools and examples



**The Liverpool European Capital of Culture 2008** conducted longitudinal analysis of the impact of the year-long event (Garcia, Melville and Cox, 2010<sup>[27]</sup>). As part of this evaluation they track hotel night sales from 2006-2009, attendance at major attractions from 2004-2009, train journeys into the city from 2007-2009, and flight passenger numbers into the city from 2006-2009.

## Number of people trained in new skills through event-related programmes

This indicator is especially important for **large scale events**, such as the Olympic and Paralympic Games or world expositions, where there are many opportunities for different types of skill development to occur. It can also be helpful in identifying where there are skills shortages in a local area, and how these can be addressed through the hosting of an event.

**Event-related programmes include both volunteering schemes and targeted training programmes.** **Volunteering** is not limited to volunteers during the event (such as those helping to direct crowds). It also extends to the planning stage, where volunteers could be involved in project management activities or infrastructure delivery, as well as after the event, through legacy programmes. **Targeted training programmes** could include the provision of training through

schools, universities and colleges, as well as through the use of private training providers.

**New skills** can include any type of skill, including those which result in formal qualifications and those which do not. In the case of skills training which does not result in a formal qualification, it can still be helpful to think of skills in relation to their ability to facilitate future work. For example, alongside indicating the number of people trained in new skills, it can be helpful to also offer an indication of the extent to which volunteers believe these new skills will help them in their future career. Alongside breakdowns relating to **formal qualifications**, skills can also be broken down into different **skills groups**, in accordance with national or international standards (e.g. the European Skills, Competences, Qualifications and Occupations (ESCO) framework).

This indicator can also be broken down by **demographic characteristics** of people learning new skills, as well as specifically reporting on the number of **previously unemployed** people who gained skills through event-related programmes.

### Resources, tools and examples



**The Galway 2020 European Capital of Culture** evaluation included analysis of how volunteering at the event contributed to skills development (The Audience Agency, 2021<sup>[28]</sup>). They found that 64% of volunteers agreed with the statement that they had learned new skills through volunteering and 50% agreed that it was a useful experience that will support their future career or professional development.

### M<sup>2</sup> of unused spaces repurposed for event-related activities

Where many indicators related to physical infrastructure capture investment in new infrastructure, the **repurposing of unused spaces** represents a significant way that events can impact the local built environment whilst potentially minimising environmental costs.

This indicator may be **particularly relevant for cultural events**, where the repurposing of unused spaces for cultural production is a common strategy in culture-led regeneration programmes.

**Unused space** includes residential or commercial properties or land and typically refers to spaces which have been unoccupied or not in use for a period of more than a year. The repurposing of such spaces for **event-related activity** could include use as venues, networking or meeting hubs, community centres, etc.

This indicator is **expressed in m<sup>2</sup>**, however it can also be helpful to include **the number** of unused spaces repurposed as well as a breakdown by the **type of space** and **type of use**.

### Resources, tools and examples



**The EU Partnerships on Circular Economy on Sustainable Land Use** have produced a Handbook on Sustainable and Circular Re-use of Spaces and Buildings (Urban Agenda Partnerships, 2019<sup>[29]</sup>). It outlines good practice for the re-use of underused spaces for a wide range of activities including temporary cultural and sporting events, as well as more permanent educational, recreational and cultural usages.

# SOCIAL IMPACT



## CHAPTER 3

# SOCIAL IMPACT INDICATORS

## Core indicator 1: Percentage of target groups reporting increased frequency of participation (in culture, sports, business, etc.)

Scale	Demographic breakdown	Reporting breakdown	Aggregate indicator	Unit	Baseline data required	Related SDG
Local National	Age Gender Abilities Socio-economic background Other context specific groups	Sport: participation in sport; physical activity Culture: active participation; passive participation Business: B2B meetings; new partnerships	No	% reporting increase	Yes	3.4

### Definition

This indicator captures the extent to which an event **prompted people to engage more** with the type of activity that the event promotes. Consequently, this indicator will be different for sporting, cultural and business events.

**Sporting events:** The indicators used for sporting events are (1) increased frequency of participation in sport, and (2) increased frequency of physical activity. **Participation in sport**, includes any form of physical activity conducted in a sport context or sport-related setting (EC, 2022<sup>[30]</sup>). **Physical activity** refers to any bodily movement resulting in an increase in energy expenditure (OECD/WHO, 2023<sup>[31]</sup>). In other words, it refers to all movement, including during leisure time, for transport to get to and from places, or as part of a person's work (WHO, 2018<sup>[32]</sup>; WHO, 2022<sup>[33]</sup>). This includes sport, but also activities such as cycling to work.

**Cultural events:** The indicators used for cultural events are (1) active participation and (2) passive participation. **Active participation** in culture includes performing a cultural activity, such as singing, dancing or painting, as well as engaging in workshops and development programmes. Active participation can also include cultural content creation, such as online videos. **Passive participation** includes experiencing culture as an audience member or viewer, such as visiting a museum or attending a concert.

**Business events:** The indicators used for business events are (1) business-to-business meetings (B2B), and (2) new partnerships. Unlike with sporting and cultural events, where the participation indicator relates to individual engagement with broad sporting and cultural activity, for business events, the participation indicator instead captures the impact that attendance at the event has on future business activity. **B2B meetings** include any face-to-face or virtual meeting between any member of the business with any member of another business, to discuss business-related issues, after the event has taken place. **New partnerships** refer to an increase in participation in new projects with other businesses, including joint-ventures, collaborations and ongoing licencing arrangements, but excluding simple direct sales.

### Breakdowns and reporting units

This indicator primarily relates to the proportion of the target group who experienced a **positive change** in frequency. Consequently, the indicator is expressed as a percentage of the target group. Additional measures which assess **the extent of this change** (e.g., the average percentage increase in weekly participation) could also be considered as complements to this indicator.

It is helpful to break down this indicator by **demographic characteristics**, which could also include categories such as racial/ethnic identity, or LGBTQ+ identity.

### *Calculation methods and data sources*

**For sporting and cultural events**, data can be collected in three ways. Firstly, many countries conduct regular **national surveys** of engagement in sport and physical activity and in cultural participation, which can be drawn on to provide baseline estimates and assess large scale change. Secondly, **membership data from sports clubs and organisations**, and **audience data from cultural organisations** can be used to assess sports participation and passive cultural participation. It is important to point out, however, that such approaches only capture more formal types of participation, whereas many adults play sport outside of membership organisations. Moreover, assessment of sport club membership, does not necessarily entail regular engagement, or active playing of the sport. Finally, **targeted survey data** can be used. Targeted surveys are also most appropriate for collecting data on increases in **B2B meetings and projects** following a business event.

As this indicator assesses a change, **baseline data is required**.

### *Success factors*

- Having a large enough survey sample to accurately measure change
- Using the same wording in targeted surveys as in official surveys, to support comparability
- Tracking data over different time periods to assess short term vs longer term impacts and account for seasonality

### *Pitfalls to avoid*

- Not accounting for external factors which may affect participation rates
- Using different questions, different survey methods (e.g. telephone, face-to-face, etc.) or different time periods for target and reference groups

### *Resources, tools and examples*



**Evaluation of the London 2012 Olympic and Paralympic Games** showed how the event impacted participation in sport and physical activity during the year of the Games (DCMS, 2013<sup>[34]</sup>). It found that the proportion of adults participating in at least one 30 minute session of moderate intensity sport (including recreational walking and cycling) in the last week had increased by 3.5 percentage points in 2012 compared with 2005/6, equivalent to 1.5 million more participants.

## Core indicator 2: Percentage of target groups reporting change in health and well-being

Scale	Demographic breakdown	Reporting breakdown	Aggregate indicator	Unit	Baseline data required	Related SDG
Local National	Age Gender Abilities Socio-economic background Other context specific groups	Type of health and wellbeing	No	% of target group	Yes	3.4

### Definition

This indicator captures the impact of an event on participants and the local community's health and well-being. It generally includes both physical health and subjective well-being measures.

**Physical health** refers to both the absence of illness and injury and also general fitness and good functioning of the body.

**Subjective well-being** refers to mental and social health. It includes the various evaluations, positive and negative, that people make of their lives, and the affective reactions of people to their experiences (OECD, 2013<sup>[35]</sup>). A person's physical health can have an impact on their subjective well-being.

**The target group** in this indicator is typically either community residents (who may or may not have participated in the event) or participants (who may or may not be local residents). Participants can include volunteers, audiences, competitors, performers, exhibitors, etc., and can include those involved in the main event, or in side events.

### Breakdowns and reporting units

**This indicator can include different forms of health and well-being** and, where different types of health and well-being are assessed, these can be reported separately.

In general, **it is helpful to focus this indicator on local residents** (i.e. those living in the identified target area) as this best indicates the

impact on local development. However, where the target group refers to participants in general, it is still useful to show a breakdown by local/non-local.

**Event hosts may also wish to target specific groups of people**, such as young people, those living in certain parts of the target area, or those from particular backgrounds. Offering these types of demographic breakdown can be helpful when addressing the specific goals of the event and in recognising that the event can have uneven impacts on different population groups.

### Calculation methods and data sources

**The simplest method** for assessing an increase in health and well-being is surveying the target group after the event and directly asking them to what extent the event improved their health and well-being.

A second approach is to **compare responses on health and well-being questions for the target group and a reference group**. This could be comparing survey data of the same group before and after the event (e.g. local residents), or comparing responses between the target group and a control group (e.g. between participants and non-participants).

Many countries conduct regular **health and well-being surveys**. This survey data can be helpful in forming the basis of assessments and offers a benchmark to compare against targeted survey responses.

Official data on **physical health measures** (such as prevalence of disease, life expectancy rates, etc.) can also be helpful in assessing more long-term health trends, though it can be challenging to establish attribution to the event.

#### ✓ *Success factors*

- Using robust and tested questions for subjective well-being
- Controlling for demographic and other intervening variables when comparing between target and reference groups

#### ✗ *Pitfalls to avoid*

- Using different questions or different survey methods (e.g. telephone, face-to-face, etc.) for target and reference groups

### *Resources, tools and examples*



**The OECD Guidelines on Measuring Subjective Well-being** (OECD, 2013<sup>[35]</sup>) offers extensive guidance on designing subjective well-being questions and implementing them in surveys.



**The UK Office of National Statistics (ONS)** has developed four standard questions which they use to assess subjective well-being (ONS, 2018<sup>[36]</sup>). Known as the ONS4, these questions ask people to evaluate how satisfied they are with their life overall, whether they feel they have meaning and purpose in their life, and ask about their emotions during a particular period.



**The Australian National Arts Participation Survey** (Australia Council for the Arts, 2020<sup>[37]</sup>) offers an assessment of the impact of arts participation on subjective well-being. It includes questions relating to overall sense of well-being and happiness as well as relating to stress, anxiety and depression.

## Core indicator 3: Percentage of event participants from underrepresented groups

Scale	Demographic breakdown	Reporting breakdown	Aggregate indicator	Unit	Baseline data required	Related SDG
n/a	Age Gender Abilities LGBTQ+ identity Racial/ethnic identity Socio-economic background Other context specific groups	Type of participation: Volunteers Organisation staff Active participants (e.g. athletes, performers, businesses, etc.) Attendees Part of event: Main event Side events Programmes related to event	No	% of total participant type	Yes	10.2

### Definition

This indicator captures data on the diversity of participants involved in the event.

**Event participants** can include attendees, organiser staff, volunteers, athletes, performers, artists, business owners, etc.

**What constitutes an underrepresented group may be context specific.** However, typically events capture participation rates by age, gender, abilities, and sometimes by LGBTQ+ identity, racial/ethnic identity, and socio-economic background.

### Breakdowns and reporting units

This indicator can be broken down by **participation type**. For example, proportions for volunteers, organisation staff, active participants (e.g. athletes, performers, businesses, etc.) and attendees can be given separately.

Some **further disaggregation is also useful** in understanding the demographic make up of different forms of participation. For example, it can be helpful to show the proportion of women in senior management roles in organisation staff.

It can also be helpful to show a **breakdown by different parts of the event**, where applicable. For example, it can be useful to show the proportion of underrepresented groups attending different side events, or different community-led projects related to the event.

### Calculation methods and data sources

This indicator relies primarily on **survey data**. In order to be accurate, it is important that response rates are large enough to be representative of the participant population in question and capture enough of a range of the population in question.

Some information can be gathered through the **ticketing process**, by asking voluntary demographic questions at the point of sale. However, it is important to understand the ethical and legal responsibilities of those collecting and storing personal data, including data which links demographic information to other identifying personal information.

### ☑ Success factors

- Having a large enough sample of survey responses for each type of participant/activity/site/venue. For example, in a multi-venue event, sample sizes should be representative at each venue, to account for potential differences in audience between venues
- Establishing what demographic information will be collected through ticketing and surveys and how this data can be shared within established data protection frameworks

### ☒ *Pitfalls to avoid*

- Taking survey data from only a limited number of venues/sites or only for a limited number of days
- The sharing of any personal data without explicit and informed consent.
- Survey design which asks intrusive or inappropriate questions about identity without reference to how groups broadly identify

### *Resources, tools and examples*



**The Vancouver 2010 Olympic and Paralympic Winter Games** sustainability report (VANOC, 2010<sup>[38]</sup>) records the percentages of the event's paid workforce by gender, age, ethnicity and (dis)ability. It reports these figures for each year of the planning and delivery of the games.



**The Eurovision Song Contest 2022** conducted an impact evaluation (EBU, 2022<sup>[39]</sup>) which showed the gender ratio of entrants and compared this to the gender ratio of top music charts to help contextualise the data.

## Additional social indicators

### Change in % of community residents reporting a sense of local pride

This indicator captures the extent to which the event impacted local residents' feelings about the place in which they live.

**Pride in place** refers to a person's personal sense that they are proud of the place in which they live, or that they are proud to live in that particular place. **Community residents** include all those living in the target area, including both those who attended and those who did not attend the event. This indicator can also be broadened to include those living in the wider region, or even across the whole country.

This indicator is based on **self-reported** levels of pride. It therefore requires specific survey data. While some countries may include questions relating to pride in place in life satisfaction or well-being surveys which can be drawn upon for analysis, often a **targeted survey** will need to be conducted to gather these data.

As this indicator measures a **change** in pride, it is important that data are collected before and after the event. This indicator is presented as a **comparator**, comparing the proportion of local residents who felt a positive sense of pride in place before and after the event.

As pride in place is a deeply personal feeling and can be linked to multiple aspects of a community, it is important that surveys for this indicator include a large sample, **stratified by multiple demographic characteristics**, such as age, gender, etc. For this indicator, it is also important to consider **breakdowns by different geographical areas, including national, regional and local, as well as breakdowns** within the host territory, such as different parts of the city.

### Resources, tools and examples



**The Hull UK City of Culture 2017** impact evaluation (CPPI, 2021<sup>[40]</sup>) assessed pride in place for local residents before, during and after the event. They found that the proportion of local residents who reported to be proud of the city rose substantially in the year of the event (2017), and remained slightly higher the year after (2018), when compared to previous years.



**An impact assessment of the 2015 Tour de France** (Bakker and Hover, 2015<sup>[41]</sup>) examined people's feelings of pride as a result of the Tour beginning in Utrecht, the Netherlands. They examined feelings of pride for different groups of people, finding that a sense of pride was greatest amongst domestic visitors.

### Change in % of public reporting positive perception of underrepresented groups

This indicator is used to measure the impact of global events on **social cohesion and inclusion**. It can be used to capture both attitudes towards underrepresented groups, and how underrepresented groups feel they are perceived.

Capturing perceptions of underrepresented groups requires sensitivity. It is therefore important that this indicator is developed with stakeholder engagement. Specific questions on attitudes towards minority groups and experiences of minority groups can be taken from **existing national and international surveys**.

Where national survey data can be disaggregated at the local level, this can be used to assess local perceptions and experiences. This can also be **compared against national benchmarks**. Where local disaggregation does not exist, but national level data does, a targeted

survey (using the same survey questions as at the national level) can be conducted. Where no such national survey exists, questions can be adapted from international good practice and applied through a targeted survey, designed with thorough stakeholder engagement.

**Alternatively**, broader questions relating to the extent to which the event prompted a change in perception of underrepresented groups, or the extent to which underrepresented groups felt included/excluded by the event, can be used. This method has the advantage of ascertaining causality, in that it specifically links a change to the event taking place. However, it offers less of an understanding of overall change.

It can be helpful to use breakdowns for this indicator based on the different groups identified, as well as broader demographic characteristics. This can help to indicate whether **changing perceptions reported by a majority group, differ from the experience of a minority group**, as well as taking into account the intersectionality of group identity.

### Resources, tools and examples



**The Eurobarometer discrimination survey** tracks attitudes around discrimination across the EU (EU, 2019<sup>[42]</sup>). It includes questions related to perceptions of discrimination, as well as specific questions relating to respondents' level of comfort with different groups at risk of discrimination in various situations.

### Percentage of volunteers motivated to volunteer more

This indicator captures some of the more **long-term effects of volunteering** at an event, by assessing the extent to which an event prompted volunteers to want to volunteer again. In doing so, this indicator also implicitly provides a qualitative assessment of the **volunteering experience**, as it is unlikely that people would be motivated to volunteer more if they had a negative experience.

**Volunteers** include all those who give their time for free, in contribution to any aspect of the event. This could include pre-event planning and set up, during the event, side programmes related to the event and any ongoing activities after the event takes place.

This indicator is generally based on **self-response** through **targeted surveys**. It is important to note that this indicator does not capture the extent to which volunteers actually do go on to volunteer more (as this would require extensive long-term data collection), but rather captures people's motivation to volunteer again. Alternatively, some regions and nations have a volunteer database, which can be useful to assess the number of new volunteers registering in the database after the event.

This indicator can be broken down by demographic characteristics and also by the type of volunteering they engaged in (for example, which part of the event, which roles, etc.). It can also be useful to differentiate responses from those who indicate willingness to volunteer at the event again and those who indicate willingness to volunteer in other roles outside the event context (e.g. in charity settings, such as health and social care).

### Resources, tools and examples



**Glasgow 2018 European Championships** evaluation report (Glasgow 2018, 2018<sup>[43]</sup>) includes results of a targeted survey of their volunteers. The evaluation found that 50% of volunteers stated they planned to do more or much more formal volunteering in the future (37% more informal volunteering), with highest results among those aged under 26 or new to volunteering.

# ENVIRONMENTAL MENTAL IMPACT



## CHAPTER 4

# ENVIRONMENTAL IMPACT INDICATORS

## Core indicator 1: Total carbon footprint (without discounting carbon offsetting)

Scale	Demographic breakdown	Reporting breakdown	Aggregate indicator	Unit	Baseline data required	Related SDG
n/a	n/a	International travel Domestic travel Construction Event activity Visitor impact	Yes	tCO <sub>2</sub> e	Yes	13.2

### Definition

This indicator measures the total amount of greenhouse gas (GHG) emissions directly and indirectly caused by the event.

**Total carbon footprint** shows the total GHG emissions associated with the event, without discounting any carbon offsetting (which can be reported separately).

### Breakdowns and reporting units

This indicator is reported in units of tonnes of carbon dioxide equivalent (**tCO<sub>2</sub>e**), a standard way of recording and reporting on GHG.

Alongside reporting total carbon footprint in tCO<sub>2</sub>e, it can be useful to show a **breakdown by types of activity**. For example, showing the proportion of total carbon footprint generated by international travel, domestic travel, construction, visitor impact and other event activity can be useful in understanding which areas have created the biggest impact.

Figures for **tCO<sub>2</sub>e per attendee/participant or per unit of currency spent** can be reported alongside the total tCO<sub>2</sub>e figures to help with comparison across events of different sizes and different durations.

Contextualising the total carbon footprint **with comparisons** is also useful in conveying the information to a non-specialist audience. For example, reporting on how the tCO<sub>2</sub>e created by the event compares to the average daily emissions for the locality can be a helpful contextualisation.

In order to produce more informative and comparable statistics, this indicator relates to the total carbon footprint caused by the event, **without discounting for any carbon offsetting** initiatives which the event may have undertaken. However, **the amount of carbon offset may be reported separately**.

### Calculation methods and data sources

Total carbon footprint is an **aggregate indicator** which is calculated from consideration of all the different activities that occur as a result of the event. Calculation methods begin by determining metrics for the various event-related activities (e.g. air miles of visitors, amount of electricity consumed, source of consumed electricity, etc.). These figures are then used to calculate emissions through standardised metrics.

There are **three levels of activity** which can be considered in carbon footprint calculations: scope one includes the emissions arising from activity directly owned or controlled by the event; scope two includes the indirect emissions generated by purchased energy used in the event; and scope three includes all indirect emissions that occur in the value chain related to the event. Though scope three emissions are more challenging to calculate, **hosts are encouraged to use scope three wherever possible**. This generally requires the use of environmentally-extended input/output (EEIO) models, which estimate energy use and/or GHG emissions across the economy, including interdependencies between sectors.

Calculations of carbon footprint should follow accepted standards, such as the **GHG Protocols** (Greenhouse Gas Protocol, 2023<sup>[44]</sup>).

### ✔ **Success factors**

- Use standard protocols to calculate the carbon footprint
- Be clear in reporting about what is and is not included in calculations

### ✘ **Pitfalls to avoid**

- Taking too narrow an approach to measuring carbon footprint which does not take into account the full range of event activities
- Using “off-the-shelf” carbon footprint calculators which are not adapted to the events sector

## **Resources, tools and examples**



**The Net Zero Carbon Events Roadmap** offers an in-depth guide to reducing the carbon footprint of events (Net Zero Carbon Events, 2022<sup>[45]</sup>). The report includes guidance on key emissions sources to be measured, details on the data to be collected, and suggestions for who is best placed to take responsibility for data collection for the different emissions sources.



**The 2020 Tokyo Olympic and Paralympic Games** pre-games sustainability report clearly outlines how they approach measuring carbon footprint (The Tokyo Organising Committee of the Olympic and Paralympic Games, 2020<sup>[46]</sup>). It includes diagrams depicting the scope of the carbon footprint assessment as well as the exact calculation methods for each category of activity deemed within scope of the assessment.

## Core indicator 2: Percentage of waste diverted from landfill

Scale	Demographic breakdown	Reporting breakdown	Aggregate indicator	Unit	Baseline data required	Related SDG
n/a	n/a	Type of waste: Food, plastic, construction materials, mixed/general Destination of waste: recycled, reused, composted, incinerated, landfill	No	% of waste	Yes	12.5

### Definition

This indicator considers the proportion of waste generated by the event which is recycled, reused or composted, instead of being sent to landfill or for incineration.

**Waste** can be defined as any substance or object which the holder discards (EU, 2008<sup>[47]</sup>). In other words, waste refers to any type of material which has not been consumed, nor continues to be in use. In the context of events, this could include food, packaging, construction materials, and other types of waste.

### Breakdowns and reporting units

Breakdowns for this indicator fall into two categories: types of waste and destination of waste. **Types of waste** can be usefully broken down into food, plastics, construction materials and mixed/general waste. **Destination of waste** can be broken down into waste which is recycled, reused, composted, incinerated or sent to landfill.

This indicator is **reported as a percentage**. However, it can also be useful to report the amount of waste in tonnes. For example, the number of tonnes of food waste sent to composting sites or the number of tonnes of construction material reused after the event.

### Calculation methods and data sources

Simply calculating the amount of waste generated by an event can be challenging, especially if the event is held over a long period of time or at different sites. **Good coordination** between venues, suppliers, contractors and

other stakeholders and a clear data collection plan is necessary to capture where all the different types of waste potentially produced by the event end up. This can be aided by incorporating **waste management plans and reporting frameworks** within supplier contracts.

### ✓ Success factors

- Establishing data collection procedures within supplier waste management plans

### ✗ Pitfalls to avoid

- Taking too narrow an approach to waste which does not include all waste materials produced in the pre-event period

### Resources, tools and examples



**The France 2018 Ryder Cup** impact evaluation (CDES, Eeva, Kantar Media & MKTG, 2019<sup>[48]</sup>) considers the waste generated by the event, broken down by material type and by phase of the event (assembly, pre-event week, event, and dismantling). They also include in the impact assessment figures for the distance between the event site and the waste treatment centre.



**Analysis of the environmental impact of United States and Canadian B2B trade shows**

specifically examines waste in relation to venues and the warehouses who supply and build many of the materials and booths at events (SISO, 2022<sup>[49]</sup>). They also look at plastic and food waste, finding that only an estimated 67% of food waste goes to landfill with another 10% going to composting, 11% going to animal feed and 6% being donated.



**The 2014 Men's FIFA World Cup in Brazil** included a waste management section in their sustainability report (FIFA, 2014<sup>[50]</sup>). Their assessment

includes waste related to all official locations of the World Cup, which extends to the local organising committee offices and the World Cup draw event.

## Core indicator 3: Percentage of target groups reporting a change towards more sustainable behaviours

Scale	Demographic breakdown	Reporting breakdown	Aggregate indicator	Unit	Baseline data required	Related SDG
n/a	n/a	<p>Types of behaviour: Reduction in food waste; More efficient energy use in the home; Decrease in car use; Decrease in flying; Increase in recycling; Reduction in plastic use; Reduction in buying new things</p> <p>Participant type: Volunteers; Organisation staff; Active participants (e.g. athletes, performers, businesses, etc.); Attendees</p>	No	%	Yes	4.7

### Definition

This indicator captures some of the potential long-term impacts of events, by assessing the extent to which the event caused a change in people's behaviour which positively impacts the environment.

A **change in behaviour** can include stopping or reducing some activities, starting or increasing some activities or doing activities in a different way.

**Sustainable behaviour** includes any personal activity that impacts the environment. It can include purchasing decisions and lifestyle choices in relation to food, housing, mobility, consumer goods or leisure activities (UNEP, 2016<sup>[51]</sup>).

### Breakdowns and reporting units

This indicator can be broken down into **different types of behaviours**. Behaviours can include: reduction in food waste; more efficient energy use in the home; decrease in car use; decrease in flying; increase in recycling; reduction in plastic use; and reduction in buying new things.

This indicator can also be broken down into **different target groups, or types of participant**. For example, proportions for volunteers, organisation staff, active participants

(e.g. athletes, performers, businesses, etc.) and attendees can be given separately. Some demographic characteristics may also be relevant, for example age.

### Calculation methods and data sources

This indicator relies heavily on the **use of surveys**. Typically, this would involve Likert scale questions (e.g. strongly agree to strongly disagree) which solicit responses to a statement which links participation in the event to a change in behaviour. A more general question can be asked first, with questions regarding more specific behaviours asked for those who respond positively to the first question.

**Timing of the survey** is an important consideration. Surveying participants during or directly after the event may substantially improve survey response rates and respondents may be more cognisant of the impact of the event at this point. However, capturing long-term change in behaviour entails surveying participants well after the event has finished.

### ✓ *Success factors*

- Asking questions which specify actions (e.g. cycling to work, using less plastic, etc.)

### ✗ *Pitfalls to avoid*

- Asking leading questions, or questions which could elicit positive response bias

### *Resources, tools and examples*



**The 36th America's Cup in New Zealand** evaluation report (Fresh Info, 2021<sup>[52]</sup>) included impact indicators relating to a change in behaviour to protect the natural environment. As part of their impact evaluation, they first asked attendees and volunteers whether they had seen messaging about environmental sustainability connected to the event and then asked those who have seen this messaging whether they are likely to change their behaviour as a result.



**Coventry UK City of Culture 2021** conducted an evaluation of their Green Futures programme, which included targeted survey and interview data (University of Warwick, Coventry University and Coventry City Council, 2023<sup>[53]</sup>). They also use data from the Coventry Household Survey to assess behavioural trends in the local community, finding evidence of a citywide shift in awareness and consideration of environmental issues, with citizens planning to take more personal steps to reduce the impact of climate change.

# Additional environmental indicators

## Percentage of value of contracts awarded in compliance with sustainability standards

This indicator captures the extent to which common **standards** relating to environmental and social sustainability have been articulated and adhered to as part of a **sustainable sourcing strategy**.

A sustainable sourcing strategy helps to identify the **different standards** required to be met by suppliers, including the **entire value chain**. Alongside broader sustainability considerations, the strategy can be enacted by introducing environmental and human rights standards in the technical specifications, procurement selection and award criteria of suppliers, as well as in contract performance clauses (OECD, 2015<sup>[54]</sup>).

This indicator **captures compliance with the different standards** laid out in the strategy. It covers the full lifecycle of the event and all forms of supplier contracts. The indicator is broken down by the **different standards used**. This includes general sustainable and ethical business conduct, such as conforming to the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work, (ILO, 2022<sup>[55]</sup>) the United Nations Guiding Principles for Business and Human Rights (UN, 2011<sup>[56]</sup>) or the OECD Guidelines for Multinational Enterprises, (OECD, 2011<sup>[57]</sup>) as well as specific certifications, such as the use of Forest Stewardship Council (FSC) certified wood in construction, or the sale of certified Fair Trade goods by event-related vendors.

Data for this indicator can be collected **through the procurement procedure**, by requiring suppliers to explicitly state which standards they can commit to adhere to. Crucially, a good sustainable sourcing strategy will specify how adherence to standards will be monitored.

## Resources, tools and examples



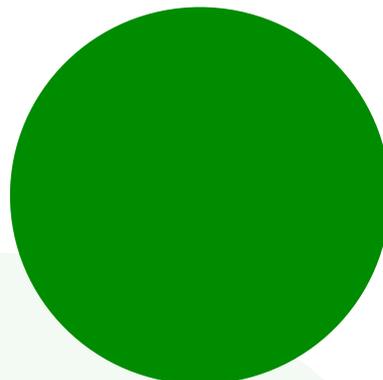
The IOC have produced a **guide on sustainable sourcing** (IOC, 2019<sup>[58]</sup>). While the guide was developed for Olympic hosts, the guidance is equally applicable to many other types of events.



The **ISO management system for sustainable events – ISO 20121** – is a commonly used management standard, developed to help event hosts in managing various elements of events in a more sustainable way (ISO, 2012<sup>[59]</sup>). The ISO also have a standard for sustainable sourcing (ISO, 2017<sup>[60]</sup>).



The **Milano 2015 World Exposition's** lessons learned report (Italian Ministry for the Environment, Land and Sea, 2016<sup>[61]</sup>) details how they utilised a green procurement strategy, covering areas such as food and drink, merchandising, packaging and event organisation.



## Water footprint

This indicator shows the **volume of freshwater used in all event-related activities**. Similar to the carbon footprint indicator, this indicator includes consideration of both water directly consumed during event-related activities and the water footprint of the materials consumed.

Water footprint is typically reported in m<sup>3</sup>. It can be broken down into the amount of water directly consumed during the event and the water footprint of materials consumed as a result of the event (such as food, building materials, etc.).

### Resources, tools and examples



**The Water Footprint Network** have produced a Water Footprint Assessment Manual, (Y. Hoekstra et al., 2011<sup>[62]</sup>) which offers a comprehensive set of definitions and methods for water footprint accounting. This manual helps to set shared definitions and calculation methods, meaning that assessments are more easily comparable.

## Percentage change in air pollution levels linked to event

This indicator corresponds to **changes in air quality as a result of the event**. This is typically assessed during the event, but may also include assessment of construction prior to the event, or the impact of ongoing programmes linked to the event.

The change in air pollution levels could be **positive or negative**. For example, if an event involved no additional construction, and involved the closure of roads leading to a reduction in traffic, air pollution levels could be temporarily reduced.

The World Health Organization (WHO) specify recommended concentrations of **particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulphur dioxide and carbon monoxide** in their air quality guidelines (WHO, 2021<sup>[63]</sup>). While there are other air pollutants which can be incorporated into air quality assessments, evaluation of the pollutants included in the WHO guidance is most important in comparing against benchmarks.

This indicator is reported as a **percentage change in concentration levels**. This measure therefore requires benchmarking data before the event or event-related activity took place.

### Resources, tools and examples



**The Beijing 2008 Olympic and Paralympic Games** put in place specific measures to reduce air pollution through its “Air Quality Guarantee Plan”. The impact of this plan was evaluated by a team of academic researchers (Wang et al., 2010<sup>[64]</sup>), who found significant reductions in pollution and improvements in air quality over the duration of the games.

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## CHAPTER 5

# SUMMARY OF INDICATORS AND MAPPING ACROSS DIFFERENT FRAMEWORKS



The table below shows a summary of all of the indicators and maps them against the UN Sustainable Development Goals (SDG), the Association of Summer Olympic International Federation (ASOIF) common indicator framework (ASOIF, 2021<sup>[65]</sup>) and the European Capital of Culture (ECoC) indicator guidance (EC, 2018<sup>[66]</sup>).

		Indicator	Breakdowns	SDG	ASOIF	ECoC
Economic	Core	Total net economic impact (net direct, indirect, and induced impact on host economy)	Direct; indirect; induced; local; national; sectoral	8.1	EC-OUTCOME2	
		Total jobs created/supported	Direct; indirect; temporary; permanent; industry sector; demographic	8.5, 8.6		✓
		% of value of contracts paid to local suppliers, SMEs and social enterprises	Local; SME; social enterprises	10.2	EC-OE2.1	
	Additional	% increase in visitors after event		8.9	IM-OUTCOME2	✓
		Number of people trained in new skills through event-related programmes	Demographic	4.4	SO-SD2.1	✓
	M <sup>2</sup> of unused spaces repurposed for event-related activities	Type of space; pre/during/post event use	11.3		✓	
Social	Core	% of target groups reporting increased frequency of participation (in culture, sports, business, etc.): Sport: participation in sport; increase in physical activity Culture: active participation; passive participation Business: B2B meetings; new partnerships	Demographic; type of participation	3.4	SP-OUTCOME1	✓
		% of target groups reporting change in health and well-being	Demographic; type of health & well-being	3.4	SO-CE2.3; SP-OUTCOME2	
		% of event participants from underrepresented groups		10.2	SO-A2.1; SO-O2.1; SO-DI2.1-3	✓
	Additional	Change in % of community residents reporting a sense of local pride	Demographic; location within host territory	10.2	SO-CE2.2	
		Change in % of public reporting positive perception of underrepresented groups	Demographic	10.2		
	% of volunteers motivated to volunteer more	Demographic	10.2			
Environmental	Core	Total carbon footprint (without discounting carbon offsetting)	Event operations; visitors; energy; transport	13.2	EN-OUTCOME1	
		% of waste diverted from landfill	Type of waste; destination of waste	12.5	EN-EP2.2	
		% of target groups reporting a change towards more sustainable behaviours	Demographic; behaviour type	4.7	EN-EP2.2	
	Additional	% of value of contracts awarded in compliance with sustainability standards	Type of sustainability standard	12.6	EN-P2.1	
		Water footprint		6.4		
	% change in air pollution levels linked to event		3.9, 11.6			



GLOBAL

BALANCE

WELLNESS

WELLNESS

# References

- ASOIF (2021), *Common Indicators for Measuring the Impact of Events*, Association of Summer Olympic International Federations, <https://www.majorevents.govt.nz/dmsdocument/17475-asoif-common-indicators-for-measuring-the-impact-of-events>. [65]
- Australia Council for the Arts (2020), *Creating Our Future: Results of the National Arts Participation Survey*, <https://australiacouncil.gov.au/advocacy-and-research/creating-our-future/>. [37]
- Bakker, S. and P. Hover (2015), *Grand Départ Utrecht 2015*, The Mulier Institute, <https://www.kennisbanksportenbewegen.nl/?file=5797&m=1452517404&action=file.download>. [41]
- Birmingham 2022 (2023), *Interim Evaluation of the Birmingham 2022 Commonwealth Games*, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1128687/Interim\\_Evaluation\\_of\\_the\\_Birmingham\\_2022\\_Commonwealth\\_Games\\_-\\_Interim\\_Evaluation\\_Report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1128687/Interim_Evaluation_of_the_Birmingham_2022_Commonwealth_Games_-_Interim_Evaluation_Report.pdf). [22]
- CDES (2016), *Paris 2024 Étude d'impact*, Centre de Droit et d'Economie du Sport, <https://v1.cdes.fr/sites/default/files/files/Expertise/r%C3%A9f%20%C3%A9co/R%C3%A9sum%C3%A9%20%C3%A9tude%20finale%20JO2024.pdf>. [67]
- CDES & Amnyos (2019), *Cartographie des emplois directement mobilisés par l'Organisation Des Jeux Olympiques et Paralympiques Paris 2024*, Centre de Droit et d'Économie du Sport & Amnyos, [https://medias.paris2024.org/uploads/2019/04/Cartographie\\_emplois\\_Paris-2024\\_vf2019.pdf](https://medias.paris2024.org/uploads/2019/04/Cartographie_emplois_Paris-2024_vf2019.pdf). [68]
- CDES, Enea, Kantar Media & MKTG (2019), *Étude sur l'Impact environnemental de la Ryder Cup 2018*, <https://pro.visitparisregion.com/content/download/36151/file/Ryder%20Cup%202018%20-%20Volet%20environnemental.pdf>. [48]
- Chappelet, J. (2019), "Beyond Legacy: Assessing Olympic Games Performance", *Journal of Global Sport Management*, Vol. 4/3, pp. 236-256, <https://doi.org/10.1080/24704067.2018.1537681>. [16]
- Commonwealth Secretariat (2019), *Measuring the contribution of sport, physical education and physical activity to the Sustainable Development Goals: Toolkit and model indicators v3.1*, <https://production-new-commonwealth-files.s3.eu-west-2.amazonaws.com/migrated/inline/Sport-SDGs-Indicator-Framework.pdf>. [10]
- CPPI (2021), *Cultural Transformations: The Impacts of Hull Uk City of Culture 2017: Main Evaluation Findings and Reflections*, Culture, Place and Policy Institute (CPPI), University of Hull, <https://citiesofculture.co.uk/2021/07/08/cultural-transformations-the-impacts-of-hull-uk-city-of-culture-2017-main-evaluation-findings-and-reflections/>. [40]
- DCMS (2013), *2012 Games Meta Evaluation: Report 5 Post-Games Evaluation Summary Report*, <https://www.gov.uk/government/publications/report-5-post-games-evaluation-meta-evaluation-of-the-impacts-and-legacy-of-the-london-2012-olympic-and-paralympic-games>. [34]

- Derchi, G., C. Stricker and J. Déthier (Forthcoming), *Economic impact assessment of olympic games*, International Academy of Sport Science and Technology (AISTS). [18]
- EBU (2022), *Eurovision Song Contest Brand Impact Report 2022*, European Broadcasting Union's Media Intelligence Service, <https://confindustriaradiotv.it/wp-content/uploads/2022/08/EBU-MIS-Eurovision-Song-Contest-Brand-Impact-Report-2022-compressed.pdf>. [39]
- EC (2022), *Sport and physical activity : full report*, Publications Office of the European Union, <https://data.europa.eu/doi/10.2766/356346>. [30]
- EC (2018), *European Capitals of Culture (ECoC) 2020-2033 Annex 10-Guidelines for the cities' own evaluations of the results of each ECoC*, European Commission, <https://culture.ec.europa.eu/sites/default/files/2021-04/ecoc-guidelines-for-cities-own-evaluations-2020-2033.pdf> (accessed on 10 May 2022). [66]
- EU (2019), *Discrimination in the European Union*, European Union, <https://europa.eu/eurobarometer/surveys/detail/2251>. [42]
- EU (2008), *Directive 2008/98/EC Of The European Parliament and of the Council on waste and repealing certain directives*, European Parliament, Council of the European Union, <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32008L0098&rid=9>. [47]
- Event Economics (2020), *Crowd counting guidelines*, <https://www.eventhosts.org/wp-content/uploads/2018/12/Crowd-counting-methodology.pdf>. [15]
- eventIMPACTS (n.d.), *Economic Toolkit*, <https://www.eventimpacts.com/impact-types/economic>. [17]
- FIFA (2014), *Sustainability Report of the 2014 FIFA World Cup Brazil*, Fédération Internationale de Football Association and the 2014 FIFA World Cup Local Organising Committee (LOC), <https://digitalhub.fifa.com/m/3756a3d1bce5e27a/original/educsd2hgasief3yeoyt-pdf.pdf>. [50]
- Fresh Info (2021), *36th America's Cup Impact Evaluation Final Report*, <https://www.majorevents.govt.nz/dmsdocument/15674-36th-americas-cup-impact-evaluation-report>. [52]
- Garcia, B., R. Melville and T. Cox (2010), *Creating an impact: Liverpool's experience as European Capital of Culture*, [https://www.liverpool.ac.uk/media/livacuk/impacts08/pdf/pdf/Creating\\_an\\_Impact\\_-\\_web.pdf](https://www.liverpool.ac.uk/media/livacuk/impacts08/pdf/pdf/Creating_an_Impact_-_web.pdf). [27]
- Glasgow 2018 (2018), *European Championships Evaluation Report*, [https://static1.squarespace.com/static/5f101673cdadcf5b738c336b/t/602baa4cc165a2198df4966b/1613474382076/Glasgow\\_2018\\_Evaluation\\_Full\\_Report.pdf](https://static1.squarespace.com/static/5f101673cdadcf5b738c336b/t/602baa4cc165a2198df4966b/1613474382076/Glasgow_2018_Evaluation_Full_Report.pdf). [43]
- Greenhouse Gas Protocol (2023), *Standards*, <https://ghgprotocol.org/>. [44]
- IAEH (2022), *Guidance for measuring benefits: Key Principles for Measurement*, <https://www.eventhosts.org/resources/event-impact-standards/guidance-for-measuring-benefits-2/>. [14]
- ILO (2022), *ILO Declaration on Fundamental Principles and Rights at Work*, International Labour Organization, <https://www.ilo.org/declaration/lang--en/index.htm>. [55]

- IOC (2019), *Olympic Games Guide on Sustainable Sourcing*, International Olympic Committee, [58]  
<https://stillmed.olympics.com/media/Document%20Library/OlympicOrg/IOC/What-We-Do/celebrate-olympic-games/Sustainability/Olympic-Games-Guide-on-Sustainable-Sourcing-2019.pdf>.
- ISO (2017), *ISO 20400 - Sustainable procurement*, International Organization for Standardization, [60]  
<https://www.iso.org/standard/63026.html#:~:text=ISO%2020400%3A2017%20provides%20guidance,by%2C%20procurement%20decisions%20and%20processes.>
- ISO (2012), *ISO 20121 - Sustainable events*, International Organization for Standardization, [59]  
<https://www.iso.org/iso-20121-sustainable-events.html>.
- Italian Ministry for the Environment, Land and Sea (2016), *The expo we learned - The legacy of mega-event in a circular economy perspective*, [61]  
[https://www.mase.gov.it/sites/default/files/archivio/allegati/impronta\\_ambientale/the\\_expo\\_we\\_earned\\_EN\\_web.pdf](https://www.mase.gov.it/sites/default/files/archivio/allegati/impronta_ambientale/the_expo_we_earned_EN_web.pdf).
- Net Zero Carbon Events (2022), *A Net Zero Roadmap for the Events Industry*, [45]  
[https://www.netzerocarbonevents.org/wp-content/uploads/NZCE\\_Roadmap2022\\_Full-Report-updated-26Jan2023.pdf](https://www.netzerocarbonevents.org/wp-content/uploads/NZCE_Roadmap2022_Full-Report-updated-26Jan2023.pdf).
- OECD (2023), *How to measure the impact of culture, sports and business events: A Guide Part I*, [3]
- OECD (2022), *OECD/LEGAL/0472 Recommendation of the Council on the Social and Solidarity Economy and Social Innovation*, [23]  
<https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0472>.
- OECD (2021), *Implementing the OECD Recommendation on Global Events and Local Development: A Toolkit*, OECD, Paris, [2]  
<https://www.oecd.org/cfe/leed/Implementing-the-OECD-Recommendation-on-Global-Events-Toolkit.pdf>.
- OECD (2021), *OECD/LEGAL/0378 Recommendation of the Council for Further Combating Bribery of Foreign Public Officials in International Business Transactions*, [9]  
<https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0378>.
- OECD (2019), *Society at a Glance 2019: OECD Social Indicators*, OECD Publishing, Paris, [21]  
[https://doi.org/10.1787/soc\\_glance-2019-en](https://doi.org/10.1787/soc_glance-2019-en).
- OECD (2018), *OECD/LEGAL/0444 Recommendation of the Council on Global Events and Local Development*, [1]  
<https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0444>.
- OECD (2017), *OECD/LEGAL/0435 Recommendation of the Council on Public Integrity*, [8]  
<https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0435>.
- OECD (2016), *High-Level Principles for Integrity, Transparency and Effective Control of Major Events and Related Infrastructures*, Organisation for Economic Co-operation and Development, [7]  
<https://www.oecd.org/governance/ethics/High-Level-Principles-Integrity-Transparency-Control-Events-Infrastructures.pdf>.
- OECD (2015), *GOING GREEN - Best Practices For Sustainable Procurement*, Organisation for Economic cooperation and Development, [54]  
[https://www.oecd.org/gov/public-procurement/Going\\_Green\\_Best\\_Practices\\_for\\_Sustainable\\_Procurement.pdf](https://www.oecd.org/gov/public-procurement/Going_Green_Best_Practices_for_Sustainable_Procurement.pdf).

- OECD (2015), *OECD/LEGAL/0411 Recommendation of the Council on Public Procurement*, [6]  
<https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0411>.
- OECD (2013), *OECD Guidelines on Measuring Subjective Well-being*, OECD Publishing, Paris, [35]  
<https://doi.org/10.1787/9789264191655-en>.
- OECD (2011), *OECD Guidelines for Multinational Enterprises*, Organisation for economic co- [57]  
 operation and development, <https://www.oecd.org/daf/inv/mne/48004323.pdf>.
- OECD (2011), *Quality Framework and Guidelines for OECD Statistical Activities, Version 2011/1*, [11]  
<http://www.oecd.org/statistics/qualityframework>.
- OECD (Forthcoming), *A comprehensive public procurement measurement framework*. [5]
- OECD (Forthcoming), *Guidelines on the effective delivery of infrastructure and associated services [4]  
 in the context of the Olympic Games*.
- OECD/WHO (2023), *Step Up! Tackling the Burden of Insufficient Physical Activity in Europe*, [31]  
 OECD Publishing, Paris, <https://doi.org/10.1787/500a9601-en>.
- ONS (2018), *Personal well-being user guidance*, Office for National Statistics, [36]  
<https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/methodologies/personalwellbeingsurveyuserguide>.
- Paris 2024 (2022), *Assessing the Social Impact of Paris 2024*, [25]  
<https://medias.paris2024.org/uploads/2022/08/Presentation-of-the-assessment-strategy-of-Paris-2024-summary.pdf>.
- PWC (2018), *Economic impact and benefits analysis of the DHL New Zealand Lions Series 2017*, [20]  
<https://www.majorevents.govt.nz/dmsdocument/17715-economic-impact-and-benefits-analysis-dhl-nz-lions-series-2017>.
- Rogers, P. (2014), *Theory of Change*, [13]  
[https://www.betterevaluation.org/sites/default/files/Theory\\_of\\_Change\\_ENG.pdf](https://www.betterevaluation.org/sites/default/files/Theory_of_Change_ENG.pdf).
- SISO (2022), *Finding the future, together Towards a more sustainable B2B trade show industry in [49]  
 the U.S. and Canada*, Society of Independent Show Organizers, [https://www.ufi.org/wp-content/uploads/2022/09/Finding\\_the\\_Future-Final\\_Report.pdf](https://www.ufi.org/wp-content/uploads/2022/09/Finding_the_Future-Final_Report.pdf).
- State of Queensland (2019), *The Gold Coast 2018 Commonwealth Games Post Games Report*, [24]  
<https://www.publications.qld.gov.au/dataset/gold-coast-2018-commonwealth-games-post-games-report/resource/93979a31-b12a-4f87-a313-10643e3cf439>.
- The Audience Agency (2021), *Galway 2020 European Capital of Culture Evaluation Report*, [28]  
<https://galway2020.ie/wp-content/uploads/2021/12/Galway-2020-Monitoring-Evaluation-Report-December-2021.pdf>.
- The Commonwealth Games Federation (2019), *Commonwealth Games Value Framework*, [12]  
<https://www.insidethegames.biz/media/file/177742/CG+Value+Framework+Report.pdf>.
- The Tokyo Organising Committee of the Olympic and Paralympic Games (2020), *Sustainability [46]  
 Pre-Games Report*,  
<https://gtimg.tokyo2020.org/image/upload/production/kzvd87en5agm5owqoabp.pdf>.

- UFI (2022), *Global Economic Impact of Exhibitions*, [https://www.ufi.org/wp-content/uploads/2022/09/OE-UFI\\_Global\\_Exhibitions\\_Impact\\_August\\_2022.pdf](https://www.ufi.org/wp-content/uploads/2022/09/OE-UFI_Global_Exhibitions_Impact_August_2022.pdf). [19]
- UN (2011), *Guiding Principles for Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework*, The United Nations, <https://unglobalcompact.org/library/2>. [56]
- UN (2010), *International Recommendations for Tourism Statistics 2008 (IRTS 2008)*, [https://unstats.un.org/unsd/publication/Seriesm/SeriesM\\_83rev1e.pdf](https://unstats.un.org/unsd/publication/Seriesm/SeriesM_83rev1e.pdf). [26]
- UNEP (2016), *A framework for shaping sustainable lifestyles*, United Nations Environment Programme, [https://www.oneplanetnetwork.org/sites/default/files/a\\_framework\\_for\\_shaping\\_sustainable\\_lifestyles\\_determinants\\_and\\_strategies\\_0.pdf](https://www.oneplanetnetwork.org/sites/default/files/a_framework_for_shaping_sustainable_lifestyles_determinants_and_strategies_0.pdf). [51]
- University of Warwick, Coventry University and Coventry City Council (2023), *Performance Measurement & Evaluation Evaluation of the Green Futures Programme*, <https://coventry21evaluation.info/wp-content/uploads/2023/01/Evaluation-of-Green-Futures.pdf>. [53]
- Urban Agenda Partnerships (2019), *Sustainable & Circular Re-Use of Spaces & Buildings Handbook*, [https://ec.europa.eu/futurium/en/system/files/ged/sustainable\\_circular\\_reuse\\_of\\_spaces\\_and\\_buildings\\_handbook.pdf](https://ec.europa.eu/futurium/en/system/files/ged/sustainable_circular_reuse_of_spaces_and_buildings_handbook.pdf). [29]
- VANOC (2010), *Vancouver 2010 - Sustainability Report*, Vancouver Organizing Committee, [https://stillmed.olympic.org/Documents/Games\\_Vancouver\\_2010/VANOC\\_Sustainability\\_Report-EN.pdf](https://stillmed.olympic.org/Documents/Games_Vancouver_2010/VANOC_Sustainability_Report-EN.pdf). [38]
- Wang, S. et al. (2010), “Quantifying the Air Pollutants Emission Reduction during the 2008 Olympic Games in Beijing”, *Environmental Science & Technology*, Vol. 44/7, pp. 2490-2496, <https://doi.org/10.1021/es9028167>. [64]
- WHO (2022), *Physical activity*, <https://www.who.int/news-room/fact-sheets/detail/physical-activity>. [33]
- WHO (2021), *WHO global air quality guidelines*, World Health Organization, <https://apps.who.int/iris/bitstream/handle/10665/345329/9789240034228-eng.pdf?sequence=1&isAllowed=y>. [63]
- WHO (2018), *Global action plan on physical activity 2018–2030: more active people for a healthier world*, <https://apps.who.int/iris/handle/10665/272722>. [32]
- Y. Hoekstra, A. et al. (2011), *The Water Footprint Assessment Manual - Setting the Global Standard*, Water Footprint Network, [https://www.waterfootprint.org/resources/TheWaterFootprintAssessmentManual\\_English.pdf](https://www.waterfootprint.org/resources/TheWaterFootprintAssessmentManual_English.pdf). [62]

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## Annex A. Example of indicators in use

The Paris 2024 Olympic and Paralympic Games have developed an impact measurement approach in keeping with the OECD Recommendation on Global Events and Local Development and are looking to incorporate the indicators proposed in this Guide. Presented below is an initial assessment of some of the ways in which the indicators presented in this Guide may be incorporated into event monitoring and evaluation of the Paris 2024 Olympic and Paralympic Games. This list is non-exhaustive and further mapping between the indicators presented in this Guide and the Key Performance Indicators (KPIs) used by Paris 2024 is anticipated at a later date.

### Indicative use of indicators in assessing the impact of the Paris 2024 Olympic and Paralympic Games

Area	Type	Indicator	Paris 2024 incorporation
Economic	Core	Total net economic impact (net direct, indirect, and induced impact on host economy)	Indicator incorporated by Paris 2024 through the following studies: <ul style="list-style-type: none"> <li>- Ex ante study (2016) (CDES, 2016<sup>[67]</sup>)</li> <li>- Update of the ex ante study (2023)</li> <li>- Ex post study post Games</li> </ul>
Economic	Core	Total jobs created/supported	Indicator incorporated by Paris 2024 through the following studies: <ul style="list-style-type: none"> <li>- The Paris 2024's Job Mapping study (CDES &amp; Amnyos, 2019<sup>[68]</sup>), published in 2019 and updated in two phases: <ul style="list-style-type: none"> <li>o This study focuses on the employment directly mobilised by the Games in three major sectors: organisation, construction, and tourism.</li> <li>o Methodology used: For the organisation and tourism sectors, the study relies on the projection of employment needs for the Paris 2024 Organising Committee and SOLIDEO (the public the public body responsible for delivering Olympic and Paralympic infrastructure). For the tourism sector, the study relies on estimates of employment volume resulting from visitor spending, evaluated ex ante.</li> </ul> </li> <li>- Post-Games study on the economic impact of the Games conducted by the French National Institute of Statistics and Economic Studies (INSEE): This study focuses on the direct, indirect, and induced employment based on the expenses of the Paris 2024 Organising Committee and SOLIDEO (proxy).</li> </ul>
Economic	Core	% of value of contracts paid to local suppliers, SMEs and social enterprises	Indicator incorporated by Paris 2024 and SOLIDEO: data from 2019 – 2023 updated monthly
Economic	Additional	% increase in visitors after event	Indicator incorporated by Paris 2024: evaluated in 2025 by INSEE.
Economic	Additional	Number of people trained in new skills through event-related programmes	Indicator incorporated by Paris 2024 through two levels: <ul style="list-style-type: none"> <li>- Direct: staff and volunteers for the Games</li> <li>- Indirect: programs operated by Paris 2024's stakeholders to train people for the jobs identified by the Paris 2024's Job Mapping study.</li> </ul>
Economic	Additional	M <sup>2</sup> of unused spaces repurposed for event-related activities	Indicator incorporated by SOLIDEO.

Area	Type	Indicator	Paris 2024 incorporation
Social	Core	% of target groups reporting increased frequency of participation: Sport: participation in sport; increase in physical activity	Indicator incorporated by Paris 2024 (local communities): Public 1: School audience through the "30 minutes of daily physical activity at school" program (30' DPA) - Impact study (proxy) of the 30' DPA program in the Academy of Créteil, the territory where the program was initially piloted during the 2019 school year. - National monitoring of the program carried out by the French Ministry of National Education (the 30' DPA program was taken nation-wide in the 2022 school year) Public 2: Underrepresented population in sports participation benefiting from an Impact 2024 project (project supported by the Paris 2024 Endowment Fund).
Social	Core	% of target groups reporting change in health and well-being	Indicator incorporated by Paris 2024 (local communities): - Public 1: School audience through the "30 minutes of daily physical activity at school" program (30' DPA). Impact study (proxy) of the 30' DPA program in the Academy of Créteil, the territory where the program was initially experimented during the 2019 school year. - Public 2: Underrepresented population in sports participation benefiting from an Impact 2024 project (project supported by the Paris 2024 Endowment Fund).
Social	Core	% of event participants from underrepresented groups	Indicator incorporated by Paris 2024: - Groups followed for participants: women; participants from priority neighbourhoods; people with disabilities; etc. - Groups followed for local communities: beneficiaries of an Impact 2024 project (project supported by the Paris 2024 Endowment Fund) from priority neighbourhoods. In addition, an ex-post study will be carried out by the French State regarding the Games' audiences (spectators, volunteers, etc.).
Social	Additional	Change in % of community residents reporting a sense of local pride	To be defined
Social	Additional	Change in % of public reporting positive perception of underrepresented groups	Indicator incorporated by Paris 2024: - Participants: specific barometer regarding the Paralympic Games - Local communities: dedicated study on the program "network of para-hosting clubs", that helps sports club to create a parasport section.
Social	Additional	% of volunteers motivated to volunteer more	Indicator incorporated by Paris 2024: - Survey post Games to the volunteers - Ex-post study carried out by the French State regarding the Games' audiences (spectators, volunteers, etc).
Environmental	Core	Total carbon footprint	Indicator incorporated by Paris 2024: - Estimation pre Games (2019) - Update of the estimation (spring 2024) - Update (actual) post Games (end of 2024)
Environmental	Core	% waste diverted from landfill	Indicator incorporated by Paris 2024: - Estimation pre Games (spring 2024) - Update (actual) post Games (end of 2024)
Environmental	Core	% target groups reporting a change towards more sustainable behaviours	To be defined

Area	Type	Indicator	Paris 2024 incorporation
Environmental	Additional	% of value of contracts awarded in compliance with sustainability standards	Indicator incorporated by Paris 2024. Monitoring the % of contracts awarded in compliance with sustainability standards is currently implemented as part of the sustainable sourcing strategy.
Environmental	Additional	Water footprint	Indicator incorporated by Paris 2024, scope and methodology under construction
Environmental	Additional	% change in air pollution levels linked to event	Indicator not incorporated by Paris 2024: causality too hard to establish with the Games

Note: This table does not include the tailored indicators of Paris 2024 which will be published in the different Organising Committee reports planned for 2023, 2024 and 2025, and the indicators presented here will not necessarily be present in these reports. Incorporation of some indicators may also be subject to change based on data availability.

## Annex B. Organisations who participated in consultation

Below is a list of organisations and individuals who participated in the consultation process to develop this Guide. The list includes those who took part in three online only workshops convened in October 2021 (attendance of 74, 56 and 60 people), a hybrid workshop convened in July 2022 (~120 people in attendance), an in-person workshop for members of the World Union of Olympic Cities conducted in October 2022 (~40 people in attendance) and those who responded to a survey in December/January 2022/23 (57 full responses, plus 153 partial responses).

### Consultation participant organisations

Academics and experts from the following institutions	
Bordeaux University	Swiss Graduate School of Public Administration
Bournemouth University	Università di Milano Bicocca
Brunel University London	Université d'Angers
Cracow University of Economics	Université Gustave Eiffel
European Tourism Research Institute (ETOUR), Mid-Sweden University	Université Paris Sud
Far Eastern University	Université Rennes 2
George Mason University	University Gustave Eiffel
Griffith University	University of Algarve
International Academy of Sports Science and Technology (AISTS)	University of Florida
International Institute for Management Development (IMD business school)	University of Gothenburg
Johannes Gutenberg University Mainz	University of Lausanne
Laboratoire Erudite	University of Liverpool
Leeds Beckett University	University of Oxford
London School of Economics	University of Porto
Luiss Business School	University of Queensland
Manchester Metropolitan University	University of the Algarve, Portugal
New York University	University of The West of Scotland
Politécnico de Leiria	University of Western Ontario
Politecnico di Milano	University of Zurich
School of Economics and Business University of Ljubljana	University of Lausanne, Swiss Graduate School of Public Administration
SDA Bocconi School of Management	Vilnius University
Sheffield Hallam University	
Global event hosts and foundations	
Brisbane 2032	LA 2028
Festivals Edinburgh	Paris 2024
Fondazione Milano Cortina	PyeongChang 2018 Legacy Foundation
Internationale Filmfestspiele Berlin	PyeongChang Heritage Foundation
Jaarbeurs	Reno Tahoe Winter Games Coalition
Kaunas 2022 European Capital of Culture	Lausanne 2020
LA 2028	Olympia Sport- und Veranstaltungszentrum Innsbruck GmbH

Global event hosts and foundations (cont.)	
Olympic Park Munich GmbH	St. Louis Olympic Legacy Committee
Richmond Olympic Oval	Theatre City - Budva Montenegro
Southern California Committee for the Olympic Games	Utah Olympic Legacy Foundation
Spirit of 2012	Vancouver 2010
Government departments and policy makers	
<b>Australia:</b>	<b>Italy:</b>
Australia Council (Creative Australia)	City of Torino
Australian Government Office for Sport	<b>Japan:</b>
City of Brisbane	City of Sapporo
Department of Health	Sport Council
Department of the Premier and Cabinet	<b>Korea:</b>
Office for Sport, Department of Health	Jeongseon County Office
Queensland Government	Korea Sports Promotion Foundation
Sunshine Coast Council	Pyeongchang County
Tourism and Events Queensland	Seoul Metropolitan Government
<b>Belgium:</b>	<b>Netherlands:</b>
City of Antwerp	City of Rotterdam
<b>Bosnia and Herzegovina:</b>	City of Amsterdam
City of Sarajevo	Ministry of Health, Welfare and Sport
<b>Brazil:</b>	<b>New Zealand:</b>
City of Rio de Janeiro	Ministry of Business, Innovation and Employment
<b>Canada:</b>	<b>Norway:</b>
City of Montreal	City of Lillehammer
City of Richmond	Visit Bergen
Sport Canada	Visit Norway
<b>Colombia:</b>	<b>Portugal:</b>
National Department of Planning	City of Aveiro
<b>France:</b>	Institute of Employment and Professional Training
Agence française de développement (AFD)	<b>Spain:</b>
City of Chamonix	City of Barcelona
City of Paris	Ministry of Culture and Sport
Délégation interministérielle aux Jeux Olympiques et Paralympiques 2024 (DIJOP)	<b>Sweden:</b>
France Stratégie	City of Stockholm
Ministry of Economics	<b>Switzerland:</b>
National Institute of Sport, Expertise, and Performance (INSEP)	City of St. Moritz
Observatory of the Sports Economy, Ministry for Sports	Department of Physical Education and Sport
<b>Greece:</b>	State of Vaud - Service de l'éducation physique et du sport
City of Athens	City of Lausanne
<b>Hungary:</b>	<b>United Kingdom:</b>
Ministry of Culture and Innovation	Event Scotland
Ministry of Foreign Affairs	Department for Digital, Culture, Media & Sport
<b>Ireland:</b>	Event Wales
Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media	Greater London Authority
The Creative Ireland Programme	Tourism NI

Government departments and policy makers (cont.)	
<b>United Kingdom (cont.):</b>	<b>United States:</b>
UK Sport	Lake Placid
International organisations and associations	
Centre for Sport and Human Rights	International Paralympic Committee (IPC)
Commonwealth Secretariat	International Volley Federation (FIVB)
Directorate General for Education, Youth, Sport and Culture, European Commission	Joint Meetings Industry Council (JMIC)
European Exhibition Industry Alliance	Union of European Football Associations (UEFA)
European Major Exhibition Centres Association (EMECA)	United Nations Educational, Scientific and Cultural Organization (UNESCO)
Fédération internationale de football association (FIFA)	World Federation of the Sporting Goods Industry (WFSGI)
Global Association of the Exhibition Industry (UFI)	World Health Organization (WHO)
International Association Event Hosts (IAEH)	World Union of Olympic Cities
International Council of Museums (ICOM)	World Union of Olympic Cities
International Olympic Committee (IOC)	
Other	
3AFB Conseil	ITS (Innsbruck)
Agence Phare	KPMG
Autonomy	Lake Placid Regional Office of Sustainable Tourism
Budapest Observatory	Laureus: Sport for Good
Business Events Sydney	Lee Valley Regional Park Authority
Choose Paris Region	Legacy Delivery Ltd
CityO	Lillehammer Olympic Legacy Sports Centre
Community Economic Development and Employability Corporation (CEDEC)	Quebec City Business Destination
Destination Uppsala	Sapporo Global Sports Commission
Disneyland Paris	Smartcities & Sport
Fondazione Scuola dei beni e delle attività culturali	Sport et Citoyenneté
GL events	St. Louis Sports Commission
Glasgow Life	Topsport Amsterdam
Global Sport Innovation Centre powered by Microsoft	Union Française des Métiers de l'Événement (UNIMEV)
Intesa Sanpaolo	



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