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Can Mega Sport Events in the Alps be Sustainable?

The Case of the Milano-Cortina 2026

Olympic Winter Games

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ABSTRACT

In recent years, sustainability has become a familiar concept for most people, due to its multifaceted and broad nature that makes it tied to different domains of everyday lives. However, this familiarity often results in different interpretations that make the concept frequently overlap with that of sustainable development. Moreover, since the late 1990s, most disciplines needed to adapt to guidelines provided by the United Nations to achieve sustainable development, including event management. As a result, structural changes have been required in order to meet international standards, not only at a local stage, but also for Mega Sport Events, which remain under intense public scrutiny and carry a massive global impact. This is especially true for the Olympic Games, arguably the most extraordinary of all global sporting events.

Although the IOC has recently developed its own Agenda, aiming at making the Olympics sustainable in all terms, the latest Winter Olympics, held in Italy in February 2026, clearly demonstrate how difficult it is for an event of this scale to achieve comprehensive sustainability. The purpose of this research is to start by presenting sustainability and some core elements of event management that make sustainable events possible. Building upon these aspects, the research will later analyse the final impact of the XXV edition of the Olympic Winter Games.

The analysis carried out in the present work starts by providing an initial framework of sustainability and sustainable development, tracing its evolution from its definition in 1973 until 2015, when the SDGs were set out by the United Nations. Later, aspects related to event management and guidelines for sustainable events are presented, followed by a brief outline of the IOC and its strategic agenda. Finally, some observations in terms of sustainability about the 2026 Winter Olympics are presented, analysing critical elements that emerged during the Games. The results reveal how Milano-Cortina 2026, which initially claimed to be “the most sustainable edition of all times”, ultimately sidelined its claims and promises of sustainable practices and opted for alternative solutions that often resulted in a rather negative legacy for the hosting territories.

In conclusion, the study highlights how large-scale events in the Alps are no longer sustainable both for human communities and the natural environment. Consequently, the IOC must take a firm stance against unsustainable choices that compromise the future of hosting communities. The available data remain limited, because the Olympics ended quite recently; however, more details will emerge in the coming months. Future research should analyse these upcoming datasets and evaluate whether the 2030 edition in France will derive the lesson from the Milano Cortina edition or if it will simply perpetuate another unsustainable example.

RIASSUNTO

Negli ultimi anni, la sostenibilità è diventata un concetto conosciuto a molte persone, grazie alla sua natura poliedrica e vasta, con cui si interseca ai vari ambiti della vita quotidiana. Spesso però, questa familiarità porta a interpretazioni diverse del concetto di sostenibilità, che fanno sì che esso venga sovrapposto a quello di sviluppo sostenibile. In aggiunta, dalla fine degli anni Novanta, molti settori si sono dovuti adattare alle linee guida promosse dalle Nazioni Unite per il raggiungimento dello sviluppo sostenibile, incluso il settore della gestione degli eventi. Di conseguenza, diversi cambiamenti strutturali sono stati resi necessari per soddisfare i diversi standard internazionali, non solo a livello locale, ma anche per gli eventi sportivi mondiali, che rimangono al centro del dibattito pubblico e hanno un impatto globale enorme. Questo è vero soprattutto per i Giochi Olimpici, probabilmente il più straordinario di tutti gli eventi sportivi globali.

Nonostante il COI abbia recentemente stipulato una propria agenda, volta a rendere le Olimpiadi sostenibili sotto ogni aspetto, le ultime Olimpiadi Invernali, tenutesi in Italia a febbraio 2026, dimostrano chiaramente quanto sia difficile per un evento di questa portata raggiungere una sostenibilità a tutto tondo. Lo scopo di questa ricerca è quello di iniziare dal presentare la sostenibilità e alcuni elementi fondamentali della gestione degli eventi che permettono di svolgere eventi sostenibili. A partire da questi aspetti, lo studio prende poi in considerazione l'impatto finale della 25ª edizione dei Giochi Olimpici Invernali.

L'analisi presentata in questo progetto propone un primo quadro di riferimento che definisce sostenibilità e sviluppo sostenibile, tracciandone l'evoluzione dalla prima definizione nel 1973 fino al 2015, quando gli Obiettivi di Sviluppo Sostenibile (SDGs) sono stati definiti dalle Nazioni Unite. Successivamente, vengono introdotti alcuni aspetti dell'organizzazione degli eventi e le linee guida per gli eventi sostenibili, seguiti da una breve presentazione del Comitato Olimpico Internazionale e della sua agenda strategica. Infine, alcune osservazioni in termini di sostenibilità dei Giochi Olimpici 2026 vengono introdotte, analizzando elementi critici emersi durante i giochi. I risultati rivelano come Milano-Cortina 2026, che inizialmente si era proclamata "L'edizione più sostenibile di sempre", abbia poi accantonato le proprie promesse di pratiche sostenibili, adottando soluzioni alternative che spesso hanno comportato un'eredità piuttosto negativa per i territori ospitanti.

In conclusione, questa ricerca evidenzia come gli eventi di larga scala sulle Alpi non siano sostenibili, né per l'uomo né per l'ambiente naturale. Di conseguenza, il COI deve assumere una posizione ferma contro le scelte insostenibili che vengono compiute e che compromettono il futuro delle comunità ospitanti. Poiché le Olimpiadi si sono concluse da poco, i dati disponibili in merito rimangono ancora limitati; tuttavia, sempre più dettagli emergeranno nei prossimi mesi.

Le ricerche future in questo ambito dovrebbero analizzare i dati che saranno resi disponibili e valutare se l'edizione del 2030 in Francia trarrà insegnamento da quella di Milano-Cortina oppure si limiterà a perpetuare l'ennesimo esempio di insostenibilità.

RÉSUMÉ

Ces dernières années, la durabilité est devenue un concept familier pour la plupart des gens, en raison de sa nature multiforme et vaste qui la lie à différents domaines de la vie quotidienne. Cependant, cette familiarité donne souvent lieu à des interprétations divergentes qui font que ce concept se confond fréquemment avec celui de développement durable. De plus, depuis la fin des années 1990, la plupart des secteurs, y compris celui de la gestion des événements, doivent s'adapter aux lignes directrices fournies par les Nations Unies afin de parvenir au développement durable. En conséquence, des changements structurels ont été nécessaires pour répondre aux normes internationales, non seulement dans le cadre d'événements locaux, mais surtout pour les Méga-Événements Sportifs, qui font l'objet d'une attention publique intense et ont un impact mondial considérable. C'est particulièrement vrai pour les Jeux Olympiques, sans doute le plus extraordinaire de tous les événements sportifs mondiaux.

Bien que le CIO ait récemment élaboré son propre programme visant à rendre les Jeux olympiques durables à tous égards, les derniers Jeux Olympiques d'Hiver, qui se sont tenus en Italie en février 2026, démontrent clairement à quel point il est difficile pour un événement de cette importance d'atteindre une durabilité globale. L'objectif de cette recherche est de commencer par présenter la notion de durabilité ainsi que certains éléments fondamentaux de la gestion événementielle qui rendent possible l'organisation d'événements durables. En s'appuyant sur ces aspects, la recherche analysera ensuite l'impact final de la XXVe édition des Jeux olympiques d'hiver.

L'analyse présentée dans ce travail commence par définir un cadre initial de la durabilité et du développement durable, en retraçant son évolution depuis sa définition en 1973 jusqu'en 2015, année où les ODD (SDGs en anglais) ont été définis par les Nations Unies. L'analyse aborde ensuite les aspects liés à la gestion événementielle et aux lignes directrices pour des événements durables, avant de proposer un bref résumé du CIO et de son programme stratégique. Enfin, quelques observations en matière de durabilité concernant les Jeux Olympiques d'Hiver de 2026 sont présentées, analysant les éléments critiques qui sont apparus au cours des Jeux. Les résultats révèlent comment Milano-Cortina 2026, qui se présentait initialement comme « l'édition la plus durable de tous les temps », a finalement mis de côté ses revendications et ses promesses de pratiques durables afin d'opter pour des solutions alternatives qui se sont souvent traduites par un héritage plutôt négatif pour les territoires d'accueil.

En conclusion, l'étude souligne que les événements de grande envergure organisés dans les Alpes ne sont plus durables, ni pour la population ni pour l'environnement naturel. Par conséquent, le CIO doit adopter une position ferme contre les choix non-durables qui compromettent l'avenir

des communautés d'accueil. Les données disponibles sur les Jeux Olympiques restent limitées, s'étant-ils terminés tout récemment; toutefois, davantage de détails émergeront dans les mois à venir. Les recherches futures devraient analyser ces données à venir et évaluer si l'édition de 2030 en France tirera les leçons de celle de Milano-Cortina ou si elle ne fera que perpétuer un nouvel exemple de développement non-durable.

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INTRODUCTION

The term sustainable development appeared for the first time in 1987 in the Brundtland Report of the World Commission on Environment and Development, also titled *Our Common Future*. At the time, the report called for a new era of economic growth, that should have been “Forceful [while] socially and environmentally sustainable” (WCED, 1987). Ever since its definition, sustainable development has been frequently overlapped with sustainability, that is a concept notoriously difficult to define but one that quickly became an integral part of daily life.

Over the last decades, the United Nations and its member states have sought to regulate sustainability and implement sustainable practices favouring global growth across all its three dimensions. A lot of progress has been made: from the first Conference in Stockholm in 1972, until the definition of the SDGs in 2015, set with the aim of “Stimulate action over the next fifteen years in areas of critical importance for humanity and the planet” (United Nations Organizations, 2015). The goals required an initial structural change in all sectors, including that of event management, which had to adapt to the newly set international standards. A positive outcome of this new shift was the development of sustainable events at all levels, ranging from local initiatives to Mega Sport Events, which remain under intense public scrutiny and carry a massive global impact. In this context, the International Olympic Committee has attempted to adapt to the international advancement and set its own Agenda 2020, which outlines goals to achieve sustainability during the Olympic Games, arguably the most extraordinary of all global sporting events.

Existing literature has explored many aspects related to sustainability and sustainable development, including the definition of the three pillars of sustainability (Loucks & Gladwell, 1999); key elements for successful event management (Case, 2013), and circular economy, which is intrinsically linked to sustainability (Rada, 2023). However, much of the academic discussion surrounding the Olympics and their sustainable policies remain either underexplored or outdated.

Although the Olympics have been the subject of numerous studies, these focused more on the organisational and managerial aspects, leaving their sustainable effect overlooked. Recent events, namely Milano-Cortina 2026 and its organisation, highlighted the need for an examination of their sustainability choices and the study of their outcomes. This study was driven by the need to understand if Mega Sport Events in the Alps can generally be sustainable.

This paper examines the level of sustainability of the Milano-Cortina 2026 Winter Olympics. In particular, the research took into consideration the initial bid and compared its promises with the results of actions perpetuated throughout the 7-year preparation time, to unveil the inconsistencies and the controversy of some of the Foundation choices.

The results of the study suggest that hosting events in the Alps is generally unsustainable, and the unsustainability increases under the present state of operations, where priority is given to financial profits rather than to local communities and the environment.

This work is motivated by personal interest in event management and sustainability, which increased since my Bachelor dissertation. It combines the passion for international events, with first-hand insight gained as a Milano-Cortina volunteer, alongside a personal connection to the Veneto Region, where part of the Olympics took place.

Within this framework, the present work is structured as follows: Chapter 1 introduces the concepts of sustainability and sustainable development, reviewing the events that marked a turning point in this sense at a global, European and national levels; Chapter 2 outlines the different pillars of sustainability and links the concept to event management, presenting sustainable and mega events. In Chapter 3 a closer look to the IOC and its organisation is provided, explaining the Olympic bidding process, the socio-economics implications and benefits of hosting the Olympic Games, as well as the role of circular economy. Finally, Milano-Cortina 2026 is addressed in Chapter 4, with a comprehensive analysis of the Games: from the internal organisation to the *pop* side, from the legacy to controversial aspects, as well as a brief aside on the Paralympic Games. To conclude, Chapter 5 briefly discusses the future of these mega events, looking ahead to the next Winter Olympics French Alps 2030, as well as temporary solutions that some places are adopting to support the winter sports field.

1. THE BROAD CONCEPT OF SUSTAINABILITY

1.1 DEFINING SUSTAINABILITY

Before addressing the vast domain of event management and the object of this study, namely the impact of sport events and the Olympic Winter Games, it is considered essential to start by providing a definition of the concept of *sustainability* and *sustainable development*, in order to provide a precise background that leaves no space for misunderstanding.

Indeed, these two concepts are frequently used as synonyms and, as Ruggerio (2021, p. 1) states, “They are immersed in debates regarding their meaning and their possibilities for application to real systems”. The reason is that “At the end of the last millennium, sustainable development [and] sustainability became the theoretical basis and an increasingly important societal norm for human development worldwide (Keiner, 2006, p. 1). The success of both terms “Stems from underlying reflections of existential problems of mankind: increasing concern over exploitation of natural resources and economic development at the expense of environmental quality (Ward & Dubos, 1972, as cited in Keiner, 2006, p. 1) which in turn led to the establishment of norms, good practices, and guidelines at international levels, which will be the later object of Chapter 1.

1.1.1 A CLEAR DEFINITION

Despite the title of this paragraph, providing a clear definition is not a facile task, as it is an essentially vague concept that is rather impossible to define as precise. Nevertheless, several authors have tried to make sense of this concept. At the level of dictionary definition, as Johnston et al. (2007, p. 61) define it, “Sustainability simply implies that a given activity or action is capable of being sustained (i.e. continued indefinitely)”. The *Oxford Learners Dictionary* (Oxford Learner's Dictionary, 2026) adds a second definition that is “The use of natural products and energy in a way that does not harm the environment”. Furthermore, Solow (2010, p. 181) describes it as “An obligation to conduct ourselves so that we leave to the future the option or the capacity to be as well off as we are” while Glasby (2002, p. 334) considers sustainability as “The way to live in harmony with the environment”. The definitions presented so far point to two core ideas: future and environment, but they do not narrow the concept to a practical and precise idea. This links to what Peter Marcuse (2006) declared:

Sustainability is not a goal; it is a constraint on the achievement of other goals. If we want to talk about sustainability as a constraint affecting all goals, we not only have to face the balancing problem: we also have to recognise the practical fact that sustainability in most usages is heavily focused on ecological concerns. (p. 55)

This reflects the collective imagination where sustainability is primarily linked to environmental issues. There is indeed a dual connection between environmental and sustainability issues for which Solow (2010) tries to provide a rationale:

The environment needs protection by public policy because each of us knows that by burdening the environment, by damaging it, we can profit and have some of the cost, perhaps most of the cost, borne by others. Sustainability is a problem precisely because each of us knows or realises that we can profit at the expense of the future rather than at the expense of our contemporaries and the environment. We free-ride on each other and we free-ride on the future. Current environmental protection will almost certainly contribute quite a lot to sustainability. (p. 183)

However, as Mitlin (1992, p. 116) points out, “The concept of sustainability refers, in general, to ecological sustainability, but has been extended to a number of other areas by different authors (e.g. social sustainability)”. Supported by Johnston et al. (2007, p. 62), “It seems clear that sustainability can mean a number of things to a variety of constituencies and [...] they highlight the need to derive a set of universally applicable principles which define sustainability at all scales, disciplines, and aspects of human endeavour”. Following this statement, it is true that what once were the three pillars of sustainability (environment, economic, and social) have now been expanded to include a fourth and even fifth concept, but this will be addressed in Chapter 2.

What needs to be finally presented, before proceeding to the definition of sustainable development, is what Pezzey (1989, as cited in Mitlin, 1992, p. 116) defines as the three points about sustainability criteria:

1. They are long-term;
2. They derive from a desire for intra-generational and/or inter-generational justice;
3. They act as constraints.

As a result, the first two points link to the above-mentioned idea of the future, found in some definitions. Pezzey (ibid.) concludes by discussing the problems of deciding the system to which sustainability criteria should be applied. Should every project be sustainable, or are trade-offs acceptable? He argues that “To say that every project must always be consistent with sustainability is too rigid a requirement” (ibid.).

1.1.2 DIFFERENCE WITH SUSTAINABLE DEVELOPMENT

Now that a definition of the broad concept of sustainability has been given, it would be advisable to provide a definition of the mostly misunderstood concept of sustainable development.

The term first appeared in the 1987 Brundtland Report of the World Commission on Environment and Development, also called *Our Common Future*, which placed before the reader the enormous problems experienced with growing intensity everyday throughout the underdeveloped world (Bartlett, 2006, p. 20). Before any definition of sustainable development, the report announced: “What is needed now is a new era of economic growth, growth that is forceful and at the same time socially and environmentally sustainable” (WCED, 1987, cited in Bartlett, 2006, p. 20). Although the concepts of growth and sustainability are in conflict with one another, the report seems to highlight the need of both, while the use of the word *forceful* implies rapid, which in turn heightens the conflict (Bartlett, 2006).

Moreover, contrary to sustainability, in the case of sustainable development there is a precise definition, whose reference is generally found in Chapter 2 of the report *Our Common Future*, that defines it as: “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987). Ever since its release, the definition has been subject to modifications and reformulations according to different points of view, yet it is still a crucial point of departure for a complete understanding of this term.

However, at present, according to Keiner (2006, p. 3) “The term is not only ill-defined but also misleading, as we live in a markedly unsustainable world, where reality is quite divorced from the vision of sustainable living”. There could be many valid reasons why the term is ill-defined and misleading, and the first could be that, nowadays, the world sustainable is frequently used carelessly (Bartlett, 2006) and “Became for enterprises a term to occupy because of the not-to-be-missed opportunity” (Keiner, 2006, p. 3). A stronger point of view is the one presented by Bartlett (2006), who claims:

We must accept the idea that sustainable has to mean for an unspecified long period of time and, second, we must acknowledge the mathematical fact that steady growth gives very large numbers in modest periods of time. From these two statements, we can see that “sustainable growth” implies “increasing endlessly”, meaning that the growing quantity will tend to become infinite in size. The finite size of resources, ecosystems, environment, and the Earth, lead to the truth: when applied to material things, the term sustainable growth is an oxymoron. (p. 18)

As a result, oxymoron is a keyword to describe the concept of sustainable development: there cannot be a sustainable development until the size of resources is finite, although they will at some point come to an end. This theory is also supported by Johnston et al. (2007, p. 60) who point out that “Sustainable development is now a term which is increasingly regarded either as internally self-

contradictory (an oxymoron) or, at best, plagued by ambitious or distorted definitions”. The authors (ibid.) also posit that:

The only truly sustainable form of progress is that which simultaneously addresses the interlinked aspects of economy, environment, and social well-being. [...] As a result, there are many constituencies which perceive the term "sustainable development" as a vehicle to perpetuate many and varied corporate and institutional interests whilst giving the impression of adherence to, and observance of, environmentally-sound principles. (p. 60)

Through this statement, the authors anticipate the concept of a three-dimensional definition of sustainable development, one that can connect and develop the economic, environmental, and social dimension all at once. This concept will be discussed in Chapter 2; however, it can be visualised for the moment by means of the graphical representation of sustainable development, adapted from Munasinghe (1993).

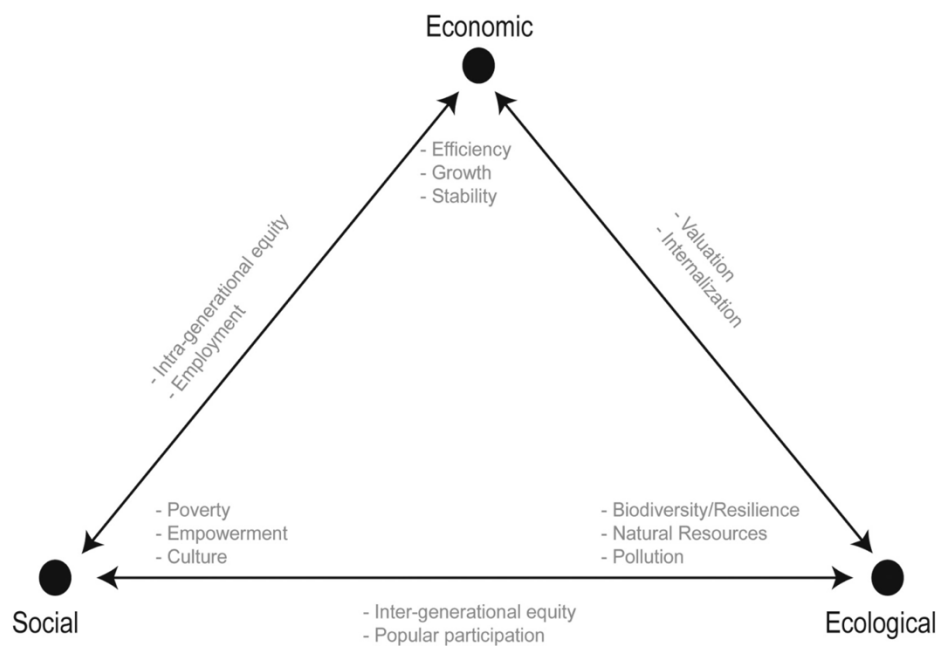


Figure 1: Graphical Representation of Sustainable Development. Adapted from Munasinghe (1993)

Other scholars indeed support this idea that sustainable development is a contradictory concept: Redclift and Sachs (2005, 1999, as cited in Ruggerio, 2021, p. 2) claim that the term does not consider the “Impossibility of sustaining infinite economic growth in a limited planet”, while Spaiser et al. (2017, as cited in Ruggerio, 2021, p. 2) claim that it highlights the contradictions in its objectives. One last idea is the one proposed by Redclift (1987) which states that:

Sustainable development means more than seeking a compromise between the natural environment and the pursuit of economic growth. It means a definition of development which recognizes that the limits of sustainability have structural as well as natural origins. (pp. 199-202)

To conclude, this definition provides the opportunity to finally specify the relationship between sustainability and sustainable development. The two terms are often associated and used as synonyms, even in academic and scientific fields (Olawumi & Chan, 2018; Sartori et al., 2014, as cited in Ruggerio, 2021). The two burst into the global lexicon in the 1980s, as the electronic news media “Made people increasingly aware of the growing global problems of overpopulation, drought, famine, and environmental degradation that had been the subject of limits to growth” (Bartlett, 2006, p. 20). From an initially powerful definition, sustainable development has been modified overtime, apparently “To serve a variety of agendas most of which do not necessarily have the well-being of the planet's supportive ecosystems, or that of people in the developing world, or future generations, at their core” (Johnston et al., 2007, p. 61). This misappropriation of the term has, in turn, influenced the definition of sustainability. The difference between the two terms is thus subtle but relevant, as explained by Pufé (2017):

Even though both terms are often used synonymously, there is a difference in content between *sustainability* and *sustainable development*. While *sustainability* describes a static and constant state, the phrase *sustainable development* implies movement and dynamism. Rather, it denotes something emerging and becoming. (p. 43)

Now that the foundations for the two main concepts have been laid, before proceeding with the legislative process that led to the definition of sustainable development, it is deemed important to address one final idea: eco-development.

1.1.3 ECO-DEVELOPMENT

The concept of eco-development is important in this research, as it is considered by some scholars to be the predecessor of sustainable development. According to Ruggerio (2021, p. 2), several authors agree in indicating the emergence of the concept of sustainable development back to the early 1970s, “When different works warned about the need to establish limits to the Western development model”. Mebratu (1998, p. 501) goes further by claiming that “Environment and development could not for long remain in a state of conflict [and it] became apparent after the 1972 UN Conference on the Human Environment”. The years following that conference served as an opportunity for the evolution of the debate of terms such as “*environment and development*”, “*development without destruction*” and “*environmentally sound development*”. Finally, the term “*eco-development*” appeared in the

review of the UN environment Program in 1978, as it had finally become recognised internationally that environmental and developmental ideas needed to be considered concurrently (ibid.).

Ecodevelopment¹ was in this sense the precursor to the later concept of sustainable development (Estenssoro, 2015, as cited in Ruggerio, 2021) which, as already mentioned, has joined the debate of environment and development in 1987. This approach attempted to “Conciliate social development with the due respect owed to ecosystems to preserve the habitability conditions of the planet” (Naredo, 2004, as cited in Ruggerio, 2021, p. 3). Although eco-development as a concept failed to become a protagonist in international policy, it can be considered as the predecessor of a new concept linking development with sustainability (Mebratu, 1998). To conclude, the OECD Glossary² defines the term eco-development as follows:

Eco-development refers to development at regional and local levels, consistent with the potentials of the area involved, with attention given to the adequate and rational use of natural resources, technological styles and organisational forms that respect the natural ecosystems and local social and cultural patterns. The term is also used to describe an integrated approach to environment and development.

Now that definitions of these core concepts have been provided, it is time to proceed by analysing the different summits and conventions that led to the creation of globally shared policies and frameworks in order to safeguard the environment.

1.2 THE LEGISLATIVE PROCESS THAT LED TO SUSTAINABILITY

This section of Chapter 1 will present the most important summits, agreements, and conventions that, one after the other, reflected the need to focus on sustainability and sustainable development as driving priorities at an international level. These events finally led to the creation and approval of the Sustainable Development Goals and the Agenda 2030, subject of section 1.2.7.

In order to understand how it was possible to define and agree on such important goals, it is important to present in chronological order the most relevant events and their achievements, and, for this reason, it is also useful to use a graphical timeline.

¹ Also found as *eco-development*, both forms are accepted

² Cited in UN ESCWA <https://www.unescwa.org/sd-glossary/eco-development>

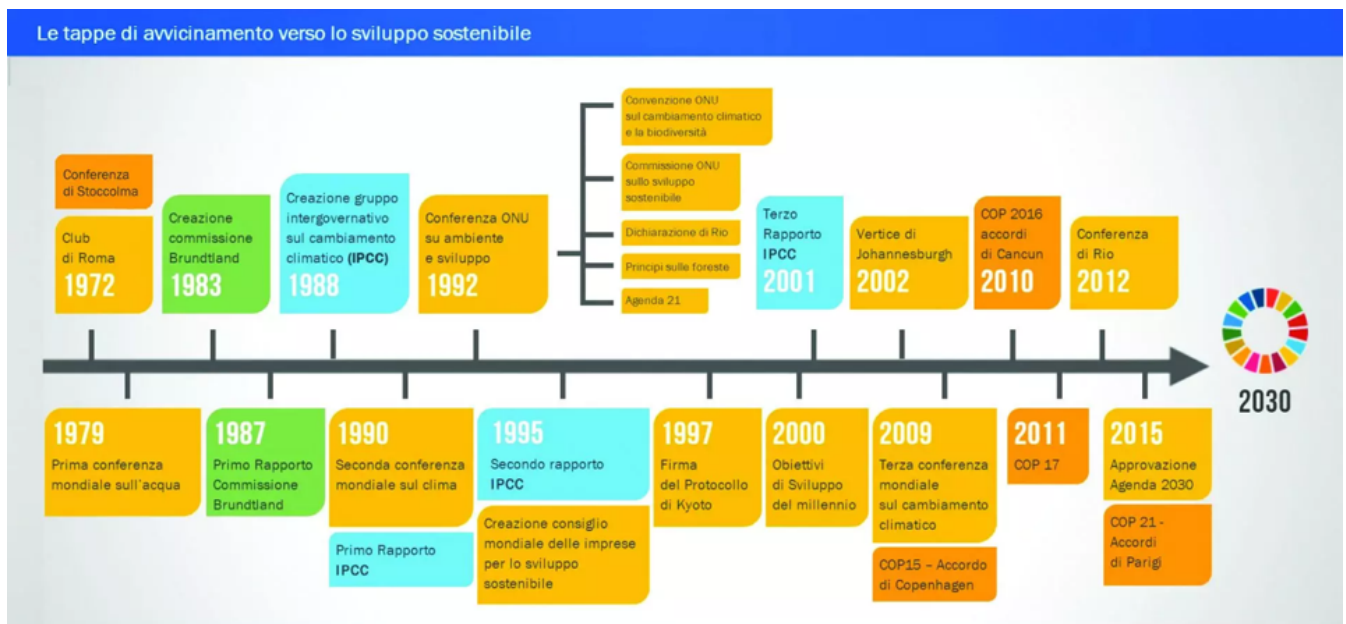


Figure 2: Steps towards Sustainable Development. Retrieved from ASviS <https://asvis.it/sviluppo-sostenibile>

Overall, five major World Conferences and their following documents have contributed to the development of strategies to address the defining issue of our time: climate change. Section 1.2 will present them, introducing their main outcomes and their contribution to current policies.

1.2.1 STOCKHOLM DECLARATION – 1972

The United Nations Conference on the Human Environment was held in Stockholm, Sweden, from 5 to 16 June, 1972 (United Nations Organization, 1973). The Conference was attended by representatives of 113 Member States of the United Nations, as well as members of the specialised agencies of the United Nations. The Conference documents drew upon many papers received from Governments as well as inter-governmental and non-governmental organisations, including 86 national reports on environmental problems.

The pre-conference period saw the growth of concerns regarding pollution, resource depletion, and ecological degradation: the world was emerging from a series of wars that lasted until the middle of the century. In the decades that followed, national and international policies focused on restoring societies and industrial engines and preserving peace. The UN emerged at that time as a joint effort of different countries to create a better world. The observations of various leaders of the United Nations gave rise to a growing concern for environmental ethics, which took the form of various actions aimed at raising awareness among society and leaders (Universidad Europea, 2025). During that period, the dialogue on environment of the international community began with the government of Sweden raising concerns about the state of pollution of the environment in 1968 (Kaniaru, 2022). The preparations thus culminated in the United Nations Conference on the Human Environment (UNCHE) later held in Stockholm.

The 1972 Conference on the Human Environment became the first world conference to make the environment a major issue (United Nations Organization, 1972) and marked the beginning of a global awareness and dialogue on the link between human activities and the environment. It also became in many ways a transformative moment for international law, as it launched “The first salvo in what has become a multi-decade struggle to facilitate the international cooperation necessary to keep the Earth as a liveable planet” (Bratspies, 2022, p. 756). For the first time, the world nations united to evolve a common strategy to combat environmental degradation, pollution, and ecological imbalances under the United Nations leadership (Yumkham, 2022).

The Conference culminated with the adoption of the *Stockholm Declaration*, a Resolution on Institutional and Financial Arrangements (ibid.). “The Declaration enshrines a set of twenty-six common principles, aimed at achieving sustainable development in one way or another, to inspire and guide nations of [the] international community in the preservation and enhancement of the human environment” (ivi, p. 5). As it is based on principles, the Declaration is therefore a *non-binding document*, one that is not necessary legally for countries to follow or obey to, as it has no legal power (Cambridge University Press, s.d.). In due acknowledgement of its significance, this set of principles is famously branded as “Magna Carta on Human Environment” (Yumkham, 2022, p. 5).

Moreover, the Declaration established once and for all that environmental concerns transcended national borders and were an appropriate issue of concern for international law (Bratspies, 2022). The Declaration marked the start of a dialogue between industrialised and developing countries on the link between economic growth, the pollution of the air, water, and oceans, and the well-being of people around the world (United Nations Organization, 1972).

The Conference also adopted an ambitious Action Plan, containing 109 recommendations in turn part of three main categories: a) Global Environmental Assessment Programme; b) Environmental management activities; c) International measures to support assessment and management activities carried out at the national and international levels (ibid.).

Among the twenty-six principles of the Convention, *Principles 1, 2 and 21* call for a holistic approach to the environmental issues, emphasising the inseparability of environmental protection and socioeconomic development (United Nations Organization, 1973):

Principle 1: Man has the fundamental right to freedom, equality, and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations. In this respect, policies promoting or perpetuating apartheid, racial segregation, discrimination, colonial and other forms of oppression and foreign domination stand condemned and must be eliminated;

Principle 2: The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate;

Principle 21: States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

Principle 21 and the “no harm” rule will later be modified and included as principle 2 of the 1992 Rio Declaration, becoming also “A principle of customary international law whereby a State is duty-bound to prevent environmental harm to other States” (Bosselmann, 2022, p. 215). Worth mentioning are also *Principles 3, 5 and 13* that introduce concepts related to the idea of sustainability that at the time was only at its first appearances (United Nations Organization, 1973):

Principle 3: The capacity of the Earth to produce vital renewable resources must be maintained and, wherever practicable, restored or improved;

Principle 5: The non-renewable resources of the earth must be employed in such a way as to guard against the danger of their future exhaustion and to ensure that benefits from such employment are shared by all mankind.

Principle 13: In order to achieve a more rational management of resources and thus to improve the environment, States should adopt an integrated and coordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve environment for the benefit of their population.

The Stockholm Conference was a formative moment that also resulted in the creation of the United Nations Environmental Programme (UNEP), with headquarters in Nairobi (Bratspies, 2022), which functions as the central environmental arm and secretariat of the United Nations to support ongoing environmental governance and treaty development. The UNEP was established to meet the “Urgent need for a permanent institutional arrangement within the United Nations system for the protection and improvement of the environment” (United Nations Organization, 1972, as cited in Desai, 2006, p. 137). In addition, UNEP provided substantive support and expertise for the development of the UN Framework Convention on Climate Change (Desai, 2006).

To conclude, the international environmental law revolution launched at Stockholm has been a remarkable success: “It defined the terms of what is now a continuing global environmental debate [and] catalysed a new era of multilateral environmental cooperation and treaty-making” (Bratspies, 2022, p. 767), inspiring countries to strengthen their environmental policies and regulations. Despite being strongly criticised, especially by developing countries who were concerned that new environmental regulations might hinder their economic growth, what started in 1972 established the foundational principles for future action and cooperation in the international environmental arena, setting the stage for subsequent international environmental conferences, including the Earth Summit in Rio de Janeiro of 1992.

1.2.2 BRUNDTLAND COMMISSION & BRUNDTLAND REPORT - 1987

After the 1972 UN Conference on the Human Environment, it became clear that the environment and development could not for long remain in a state of conflict. “Despite the range of positions within the debate, in the years following the Stockholm Conference, the scientific consensus on the occurrence of ecological imbalances has gradually focused, coming to the conclusion that the damage inflicted by human activities on the natural environment renders those activities unsustainable” (Mebratu, 1998, p. 503).

The Brundtland Commission, formally known as the World Commission on Environment and Development, was established on the recommendation of the UNEP Governing Council (Desai, 2006) and under the auspices of the United Nations to address growing global environmental concerns (Spira, 2016). In 1983, Javier Pérez de Cuéllar, the Secretary-General of the United Nations, heeding growing concerns about the global environment, appointed Gro Harlem Brundtland, former Prime Minister of Norway, as chairperson of the commission, due to her strong background in the sciences and public health. The commission took its name from its head and officially dissolved in 1987, after the release of *Our Common Future*, also known as the *Brundtland Report* (ibid.).

The Brundtland Commission was created with the aim of “Fostering cooperation between nations to pursue sustainable development” and to create a “Response to the growing number of serious concerns faced by the global community in the 1980s” (Gerasimova, 2017, p. 11). It brought together political representatives and scientific and environmental experts, for a total of twenty-one countries over a period of three years (Universidad Europea, 2025).

As the Chairman’s Foreword on the report testimonies (WCED, 1987), the Commission was asked to formulate a “Global Agenda for change” and to “Tackle some of the most complex issues facing humankind, issues loaded with questions of power, equity and justice” (Borowy, 2014, p. vii), so the commissioners proceeded by analysing the major challenges of the time: poverty, deterioration of finite natural resources and climate change (Gerasimova, 2017).

The outcome of the Commission is undoubtedly the Brundtland Report, initially called *Our Common Future*, published in 1987 by the United Nations World Commission on Environment and Development, conceived as a non-binding “Guide to taking policy action today with an eye to tomorrow” (Universidad Europea, 2025). The Brundtland commissioners agreed that it was necessary to determine long-term strategies for the management of natural resources and for the protection of the environment, while at the same time stimulating economic and social development through international cooperation: “Taken together, these goals were summarised as *sustainable development*” (Gerasimova, 2017, p. 11). As presented in paragraph 1.1.2, the report is known for his definition of sustainable development associated with the concept of circular economy, but it is also important because it proposed new forms of cooperation between governments of different nations. Moreover, it established that the concept of development should not only be related to underdeveloped countries: the richest nations on the planet also had to face a shift towards a more ecological system of production and consumption (ibid.). As presented by Tladi (2004, p. 19), “The Brundtland report is indeed very important for any conceptualisation of sustainable development, not because of the famous definition, but rather because at the heart of the report lies a clear call for integration”. Sustainable development thus requires us to integrate economic, ecological, and social needs.

In line with previous commissions, the Brundtland Report has not escaped criticism. Klaus Bosselmann (2008) regards it as deficient, because “It did not attempt to incorporate regard for nature or the planetary eco-system”. In retrospect, as Gerasimova (2017, p. 13) states, “The commissioners established the main conceptual framework of sustainability, but made what seems an overly optimistic estimate that humanity would complete the global shift into sustainability by the year 2000”.

Despite its acclaimed vagueness and ambiguity, as Mebratu (1998, p. 494) claimed, “The WCED definition of sustainable development has been highly instrumental in developing a *global view* with respect to our planet’s future”. In the 1980s, some proclaimed that sustainable development was no more than a catch phrase that eventually would wither out, as the concept of appropriate technology of the 1970s did (ibid.). That turned out to be false when, after the report, the term sustainable development became part of the everyday language of international politics and, in the world of academia, it led to the birth of several new disciplines, serving as the reference book for both academic research and policymaking (Gerasimova, 2017).

Without consensus, *Our Common Future* would have quickly ended up as a forgotten report; instead, it became the most widely read UN report in history, leading directly to the Earth Summit in Rio in 1992 (Borowy, 2014). It contributed to raising awareness that global limits were not only real

but, as Borowy (ivi, p. ix) stated, “Fast approaching and that, however inconvenient, to ignore them could threaten the survival of the human race. [Thus], an urgent transition from the environmentally destructive and resource consuming economic course we were on, to one that was more sustainable, was simply imperative”.

With the Brundtland Commission, sustainable development became a universally known concept, and the effort was a second worldwide wave of public opinion that five years later brought world leaders to the Rio Earth Summit in 1992.

1.2.3 UN CONFERENCE ON ENVIRONMENT AND DEVELOPMENT – 1992

In June 1992, Rio de Janeiro hosted the United Nations Conference on Environment and Development (UNCED), on the occasion of the 20th anniversary of the first Human Environment Conference in Stockholm, Sweden, in 1972 (United Nations Organization, 1992). The global conference, also known as the Earth Summit, brought together political leaders, diplomats, scientists, representatives of the media, and non-governmental organisations (NGOs) from 179 countries for a massive effort to focus on the impact of human socio-economic activities on the environment (ibid.). As presented by Mebratu (1998), the preparation works began some years before:

Preparation for the Conference, held in June 1992, began in 1989. There were four International Preparatory Committee (PrepComs) meetings held in different parts of the world. Parallel to the PrepComs, each UN member country was expected to produce a national report covering current national environmental and developmental aspects and drawing up an action plan for promoting sustainable development within the national context. (p. 502)

This constitutes the most important legacy of UNCED which, in most countries, involved participation of major stakeholders down to the grassroots level (ibid.).

One of the milestones of this global event was that more than 100 Heads of States and governments, by participating in the Conference, “Committed themselves to reform the policies that were at the source of continuing environmental destruction and to undertake a rapid transition to more sustainable forms of development” (Borowy, 2014, p. viii). The city of Rio, at the same time, hosted a *Global Forum of NGOs*, bringing together an unprecedented number of NGO representatives, who presented their own vision of the world's future in relation to the environment and socio-economic development (United Nations Organization, 1992). The objective of the Conference was to achieve a common approach to environmental care and sustainable development for the twenty-first century (Ballesteros et al., 2025). Furthermore, it aimed at highlighting how different social, economic, and environmental factors are interdependent and evolve together, and how success in one sector requires

action in other sectors to be sustained over time (United Nations Organization, 1992). “The primary objective of the Rio Earth Summit was to produce a broad agenda and a new blueprint for international action on environmental and development issues that would help guide international cooperation and development policy in the twenty-first century” (ibid.). In the case of the Earth Summit, the achievements were of an unprecedented level. The Conference led to the production of major international documents (United Nations Organization, 1992):

- the Rio Declaration and its 27 universal principles;
- the Agenda 21;
- the United Nations Framework Convention on Climate Change (UNFCCC);
- the Convention on Biological Diversity;
- and the Declaration on the principles of forest management.

The 'Earth Summit' also led to the creation of the Commission on Sustainable Development, the holding of the first world conference on the sustainable development of small island developing States in 1994, and negotiations for the establishment of the agreement on straddling stocks and highly migratory fish stocks (ibid.). The Rio Declaration was one of the most important legal documents issued at the Earth Summit and a clear example of soft law³. As described by Francioni (2016):

Its importance stems from the fact that it takes stock of prior developments in the field of environmental protection while, at the same time, it provides a framework of principles for further progress in the protection of the environment without blocking development and progress in the field of economic, social, and cultural rights. (p. 15)

The declaration runs into 27 principles on general rights and obligations of states, along with a preamble that reaffirms the declarations made in the Stockholm Declaration, 1972 (Yumkham, 2022). Although it is not the point of this thesis to discuss all the principles contained in the Declaration, it is worth mentioning that principle 21 of the Stockholm Declaration reappears as principle 2 of the Rio Declaration (Bosselmann, 2022) restating the obligation to “Prevent harm to the environment of other states and areas beyond national jurisdiction” (Francioni, 2016, p. 22). Worthy of mention is also principle 1, extremely short with its proclamation, that with its use of language indicates an

³ The term soft law is used to denote agreements, principles and declarations that are not legally binding. Soft law instruments are predominantly found in the international sphere. UN General Assembly resolutions are an example of soft law. Opposite, hard law refers generally to legal obligations that are binding on the parties involved and which can be legally enforced before a court. Retrieved March 2026, from the Glossary on the European Centre for Constitutional and Human Rights: <https://www.ecchr.eu/en/glossary/hard-law-soft-law/>

anthropocentric approach, which clearly prevailed over ecocentrism at the Rio Conference (ivi, p. 18), as was the object of several critiques:

Principle 1: Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

The Agenda 21 was the other significant document approved by 179 countries during the Summit. “It consisted of a Global Action Plan seeking sustainable development through specific actions in the short, medium, and long term, providing the necessary resources and appropriate responsibilities” (Ballesteros et al., 2025, p. 2). Essential to Agenda 21 is “The need for participation from different population groups, making youth engagement in environmental protection and the promotion of economic and social development fundamental” (Gough, 2020, p. 52). The Agenda was indeed the first UN framework that recognised the role of non-state actors and established a mechanism for major groups’ participation in international processes (United Nations Organization, 1992). The plan called for a five-year review of progress, which was conducted at a special session of the UN General Assembly in 1997, while at the 2002 World Summit on Sustainable Development in Johannesburg participants affirmed their commitment to fully implement Agenda 21. The instruments adopted by the Summit are not immune to criticism. Indeed, as Bosselmann (2022) claims, the documents approved:

Reaffirmed the sovereign rights of States to exploit their own resources according to the rules they set domestically. In this way, any global responsibility appeared as derivative, secondary to the domestic responsibilities, and subject to a negotiated consensus between States. (p. 215)

As Cléménçon (2012) adds:

The most consequential weakness of the Rio Declaration is found in Principle 12, which deals with trade and environment and reinforced the neoliberal, market-solves-all-problems ideology that had emerged during the 1980s. Principle 12 of the Rio Declaration in essence ended up declaring that free trade will automatically lead to sustainable development. Advocates for a stronger recognition of environmental objectives and the need for trade rules to support them never had a chance. (p.7)

However, the most significant achievement of the Rio 1992 process was that it launched a new era of public-private interaction and partnership related to environment and development (Cléménçon, 2012). Until Rio 1992, nonprofit civil society and social movement organisations had rarely been

invited to express their views even in informal ways in government deliberations. Instead, Rio launched a new way of thinking about the interconnection between environment and development and opened debates to the broad input of civil society (ivi, p. 7). As the UN summarises (United Nations Organization, 1992):

The 'Earth Summit' concluded that the concept of sustainable development was an attainable goal for all the people of the world, regardless of whether they were at the local, national, regional or international level. It also recognised that integrating and balancing economic, social and environmental concerns in meeting our needs is vital for sustaining human life on the planet and that such an integrated approach is possible [but it] required new perceptions of the way we produce and consume, the way we live and work, and the way we make decisions. This concept was revolutionary for its time, and it sparked a lively debate within governments and between governments and their citizens on how to ensure sustainability for development.

1.2.4 MILLENNIUM SUMMIT - 2000

Clearly, the concepts developed during the Earth Summit were supposed to continue their evolution, and countries were expected to implement them in their policy. In the years following Rio 1992, one major event was the Millennium Summit, held in New York from September 6 to 8, 2000. As described by the UN itself, the start of the new millennium gave the UN an opportunity to present a new development strategy for the changing realities and needs of the 21st Century world (United Nations Organization, 2000). Starting from 1998, an international information campaign preceded the summit, whose objectives were to consolidate the commitment of the international community and strengthen partnerships with governments and civil society (ibid.).

The summit concluded with the adoption (on September 18) by the 189 Member States of the Millennium Declaration, a far-reaching document that tackled a variety of issues. The document did not express any goals; for this reason, a year later the Secretary-General issued a report that included an annex where the list of the eight Millennium Development Goals (MDGs) was set out:

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria, and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development

The report also included targets and indicators followed by the expected completion date: 2015 (Caballero & Londoño, 2022). The MDGs became part of the international development agenda based on the Secretary-General's *Road Map*, as set out in General Assembly Resolution A/RES/56/95 of January 30, 2002 (ivi, p. 191). As a result, the MDGs gradually became the reference framework used to align international development cooperation with national and international strategies.

1.2.5 WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT - 2002

After the Millennium Summit, in 2002 more than a hundred heads of state and government, and tens of thousands of government representatives and non-governmental organisations met in Johannesburg for the World Summit on Sustainable Development (WSSD). On this occasion, the participants adopted a Political Declaration and Implementation Plan which included provisions covering a set of activities and measures to be taken in order to achieve development that takes into account respect for the environment. In doing so, this Summit resulted, after several days of deliberations, decisions that related to water, energy, health, agriculture, biological diversity, and other areas of concern (United Nations Organization, 2002).

The aim of this summit was to review progress since the Rio conference in 1992 and to agree on a new global deal on sustainable development. Unlike its predecessor, and although an agreement on several new targets was reached, the Conference was primarily concerned with implementation (Von Schirnding, 2005). Although relatively modest in its achievements and with difficulties in achieving consensus in key areas such as energy, trade, finance, and globalisation, the WSSD nevertheless succeeded in placing sustainable development back on the political agenda, giving new impetus, in particular to the environment and development needs of Africa, with a strong focus on local issues like household energy, water, and sanitation.

1.2.6 UN CONFERENCE ON SUSTAINABLE DEVELOPMENT - 2012

In June 2012, twenty years after the 1992 Earth Summit in Rio de Janeiro, the United Nations Conference on Sustainable Development was held, again, in Rio, and the Conference was thus defined "Rio+20". The event resulted in a landmark outcome document, named *The Future We Want*, containing clear and practical steps for the implementation of sustainable development (United Nations Organization, 2012). At the Rio+20 conference, Member States decided to launch the process to develop a set of Sustainable Development Goals (SDGs), building on the MDGs and thus converging with the post-2015 development agenda. Furthermore, innovative guidelines on green economy policies were adopted, together with a 10-year framework of programmes on sustainable consumption and production patterns (ibid).

The process that led to the proposal of the SDGs began years before the Rio+20 Summit. As early as 2010, the first ideas for the upcoming conference started to be conceived: the aim was to focus the summit on two issues. The first was the concept of “green economy”, defined by the UNEP as one that was “Low carbon, resource efficient, and socially inclusive”, one that would mutually support trade and the environment and encourage sustainable domestic investments (United Nations Environment Programme, 2011). The second focused on the international Framework for Sustainable Development (IFSD) and aimed at revitalising the Commission on Sustainable development (CSD) and upgrading the UNEP into an autonomous agency in the UN. As stated by Caballero and Londoño (2022, p. 22) “It was soon realised that neither of these two prioritised issues had real potential for incentivising action across societies and the global economy”.

In 2011, Colombia advanced the proposal of a new set of global goals, similar to the MDGs, but with goals that would cover all critical areas of development: it seemed a more ambitious idea that would involve developed countries and have an important environmental component. Despite shortcomings, the MDGs had been singularly effective in bringing about significant progress on a range of fronts and mobilised broad coalitions behind specific goals (ibid.). However, they were shortsighted and narrow, sidelining economic and environmental issues without which even the already prioritised goals could never be fully realised. As a result, the project had the opportunity to gain international approval, as the experience showed that “When there are objectives to guide the international community’s efforts towards a collective goal, it becomes easier for governments and institutions to work together to reach them” (ivi, p. 24).

During the consultations that preceded the SDGs proposal, held in November 2011, the need for guiding principles for the SDGs was underlined, and some considerations were reiterated throughout the consultations (Caballero & Londoño, 2022). The goals should have been as follows:

- Universal and comprehensive, and therefore relevant for all countries;
- Based on Agenda 21 and the Johannesburg Plan for Implementation;
- Forward looking and build upon already existing agreements and principles;
- An innovative and bold response for the integration of the three dimensions (social, economic and environmental) in an effective and practical manner;
- Focused on global challenges and issues widely acknowledged as concerns for the international community (i.e. non-threatening issues);
- Tailed to the circumstances and priorities of each country; there is no “one-size-fits-all”;
- Reliant on the full participation of key stakeholders, including private sector, for implementation;

- ... an inspiration to the next generation.

In the end, the process that started in 2011 aimed at making the SDGs a key element for the final Rio+20 result. These goals would translate the debate about green economy/sustainable development into tangible goals, thus shifting away from both political debates. Additionally, they would also integrate in tangible manners the three dimensions of sustainable development (ivi, p. 212). Despite an initial debate around it, the name SDGs envisioned a more comprehensive framework that would be equally relevant and applicable to all countries, an agenda that would embrace the complexity of the development that was needed (ivi, p. 23). As explained by Caballero e Londoño (2022):

The SDGs framework was developed through the OWG which met thirteen times from 2013 to 2014. In July 2014 the OWG adopted a report containing 17 proposed SDGs and 169 targets, to be submitted to the UNGA for consideration and action at its 68 sessions in 2015. In January 2015, a process of intergovernmental negotiations on the post-2015 development agenda began. The final document was arrived at after eight negotiations sessions that culminated in August 2015. On September 25, 2015, at the UN Sustainable Development Summit, the UNGA formally adopted document A/70/L.1 “Transforming Our World: The 2030 Agenda for Sustainable Development”. The SDGs are at its core. (pp. 174-175)

1.2.7 UN SUSTAINABLE DEVELOPMENT SUMMIT - 2015

As mentioned above, the SDGs were formally approved as a global agenda at an historic session of the UN General Assembly on September 25, 2015, without a single objection or abstention. The summit on sustainable development saw the approval of a new plan, called *Transforming Our World: The 2030 Agenda for Sustainable Development by 2030*, which included a Declaration, containing 91 paragraphs divided into 14 sections, where the 17 Sustainable Development Goals and 169 targets can be found (United Nations Organization, 2015). The complete list of SDGs is as follows:



Figure 3: Complete List of Sustainable Development Goals. Retrieved from UN website <https://sdgs.un.org/goals>

According to Chahinian (2024, p. 66), the 17 goals could be classified according to their “nature” into four categories:

- Mainly related to economics: n.8, 9 & 12;
- Mainly social related: n.1,2,3,4,5,10 & 16;
- Mainly connected to the environment: n.6,7,11,13,14 & 15;
- Cross-cutting: n.17.

He added (ibid.) that “Each objective also has effects on the others, and each has implications across all three dimensions of sustainability; however, it is not necessarily the case that an initiative aimed at one objective will also have positive effects on the others”⁴. The architecture of the 2030 Agenda is defined in the Outcome Document, presented in the form of a ‘Declaration’, preceded by a ‘Preamble’ that states (United Nations Organization, 2015):

This Agenda is a plan of action for people, planet and prosperity. It also seeks to strengthen universal peace in larger freedom. We recognise that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development. All countries and all stakeholders, acting in collaborative partnership, will implement this plan. We are resolved to free the human race from the tyranny of poverty and want to heal and secure our planet. We are determined to take the bold and transformative steps which are urgently needed to shift the world onto a sustainable and resilient path. As we embark on this collective journey, we pledge that no one will be left behind. The 17 Sustainable Development Goals and 169 targets which we are announcing today demonstrate the scale and ambition of this new universal Agenda. They seek to build on the Millennium Development Goals and complete what these did not achieve. They seek to realize the human rights of all and to achieve gender equality and the empowerment of all women and girls. They are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental.

The document goes further (ibid.) by stating that “The Goals and targets will stimulate action over the next fifteen years in areas of critical importance for humanity and the planet” and thus proceeds by presenting the five fundamental principles intended to lead the way of implementation:

1. *People*: We are determined to end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment;

⁴ My translation from o.v.: “Ciascun obiettivo influisce variamente anche su altri obiettivi e inoltre ognuno ha riflessi in tutte e tre le dimensioni della sostenibilità; tuttavia, non è detto che ogni iniziativa a favore di uno comporti effetti positivi anche per gli altri”

2. *Planet*: We are determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations;
3. *Prosperity*: We are determined to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature;
4. *Peace*: We are determined to foster peaceful, just and inclusive societies which are free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development;
5. *Partnership*: We are determined to mobilize the means required to implement this Agenda through a revitalised Global Partnership for Sustainable Development, based on a spirit of strengthened global solidarity, focussed in particular on the needs of the poorest and most vulnerable and with the participation of all countries, all stakeholders and all people.

The SDGs, defined as *the Roadmap for our Time*, are not only goals and targets, but they are part of the broader framework of the Agenda 2030. As the Agenda itself notes, they are built on the MDGs and complete what they did not achieve (UNGA, 2015). Their structure is a “Governance through goals” one (Elder & Grünewald, 2025, p. 2), with clear goals and targets.

Compared to the previously described Agenda 21, which was more solution-oriented, the one created in 2015 has goals as its core structure. Agenda 2030 is also time-bound, including target-specific timelines (2030), but it does not provide cost estimates for many items, as the 21 did (ibid.).

In addition, as presented by Pisano and Berger (2016, p. 7), “The 2030 Agenda is not only articulated by the above-mentioned Declaration, but it also is interlinked with several UN major initiatives”. Under SDG 13, the Declaration does indeed refer to the Climate change agenda and literally acknowledges that the *United Nations Framework Convention on Climate Change* (UNFCCC) is “The primary international, intergovernmental forum for negotiating the global response to climate change” (United Nations Organization, 2015). The UNFCCC was adopted at the UN Headquarters in New York in May 1992; it was open for signature at the Conference in Rio de Janeiro in 1992 and thereafter, by 1993, the Convention had received 166 signatures. Today, the Convention has a universal membership, with 198 member parties (UNFCCC, s.d.). The previous example shows that to understand and implement the 2030 Agenda, it is necessary “To have a systemic and integrated view in the way countries set-up policies to address the SDGs and their related targets” (Pisano & Berger, 2016, p. 8).

Another valid example is the 25th session of the Conference of the Parties (COP), held on 12 December 2015, where members adopted the Paris Climate Change Agreement, under the UNFCCC (ibid.). The COP is the supreme decision-making body of the Convention, where all member states are represented, and where they review the implementation of the Convention and any other legal instruments that the COP adopts (UNFCCC, s.d.). The COP meets every year, unless otherwise decided. The first one was held in Berlin in March 1995; the last one in Belém, Brazil, in November 2025.

So far, all the summits and conventions presented were held at an international level: the next section will present which policies have been adopted first in the European Union and later in Italy.

1.3 EUROPEAN AND ITALIAN LAWS FOR SUSTAINABILITY

As far as the European Union is concerned, the fundamental documents constituting its primary law are (1) the Treaty on European Union (TEU) and (2) the Treaty on the Functioning of the European Union (TFEU), both amended by the Treaty of Lisbon (2007). These, together with the Charter of Fundamental Rights, establish the EU's goals, institutions, and rights, binding all member states. In addition, the EU has implemented its regulation considering sustainable development, as well as integrated the Agenda 2030 in its policies. This section will examine in detail what the EU did in this regard, followed by what the Italian regulation established in terms of sustainable development and SDGs.

1.3.1 PRIMARY EU LAW: TEU, TFEU & EUCFR

As described by Sjäffjell (2020, p. 2), “The EU's commitment to sustainability and to sustainable development (SD) is anchored in the EU Treaties and codified as a core objective in EU primary law and as an overarching principle of environmental integration across policies of the European Union”. This principle is meant to guide EU's policies and activities within Europe and its relations with the rest of the world (ibid.), and to promote “Peace, its values and the wellbeing of its peoples” as described in art.3 par.1 (TEU, 2016).

Ever since it was agreed on, the Maastricht treaty has included the principle of SD as defined by the Brundtland Report in his core elements. Following later revisions and implementations, first with the Treaty of Amsterdam, and later with the Treaty of Lisbon, the European Union has introduced the concept of sustainable development with all its dimensions, including the third pillar of social development, that can be found in the *Consolidated Version of the Treaty on European Union* art.21, par.2, let. d (2016):

Par 2. The Union shall define and pursue common policies and actions, and shall work for a

high degree of cooperation in all fields of international relations, in order to:

- (d) foster the sustainable economic, social and environmental development of developing countries, with the primary aim of eradicating poverty;

The article addressing the topic of SD and the internal founding values of the EU is art.3(3)(5) of TEU, here presented:

Par 3. The Union shall establish an internal market. It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment. It shall promote scientific and technological advance. It shall combat social exclusion and discrimination, and shall promote social justice and protection, equality between women and men, solidarity between generations and protection of the rights of the child. It shall promote economic, social and territorial cohesion, and solidarity among Member States. It shall respect its rich cultural and linguistic diversity and shall ensure that Europe's cultural heritage is safeguarded and enhanced.

Par 5. In its relations with the wider world, the Union shall uphold and promote its values and interests and contribute to the protection of its citizens. It shall contribute to peace, security, the sustainable development of the Earth, solidarity and mutual respect among peoples, free and fair trade, eradication of poverty and the protection of human rights, in particular the rights of the child, as well as to the strict observance and the development of international law, including respect for the principles of the United Nations Charter.

The internal founding values of the EU mentioned above in Article 3(3) and 3(5) TEU are externalised in the *Consolidated Version of the Treaty on the Functioning of the European Union* (TFEU) *Article 11* and reinforced in the EU's development cooperation with developing countries under *Article 208* TFEU. *Article 11* of TFEU requires the implementation of environmental protection in all EU policies where necessary to achieve sustainability (TFEU, 2012):

Art.11: Environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development.

Another key article of TFEU (2012) is *art. 19*, which describes what the policy of the EU on environmental matters is:

Par 1. Union policy on the environment shall contribute to pursuit of the following objectives:

- preserving, protecting and improving the quality of the environment,
- protecting human health,
- prudent and rational utilisation of natural resources,
- promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.

Par 2. Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.

This article makes a clear reference to the *Polluter Pays Principle* (PPP), first introduced and adopted by the *Organisation for Economic Cooperation and Development* (OECD) in 1992, in response to the Stockholm Declaration. The OCED document contained the following elaborate recommendation (OECD, 1992):

The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called “Polluter-Pays-Principle”. This principle means that the polluter should bear the expenses of carrying out the above-mentioned measures decided by the public authorities to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services that cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investments.

According to Sjøfjell (2020, p. 2), another key concept is *policy coherence for development* (PCD), set out as an EU legal norm in Article 208 TFEU, “Requiring that any area of EU law and policy must not work against developmental policies”, also with the sustainability aim of “leaving no one behind” (TFEU, 2012):

Par 1. Union policy in the field of development cooperation shall be conducted within the framework of the principles and objectives of the Union's external action. The Union's development cooperation policy and that of the Member States complement and reinforce each other. Union development cooperation policy shall have as its primary objective the reduction and, in the long term, the eradication of poverty. The Union shall take account of the objectives of development cooperation in the policies that it implements which are likely to affect developing countries.

Par 2. The Union and the Member States shall comply with the commitments and take account of the objectives they have approved in the context of the United Nations and other competent international organisations.

Lastly, a reference to environmental protection and SD is also included in the *Charter of Fundamental Rights of the European Union* (EUCFR), art.37, which states (EUCFR, 2007):

Art 37. A high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development.

The purpose of this section was to present how these articles are interconnected and linked by their joint function in establishing the legal framework for environmental protection, sustainable development, and the integration of these goals into all EU policies.

1.3.2 EU & AGENDA 2030

One more time, Sjøfjell (2020) presents the effects of the Agenda 2030 on the EU: “The adoption of the UN SDGs in 2015, together with the Paris Agreement on Climate Change in the same year, has given a new impetus to the public discourse concerning what needs to be done to achieve sustainability”. Not only has the EU played a major role in defining the SDGs with the Agenda 2030, but the European Commission’s 2016 communication (European Commission, 2016) highlights the Union’s commitment to implementing the SDGs in its policies.

While the introduction describes the EU’s commitment to SD, which “has since long been at the heart of the European project” and how the EU Treaties give recognition “to its economic, social and environmental dimensions which should be addressed together”, paragraph 2 describes the European response to the 2030 Agenda and claims that “The SDGs are already being pursued through many of the EU's policies and integrated in all the Commission's ten priorities”. Lastly, paragraph 3 presents how the EU will continue to implement the 2030 Agenda, by stating that “Sustainable development requires a holistic and cross-sector policy approach to ensure that economic, social and environmental challenges are addressed together (...)” (ibid.). Thus referring, once again, to sustainable development as founded on three pillars, as introduced in section 1.1.2.

1.3.3 EUROPEAN GREEN DEAL

Before addressing Italian regulations on sustainable development, it is important to address one last comprehensive set of policies launched by the European Union to face and reach climate neutrality: the *European Green Deal* (EGD). The European Council (European Council, s.d.) describes it as

“The EU’s contribution to the Paris Agreement, which the EU and all its countries ratified and which set the goal of keeping global warming to maximum a +1,5 °C compared to pre-industrial levels”. The European Commission defined its prioritisation of sustainability already back in December 2019, at the beginning of its legislative term 2019-2024, launching a European Green Deal (EGD), aiming at a “just transitions” that leaves “nobody behind”, focusing on the coordination of economic policies throughout the EU to integrate sustainability (Sjåfjell, 2020). As presented by the European Sustainable Development Network (ESDN) in 2020 (Fetting, 2020):

The EGD is the Flagship Initiative of the [last] European Commission and was presented by the Commission President Ursula von der Leyen on 11 December 2019. It comprises a number of initiatives, strategies and legislative acts that together are intended to enable a just, sustainable and inclusive transformation of European society and economy. (p. 4)

The strategy was proposed by the Commission and was later shared by the European Parliament and was implemented with the opinions and recommendations of the European Committee of the Regions (CoR) and the European Economic and Social Committee (EESC). Fetting (ibid.) goes further by claiming that the goal of the EGD is:

To transform the EU into a fair and prosperous society with [...] a competitive economy. It is also a crucial part of the EU’s plan to achieve the 2030 Agenda for Sustainable Development. Furthermore, it promises to protect citizens from environmental harms and impacts, and to be just and inclusive. Wellbeing is to be put at the centre of economic policy.

The EGD (ivi, p. 5) mainly aims at a net carbon neutral European Union by 2050 and at decoupling economic growth and resource use. The EGD is not a law in itself, but a general policy strategy, outlining the ambitions and goals in different policy sectors. For its implementation, existing regulations and standards will be revised over the next years and new laws and directives will be developed and implemented. There are eight key areas that make up the Green Deal:



Figure 4: The European Green Deal and its key areas.
Source: European Commission 2020, *Communication on the European Green Deal*, p. 6

As stated by Buonfrate (2020), this set of policies:

Enshrines the fundamental right of European citizens to a safe, clean, healthy and sustainable environment and to a stable climate. It is also committed to ensuring that this right is safeguarded through ambitious policies and is fully enforced at all levels through an adequate and effective judicial system⁵. (p. 42)

Furthermore, while aiming at the protection of the environment, “The EGD reaffirms the importance of traditional guiding principles, namely the prevention principle and the related Polluter Pays Principle (PPP), which are to be applied, in particular, when proposing fair and coordinated measures to tackle climate and environmental challenges”⁶ (ivi, p. 44).

Finally, to accelerate the change promoted by the EGD, on March 11, 2020, the Commission (European Commission, 2020) has also adopted “The new action plan for the circular economy, aimed at building a cleaner and more competitive Europe through “co-creation” with economic operators, consumers, citizens and civil society organisations”⁷ (Buonfrate, 2020, p. 45). In this

⁵ My translation from o.v.: “Il Green Deal sancisce il diritto fondamentale dei cittadini europei a un ambiente sicuro, pulito, sano e sostenibile e a un clima stabile e si impegna affinché tale diritto possa essere garantito mediante politiche ambiziose e possa trovare piena applicazione a tutti i livelli attraverso un adeguato ed efficace sistema giudiziario”.

⁶ My translation from o.v.: “Il Green Deal conferma la supremazia dei tradizionali principi guida, ossia del principio di prevenzione e del collegato principio “chi inquina paga”, da applicarsi, in particolar modo, al momento della presentazione di proposte di misure eque e coordinate per affrontare le sfide climatiche e ambientali.

⁷ My translation from o.v.: Per accelerare il profondo cambiamento richiesto dal Green Deal europeo, in data 11 marzo 2020 la Commissione ha adottato anche il nuovo piano d'azione per l'economia circolare al fine di costruire un'Europa

respect, a focus on circular economy will be the object of a later section in Chapter 3. The European Council (European Council, s.d.) ultimately highlights the reason why the Green Deal is needed. It tries to provide an explanation by stating that:

Europe's future depends on a healthy planet. Human activity is causing an increase in the average global temperature which is impacting climate patterns. More frequent and stronger extreme weather events have devastating consequences on lives and the economy. Our current economic and consumption patterns do not match what the planet can offer and are detrimental to the environment and nature. We and our economy are fully dependent on a functioning environment and ecosystems. Action to stop global warming and protect nature is an imperative for the EU's future and the wellbeing of its citizens. While the green transition will have a high cost as it requires large investment in transforming our economic model, the cost of inaction will be much greater. Estimates say that if we do nothing to tackle climate change, by the end of the century global damages could amount to up to 12% of the GDP.

As it has been presented so far, the focus on sustainability has been highlighted by most of the EU institutions, nevertheless the European Parliament, when in its June 2021 resolution on the EU biodiversity strategy for 2030 considered that the right to a healthy environment should be recognised in the EU Charter and that the EU should take the lead on the international recognition of such a right (European Parliament, 2020). This proposal followed the UN Human Rights Council resolution of 8 October 2021 (UNHRC, 2021), which recognised, with 43 votes in favour and 4 abstentions, that access to a healthy and sustainable environment is a universal right. Although non-binding, this resolution marked a first step towards filling a significant gap in international law.

The October 2021 resolution was the result of a long-term campaign by numerous civil society organisations and other stakeholders. It asked states to adopt policies for the enjoyment of such a right, including with respect to biodiversity and ecosystems, and listed climate change in its recitals as one of the major obstacles to the enjoyment of a healthy and sustainable environment. Moreover, the central provision recognised the right to a safe, clean, healthy and sustainable environment as a human right that is important for the enjoyment of human rights (Think Tank European Parliament, 2021).

1.3.4 ITALIAN LEGISLATION AND SUSTAINABLE DEVELOPMENT

To conclude, this section will present the norms of the Italian legislation that are linked to sustainability and sustainable development. It is necessary to say that Italy, being a member of the

più pulita e competitiva in “co-creazione” con gli operatori economici, i consumatori, i cittadini e le organizzazioni della società civile

European Union, is called to respect the EGD and follow the EU policies to address sustainable development and climate change.

To begin with, worth-of-mention is amendment of the Italian Constitution in February 2022, as considered by the European Parliament (Erbach, 2024), when articles 9 and 41 were modified to include the concept of sustainable development, making explicit reference to future generations, as can be seen in the Constitution Official Text (Costituzione della Repubblica Italiana, 2022):

Art 9. La Repubblica promuove lo sviluppo della cultura e la ricerca scientifica e tecnica. Tutela il paesaggio e il patrimonio storico e artistico della Nazione. Tutela l'ambiente, la biodiversità e gli ecosistemi, anche nell'interesse delle future generazioni. La legge dello Stato disciplina i modi e le forme di tutela degli animali.

Art 41. L'iniziativa economica privata è libera. Non può svolgersi in contrasto con l'utilità sociale o in modo da recare danno alla salute, all'ambiente, alla sicurezza, alla libertà, alla dignità umana. La legge determina i programmi e i controlli opportuni perché l'attività economica pubblica e privata possa essere indirizzata e coordinata a fini sociali e ambientali.

Furthermore (Erbach, 2024, p. 2), in December 2019 the Climate Decree (Decreto-Legge 14 ottobre 2019, n. 111, 2019) “Established a national strategic policy to tackle climate change and air quality, in order to comply with EU obligations and take measures regarding sustainable mobility, reforestation and environmental data, in line with the EGD”. Although Italy does not have neither a dedicated climate law nor a dedicated scientific advisory council on climate change, climate action is governed by laws, regulations, and EU directives rather than a single unifying domestic law. In 2023, Italy adopted the national climate change adaptation plan to provide guidance for planning and implementing effective adaptation actions (Erbach, 2024).

Included in this legislation is also the *Testo Unico Ambientale* (TUA), (Decreto Legislativo 152/2006, 2006), which organises Italian environmental legislation, introducing principles such as sustainable development, the precautionary principle, prevention, and the PPP. Its main effects include the systematic regulation of waste, water, air, site remediation, as well as a tightening of criminal and administrative penalties for environmental offences.

Lastly, in February 2016, the ASviS (*Italian Alliance for Sustainable Development*) was created. It consists of a network of more than 300 subjects committed to the implementation of the UN 2030 Agenda and its 17 SDGs (ASviS, s.d.) whose set objectives are: (1) promoting the development of a culture of sustainability at all levels; (2) analysing the implications and opportunities for Italy related to the Global Agenda for SD; (3) contributing to the definition of national and territorial strategies

for the achievement of the SDGs. As part of its mission, the Alliance carries out awareness-raising activities, education, training, information, and other activities, aiming (among the rest) at raising awareness and propose policies and actions (ibid.)

The aim of Chapter 1 was to provide a theoretical background in order to understand the two main concepts (sustainability and sustainable development) and the history of events that, one after the other, led to the adoption of policies and the ratification of laws. The next Chapter will start from these concepts and finally analyse the three dimensions of sustainability, but it will also take another step towards the domain of events, by presenting what is a sustainable event and what criteria and rules need to be respected to reduce the impact of events, addressing also the area of Mega Sport Events, where the Olympics are the main actor.

2. SUSTAINABILITY AND EVENTS

While the aim of Chapter 1 was to provide a theoretical framework and a whole set of concepts and key moments in the definition of sustainability and sustainable development, Chapter 2 will now present what the pillars of sustainability are and how they are interrelated with the domain of events.

2.1 THE PILLARS OF SUSTAINABILITY

Traditionally, sustainability has been described from the perspective of three interrelated dimensions, namely: economic, social, and environmental pillars (Loucks & Gladwell, 1999, as cited in Bervar & Bertoneclj, 2016). None of these aspects sits alone, but as Jones (2018, p. 4) claims, “Economic and social concerns must be included when managing environmental issues”. The three dimensions are interrelated as a result of the traditional notion of sustainability, which, as presented by Holmes et al. (2015, p. 4) is based on the simultaneous achievement of three elements:

- 1) *Economic sustainability*, in the form of viable enterprises and related economic activity that can be maintained in the long term;
- 2) *Social sustainability*, where society is based on ethical and equitable principles in terms of equal opportunity and human rights, maintaining and strengthening local communities, their social support systems, and the absence of exploitation;
- 3) *Environmental sustainability*, where natural resources are conserved and responsibly managed, especially those that are non-renewable and/or vital for life support, by minimising pollution, conserving biological diversity and protecting natural heritage.

The present mainstream discourse thus includes illustrations of sustainability that combine elements such as the three pillars, nested ovals or, as shown in figure 5, a Venn diagram representing these three main elements underpinning human society (ivi, p. 3).

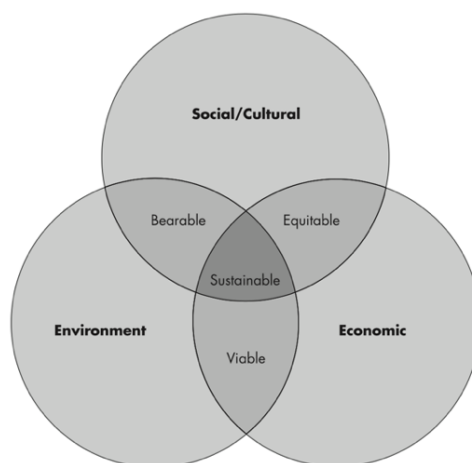


Figure 5: Sustainability interactions. Adapted from Jones, M. (2018, p. 4)

The three dimensions of sustainability can also be defined by the 3P approach: *Planet, People & Profit*, while the overlapping sweet spots between environmental, social and economic concerns bring us to a state that is at once *equitable, bearable* and *viable* (Circular Ecology, 2026). The three aspects are interrelated as there cannot be sustainable development that leaves one of the dimensions out; rather, as introduced in Chapter 1, to have a development that is completely sustainable, it needs to respect the three dimensions.

Marcuse (2006, pp. 60-61) adds that “For a given policy to be desirable it must meet the constraints of sustainability in each of these dimensions; failure in any one is in theory sufficient cause for rejection”. This view is also supported by Keiner (2006, p. 6) who claims that it is not always an easy practice, as “Trying to direct each of the three dimensions toward sustainable futures often results in the dilemma that the proposed solutions are incompatible with each other (e.g. a sustainability-oriented solution for one dimension [that] is not sustainable for another)”. Furthermore, Chahinian (2024) adopts a more economic-oriented position, that supports this theory:

The goal of social and environmental sustainability, alongside the economic [one], requires a broader strategic outlook, both in terms of time (with a long-term perspective), the parties involved (stakeholders), and the content of planning and monitoring of results (economic, social and environmental). Business strategy must aim to create value, which must encompass the three aspects mentioned and their integration into a well-balanced development.⁸

The three pillars approach is similar, and developed around the same time, to the Triple Bottom Line framework (3BL), an expression coined by John Elkington in his book *Cannibals with Forks: The Three Bottom Line of 21st Century Business* published in 1997 (Almici, 2023). The main idea behind the Triple Bottom Line model is that the long-term success of the company should be measured not only on the basis of the traditional financial bottom line, but also on the social and environmental performance. The Elkington’s model involves three main lines: the economic one (profit or loss) and the social and environmental ones (ibid.).

The confluence of three constituent pillars is described in several conceptual frameworks of sustainable development, that can be found in the existing literature. One of these is provided by the UN Department of Economic and Social Affairs (2014) which offers the distinction of three dimensions of sustainable development: *ecology, economy* and *equity*.

⁸My translation from o.v.: “L’obiettivo della sostenibilità sociale e ambientale a fianco di quella economica comporta un ampliamento dell’orizzonte strategico sia temporale (verso il lungo termine) sia per i soggetti coinvolti (stakeholders) sia riguardo ai contenuti della programmazione e del controllo dei risultati (economici, sociali, ambientali). La strategia imprenditoriale deve tendere alla creazione di valore, il quale deve comprendere i tre aspetti citati e la loro integrazione in uno sviluppo equilibrato”. (p.266)

2.1.1 A FOURTH PILLAR

However, in 2010, the traditional conceptual framework of sustainable development with the triple-bottom-line dimensions was expanded by a fourth pillar: culture. This expansion was proposed at the World Summit of Local and Regional Leaders, the 3rd World Congress of United Cities and Local Governments (UCLG, 2010 as cited in Bervar, M. and Bertoncelj, A., p. 243). Ever since 2010, the inclusion of culture as a fourth pillar has proliferated: the idea was to include the ever-growing importance of cultural sustainability as a key element for a new strategy of sustainable economic growth (Bervar & Bertoncelj, 2016, p. 243). As described by Jones (2018), adding a fourth pillar was a vital improvement, as it:

(...) Celebrates the aspect of cultural diversity and the role of cultural policy in enhancing sustainable human development, and rightly so (...) Culture is about creativity, heritage, knowledge and diversity – and including these aspects is vital to sustainable and thriving human development on our planet. By including culture as a pillar, you can start to build context, and obvious pathways towards a sustainable future will light up more brightly. What better vehicle than events to celebrate cultural diversity, to help safeguard cultural heritage, to strengthen cultural and creative industries, and to promote cultural tourism? (p. 4)

As a result, it becomes clear that, when looking at economic progress, this cannot be done without “An eye on fairness or disparity, social outcomes, cultural context, and without resource depletion or environmental degradation” (ibid.). Consequently, a popular visual representation of sustainable development that includes this fourth pillar would be the following:

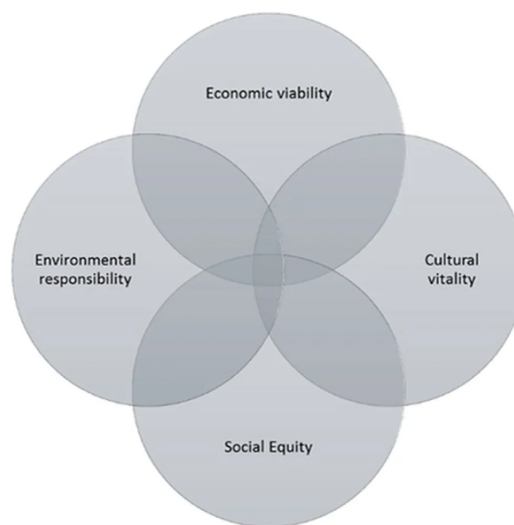


Figure 6: A depiction of the four pillars of sustainability, showing the maintenance of cultural vitality as being of equal importance to environmental, social, and economic concerns. Adapted from Loach et al. (2017, p. 191)

Non surprisingly the inclusion of a cultural pillar in 2010 came around the same time as the Faro Convention, an open treaty on the value of Cultural Heritage (CH) for society. In force since June 1, 2011, the Convention was adopted by the Committee of Ministers of the Council of Europe on October 13, 2005, and opened for signature to member States in Faro (Portugal) on October 27, of the same year (Council of Europe, 2005). In technical terms, the Faro Convention is a *framework convention*, which defines “Issues at stake, general objectives and possible fields of intervention for member States to progress. Compared to other conventions, the *framework convention* does not create specific obligations for action, it suggests rather than imposes” (ibid.).

The Convention sets “Clearly contemporary approaches towards the safeguarding of CH in the European context: potentially, [it acts] as the most far-reaching [Convention] in terms of its influence” (Blake, 2015, pp. 325-327). This point of view is also supported by Carmosino (2013, as cited in Pinton, 2017, p. 316) who states that “The Faro Convention (...) recognizes that CH is a basic dimension of people’s lives and their identity, an essential component of ‘place’, and a driver for sustainable development of the whole society, at environmental, economic and social level”.

Pinton (2017) states that 2014 has been particularly significant in EU policy on CH, since the Council of Ministers of Culture adopted the Conclusions on “Cultural heritage as a strategic resource for a sustainable Europe” (EU Council, 2014) and on “Participatory governance of CH” (EU Council, 2014). In fact, these acts are evidence of an increasing recognition of the structuring role of culture for sustainable development. This also emerges from the 2012 EU Council Conclusions on *cultural governance* (EU Council, 2012). Consequently, then, as presented by Pinton (2017), the European institution became more aware that:

Sustainable valorisation goes not only through the discovery, classification and analytical passive defence of heritage values, but through their reinvention, by means of participatory processes that are both re-appropriation by the local communities and a co-design process, creating new opportunities thanks to which a community can plan future progress starting from the cultural resources of the territory. This approach echoes the notion and role of heritage communities introduced by the Faro Convention. (p. 323)

As the fourth pillar became the norm, some scholars tried to take a step further, and Bervar and Bertoneclj (2016, p. 243) proposed a new conceptual framework of sustainable development based on five pillars of sustainability: *economy* (material well-being through sustainable growth), *equity* (social well-being through social cohesion), *ecology* (environmental well-being through natural harmonization), *culture* (cultural well-being through intercultural dialogue), and *security* (peace and sustainable stability).

Another vision includes an extra concept that it is not a pillar itself, but rather a necessary element for sustainability to be possible: institutions. As presented by Rossi (2016) the institutional component:

Consists in the ability to ensure conditions of stability, democracy, participation, information, education and justice. It necessarily requires the management of institutions and the development of the necessary forms of inter-institutional coordination and cooperation, as well as the development of shared programmes, binding commitments and clear implementation timelines, in accordance with the principle of subsidiarity. In the absence of institutional sustainability, the governance of the pillars of sustainable development cannot be ensured.⁹

It is crucial to note that a similar framework has already been presented (paragraph 1.2.7) related to the SDGs and their implementation, by presenting the 5Ps of sustainable: People, Planet, Prosperity, Peace, Partnership.

Now that the framework of the three pillars of sustainability has been introduced, a definition of each dimension can be presented.

2.1.2 ECONOMIC SUSTAINABILITY

Munro (1995, as cited in Nurse, 2006) claims that the economic dimension of sustainable development reflects “The need to strike the balance between the costs and benefits of economic activity, within the confines of the carrying capacity of the environment. Economic progress should not be made at the expense of intergenerational equity; therefore, resources should not be exploited to the extent that their re-generative ability is compromised”.

Furthermore, economic sustainability “Requires that a business or country uses its resources efficiently and responsibly so that it can operate in a sustainable manner to consistently produce an operational profit” (Circular Ecology, 2026). Indeed, “Without an operational profit a business cannot sustain its activities. Without acting responsibly and using its resources efficiently a company will not be able to sustain its activities in the long term” (ibid.).

2.1.3 SOCIAL SUSTAINABILITY

Social sustainability, according to Nurse (2006) relates to the maintenance of political and community values, as well as to the satisfaction of basic human needs within the society (such as food, clothing,

⁹ My translation from o.v.: “La componente istituzionale, infine, consiste nella capacità di assicurare condizioni di stabilità, democrazia, partecipazione, informazione, formazione, giustizia. Richiede, necessariamente, di gestire le Istituzioni e sviluppare le necessarie forme di coordinamento e cooperazione interistituzionale, di costruire programmi condivisi, impegni vincolanti e tempi certi di attuazione, nel rispetto del principio di sussidiarietà. In carenza di sostenibilità istituzionale, la governance dei pilastri dello sviluppo sostenibile non può essere assicurata” (p. 1)

and shelter). Social values and norms, being largely intangible, relate to the ethics, value systems, language, education, work attitudes, class systems, and influence societal relations. Equity in the distribution of resources is also integral to social sustainability, which, in turn, is the ability of society, or any social system, to persistently achieve a good social well-being. Achieving social sustainability ensures that the social well-being of a country, an organisation, or a community can be maintained in the long term (Circular Ecology, 2026).

2.1.4 ENVIRONMENTAL SUSTAINABILITY

“Environmental sustainability means that [a society is] living within the means of [its] natural resources” (ibid.). To live in true environmental sustainability, a society needs to ensure that its members “Are consuming natural resources, such as materials, energy fuels, land, water...etc., at a sustainable rate” (ibid.) by acknowledging that some resources are more abundant than others. Therefore the need is to consider material scarcity, the damage to the environment from the extraction of these materials and if the resource can be kept within the principles of circular economy. The goal is [finally] to “aspire to net zero carbon and then move beyond to ultimately achieve climate positive principles” (ibid.).

2.2 SUSTAINABLE EVENTS

Since the pillars of sustainability have been presented, it is now time to proceed by introducing the domain of sustainable events, by defining what a sustainable event is, presenting its features and the criteria that make an event sustainable.

2.2.1 AN INITIAL FRAMEWORK

In order to present what a sustainable event is, it is deemed important to start by providing a definition of events. This is offered by Donald Getz, in his seminal work *Events Studies*, where he describes an event as “An occurrence at a given place and time; a special set of circumstances; a noteworthy occurrence” (Getz, 2007, p. 18, as cited in Case, 2013, p. 2). He goes on to note that events, by definition “Have a beginning and an end; they are temporal phenomena (...) generally planned in detail and well-publicised in advance” (ibid.). Furthermore, Case (2013, p. 9) claims that when organising events, “The choice of locations needs careful consideration, and the selection involves social, economic and political factors, as well as environmental ones”. Although there is a large number of different events, according to all sorts of criteria, two categories will be the object of study of this paragraph: green events and Mega Events (with a focus on Mega Sport Events, or MSEs).

A *green event* is defined as an event that has a sustainability policy and/or implements sustainable management practices (Laing & Frost, 2010, as cited in Holmes et al., 2015, p. 5). The idea of a green event began with a focus on environmental issues but has since expanded to include

social and economic concerns (ibid.). Furthermore, a sustainable or green event is one “Designed, organised and implemented in a way that minimizes potential negative impacts and leaves a beneficial legacy for the host community and all [those] involved” (GEF, 2023, p. 4)¹⁰.

On the other hand, *Mega Events* require “Huge capital investment which attract an enormous number of people and global media attention” (Case, 2013, p. 3). Mega Events, such as the Olympics, take place on an unprecedented scale not only in the host city but globally through coverage by the mass media (ibid.). Mega-events can become “Hallmark events, [when they are used to] define and distinguish the destination, characterised by a high level of media exposure, positive imagery, and perceived value in gaining competitive destination advantage”. Examples of this type are the Rio Carnival or the Munich Oktoberfest (ibid.). Over the last decades, “Events have started to develop as tourist attractions, becoming a catalyst for development or for the renewal of a destination” (Jones, 2018, p. 16). Tourism thus becomes an event, and Mega Events are the most obvious example, for which the highlighted social benefit potential is usually upsold in an effort to divert attention from the economic costs. They are indeed often vanity projects and can be examples of actual unsustainable development at work (ibid.). The environmental impacts of major sport events can be wide ranging and include the consumption of renewable and non-renewable resources, road congestion, noise and light pollution, emission of greenhouse gases by consuming fuel and electricity, and waste generation (Collins & Roberts, 2018).

Moreover, by their nature, “Any planned event will usually result in a range of positive and negative impacts at the local and wider scale, depending on the type and size of the event” (Holmes et al, 2015, p. 5). Consequently, it became evident that events needed to adopt a solution and play a role in supporting sustainable development. Indeed, “Events have the potential to leave a positive legacy in addressing the global sustainability challenges” (GEF, 2023, p. 4). Actually, as explained by the GEF:

Numerous types of events, from sports competitions to local/internal meetings or workshops, can contribute to the SDGs given their impact on the environment, climate, and resource efficiency. Truly, events play an important role in responsible resource use, in protecting natural environments, building resilient and thriving communities, and helping to achieve an equitable distribution of the earth’s abundance for all. Not only are we seeing these practical solutions to production impacts, [but] there is also great thinking and action around the role that events can play in supporting sustainable development and strong positive social outcomes, both within the immediate event destination and back along the supply chain. (p. 5)

¹⁰ Adapted from the UNEP Green Meeting Guide 2009 and based on the principles developed at the ICLEI Greening Events Symposium in Barcelona, Spain, September 2004

Despite this, some parts of the event industry still appear to care little about the environmental consequences of their activities (Case, 2013). According to Schlenker, Foley and Getz (2010, as cited in Holmes et al., 2015) the initial focus of event impact measurement and management was on economics, because:

The success of an event or festival was commonly considered to relate primarily to its economic contribution to event stakeholders and the region where the event occurs. While economics are obviously important, event organisers and managers as well as event goers have become more aware of the wider impacts of events and the need to ensure negative impacts are minimised while any benefits are maximised across social, economic and environmental issues.

“Considering that events can easily just claim they are being ‘sustainable’, and most have no authority to report to” (Jones, 2018, p. 30), it is important to have protocols, standards and certifications that regulate the industry and guarantee a degree of sustainability. As a result, events authentically committed to sustainability are adopting certifications and standards for recognition and verification of performance outcomes. As a whole set of standards and criteria regulate the domain of events, the next section will present those that are closely linked with sustainable event management.

2.2.2 GUIDELINES, RULES, AND STANDARDS

In recent years, numerous guides, standards, and certification programmes have been developed to help event planners and managers craft a sustainable event. As presented by Holmes et al. (2015), these guidelines mostly include all three aspects of sustainable development: economic, social and environmental impact. While some standards are global, designed for events of any type and scale, others have a specific focus; some are government-led, others industry driven, or developed by non-profit organisations (ibid.). The need for these sustainable standards derives from the consumer demand for sustainable products and services, following the increased awareness of the irreversible phenomena caused by the current pattern of production: in this context, indeed, “The system of environmental certification has expanded, encompassing numerous sectors, including that of event organisation” (Boggia et al., 2018, p. 836).

This increased attention to the environment has initiated an international debate to discover how the event industry can improve its environmental sustainability. The sector has now been working on developing models suitable for measuring the environmental eco-sustainability of events for years: after the Rio de Janeiro Earth Summit (1992), par. 19 of the 5th EU Environmental Action Programme (1993-2000) set out the need to change the strategy for environmental protection intervention procedures (ivi, p. 837). Moreover, the EU Regulation 1836/93 introduced the

Community Eco-Management and Audit Scheme (EMAS): organisations (companies, public bodies, etc.) could voluntarily register in the EMAS system to evaluate and improve their environmental performance and to make this information public (ibid.).

Additionally, another important milestone for this sector was the guide published by the UNEP, the “Green Meeting Guide - Roll out the Green Carpet for your Participants” (UNEP, ICLEI, IAMLADP, 2009). This was developed to help event organisers and host locations implement environmentally sound events. The guide, intended for small and medium events up to 200 participants, can be applied by all organisations, especially those within the United Nations system.

Moreover, there are a few international standards for environmental certification available for the event sector: the American Society for Testing and Materials (ASTM) Standards for Green Meetings, the international ISO 20121, and the Global Reporting Initiative-Event Organisers Sector Supplement (GRI-EOSS). The latter provides reporting guidance for all types and sizes of events, including business, sports, and cultural events.

The environmental certification and the process to obtain it may change depending on the measurement of environmental sustainability. As claimed by Jones (2018, p. 17), “Both the GRI and the ISO 20121 are underscored by the principles of sustainable development such as those prescribed in the UN Global Compact, embracing also the principles outlined in ISO 26000 Social Responsibility”. The launch of the UN Sustainable Development Goals had the potential to further crystallise a focus on sustainable development and an understanding of how events can be catalysts in ensuring progress (ibid.).

As presented by Nguyen (2018, p. 224), “The international ISO 20121 is only one of the numerous assessment standards provided at the international level by the International Organisation for Standardization (ISO)”. Based in Geneva, Switzerland, the ISO describes itself as:

An independent, non-governmental international organisation with a membership of 161 national standards bodies. Through its members, it brings together experts to share knowledge and develop voluntary, consensus-based, market relevant International Standards that support innovation and provide solutions to global challenges.¹¹

With its various knowledge bodies and other stakeholders, ISO creates standards that provide the framework from which to certify that materials, products, processes, and services are specified according to their intent and purpose. It is prudent to note that ISO develops standards but is not a certifying body itself (ibid.). For the sport and recreation industry, three ISO standards are relevant

¹¹ Retrieved April 2026, from www.iso.org/iso/home/about.html accessed in April 2026

and adopted for specific purposes, namely social responsibility (ISO 26000); environmental management (ISO 14001); and event sustainability management systems (ISO 20121), here briefly presented:

- *ISO 26000* is intended to assist organisations in contributing to sustainable development. It links to Corporate Social Responsibility (CSR), as degradation of the environment affects domains of human and social equity (ISO, 2010);
- *ISO 14001* supports environmental performance by setting standards for an effective environmental management system. This standard provides a guide for approaching environmental performance in a systemic manner. The standard has been updated in 2026, and this last edition reinforces environmental protection and business outcomes, building on the trusted ISO 14001 framework, but proposing a clearer structure, an easier navigation and a stronger alignment with current environmental priorities (ISO, 2026);
- *ISO 20121* is the latest developed and relevant ISO standard for ES in the sport and recreation industry, published in 2012 and updated in 2024 (ISO, 2024).

Based on the British Standards Institute BS8901 for sustainable event management (first published in 2007), the standard for the Event Sustainability Management System ISO 20121 clearly points out the procedure for obtaining environmental certification for events. The goal of this standard is to set a framework for sustainable event management, detailing in a structured manner the requirements needed for a high-quality event sustainability system, adaptable to any type of event, which also includes social, economic and environmental issues.

Jones (2018, pp. 7-9) proceeds by presenting the principles listed in ISO 20121 that should be included when organising sustainable events. This standard indeed prescribes, as a minimum, the sustainable development principles of inclusivity, transparency, integrity, and stewardship:

- *Integrity*: events and their business dealings should be produced with professional conduct and ethical organisational governance by all staff, regarding the rule of law, and without bias;
- *Inclusivity*: events should involve and give access to those who may be affected by the event activities, including (among the others) the local community, government authorities, staff and crew. Inclusivity brings in the cultural pillar for sustainability, and, through celebrating culture and embracing diversity, an organisation can achieve great rewards and advance sustainable development;
- *Transparency*: organisations are subject to greater scrutiny and are being held to account for their actions more than ever before. By having transparent processes and outcomes, stakeholders can be confident that the organisation is acting ethically;

- *Environmental Stewardship*: at the heart of this concept is the idea that event organisers are temporary custodians of the land on which the activities take place and become responsible for the resources consumed and waste streams created. Thus, no negative impacts on the natural setting should arise from event activities.

The standard was first used during the London Olympics in 2012, which became the first Olympic Games to achieve a zero-waste-to-landfill result through savvy materials management (Nguyen, 2018). The International Olympic Committee (IOC) expects that organizing committees from all host cities will obtain ISO 20121 certification at least three years before their Games (GEF, 2023). Beyond sports, the standard has also been used by several exhibition and conference venues, large music festivals, and major events such as the World Economic Forum, the Milan 2015 World Expo, including the recently held Milano Cortina 2026 Olympic Winter Games. Ever since the 2012 Olympics in London took place, more events and activities have put the emphasis on sustainability. However, as Case claims (2013):

Much remains for the industry to do to improve its environmental performance. Fortunately, the environmental dimension of events is coming under increasing academic scrutiny, although much of this remains tourism oriented rather than focused on the plethora of events, at both local and national level. (...) Positive effects are intended and manifested at a range of scales, from Mega-Events such as the Olympics, where the intended environmental legacy now forms part of the bid, to community events that focus on cleaning up litter in local open spaces. (p. 5)

The next section will indeed focus on the different impacts of events, considering their sustainability and social responsibility, thus taking a step further towards essential features that cannot be left out when considering event management.

2.2.3 THE IMPACT OF SUSTAINABLE EVENTS

This paragraph will briefly present the different impacts that events can have, which, predictably, will be quite similar to the three pillars presented at the beginning of Chapter 2. Presented by Holmes et al. (2015, p. 5), “Drawing on the UN Definitions, for an event to be sustainable, it needs to address three aspects that include economic, environmental and social issues”:

- *Economic issues*: depending on size and scale, the event itself is economically viable and contributes to the development of viable enterprises in the region in which it occurs and triggers related economic activity that can be maintained in the long term;

- *Environmental issues*: event planning and operation focus on conservation of natural resources by minimising pollution and other negative impacts, actively working to conserve natural and built environments where the event takes place, and perhaps more broadly;
- *Social issues*: the event is based on socially ethical and equitable principles, for example, equal opportunity employment and reasonable working conditions with an absence of exploitation. Events may also contribute to maintaining and strengthening local communities through local employment and promotion of aspects such as social and cultural pride, conservation of cultural heritage, and strengthening community networks.

Sometimes the impact of events can be dictated by external challenges, that “Hinder the adoption of sustainable practices in event management” (Surbhi & Bose, 2025, p. 314). Among the others, these challenges can include limited financial resources, inadequate training, and lack of awareness about sustainability initiatives (ibid.). Several practices and habits can be implemented in the organisation: an example is stakeholders’ engagement. Kuckertz et al. (2023, as cited in Surbhi and Bose, 2025) stress the importance of involving all stakeholders – participants, suppliers, and local communities – in sustainability initiatives, since stakeholders’ involvement fosters collaboration and enhances the effectiveness of waste reduction strategies.

In addition, events can have a positive impact on social sustainability through multiple approaches. As described by Jones (2018, p. 12), event activities can “Directly and purposefully improve social sustainability in the context of the community that hosts them, the attendees who enjoy the event, and the destination at large”. Community events particularly can build on community pride and a sense of localness, contributing to the continuity of local culture and building networks and connectivity, while connecting “People in the community with each other, and with their heritage and sense of place” (Black, 2015, as cited in Jones, 2018, p. 12).

Moreover, “Events can also have negative social impacts, such as traffic congestion, vandalism, restrictions to access, overcrowding and general disruption to amenity” (Getz, 1997, as cited in Jones, 2018, p. 12). Traditionally, the impacts of events have been measured in economic terms, but recently developed models are employed to measure social outcomes (Jones, ibid.). As claimed by Dickson and Arcodia (2015, p. 4) “Failure to incorporate environmental performance into the evaluation of events may result in ignoring the long-term contribution that an event makes to the community”. Indeed, there is a growing body of literature documenting the impact events have on their host environments. For example, festivals tend to involve a considerable number of visitors in a limited geographical space for relatively short periods of time, as maximising the number of visitors is often equated with high levels of success from an economic perspective: this congestion often leads

to the possibility of environmental degradation of a host community. (ivi, p. 5). As Case (2013) concludes:

Some authorities, such as the International Olympic Committee (IOC), also distinguish between direct and indirect impacts, the former being the result of the actions of event deliverers themselves, and the latter the result of the actions of external organisations, such as governments, who improve transport infrastructure for mega-events and tourist activities which the IOC deem to be outside the Games themselves. (p. 8). Ironically, some of the environmental impacts to which the event industry contributes are beginning to have an impact on the event industry itself. One example is climate change. Global warming appears to be melting glaciers in parts of Europe and changing patterns of weather may affect snow-based events in the Alpine regions of Europe (...). (p. 9)

Before proceeding with section 2.3, examples of world-famous sustainable events will be presented, thus showing how concerts, sport events, or cultural gatherings can implement sustainable practices and reduce their impact.

2.2.4 EXAMPLE OF SUSTAINABLE EVENTS

The following examples intend to present how events of different kinds can implement sustainable strategies in different ways, while aiming at the same goal: reduce the environmental impact.

Roland-Garros

The first example worth presenting is the Roland-Garros, the French Grand Slam, held every year in Paris between May and June. The tennis tournament became, in 2014, the first international French sporting event to be certified ISO 20121. Each tournament edition covers major social issues: from transportation to renewable energy, from charity programmes to sustainable food. Including partners, institutions, and NGOs, the French Open shows a collective work to build together a stronger sustainable culture. For the 2025 edition, a number of actions have been put in place to make the Parisian Grand Slam an ever more inclusive and accessible event (Roland-Garros, 2026). This was possible by implementing actions such as the following:

- Inclusive ticketing: 160,000 tickets priced under 30€ made is more accessible than ever, proposing even €15 tickets for young people aged under 25; furthermore, during the Opening Week, 3500 tickets were gifted to charities to benefit who does not ordinarily have the opportunity to attend these events;
- Promoting disability tennis and increasing the effort to make the tournament accessible to all audiences, with an audio immersion tool, designed primary for spectators with a visual

impairment, but later available to everyone, which captures the sound from the court and adds a running commentary;

- Sport equipment donation by players to those who do not usually have access to sport, by putting it in the charity boxes.

The tennis tournament is also committed to a responsible and ecological approach, with the aim of preserving the environment and raising public awareness (Roland-Garros, 2026). To reduce the environmental impact of the tournament, the organisers took the following actions:

- Promoting public transport and car-pooling, as well as a guarded bicycle parking area, to encourage spectators to travel by bike or scooter, offering the possibility to secure a parking space by pre-booking it online. For players, officials and VIPs, Renault provided 87% hybrid or electric vehicles to reach the venue;
- In terms of food offer, in partnership with the Good Planet Foundation, the French Federation of Tennis has been working since 2016 with restaurants and caterers at the tournament to develop a sustainable food plan: the offer includes certified, local, and in season products, and 60% of the food available in the stadium is now vegetarian. Roland-Garros is also aware of food waste and, by working with the charity Le Chaînon Manquant, collects and redistributes meals to people in need;
- Regarding renewable energy, since 2006 the FFT has been linked to the Enedis network, and the energy is now 100% renewable. This collaboration has also led to the installation of solar panels throughout the stadium;
- To encourage the visitor to sort their waste, the venue now offers machines to collect cans of drinks and plastic bottles. Moreover, the tournament no longer offers single-use plastic water bottles to players, media, or staff, while water fountains are made available for the public;
- To contribute to raising awareness about the phenomena of climate change, Green Teams walk around the stadium during the whole duration of the tournament, presenting in a fun way the various actions rolled out by the tournament.

In general, by implementing these actions, the Roland-Garros tournament presents a strategy that is adapted every year, according to the core issues and needs. In this way, the French Slam has a major role in contributing to making events sustainable.

The Coldplay “Music of the Spheres” World Tour

“Music of the Spheres” is the title of the World Tour performed by the British band Coldplay, which followed the band's eighth studio album, “Everyday Life” (2019). Started in March 2022 and finished in September 2025, after more than 200 shows, the tour was performed with the aim of reducing the

direct carbon emissions produced by the band by 50%. As the statement on their website reports (Coldplay, 2024):

When we first announced the Music Of The Spheres Tour in 2021, we pledged to reduce our direct carbon emissions (from show production, freight, band and crew travel) by at least 50%. We're happy to report that direct CO₂e emissions from the first two years of this tour are 59% less than our previous stadium tour (2016-17), on a show-by-show comparison. These figures have been verified by the MIT Environmental Solutions Initiative. We'd like to say a huge thankyou to our incredible touring family and to all the brilliant people who've made this possible. Most of all, we'd like to thank everyone who's come to a show and helped charge the show batteries on the power bikes and kinetic dance floors; everyone who's arrived by foot, bike, ride share or public transport; everyone who's come with refillable water bottles or returned their LED wristband for recycling; and everyone who's bought a ticket, which means you've planted one of 7 million trees so far. As a band, and as an industry, we're a long way from where we need to be on this. But we're grateful for everyone's help so far, and we salute everyone who's making efforts to push things in the right direction.

Aiming at reducing their carbon emissions, the band succeeded in numerous of their goals: they planted over 7 million trees across 24 countries; deployed 2 solar-powered interceptors together with the non-profit foundation The Ocean Cleanup; many shows were powered using the toursable battery systems, while each tour generated an average power of 17kWh, via in-venue solar installations, kinetic dance floors, and power bikes; the band purchased Sustainable Aviation Fuel, thus saving over 3,000 tCO₂. Although official confirmation regarding the tour's ISO 20121 certification is lacking, the band played a significant role in minimizing their environmental footprint. In doing so, the band promoted a sustainable framework for the live music industry that, as of April 2026, still lacks standardised global regulations (ibid.).

2.3 MEGA EVENTS

Mega events, as anticipated in paragraph 2.2.1, are among the many types of events that can be organised. As presented by Bullard (2025), the term is used to describe "A large-scale event, whose size and requisite planning may result in transformative changes to the host city". Moreover, these events have the potential to create a dramatic and lasting impact on the economy, reputation, and residents of the hosting city. However, some of the largest of these events may require significant changes in the city's infrastructure, resulting on the one hand in lasting monuments and positive changes in the community, while on the other hand they may cause enormous unrecoverable expenses and negative consequences (ibid.).

A mega event, to be considered as such, must respect a certain set of features: it must occur over a limited window of time, usually takes years to plan, draws people from around the world, and is recognisable as a catalyst toward the implementation of a lasting impact upon the city where it occurs (ibid.). In this case, mega events are limited to occasions such as the Olympic Games or the FIFA World Cup, which can be further labelled as Mega Sport Events. However, other classifications offer a broader definition that encompasses any large-scale event that combines elements of mass attendance and cultural importance, such as the World EXPO or large political convention, e.g. the quadrennial Democratic and Republic National Convention held in the USA.

Furthermore, with the spread of virtual communication, and despite the unstable geopolitical situations, large scale gatherings and global events have become extraordinarily popular again. As presented by the OECD (2008, p. 19) “The global age is renewing the demand for global events. In part this is explained by the worldwide media attention and sponsorship that such events now generate. But it is also substantially enhanced by the local benefits and legacy that can be achieved for the place that hosts”. Hosting global events can indeed lead host cities and countries to expect some benefits which can, in turn, be classified as *primary* or *secondary* to indicate the time frame within which they occur. Among the former type, it is worth mentioning: private-public investment partnerships; image and identity impacts attracting increased population, investment, or trade; environmental impacts, both in built and natural environments (ivi, p. 24).

In addition, MSEs are also working towards the implementation of sustainable practices in their agenda, since the impact of the event industry is undeniably relevant. Some may wonder what the link between sport and the environment is: the answer is provided by Russell S. Seymour (2018), who claims that:

Sport has had a proven track record of delivering positive social outcomes. From global United Nations programs to local initiatives, sport has been used as a focus for social development programs. The majority of professional sports clubs have some kind of community out-reach and participation program, and there are many examples where, for example, participation in sports has integrated isolated young people into more cooperative pursuits (...). However, it seems that the sport sector may be 10 to 15 years behind other business sectors in addressing environmental issue. (...) The issues that face us are common to all people in all countries from all backgrounds. It is only through cooperation that we can mitigate some of the effects. Sport has the audience and the necessary frameworks to communicate what needs to be done in a non-threatening manner, from a recognised and trusted source and in a common language of fairness and respect for others. (p. xiii)

As a consequence, the need to investigate the impact that MSEs have in terms of sustainability is now more urgent than ever, yet it remains not a facile task. Although the event industry is becoming wider than it used to, the “*narrow*” area of Mega Events provides the background for such an investigation, aimed at presenting solutions to influence actions and propose up-to-date improvements. This idea is supported by Sanderson and Shaikh (2018, p. 44) who state that “Due to scale, size, and global awareness across diverse populations, the Olympics and the FIFA World Cup are the only types of sporting events likely to significantly influence action on a global externality such as climate change”.

Since the aim of this research is to focus on the Olympics, while proceeding towards an analysis of the recently held Milano Cortina 2026 Winter Olympics, FIFA will not be furtherly taken into account, but the next Chapter will exclusively focus on the International Olympic Committee and its elements. However, for the purpose of this research, it is worth mentioning that FIFA is one of the IFs (International Federations) that operate within the Olympic movement and adheres to the Olympic Charter.

Before continuing with Chapter 3, it is finally necessary to present three core elements that are featured in most MSEs and cannot be overlooked: legacy, stakeholders and community involvement.

2.3.1 LEGACY

As for other concepts presented in Chapter 1, defining the concept of legacy is not a facile task, and many definitions have been proposed. In the recent sport and tourism literature, legacy has been defined as “Planned and unplanned, positive and negative, intangible and tangible structures created through a sport event that remain after the event” (Gratton & Preuss, 2008, p. 1924). Similarly, the *Oxford Learners Dictionary* (Oxford Learner's Dictionary, 2026) defines it as “A situation that exists now because of events, actions, etc. that took place in the past”, while Jones (2018, p. 26) claims that an event legacy is “Anything that has a lasting physical, social, environmental or economic impact”. The event's legacy and its opportunities are a key aspect of sustainability management, since the lasting effects of the event contribute to shape and transform the society (ibid.). In this context, MSEs play an important role as “Cities that have geared up for mega-sport events invest huge sums of money in new infrastructure, some of which are in danger of lying dormant or falling into disrepair” (ibid.). As a result, legacy planning is an integral part of the strategy of these events. When distinguishing between different varieties of legacy, several types can be found:

- *positive legacy*, which may either be the result of initiatives purposefully planned and carried out by the event organiser to achieve a certain outcome, or the consequences of the day-to-day actions of the organiser (Jones, 2018);

- *negative legacy*, which may include debts from construction, high opportunity costs, unneeded infrastructure, temporary crowding-out, loss of permanently returning tourists, increases of property rental, and socially unjust displacement of residents and re-distributions (Kaplanidou & Karadakis, 2010);
- *intangible or “soft” legacy* as knowledge transfer or changing behaviours (Jones, 2018, p. 26);
- *tangible or “hard” legacy* as infrastructure, resources and technologies (ibid.).

Preuss (2007 as cited in Kaplanidou & Karadakis, 2010, p. 111) explained that “*Hard* structures include: primary structures (e.g., sport infrastructure, training sites); secondary structures (e.g., villages for athletes, technical officials and media); and tertiary structures (e.g., security, power plants, telecommunication networks, cultural attractions)”. On the other hand, intangible or “*soft*” structures are more difficult to identify and can include: urban regeneration, enhanced international reputation, improved public welfare, enhancement of destination image, renewed community spirit, better interregional cooperation, production of ideas, production of cultural values, popular memory, opportunities for education, emotional experience, and additional knowhow (ibid.). To conclude, “The list of potential positive hard and soft legacies is endless and is as long and as deep as are the sustainability topics, needs of the community, state of the supply chain or resources and capabilities of the organisation, staff and crew” (Jones, 2018, p. 27).

Legacy is not only linked with mega-event but must be included in events of all sizes. Indeed, research shows that “Modestly sized events are doing a great work, focusing on local suppliers and employment, on internships, skills and knowledge transfer, on regeneration of the local environment, or supporting community and social benefit programmes” (ivi, p. 3). Regardless of the size of the event, “Actively planning-in the desired positive physical, environmental, social and economic legacy outcomes begins at the design stage of the event life cycle” (ivi, p. 27). Finally, “Creating and managing a legacy plan for a host city is important because it allows the stakeholders to implement and evaluate the legacy programs created by the hosting of mega-sport events, such as the Olympic Games” (Kaplanidou & Karadakis, 2010, p. 110). Among the different scholars who studied the phenomenon of the legacy of MSEs, Umberto Martini (Martini, 2026), professor of Economics at the University of Trento, claims that the legacy of MSEs is:

The capacity of events to deliver a positive return in the long term, one that is able to offsets the financial and organisational effort and the consumption of natural resources, while generating added value. For this to happen, it is first and foremost necessary to ensure the economic and financial balance

of the investments made, which is linked both to the optimisation and efficiency of processes and to the generation of revenue from a wide range of business areas¹².

Despite the connection with economics, however, major events must be able to generate other types of legacy, such as: a positive effect on the local audience that attended the events; a return in terms of visibility and global recognition, thanks to the target audience reached through the media; a result in terms of appeal, linked to the ability to generate tourist visits before, during and especially after the event (ibid.).

2.3.2 STAKEHOLDERS

Another key element when considering MSEs is that of stakeholders. According to Holmes et al. (2015, p. 6), “For an event to be successful (...), a shared vision and understanding amongst key stakeholders is essential”. Moreover, “It is important to communicate the importance and need to all key stakeholders, and gain their support, for an event to effectively implement sustainable practices” (Laing and Frost, 2010 cited in Holmes et al., 2015, p.6). Key stakeholders in sustainable events may include:

- Sponsors;
- Government agencies;
- Venue owners and managers;
- Landowners and managers;
- Community groups;
- Volunteers;
- Media.

Furthermore, “Having aligned practices and standards between organizers, firms, and communities contribute to co-create value in mega events, often under institutional rules” (Mason, 2024 as cited in Al-Thania et al., 2025, p. 14).

When it comes to the Olympic Games, the number and type of stakeholders may vary from one edition to the one following, as the Organising Committee realises that the Games draw massive attention. Among the different stakeholders it is possible to include public ones (e.g. residents, local business owners, event spectators/tourists) creating and enriching a positive destination image (Chalip, 2006) but also mass media, athletes, sponsors, organisers, state, or provincial governments, sport and tourism organisations, volunteer organisations, and the Organising Committee for the

¹²My translation from o.v.: “La capacità che devono avere di lasciare un payoff positivo nel lungo periodo, in grado di compensare lo sforzo finanziario e organizzativo, il consumo di risorse naturali e di generare valore aggiunto. Affinché ciò accada, è necessario prima di tutto garantire l’equilibrio economico/finanziario degli investimenti effettuati, che si lega sia all’ottimizzazione e all’efficienza dei processi, sia alla generazione di ricavi da molteplici ambiti di attività.”

Olympic Games (Kaplanidou & Karadakis, 2010). As a result, each stakeholder is interested in striving for the best games possible, and hosting the Olympics could help a destination to enhance its image and induce more tourists to visit it, strengthening or rebuilding, at the same time, the image of the host nation (Preuss & Alfs, 2011).

Among the different stakeholders, volunteers represent one major group. Indeed, they have long been an integral part of the Olympic Games and are vital to the organisation of the event since they perform a wide range of duties: from ticket inspectors and uniform distributors to interpreters and doping control officers (IOC, 2025). While volunteers' selection and training processes are now a standard for all Games, it all dates back to Helsinki 1952, a landmark event in the development of Olympic volunteer services.

Before World War II, Olympic Games organising committees typically relied on the support of the host nation's armed forces and boy scout brigades. With a relatively modest number of participating nations, athletes, and events compared to today, this informal approach to organising volunteer services proved adequate. However, the Olympic Games expanded after the global conflict, with more countries seeking to participate and more events on the Olympic programme. This expansion brought greater organisational complexities for organising committees and placed additional pressure on host cities to find and train adequate numbers of volunteers. London 1948 saw the creation of the first Olympic volunteer force, and four years later the Helsinki 1952 Organising Committee embarked on a thorough and ground-breaking volunteer selection process, inviting applications from people with widely differing backgrounds and skill sets. In the process, a solid foundation was laid for Olympic volunteer training, with further enhancements and improvements made in the years that followed. At the Olympic Winter Games 1960, for example, the Organising Committee became the first to recruit volunteers for transport services (ibid.).

2.3.3 COMMUNITY INVOLVEMENT

The last aspect to present before moving to Chapter 3 is that of community involvement. Undeniably, events can “Directly and purposefully enhance social sustainability in the context of the community that hosts them, the attendees who enjoy the event, and the destination at large” (Jones, 2018, p. 12). In contrast to the attention given to the economic impacts of mega events, there is significantly less research on the social impacts, which refer to “Any impacts that potentially [influence] the quality of life for local residents” (Fredline, Jago, & Deery, 2003, p. 6). As described by Martini (2026): “Infrastructure, facilities, flows and the mobility of people cannot be neutral in terms of their social and environmental impact: given the significant involvement of the local community and the wider

region, the social implications of the major event must be carefully assessed”¹³. According to Stone (1989):

The goal of community participation is “To design development in such a way that intended beneficiaries are encouraged to take matters into their own hands, to participate in their own development through mobilizing their own resources, defining their own needs, and making their own decisions about how to meet their needs. (p. 207)

Therefore, involving the local community offers its members the opportunity to contribute to decision-making processes, create more innovative and culturally sensitive solutions, while the entrepreneurs of the community will benefit through enhanced visibility and dividend payment for investing in the activity, an avalanche effect economic and tourist (OECD, 2024). As Khonko (2024) claimed: “Community engagement not only remains a moral necessity, but also a strategically effective reaction, thus making events cost-effective, sustainable, and productive in good time to the advantage of all the stakeholders”.

By offering sports activities, “A city can increase its unique attractiveness, draw much attention worldwide, and attempt to be a more appealing and favourable destination. However, the support from residents and committees is essential to developing strategic planning to deliver well-managed sports events” (Ritchie, 1984; Weimar & Rocha, 2019, as cited in Lee, Koo & Chung, 2022, p. 88). Indeed, some communities voted to not be involved in the Olympic Games, placing the preservation of the environment and their quality of life ahead of promised economic gains (Timsheva, 2001, as cited in Dickson & Arcodia, 2015). This may be the result of *community attachment*, commonly described as “A state of positive solidarity between people and their place of residence” (Lee, Lee, & Arcodia, 2014 as cited in Li, Kim, & Lee, 2021, p. 4), a feeling developed in respect of different sizes and types of social and geographical environments. In this sense, researchers have made efforts to understand community attachment as it “Closely relates to community tourism development, which is a form of tourism based on the following widely recognised principles” (Li, Kim, & Lee, 2021, p. 4):

- Community tourism should involve residents, who should participate in decision-making and ownership;

¹³ My translation from o.v.: “Le infrastrutture, le strutture, i flussi e la movimentazione di persone non possono essere neutre in termini di impatto sociale e ambientale: considerato il forte coinvolgimento della comunità locale e del territorio nel suo insieme, deve essere valutata attentamente la dimensione sociale delle ricadute del grande evento”.

- The local community should receive a fair and transparent share of the profits from any tourism venture;
- Tour operators should try to work with communities rather than working separately. Where communities have representative organisations, these should be consulted and their decisions respected;
- Tourism should be environmentally sustainable, and local people must benefit and be consulted if conservation projects are to work;
- Tourism should support traditional cultures by showing respect for indigenous knowledge;
- Operators should work with local people to minimise the harmful impact of tourism;
- Tour operators should keep groups small to minimise their cultural and environmental impact;
- Tour operators or guides should brief tourists on what to expect and on appropriate behaviour before they arrive in a community;
- Locals should be allowed to participate in tourism with dignity and self-respect;
- Finally, people have the right to say no to tourism, and communities that reject tourism should be respected (ibid.).

In summary, community participation in events offers numerous social, cultural and economic advantages that are vital to the overall success and long-term viability of the event. When members of a community are engaged for real, it reinforces their social ties, constructs trust in one another and develops an intense sense of unity. This common sense of belonging is likely to go beyond the event itself, creating stronger neighbourhood connections, more civic pride, and a cooperative culture that can extend to future efforts (Mykletun, 2013). By keeping event objectives in perspective, with respect to local issues, values, and environmental concerns, community participation strongly supports long-term sustainability (Cademix Institute of Technology, 2025). In conclusion, rather than planning events that achieve maximum short-term gains at the expense of local well-being, planners can create programmes that respect carrying capacities, decrease ecological footprints, and satisfy social requirements such as accessibility and inclusivity (Haessler, 2020).

3. THE INTERNATIONAL OLYMPIC COMMITTEE

3.1 THE IOC

The IOC, the leader of the Olympic Movement and the guardian of the Olympic Games, was founded in Paris in 1894, during the first Olympic Congress. Now, it is an organisation with more than 100 members whose economies, populations, political contexts, and cultures vary enormously, and thus reaching consensus by all members may be a daunting challenge. Several milestones have contributed to making the journey of the IOC extraordinary, and the aim of this section is to present its most relevant turning points. However, before proceeding, it is worth mentioning that as an international, non-governmental and non-profit organisation, the Committee has established a clear mission and vision, as well as defined its principles and core values that must be respected during its activities.

3.1.1 THE IOC'S PRINCIPLES & MISSION

Directly from the organisation's website (IOC, 2026), the following statement presents the aim of the Olympic Committee:

The IOC is at the very heart of world sport, supporting every Olympic Movement stakeholder, promoting Olympism worldwide, and overseeing the regular celebration of the Olympic Games. The IOC is also committed to promoting sport in society, strengthening the integrity of sport and supporting clean athletes and other sports organisations.

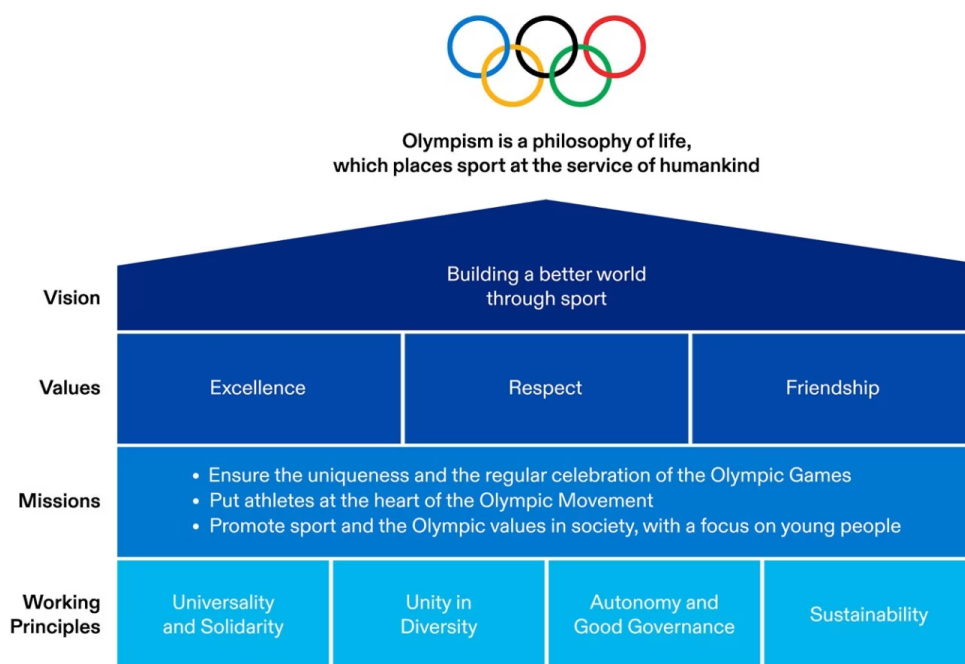


Figure 7: IOC Vision, Values, Missions and Principles. Retrieved May 2026, from the IOC official website

From the Official Olympic Charter (pp. 12-13), it is possible to understand that the mission of the IOC is “To promote Olympism throughout the world and to lead the Olympic Movement”, which is the “Concerted, organised, universal and permanent action, carried out under the supreme authority of the IOC, of all individuals and entities who are inspired by its values” (ivi, p.3). The movement covers the five continents, reaches its peak with the Olympic Games, and its symbol is made of the five interlaced rings. The goal of the Olympic Movement is to contribute to building a peaceful and better world by educating youth through sport practised in accordance with Olympism and its values, which evolved over time and are now expressed in contemporary terms as:

- 1) Striving for excellence and encouraging people to be the best they can be;
- 2) Demonstrating respect in many different manners: towards yourself, the rules, your opponents, the environment, the public, etc.;
- 3) Celebrating friendship, which is quite unique to the Olympic Games.

These values constitute the foundation on which the Olympic movement builds its activities to promote sport, culture and education with a view to building a better world.

The headquarters of the IOC have been based in Lausanne since 1915, when Pierre de Coubertin (the 2nd IOC President) found the city a more peaceful environment in a time of war in Europe. During the World Wars years, as Switzerland remained a neutral territory, Coubertin declared that “The Olympic spirit will find the pledge of freedom that it needs to progress in the independent and proud atmosphere that one breathes in Lausanne”. In 1994, to mark the centenary of the IOC, Lausanne officially received the status of *Olympic Capital*, since the IOC President at the time believed that “If it was to be the universal embodiment of the values he defended, the Olympic Movement needed to have a clear territorial expression, a place recognised by all as the repository of these values”. Today, more than 50 international Federations and international sports organisations have their HQ in the city (IOC, 2026).

3.1.2 MILESTONES IN THE IOC’S HISTORY

Now that the IOC has been presented in general terms, it is time to address elements that marked its history from 1894 to present day, as outlined in its website (IOC, 2026):

1894: Pierre de Coubertin, at the time secretary general of the Union of French Sports Associations, organised in Paris the first Olympic Congress, which led to the establishment of the IOC and the decision to hold the first modern Olympic Games in Athens in 1896;

1908: Publication of the first incarnation of the Olympic Charter, entitled *Annuaire du Comité International Olympique*;

1913: Coubertin, President since 1896, presented the five-ring logo, stating that “[The rings] represent the five parts of the world” (ibid.) united by Olympism, and in the five colours of the rings, combined with the white flag fabric, all the colours of the flags of all then-known nations were to be found;

1921: Formation of the Executive Board to support the President. Originally it consisted of only 5 members, until 1966 when two new positions were designated, and the Board counted a total of 9 members, which are now 15;

1981: Creation of a commission for athletes, whose aim still is to act as the spokesman of all athletes to the IOC. The commission’s first meeting was in 1982 in Rome and many of the topics on the agenda are still relevant today, such as the fight against doping, gender equality, and the goal of having Games free from political influence. In 1981 two women became Members of the IOC: Pirjo Häggman from Finland and Flor Isava Fonseca from Venezuela;

1985: Launch of the ambitious *The Olympic Partner* programme (TOP), designed to have a limited number of partners (usually one for any type of category), giving them exclusive rights to the Olympic symbol and to use it in advertising for the period of sponsorship. However, as claimed by Gaffney (2013, p. 3928), “With this program the IOC associated itself with some of the least environmentally sustainable businesses in the world (last but not least Coca-Cola)”. Nowadays, almost 90% of the money gained with this practice is then redistributed to the various arms of the Olympic Movement, and the TOP program helps the designed partners to achieve their own sustainability goals (ibid.);

1995: IOC President Samaranch was the first to speak at the UN General Assembly, promising “In all circumstances we shall continue to demonstrate and use Olympism as a force for conciliation and humanitarianism” (ibid.). His presidency was characterised by the attention drew upon the request for a truce in the conflicts raging in the different areas of the world: the IOC decided to revive this concept with a view to protecting, as far as possible, the interests of the athletes and sport in general, and to harness the power of sport to promote peace, dialogue, and reconciliation. Since 1993, the UN has supported the Olympic Truce dream, adopting every two years a resolution aimed at “Building a peaceful and better world through sport and the Olympic ideal” (ibid.);

2018: The IOC adapted the *Athletes’ Rights and Responsibilities Declaration* (2018), a groundbreaking document, drawn up following an extensive process that canvassed the views and opinions of more than 4,200 athletes from 190 countries. The declaration outlines a common set of aspirational rights and responsibilities for athletes in the movement and is inspired by the Universal Declaration of Human Rights;

2021: The Session of the IOC approved a change to the Olympic motto *Citius, Altius, Fortius*, adopted in 1894. The change added the word *together*, strongly supported by President Bach, who claimed

that solidarity fuels the mission to make the world a better place through sport: everything can happen only in solidarity (IOC, 2026);

2025: In March 2025, at the 144th IOC Session in Greece, Kirsty Coventry, former Zimbabwean swimmer, was elected as the IOC's 10th president, thus becoming the first woman and the first African to reach the highest position of the Olympic Movement.

3.1.3 OLYMPIC CHARTER

One last document finally needs to be addressed: the Olympic Charter, the codification of the fundamental principles of Olympism and the rules and bye-laws adopted by the IOC (IOC, 2026). The Charter governs the organisation, actions and functioning of the Olympic Movement and establishes the conditions for the celebration of the Olympic Games, as well as the relations between the IFs, NOCs, and the Olympic Movement. Firstly published in 1908 under the title of *Annuaire*, the official name *Olympic Charter* appeared in 1978 for the first time. Frequently updated, the latest version of the Charter is in force from February 3, 2026. The institution's charter plays a key role, as it highlights the unique position of the IOC to unite diverse populations around the common theme of sport. The Charter states in *Principle 1* that "Olympism seeks to create a way of life based on the joy found in effort, the educational value of good example, and respect for universal fundamental ethical principles" (Sanderson & Shaikh, 2018, p. 44).

Following the centennial Olympic congress in Paris in 1994, Environmental Protection was introduced as an Olympic Pillar, with the amendment of the Charter in 1996 which made environment stand alongside sport and culture. The environment is also mentioned in *Principle 14* of the Mission of the IOC (IOC, 2026) which states:

Principle 14: "[The IOC's role is] To encourage and support a responsible concern for environmental issues, to promote sustainable development in sport and to require that the Olympic Games are held accordingly".

"This collective effort helped shape the mission, goals, and various policies that would encourage future Games to reduce their environmental impact while boosting the positive legacy for each subsequent Olympic Games" (McCullough & Kellison, 2018, p. 4). Despite this, some scholars claim that the goals of the IOC are "Too generically defined to have much practical application for host cities and instead attend to the marketing parameters of multi-national corporations" (Gaffney, 2013, p. 3928).

3.2 IOC AND SUSTAINABILITY

The IOC's sustainability discourse has been refined over time, reflecting changes in corporatist attitudes towards the environment and sustainable development (ibid.). This also reflects the role of the IOC as "A flag bearer for international relations, human achievement, and, historically, racial equality, making the Olympics the stage to emphasize social causes, including the global environment" (Sanderson & Shaikh, 2018, p. 44).

The IOC in 1999 prepared its own Agenda 21 to help its partners in the Olympic Movement accommodate the UN Agenda 21 and to adapt sustainability thinking to the area of sport (Lesjø & Gulbrandsen, 2018). As a practical tool, "The IOC's Agenda 21 developed into a manual for implementing the principles of sustainability into different geographical and local settings" (ibid., p. 113). Years later, following the development of the SDGs and the Agenda 2030, the IOC needed to come up with its own agenda and in 2014 created the *Olympic Agenda 2020*, a strategic roadmap for the Olympic Movement (Hendriks, 2018), built on the three pillars of *Credibility*, *Sustainability* and *Youth*. The 40 identified recommendations were driven by the recognition that the world was evolving rapidly and the Olympic Movement had the opportunity to be an agent of change (IOC, 2015). As a result, "It firmly puts sustainability on the agenda in executive meetings of (Olympic) sponsors and International Sport Federations, and drives the IOC towards improving its own internal processes to *lead by example*" (Hendriks, 2018, p. xv).

In 2021, the IOC adopted the *Agenda 2020+5* (IOC, 2021), a new strategic roadmap built on the results of the Agenda 2020, which was supposed to guide the Committee until 2025. The 15 recommendations in the agenda are based on key trends identified as decisive in the post-Covid period and involve areas where sport and the values of Olympism can play a key role. The identified key trends include:

- The need for greater solidarity within and among societies;
- The growth in digitalisation;
- The urgency of achieving sustainable development;
- The growing demand for credibility, both of organisations and institutions;
- The need to build resilience in the face of the financial and economic consequences resulting from the Covid-19 pandemic.

The results of IOC's sustainability policies were already measurable in 1994, with the Winter Olympics in Lillehammer (Norway), the first to "Prevent an ecologically negative legacy by giving themselves a *green profile*" (NAOC, 1995, as cited in Dickson & Arcodia, 2015, p. 5). Later, the 1996 Summer Olympics in Atlanta showcased several new approaches and technologies and achieved a number of environmental successes, even though environmental leadership was not

deemed a central objective of the organising committee (Moss, 1995, as cited in Dickson & Arcodia, 2015). But a turning point was achieved during the Sydney 2000 Games, which offered the most comprehensive environmental plan, consisting of 100 commitments, covering the five key areas of energy conservation, water conservation, waste avoidance and minimisation, pollution management, and the protection of significant natural and cultural environments. The Games developed a management system called “Environmental Focus” (Chernushenko, 1994, as cited in Dickson & Arcodia, 2015, p. 6) and implemented environmental guidelines based on the concepts of sustainable development, involving major stakeholders and sponsors in the process. “Dubbed the ‘green games’, Sydney 2000 was responsible for setting a new global Olympic standard that each of the Games staged thereafter has worked hard to outshine” (Holden, MacKenzie, & Vanwynsberghe, 2008, as cited in Dickson & Arcodia, 2015, p. 6.).

3.2.1 IOC AND ITS PARTNERSHIP WITH THE UNITED NATIONS

The IOC supports peacebuilding, gender equality, sustainability, and development through sport to advance the SDGs established by the UN. Additionally, the Committee cooperates with a wide range of organisations, including numerous UN agencies, on projects which use sport as a tool for development (IOC, 2026). The collaboration between these two institutions has played a central role in spreading the acceptance of sport as a means to promote the SDGs: in 2015, sport was recognised as an important enabler of sustainable development, and included in the UN’s Agenda 2030 (IOC News, 2015). This relationship between sport and development was reiterated in 2024, with the inclusion of sport in the UN’s Pact for the Future and the Declaration on Future Generations (UN General Assembly, 2024), an agreement designed to make the international system more inclusive, effective and fit for 21st Century challenges (IOC News, 2024). In this document, *Sport* is mentioned multiple times, and in Action 11, the UN Member States declare (2024):

Action 11. We will protect and promote culture and sport as integral components of sustainable development. We recognize that culture as well as sport offer individuals and communities a strong sense of identity and foster social cohesion. We also recognize that sport can contribute to individuals’ and communities’ health and well-being. Culture as well as sport therefore are important enablers of sustainable development. We decide to:

- (a) Ensure that culture as well as sport can contribute to more effective, inclusive, equitable and sustainable development, and integrate culture into economic, social and environmental development policies and strategies and ensure adequate public investment in the protection and promotion of culture;
- (b) Encourage strengthened international cooperation on the return or restitution of cultural properties of spiritual, ancestral, historical and cultural value to countries of origin, including but not limited

to objets d'art, monuments, museum pieces, manuscripts and documents, and strongly encourage relevant private entities to similarly engage, including through bilateral dialogue and with the assistance of multilateral mechanisms, as appropriate;

- (c) Promote and support intercultural and interreligious dialogue to strengthen social cohesion and contribute to sustainable development. (p. 10)

The relationship between the UN and the IOC has currently been going on for almost 20 years, starting from 2009 when the Permanent Observer status was granted to the Olympic Committee, giving it the chance to be directly involved in the UN Agenda and take the floor during the Assembly meetings. In 2013, the IOC proposed and supported the creation of the International Day of Sport for Development and Peace, celebrated on April 6, now used to recognise the role of sport in contributing to social change and human development. Lastly, the IOC has been collaborating with the International Union for Conservation of Nature (IUCN) and the UNEP on the Sport for Nature initiative, as well as with UN Women on the Sport for Generation Equality: both documents help to accelerate progress and the Olympic Movement action for sustainability and gender equality (IOC, 2026).

3.3 THE BIDDING PROCESS TO BECOME A HOST

When deciding the city that will become the host for a future edition of the OGs, the IOC invites the interested National Olympic Committees to submit their bids, requiring “Detailed plans for venues, infrastructure, accommodation, transportation, security and government support” (Boto-García & Santana-Gallego, 2026, p. 3). The IOC will then evaluate these bids and select the host city through a secret ballot to ensure fairness and good governance. The winner was generally announced seven years before the event, but there is currently no fixed election cycle as in the past: this enables the IOC to adapt to the natural pace of each potential host, to bring the right project and partner for the Olympic Games at the right time, and to ensure strategic benefit for the Olympic Movement. The timing depends on several factors, including global events (IOC, 2026). Indeed, this flexibility was demonstrated by the dual election of Paris 2024 and Los Angeles 2028 in 2017 and Brisbane 2032 in 2021.

An election can happen only at the end of a successful Targeted Dialogue, a formal process to evaluate one or more Olympic projects (ibid.). The host selection process has been reformed over the years, aiming at a reduction of costs and a more sustainable Games organisation. For example, all Olympic hosts must now use a maximum of existing and temporary venues and build new ones only if there is a long-term legacy need. To achieve this, events can be located in more than one city, region, or country (ibid.). Though every host is free to propose and craft the Games according to its

vision, the IOC invites aspiring applicants to create a sustainable masterplan, conceiving local and national support. The host is also encouraged to focus on developing a climate-responsible project that will create lasting community benefits (ibid.).

Olympic bids are assessed according to certain items of a city's candidacy, as described by Gaffney (2013, p. 3936). "Motivation, concept and legacy, political support, financing, sports installations, accommodations, transportation, security, public opinion and experience". They also need to fit with existing regional and national development plans, in addition to the long-term strategic goals of the Olympic Movement (IOC, 2026). However, as pointed out by Gaffney (ibid.), "These evaluation criteria do not take into consideration neither the needs and deficits of the city in the years leading up to the event, nor fundamental components of urban sustainability, such as housing, education, sanitation, health care, or urban mobility"¹⁴.

Moreover, as Gaffney (ivi., p. 3930) claims, "Presenting a city bid dossier carries with it the promise that, if selected, the city or country will provide guarantees to execute the project as a whole". Indeed, once a city is elected as host of the Games, the *Host City Contract* with the IOC becomes law, obliging the host to deliver on the promises made in the dossier. Consequently, it may result that not-selected hosts will unlikely realise proposed projects, which may indicate that, in the end, "Mega-event projects are superfluous to the existing needs of the city or [better] that without the mega-event there is no impetus to resolve the inevitable political conflicts that these projects call into being" (ibid.). This vision is also supported by Kaplanidou (2018, p. 238) who points out that "Although there could be good will in the bidding files and the plans of the organising committees, uncontrollable factors can change environmental legacy plans". That is, despite all the good will, results show that "The transition from pre to post Games conditions was always [and will] likely to be challenging (...). Such changes with uncertainties over finance and political will complicate the already difficult business of translating visions into reality and delivering the Legacy promises" (Gold & Gold, 2013, p. 5338).

To conclude, when it comes to bids, each edition of the Games will be searching for something unique, "Producing a special legacy of their own in the memory of its people as well as to worldwide audiences" and, since sustainability is now part of these legacy-producing policies, there will be more and more examples of "The first real sustainable games" or "The first games with a sustainable planning" (Lesjø & Gulbrandsen, 2018, p. 117).

¹⁴ The author makes a differentiation: *transportation*, which in relation to the Games Bid Books is exclusively targeted at moving Games-related individuals between venues, tourist sites, hotels, and points of entry; *urban mobility* addresses the fundamental rights of residents to the city and includes a broader geographic vision of metropolitan areas.

3.4 THE BENEFITS AND COSTS OF HOSTING MSEs AND OLYMPIC GAMES

As one may expect, no event comes without a cost, and with Mega Sport Events, the costs will be proportionately to their size. Indeed, hosting an event of this kind will contribute to raising the international profile of the host city and of the country itself, but this is not a black and white situation since the effects of this world exposure, as presented by Clark (OECD, 2008, p. 95) “Last longer than the event itself and can attract serious business interest, but [they] vary according to how much energy and capital is invested into securing a long-term legacy of the event”.

Legacy, already presented at the end of Chapter 2, is undoubtedly a matter that should not be overlooked when planning events of this size, especially since long-term infrastructure and investments need long-term sustainable planning and management (*ibid.*). Hosting a MSE thus involves a complex series of funding and investment in different areas, from transport to retail, that constitute a challenge for the host city, which is intended to avoid debts for the years after the event. Clark (*ibid.*) goes further by claiming that:

Successfully organising a sporting event of this scale proves to the world that the city or country has outstanding management and organisational capabilities and, if combined with a vibrant celebration of the culture and characteristics that define the host, the experience will have a lasting impact on city image and the subsequent interest that the country receives from tourists and businesses alike. (p. 95)

However, at the same time, underperforming may have an equally powerful, but negative impact, and produce an image that will hardly be shaken off (*ibid.*).

The organisation of major events counts, among its effects, the overall economic returns for host communities, an aspect that many scholars deemed not clear. Indeed, as many researchers have shown, most MSEs run a financial deficit and have a cost overrun. According to Flyvbjerg et al. (2016, p. 14), “Typically 10-20% of projects come in on or under budget, but the rate for the Olympics reaches 0%. The Olympic Games have also the highest average cost overrun of any type of megaproject, at 156% in real terms”, showing that “When problems arise, there can be no trade-off between schedule and cost, as is common for other megaprojects. All that managers can do at the Olympics is throw more money at problems, which is what happens” (*ibid.*). The literature is yet inconclusive about their effects on aggregate macroeconomic variables such as GDP or employment, although they are supposed to be catalysts to economic growth (Scandizzo & Pierleoni, 2018, as cited in Boto-García & Santana-Gallego, 2026). In contrast, scholars tend to highlight tourism demand, which is frequently praised “As one of the main benefits of hosting a mega-event, as it fosters infrastructure development, enhances regional and national visibility, and improves the entrepreneurial climate” (Boto-García & Santana-Gallego, 2026, p. 1).

As mentioned in the previous section, cities may apply to become the host of the next Games, “Captivated by the expected tangible and intangible economic benefits that may derive, such as international prestige, increased exports, tourism inflows, which can in turn spur economic growth” (ivi, p. 2). Benefits may (and should) take into consideration local communities, while the extensive media coverage will contribute as large-scale marketing, enhancing the country’s visibility. Nevertheless, “Governments’ motivations often go beyond direct economic returns: mega-events can foster national pride, enhance citizens’ well-being, and serve as tools for soft power, nation branding, and public diplomacy” (ivi, p. 3).

A strong view on the matter is the one presented by Lesjø & Gulbrandsen (2018, p. 117), which claims that “Mega-events like the Olympics have long been considered an extravagant use of public money that benefits the wealthy and comes with many negative consequences, including harm to the environment”. Hayes and Horne (2011, as cited in Lesjø & Gulbrandsen, 2018, p. 117) argue that “Planning for such mega-events is characterised by top-down planning dominated by elites, and they see no real influence from the inhabitants in the time-limited planning processes”. To conclude, potential benefits must be weighed against substantial costs which can outweigh the expected gains: hosting MSEs is normally presented as an opportunity under many lights, while costs are usually left out (Boto-García & Santana-Gallego, 2026). While the above-mentioned aspects address the domain of hosting MSEs in general, when it comes to hosting the OGs there may be some specific benefits that should be taken into consideration. The elements will be presented according to the (by now familiar) triple perspective: social, economic and environmental dimension.

3.4.1 SOCIAL BENEFITS

In line with the IOC’s *Agenda 2020+5*, it became an Olympic priority to “Encourage every potential host to make the most of the opportunity to achieve social benefits” (IOC, 2026). From the start, every Committee should devise a way to include social benefits and legacy plans in the Olympic project. These programmes, indeed, can start long before the games in many instances, sometimes continuing long afterwards. While there is a wide range of social benefits that result from hosting the OGs, these are contextual to each host’s vision and can include opportunities to promote a wide range of goals: health, education, culture, D&I, gender equality and human rights (ibid.).

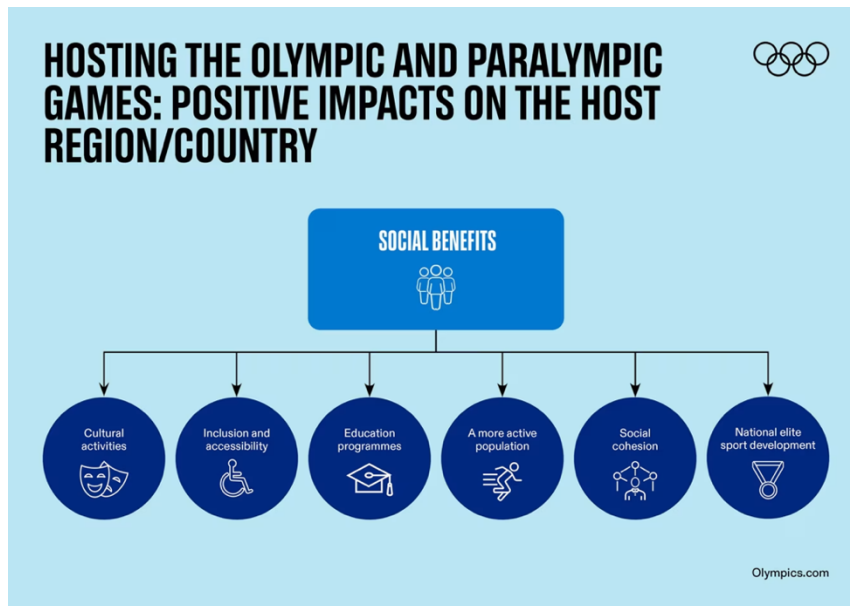


Figure 8: Social Benefits of Hosting the Ogs. Retrieved April 2026, from the IOC official website

The opportunity of hosting OGs gives the public authorities and stakeholders the chance to shine a spotlight on key and demanding issues, enabling them to align different funding sources and ambitions. The final goal is to harmonise the Games with three core elements: 1) existing long-term social, environmental, and economic development plans; 2) the goals of the Olympic Movement, set out by the *2020* and *2020+5 Agendas*; 3) the UN SDGs.

An example of social benefits comes from the Winter Olympics held in Beijing 2022: thanks to the event, almost 3,000 schools across China have had winter sports, or dry land winter sports such as roller skiing, added to their curriculum by the end of 2020, while some 23,000 people were trained as instructors in the region in 2019 alone. Moreover, since its election, the city has engaged nearly 350 million people in winter sports, bringing healthier lifestyles to Chinese citizens and many opportunities for local and regional development (BOCWOG, 2022).

3.4.2 ENVIRONMENTAL BENEFITS

The sustainability of the OGs is something that can no longer be left out from the hosting project, but must be part of its DNA, showcasing sustainable solutions adopted during the event, minimising its impact, and embedding sustainable practices throughout the Games lifecycle (IOC, 2026). Future games will also commit to tackling climate change, with the IOC claiming that:

From 2030, Organising Committees will be obliged to reduce direct and indirect emissions, compensate more than their residual emissions, and use their influence to facilitate the transition to a low-carbon economy. Paris 2024 [had] a target to halve its carbon footprint compared to previous Olympic and Paralympic Summer Games, in line with the Paris Agreement on Climate Change, with innovative solutions for energy, food, temporary venues, transport and digital services.

Olympic hosts are not only required to protect biodiversity and manage resources sustainably, but they enable the acceleration of local, regional, and national sustainability strategies (ibid.). Examples of IOC's practices to improve sustainability include reducing carbon emissions by 50% by 2030, compensating more than 100% of its residual emissions, and using its influence to encourage stakeholders and fans to act against climate change.

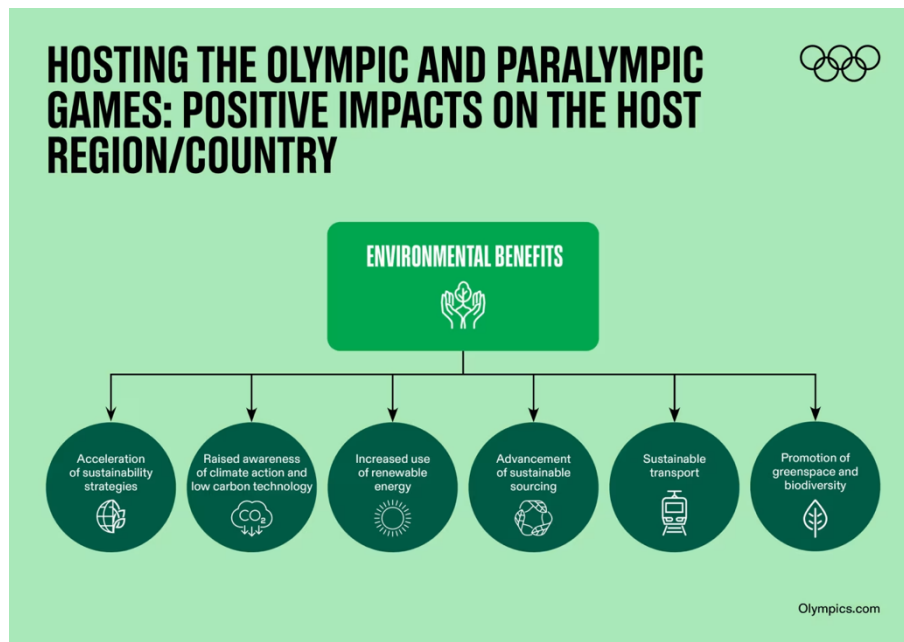


Figure 9: Environmental Benefits of Hosting the OGs. Retrieved April 2026, from the IOC official website

As for the social benefits, previous OGs can present examples of environmental benefits: Tokyo 2020 was a springboard for the introduction of hydrogen stations and fuel cell buses, as part of the Japanese government's long-term vision to achieve carbon neutrality in Japan (TOCOG, 2022). As part of its ambition to create a "hydrogen society", Japan used the Tokyo 2020 Games to showcase several new technologies. The Tokyo Olympic fleet included some 500 hydrogen cars and 100 hydrogen buses, an early step in a national vision to have 800,000 fuel cell vehicles by 2030. When hydrogen is used that is produced with renewable energy, such vehicles emit only water vapour and warm air. Tokyo 2020 also showcased new solutions to adapt to the effects of climate change, such as solar-blocking paint and design technologies for cooler buildings. The solar-blocking paint was originally developed to keep NASA astronauts cool in their spacecraft. More than 100km of road surfaces were coated, helping to reduce temperatures by 8°C. The technology had never been used before on the scale of Tokyo 2020 (ibid.).

Moreover, following the *Olympic Agenda 2020*, the IOC's philosophy is that "Hosts are not required to adapt to the Games; the Games must adapt to the hosts" (IOC, 2026). As a result, hosting countries are encouraged to prioritize existing venues, and then consider temporary ones, leaving building new infrastructure as the least considerable option. In fact, new venues should be built "Only

if there is a solid legacy and business case, in line with the long-term needs of the population, integrating sustainability principles into all aspects of design, planning and construction” (ibid.).

3.4.3 ECONOMIC BENEFITS

Undoubtedly, when hosting MSEs, the first benefit one could think of comes in terms of revenues, as a result of the investments and the expenses incurred while organising the event itself. The IOC claims that, indeed, hosting the OGs “Generates powerful economic benefits [as] it enables a region and a country to develop” (IOC, 2026). These events influence several sectors by creating career opportunities, boosting the tourism and event industry, as well as the business sector, highlighting the global profile of the country, fostering diplomatic relations, and lastly developing the knowledge and skills of the workforce and volunteers that make the event possible.

Independent reports commissioned by future host regions are called to forecast the value of economic benefits of upcoming Games editions, as the size of the impact depends on local market conditions and the individual context of each event (ibid.). In all cases, according to the reports, the economic benefits are/were predicted to far outweigh the Games-related investments. However, as introduced in paragraph 3.4, the Olympic Games have also the highest average cost overrun of any type of megaproject, at 156% in real terms (Flyvbjerg, Stewart, & Budzier, 2016). This shows how the forecasts about the economic benefits do not usually match the outcome, which may be influenced by aspects that, at the time of the bid submission, are not predictable, such as an increased level of inflation, or as for Covid19, a global pandemic.

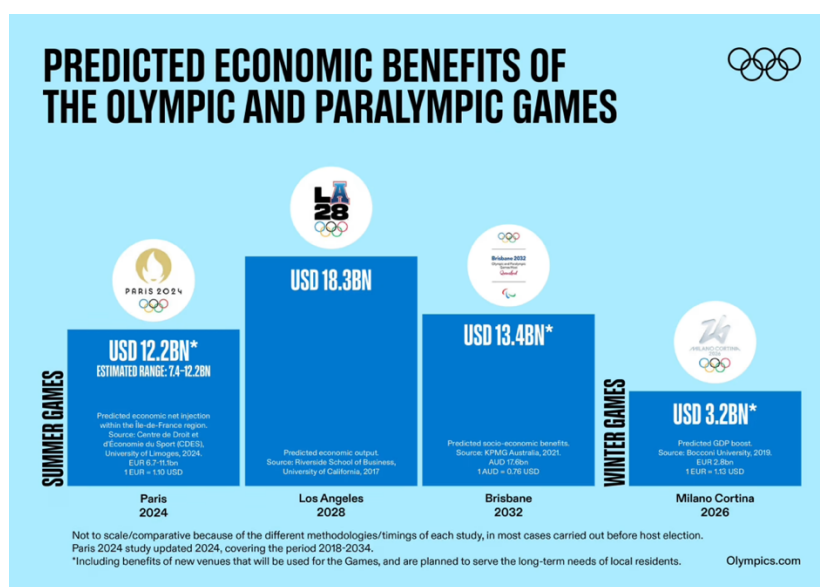


Figure 10: Predicted economic benefits of OGs and PGs. Retrieved April 2026, from the IOC official website

As anticipated before, the IOC contributes in terms of cash, services, and value to the success of each edition of the OGs and the Youth Olympic Games, stimulating regional and national economy, as well as generating government revenues which help to compensate any public investment. But the

activity of the IOC does not end there, as it assists Organising Committees for the Olympic Games (OCOGs) in other ways, including daily support and expertise, while ensuring the delivery of host broadcasting operations (IOC, 2026).

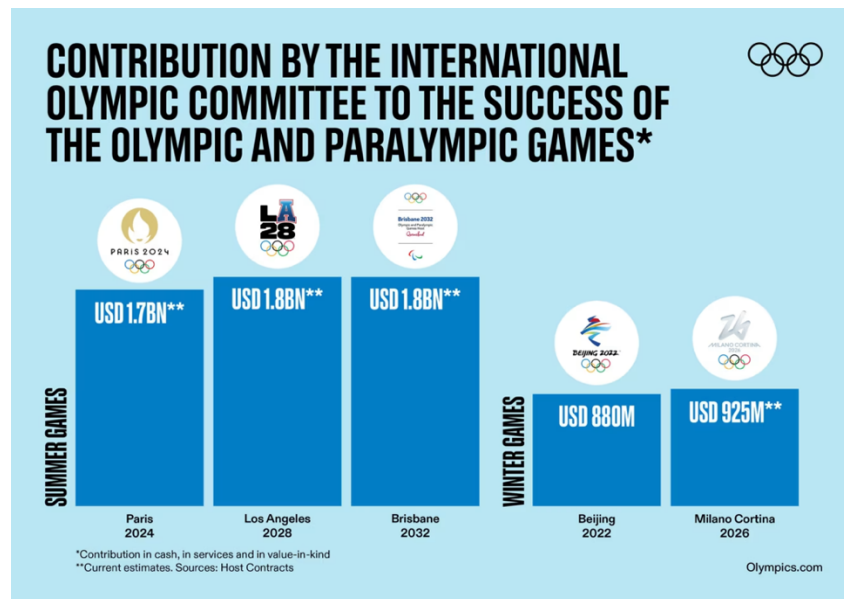


Figure 11: Contribution by the IOC to the success of OGs and PGs. Retrieved April 2026, from the IOC official website

It is deemed important to differentiate between the cost of organising the Games (which is almost entirely privately funded) and the long-term capital investments (represented by the city, region, or country plans for its future). The IOC specifies that, in order to host, “There is no Games-required capital investment by the city, region or country, and hosts are encouraged as far as possible to use existing venues, even if these are located outside the main hosting region” (ibid.).

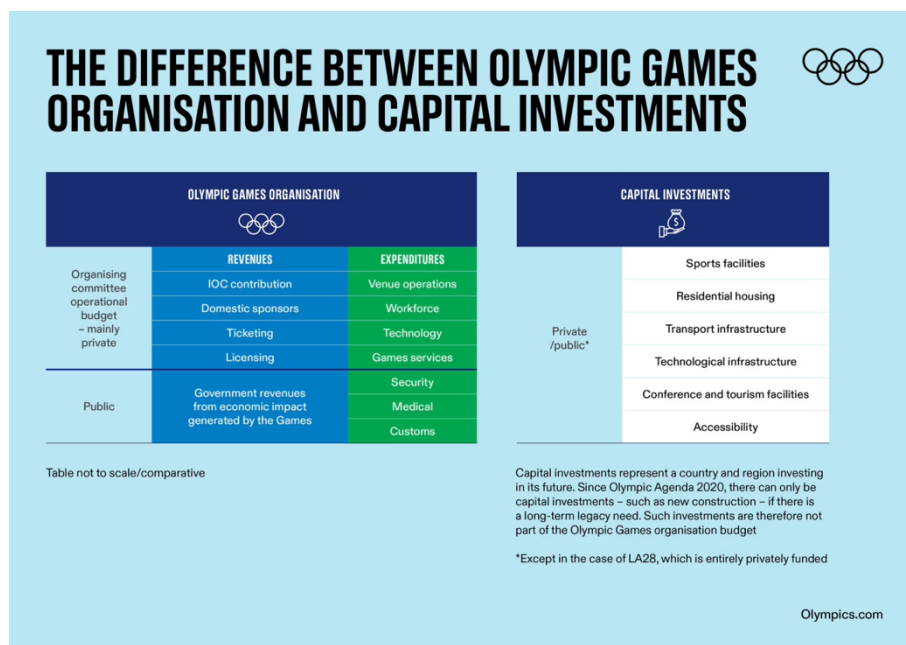


Figure 12: The difference between OGs organisation and capital investments. Retrieved April 2026, from the IOC official website

The next picture, retrieved from the IOC official website, shows how OGs and PGs' related investments stimulate the economy and generate government revenues:

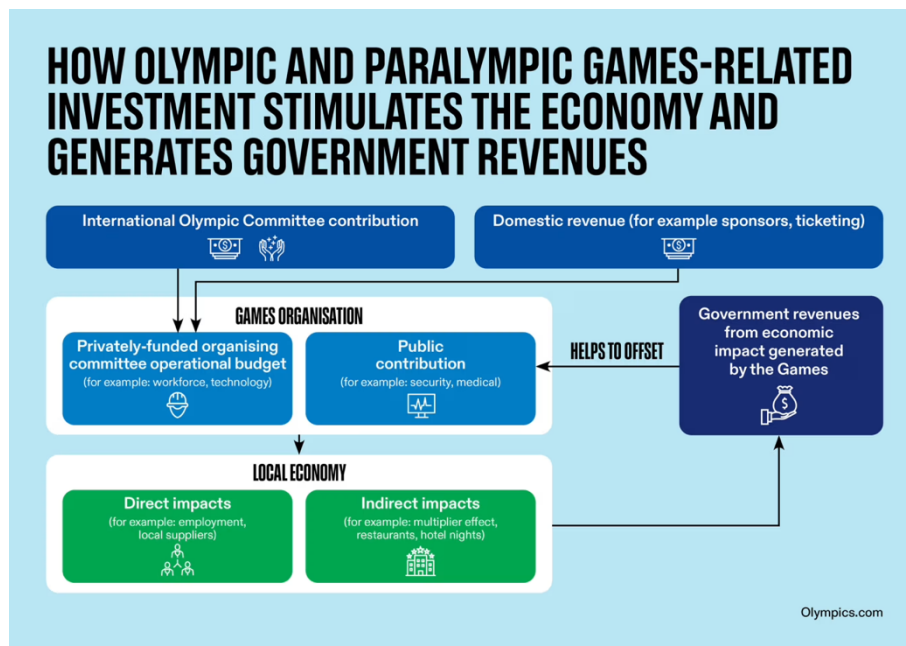


Figure 13: How OGs and PGs investments stimulate the economy and generates government revenues. Retrieved April 2026, from the IOC official website

To conclude, two examples of economic benefits will now be presented. In terms of jobs, London 2012 created, between 2010 and 2017, 110k jobs in the six boroughs surrounding Queen Elizabeth Olympic Park in East London. In terms of tourism benefits, Vancouver 2010 fostered the Canadian Tourism Commission, who generated 1BN CAN “Advertising Value Equivalency” around the Games (London Legacy Development Corporation and Canadian Tourism Commission, as cited in IOC, 2026).

3.4.4 LEGACY OF THE OLYMPIC GAMES

Since legacy plays a key role in event management, unsurprisingly this concept also has a major relevance when it comes to the Olympic Games. Indeed, Leopkey (2009) found that:

The concept of legacy was first mentioned in the 1956 Melbourne candidature when Lord Mayor James S. Disney stated that Melbourne was ready to “establish, as a legacy of the XVI Olympiad, an Athletic Centre” that would showcase Amateur Sport ideals. (p. 14)

“Between the 1930s and 1960s, the Olympic Games were used as a tool to promote a country’s image and local regime. The concept of legacy was used to justify hosting an event and became more prominent in the 1980s” (Kaplanidou & Karadakis, 2010, p. 110). This idea of legacy is now a concept that must be included in the bid dossier of candidate host cities, where details about the suitability of the city to host the Olympic Games with regard to venues, marketing, sports, finances, human and

community resources, as well as the legacy that the event will leave with the city or region can be found. Often, the concept of legacy has been associated with that of the impacts of Olympic Games, which include:

Economic, socio-cultural, environmental, physical, political, and psychological as well as tourism”. Contrary to the positive connotation of the term “legacy,” the term “impacts” can be associated with both positive and negative aspects related to the Olympic Games’ organisation and management. (ivi, p. 111)

In 2000, the IOC started the Olympic Games Global Impact project (OGGI) which oversees evaluating the overall impacts of the Olympic Games on its host cities, the environment, and the citizens (Gratton & Preuss, 2008). There is now a new OGGI created for every Olympic Games Organising Committee. The OGGI project provides an opportunity to evaluate Olympic impacts and legacies over an 11-year period; however, it dissolves two years after the event occurs (ibid.). To identify whether legacy has a lasting effect on host cities, a study needs to be conducted 15-20 years after the event has occurred.

As stated above, there is no unique definition of legacy, but the concept gained significance when, in 2002, the IOC hosted a symposium about the legacy of the OGs between 1984 and 2000. Results suggested that “More research is needed regarding the planning of legacies, as well as the management of legacy programmes”. After that symposium, the IOC included a 14th mission statement in its Charter that dictated the need for positive legacies that benefit the quality of life of the host city and country (Chappelet, 2008). Recently, the IOC through its Olympic Studies Centre issued a call for research proposals on the role of legacies and legacy management for Olympic host cities. “The call for research invited scholars and practitioners to examine the concept of legacy among stakeholders and factors that can contribute to an Olympic city remaining Olympic over time, in other words, sustaining the connection with the Olympic Games’ image and legacy” (Kaplanidou & Karadakis, 2010, p. 110). Yet, legacy is an integral part of MSE’s long-term impact, often due to social imperatives: “As the responsibility of the Olympic Movement to drive positive change has direct synergy with the UN’s SDG’s, this presents an opportunity (for the UN & IOC) for enhanced collaboration, new partnership models, and stakeholder interaction to create mutually beneficial and long-term change” (Byers, Hayday, Mason, Lunga, & Headley, 2021, p. 5).

Nowadays, the IOC defines Olympic legacy as one that “Includes the long-term benefits that the Olympic Games create for the host city, its people, and the Olympic Movement before, during and long after the Olympic Games” (IOC, 2026). Though there are endless available examples worthy

of mention, in terms of the OGs some editions stand out due to their commitment to the environment and legacy.

The Lillehammer 1994 Olympic Winter Games in Norway were the first Games to explicitly include environmental impacts in their planning and to embrace the newly crafted principles of sustainable development and the contribution the Games could make, thus touching on lasting potential positive legacies. Later, environmental considerations across all planning aspects were embraced by the Sydney 2000 Olympics, which also had an eye on future lasting legacies – both in “Knowledge transfer on how to achieve such environmental performance and in physical enduring assets” (Jones, 2018, p. 26). Paris 2024 designed its legacy and sustainability plan to ensure it is fully aligned with the UN’s SDGs, creating the “Generation 2024” programme, aiming at the production of a sustainable Olympic and Paralympic legacy for all French citizens, including disabled persons (IOC, 2024). One of the core legacy pillars of Paris 2024 was to create a more inclusive society, and here lies the opportunity to consider how innovation could be key to achieving such an ambitious goal. The pattern that emerged during the last editions of the OGs shows how “The Olympic and Paralympic Movement (and sport more broadly) are being used as mechanisms to support UN priorities and work toward a sustainable inclusive future for all” (Byers, Hayday, Mason, Lunga, & Headley, 2021, p. 3).

3.5 CIRCULAR ECONOMY

This section of Chapter 3 will now focus on the concept of circular economy, starting from its definition and origins, leading to the benefits of adopting this model, and concluding with the link between CE and sustainability.

3.5.1 A DEFINITION

The concept of Circular Economy (CE) is a relatively new term, as it was formally introduced in 2015 by the European Union, but it marks the arrival of a long journey that began back in the 1940s, when the first concepts connected with the domain of material circularity were introduced through the terms of *Industrial Symbiosis* and *Industrial Ecology* (Rada, 2023). Although there is no clear evidence of a single origin or originator of the CE concept, there are several contributors that developed the concept.

Over time, the meaning was carried out by other terms: in 1947 there was *reuse-exchange*, in 1966 the idea was that of a circular loop for the materials, considering open and closed systems. In the 1980s, Frosh proposed an analogy of natural ecosystems to be adopted for eco-industrial ecosystems: “In addition to reducing the production of waste, they should maximize the efficient use of residue materials and end-of-life products, as an input for other production processes” (ivi, p. 141).

In between the 90s and the beginning of the 21st Century, the concept of a *Linear Economy*, based on the terms take-make-consume-throw away, was introduced (ibid.). As Winans, Kendall & Deng (2017, p. 825), among other scholars pointed out, “The CE concept evolved differently in light of diverse cultural and social and political systems”. Indeed, this concept influenced policy and innovation in some of the world's largest economies such as Germany, Japan, and the UK (ivi, p. 830) while it became popular, at the same time, in China in response to economic growth and natural resource limitations (ivi, p. 826).

In addition, the authors (ivi, p. 825) claim that “A central theme of the CE concept is the valuation of materials within a closed-looped system with the aim to allow for natural resource use while reducing pollution or avoiding resource constraints and sustaining economic growth”. Already from these few lines, it is possible to understand how CE is intertwined within domains of sustainability. While the principles of the CE concept may include the 3Rs (reduce, reuse, recycle) and the 6Rs (reuse, recycle, redesign, remanufacture, reduce, recover), the authors argue that the main point of the CE concept is “To capitalize on material flow recycling and to balance economic growth and development with environmental and resource use” (ivi, p. 826).

As a result, CE-related initiatives need to be well designed and regularly evaluated to be effective. Moreover, in order for an initiative that applies the CE concept to be effective, aspects such as “Social innovations that allow for community involvement, wider public education, and broader media coverage are essential” (Winans, Kendall, & Deng, 2017, p. 830), while policies supporting standardised use and recycling of products (or materials) will encourage industries to adopt the CE concept. Finally (ibid.), “Successful implementation of the CE concept requires that the stakeholders have a clear idea of the potential economic benefits, social disparities, waste reduction, reduced environmental burden, and reuse of material”.

Today, as the concept of CE has been adopted more widely, organisations across the world, including the European Commission and the Ellen MacArthur Foundation, are promoting certain aspects of it, such as material design and flow assessment (ibid.). According to the Ellen Mac Arthur Foundation (Ellen MacArthur Foundation, 2026), circular economy is based on three principles driven by design:

1. Eliminate waste and pollution;
2. Circulate products and materials (at their highest values);
3. Regenerate nature.

Underpinned by a transition to renewable energy and materials, the circular economy is a resilient system that is good for business, people, and the environment (ibid.).

3.5.2 THE BENEFITS OF CIRCULAR ECONOMY

The European Parliament (Directorate General for Communication, 2023) describes circular economy as:

A model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended. In practice, it implies reducing waste to a minimum. When a product reaches the end of its life, its materials are kept within the economy wherever possible thanks to recycling. These can be productively used again and again, thereby creating further value.

As anticipated before, this marks a departure from the traditional linear economic model (take-make-consume-throw away), which relied on large quantities of cheap, easily accessible materials and energy, and the results are products designed to have a limited lifespan, which will encourage consumers to buy it again and again.

Nowadays, the modern world has seen an exponential increase in the consumption of non-energy natural resources and current trends confirm this: according to UNEP data, global material use has more than tripled over the last forty years, rising from 27 billion tons in 1970 to 98 billion tons in 2018. Consequently, the European industrial economy is in a highly vulnerable position, given that raw materials play a strategic role for the imports of the Union (Circular Economy Network, 2026). Indeed, Italy is “The second manufacturing country in the Union, and consequently one of the most at risk due to its strong dependence on foreign countries for the supply of raw materials, a risk that will probably grow due to the increase in resource prices” (ibid.). This is why, according to the European Parliament, switching to circular economy will result in several benefits, hereafter presented (Directorate General for Communication, 2023):

- In terms of protection of the environment, reducing and recycling products will slow down the use of natural resources, reduce habitat disruption and help to limit biodiversity loss. At the same time, circular economy will reduce the total annual greenhouse gas emissions, create sustainable products which are more efficient in energy and resource consumption, while also tackling excessive packaging;
- As concerns the reduction of raw material dependence, since the EU countries are dependent on other countries for their raw materials, recycling them will mitigate the risks associated with supply, such as price volatility, availability, and import dependency. This especially applies to critical raw materials, among the other those needed to produce technologies crucial for achieving climate goals, such as batteries and electric engines;

- Finally, moving towards a circular economy could increase competitiveness, stimulate innovation, boost economic growth, and create jobs. New designed products and materials will provide consumers with durable and innovative products that will save them money in the long term.

The European Union aims at building a circular and climate-neutral economy by 2050. To achieve that, in recent years many new measures have been introduced to reduce waste and make products more sustainable. New or updated legislation covers eco-design, packaging, greenwashing, the right to repair, waste management, and other key areas (ibid.).

3.5.3 CIRCULAR ECONOMY AND SUSTAINABILITY

Sustainability and circular economy are different concepts which are closely related to each other, since CE is implemented as a pathway to achieve sustainability. As indicated by companies of all sizes and sectors, CE can contribute positively to sustainability impacts, becoming also an important way to achieve the SDGs (Walker, et al., 2021). In this context, companies are called to demonstrate their alignment with existing and developing governance frameworks, e.g. the SDGs and the new Action Plan on CE under the European Green Deal, responding to the increased demand for transparency from stakeholders. This is only possible since the advancement of sustainability assessment approaches for CE practices enable them to externally report their impacts (ibid.).

CE is also intertwined with the concept of sustainable development, since “Companies are increasingly engaging with circular economy, further integrating its practices within organisational sustainability strategies” (Walker, et al., 2021, p. 2). Similarly to SD, “CE can also be considered an umbrella concept, drawing inspiration from a diverse set of resource management concepts and ideas from environmental sciences that were popularised in the 1960s” (ibid.).

The authors also claim that, while there are numerous strategies and their impact is increasing, the core of CE can be described by “Its aim to retain value through the process of closing resources loops” (ibid.). In addition, this description has evolved in some academic literature, with numerous scholars suggesting that “CE can reduce harmful environmental impacts, stimulate economic growth and more recently, generate positive social impacts”, which, however, remain still underrepresented (ivi, p. 3). In this vision, CE becomes a tool to positively influence all three dimensions of sustainability of an organisation, as popularised by the Triple Bottom Line concept anticipated at the beginning of Chapter 2.

Nonetheless, several authors have also shown that “circular” practices do not always result in sustainable impacts, potentially leading to sustainability trade-offs, which are also often ignored by the TBL concept. Regarding this matter, Walker et al. (2021) point out that:

Such “CE trade-offs” would alter the interpretation of the relation between CE and SD and substantiate the necessity of accurately assessing the effects of CE solutions before their implementation. The blurry boundary between CE and sustainability and lack of insight into company-level interpretations of the two concepts, ultimately, constrains the efficacy of organisations implementing CE to contribute towards reaching the SDGs. (p. 4)

To conclude, circular economy is also a pillar of green economy, which replaces the concept of waste with that of resource, with the aim of reducing the consumption of raw materials and increasing the efficiency in the use of materials to maximise reuse and recycling (Circular Economy Network, 2026).

3.5.4 CIRCULAR ECONOMY AND THE INTERNATIONAL OLYMPIC COMMITTEE

Analysing the connection between the IOC and CE, it can be claimed that circular economy has been and continues to be one of the fundamental pillars in the construction of increasingly sustainable international sport events. The last two OGs are an example of this practice: Paris 2024 was a pioneering experience and achieved more than 98% circularity in the material goods used for the games (Milano Cortina 2026, 2025). Following that example, Milano Cortina aimed at strengthening its commitment to organizing the 2026 Winter Games with a focus on reuse, waste reduction and resource optimization. The OC launched a concrete project to reuse materials from Paris Games and, thanks to this initiative, “Logistics assets worth approximately €382,000 and medical equipment worth approximately €35,000 have been acquired, all purchased at half their market value” (ibid.). All the materials acquired were in excellent condition and were prior tested during the Test Events, becoming ready to be used in various venues for the Italian Games. As stated by the IOC (ibid.):

This approach offers two opportunities: on the one hand, significant economic savings; on the other, a concrete reduction in environmental impact by extending the life cycle of materials. This action perfectly embodies the principle of “doing more with less,” which is at the heart of the most advanced international strategies on sustainability.

Following the circular legacy of the Paris Games, which was based on eco-design criteria, supply chain responsibility and asset management with “second life” clauses, organisers became aware that it is possible to rethink the model of production and consumption of goods, even in the context of MSEs. Milano Cortina 2026 tried to follow this approach, “demonstrating how reuse can be a strategic lever, not only environmentally but also organisationally and economically” (ibid.). But this vision will not be over once the Games come to an end, since the broader vision of legacy will imply reused

equipment and materials to become an integral part of the logistics and infrastructure of the region, becoming a tangible legacy that will benefit both local communities and future generations.

4. MILANO CORTINA 2026

This Chapter will focus on the XXV edition of the Olympic Winter Games (OWG), held in Northern Italy from February 6 to February 22, 2026. Although several elements presented of the OWGs, from the locations to athletes' participation, and legacy, were the same for the Paralympic Winter Games, the next paragraphs will not take the PWG into account, as such work will require a specific knowledge and understanding that are not part of this project. However, being that the aim is not to exclude the PWG, towards the end of Chapter 4 a paragraph will briefly present the history behind the Paralympic Games, from the foundation until the last XIV edition.

4.1 THE XXV EDITION OF THE OLYMPIC WINTER GAMES

A brief introduction on the Olympic Winter Games is deemed important, before presenting the joint bid of Milano and Cortina. The first edition of the Winter Olympics took place in 1924 in Chamonix (France) and, until 1992, the Games were hosted in the same year as the (Summer) Olympic Games. Since 1994, however, the two editions were separated, and the OWG are staged in the second year of each Olympiad. This decision was the result of complaints from television networks, who were no longer willing to pay high sums of television rights, while sponsor's budgets were reduced year after year (Preuss, 2004). Italy now holds the third place, together with Japan, on the podium of the countries that hosted more editions of the Games, with three winter editions (Cortina 1956, Torino 2006, and Milano Cortina 2026) and a summer edition in Rome 1960.

4.1.1 THE APPLICATION

The bid to become the host of the next Olympic Games was presented in January 2019, when a 127-page dossier was submitted with the Italian application for the 2026 edition. At the 134th IOC Session and Host City Election in Lausanne, Switzerland, Milano-Cortina was awarded the 2026 Winter Olympics: Italy was selected with 47 votes ahead of the Swedish cities of Stockholm and Åre who received 34 votes (IOC, 2019). As presented by the IOC, "The 2026 candidature process was the first to be based on the *New Norm*, a framework developed by the IOC to deliver cost savings and long-term legacy benefits to host cities" (ibid.). Moreover, as presented in the bid dossier (CONI, 2019) itself:

The Milano Cortina 2026 Candidature was inspired by the IOC's Agenda 2020 and presentation of [the] *New Norm* which clearly repositions hosting the Olympic and Paralympic Games as an event that is more sustainable, more flexible and more efficient, both operationally and financially, whilst also unlocking more long-term value for host cities. (...) These principles and a clear focus on sustainability

have provided the foundations for the Milano Cortina 2026 Candidature – a compelling Italian offer that unites tradition and innovation. (p. 4)

The Italian edition marked a turning point in hosting the Games, because for the first time the competitions were held at the same time in different cities, thus becoming the first widespread edition. The two host cities, Milano and Cortina, were selected for different (and complementary) aspects. On the one hand, Cortina is a timeless world-renowned sports destination, nicknamed the “Pearl of the Dolomites”, former host of the 1956 OWG and other major competitions, last but not least the FIS Alpine World Ski Championships in 2021; on the other hand, Milano is one of the most dynamic cities in Europe, often regarded as Italy’s financial capital, with its cosmopolitan character, whose successful edition of the World Expo in 2015 spawned the desire to host further international events (ibid.).

However, as the bid project was presented, Milano and Cortina received the support of four regions - Lombardia, Veneto, Trentino and Südtirol - who joined forces to “Deliver memorable Games that will be conducive to greater cooperation in the entire Alpine macro-region” (ibid.). Indeed, apart from Milano and Cortina, the events took place in six other cities (ivi, pp. 13-14), namely:

- Bormio, with the Stelvio ski slope, former host of two Alpine skiing World Championships (1985 and 2005) as well as many FIS World Cup;
- Livigno, located at the top of Valtellina, with three adjacent venues for snowboard competitions;
- Predazzo, the Italian ski jump venue that every year hosts the discipline’s world cup;
- Tesero, one of the most versatile tracks for cross-country skiing, former host of a Winter Universiade, as well as world championships;
- Anterselva / Antholz, the biggest biathlon stadium in Italy and one of the largest in the world;
- Verona, which did not host any competition, but staged the closing ceremony at the Arena, the stunning UNESCO World heritage Roman amphitheatre dating back to the first century A.D.



Figure 14 The Olympic Games Concept - Map A. Retrieved May 2026, from the Milano Cortina 2026 Olympic Bid

The decision to bring the Games back to Italy derived from an ambitious dream, that of having an impact on the lives of all citizens, inspiring a healthier, more active and inclusive future through sport. The Games adopted the IOC's *Agenda 2020* and *2020+5*, presented in Chapter 3, but took a step further: starting from the needs of local communities and the nation's development plans, they leveraged existing infrastructure to create an event that would be sustainable in every respect—environmental, social, and economic (Corvo, 2026).

As presented above, all the venues selected in the Alpine region have a long history as event hosts, an aspect that also benefits the legacy of the OWGs, since only two entirely new permanent venues were built for the event: the Milano Santa Giulia Ice Hockey Arena and the Cortina Sliding Centre. However, legacy and venues will be analysed later in this Chapter. For the moment, since the bid has been presented, the next paragraph will introduce aspects that are more related to the organisational side of the Olympics, namely the OCOG and SiMiCo, the central contracting authority responsible for the infrastructure needed for the Games.

4.1.2 MICO AND SIMICO

When a city is elected as the next Olympic host, the OCOG shifts from being concerned about its existence to being more concerned about the expected prestige to be gained from a successful event. The Organising Committee is a non-profit organisation, that exists for a limited period of time, and its goal is to focus on organising the Olympics as well as possible which, eventually, depends on different aspects, e.g. the financial means, human resources and technology that it has at its disposal (Preuss, 2004, p. 115). As presented by Preuss (ivi, p. 116) “The OCOG activities are based on the dualistic pattern of *have/have not*”. This means that, for example, “The OC has reached its goal if the

Olympics are successful and the IOC has been satisfied; however, an OCOG has failed if it does *not have* the means, a fact that becomes obvious in financial deficits left to the host city and state and/or criticism of the OCOG” (ibid.).

In the case of the 2026 Winter Games, the OCOG was established as Fondazione Milano Cortina 2026, also known as MiCo 2026, a private foundation, created by CONI alongside different public institutions, with additional support also from the government. The foundation was established in December 2019, six months after the Games were awarded to Italy in June the same year, but only in September 2022, with a Decree of the President of the Council of Ministers (Presidente del Consiglio dei Ministri, 2022), the Action Plan was presented, including all the actions to be carried out for the Games (Comitato Editoriale BSGI, 2023).

As anticipated in section 3.3, once a city becomes an Olympic host, the OCOG needs to agree and sign the *Host City Contract*, to ensure the IOC that it will commit to the event organisation. As a further guarantee that the Games will take place, it is necessary to appoint, as head of the Committee, someone who is politically neutral but is fully integrated into the local and national power structure (Goldstein, 2024). In the case of Fondazione Milano Cortina 2026, the figure elected as head of the Committee was Mr. Giovanni Malagò, at the time President of the Italian National Olympic Committee (CONI) since 2013.

It is worth mentioning that, in addition to the OCOG, the Games are made up of all the entities specifically established as central purchasing bodies and contracting authorities for the design and construction of works, including infrastructure projects, related to the Olympic Games and their subsequent repurposing (Goldstein, 2024). Within this scenario, SiMiCo¹⁵ S.p.a was established as a dedicated public infrastructure company. Its mandate focused mainly on the repurposing of the Cortina Sliding Centre and on the transport infrastructure between Longarone and Cortina. This enterprise, funded by the Ministry of Economics and Infrastructures, as well as the Regions and Provinces involved in the Games, started its activity in March 2020, and was initially supposed to terminate in December 2026, nine months after the Games. It is important to mention that, by that time, some projects will undoubtedly not be finished, and this awareness led, in July 2025, to the extension of SIMICO’s activities until 2033 (Pietrobelli, 2025).

4.1.3 THE OPEN OLYMPICS NETWORK

In spring 2024 Libera, *Associazioni, nomi e numeri contro le mafie*, together with WWF Italia, CIPRA Italia and other associations, launched the campaign *Open Olympics 2026*, with the clear objective of promoting the *Right to Know*, regarding “The number, status, and costs of public infrastructure

¹⁵ Società Infrastrutture MiCo 2020-2026, also found as SIMICO

projects linked to the XXV Winter Olympic and Paralympic Games in Milano Cortina 2026” (Open Olympics 2026 network, 2025). The Network (Open Olympics 2026 network, 2024) stated that the *Right to Know* is:

The primary tool that we have as a civil society to do our part, as well as it is a fundamental human right enshrined in the Charter of Rights of the European Union and in national laws. Knowing, in order to exercise civic monitoring, is a due act that we intend to fulfil. To enable us to know, by means of complete, up-to-date and open data and tools to help understand the scope of that data, is equally so (p. 21)

The aim of this campaign was to call for the creation of a transparency portal that would provide real-time updates on entities responsible for the projects, as well as a detailed timeline for each one, together with the level of expenses related to the organisation and promotion of the games (ibid.). In the first report (Open Olympics 2026 network, 2024, p. 4), released in April 2024, the network called for “All those involved in the organisation of the Games, from the IOC to CONI, from SIMICO S.p.a to Anas S.p.a”¹⁶ to ensure three core aspects: (1) transparency, (2) legality and (3) accountability of the MiCo Winter Games. Indeed, these are also “The highest values of sport as enshrined in the Olympic Agenda 2020+5, preconditions set by the IOC for the realisation of works related to the Games and to ensure the credibility of institutions and competitions” (ivi, p. 5). The associations who supported the campaign already feared, in 2024, the risk of remaining silent; therefore, they proceeded by claiming (ibid):

We hope that our request will be granted, but regardless of it, we also initiate a new collective civic monitoring action of the works. Our ultimate goal is not to feed a generic accusation, but to ensure the protection of the common good.

The aim of the network was to perpetuate a monitor action, that is the mobilisation for a systematic data collection work, whose final goal is not accusation, but is safeguarding the common good, whether it includes economical or environmental resources (ibid.). The monitor strategy followed three steps (ivi, p.26-27):

1. *Illuminating*: whether or not the single data portal would have been created, the network would have looked for information and data on the works for the Winter Games, through freedom of information requests;

¹⁶ The Italian public company responsible for the management, maintenance and construction of the entire network of national roads and motorways.

2. *Monitoring*: not only collecting the data, but “letting them speak”, that is offering an interpretation considering the protection of the common good and the environment. This will also verify the compliance with European directives for the safeguard of protected areas, water and forests, together with the Protocols of the Alpine Convention and subsequent directives;
3. *Participating*: the network will be the enabler of monitoring communities and civic participation, requesting access to public decision-making of the Games, inspired by the Aarhus Convention.

The Aarhus Convention is the leading international agreement on environmental democracy, which guarantees “Access to information, public participation in decision-making, and access to justice in environmental matters” (UN Economic Commission for Europe, 1998). It also protects the right of all people to live in a healthy environment. Furthermore, it guarantees the three key public rights on environmental issues: (1) access to information, as the right to receive environmental information held by a public authority; (2) public participation, as the public’s right to participate in environmental decision-making which must be granted by public authorities; (3) access to justice, as the public’s right to review by a court to ensure that public authorities respect the rights to access to information and public participation, and environmental law in general (ibid.).

At the time of the launch of the *Open Olympics 2026* campaign, the relevant data was “Either buried in static documents or scattered across multiple digital sources” (Open Olympics 2026 network, 2025, p. 2). Following the requests listed above, in October 2024, the *Open Milano Cortina 2026* portal was finally launched, and the data available on the website¹⁷ included:

- Geolocated project mapping,
- Open data downloads,
- Dedicated project pages with specific information,
- Updates every 45 days.

While in 2024 the launch of this portal was perceived as a major achievement for civil society, there was still room for improvement, and the network claimed it would continue to advocate for greater transparency and enhanced functionality. Essential data emerging from the second report (ivi, pp. 5-7) also showed that:

- “A total economic value of €3.4 billion, with 50% of projects still was in pre-construction phases (either in design or tender phase);
- Spending on road/rail infrastructure was 5.6 times higher than that allocated for essential Olympic-related projects;

¹⁷ Link to the website: <https://www.simico.it/piano-delle-opere/>

- The largest investments (in terms of expenditure) were in Lombardy and Veneto, each exceeding €1.3 billion, while Trentino hosted the highest number of projects (30 out of 94, nearly a third of the total).”

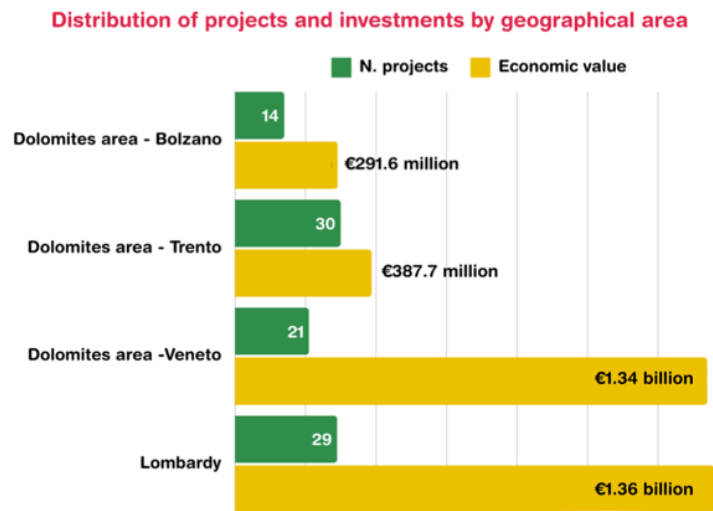


Figure 15: Distribution of projects and investments by geographical area. Retrieved May 2026, from the 2nd Open Olympics 2026 report

Moreover, the data updated as of December 2024 revealed that among the 94 monitored infrastructure projects, 59 were scheduled to be completed by February 4, 2026. However, only 6 of these targeted interventions had been finalised in time, amounting to a mere 10% (ibid.). While each project followed its own timeline, the main concern was that “Speed would become the primary driver for the 59 projects scheduled to be completed before the Games begin. In such scenarios, the risk is that costs would impact worker protections, environmental safeguards, and oversight measures” (ivi, p. 8).

Although the second report, published in February 2025, acknowledged the progress made with the launch of the platform by SiMiCo S.p.a, the network still raised important questions and pointed out unresolved doubts (ibid.), concerning two main aspects:

1. The level of expenditures (expected and actual), which in 2024 reported only the base tender value without indication of actual expenditures, and was not possible to be determined by the state of the works at the time;
2. The environmental impact of the projects, where the data showed how the majority (60%) had not undergone environmental assessment at the time, as it was deemed unnecessary or not required under current regulations, largely bypassing them through extraordinary commissioner authorizations.

In 2025, the network urged the Milano Cortina 2026 Foundation to ensure greater transparency by: “Releasing open-access financial data and, if possible a public portal for civic oversight similar to Simico’s platform” (ivi, p. 9); providing “Carbon footprint estimates for individual projects and for

the total aggregated impact” (ivi, p.8); presenting actual expenditure data as well as a distinction between funding sources, as described in the 2023 DPCM (Presidente del Consiglio dei Ministri, 2023).

The third and last report, presented in December 2025, almost two months before the start of the OWG, highlighted how, despite the progress enabled by the portal, three key principles of the Open Olympics campaign remained incomplete or only partially visible: environmental protection, economic accountability, and integrity of public procurement (Open Olympics 2026, 2025).

The network is therefore intended to continue its monitoring action until the last construction site will be closed in 2033. At the same time, the associations are already working with the French civil society in view of the 2030 Winter Games to affirm together the key principles that drove their project: “no stone should be moved before transparency and accountability are granted” (ivi, pg. 5). The data available on SIMICO’s website, updated as of March 20, 2026, shows that, out of the total of 98 total projects, 49 are completed, 20 are in progress, 23 are in design, while 6 are still in procurement, waiting to start.

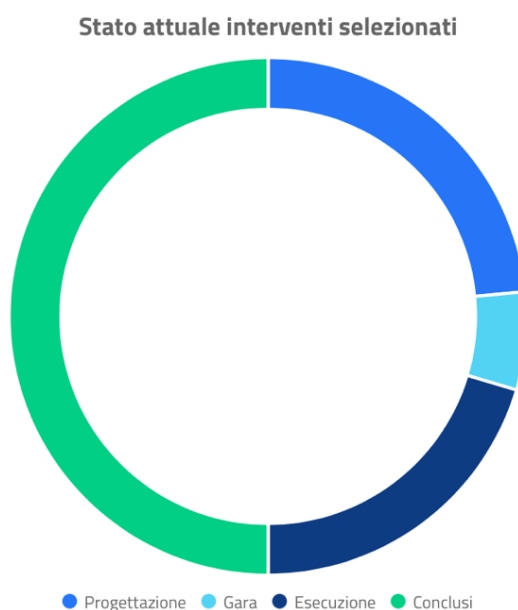


Figure 16: State of work, with data updated as of March 2026. Retrieved May 2026, from Simico official website: <https://www.simico.it/piano-delle-opere/>.

4.1.4 REGULATIONS AND ENVIRONMENTAL PRACTICES

To start with, it is worth mentioning that for a complex organisation such as that of the Olympic Games, it is necessary to have laws establishing the degrees of authority of the various parties involved. For this reason, the Decree-Law n. 16/2020 (Decreto-Legge 11 Marzo 2020, n.16, 2020), converted with amendments into Law n. 31/2020 (Legge 8 Maggio 2020, 2020), contains urgent provisions, including those regarding the ATP Finals in Turin from 2021 to 2025, as well as provisions regarding the prohibition of disruptive activities, e.g. all those activities that are not related

with the Games but nevertheless use the logo of the Games to increment their profits (Goldstein, 2024). The Decree-Law n.16/2020 (Decreto-Legge 11 Marzo 2020, n.16, 2020) also established:

- The Joint Olympic Council (*art.1*), the permanent body responsible for consultation and coordination between government departments, national and international bodies, and other entities involved in the organisation of the Games;
- The OCOG (*art.2*), that is Fondazione Milano Cortina 2026;
- The company responsible for designing and delivering the infrastructure and sports venues (*art.3*) that is SiMiCo S.p.a;
- And the Forum for the Sustainability of the Olympic and Paralympic Legacy (*art.3-bis*), to remain in place until 30 April 2029, which aims to safeguard the Olympic legacy and promote initiatives designed to assess the long-term use of the infrastructure built for the games, as well as the enduring social, economic and environmental benefit for the local areas

Several were also the laws enacted by the hosting Regions to regulate all the aspects related to marketing, legacy, infrastructure. For example, Regione Veneto (Regione del Veneto, 2024) where the Region commits to provide the financial means to support the organisation of the Winter Olympics in the territory of Cortina and its surrounding areas.

Moreover, under normal conditions, all projects that may have an impact on the environment and on cultural heritage are expected to undergo the SEA: Strategic Environmental Assessment¹⁸. As presented by the Italian Ministry of Environment and Energy Security (Ministero dell'Ambiente e della Sicurezza Energetica, s.d.):

The aim of this assessment is that of ensuring that human activity is compatible with the conditions for sustainable development, thus respecting the regenerative capacity of ecosystems and resources, safeguarding biodiversity, and ensuring the equitable distribution of the benefits deriving from the economic activity. (...) The SEA is an instrument that ensures a high level of environmental protection and of contribution to the integration of environmental consideration in the preparation, adoption and approval of plans and programmes, guaranteeing that they are consistent with and contribute to the conditions for sustainable development.¹⁹

¹⁸ In Italian the equivalent is **VAS**: Valutazione Ambientale Strategica

¹⁹ My translation from o.v.: “La Valutazione Ambientale Strategica (VAS) persegue la finalità generale di assicurare che l'attività antropica sia compatibile con le condizioni per uno sviluppo sostenibile, e quindi, nel rispetto della capacità rigenerativa degli ecosistemi e delle risorse, della salvaguardia della biodiversità e di un'equa distribuzione dei vantaggi connessi all'attività economica. (...) Essa persegue la finalità specifica di garantire un elevato livello di protezione dell'ambiente e di contribuire all'integrazione di considerazioni ambientali all'atto dell'elaborazione, dell'adozione e approvazione di detti piani e programmi assicurando che siano coerenti e contribuiscano alle condizioni per uno sviluppo sostenibile.

As a result, it is a common practice that all projects must undergo this assessment to guarantee that human activity is compatible with sustainable development.

However, the Prime Ministerial Decree with the action plan (introduced in section 4.1.2) was presented only at the end of 2022 (Presidente del Consiglio dei Ministri, 2022). In this context, then, “The significant delay forced the Government to specify in the aforementioned Decree that the infrastructure works must be completed as soon as possible and, therefore, [they] will not be subject to the SEA procedure or to the supervision and monitoring of the operations”²⁰ (Comitato Editoriale BSGI, 2023). This decision ignored what the bid dossier stated when it promised to use the SEA to respect environmental aspects while developing its strategic actions (ibid.). The bid (CONI, 2019, p. 62) also included reference to new infrastructure projects, whether permanent or temporary, as well as the maintenance and expansion works of existing facilities. The implementation plan presented in the dossier was conceived to reduce the environmental impact to the minimum, by different means: the SEA, the Action Plan approved by the Law (Legge 8 Maggio 2020, 2020) and the EIA, which is included among the Regional competences regarding the Games (Decreto Legislativo 3 aprile 2006, n. 152, 2006). According to the bid, finally, a comprehensive environmental assessment procedure, that covered the entire area affected by the Games, needed to be carried out with respect to the Laws mentioned above. However, a preliminary report presented by MiCo in April 2023 (Fondazione Milano Cortina 2026, 2023), aiming at:

Identifying any significant environmental impact, including those of a cross-border nature, deriving from the implementation of the Programme of realisation of the Winter Olympic and Paralympic Games Milano Cortina 2026, in order to determine the level of detail of the information to be included in the environmental report that will later be drawn up as part of the SEA of the programme.²¹

States that:

Permanent works – whether essential, related or contextual – as set out in the initial plan and/or listed in the afore-mentioned DPCM released in 2022 are not covered by the Programme (and therefore will

²⁰ My translation from o.v.: “L’ingente ritardo ha costretto il governo a esplicitare nel suddetto DPCM che le opere infrastrutturali andranno portate a termine nel più breve tempo possibile e, quindi, non saranno soggette alla procedura di Valutazione Ambientale Strategica (VAS) e al controllo e monitoraggio delle operazioni” (p. 125).

²¹ My translation from o.v.: “Individuare i possibili impatti ambientali significativi anche transfrontalieri, derivanti dall’attuazione Programma per la realizzazione dei giochi olimpici e paralimpici invernali Milano Cortina 2026, al fine di definire la portata ed il livello di dettaglio delle informazioni da includere nel rapporto ambientale che sarà successivamente elaborato nell’ambito della VAS del medesimo Programma”. (p. 8)

not be subject to the SEA). These works, however, will form part of the territorial and infrastructural framework within the activities provided for in the Programme are situated.²²

This report then agreed with what the Prime Ministerial Decree declared: no single individual permanent competition venue was subject to the SEA as a standalone entity. The assessment was indeed undergone for the entire Games Delivery Programme, whilst for individual sites an Environmental Impact Assessment (EIA) has been carried out when required (Fondazione Milano Cortina 2026, 2024).

The Environmental Impact Assessment²³ (EIA) aims at guaranteeing that human activity is consistent with the conditions needed for sustainable development, thus respecting the regenerative capacity of ecosystems and their resources, biodiversity, and a fair distribution of the benefits associated with economic activity (ISPRA, s.d.). The EIA, together with the SEA, is part of the Italian legislation in terms of environmental policy and is regulated by the same Legislative-Decree n. 152/2006 (Decreto Legislativo 3 aprile 2006, n. 152, 2006).

Furthermore, the preliminary report (Fondazione Milano Cortina 2026, 2023) presents how the SEA procedure involves a whole series of stakeholders and allows the public to submit their comments prior to the plan's approval. "Since communication and information are central to the participatory decision-making process, the assessment gives the opportunity to all interested parties to express their points of view"²⁴ (ivi, p. 24). In order to ensure public consultation, indeed, documents are made available via public notice including deadlines and specifications for public participation: anyone may submit comments in these terms and express their opinion (ibid.).

Consequently, in April 2022, eight different associations, namely: Legambiente, CAI, Federazione Nazionale Pro natura, Italia Nostra, LIPU, MW Italia, Touring Club Italiano, and WWF criticised in a letter how no national SEA had been launched as well as no public consultation process on the Olympic programme (Legambiente Italia, 2026). Moreover, the issue was also highlighted by the European Union Commissioner Sinkevičius (Sinkevičius, 2022) who in February 2022 called for all Olympic projects to be subject to an environmental assessment procedure (Legambiente Italia, 2026). The associations (ivi, p. 131) called for three main aspects:

²² My translation from o.v.: "Non sono oggetto del Programma (né potranno conseguentemente essere oggetto della VAS) le opere permanenti, siano esse essenziali, connesse o di contesto, previste dal Masterplan e/o elencate dal più volte citato DPCM 26 settembre 2022. Tali interventi costituiranno tuttavia parte del quadro di riferimento territoriale e infrastrutturale nel quale si inseriscono le attività previste dal Programma" (p.22)

²³ In Italian the equivalent is **VIA**, Valutazione Impatto Ambientale

²⁴ My translation from o.v.: "Comunicazione e informazione caratterizzano il processo decisionale partecipato e sono volte a informare i soggetti, anche non istituzionali, interessati alla decisione per consentirne l'espressione dei diversi punti di vista.

1. “That the Ministry of Sustainable Infrastructure and Mobility, together with the Undersecretariat for Sport within the Prime Minister’s Office, develop a plan and the corresponding environmental report on the essential, related and contextual works needed for the Milano Cortina 2026 Winter Olympics, including those under the jurisdiction of Regions and Autonomous Provinces, to be subject to the SEA and a related Impact Assessment (VINCA), pursuant to the Directives 2001/42/EC and 92/43/EC, Legislative Decree No. 152/2006 and Presidential Decree No. 357/1997;
2. That the national SEA is not limited to the construction of infrastructures (facilities, sport equipment, transport, ...) but extended to the impact of changes in land use and in the dynamics of settlement pressure, both temporary (for the Games) and permanent, in particular in relation to the availability and consumption of resources, bearing in mind that the majority of events will take place in an area protected by the Alpine Convention referred to in Laws 403/1999, 50/2012 and 196/2012, and that part of it will also take place within the UNESCO Dolomites World Heritage Site;
3. That a response to these requests and comments would be provided by the end of April 2022”²⁵.

Almost a year and a half later, in September 2023, the environmental associations gave up on having a dialogue with Fondazione Milano Cortina, which was not giving any of the expected results. Indeed, the associations claimed, at the time, that “They did not have the evidence required to confirm the environmental sustainability of infrastructure projects and the Winter Olympic Games, as stated in the bid dossier”²⁶ (Legambiente Italia, 2026, p. 135).

In the end, the Games underwent a regional Strategic Environmental Assessment in 2022, but only in general terms (Regione del Veneto, 2022). As anticipated, indeed, single venues were

²⁵ My translation from o.v.:

1. che siano redatti dal Ministero delle Infrastrutture e Mobilità Sostenibili, di concerto con il Sottosegretariato allo Sport presso la Presidenza del Consiglio, un Piano unitario e il relativo Rapporto Ambientale riguardanti le opere e gli interventi essenziali, connessi e complementari alla realizzazione delle Olimpiadi Invernali Milano-Cortina 2026 – anche di competenza delle Regioni e delle Province Autonome – da sottoporre a procedura di Valutazione Ambientale Strategica (VAS) nazionale e relativa contestuale Valutazione di Incidenza (VINCA) di competenza del Ministero per la Transizione Ecologica, ai sensi delle Direttive 2001/42/CE e 92/43/CE, del D.lgs. n. 152/2006 e del DPR n. 357/1997;
2. che la VAS nazionale non venga limitata alla realizzazione delle opere (impianti, attrezzature sportive, trasporti, ecc.), ma estesa all’incidenza delle variazioni di uso del suolo e alle dinamiche del carico insediativo, sia temporaneo (per i Giochi) sia permanente, anche e soprattutto in relazione alla disponibilità e al consumo di risorse, ricordando che la maggior parte degli eventi si svolgerà all’interno del perimetro tutelato dalla Convenzione delle Alpi di cui alle leggi 403/1999, 50/2012 e 196/2012 e che una parte si svolgerà anche all’interno del territorio Dolomiti UNESCO che è “Patrimonio dell’Umanità”;
3. che venga data risposta alle richieste e alle osservazioni qui formulate entro la fine di aprile 2022.

²⁶ My translation from o.v.: «Non abbiamo ad oggi elementi, a poco più di tre anni dai Giochi olimpici 2026 e dopo un confronto avviato e voluto da Fondazione Milano Cortina 2026 sin dal 2021, per potere attestare la sostenibilità ambientale delle opere e dei Giochi olimpici invernali, dichiarata nel dossier di candidatura».

exempted from the evaluation, including the Sliding Centre in Cortina, because of its redevelopment nature, and the Olympic Village in Cortina, because of its temporary nature (Filippucci, 2025).

To conclude, the Third Open Olympics report, a result of the campaign *Open Olympics 2026* launched in 2024 to stress the importance of transparency in the projects linked to the Games, released in December 2025 (Open Olympics 2026, 2025) presents data regarding the real environmental impact of the infrastructure works and the Games. As the Report (ibid., p. 4) shows: “According to current Italian legislation, 64% of works did not undergo an Environmental Impact Assessment, and the CO₂ footprint for each work is missing”.

4.1.5 “THE MOST SUSTAINABLE WINTER GAMES EVER”

“The most sustainable, inspirational, memorable Winter Games ever, to change lives for future generations” (CONI, 2019, p. 4). This is how Milano Cortina OCOG presented its vision for the games. The idea was to make this edition of the Winter Games the first to be fully sustainable, by implementing aspects that would make the difference when comparing it to previous editions. Indeed, throughout the application document, a total of 169 references to sustainability and sustainable actions can be found. This paragraph aims at making a brief introduction on some aspects linked to sustainability, but many elements introduced in Chapters 2 and 3, e.g. legacy, sponsors, will be deeper analysed and presented later in this Chapter.

To start with, in the application a reference to ISO-20121 (ivi, p. 7) can be found, when MiCo claims that the Winter Games will “Help to redefine how multi-sport events can be delivered in a more sustainable way by exceeding the ISO-20121 [standard]”. MiCo states that by doing so, a wider audience of cities will be attracted to bid in the future (ibid.).

Moreover, the dossier is “Underpinned by principles of sustainable development” (ivi, p. 65) and the goal of Fondazione Milano Cortina is to use sports and the Games as tools to deliver benefits in the main social, environmental and economic areas. These (ibid.), are once again part of the Sustainable Development Goals and are shaped by the commitment of achieving the goals along with: (1) the long-term strategic plans of key stakeholders at all levels (city, regional, national); (2) the far-reaching goals of CONI and CIP, the two national bodies responsible for the promotion of sport at all levels. Moreover (ibid.), the project named *Generation 2026*, aimed that all children born after 2010 would:

- Play sports regularly;
- Recycle $\frac{3}{4}$ of the waste they produce;
- Use sustainable means of transportation only;
- Use sport to understand cultural diversity;
- Grow in a more inclusive and integrated society.

Following this introduction, the bid presents aspects linked, one after the other, to each of the main areas, starting with the social benefits.

Undoubtedly, hosting the Games delivers a wide range of social benefits, and for MiCo 2026, several initiatives from CONI's Social Responsibility Plan have been developed prior to the start of the Games. Under the umbrella of social benefits, all aspects related to volunteering, social projects, and community cohesion are included. Social projects include, among others, "The temporary Olympic Villages in Livigno and Cortina will provide re-locatable housing to be used by the Civil Protection Department to help meet future housing emergencies across Italy" (CONI, 2019, p. 66). Social benefits also include social development through sport initiatives, providing a "kick start" for many sports development programmes, to encourage the promotion of sport among young people through sport projects inside and outside schools.

Regarding environmental development, the Games projects will prioritise the environmental side, as well as urban infrastructure development, improving the quality of life of all citizens. Moreover, local authorities have embedded sustainability considerations in all public policies and environmental practices, which in turn will provide a significant improvement to the natural environment. In order to achieve the SDGs, CONI's projects will incorporate the goals in the sustainability reporting processes, enhancing the quality of life of all residents and visitors. An example will be sustainable mobility initiatives to reduce the use of cars in favour of public transport, further benefiting the environment. In the mountain region, both citizens and visitors will benefit from more connected ways (ivi, p. 67).

The third sustainable aspect is related to the economic benefits which, according to the analysis presented in the bid, will play a significant role. The aim is to maximise the benefits through "High-quality governance and forward-thinking leadership, engaging with business communities and tourism bodies across Italy" promoting all the opportunities that hosting the Games will present (ivi, p. 68). The passion and creativity of the OCOG aims at the delivery of programmes that touch all sectors of society, ultimately making a difference to raising Italy's profile on the world stage (ibid):

- As an international major event host;
- As a healthy and active sporting nation;
- As a diverse, attractive, and welcoming tourist destination;
- As a nation that works well for business, trade, and economic growth;
- As a multi-cultural, welcoming, and inclusive society.

The dossier finally includes a link to cultural development, since the Games will act as a catalyst to inspire more cultural and artistic activities. indeed, showcasing Italy's national culture as well as its reputation for creativity and innovation is a cornerstone of the vision of Milano Cortina (ivi, p. 67).

Moreover, on October 15, 2025, the MiCo Foundation released its second *Sustainability, impact and legacy* report (Fondazione Milano Cortina 2026, 2025) presenting the actions performed to make the OWG and PWG a real opportunity in terms of a sustainable, inclusive and shared development for the country. To release such a report on that day was not a coincidence, since it marked the 10th anniversary since the Agenda 2030 was created by the UN. According to ASviS (Sozzi, 2025), the document:

Portrays an unfiltered analysis of its economic, social, and environmental impact, as well as a picture of human rights related to the organisation of the event: this approach aims to build a positive and measurable legacy, in line with the 17 SDGs, which the IOC also aims at.

ASviS (ibid.) also presented a critical analysis of this report, including the main aspects that emerge from it. What first stands out is the exclusive use of electricity from certified renewable sources for all Games venues, while the environmental strategy also aims to offset residual emissions under the control of the Foundation, through the purchase of credits and a focus on local projects.

In addition, MiCo's commitment to sustainability is also underpinned by a robust governance structure: a Code of Ethics has been adopted, binding at all levels of decision-making. Particular attention is also paid to respect for rights, the protection of personal data, cybersecurity, and transparency of financial flows (ibid.). However, the positive vision portrayed by ASviS in the above-mentioned article is not shared by the main environmental organisations that joined the public debate concerning the Olympic Winter Games, among the others Mountain Wilderness.

MW is an organisation founded by a group of mountaineers whose aim is to support the human experience in the *wilderness*, that includes all the unspoilt landscapes where anyone who truly cares can still experience a direct encounter with the (Mountain Wilderness, s.d.). In addition, MW agrees with fellow organisations who already expressed their opinion against the Olympics and, through its President, Luigi Casanova, calls for the unsustainability of the games (Casanova, 2023):

How can we talk about sustainability when all the goals set out in the bid dossier have been failed? We were told the Olympics would be cost-neutral: the total level of expenditure has now exceeded 4 billion euros, and many of the planned projects will not be completed before 2030. Sustainable Olympics? The SEA, an evaluation tool required by European and national laws was bypassed in order to place all projects under special administration and prevent the participation of citizens and associations. Shared Olympics? In every Alpine valley, local committees are operating seeking to limit the damage and the impositions of the administration: in Valtellina, Milan, in Cadore as well as South Tyrol and Trentino. The Olympics are a major sport and social event, which have to be supported, if

cleansed of the politics and international interests that prevent entire populations from taking part in the debate.²⁷

Moreover, in another article published two weeks before the start of the Games, MW interviews Vanda Bonardo, the current President of Cipra Italia, who claims that “Unless sustainability becomes an operational constraint, it remains an umbrella-term, useful for bids and ceremonies, but unreal when applied to day-to-day life of local communities and territories”²⁸ (Mountain Wilderness Italia, 2026). According to her, it is not possible to sit and wait for the results, it is mandatory to investigate what remains unseen, that is: communities, natural recourses, and the future that awaits mountain resorts in a time of global warming (ibid.). For this reason, some of the next paragraphs will investigate the question of legacy and community involvement.

4.1.6 THE TEMPORARY OLYMPIC VILLAGE: A SUSTAINABLE CHOICE OR NOT?

Before proceeding with the next section, this paragraph aims at presenting the case of the Olympic Village in Cortina, which saw the rise of controversy because of its temporary nature. Located in Fiemme, a small town situated only 4 km from Cortina, the Olympic Village is made of around 377 prefabricated wooden houses, which can host up to 1400 athletes, and offers complementary services (Pietrobelli, 2025). Roberta de Zanna, a member of the Cortina d’Ampezzo opposition council, described the Olympic Village as “a missed opportunity”, since its construction will cost around 39 million euros in public funds, used to host 1,400 people for a total of 28 nights, around 970€ per guest per night (Filippucci, 2025).

As presented by Pietrobelli (2025), on the one hand, to invest a total of 39 million euros (the final sum spent for the Olympic Village) in this temporary structure is the right choice to preserve the environment but, on the other, it is undoubtedly a waste of financial resources, which leaves no long-term benefit for the local community. However, the alternative solutions proposed by local municipalities, the most valuable being the redevelopment of the Eni Village in Borca di Cadore, abandoned for years, have all been rejected (ibid.). The residential complex of 280 small villas built on the slopes of Mount Antelao, to host Eni’s employees during holidays, was decommissioned in

²⁷ My translation from o.v.: “Come si può parlare di sostenibilità quando tutti gli obiettivi del dossier di candidatura sono stati fatti fallire? Olimpiadi a costo zero ci era stato detto: siamo ad un insieme di spese che superano i 4 miliardi di euro, molte delle opere previste non saranno terminate prima del 2030. Olimpiadi sostenibili? È stata evitata la VAS, strumento di valutazione previsto dalle leggi europee e nazionali per arrivare a commissariare tutte le opere ed impedire la partecipazione di cittadini e associazioni. Olimpiadi condivise? In ogni vallata alpina stanno operando combattivi e preparati comitati che cercano di limitare i danni e le fantasiose imposizioni di amministrazioni comunali o regionali: in Valtellina, nella città di Milano, in Cadore come in Alto Adige e nel Trentino. Le Olimpiadi sono un appuntamento di grande sport e incontro (se ripulite dalla politica e dagli interessi internazionali che impediscono a popoli interi di parteciparvi) e vanno sostenute”.

²⁸ My translation from o.v. “Ma la sostenibilità – ricorda Vanda Bonardo – se non diventa un vincolo operativo, resta una parola-ombrello, buona per dossier e cerimonie, meno per la vita reale dei luoghi”

the 1990s, being later sold to private individuals as personal holiday homes (Filippucci, 2025). As De Zanna claimed, “Investing in [that] Village would have been a way to leave a legacy for the region and to redevelop an area where some buildings are increasingly falling into disrepair”: the idea was abandoned due to the high hydrogeological risk, a motivation hard to understand for the community, given that similar risks affect other sites chosen for Olympic infrastructure, first of all Fiames (ibid.).

Moreover, Fiames is an area characterised by hydrogeological instability, which could have disrupted work on the road leading to Cortina, hence in February 2023 a new solution was proposed: moving the Olympic Village to Campo di Sotto, right next to the woods. This idea was strongly opposed by the local community, which showed how this decision would have had irreversible consequences, especially on the local flora and fauna (Legambiente Italia, 2026), and in the end the Village remained in Fiames.

As anticipated above, due to its temporary nature, the Olympic Village was exempted from undergoing an Environmental Impact Assessment (EIA), thus relieving SIMICO of the obligation to carry out further investigations into hydrogeological risk or to engage in public dialogue with the River Basin Authority (Filippucci, 2025). As reported by Sinfo (ibid.):

Perhaps the Olympics could have been an opportunity to launch new research on hydrogeological risks in the Ampezzo basin and design infrastructure aimed at making the territory resilient to climate change. This could have represented a legacy proposed by local authorities and agreed upon with the competent bodies ahead of the Olympic event. Instead, what we have seen is that, on several occasions, environmental impact assessments were avoided in the name of urgency [and lack of time].

4.2 THE *POP* SIDE OF THE OLYMPICS

The following sections will now present all the elements that contributed to making the Olympics more “pop”, meaning all the aspects, from the mascots, to the Olympic torch, and finally to the events organised in the different venues, that contribute to making the Games closer to everyone, even to those who are not experiencing them first hand.

4.2.1 “FUTURA”

The first element worth presenting is the official logo of the Games: *Futura*. For the first time, the logo was chosen via an online public vote, and *Futura* won, selected by 75% of the 870 thousand votes. Resembling a faint outline on the snow, the white background without ink underlines inclusion and equity for all, a non-colour that is the sum of all colours, pointing at the non-partisan nature of the Games. Moreover, the number 26 does not only represent the event that Italy is organizing for the global sport movement, but also the first edition of Olympics and Paralympic Games organised following the *Agenda 2020* and the IOC’s *New Norm*. Indeed, through this new norm, the Olympic

Movement has placed economic, environmental and social sustainability at the heart of the planning and delivery of the Games, as well as the legacy of an infrastructure and cultural heritage for future generations (CONI, 2021). The faint design of the numbers resembles natural and delicate actions that, during its presentation, have been described as “Actions that can change the world, both in sport and in life” (ibid.).

Futura conveys sustainability, a value that the IOC wants to implement during the whole project, but it also aims at showing the decision of the organisers to inspire Italians through the promotion of sporting values, especially in a post-Pandemic world. That is why the OCOG is intended to involve the public as much as possible, starting with the decision of the logo.



Figure 17 Futura, Milano-Cortina 2026 official logo. Retrieved May 2026, from <https://www.fil-luge.org/en/news/olympic-logo-chosen-for-milano-cortina-2026>

4.2.2 MILA AND TINO

The official mascots of Milano Cortina 2026 are two cheerful stoats named Tina and Milo, whose names are inspired by the two host cities: Tina from Cortina and Milo from Milano. Together, they embody the contemporary, vibrant, and dynamic Italian spirit that inspires them: they are naturally curious and love the outdoor life and their environment, but they also want to have fun (IOC, 2021). Coming from the idea of a group of students from Taberna (Catanzaro), the drawings were later elaborated until the final version was reached, winning the hearts of fans and athletes.

Tina was born in Italy, among the mountains where lush green summers give way to snowy white winters. She has a brother named Milo, to whom she is very close—they spent their entire childhood together. Tina is passionate about art and music, and she believes in the power of beauty. Nature is her home and, even though she now lives in the city, she does everything she can to protect it and keep it untouched. Milo, on the other hand, was born without one paw, but thanks to his creativity and strong will, he learnt to use his tail and turn his difference into a strength. This idea was truly appreciated by the paralympic community, since the two mascots interact with each other

and Milo's disability is not shown as a flow, but it embodies the strength of reinvention that paralympic athletes bring to the field. The narration behind Milo and Tina (IPC, 2026) says that:

The two siblings are on a journey to Milano Cortina 2026 after waking up one day to find a “new light” in the distance. They let their curiosity guide them and the light turned out to be the Olympic and Paralympic Winter Games. They are accompanied by six little snowdrops, The Flo. The little flowers will be Tina and Milo's best friends, bringing fun, games, and happiness to the great adventure of Milano Cortina 2026.



Figure 18: Mila and Tino. Retrieved May 2026, from Milano Cortina 2026

The first mascot appeared during the Munich Olympics in 1972, and ever since that first appearance, mascots have mainly been represented by human-like creatures smiling in a welcoming gesture towards the foreign visitors, enriching the Olympic merchandise (Goldstein, 2024, p. 37).

4.2.3 EVENT AMBASSADORS

Another key element in the promotion of the Games are events ambassadors, meaning all the people paid by an organisation to represent it in a positive light, increasing brand awareness. Ambassadors are expected to embody the corporate identity with a 360-degree vision, from appearance to ethics and values. Milano Cortina counted several event ambassadors, from sportspeople, e.g. Federica Pellegrini or Bebe Vio, to people from the world of entertainment, Amadeus among the others, and several popular ones.

One ambassador who stood out is Deborah Compagnoni, former Italian skier and three-time Olympic champion. Her communication about the event focused on three main areas: (1) widespread participation; (2) sustainability, and (3) intergenerational exchange. The idea emerging from her

communication then resembled that of an edition of Olympics accessible to everyone, thus becoming an event that represents and engages not only athletes, but also fans²⁹ (Corvo, 2026).

4.2.4 OLYMPIC TORCH

Ever since 1960, the Olympic torch is lit up in Olympia (Greece), passes by the stadium in Athens, and then travels to the rest of the world, allowing as many fans as possible to share the Olympic spirit (Goldstein, 2024). For Milano Cortina, the torch left Greece on December 4, 2025, and arrived in Italy just two days later. Starting from Rome on December 6, the Olympic Torch relay passed through all the Italian regions, with more than 60 stopover Italian cities, covering more than 12,000 km. The President of Fondazione Milano Cortina, Giovanni Malagò, claimed (CONI, 2025) that:

Every step of the journey through our cities will remind the world of the power of sport in building bridges and breaking down barriers. It will be a journey that intertwines past and future, hospitality and innovation, celebrating the best of the Italian Spirit.³⁰

The torch relay will be supported by both its presenting partners, Coca-Cola and Eni, who will contribute to make it an unforgettable experience for all. The goal is to present the Italian culture to the world, as well as the places that symbolise resilience, e.g. Amatrice which was destroyed during the earthquake. The torch will be carried by a total of 10,001 torchbearers: not only athletes, former Olympians, or famous people, but also “normal” citizens who applied to become a lucky participant. The torches, one for the Olympics and the other for the Paralympic Games, were unveiled on April 14, 2025, at the EXPO in Osaka, Japan, an event that marked a symbolic handover from one global celebration to the next. “Commissioned by Eni and developed in collaboration with Versalis and Cavagna Group, the torches place the flame—its symbolism, visibility, and vitality—at the heart of the project” (CRA- Carlo Ratti Associati, 2025). The creators presented their vision for the project starting from the idea that the flame had to be the protagonist: the torch became minimalist, shaped around its core burner, keeping minimal details, as a symbol of true sustainability (ibid.).

Moreover, this time the burner itself became more sustainable, powered by bio-GPL produced from 100% renewable feedstocks, including agro-industrial residues at Eni’s Enilive biorefinery in Sicily and cooking oils. “The result is a lively, natural fire, and mirrors the original fire in Olympia, Greece” (ibid.). The structure of the torch is also made of recycled aluminium and

²⁹ My translation from o.v.: “La sua comunicazione si concentra su tre assi argomentativi principali: l’ampia partecipazione, la sostenibilità e la trasmissione generazionale. La MiCo 2026 che emerge sarebbe un’Olimpiade “alla portata di tutti”, un evento che vuole rappresentare il protagonismo e la partecipazione non solo degli atleti, ma anche di appassionati e tifosi” (pp.113-114).

³⁰ My translation from o.v.: “Ogni passo del Viaggio attraverso le nostre città ricorderà al mondo il potere dello sport nel costruire ponti e abbattere barriere. Sarà un percorso che intreccia radici e futuro, accoglienza e innovazione, celebrando il meglio dello Spirito Italiano”.

brass: each torch is designed for reuse, since it can be refilled up to ten times, meaning that it was necessary to produce only 1,500 torches.

4.2.5 MILANO CORTINA VOLUNTEERS

Already introduced in Chapter 3, the role of volunteers in MSEs such as the Olympics is worthy of mention, since their contribution to the success of events can make the difference. According to Bortoletto (2026), indeed:

Sport events organisations, such as the OIC, are created with the goal of facilitating large-scale multi-sport events: volunteers get assigned a role related with the uniqueness of the event, once-in-a-lifetime experiences, which require a massive and rapid mobilisation of people ready to dedicate themselves to a global project. The size of this volunteer involvement is extraordinary: 70,000 in London (2012) and 45,000 in Paris (2024). This massive deployment of unpaid labour leads to a paradox: athletes and organizers receive high remuneration while the financial sustainability of the events themselves largely depends on unpaid work.³¹

One may wonder what volunteers do during their shifts: they are assigned all sorts of tasks, where specific competencies or background experience may be required or not, but mostly they contribute to make the whole organisation work. Since they are the backbone of MSE, organisations may be called to provide an adequate training and logistical support, as well as to preserve the authentic feeling of the experience itself, so that volunteering remains a form of active participation, and not only a mere functional tool.³²

For Milano Cortina, the total number of volunteers was 18,000 but applications went far beyond expectations, since more than 120,000 people from all over 170 different countries applied. Some statistical data are provided again by Bortoletto (ibid) who states that around 30% of volunteers lives or works in the areas that will host competitions; around 65% is younger than 35 while 12% is older than 60; 57% of applicants already had experience volunteering in events, regardless of the size of the event itself. To encourage this diverse participation, the training for volunteers was remote, guaranteeing each one of them the chance to get ready for the event.

³¹ My translation from o.v.: “Le organizzazioni di eventi sportivi come il CIO nascono con l’obiettivo di facilitare la realizzazione di manifestazioni multi-sportive su larga scala: il volontario assume un ruolo legato all’eccezionalità dell’evento, esperienze temporanee vissute come uniche nella vita, che richiedono una mobilitazione massiccia e rapida di persone disposte a mettersi al servizio di un progetto globale. La portata del coinvolgimento dei volontari è impressionante: 70,000 a Londra 2012, 45,000 a Parigi 2024. Questo massiccio impiego di lavoro non retribuito crea un paradosso: atleti e organizzatori ricevono compensi elevati, mentre la sostenibilità finanziaria degli eventi stessi dipende dal lavoro gratuito” (pp. 128-130)

³² My translation from o.v. “Non solo garantire un adeguato supporto formativo e logistico, ma anche salvaguardare il senso autentico dell’esperienza, affinché il volontario resti una pratica di partecipazione e non venga ridotto a semplice strumento funzionale”. (ibid.)

4.2.6 TICKETS

“Historically, the sales of tickets have contributed to the financing of the Olympic Games since Athens 1896” (Preuss, 2004, p. 167). Not surprisingly, ticketing has recently declined in significance, still maintaining the third place after revenues from marketing and television. The price of tickets primarily depends on the prosperity and the enthusiasm for sport in the host country (ibid.). Over time, the price of tickets has increased, and in Paris there was strong criticism during the pre-sale phase about the excessive prices, starting from 400€ for 5% of all the available tickets (Goldstein, 2024).

MiCo faced scrutiny regarding its ticketing policies: numerous fans complained about the excessive price for high-demand events, ranging from 200€ to 500€ (e.g. Ice skating), while athletes pointed out that no reduction or promotion was offered for their relatives. Despite the higher price, however, the IOC (Milano Cortina 2026, 2026) states that the final data showed how a total of 1.3 million tickets were sold, reaching almost 88% of the total availability. Out of these, 63% were bought by foreign supporters, while the remaining 37% by Italian fans.

4.2.7 THE OPENING CEREMONY

The event that officially let the Games start is the Opening Ceremony: once it takes place, the Olympics are on. According to Goldstein (2024):

The Olympic ceremonies are probably the most-watched spectacle in the world, one of the most expensive and certainly the one with the largest cast. They are a celebration of a nation, achieved through a skilful blend of its culture, art, music and architecture, without, however, descending into the crudest form of nationalism or the most obvious clichés.³³

They consist of a protocol part, whose elements are clearly defined in the Olympic Charter (e.g. the parade of athletes, the recitation of the oath, the arrival of the torch and the lighting of the Olympic cauldron), and a cultural-artistic one, where the host nation presents itself and its culture to the world (Preuss, 2004).

The Opening Ceremony for the XXV edition of the Winter Olympics took place on February 6 at the San Siro stadium in Milan but, for the first time, following the aim of a widespread Olympics, it was held at the same time in the other competition cities: Cortina, Predazzo and Tesero. The show, directed for the 16th time by Marco Balich, celebrated a tribute to Harmony, the theme that ran

³³ My translation from o.v.: “Le cerimonie olimpiche sono probabilmente lo spettacolo più seguito al mondo, uno tra i più costosi e sicuramente quello con il maggior cast. Si tratta di celebrare una nazione, attraverso un sapiente dosaggio della sua cultura, arte, musica e architettura, che non sconfini però nel nazionalismo più becero, né nei cliché più scontati” (p. 34)

through the ceremony, weaving together the history, art, and culture of Italian talent (Giardina, 2026). The guests who appeared during the show included world-renowned artists, such as Mariah Carey and Andrea Bocelli.

4.2.8 EVENTS RUNNING CONCURRENTLY

Olympics do not only mean sports competitions, but they also include the entire range of events that attract tourists and fans. The energy of the Games, indeed, brings the whole city to life with a packed programme of events, activities, and experiences designed for everyone.

In Cortina, these events included the Fan Village, an interactive space that brings the spirit of MiCo beyond the competition venues, and the National Olympic Committee houses, meeting points for fans, athletes, and stakeholders to celebrate the Games (Fondazione Cortina, 2026).

Milan, on the other hand, also for its size, offered more pop-up stores and activities, including the popular trade of pins with the main symbols of the city: the initiative to distribute the city's official pins allowed fans to discover the true spirit of Milan's neighbourhoods. Indeed, the pin hunt led them to discover places, cultural activities, and local businesses that reveal the city beyond its most famous landmarks (YES Milano, 2026).

4.2.9 COMPETITIONS AND RESULTS

With almost 3,000 athletes (2,880) from 92 different countries, competing in 16 different Winter Sports, the XXV edition will be a turning point in the history of the Games. Indeed, this edition saw a total of 1363 female athletes (47%), making it the most gender-balanced Winter edition; ski mountaineering marked its debut as an Olympic sport; a total of 9 Olympic records and one World record were set and three nations participated for the first time, namely UAE, Benin and Guinea-Bissau (Olympics, 2026). However, when it comes to the host country there is some pattern presented by Goldstein (2024), that is:

If a near-perfect pattern exists, is that the host nation wins more titles and medals than it would normally do. Though different explanations exist, they all relate to the so-called home-field advantage: the positive energy of the home crowd and the influence it exerts on referees and judges. It has also become a standard practice for the host country to adopt a special investment program to capitalize on the opportunity, but also to lay the ground for future editions.³⁴

³⁴ My translation from o.v.: “Se esiste una regolarità pressoché perfetta è che la nazione che ospita conquista un numero di titoli e medaglie superiore al “normale”. Diverse sono le spiegazioni del cosiddetto home field advantage: l’energia positiva del tifo amico e l’influenza che esercita su arbitri e giurie. È poi diventato normale che l’ospite adotti un programma ad hoc di investimenti per sfruttare l’occasione, ma anche per seminare per le edizioni successive”. (pp. 74-75)

Indeed, for the Italian team this edition was that of records and first times: a total of 30 medals was assigned to Italian athletes, 10 gold, 6 silver, and 14 bronze, more than Lillehammer 1994, the previous record; the delegation was the largest ever at the Winter Games, with 196 athletes including 103 men and 93 women; Team Italy won medals in 10 different disciplines, one fewer than the all-time record set by the US in 2018 (CONI, 2026). Numerous were also the individual records set during the games: Arianna Fontana broke the all-time Italian record for Olympic medals (14), while Francesca Lollobrigida became the first Italian woman to win a gold medal in speed skating (ibid.).

4.3 POSSIBLE BREACHES OF THE ALPINE CONVENTION

The aim of this section is to present the Alpine Convention and any breach that, according to CIPRA (CIPRA International, 2022), was operated by MiCo 2026 before and during the Games. To start with, it is deemed essential to present what CIPRA is and what the Alpine Convention regulates.

4.3.1 CIPRA AND THE CONVENTION

The *Commission Internationale pour la Protection des Alpes* (CIPRA) is an independent non-governmental and non-profit umbrella organisation which, since 1952, is committed to the protection of the Alps and their sustainable development. The Commission counts 8 members, distributed in the 7 Alpine countries: France, Switzerland, Liechtenstein, Germany, Austria, Slovenia, and Italy (where South-Tyrol counts a separate member). Since its creation, CIPRA has become a pioneer in addressing current and future challenges, aiming for a sustainable future in the alps. The vision shared by the members is that of the Alps as a functional and balanced ecosystem, offering an appealing life to current and future generations (CIPRA, s.d.).

In 1991 the members, together with the EU, signed the Alpine Convention, an international treaty that has since then provided a legal framework and a platform for cross-border co-operation. With its 14 articles, the convention is the legal basis for safeguarding the sensitive Alpine ecosystem, as well as the regional cultural identities and heritage in the Alps: it entails the guiding principles towards a sustainable life in the alps, now and in the future (The Alpine Convention, s.d.). According to CIPRA (ibid.):

The Alpine Convention can rely on a strong cooperation spirit. The common vision for the Alps as a pioneer region for sustainable living in the heart of Europe is a solid basis on which strong partnerships are being built and enhanced daily in mutual respect and understanding.

The Convention is a versatile instrument which contributed to the Alpine Climate Target System 2050, defined in April 2019 as a response to the need for mitigation and adaptation to climate change,

conceived as a complementary response to national and international targets (ibid.). The treaty was also a “Forerunner in the implementation of the Agenda 2030 [as] it is the first transnational example of the implementation of the SDG” (ibid.), as it existed for more than two decades when the Agenda was adopted by the UN. Indeed, “The Alpine Convention, its Protocols and Declarations as well as its activities, are touching upon and directly contributing to the SDGs, on which a lot of Alpine specific knowledge has been brought forward during the past decades” (ibid.).

Article 2 of the Alpine convention presents the general obligations that the parties shall pursue. Some points of the article are also particularly useful when linking the Convention to the Winter Olympics:

Art 2. In order to achieve the objective referred to in paragraph 1, the Contracting Parties shall take appropriate measures, in particular in the following areas:

a. *population and culture*: the objective is to respect, preserve, and promote the cultural and social independence of the indigenous population and to guarantee the basis for their living standards, in particular environmentally sound settlement and economic development, and promote mutual understanding and cooperation between Alpine and extraAlpine populations;

d. *soil conservation*: the objective is to reduce quantitative and qualitative soil damage, in particular by applying agricultural and forestry methods which do not harm the soil, through minimum interference with soil and land, control of erosion and the restriction of soil sealing;

e. *water management*: the objective is to preserve or re-establish healthy water systems, in particular by keeping lakes and rivers free of pollution, by applying natural hydraulic engineering techniques and by using water power, which serves the interests of both the indigenous population and the environment alike;

h. *mountain forests*: the objective is to preserve, reinforce and restore the role of forests, in particular their protective role, by improving the resistance of forest ecosystems mainly by applying natural forestry techniques and preventing any utilisation detrimental to forests, taking into account the less favourable economic conditions in the Alpine region;

j. *transport*: the objective is to reduce the volume and dangers of interAlpine and transAlpine traffic to a level which is not harmful to humans, animals and plants and their habitats, by switching more traffic, in particular freight traffic, to the railways in particular by providing appropriate infrastructure and incentives complying with market principles, without discrimination on grounds of nationality.

Before analysing one by one the points of the article and the breaches of the convention, it is worth mentioning that CIPRA has publicly expressed its opinion against hosting the Olympics in the Alps for a long time. The organisation took a very clear position already in 2014 and 2016, expressing concerns about MSEs, concluding with “An explicit invitation to the municipalities and regions of the Alps to abandon their candidatures for the Winter Olympics” (CIPRA International, 2022). The organisation does indeed believe that, for few days of competition, the infrastructures required are neither socially nor environmentally compatible. It would rather be more essential to rethink the bidding and basing it on decentralised venues and respecting local conditions as well as economic and ecological limits. Previous events, e.g. Turin in 2006, left large debts and unused venues, such as bobsleigh tracks and ski-jumping facilities.

On 12 November 2021, CIPRA international, with all its national and international member organisations, held a meeting to “Share concerns expressed by local associations and committees in denouncing the possible devastation of the Dolomites” (ibid.), demanding for the projects planned for MiCo 2026 to be reconsidered or downsized. Moreover, in the letter they also pointed out that:

- The needs of the affected areas and the concerns of their inhabitants should be taken seriously and promoted, especially regarding true environmental, social and economic sustainability;
- The organisation shares the concerns expressed by local associations and committees during the march held in Cortina on 24 October 2021 to condemn the possible devastation of the Dolomites,
- There should be a reconsideration in terms of costs and interventions not strictly necessary;
- The construction of removable facilities, the approval of extraterritorial sport facilities, and other environmental labour law concerns should be implemented.

In addition, CIPRA reiterated its demand that “The Alpine region should never be used as a venue for this type of event unless there is a drastic rethink in terms of the resources used for preparation and implementation” (ibid.). In the letter, CIPRA also made clear reference to its Tourism Protocol (CIPRA International; European Community, 2005), where art.5 requires “Attention to be paid to the development of sustainable tourism, in particular the socio-economic impacts on the resident population, the impacts on soil, water, air, natural balance and landscape, as well as the impacts on public finances” while art.6 “Requires the contracting parties – including Italy – to promote, as far as possible, projects which enhance the countryside and are environmentally acceptable”.

While wide-spread Olympics and the large number of existing facilities may ease the burden on the mountain environment, CIPRA already warned in 2021 that this would not be the case for the 2026 Games, where although some aspects of the organisation seemed more sustainable, the same attention was not paid to the competition facilities.

In a recent article, CIPRA has also strongly criticised the IOC and its agenda, as “Nor do the Olympic Agenda 2020 and the Olympic Agenda 2020+5 represent any real progress: despite their ambitious language and commendable intentions, they have failed to produce tangible change in the way the Winter Olympic Games are planned and implemented” (CIPRA, 2025). It then concluded by claiming that: “The requirements of the Winter Olympic Games with regard to traffic infrastructure, sports facilities, and accommodation are so high that they cannot be sustainably met in the Alps” and “The negative impacts of the Winter Olympics on people and nature outweigh the benefits and consequently cannot be justified” (ibid.).

In 2023, CIPRA International also released an interview to MW (MW Italia, 2023), where it warned against the effect of the 2026 Winter Olympics:

Instead of investing in restraint, quality, environmental respect, transparency and social cohesion, the Italian event will highlight all the shortcomings of human approach. The Winter Olympics will be used as a tool to force through projects that, otherwise, would have never been possible in those sensitive areas.³⁵

In this sense, the idea is also supported by Morazzoni & Pecorelli (2023) who endorse the position of CIPRA. The authors aim to challenge the rhetorical celebration of sustainable Olympics in the Dolomites (added to the UNESCO World heritage list in 2019) and to do so present the paradox of hosting the Winter Games in Italy by reporting the words of the Bid Dossier (CONI, 2019, p. 5), that stated “We want to use the Games to showcase the importance of protecting sensitive mountain ecosystems”.

The upcoming paragraphs will now present issues that emerged during the games and that can be considered breaches of the Alpine Convention.

4.3.2 COMMUNITY INVOLVEMENT

The first aspect to consider is that of community involvement, as described in art.2 letter a:

a. *population and culture*: the objective is to respect, preserve and promote the cultural and social independence of the indigenous population and to guarantee the basis for their living standards, in particular environmentally sound settlement and economic development, and promote mutual understanding and cooperation between Alpine and extraAlpine populations;

³⁵ My translation from o.v.: “L’evento italiano, invece di investire in sobrietà, qualità, rispetto dell’ambiente, trasparenza e coesione sociale, metterà in luce tutte le lacune del nostro agire. Le Olimpiadi invernali sembra proprio vengano usate come strumento per imporre opere che mai sarebbero state possibili da realizzare su territori tanto sensibili.”

In the case of Milano Cortina 2026, there is evidence of how mutual cooperation between the local population and the OCOG has been denied: on more than one occasion, environmental associations have pointed out how the Foundation refused to have a public debate with the locals, who requested it multiple times (CIPRA International, 2022).

As reported by Di Napoli (Comitato Editoriale BSGI, 2023), in Cortina a local referendum on whether to accept the bid or not, due to concerns over its environmental and socio-economic consequences, was rejected. This allowed Cortina and Milano to compete against only one other city and then win: other cities that initially intended to bid had already withdrawn in 2018 following the negative results of popular referendum, both in Sion (Switzerland) and Calgary (Canada) (Legambiente Italia, 2026).

The referendum was supported by a wide group of citizens and the reason for rejection by the mayor at the time was related to a proven general consensus, estimated by an online survey, among shopkeepers, contractors, the City of Milan and the general public (Filippucci, 2025). The mayor also stated that, whatever the outcome, the decision had already been taken. However, the above-mentioned survey was a CONI and IOC joined initiative that collected only 2500 responses, out of which 607 from the Veneto Region, where 80% of respondents seemed in favour of hosting the Games. The survey is difficultly reliable, as there is no evidence neither of the method used to select the sample nor of the number of residents in Cortina d'Ampezzo or a neighbouring mountain area is specified: this is a significant omission, particularly in a town where the number of residents is small compared to the number of people who visit the town as tourists or as owners of second homes (ibid.).

There are several reasons for local communities to reject the proposal of hosting MSEs but, according to Morazzoni & Pecorelli (2023) the most important one is that it can be perceived as “The imposition of unnecessary infrastructure and a waste of resources and land”³⁶. This idea is also shared by the chair of Cortina Citizen's Committee, Marina Menardi, who stated that “Local people don't benefit from the Olympics at all; they just bring more problems: blocked roads, crowded car parks, and rising prices. It's difficult to rent a house here, and it's practically impossible to buy one [since] landlords prefer to rent to tourists”³⁷ (Dvořáková, 2026).

When construction works for the bobsleigh track began, local residents together with more than fifty associations and activists from the whole country manifested, in September 2023 and in February 2024, to prevent the construction of the new bobsleigh track and to urge the authorities to hold the competitions in Innsbruck, where the facility is still in use (Filippucci, 2025). In 2025, a

³⁶ My translation from o.v.: “A livello locale ospitare un mega evento potrebbe rappresentare un'imposizione di strutture inutili e consumo di risorse e territorio” (p.40)

³⁷ My translation from o.v.: “La gente del posto non trae nessun vantaggio dalle Olimpiadi, solo problemi in più: strade bloccate, parcheggi affollati e prezzi in aumento. Qui è difficile affittare una casa ed è praticamente impossibile comprarla. I proprietari preferiscono affittare ai turisti”

group of residents launched a survey to measure the satisfaction of local citizens with the Olympic facilities: around 56% of a total of 627 respondents described the rise in rents and house prices caused by the sporting event as “extremely negative”; many welcomed the infrastructure planned for the Alemagna state road ahead of the Olympics, while the vast majority was not in favour of the bobsleigh track, the Olympic village and the cable car in Socrepes; 64% expressed concerns for the environmental impact (ibid.).

To conclude, as the geologist-engineer Gillarduzzi, born and raised in Cortina, reported in an open-letter sent to the local community (Dott. Gillarduzzi, 2025): “[It certainly is clear that] SIMICO cares deeply about the Olympics, but it is not as clear who is looking out for Cortina and its residents”.

4.3.3 SOIL CONSUMPTION

The second aspect worthy of consideration is that of soil consumption and the disruption of nature:

d. *soil conservation*: the objective is to reduce quantitative and qualitative soil damage, in particular by applying agricultural and forestry methods which do not harm the soil, through minimum interference with soil and land, control of erosion and the restriction of soil sealing;

h. *mountain forests*: the objective is to preserve, reinforce and restore the role of forests, in particular their protective role, by improving the resistance of forest ecosystems mainly by applying natural forestry techniques and preventing any utilization detrimental to forests, taking into account the less favourable economic conditions in the Alpine region;

As presented at the beginning of Chapter 4, the bid for the 2026 edition of the OWG proposed an idea of sustainability that was not implemented. Environmental associations feared that the need for infrastructure in the Alps would have resulted in irreversible damage (Goldstein, 2024), and it turned out that they were right.

Soil is a scarce and non-renewable resource, since it takes around 2,000 years to form 10cm of new soil, whilst it is subject to continuous loss due to erosion caused by various factors and a decline in the organic matter that makes it up (Chahinian, 2024). It is also extremely essential for a multitude of uses that benefit both humanity and all biological species, as well as for its climate mitigation functions (CO₂ absorption) (ibid.).

CIPRA also has a specific protocol in this regard, the Protocol on Soil Protection (CIPRA International; European Union, 1998), whose aim is to implement the Alpine convention with specific reference on the matter. When talking about land consumption, current policies try to limit it as much as possible, to minimise harmful effects in the short or long term (ibid.). It is also for this reason that the “new norm” proposed by the IOC suggests building venues only when they will result in a proven long-term legacy.

In these terms, the most striking example, that will be the object of paragraph 4.5, is the bobsleigh track, in Cortina, for which more than 800 centuries-old larch trees have been chopped down. Not only was a century-old forest destroyed, but the soil was disrupted to create a venue track that hosted a total of 16 competitions, less than 15% of the total Olympic events that took place during the games (Pietrobelli, 2025).

4.3.4 ARTIFICIAL SNOW

The third breach of the Alpine Convention is related to Art.2 let. E which concerns water management and makes explicit reference to the preservation of water systems:

e. water management: the objective is to preserve or re-establish healthy water systems, in particular by keeping lakes and rivers free of pollution, by applying natural hydraulic engineering techniques and by using water power, which serves the interests of both the indigenous population and the environment alike;

Indeed, in order to guarantee the necessary snow cover, artificial snow for MSEs needs to be produced with the help of technical infrastructure that, among the others, include snow cannons, reservoirs with a drainage system, pipe systems and cooling towers, as well as snow farming (CIPRA, 2025). These installations, predictably, have a negative impact in terms of landscape, energy, and water.

Milano Cortina, as well as previous Winter Olympics, is not exempted from the extensive use of water to produce artificial snow, essential for winter sports. According to Chavi (2026), MiCo OCOG planned to produce “No less than 2.4 million cubic meters of artificial snow: a volume comparable to the Great Pyramid of Giza, Egypt: a pyramid 200 meters high and 190 meters wide”, an amount of snow that requires nearly 1 million cubic metres of water. This, of course, makes the issue one of the most tangible and controversial symbols of the Olympics: to produce enough artificial snow to guarantee events worthy of the name, that otherwise would no longer take place. This adds to the fact that the vagaries of climate in Cortina and surrounding areas do not guarantee the necessary snow cover, an aspect that for the Beijing Olympics in 2022 was partly protected by the dry winter climate (ibid.).

Sadly, the use of artificial snow has become the rule for major international events: previous Winter Olympic Games in Sochi and Pyeongchang were based, respectively, on 80% and 90% of the times of artificial snow (Goldstein, 2024). This happens because the standards of density, uniformity and resistance for certain competitions, e.g. biathlon, are difficult to achieve relying only on natural snow, especially due to global warming and its effect on snowfall decreases even at altitude (Chavi, 2026). Indeed, as Pietrobelli (2025) points out, between 1920 and 2020 the amount of snowfall in the Alps dramatically decrease by 50% in the southern-facing side, that is the Italian and Slovenian side.

Moreover, the impact of global warming will mean that 53% of tourist destinations will not have enough snow for the winter season, thus affecting a whole economic sector. The problem is not only the decrease of snowfall, but the fact that higher temperatures make snow melt faster and change the alpine ecosystems: according to Legambiente (Legambiente Italia, 2025) this is a self-perpetuating cycle driven by human activity, unwilling to accept change, hence supporting the ski industry which will leave behind a number of abandoned buildings.

The Winter Olympics accelerate the excessive employment of water and energy resources: MiCo predicted a production of 2 million cubic metres of artificial snow, using 837 thousand cubic metres of water (Pietrobelli, 2025) directly taken from mountains streams (as for the Boite in Cortina, where up to 98 litres per second will be collected) or stored in hill reservoirs (as in Livigno) (Chavi, 2026). Although the energy used was 100% renewable, reducing the CO₂ released in the atmosphere, the amount of water consumption was estimated to be the annual level of an average city like Sondrio, with 20,000 inhabitants (ibid.).

However, it is worth mentioning that some solutions are being developed. Beijing 2022, for the first time in history, applied a natural CO₂ refrigeration system in four ice-making venues, thus developing a climate-friendly ice-making system that marked an important step in sustainable ice-making solutions (Liu, Bian, & Lu, 2023). To conclude, Vanda Bonardo, President of CIPRA Italy (MW Italia, 2026) states:

Ninety-eight litres per second can be used to ensure perfect slopes for the Milan-Cortina 2026 Games. It is a technical detail, but also a powerful metaphor: whilst we celebrate the sporting event most closely associated with the idea of nature and the cold, we have to artificially produce what should be its natural prerequisite.

4.3.5 TRANSPORT SYSTEM

The last aspect worth presenting is that of transports:

j. transport: the objective is to reduce the volume and dangers of interAlpine and transAlpine traffic to a level which is not harmful to humans, animals and plants and their habitats, by switching more traffic, in particular freight traffic, to the railways in particular by providing appropriate infrastructure and incentives complying with market principles, without discrimination on grounds of nationality.

Undoubtedly, it is predictable that all the athletes, trainers, staff, journalists and volunteers that are essential for all the aspects of the Games, would generate a constant stream of vehicles, especially in the mountain areas where the roads are limited and traffic jams are frequent. Indeed, as Pietrobelli (2025) claims: “In total, approximately 2,019 cars, 713 minivans, and 465 buses were

used for Olympic stakeholders only”³⁸. In addition to that, around 504 buses will transport around a million spectators to the mountain race venues, picking them up from the car parks, set up outside the clusters. “In Cortina, 183 buses will run for more than a million kilometres, while in Anterselva a total of 89 buses will drive spectators over a distance of 200,000 kilometres”³⁹ (ibid.) and this will sum up with almost 90,000 accredited people who will be deployed across all the valleys and cities.

It is not a coincidence that most of the funds, apart from the competition venues, were invested in the implementation or creation of infrastructure such as roads, motorways, tunnels and railways (SIMICO S.p.a, s.d.): this also allowed MiCo to offer promotions to incentivise the use of public transport. For example, in the whole Trentino Province, volunteers and spectators were allowed to travel for free, by showing their pass or ticket for the competition (Provincia Autonoma di Trento, 2026).

Some scholars investigated which strategies could encourage spectators to use public transport to reach a competition venue. According to Simms & Parkinson (2026, p. 10) the IOC could expand preferential ticket-pricing measures, reducing dependence on air-travel and encouraging rail and coach ones, given that “Revenue from tickets is a comparatively small fraction of total income, around 13% at Milano Cortina 2026, any negative effects on the economics of the Games should [then] be small”.

In conclusion, as concerns the solutions adopted by MiCo in terms of transport, they have been perceived as not entirely sustainable, both in terms of the construction of new infrastructure and the service offered to visitors and spectators, since sometimes the buses in charge of the service to and from the competition venues were not completely full, if not with only few passengers on board (De Bettio, 2026). This also resulted in a partial breach of the Convention and its Transport Protocol (CIPRA International; European Community, 2007), whose article 11 describes how “The Contracting Parties shall refrain from constructing any new, high-capacity roads for transalpine transport”. However, according to specific terms, they may carry out these projects: among the others, if they provide an Environmental Impact Assessment which, as anticipated at the beginning of this chapter, was not the case for Milano Cortina 2026.

4.4 THE LEGACY OF MICO 2026

Building on the four typologies of legacy established in paragraph 2.3.1, positive, negative, tangible, and intangible, this section examines the various legacies of the Olympic Winter Games. Before

³⁸ My translation from o.v.: “In totale, [circa] 2019 auto, 713 minivan e 465 autobus [sono stati impiegati] soltanto per gli stakeholders delle Olimpiadi” (p.58)

³⁹ My translation from o.v.: “A Cortina 183 pullman copriranno un milione di km, mentre ad Anterselva 89 bus trasporteranno gli spettatori per 200 mila km” (p.58)

analysing these specific impacts, it is useful to establish how Preuss (2004) defines the Olympic outcome in general terms:

The true outcome of the Olympic Games is measured in the infrastructural, political, ecological, and sporting impacts a city and a country receive from the Games and not in a simple subtraction of the expenditures from the revenues. Even if this difference was only used to express the economic impact of the Olympic Games, ignoring macroeconomic and intangible effects would lead to a result with a very limited meaning (p.26)

Preuss also illustrates the estimated duration of the major Olympic Games outcomes, categorising them according to their timeframe (short- or long term) and their level of visibility. To do so, he analyses the case of the Millennium Olympics, held in Sydney from September to October 2000. In the Impactmatrix presented below, the impacts generated by the Games are presented according to visibility and timeframe. The graphic is useful when considering the effects of Milano-Cortina, as some of the categories are still influenced nowadays.

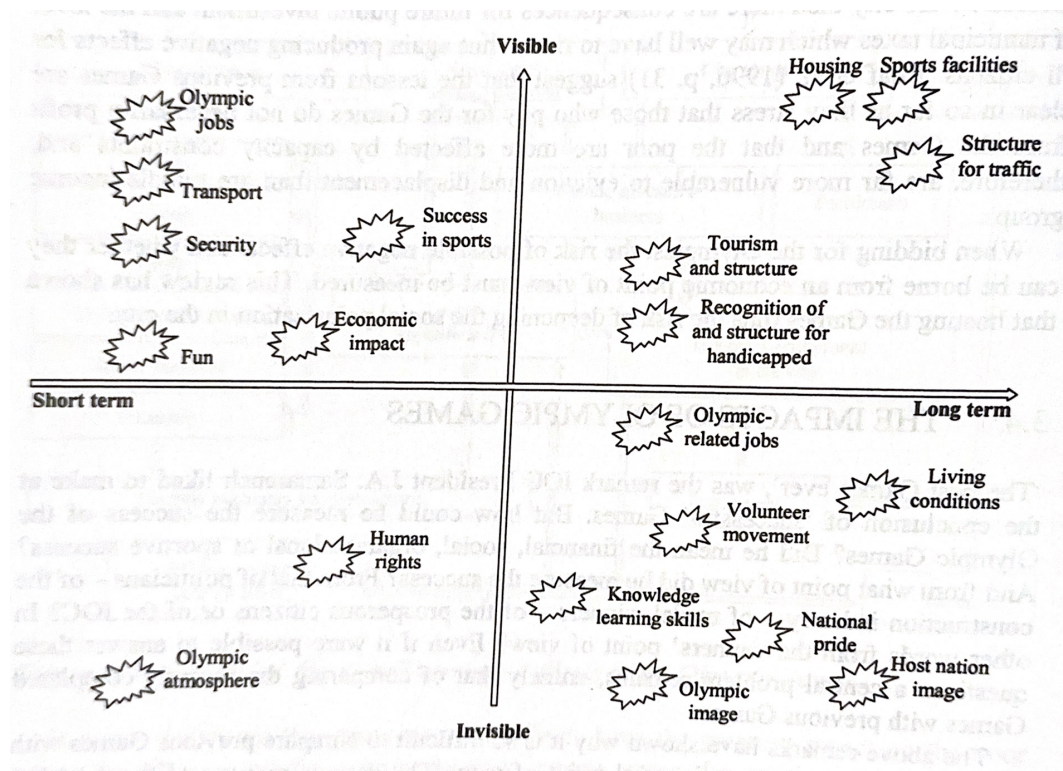


Figure 19 Impactmatrix of the Sydney 2000 Olympic Games. Adapted from Preuss (2002, p. 26)

The impact of the Games therefore encompasses both tangible and visible legacies (e.g. Competition venues) as well as intangible effects, which can influence aspects such as the host's nation image or boost national pride. Before examining Mico's legacies, it is necessary to analyse the initial premises and the specific commitments outlined in the bid.

4.4.1 THE GAMES PROMISES

As concerns the Milano Cortina 2026 Olympics, the first signs assessing the infrastructure impacts of the hosting country were encouraging, since 80% of the proposed facilities were either existing or temporary, compared to 60% of the previous editions, and the dialogue between the IOC and the OCOG made it possible to reduce bid and operational costs by 80% and 20% respectively (Goldstein, 2024). Moreover, the bid mentioned that “13 out of 14 competition venues needed for the games were already existing, and only one needed to be built from ground” (CONI, 2019, p. 4) and for this reason no new facility would have been build, unless it was already planned or it met clearly defined needs. Initially, only the PalaItalia (for the Men’s Ice Hockey tournament) was supposed to be built, as it was already integrated in the city’s long-term strategic plan; however, during the pre-Game phase, unexpected cost overruns shifted the Cortina Sliding Centre from a redevelopment project to a full-scale construction from scratch.

The Games were expected to be relevant also in terms of their sporting impact, being perceived as a “Catalyst to help more people play, watch and engage with sport, particularly winter sport” (ivi, p. 6). The power of hosting the Games, indeed, would be a key factor in giving a boost to existing programmes, as well as implementing a range of new sports-specific legacy programmes which would result, in the future, in:

- More successful athletes on the world stage;
- More young people playing sports on a regular basis;
- More awareness of winter sports and Olympic values in schools and society;
- More people inspired to engage in sport and to be physically active and healthier.

Although results in this term are not measurable yet, the results of the Italian Team in terms of performance and medals will undoubtedly contribute to increase the practice of winter sports in the country.

Finally, the OCOG was intended to use the “Power of the Games” as a catalyst to implement our long-term strategic plans, realise planned projects and provide many lasting benefits. For this reason, MiCo identified four priority themes (Sport, Social, Economic, and Environmental), presenting for each one specific priority objectives, along with targets and timescales (CONI, 2019, p. 68).

4.4.2 TANGIBLE LEGACIES

Tangible legacies include all the competition venues as well as the infrastructures that were built mainly because of Games, considering those built during the preparation, as well as those that will be completed when the Olympics end.

As stated by Bianchedi (Corvo, 2026, p. 7) “The legacy of these Games will be tangible, thanks to the new infrastructure and the opportunities of growth for the hosting territories”⁴⁰. As introduced in the previous paragraphs, the Olympics aimed to accelerate many new projects that otherwise would not have been realised. In this regard, many projects already introduced in the bid dossier mainly concerned connections by rail and motorway, with the completion of on-going or already approved projects (CONI, 2019, p. 77), such as:

- The high-speed railway line up to Venezia, with a significant reduction in travel time from the journey activated since 2016;
- The highway ‘Pedemontana Veneta’ planned to be fully operational already in 2020, a 94km 2+2 lanes road offering a reliable alternative solution to A4 Milano-Venezia and contributing to reduce the travel time between Milano and Cortina via Treviso;
- The state road ‘S.S.51 Alemagna’ through Valle del Cadore, and the alternative ‘S.S. 52 Carnica’ (with similar travel times) to be considerably improved in view of FIS Sky Cortina 2021 World Championships;
- The numerous modernisations measured expected for the national roads ‘S.S.36’ del Lago di Como e dello Spluga’ and the equivalent S.S.38 ‘dello Stelvio’, connecting Milano to Valtellina, mainly introducing some city by-passes that are part of the Lombardia Region Transport plans;
- The improvement in the railway connections to the mountain areas are also in line with the Lombardia Region’s vision for rail infrastructure implementation, and also with their approved ‘Programme (DGR 6932) for the purchase of rolling stock for the regional railway service for the years 2017-2032’, an investment plan for the purchase of new high-capacity rolling stock, to reduce their average age to 12 years by 2025. At the same time, the Veneto Region is working together with national rail operator RFI for the electrification of some existing network segments, to be completed by 2020. In anticipation of the completion of the Dolomites railway ring, RFI is also considering the electrification of the Ponte nelle Alpi-Calalzo section;
- Finally, the Games smart traffic operation systems will largely take advantage of the technologies in course of implementation by the Veneto Region and the road concessionaire ANAS, which will improve the movements along valleys, specifically towards Cortina.

⁴⁰ My translation from o.v. “L’eredità di questi Giochi sarà tangibile, con nuove infrastrutture e opportunità di crescita per i territori coinvolti”.

Despite the long list of projects presented above, not all of them were completed: the high-speed railway line from Brescia to Verona, as part of the Milano-Venezia line, is supposed to reach completion by June 2026. Moreover, the brief train connection between Venice Airport and the Mestre train station, initially expected to be created in time for the Olympics, is still in its early stage, with the completion date now scheduled for June 2027 (Chiesa, 2025).

4.4.3 INTANGIBLE LEGACIES

“[But the legacy] will, above all, be intangible, through programmes focused on education, culture, and the “Italia dei Giochi” initiative, which will reach every corner of the country”⁴¹ (Corvo, 2026, p. 7). Bianchedi (ivi, p. 9) claims as well that the Games are a unique opportunity for Milano, Cortina and all the hosting territories, as well as for the whole country, since “The Olympic and Paralympic Games will shine an international spotlight on our country’s ability to combine tradition and innovation, culture and business, resilience and creativity”⁴².

The intangible legacy of the Games include all the aspects that are not measurable in practice but can include knowledge transfer or changing behaviours, such as Olympic tourism, the promotion of the host country, numerous job positions before, during, and after the Games, as well as the promotion of Winter Sports to attract and inspire new athletes.

Pre & Post-Olympic Tourism

As presented by Preuss (Preuss, 2004, p. 58) “The announcement of the Olympic Games alone will not attract additional tourists to visit the city. However, the level of awareness of a future host city is increased as early as during the bid phase which, in turn, could indirectly lead to an increase in tourism”. For this reason, in the pre-Olympic phase, the organisers of the Games are the largest group of visitors, together with athletes and members of the delegations, judged and guests of test events.

Post-Olympic tourism, on the other hand, is positively influenced by media coverage during the event, which will “Increase the desire of potential tourists to visit the country after the Games due to a change in perception” (ivi, p. 59).

From this perspective, Milano-Cortina truly elevated Italy as a top winter destination, broadening the popular image beyond the usual cultural experiences, with offers in terms of alpine and sports adventures. Moreover, the surge of athletes, teams, media, and spectators drove strong demand for accommodations, dining, transportation, and services across all the competition cities (EU Tourism Platform, 2026). The Games accelerated investments in tourism-relevant infrastructure,

⁴¹ My translation from o.v. “Ma sarà soprattutto intangibile, attraverso programmi di education, cultura e “Italia dei Giochi”, che coinvolgeranno ogni angolo del nostro Paese”

⁴² My translation from o.v. “Le Olimpiadi e le Paralimpiadi di Milano-Cortina accenderanno i riflettori internazionali sulla capacità del nostro Paese di coniugare tradizione e innovazione, cultura e impresa, resilienza e creatività”

as well as enhanced digital services with multilingual support, expected to leave a positive legacy for regional tourism development (ibid.). Finally, cultural tourism formed a third important dimension for the event, since the multi-location format encouraged visitors to combine urban exploration and alpine nature, a model that supported longer stays and promoted a balanced visitor flows across the different regions (ibid.).

Jobs during the Olympic Games

One of the arguments repeatedly mentioned by Olympic opponents is that the Games create only short-term employment with a low benefit to the population. However, Preuss (2004) is once again able to provide data that show how, in general terms, the Olympic Games lead to a considerable employment effect, which would be rated even higher if both profits and induced effects were to be included. Naturally, most jobs were created and/or maintained in host cities with the strongest economic impact. Despite this, it is difficult to confirm the positive effects in statistical terms, for two main reasons: first, from Munich 1972 onwards, comparing the employment effects of the Games has become extremely difficult due to the fact that the unification of country specific data led to several distortions, thus reducing the preciseness of the results; second, because the employment in a city also depends on factors such as the economic situation and the realisation of other projects. However, Preuss (ibid.) also points out that, if exclusive consideration of the OGs would be disregarded and the OWGs, hosted in much smaller cities, would be examined, the effects could be proven much more easily, because the economic impact to the host city would be comparatively larger. To conclude, “The OGs undoubtedly induce additional work which may: lead to new jobs, secure existing jobs, increase the stress for employees in existing jobs, crowd other work out” (ivi, p. 251).

An undeniable truth is that “The jobs required to host and organise the Games are temporary from the start” (ivi, 252): the number and duration change directly according to the preparation needed, both in terms of workforce and time, for the Olympics. The Games-related work can be divided into four phases, described by Preuss (ibid.) as:

1. *The bid phase*, which induces additional work;
2. *The preparatory phase*, where the work is increased;
3. *The Games phase*, when most of the work must be done, before sharply decreasing when the Olympics end;
4. *The post-games phase*, when jobs are induced by the Games-related economic impact.

For the OCOG, the average employment duration may be of approximately four years, while the staff might be employed for up to 12 months. The real difference is for the sectors that expand through the OGs, such as the building and the tourism sectors, where lasting jobs are created and, when the Games

are over, they are no longer related to the event itself, becoming jobs which have been pulled forward by the Games or that are related to the legacy.

In the case of Milano Cortina 2026, the Games were expected to create around 36,000 new jobs. This was also possible thanks to “Impact 2026”, a social procurement programme that placed local, social, micro, small, and medium-sized companies at the centre of supply opportunities. Impact 2026 (IOC, 2026) helped these companies access contracts, build skills, and create more inclusive employment. Participating businesses were also encouraged, through the programme, to recruit and train people facing barriers to employment, including unemployed young people, migrants, people with disabilities, and ex-offenders. Totally, more than 400 companies have participated in training on sustainable procurement, networking, and innovation, alongside a matchmaking platform linking local organisations to upcoming opportunities, and organisers claim that a similar model will support the upcoming Dolomiti Valtellina 2028 Winter Youth Olympic Games (ibid.). “Impact 2026 helps to create sustainable job opportunities, promote the professional integration of vulnerable groups, and develop the local economic fabric of the various territories involved,” says Arram Kim, IOC Head of Legacy. “It aims to stimulate the growth and economic sustainability of businesses and territories while making the Games more inclusive and sustainable” (ibid.).

To conclude, Randstad Italia, the Games HR partner, interviewed approximately 10,000 candidates, recruiting around 2,500 temporary workers for MiCo 2026 (Johnson C. , 2026). The Randstad Research Milano Cortina 2026 Observatory included, in its first report, how a total employment demand generated for the games amounted approximately to 36,000 jobs. It also highlighted how the most important aspect deriving from the Games is the legacy in terms of skills acquired during an experience such that of the Games (ibid.).

“Italia dei Giochi” project

This project, in collaboration with CONI and the Italian Paralympic Committee (CIP), encouraged, promoted, and coordinated sport-related initiatives across the country, with the aim of raising awareness of the Games and spreading enthusiasm for them. The project was open to everyone and promoted clear goals:

- To raise awareness and foster social interaction
- To promote Olympic, Paralympic and sporting values
- To promote education
- To broaden the experience

The project offered the opportunity to celebrate and amplify the enthusiasm generated by local initiatives by linking them to the Olympic and Paralympic Games, thus raising their profile and encouraging participation in sport (CONI; CPI, 2026).

“Fuoricampo” project

*“Fuoricampo”*⁴³ is the sport activities programme, promoted by the Department of Sport, Tourism and Youth Policy of the City of Milan in partnership with Fondazione di Comunità Milano, with the support of Fondazione Fiera Milano, Fondazione EOS – Edison Orizzonte Sociale, Fondazione Mazzola, Fondazione Milan and Chiomenti. The project will support more than 300 free and accessible events spread throughout the city of Milan, both in the squares and in the parks, from February to December 2026. Aiming at the youngest, and especially to those living in vulnerable social and cultural circumstances, the activities will include the practice of sports, e.g. basketball, football, skateboard and several others, in all the sixty venues where the programme will take place. *“Fuoricampo”* represents one of the key aspects of MiCo 2026, through which sport becomes a legacy to support social and educational networks and, according to one of Milan’s city councillors, “Sport should not wait for young people to come to the facilities but should “go out” to meet them in their neighbourhoods”⁴⁴ (Comune di Milano, 2026).

4.4.4 POSITIVE LEGACIES

Positive legacies are intended as the result of purposefully planned initiatives to achieve a certain outcome, or the consequences of the day-to-day actions of the organiser (Jones, 2018).

In this category, also venues intended for a follow-up usage can be included. Indeed, Preuss (2004) claims that the follow-up usage of facilities such as villages and sport venues can be of different kinds: identical usage, alternative usage, and mixed forms of follow-up usage. In the case of Milano Cortina 2026, there are two examples of positive venues which were conceived to become facilities with alternative usage after the Games: the Olympic Village and PalaItalia Hockey Centre in Milan.

Indeed, the city of Milan has a 2030 Urban Development Plan, which sets out a vision for a greener, more liveable and resilient city, investing in public transport, expanded social housing, and a stronger community infrastructure. In this plan is included the Milan Olympic Village, built on a former railway site, designed with a clear post-Games legacy that will make it Italy’s largest student housing complex, hosting up to 1,700 students, thus responding to a well-documented local need

⁴³ In English could be translated as “Off the pitch” or “Off the [Game] field”

⁴⁴ My translation from o.v. “Lo sport non deve aspettare che siano i ragazzi a entrare negli impianti, ma andare loro incontro nei quartieri”

(IOC, 2026). The delivery partner responsible for the design and construction process was FS Sistemi Urbani, a company 100% owned by FS, the Italian Railway Infrastructure company, which is the owner of the area (CONI, 2019, p. 18).



Figure 20: Before and After the Olympic Village. Retrieved May 2026, from: <https://altreconomia.it/impronta-olimpica-2026/>

In parallel, the Municipality of Milan and the public transport operator have also launched a comprehensive programme to eliminate architectural barriers across the metro network, which, before the Games were awarded, had only two fully accessible lines (ibid.).

The Area Milano Santa Giulia, in the Santa Giulia district (southern neighbourhood of Milan), is expected to become the largest arena for sporting and music events in Italy. After hosting the male competitions of Hockey during the Games, in the future the Arena is expected to host concerts (with up to 16,000 spectators) as well as basketball and tennis tournaments (Redazione The Plan, 2024). The facility, owned by a private investor that agreed to grant use and control of the venue to the OCOG, was conceived as part of a wider regeneration project denominated Montecity-Rogoredo (CONI, 2019, p. 19).

The positive legacies will not be exclusive to Milano and Cortina, but they will in turn positively impact also the other hosting territories, for example South Tyrol, where it was possible to create infrastructures that had been in the planning-stage for a long time. This is not only limited to the modernisation of sport facilities, but also includes transport infrastructure with, among the others, the Val di Riga variant: this made the rail network much more attractive, thereby reducing road traffic (Provincia Autonoma di Bolzano, 2026).

4.4.5 NEGATIVE LEGACIES

The last category is that of negative legacies, which can include a wide range of examples, among the others: debts from construction, high opportunity costs, unneeded infrastructure, temporary crowding-out, and loss of permanently returning tourists.

As Wimmer (1975, as cited in Preuss, 2004, p. 74) reported, “On the occasion of the Grenoble 1968 Olympics, Brundage said that modern buildings are a blessing for those cities which host the Olympics”. Nowadays, however, they are often a great burden.

No example in this sense is more fitting than the Cortina Sliding Centre, commissioned by the Veneto Region and the OCOG, which quickly became the most evident obvious of the unsustainability of the event. This, however, will be the object of the next section, as the situation is more complex and requires the adequate space for discussion.

The examples of negative legacies are not limited to the Sliding Centre. To start with, the previously mentioned snowmaking reservoir in Livigno (paragraph 4.3.4) is the symbol of a legacy that was long-awaited for but turned out to be a negative cornerstone. Built at a cost of €21.7 million, the artificial reservoir on Monte Sponda, in the Mottolino area of Livigno covers an area of more than 5,000 square metres and has an estimated capacity of over 200,000 cubic metres of water, which supplies the snow-making systems from an altitude of 2,350 metres down to the valley (Pietrobelli, 2025). Simico’s CEO, claimed that this new reservoir marked a vital source of water for snowmaking, being a “Magnificent structure, one of the largest in Europe, and a symbol of the legacy we are striving to achieve, so that the Olympic infrastructure can become an opportunity for regional development”⁴⁵ (ivi, p. 73).

Another instance of a legacy that will leave the hosting community with a burden to manage in the upcoming years is the Apollonio-Socrepes cable car in Cortina. The initial project, presented in February 2025 (a year before the start of the Games) included three parts: (1) a cable car from the centre of Cortina (Apollonio Stadium) to Socrepes; (2) an underground car park with almost 750 spaces and 120 private garages; (3) a retail and catering areas, as well as a rapid pedestrian link that crossed Cortina from the former railway station to the lifts in the Faloria/Cristallo area. The delay in project approval resulted in the project being divided into three different smaller projects, the three areas listed above (Dott. Gillarduzzi, 2025). The cable car, with a project cost of around €30 million, was intended to transport approximately 2,400 people per hour to the summit: the problem, which arose from the early stage of the project, is that it is situated on landslide-prone terrain, affected by widespread incidents, with geologists having classified the hazard levels as P2 (medium) and P3

⁴⁵ My translation from o.v. “è un’opera maestosa, tra le più grandi in Europa, un simbolo di quella legacy che tanto perseguiamo, poiché le infrastrutture olimpiche possano diventare un’occasione di sviluppo per il territorio”.

(high). The project had therefore temporarily put on hold, though it resumed in July 2025 (Pietrobelli, 2025). That summer, indeed, showed the world that the geologists were right, being that two major landslides in Cancia and San Vito di Cadore blocked the Alemagna for days. Despite that, the cable way was built, with construction works officially terminated a month and a half after the Olympics, when on March 5th SiMiCo announced in a statement that the testing activities were to start, but it did not specify when exactly that would happen (Il Post, 2026).

Many people, experts and not, publicly opposed the initiative of the cable car, and among the others the geologist-engineer Gillarduzzi, previously mentioned, who provided his opinion about the project. He initially claimed (Dott. Gillarduzzi, 2025) that “If the cable car project were to be approved by the Services Conference, there would be legitimate doubts as to whether it is technically feasible to build it safely and complete it on schedule”⁴⁶ being that the ski lift is located on an active landslide and would be completed between April and October 2025, a period that is notoriously very rainy and characterised, as also noted in the EIA documentation itself, often in flood, perhaps overflowing the banks. Moreover (ibid.):

Even if the cable car were to be built, in order to open it to the public – even on a limited basis for Olympic staff – the body responsible for its operation would have to be able to demonstrate, through monitoring of the terrain and the cable car system, that it can indeed be used safely and does not compromise public safety.⁴⁷

Nevertheless, SiMiCo insisted that the cable car was among the priorities of the Games, without explaining what the real priority would be, since the project will cost (when realised) around 30 million euros in public funds, covering design costs, land acquisition, administrative procedures and construction, in addition to the costs of maintenance, operation, and any eventual demolition, which are expected to be borne by the Municipality of Cortina (ibid.). Moreover, the prospects presented how, during the 50-year lifespan of the plant, the revenue will at least cover the operating and decommissioning costs are slim and highly uncertain. Gillarduzzi (ibid.) then concluded by claiming that:

The local community has certainly not identified the need for additional car parks, a shopping and dining area, and a cable car that ravages the landscape and ancient villages as necessary or a priority.

⁴⁶ My translation from o.v. “Se il progetto della cabinovia venisse approvato dalla Conferenza Dei Servizi, ci sarebbero legittimi dubbi sull’effettiva possibilità tecnica di riuscire a costruirlo in sicurezza e completarlo nei tempi previsti”

⁴⁷ My translation from o.v. “Anche se la cabinovia fosse costruita, per poterla aprire al pubblico, anche a servizio limitato degli addetti ai lavori delle Olimpiadi, l’ente che ne avrà la gestione dovrà essere in grado di dimostrare, tramite monitoraggio del terreno e dell’impianto di risalita, che può effettivamente essere usata in modo sicuro e non compromettere la sicurezza pubblica”

(...) The cable car will have an inevitable, permanent and significant negative impact on the natural environment, landscape, and historical heritage of Cortina, as well as on the quality of life of residents in the areas surrounding the facility and of the people of Cortina. Furthermore, the construction of the cable car creates an avoidable hydrogeological risk that will potentially burden the Municipality of Cortina with management and maintenance costs, diverting funds away from other priorities for the local community.⁴⁸

The cable car will then remain among the most negative legacies of the Games, yet it still is not functioning.

4.5 THE CONTROVERSIAL BOBSLEIGH TRACK

The Cortina Sliding Centre is arguably the most heavily criticised infrastructure of the Milano-Cortina 2026 Games, with concerns over the sustainable nature of the project. This section aims to outline the chronological phases of its development while providing evidence to support the claims of environmental and economic unsustainability.

Before analysing the events that led to the execution of the project, it is valuable to consider Preuss's perspective (2004, p. 198) on sports infrastructure: "If only one or two sports facilities are missing and there is no follow-up demand, then these missing facilities could be erected temporarily", by allocating the related expenditures to the location costs, which can include the costs of pulling forward. This theoretical framework may raise a critical question: why was the Cortina Sliding Centre constructed permanently despite a clear absence of follow-up demand and a strong opposition from the local community? As Filippucci (2025) notes in these terms: "The bobsleigh track is perhaps the most well-known example and the one that has attracted the most media attention regarding the delays and dysfunctions of the Italian organisational machinery for the 2026 Olympics": the factors behind the controversy will now be presented.

The official debate surrounding the Cortina Sliding Centre began in October 2020, when IOC President Thomas Bach addressed a letter to the newly re-elected President of the Veneto Region, Luca Zaia. Bach emphasised the need to simplify the organisation of the Games, arguing against the construction of a new track, suggesting instead the prioritisation of legacies that would directly benefit the local population. Furthermore, the IOC President highlighted that a new bobsleigh track was

⁴⁸ My translation from o.v. "La cittadinanza non ha certamente individuato la necessità di ulteriori parcheggi, area commerciale e ristoro, e di una cabinovia che devasta il paesaggio e villaggi antichi, quali necessari o prioritari. (...) La cabinovia avrà un'inevitabile impatto negativo permanente e significativo sull'ambiente naturale, paesaggio e patrimonio storico di Cortina, nonché sulla qualità della vita degli abitanti delle zone limitrofe alla struttura e dei Cortinesi. Anche la realizzazione della cabinovia crea un rischio idrogeologico che è evitabile che potenzialmente affliggerà il Comune di Cortina con spese di gestione e manutenzione che diroteranno fondi da altre priorità per la comunità locale".

unnecessary given the limited number of athletes competing in sliding sports. He also pointed out that the budget allocated was significantly underestimated compared to the costs incurred in previous Olympic editions. However, Zaia dismissed the IOC's concerns and reaffirmed the commitment of his administration to build the facility (Pietrobelli, 2025).

In January 2021, the Directorate-General of the IOC, Christophe De Kepper, further emphasised the statement, claiming "It is clear that our views differ considerably. We are firmly convinced that there are sufficient facilities to accommodate these sports"⁴⁹ (ibid.). Consequently, the proposal to hold the sliding competitions in Innsbruck was officially put forward as an alternative and, reiterating the concerns regarding the long-term legacy and the global image of the Olympic Games, the IOC clarified its position once again in April 2021, stating that while the final decision rests solely with the Veneto Region, but the associated expenditures would not be included in the official Games' investment budget. Furthermore, the OCOG would only utilise the venue exclusively during the Olympics; before and after the Games, the operational and financial management of the track would remain the sole responsibility of the Veneto Region.

In 2021, President Zaia asserted that the track would cost only half as much as the one built in Cesana for the 2006 Turin Winter Olympics (which cost €110 million). The initial plan focused on renovating the historic Eugenio Monti track, originally constructed in 1923 and decommissioned in 2008. However, technical assessment later revealed that constructing a brand-new sliding centre would be more cost-effective than restoring the old structure, taking in consideration also the need to meet the standards required for modern bobsleigh, skeleton, and luge competitions. Ultimately, the total expenditure reached approximately €124 million, significantly exceeding the early estimates (ibid.).

In September 2022, a petition signed by 1,185 people, not only residents but also advocates for the region's heritage, was submitted to the IOC. In response, President Bach declared that the project was no longer within the IOC's competence, following the Veneto Region's explicit declaration that the facility would have been constructed regardless of the Olympic Games. At that point, from the IOC's perspective, hosting the competitions in another venue seemed pointless, despite initial suggestions (ibid.). By October 2022 different macroeconomics shocks, including the geopolitical conflict between Ukraine and Russia, the inflation and rising raw material prices, resulted in an expected rise in the projected budget for the sliding centre, from €55 million to approximately €80 million. To mitigate the financial burden on the local administration, Governor Zaia successfully

⁴⁹ My translation from o.v. "È evidente che le nostre visioni differiscono considerevolmente. (...) Riteniamo che ci siano strutture sufficienti per soddisfare la pratica di questi sport" (pp. 253-254).

transferred the project's financial responsibility, shifting the funding requirement from regional coffers to the Italian central government (ibid.).

Concurrently, between October 2022 and October 2023, the two consecutive public call for tenders went entirely uncontested, and no construction firms submitted bids due to the tight deadlines and financial risks. In January 2023, the inter-departmental decision-making concluded the approval process without requiring a comprehensive EIA. The formal procurement suffered immediate setbacks: the first tender, issued with a budget of €81.6 million and a strict 807-day construction timeline, targeting November 2024 for completion, closed in June 2023 without success. A second tender issued later that summer with a deadline in September similarly failed to attract bidders. In the planning phase a critical flaw in the timeline was highlighted: while the initial bid dossier estimated a mandatory 40-month construction window, subsequent feasibility studies in 2021 reduced the period to 31 months, which was later adjusted to 33 months. However, by June 2023, the remaining execution window had shrunk again to just 807 days, approximately 28 months (ibid.).

A pivotal shift occurred in October 2023, during the 141st IOC Session in Mumbai, when the President of CONI, Giovanni Malagò, officially announced that the Cortina Sliding Centre project would be abandoned, stating that the Italian Government would instead evaluate alternative (and already existing) tracks that presented a significantly more viable and sustainable solution. Immediately following this announcement, Mountain Wilderness (MW Italia, 2023) celebrated the decision, reiterating how the facility would have been a severe waste of public funds, which had by then escalated to an estimated €128 million. MW, alongside other environmental organisations and local citizens, had been campaigned against the infrastructure for months, fiercely opposing the destruction of a centuries-old larch forest. Concluding the article (ibid.), the association emphasised the broader significance of the victory:

This outcome proves we were correct in asserting that the Cortina track would be a shameful waste of public money with a severe environmental impact. Above all, it demonstrates that certain battles are worth fighting to the very end, despite the seemingly massive disparity between the forces involved.⁵⁰

Nevertheless, the infrastructure's project continued: in September 2023, a third public call for tenders was unsuccessful, as none of the 13 specialised construction firms invited to participate submitted a bid, citing massive financial risks and unfeasible delivery timelines. Following this setback, the Italian Government appeared ready to accept the idea of hosting the sliding competitions abroad, most

⁵⁰ My translation from o.v. “Questa vicenda dimostra che avevamo ragione nel dire che la pista a Cortina sarebbe stato un vergognoso spreco di denaro pubblico ad altissimo impatto ambientale e soprattutto dimostra che certe battaglie vale la pena combatterle fino alla fine, nonostante l'enorme apparente disparità tra le forze in campo”.

probably in Innsbruck. This compromise was praised by the IOC, which reiterated that utilising an existing venue fully aligned with the Olympic Agenda 2020 principles, which strictly forbid the erection of permanent structures lacking viable post-Games legacy plans (Pietrobelli, 2025). However, this international alternative faced immediate political backlash from regional authorities. President Zaia publicly argued that relocating the sliding events abroad would fundamentally leave Cortina with a drastically reduced programme of only eight competitions and 24 medals. As an alternative compromise, political actors proposed renovating the Cesana Pariol bobsleigh track, built for the Torino 2006 Winter Olympics but left abandoned since 2011. This proposal was swiftly dismissed due to the advanced structural degradation of the Piedmontese site, which was consequently decommissioned and dismantled with public funds officially in 2025 (ibid.).

In December 2023, the Italian Minister of Infrastructure and Transport (MIT), Matteo Salvini, unilaterally declared that the Cortina project would proceed with a new “light project”, heavily downsized, which could be completed more quickly, confidently asserting that it would not cost taxpayers "a single cent more" (ibid.). Administratively, this decision created an unprecedented logistical challenge: forcing a construction window of less than twelve months to execute an engineering feat originally projected to require forty months. At this point, an internal fracture in the organisational apparatus can be perceived: on one side Simico and MIT, both firmly committed to delivering the Cortina venue despite the compression of time; on the other, the OCOG, Fondazione Milano Cortina 2026, which sought to appease the IOC and, with a lacking confidence in SiMiCo's tight scheduling, continued investigating international alternatives beyond Innsbruck, operating under a regulatory window that mandated a hard construction deadline of November 2024 and mandatory technical homologation by February 2025 (ibid.).

This new, downsized project significantly altered the structural and environmental parameters established up to that point: the execution timeline was compressed from 807 to 685 days to complete the rough concrete shell, leaving fewer than 400 days to deliver the track for the first mandatory pre-homologation test runs with athletes (Filippucci, 2025); environmentally, the reforestation plan was postponed until spring 2026, a schedule that delayed the environmental remediation until after the conclusion of the games; lastly, the construction deadline originally mandated by the IOC was pushed back from November 2024 to March 2025 (Pietrobelli, 2025). Despite these severe logistical pressures, one positive environmental effect emerged: the total forest surface area slated for clearing was reduced by two hectares. Following the collapse of the previous open public tenders, the Italian construction firm Impresa Pizzarotti & C. submitted a formal bid under an emergency negotiated procedure. Winning the contract uncontested, the firm committed to completing the infrastructure within a record-breaking timeframe (ibid.).

In January 2024, the IOC dispatched another formal letter to the Italian OCOG where Kristin Kloster, Chair of the IOC Coordination Commission for Milano Cortina 2026, firmly reiterated that existing international venues were entirely sufficient and that a new sliding centre remained fundamentally unnecessary. Kloster also emphasised that the Italian authorities were failing to respect the Olympic Agenda 2020, which explicitly requires host countries to present a clear, financially viable, and long-term legacy plan. Nevertheless, Italy persisted with the Cortina construction and CONI was forced to maintain a dual-track strategy: while public works advanced on-site, the committee quietly kept the possibility of relocating the events abroad open as a contingency plan, driven by deep institutional anxieties that the domestic infrastructure would not be completed in time for the official pre-Olympic test deadlines (ibid.).

Against all expectations, the construction site was officially declared open on February 19th, 2024: four days later, an IOC delegation arrived in Venice for a press conference, publicly praising the exceptional beauty of the mountain landscape of the region. However, initial construction operations suffered from immediate delays: statistical data emphasised the unprecedented nature of the timeline, since no modern sliding facility had ever been completed in fewer than 880 days, a record held by the Centre used for the Beijing 2022 OWG. The official test events took place on March 25, 2025, confirming the structural completion of the venue within a record-breaking timeframe. However, during a subsequent meeting with SiMiCo's CEO, IOC President Thomas Bach reportedly observed that the Cortina Sliding Centre would likely be the last of its kind, since the three sliding sports are now on the verge of being dropped from the Olympic programme, due to their high structural costs and low global participation. Indeed, the issue is reflected also at the national level, since the Italian active athlete team comprises only 7 women and 15 men competing in bobsleigh, 5 in skeleton, and 9 and 11 in luge respectively (ibid.).

As anticipated above, a significant number of Ampezzo residents, along with more than fifty associations and activists from across Italy, protested on 24 September 2023 and again on 19 February 2024 to oppose the construction of the new bobsleigh track and to urge institutions to host the events in Innsbruck, using the already operational facility. Furthermore, *Italia Nostra Belluno*, under the leadership of Giovanna Ceiner, filed a legal complaint with the Regional Administrative Court (TAR), citing violations of (1) the public procurement code, (2) the cultural heritage code, and (3) the environmental code. However, after repeated delays, the legal challenge became too costly and was abandoned due to a lack of funds (Filippucci, 2025).

Additionally, beyond logistical and environmental concerns, the project generated deep social friction among the local population, who actively protested against a systemic lack of public common sense. Notably, a civic coalition uniting the Carnia and Cadore territories (*Comitato Peraltrestrade*)

denounced the massive economic distortion of the project, highlighting (Pietrobelli, 2025, p. 294) that “The overall expenditure for the track amounted to approximately 25% of the entire healthcare budget for the Belluno province, while simultaneously exceeding the total annual administrative budget of the Province of Belluno by 40%”⁵¹. Again, another component adding to the MSE’s long-term negative legacy.

The most controversial aspect of the entire project was the formal launch of the construction site on February 19, 2024, with the extensive fall of centuries-old trees within the historic Ronco Forest. The severe ecological impact of this intervention was immediately visible from satellite imagery, illustrating a stark landscape change before (2019) and after construction (2025).



Figure 21: Pre- and Post-construction of the Bobsleigh track in Cortina. Retrieved May 2026, from: <https://altreconomia.it/impronta-olimpica-2026/>

Some citizens highlighted the irony of the loss: a unique forest ecosystem that had successfully survived the devastations of the Vaia storm, beetle infestations, two World Wars, and decades of local real estate development ultimately succumbed to the pressures of Mega Sport Events and its tourism. The destruction triggered symbolic protests from civil society: Mario Brunello, a renowned Venetian

⁵¹ My translation from o.v.: “La pista corrisponde al 25% del bilancio della Sanità per il territorio bellunese e supera del 40% l’intero bilancio della Provincia di Belluno”.

cellist, performed a melody among the trees to give a voice to the silent forest. Criticising the project (Pietrobelli, 2025, p. 305), he claimed: “This forest is being cut down against all evident reasons, while its mountains are deprived of snow, water, and cold temperatures, just a few kilometres away from the most polluted plain in Europe, on a planet fast becoming incompatible with human life”⁵². Similarly, Alberto Peruffo, an environmental activist, mountaineer, and leader of the regional movement against perpetual chemical water contamination in the Veneto Region, carried out a symbolic act of non-violent resistance: using water-washable paint, he wrote the phrase “*non torneranno i larici*” (the larches will not return) on a nearby cableway pylon. His action directly denounced the logging of the ancient trees, which were slated to be replaced by thousands of small saplings: a compensatory measure that critics argued would take at least half a century to truly replicate a functioning forest ecosystem (ibid.).

Finally, further compounding the controversy was the remarkably low economic valuation assigned to the historic timber. According to the emergency contract parameters established by SIMICO, the felling operation valued the lumber at just €44.90 per cubic metre. Calculated against an estimated total volume of 2,200 cubic metres to be cleared, the financial return amounted to roughly €30 per centuries-old larch tree, yielding a net total of €98,780. While public documentation regarding the exact final count of destroyed vegetation remained heavily contested by independent environmental monitors, SIMICO officially declared at the end of February 2024 that the clearing operations spanned approximately two hectares of protected woodland, resulting in the felling of 560 mature trees and roughly 260 shrubs (ibid.).

To conclude, the latest news regarding the track date back to March 2026 when, days after the closing ceremony, technical problems and structural damage to the bobsleigh venue came to light, leading to the cancellation of the Italian Bobsleigh, Skeleton and Luge Championships, originally scheduled for March 10-12 at the Sliding Centre in Cortina (Gasca, 2026). According to the technical report drawn up by the Simico’s inspectors, after the Games the track showed signs of deterioration and defects, amounting to an estimated value of around one million euros. The problems reported by the inspectors include missing or damaged components, raised manhole covers, torn nets, unprotected technical equipment, and damage to pipework and control systems. The report conclusions led to the decision of cancelling the Italian Championships, marking the first major post-Olympic calendar change for a venue. Following the assessment, SiMiCo and MiCo Foundation needed to submit an action plan for the restoration of the facility, making the slope available for training sessions and national competitions as early as October 2026 (ibid.).

⁵² My translation from o.v. “Questa foresta viene tagliata contro ogni evidente ragionevolezza, mentre le sue montagne agonizzano prive di neve, di acqua e di freddo, a pochi chilometri dalla pianura più inquinata d’Europa, su un pianeta prossimo a non essere più compatibile con la vita umana” (p304)

4.6 THE ECONOMICS OF STAGING THE XXV WINTER OLYMPICS

While considering the different effects of the XXV edition of the WOG, it is necessary to analyse the economic impact of the Games and their deriving economic legacy. This section will then provide an analysis in this sense, starting with the costs that the organisation incurred while preparing for the event.

4.6.1 THE MACROECONOMICS EFFECTS

To start with, it is worth stating that the Games are notably expensive, and the costs behind their organisation grows one edition after the other. Although the data are not available for all the past editions, as presented by Goldstein (2024) the Winter Games, compared to their summer counterpart (which went from \$1,2 billions to \$7,2 between 1964 and 2018), are growing at a faster rate although the figures remain overall lower (between \$210 million and \$3,5 billions). Moreover (ivi, p. 135), “Costs have consistently exceeded budget forecasts, by an average of 172%, the widest margin of deviation among various types of mega-projects”⁵³.

Although the games are the results of a lot of expenses, according to Preuss (2004, p. 32) they can be distinguished between “Expensive and cheap”, where expensive games are those that require “Extensive investments in traffic infrastructure, communication systems, housing and sport facility construction”, e.g. a city that uses the Games to support long-term benefits or accelerate extensive improvements to city infrastructure, while “cheap” games are those where “Costs are largely limited to organizing and staging the Games”, for example a city where the use of existing facilities is maximised and only few facilities are built. The expenses related to the Games are of different nature, and according to Preuss (ibid.) can count:

- Expenses for the location of the competitions (e.g. venues and sport facilities), infrastructure for traffic and communication, Olympic villages;
- Competition materials (e.g. installations needed for timing and displaying results), sport equipment and sport-specific installations (e.g. volleyball nets), victory ceremonies (e.g. medals, national flags, gifts) and test events;
- Expenditures related to ceremonies and cultural events;
- Costs of up-to-date technology, required to host the Games and to ensure their quality;
- Costs of security, which forms an important part of the image of the Games;
- Costs of administration, where wages are the main one;
- Costs of public relations and corporate design;

⁵³ My translation from o.v. “I costi hanno sempre sfiorato le previsioni di bilancio, in media del 172%, lo scarto più consistente tra diverse tipologie di mega-progetti”

- Expenditures related to the international broadcasting centre;
- Expenses for the Olympic family, which counts all the athletes and the IOC members as well as all accredited persons, IF and NOC members, team officials, judges and umpires, sponsors and observers of future Olympics. This category comprises costs related to their transportation, accommodation, medical care, and accreditation.

Despite the above-mentioned distinction between expensive and cheap, all the Games (and arguably all the MSEs) have a macroeconomic effect on the hosting country, which may be more difficult to evaluate. Goldstein (2024) provides an analysis which reports this impact compared to a non-Games situation:

(...) several studies suggest a positive influence. The Athens Games had positive and statistically significant effects on the number of tourists (only up to 2008), their spending in Greece, and on export. Without the Games, both the GDP (by 2.5%) and the number of employed people (by 44 thousand) would have been lower in 2004. Similarly, for Rio the Olympics mitigated the impact of the crisis that Brazil was experiencing when the investments were made: without [the Games] the city's GDP in 2016 would have fallen back to the levels of 2007; with [them], the GDP per capita remained on the trajectory begun in 2012, when construction works started.⁵⁴

In this context, Preuss (2004) claims that the frequently emphasised economic benefit of the Games is often overestimated in both publications and economic analyses produced by or for the OCOG. An example would be when the number of tourists is estimated too optimistically. When considering the expectations for the Italian Winter Olympics, according to a report by Banca Ifis (Cingari, 2026) published one week after the beginning of the games:

The overall economic impact of the Games is expected to reach €5.3bn. Of that, €1.1bn is expected to come from spending by tourists and operational staff during the event itself, while a further €1.2bn is projected from continued tourism flows in the next 12 to 18 months. An additional €3bn is attributed to infrastructure and legacy investments, with both sporting and civil assets being either upgraded or constructed anew.

⁵⁴ My translation from o.v. “(...) sono diverse le analisi che suggeriscono un’influenza positiva. Atene produsse effetti positivi e statisticamente significativi sul numero di turisti (solo fino al 2008), sulle loro spese in Grecia e sull’export. Senza i giochi, nel 2004 sarebbero stati inferiori sia il PIL (del 2,5%) sia il numero di lavoratori occupati (di 44 mila unità). Così per Rio le Olimpiadi lenirono l’impatto della crisi che il Brasile stava vivendo negli anni in cui vennero realizzati gli investimenti: senza, il PIL della città nel 2016 sarebbe regredito al livello del 2007; con, il valore pro capite si mantenne sulla traiettoria che aveva imboccato nel 2012, quando iniziarono i lavori” (p. 141).

Chloe Parkins, the lead economist at Oxford Economics, presented a forecast of 66 million international tourists visiting Italy in 2026 (+6% compared to 2023) while “Tourism spending will rise by €2.9bn, with cities in Northern Italy outperforming national trends” (ibid.). Results presented by Netti (2026) show that around 250,000 visited Italy to attend the Games and the total expenditure of tourists who would not have visited Italy without the Olympics amounts to almost €400 million (13% of the total revenue for February 2026). As reported by the Bank of Italy (ibid.) “Italy's balance of payments for tourism recorded a surplus of €700 million, an increase compared to the same month in 2025; tourism revenues (3 billion) grew by 14.7 per cent and expenditure (2.3 billion) by 1.6 per cent”. In other words, the reality fell short of expectations, when more than a million visitors were expected. However, “In terms of flows in the quarter December 2025 - February 2026, tourist spending saw a surge from almost 4% at the end of the year to 8% in February, the best value since April 2025. Arrivals from the EU contributed most to this growth” (ibid.).

Finally, there is a mutual relation between IOC/OCOG and the environment of the host city: the former are confronted with an environment where decisions are influenced by given facts and, in turn, the Olympic decisions affect the latter. As a consequence, the macroeconomic effects are more significant for host city residents, which suffer the direct consequences of the Games and often fear that the Olympics will lead to an increase in prices (especially in the case of goods in demand) and, consequently, a higher cost of living (Preuss, 2004). This happened for Milano Cortina as well, when Dolomiti Bus increased the price of a single ticket from 2.50€ to 10€. Initially, the price was the same for tourists and residents but, following the scandal involving an 11-year-old boy who was left stranded because he did not have the updated ticket, the company later decided to exempt residents from the increased tariff, returning to the normal fare (Redazione Sport - Il Fatto Quotidiano, 2026).

4.6.2 THE ECONOMIC LEGACY AND FINANCIAL DEFICIT

Although the concept of legacy has already been presented, both in general terms (Chapter 2) and related to Milano-Cortina (Chapter 4), the aim of this paragraph is to present the economic legacy of the 2026 Winter Games. The reason for addressing this aspect in a separate paragraph is provided by Goldstein (2024, p. 139), which claims that “The main legacy of the Olympics is financial in nature, given that hosting the Games is a veritable financial bloodbath for public finances”.

As defined by Preuss (2004, p. 266), “The economic legacy includes all economic effects that are left following the Games, that would otherwise not have occurred without [them]”. This comprises three aspects: (1) the financial surplus; (2) the structural improvements, and (3) a possibly new image. However, the last two are not directly recognizable as economic legacies and are difficult to measure.

In addition, the direct effects of the Olympics could also result in a negative economic legacy, if the OCOG would wind up with a financial deficit that may cause long-term negative consequences

for a city (*ibid.*). This can also be the case as a result of infrastructures especially built for the Games which may cause long-term costs for maintenance and renovation (e.g. the bobsleigh track).

In this context, the Milano Cortina 2026 Foundation had to secure more than €1.6 billion in funding. However, already in 2023 concerns arose from the foundation's €108 million financial deficit with the risk of future losses falling on the state and regional authorities (Open Olympics 2026 network, 2025). Indeed, Pietrobelli (2025) adds that the foundation's financial deficit increased year after year, losing 6.3 million in 2020; 21.2 in 2021; 54.8 in 2022; 33.7 in 2023, and 30.5 in 2024, for a total of €146.5 million over a period of five years. Moreover, before presenting its 2024 financial statements, MiCo waited for the government's decree at the end of June 2025, adding that "The accounts would be finalised once the Games had concluded, when all revenue from sponsors, broadcasters, the IOC, and ticket sales would have been received"⁵⁵ (*ivi*, p. 155).

Moreover, Pietrobelli (*ibid.*) claims that the local authorities were committed to cover both the reimbursement to the IOC of the contributions paid in advance (a sum of €380 million) and any deficit incurred by the Foundation during its liquidation period. Indeed, when signing the Host City Contract, the contracting regions agreed on covering any potential deficit, dividing the sums as follows: 50% Lombardy, and the remaining 50% divided between the Veneto Region and Cortina (50%), Trentino (40%) and South-Tyrol (10%). Additionally, the Veneto Region included also a 143,5 million euros guarantee fund in its budget for 2025.

Ultimately, the final data emerged in April 2026, showing a much worse situation: a deficit of 310 million euros. As Berlinghieri (2026) presents, this is also the result of two main aspects: on the one hand the budget, which soared from 1.4 billion euros to 1.7 billion; on the other, a backdrop of revenues from sponsors and television rights (€570) and ticket sales (200€), net of the yet unquantified amount deriving from merchandising sales, which evidently failed to live up to expectations. Consequently, this raises a problem for the stakeholders, in charge of covering the loss whilst hoping for assistance from the IOC, expected to contribute with over €100 millions. However, if this would not happen, the entire sum would be divided between the four hosting regions (*ibid.*). Confirming this theory is Bianchi (2026), who states that "The IOC has clarified that it has no intention of providing any further funding after having already made a more than significant contribution to organisational costs: a total contribution of around one billion, a sum exceeding what was initially agreed"⁵⁶. However, the sum is a mere forecast, since the final amount will be known only with the completion of the financial statement and the dissolution of the Foundation.

⁵⁵ My translation from o.v. "I conti si assesteranno a Giochi conclusi, quando verranno incassati tutti i diritti da sponsor, televisioni, CIO e biglietti" (p. 155).

⁵⁶ My translation from o.v. "Il CIO ha spiegato chiaramente di non avere alcuna intenzione di tirare fuori altri soldi dopo aver contribuito in maniera più che significativa alle spese di organizzazione: circa un miliardo totale, una somma superiore quanto concordato inizialmente".

“*Voci di Cortina*”, the city’s independent news outlet, adds “[Given that] the Municipality of Cortina holds a 7% stake in the Foundation, this means that, should it be required to contribute to the debt write-off, it will have to pay out 21.7 million euros”⁵⁷ (De Zanna, 2026). Another unsustainable burden for a city that counts little more than 5,000 inhabitants.

4.7 CONTROVERSIAL SPONSORSHIP

As anticipated in Paragraph 3.1.2, *The Olympic Partner* programme (TOP) was launched in 1985, and was conceived to give a limited number of partners the exclusive rights to the Olympic symbol to be used in advertising for the period of sponsorship. The aim of the following paragraphs is to present the topic in general terms, the different categories of sponsors that exist, and then tailor the concept for the Milano Cortina Winter Games, presenting the controversial aspect that made athletes speak up against the sponsors of this edition.

4.7.1 MARKETING MEASURES IN GENERAL TERMS

When discussing the different existing sponsors for the OGs, it could be useful to think of them as distributed along the different layers of a pyramid. At the top of the pyramid, one can find the only category of sponsors that is directly allowed from the IOC to use the five-rings official symbol: TOP sponsors. These corporations, which are part of the international Olympic sponsoring programme run by the Olympic Committee itself, are guaranteed exclusive advertising rights but, in return, they agree to let the NOCs and the OCOGs participate in the revenues. TOP also provides additional service and worldwide marketing platforms to those that the partners already receive (Preuss, 2004). Initially, the programme launched in 1985 only counted 9 TOP sponsors; now, there are 15, but only 3 of them are among the original ones: Coca-Cola, Visa, and Panasonic.

Although these partners are selected by the IOC, they are not immune from scandals. Actually, “In 1928, Coca-Cola gave out free samples of its drink, but supporters could not fail to notice the paradox of using a sport event as an opportunity to promote a product that contains a high level of sugar and is potentially harmful to health”⁵⁸ (Goldstein, 2024, p. 157). The same happened for McDonald’s, who was a TOP partner from 1997 to 2016, when the company decided to suspend the partnership to ease the pressure from the NGOs in these terms.

Subordinate to TOP sponsors are those companies that only collaborate for the specific edition of the Games, thus being designed as “Partner of the X Olympic Games”. They are part of the national OCOG sponsoring programme, through which they are guaranteed “Corporations advertising rights

⁵⁷ My translation from o.v. “Il Comune di Cortina partecipa alla Fondazione MiCo con una quota del 7%, vuol dire che dovrà partecipare al ripianamento del debito, dovrà sborsare 21,7 milioni di euro”.

⁵⁸ My translation from o.v. “Non sfugge però il paradosso di una manifestazione sportiva come occasione per promuovere un prodotto ad alto contenuto di zuccheri e potenzialmente dannoso per la salute” (p. 157)

with the emblem of the event in their product or service category” (Preuss, 2004, p. 122). The OCOG earns much from the partner programme than from the TOP once, and hence these sponsors are more financially effective for the organising committee. In addition, the OCOG is obliged not to accept local sponsors from companies involved in those categories directly and indirectly related to the TOP’s business. For example, Coca-Cola excludes fizzy drinks, mineral water, and coffee (since the drink contains caffeine) and organisers cannot have a local partner that is involved in one of these sectors.

One step lower are the sponsors of each national NOC, where the sponsoring programme guarantees the corporations national advertising rights with the OCOG emblems and the status of “Official partner” in their own product or service category. For the country that hosts the game, the official sponsor is subordinate to both the categories presented above, while for non-hosting countries they are only subordinate to TOP sponsors. For example, since 2012 the Italian NOC (CONI) is officially sponsored by EA7 Emporio Armani, who provides the team the official outfit. Since the categories of companies cannot overlap between the different typologies of sponsors, the IOC has defined about 100 branches and has reserved for itself about 25 of them for possible TOP sponsors, aiming at protecting the exclusiveness. However, if a category remains free, the NOC can negotiate to get this category for a national sponsor for that respective Olympiad (ibid.).

Towards the end of the pyramid, two more categories can be found. First, that of providers, supporters, and suppliers, which offers less advantages than the others, but is still designed to provide key areas of support and products required by the OCOGs, the NOCs, and the IOC. Finally, the aspect of licensees, which are international programmes that allow the use of the Games’ emblems on products or the production and sale of Olympic mascots (ibid.).

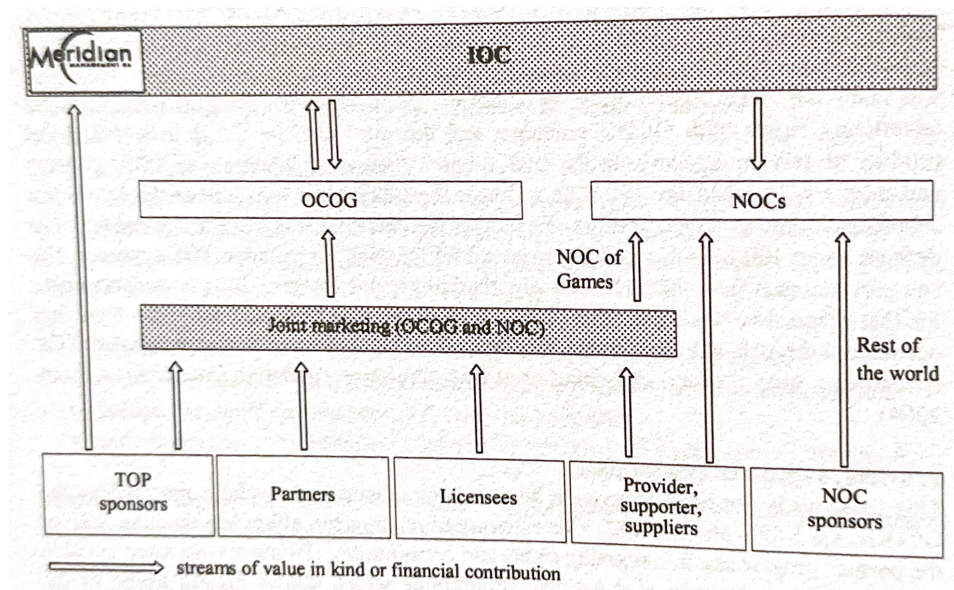


Figure 22: Streams of goods, services, and money within OCOG supporting marketing programmes. Adapted from Preuss (2004, p. 124)

In addition to all the categories of sponsors presented above, it is worth including also the contract that some athletes have with personal sponsors, and some are even worth millions. An historical moment in this context happened in Barcelona 1992, when Michael Joardan wrapped himself in the American flag on the podium so as not to be photographed wearing Reebok clothing, since he was a Nike testimonial (Goldstein, 2024).

Athletes are also called to respect the *Rule 40*, which limits what they can post on social media in the time frame that goes from the 9 days before the opening ceremony and the 3 days after the closing ceremony. This was regulated to prevent the use of some specific terms (e.g. Paris2024) or the five-Olympic rings, which are only reserved for TOP sponsors (ibid.).

4.7.2 MILANO-CORTINA 2026 SPONSORS

MiCo counted a total of 11 TOP partners: Airbnb, Alibabà, Allianz, Coca-Cola, Corona (ABinBev), Deloitte, Omega, Procter&Gamble, Samsung, TCL and Visa. Since the IOC usually sells the rights to the Olympic Games in pairs, one Summer and one Winter Games, worldwide, the TOP sponsors for Milano-Cortina will be the same for Los Angeles 2028. In addition, the Italian organisers needed to raise 560 million euros, and to do so relied on four categories of supporters (Botton, 2026), hereafter presented:

- *Olympic & Paralympic Premium Partners*: Enel, Eni, Gruppo FS, Intesa San Paolo, Leonardo, Poste Italiane, Salomon e Stellantis;
- *Olympic & Paralympic Partners*: A2A, Autostrade per l'Italia, Deloitte, EA7 Emporio Armani, Esselunga, Fiera Milano, FiberCop, GL events, HPE Juniper networking, Randstad, Pirelli, Tim, italia.it
- *Olympic & Paralympic Sponsors*: Bauerfeind, Cdp, Esaote, Fincantier, Fnm group, Grana Padano, Herbalife, Intercom Dr. Leitner, IPZS Istituto Poligrafico e Zecca dello Stato, ITA Airways, Kiko Milano, Lilly, Ottobock, Prosecco doc, Rinascente, Salesforce, IDM Südtirol Alto Adige, TechoGym, Terna, Trentino Marketing, Uber, Valtellina Taste of Emotion
- *Official Supporters*: Airweave, EssilorLuxottica, Kässbohrer Italia, Liski, Rapiscan, RGS Events, Riello UPS, SEA Milan Airports, TechnoAlpin, TicketOne, Tinexta Inforcert, Versalis, Venezia Airport
- *Official Hospitality Provider*: On Location

The involvement of Leonardo S.p.a, a global leader in the aerospace, defence and security sectors, immediately stands out, since the company provides fighter aircraft, helicopters and ground-based defence systems to many countries, including Israel (Basso, 2025). This action is in stark contrast to one of the fundamental principles of the Olympic Charter, whose Article 2 states: “The goal of

Olympism is to place sport at the service of the harmonious development of humankind, with a view to promoting a peaceful society concerned with the preservation of human dignity” (IOC, 2026).

However, the case of Leonardo S.p.a is not the only that attracted global attention, as the sponsors involved in transport and oil production were strongly criticised, because their activities are responsible for an enormous amount of pollution that contributes to global warming, thus in turn limiting winter sports. Results in this sense were presented in the report presented by Simms and Parkinson (2026), which examined the official data on the total size of the emissions, the main activities which contributed to pollution and key actions which organisers are taking, or could take, to reduce those emissions. Results showed how the emissions arose due to the increased sales of high carbon goods and services promoted by the Games’ sponsors. In the case of Milano Cortina, emissions were expected to increase in addition by about 1.3 million tCO₂e, since the OCOG counted, among its sponsors, Eni, the Italian oil and gas giant; Stellantis, the international car manufacturer whose brands include Maserati, Lancia, Alfa-Romeo, and Fiat; Fincantieri, national (and international) manufacturer of warships and cruise ships; and ITA Airways, Italy’s national airline, with the former responsible for more than half of the total (ivi, p. 22).

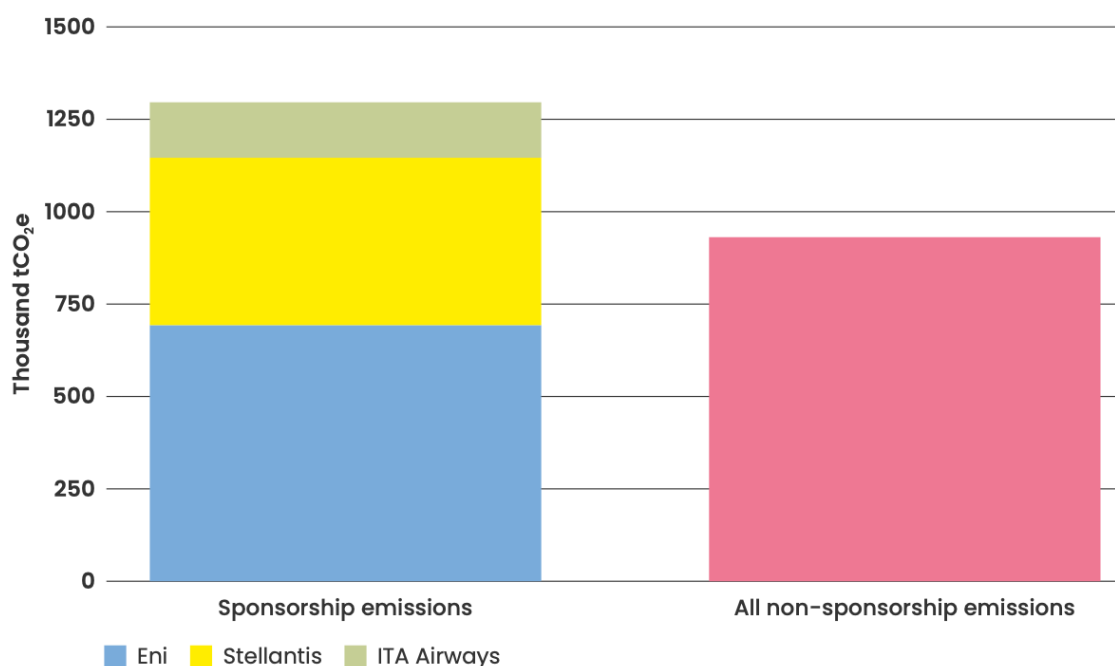


Figure 23: Comparison of estimated sponsorship GHG emissions due to three high carbon deals and all non-sponsorship emission sources at 2026 Winter Olympics. Adapted from Simms and Parkinson, 2026, p. 17.

The authors (ibid.) also reported that:

Italy, host to the 2026 Winter Olympics, lost a reported 265 ski resorts in the last five years, while France, due to host the next Games in 2030, has seen the loss of over 180 Alpine ski resorts. The disappearance of snow due to global heating is a prime factor undermining winter sports, with the

Games increasingly dependent on artificial snow. Yet, through the promotion of heavily polluting corporations in Olympic sponsorship deals (for example: oil companies, airlines and car-makers) whose pollution fuels global heating, the Winter Games are in danger of torching their own future. (p.1)

Consequently, environmental organisations are urging the IOC to terminate partnerships with high-emission corporations. This would not be unprecedented, since the Olympic movement previously interrupted its relationships with tobacco sponsors in the late 1980s following global campaigns, which ultimately culminated in a prohibition of tobacco sponsorship. Indeed, the industry exploited the Olympics, by sponsoring training facilities, and athletes, who used to promote cigarette brands as far back as the 1910s, to gain visibility (ibid.).

It all changed in 1983 when Podborski, a Canadian athlete, stood up against the industry, refusing to ski through a gate with a tobacco logo on it. He quickly gained support and the first smoke-free campaign, launched in 1987, led the Canada Olympic Committee to ban tobacco marketing at the Games. Later, the IOC officially cut ties with producing companies in 1988: the Lillehammer Games in 1994 were the first to be officially tobacco-free, but it was not until 2010 that both the Summer and the Winter Games were completely free of tobacco involvement. Consequently, it is reasonable to expect the IOC to distance itself from fossil fuel companies in response to pressure from environmental organisations demanding a total ban on sponsorships with highly polluting industries (ivi, p. 18).

However, Simms and Parkinson (ibid.) are not the only ones presenting data about polluting sponsors, as Greenpeace Italy launched a campaign to end fossil fuel sponsorship of the Olympic Games which rapidly escalated in the weeks leading to the start of the Games, placing the International Olympic Committee (IOC) under growing public pressure (Zavan, 2026).

The campaign started with a simple question: “How can a company whose core business is fuelling the climate crisis sponsor the Winter Olympics, an event that depends on stable snow and ice?” (ibid.). Later, the association launched a satirical video (shared by professional athletes and triggering widespread international media coverage) exposing the contradiction at the heart of Eni, one of the biggest oil and gas companies in the world, associating itself with winter sport while its emissions contribute to shrinking snow seasons and melting glaciers. The claims made by all the organisations are supported by scientific evidence: if nothing changes, by the 2080s more than half of suitable locations will be unable to host the Winter Olympics, according to recent studies.

Shortly after the video release, Greenpeace Italy took the message to Piazza Duomo in Milan where activists installed Olympic Rings, which should represent excellence and respect, appearing to drip oil, which represents how they are being used to soften the image of a company whose business

model depends on expanding oil and gas production (ibid.). Notably, Eni is involved in different sponsorships to distract from the environmental damage caused by its actions (Spadini, 2024), a practice commonly known as greenwashing⁵⁹. Nonetheless, the fossil fuel sponsorship of the Winter Games continues, mocking the Olympic values of respect for people and the environment. As reported by Greenpeace (Zavan, 2026):

The IOC occupies a unique position of global influence: choosing integrity over greenwashing would send a powerful signal far beyond sport. Eni is responsible for its pollution. But the IOC is responsible for the partners it chooses. By continuing to accept fossil fuel sponsorship, it risks becoming complicit in polishing the public image of companies whose core business threatens the future of the very Games they sponsor. The question now is simple: will the IOC listen to athletes, fans, and scientists and end fossil fuel sponsorship? Or will it continue to shelter planet heating corporations behind the Olympic Rings?

In the end, Simms and Parkinson (2026) present how some solutions are already available in the short-term and they could be implemented starting from the French Alps 2030. The authors call on the IOC and OCOGs to end all sponsorship deals with high carbon corporations, especially fossil fuel companies, airlines, and car producers, and replace them with partnerships with much lower carbon companies, which is already happening and could potentially be achieved without significantly affecting Olympic finances. Moreover (ibid.), other actions that could be implemented by organisers of the next editions include:

- Olympic sponsorship deals with companies that (a) publish comprehensive GHG⁶⁰ data on their carbon footprint, (b) have a small carbon footprint, and (c) have credible near-term plans for reducing emissions in line with the global temperature targets in the Paris Agreement;
- Expanded measures by the IOC that strongly favour local and national spectators using surface public transport;
- Interruption of carbon offsets which lead to “carbon neutral” claims: OCOGs of past WOG purchased them in large quantities, but prominent climate scientists labelled this practice as incredibly dangerous and misleading.

⁵⁹ Defined by Oxford Learner’s Dictionary as: “Activities by a company or an organisation that are intended to make people think that it is concerned about the environment, even if its real business actually harms the environment”

⁶⁰ Greenhouse Gas

4.7.3 ATHLETES' OPINION

The controversial partnership deals with highly polluting sponsors were strongly criticised not only by environmental organisations, e.g. Greenpeace Italy as presented above, but also for the first time by athletes, who signed an open letter asking “That President Coventry make care of our planet be the IOC’s absolute priority, including by setting a standard regarding high polluting sponsorships” (Olympians & Paralympians, 2026).

The “*Ski Fossil Free*” petition, signed by more than 21,000 people and professional athletes who want to stop fossil fuel companies from sponsoring winter sports, was handed over to the IOC by Norwegian skier Nikolai Schirmer two days before the start of the Games. When launching the petition online in January, the athlete’s goal was to reach 20,000 signatures: he surpassed it in one month, and people continued to sign it in the weeks before the Games (Mcdermott & Figueroa, 2026). The object of the petition was to ask the IOC and FIS, the International Ski and Snowboard Federation, to publish a report evaluating the suitability of fossil fuel marketing before the next season. However, in response, the IOC informed Schirmer that no media will be allowed to attend the meeting. The campaign was also supported by the athlete-driven environmental group “*Protect Our Winters*” making it the first coordinated campaign on fossil fuel advertising centred on an Olympic Games. Although Eni is committed to energy transition, evidenced by how its emissions are reduced, and it is now aiming at carbon neutrality by 2050, with nearly 75% of its electricity generation capacity now low carbon, promoting polluting companies at the Olympics will grow their businesses and lead to more greenhouse gas emissions that warm the planet and melt snow cover and glacier ice (Simms & Parkinson, 2026).

Moreover, three days after the start of the Games, an open letter was addressed to the President, the International Olympic Committee (IOC) Executive Board, and IOC Members, urging them to take a series of concrete steps against fossil fuel sponsors. The letter, signed by 88 Olympians and Paralympians and 53 elite athletes “who dream of one day becoming an Olympian”, encourages a formal dialogue between athlete representatives at the IOC Executive Board level which must lead to “A clear sponsor eligibility policy banning fossil fuel companies and integrating this policy into the IOC’s strategic framework” (Olympians & Paralympians, 2026). An extract from the letter (ibid.) reads as follows:

We welcome that the IOC has committed to ensuring that the Olympic Games lead on sustainability and serve as a catalyst for long-term sustainable development. However, accepting that the organizers of the Games may establish partnerships with fossil fuel companies directly undermines these principles. As our winters melt, summer athletes are simultaneously being pushed to their physical limits by record-breaking heatwaves that gamble with athlete health. We believe it is a contradiction

to celebrate human achievement while being funded by the industry that threatens the fundamental conditions, from reliable snow to safe temperatures, upon which all Olympic sports depend.

To conclude, the letter marks the latest in a growing number of appeals from elite athletes to protect the climate. In March 2025, a group of Olympians from 89 countries and representing more than 50 different sports issued an earlier list of demands for the incoming IOC President, highlighting risks to players, fans, sports, and society and calling for “bold” action.

4.8 A BRIEF ASIDE ON THE PARALYMPIC WINTER GAMES

To conclude, as anticipated at the beginning of this Chapter, this paragraph will briefly present the Paralympic Games which, created in Stoke Mandeville (England) in 1948 as a pilot tournament for war veterans, later evolved into a world-class sporting event, now officially recognised as a Mega Event which engages an ever-growing audience edition after edition.

As presented by Goldstein (2024), the history behind the Paralympic Movement is not only linked to sporting activities, but above all it “Tells the story of a cultural and linguistic shift that, step by step, promotes inclusion through a respectful portrayal of people with disabilities: during this journey, communication and the media had, and still have, a pivotal role”⁶¹ (Diana & D’auria, 2026, p. 141).

The current paralympic movement started with the first small competition on July 29, 1948, held in an English hospital: that day was the official opening of the Olympic Games in London, and for that reason the neurologist Ludwig Guttmann organised an archery competition for war veterans with spinal cord injuries. The simple but rather revolutionary idea behind it was that sport could become, for people with disabilities, an opportunity for personal fulfilment and social participation, and not only a tool for physical rehabilitation. Several years later, the “*Games of Stoke Mandeville*” grew in size, and athletes from foreign countries started to participate. A key role was that of Antonio Maglio, an Italian doctor and head of the INAIL Paraplegic Centre in Ostia: thanks to his partnership with Guttmann, the first real Paralympics took place in Rome 1960, where 400 athletes from 23 different countries competed in 8 different disciplines. From the 1990s on, the Paralympic Movement grew exponentially (ibid.).

The agreements with the International Paralympic Committee (IPC) established the “*One Bid, One City*” rule, meaning that the city hosting the Olympics must also host the Paralympics. From a technical perspective, the IPC introduced a sport-specific classification system, which gradually

⁶¹ My translation from o.v. “Racconta soprattutto un mutamento culturale e linguistico costruito passo dopo passo per promuovere l’inclusione attraverso una rappresentazione rispettosa delle persone con disabilità. In questo percorso, la comunicazione e i media hanno avuto - e hanno tuttora - un ruolo decisivo”

replaced the old biomedical criteria, aiming at making the competitions more accessible to the audience; from a media perspective, the growth was far-reaching, but not without its challenges: during the PGs in Atlanta 1996, media coverage was focused on sentimental narratives, rather than sporting ones. For this reason, the IPC came to the conclusion that specific guidelines were needed to promote a more balanced portrayal in the media. Positive editions were Beijing 2008, which reached a peak of almost 4 billion viewers, and London 2012, where more than 2.1 million tickets were sold before the Games. During this complex and delicate phase, in 2017 the IPC published its first policy document on diversity and inclusion, calling on the media, institutions, and the public to adopt respectful and inclusive practices. The last edition of the Paralympic Games brought to Italy almost 600 athletes, competing in 6 disciplines, for a total of 79 medals: an ideal test case for assessing the ability of the media to cover the Games using truly inclusive criteria and standards (ibid.).

5. WHAT DOES THE FUTURE HOLD FOR ALPINE EVENTS?

So far, this work has presented the current literature in terms of sustainability and sustainable development, as well as practices implemented in the field of event management, in order to provide a framework for the analysis of Milano-Cortina 2026. The aim of this Chapter is now to discuss what the future holds in these terms, not only at a MSE level, with the next Winter Olympics, but also at local ski facilities.

5.1 FUTURE EVENTS

To start with, it is deemed interesting to present the next winter MSEs that are scheduled in the Alpine region: the Youth Olympic Games 2028 and the French Alps 2030 Winter Olympics.

5.1.1 YOUTH OLYMPIC GAMES 2028

The Youth Olympic Games (YOG) are described by the IOC as “An elite sporting event for young people from all over the world, aged up to 17 at the time of the Games” (IOC, s.d.). They are a sport event based on the OGs but for younger and emerging athletes, which sometimes introduced new sports, disciplines, or formats, such as breaking, sport climbing, 3-x-3 basketball, 3-x-3 ice hockey and mixed gender and mixed National Olympic Committee (NOC) events (ibid.). The aim of this event is to give participants the opportunity to discover more about Olympic values and become true ambassadors for their sport. The next upcoming editions will be:

- The Summer YOG in Dakar (Senegal) in November 2026, making Senegal the first African country to be awarded the honour of hosting an Olympic sports event (ibid.);
- the Winter YOG in Italy in January 2028, returning to the venues already used for Milano Cortina 2026.

Italy was awarded the competition in January 2025, during the 143rd session of the IOC in Lausanne, and right from that decision, the idea was to return to some of the sport facilities used for the Winter Olympics, forming part of the legacy of MiCo while reinvesting in communities. Former IOC President Thomas Bach (CONI, 2025) claimed that:

The choice of Dolomiti Valtellina 2028 is a sign of the IOC’s confidence in Italy’s ability to deliver outstanding, world-class winter sports events. The Olympic Movement and the host regions are already excited about Milano Cortina 2026, with just over a year to go before the Olympic and Paralympic Winter Games. Today’s news means that the enthusiasm will continue through to the end of the decade, and the benefits for local communities will carry on.

The idea behind the application is that hosting the YOG will inspire younger generations to embrace the values of sport as a tool for inclusion and social cohesion. Karl Stoss, IOC member and Chair of the Future Host Commission for the Olympic Winter Games, the body responsible for monitoring the interest in hosting Winter Games, presented the IOC's report on Dolomiti Valtellina 2028, claiming that "The Commission found that the vision for the Youth Olympic Games is fully aligned with long-term regional plans, youth policies, sports, and education initiatives, and the goals of Olympic Agenda 2020 and 2020+5." (ibid.).

The YOG 2028 will take place from 15 to 29 January 2028 across three clusters: Valtellina, Trentino, and Cortina, where 7 of the 11 proposed venues of the YOG will be the same used for MiCo 2026:

- Lombardy: Stelvio Alpine Skiing Centre in Bormio, Livigno Aerials & Mogul Park and Livigno Snow Park for Freestyle/Snowboard;
- Veneto: Cortina Sliding Centre for Bobsleigh, Skeleton, and Luge, and Cortina Olympic Stadium, for Curling;
- Trentino: Predazzo Ski Jumping Stadium and Tesero Cross-Country Skiing Stadium.

This event will reinforce the Olympic Movement's commitment to a sustainable future for winter sports, since the goal is to use only existing venues. Moreover, the IOC is committed to organising a festival of sports, arts and local culture throughout 2027, until the Olympic Torch celebrations take place in December, providing a "Platform for young people to take on leadership roles, practice winter sports and adopt healthier lifestyles" (IOC, s.d.). In conclusion, Milano Cortina 2026's goal of encouraging "*More Movement*", 30 minutes of daily exercise, will also be extended to 2028, in time for the YOG (ibid.).

5.1.2 FRENCH ALPS 2030

The biggest upcoming sporting events in the Alps will notably be the next Olympic Winter Games, which will take place in France in February 2030, followed by the Paralympic Winter Games in March. The OCOG will follow the idea of Milano-Cortina and organise the 2nd widespread Olympics, with competitions spreading between the Provence-Alpes-Côte d'Azur and Auvergne-Rhône-Alpes regions, while speed-skating competitions will be held in the Netherlands, since that the country does not have an existing venue for these sports and a temporary facility was not ideal. In June 2026, the OCOG has presented the Logo for the Games, and one after the other, all the organisational details will be revealed as athletes and fans prepare for the competitions (IOC, s.d.).

Many scholars hope that the 2030 Winter Olympics will learn from past editions and try to mark a turning point in different controversial issues. First, as presented by Simms and Parkinson

(2026, p. 23), the Games should no longer be a billboard for the promotion of fossil fuel pollution, hence the IOC should interrupt partnership and collaboration with companies operating in the sector. This vision is also supported by Cagnetti (Pietrobelli, 2025, p. 301), who wishes for a more sustainable Games, stating:

It would be nice if this was the case of rethinking the Winter Olympics, who are mostly mountain Olympics. If the Olympic Games have promoted values like sportsmanship, peace, and inclusion, is it not time, in the middle of an environmental crisis, for them to raise the flag for the environment as well? (...) It would be the time to state [once and for all]: sport is clean if it respects the places it passes through.⁶²

Additionally, CIPRA points out that choosing France as the host of the 2030 edition, with events taking place in the Mediterranean city of Nice, goes against the principle of adapting to climate change. According to the association (ibid.):

Host countries are not bound to the minimum commitments in terms of sustainability that they made in their bids. In our view, the promises made in such bids are to be considered a minimum threshold upon which only improvements can be made. Countries whose sustainability performance falls below these standards are to be unmasked and penalised.

CIPRA expressed its opposition already in 2024, when France was selected as host for the 2030 edition. At the time, French environmental organisations criticised how the Olympic venues were using public money to promote winter sports despite the climate crisis, while a large part of the population cannot afford to go skiing, and most ski resorts can only survive by relying on artificial snow. The two billion euros allocated to the Winter Games will mainly benefit areas that are already in a strong economic position, while other areas will continue to lack funding (Gams, 2024). Only time will tell if CIPRA was right from the beginning or if the OCOG will respect its promises and follow the example set by Paris 2024 in terms of sustainability. The organisers are indeed aiming to “Develop a sustainability strategy that reduces carbon emissions and encompasses all aspects of planning and delivery, including transport, education, and procurement” (IOC, s.d.), considering the

⁶² My translation from o.v. “Sarebbe bello se fosse l’occasione di ripensare al senso delle Olimpiadi invernali [che] sono in buona parte Olimpiadi di montagna. E se i Giochi Olimpici si sono fatti portatori di valori come la sportività, la pace, l’inclusione, in piena crisi ambientale non è ora che alzino anche la bandiera dell’ambiente? (...) Sarebbe ora di dire: uno sport è pulito se rispetta i luoghi dove passa.

next sustainability requirements added to the Olympic Host Contract by the IOC. These include (ibid.):

- minimise direct and indirect Games-related carbon emissions, thereby contributing to international efforts aligned with the objectives of the Paris Agreement on Climate Change;
- strive to remove more carbon from the atmosphere than the Games project emits;
- use their influence to encourage stakeholders to take climate action.

5.2 SHORT-TERM SOLUTIONS

As discussed in previous chapters, climate change is a phenomenon that affects all domains of ordinary life. In this context, all events, regardless of their size or popularity, need to come up with solutions to face the climate crisis and adapt to its worsening condition. Examples in these terms can be found in low-altitude ski resorts, which must cope with increasingly rare snowfalls: they recently came up with short-term and easy-implementable solutions that allow them to continue with their activities, despite the rarity of snow.

A first example is the biggest Italian synthetic ski slope, measuring 300 metres in length and between 25 and 30 metres in width, opened in October 2025 at the Nevegal ski resort (Belluno). Although ski enthusiasts may be sceptical about the absence of snow, experts assure that there is not much difference in terms of athletic feat. The slope is intended to be used in winter, when high temperatures do not allow for “natural” snow, but it will also be used by local ski clubs mainly in the summer season, instead of training on the glaciers, thus resulting in time and costs savings (Catalano, 2025).

The slope was built by the Pordenone-based company *Newsnow srl*, using 100% recycled and recyclable plastic, with a near-zero environmental impact. Moreover, it is biodegradable and does not release microplastics; therefore, it does not cause pollution even if it breaks down in the environment, as the plastic does not lie directly on the ground, since there is a membrane acting as a barrier. As for the slope’s maintenance, the estimated minimum cost is a few thousand euros a year, covering both materials and labour. The colour is not by chance: green was needed so the slope could stand out in winter, when covered by snow (ibid.).

In addition, Baldanello, President of *We Love Nevegal*, the project dedicated to the revitalisation of the area, which has suffered the lack of snow in the past years and the consequent reduction of activities, underlined the ecological impact of the project, which is the answer to a future without snow. He claimed “Synthetic ski slopes will become the norm, as a global response to climate change. Glaciers are shrinking even further, and continuing to use them for skiing will

lead to greater erosion; synthetic slopes, in this context, will represent an eco-sustainable future that will not damage them”⁶³ (ibid.).

Another solution that became popular in the past years and does not only apply to winter-sports but to all sectors is that of installing solar panels on roofs. In 2012, a Photovoltaic system was installed on the top of the Asiago ice-rink; ten years later, that decision proved lifesaving for the ice-stadium, which was able to stay open even during the summer season, despite the high energy bill. Without a PV-system, the ice-rink, which serves tourists as well as the ice hockey team, figure skaters and the vast youth sector of all the clubs centred around ice sports, would be closed, stopping all the social activities vital to the local community (Redazione Eco Vicentino, 2022).

In conclusion, short-term solutions, like those presented in this paragraph, are more than ever necessary, and more ski resorts will need to adapt them in the future. For Winter Olympics, solutions like the installation of a PV-system on ice-rink roofs need to become a regular aspect, otherwise, as scientists predict, less cities will be able to host events of this size (Contreras, 2026). In fact, studies show that “Only 52 out of the 93 cities and regions that currently have the infrastructure to host the Winter Games and Paralympic Games will remain climate reliable by the 2050s” (ibid.). This vision is finally supported also by Scott, Rutty and Steiger (2015, p. 56), who claim that “For time-limited and weather-dependent mega-events, like the OWG, the implications of climate change are even more significant”. Indeed:

The findings indicate that climate change would adversely impact the capacity of approximately half of the former Winter Games host cities/regions by mid-century and over two-thirds by late-century, putting the cultural legacy of the world’s preeminent celebration of winter sport at increased risk. With additional warming continuing in the early-twenty-second century, the number of former Winter Olympic locations capable of hosting the Games would only continue to decline. (ivi, p. 57)

To conclude, Scott, Rutty and Steiger (ivi, p. 60) claim that “Weather has always, and will continue to be, a primary component of the Olympic Winter Games. While the format and technologies supporting outdoor competitions will continue to evolve, they will remain founded on snow and ice as they have for the past 100 years”.

5.3 WILL EVENTS IN THE ALPS EVER BE SUSTAINABLE?

To conclude, this last paragraph aims at addressing a precise question: will events ever be fully sustainable? While it is not the aim of the paragraph to try and respond to the query, it certainly is

⁶³ My translation from o.v. “Le piste da sci sintetiche diventeranno la regola, come risposta globale al cambiamento climatico. I ghiacciai si stanno restringendo sempre più e continuare a sfruttarli per la parte sciistica comporta un’erosione maggiore; le piste sintetiche, invece, saranno allora il futuro ecosostenibile per non deturparli”.

intended to present possible views on the matter, by presenting what different scholars claim in this sense. For the purpose of this paragraph, the events taken into consideration are mainly the OGs, but not limited to them.

Firstly, as Jones (2018, p. IX) states, it may be claimed that “The most sustainable event is no event at all, but that’s no fun”. Indeed, broadly speaking, “The gathering of people for a purpose has been, and always will be, part of the human story. Events certainly do use up resources, send out emissions and create waste; they also cause a lot of smiles, community cohesion, celebration, give voice to issues, and everyone has a wonderful time” (ibid.). This statement could not be closer to reality: events give the opportunity to a group of people to gather for a purpose, which undoubtedly comes at a price, but it is at the same time perceived as a rewarding experience. However, as concerns the sustainable practices promoted during an event, from its organisations until the post-event phase, doubts may arise.

Moreover, Johnson and Ali (2018, p. 324) state that, when considering the state of host cities after the Olympic and Paralympic Games, both from an economic and an environmental standpoint, “It would seem reasonable to question whether or not we should be hosting such events in the first place”. The reason is rapidly presented:

Even if all of these sustainability initiatives were successful, the damage that is done to all of the specific ecosystems and landscapes on which Olympic stadiums and facilities are built will still remain. Instead, focusing on sustainability initiatives allows for growth to continue while proposing to maintain or preserve the environment. (ibid.)

To conclude, according to CIPRA International for Olympic Games to be fully sustainable (especially Winter ones), the whole organisation should be reformed. Indeed, the Games should “Involve far fewer disciplines and people directly on site (especially in terms of accompanying persons and spectators) and should be held on a regular basis at existing facilities only in climatically suitable areas of the world” (CIPRA International, 2022). As it has already been presented, CIPRA has strongly opposed the organisation of sporting events in the Alps for the past 30 years, claiming that the OGs are not sustainable neither from a social point of view, nor from an environmental one (CIPRA, 2025). Indeed, past events were followed by problems that affected host communities over time: debts, organisational difficulties, irreversible environmental damage, and minimal benefits for social development and, according to CIPRA, it happened because “The fragile Alpine mountain region, with its small communities, is unsuitable for hosting such events, because it is a limited area of great natural and scenic value, with more pressing social issues to address, such as public transport, educational support and widespread healthcare provision” (MW Italia, 2023).

CONCLUSION

This research aimed to analyse whether MSEs in the Alps could be sustainable or not, taking into account the case of the Milano Cortina 2026 Winter Olympics, the premier event on the winter sports calendar, which ambitiously claimed to be “*The most sustainable of all times*”. The Olympics, similarly to other Mega Events, contribute to planet warming pollution, and in the case of Winter sports this could be particularly ironic, since they are especially vulnerable to climate change.

Based on the qualitative analysis of existing literature and past events, it can be concluded that, under current conditions, hosting Mega Sport Events in the Alps is unsustainable under any framework: environmental, economic or social. Moreover, by analysing the OCOG Bid for the 2026 edition and comparing it with the final execution decisions, results indicate that sustainability promises are frequently sidelined, in favour of alternative solutions that may result in a negative legacy.

To provide an accurate analysis of the recent Winter Olympics, it was necessary to address three fundamental questions: (1) what sustainability is and how it differs from sustainable development; (2) what sustainable events are and how they are regulated; and (3) what the IOC Agenda for sustainability entails. Consequently, these became the core themes of the first three chapters, establishing a comprehensive framework that laid the groundwork for the detailed analysis of Milano-Cortina presented in Chapter 4. Finally, Chapter 5 offered an insight on some short-term practices that are being developed to tackle the effects of the climate-crisis, presenting examples that could prove highly valuable at an international level.

The present work clearly illustrates how initial expectations of sustainable practices are often not put into practice. More importantly, it unexpectedly reveals how easily decision-makers ignore the environmental, economic and social impact of their decisions, as if they would have no long-term consequences. In these terms, the bobsleigh track is the most striking example, although certainly not the only one.

This analysis carries some limitations, as the data considered for Milano-Cortina are limited to the reports available up until June 2026; however, since relevant data will continue to emerge, future research is required to fully confirm the results. Because this study was strictly limited to the Olympic Games, future works could also consider the organisation of the Paralympic Games, to better understand the broader implications of these results, as well as other Mega Sport Events in the Alpine Region (e.g. Giro d’Italia). Additionally, future research should also consider non-sporting categories of Mega Events taking place in the Alps, to verify whether unsustainable practices are uniquely linked to sports or they represent a crosscutting issue across all types of events.

To conclude, this project highlights that sustainability in MSEs is still an evolving concept that is too often marginalised during organisation, whereas it should become a central priority, given the countless stakeholders, sponsors, athletes, and spectators involved every time.

The Olympic Games remain the biggest, most prestigious, peaceful multi-sport event in the world; however, if they fail to adapt to the environmental crisis, they risk accelerating their own downfall, leaving behind a legacy of environmental damage and financial debts that alpine communities can no longer afford to bear.

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