

Megaproject management – case studies of Torino, Vancouver and Milano Winter Olympic Games

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Abstract

Olympic Games are giant projects that need to be planned and monitored carefully since the purpose of project is to realize all the tasks within the planned times and costs. The aim of this article is to present two of the past Olympic Winter Games: Torino 2006 and Vancouver 2010 in order to identify success and failures concerning the project management of these megaprojects. The analysis in the research was conducted using case study method. Under some project constrains, the first presented case is considered as an example of failure, while the second one as a successful project. Moreover, the future Olympics of Milano 2026 is presented, which has the chance of becoming a megaproject well managed. The article includes the conclusion section presenting the potential of the project of Torino 2026 Olympic Games and the recommendations based on the management of the previous examples of megaprojects.

Key words

Olympic Games, megaproject management, key success factors

Introduction

The beginning of the modern Olympic Games can be led back to 1894, when the Baron Pierre de Coubertin founded the International Olympic Committee with the idea of organizing games similar to those played in ancient Greece. At the beginning, only the Summer Olympic games had been introduced until 1924, when the winter

ones were also established. Until 1992, both Summer and Winter Olympic Games were conducted regularly every 4 years in the same year, after the decision to separate them in four-year-cycle but alternating them in even-number-year. The aim of this sporty event is the competition between the best athletes of the world in almost all sporting disciplines practiced in the five continents [Young, 2004; Altshuler and Luberoff, 2003; Flyvbjerg et al., 2003; Van Marrewijk, 2007; Van Marrewijk et al., 2008; Sanderson, 2012].

The Cambridge dictionary defines project as: ‘a piece of planned work or an activity that is finished over a period of time and intended to achieve a particular purpose’ [Cambridge English Dictionary]. The Olympic Games meet all the requirements to be considered as a project, but moreover, they are in the category of mega-project which are the largest, most challenging and complex category of infrastructure projects involving investments of \$1 bn or more in the construction of transportation, energy, water, waste and telecommunications infrastructure [Davies and Mackenzie, 2014; Frawley and Adair, 2013].

The key elements that organizers and project managers need to plan, conduct and control for the success of the project are time, costs, quality and scope, and in the case of megaprojects particular attention needs to be given to the complexity faced since it is very high as well as the failure rates [Hussain, 2014; Randeree, 2016].

The aim of this article is to identify failures and success concerning project management on the examples of case studies of Torino 2006 and Vancouver 2010 Winter Olympic Games and introduce the future megaproject of Milano 2026, analysing what can be done and avoided in order to achieve the success of the project. The analysis in the research was conducted using case study method. The choice of these three cases can be reconducted to the fact that Milano has been selected as hosting city in 2019 and until now only plans have been made, so the megaproject is just at the beginning and success or failure can just be foreseen. In order to have a clearer view of what is most likely to happen and the time gap is not so long the Torino case has been choose, since the hosting country is the same, while the Vancouver case is considered as an example of successful project which can be interesting to analyse and take as reference point to follow in order to achieve the goal.

1. Mega-project management – case studies of Torino 2006 and Vancouver 2010 Winter Olympic Games

The Olympic Games, as megaproject, can be divided in sub, smaller and independent project, for which will be easier to schedule and monitor. From the project

management point of view it is possible to set the most critical dimension which are vital for the success of the project: time, cost and quality. In the Olympic Games case the most relevant dimension is the time, since everything that was stipulated at the beginning must be completed and ready for the established date; any issue in this dimension can lead to sacrifice the other two dimension (increase of cost or reduction of quality), for this it is necessary that the project managers makes realistic forecasting [Eager, 2015].

Firstly, Winter Olympic Games of Torino 2006 called XX Olympic Games is presented. This edition of the games was mainly held in the city of Turin, but some events were conducted in the mountain villages near to the main one. The number of competitive venues used was 15, but 7 of them were built from scratch for the game host. All construction works of new buildings and refurbish the existing were done between 2002 and 2005. In 1999, a budget of around USD 2 billion was allocated but at the end the real expenditure was approximately of USD 4 billion. In the Final Report, drawn up in 2006, you can read: 'The economic life of the XX Olympic Winter Games stretched over a span of 7 years, from 2000 to 2006, with a cost and revenue growth that was anything but linear, reaching maximum levels during the year in which the Games took place. Precisely this characteristic imposed a programmed management of the financial flows through the preparation of an overall Games budget and the compiling of annual budgets and financial accounts' [Imariso, 2014; Fabbri, 2015; Di Giovanni, 2019].

Torino, at the moment of the choice to be the host of Olympic Games, did not have existing sufficient infrastructure to host such a huge event and more than half needed to be constructed. From a managerial point of view, it was necessary to produce reasonable estimation in order to define, sequence, estimate resource and duration of the activities, considering uncertainty, risks and historical data, and adopt specific strategies to ensure that the planned path would be achieved. As a result, the project budget will be exceeded, if the initial evaluation is not carried precisely resulting in wrong estimation and the need of rescheduling [Bondonio and Campaniello, 2006].

The place for Winter Olympic Games in Vancouver 2010, was elected in 2003, which was the third edition of the Olympic Games in Canada after Summer Olympics Montréal 1976 and Winter Olympics Calgary 1988 [Parent, 2015]. The competitions on ice were held in the city of Vancouver, while those on snow in the town of Whistler, around 120 km from the hosting city. In this edition, ski cross was introduced among the existing disciplines for the first time. The total number of competitive venues was 9, among which 6 were built on purpose. To execute this project the total operative expenses amounted to approximately USD 2.1 billion, while the

initial budget was around USD 1.8 million. The most relevant dimensions in this case were the cost one, so the first objective was to keep a balanced budget because stakeholders recognized that success was related to effectively management and the quality, meaning the delivery of extraordinary games. However, after a short period of time the organisers realized that this goal was contradictory: managing budget led to changes in quality and service level, impacting the overall games. At the end, the final decided objective was the best allocation of budget for guarantee the best experience. Only two years before the performing of the games the recession that affected the whole world, caused the increase of risks and complexity of the project putting in doubt its deliver. As a result was necessary to examine everything, from budget to the monitoring of tasks and the reschedule of things from their original plan. The success of this edition of the game can be reconducted to the effective project management including good design, strong relationships, constant control of cost and project scope [Barber, 2018; Terry, 2009; Final Report XX Olympic Winter Games, 2006].

Considering the past Olympic Games it is clear that in both cases the timing was respected while the budget was exceeded, as in most of the past Olympic Games, while the revenues are not higher than the expenses, so usually countries lose money while organising these events. What it is possible to expect is that countries agree to do it not for direct economic return but as an investment for the future, for example the creation of new job places, tourism increase in the areas, new and renovated buildings, the reconversion of the venues after the games to others scope for citizens and the improvement of abandoned area. From the positive perspective, it would be said that hosting the Olympic Games is beneficial for the country, since it can result in higher visibility, tourist attraction, and finally better quality of life of inhabitants. But sometimes the reality is different: on the one hand the Torino case, where some of the venues have been used for other competitions, while others are abandoned due to the high maintenance costs and a few people who were using it, so the village has become the site of an illegal occupation. On the other hand, in Vancouver case, all the venues used in the 2010 Olympic Games are still used, some of them are used as training centres while others have been converted for other purposes, attracting visitors to the city. For this reason, it is considered one of the successful reuse of the venues after the games. The University of British Columbia did a research on the impact of Olympic Games in the territory: 'In addition to the economic benefits, the report also noted other positive outcomes including the development of sport and culture across Canada, the inclusion and participation of Aboriginal groups and minorities and a heightened recognition of person with disability' [The OGI-UBR Research Team].

2. The future of The Winter Olympic Games of 2026

The Winter Olympic Games of 2026 will be hosted in Milano-Cortina d'Ampezzo, the official name of this edition is XXV Olympic Winter Games. The opening date of the event is scheduled for 6 February, 2026 and will continue until 22 February. This will be the fourth time that Italy hosts Olympic Games in history, the third time the winter ones. The election of the winning organizing city was held on June 24th, 2019 at the 134th International Olympic Committee (IOC) Session in Lausanne, Switzerland, where the Italian candidate beat the Swedish rival. Moreover, this will be the first time the Olympic games featuring two host cities in an official form.

Consequently, on 9 December, 2019 the Milan-Cortina 2026 foundation was established with the aim of carrying out all the activities of organization, promotion and communication of the sporting and cultural events related to the holding of the XXV Olympic and Paralympic Winter Games of 2026.

The XXV Olympic Winter Game will not only take place in Milan and Cortina, which are in two different Italian regions, respectively Lombardy and Veneto, but also in a third region, Trentino-Alto Adige. In order to host the Olympic Games, the selected cities need to provide the required sites and infrastructure. During the process of selection of the location, sites and venues for hosting the Games the priority must be given to the already existing or temporary venues and infrastructure. While, eventually if there is a need to build new and permanent infrastructure or venues for the purpose of the organization of the Olympic Games, this must be considered on the basis of sustainable legacy plans [International Olympic Committee, 2015, p. 72].

For this edition of the Olympic games the masterplan considers 14 competition venues, the opening ceremony venue, the closing ceremony venue, 3 Olympic villages and the IBC/MPC. A relevant aspect of this future event in Milano is that they tried to take advantage from the already existing long-term urban development plan 'MILANO 2030' which aim is to make Milano better interconnected from physical, social and economic points of view; 'The Regional Development Program 2018-2023' for Lombardia which is aligned with the vision of Milano Cortina 2026 as 'The strategic plan of Veneto' in accordance with the principles of sustainable development. Another important aspect is that 13 of the competitive venues are already existing, with the exception of the PalaItalia Santa Giulia, and only maintenance or restructuring are required. This is an important starting point that affect in a positive way all the three key dimensions of the project: time should be shorter since most of

the sites already exist and only need maintenance, which result also in lower cost and, if well managed, higher quality.

Scheduled time and budget of the project are showed in table 1.

Tab. 1. Schedule and budget of is XXV Olympic Winter Games 2026 in Milano

Venue Name	Current Use	Post-Games Use	Start Date (construction or renovation)	End Date (construction or renovation)	Cost of construction/renovation (USD) (thousands)
Palaitalia Santa Giulia	Not existing venue	Multi-purpose Arena	January 2021	December 2023	83,348,320
Milano Hockey Arena	Closed	Multi-purpose Arena	December 2020	September 2021	11,967,760
Mediolanum Forum	Multi-purpose Arena	Multi-purpose Arena	Not planned	Not planned	13,257,120
Stelvio Track	Ski Touristic complex	Ski Touristic complex	May 2025	November 2025	8,088,320
Mottolino Track	Ski Touristic Complex	Ski Touristic Complex	May 2025	November 2025	9,008,480
Sitas-Tagliede Track	Ski Touristic Complex	Ski Touristic Complex	May 2025	November 2025	9,008,480
Carosello 3000 Track	Ski Touristic Complex	Ski Touristic Complex	May 2025	November 2025	5,748,160
Ice Rink Piné	Ice Rink	Olympic Ice Rink	June 2021	October 2024	36,352,000
Tesero Cross-Country Center	Cross-country centre	Cross-country centre	May 2025	November 2025	9,837,760
Trampolino 'G. Dal Ben'	Ski jumping centre	Ski jumping centre	May 2025	November 2025	8,747,200
Olympic Stadium	Ice Arena	Ice Arena	February 2025	November 2025	8,747,200
Tofane Track	Ski Touristic complex	Ski Touristic Complex	May 2025	November 2025	10,144,480
Sliding Center 'E. Monti'	Closed	Bobsleigh and luge centre	June 2021	October 2024	53,244,320
Südtirol Arena	Biathlon centre	Biathlon centre	May 2025	November 2025	5,452,800
Stadium Azzurri d'Italia	Biathlon centre	Biathlon centre	May 2025	November 2025	4,112,320

Source: [Candidature File Milano Cortina 2026, 22.11.2020].

The total capital investment for competition and non-competition venues amounts to USD over 231 million from public funding and USD 161 million from private funding. In addition, prudential budgets have been drafted, for revenues and expenditures, relative to the years 2018 and 2026, which is presented in table 2.

Tab. 2. Budget of is XXV Olympic Winter Games 2026 in Milano

	EUR 2018	USD 2018	EUR 2026	USD 2026
Revenues (thousands)	1,362,742	1,548,124	1,553,814	1,765,187
Expenditures (thousands)	1,362,705	1,548,083	1,553,773	1,765,141
Exchange rate	1 EUR = 1.136 USD		1 EUR = 1.136 USD	
Accumulated inflation			14,02%	

Source: [Candidature File Milano Cortina 2026, 22.11.2020].

As demonstrated in table 2, the planned revenues and expenditures oscillate around the amount of 1,553,800 thousands.

Conclusions

Considering the analysed Olympic Games it is clear that in both cases the timing was respected while the budget was exceeded. The advantage of hosting the Olympic Games is higher visibility of country and its attraction for tourists, and finally better quality of life of its inhabitants. However, as the Torino case has proved, the investments into sports infrastructure had short-term impact as only some of the venues have been used for other competitions, while others were abandoned due to the high maintenance costs. On the other hand, in case of Olympic Games in Vancouver, all the venues are still used as training centres while others have been converted for other purposes, attracting visitors to the city. To conclude, the megaproject of Milano Cortina 2026 Olympic Games seems to have all the potential to be a successful project that can gain the positive return, however, it is necessary to monitor costs and schedule using predefined tools, so as not to exceed the initial plan. As well as, to gain all the benefits, especially looking long-term, the venues need to be converted or built from the scratch, but also maintained even after the end of the Games. Considering the experience from past megaprojects and the benefits that are possible to

obtain after the project implementation, the management of the megaproject of Milano 2026 will be probably cheaper and the preparation time would be shorter, in comparison with previous Olympic Games.

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Zarządzanie megaprojektami na przykładzie zimowych igrzysk olimpijskich w Turynie, Vancouver i Mediolanie

Streszczenie

Igrzyska olimpijskie to megaprojekty, które ze względu na swój rozmiar muszą być starannie zaplanowane i monitorowane, tak aby zrealizować wszystkie zadania w przewidzianym czasie i w założonym budżecie. Celem niniejszego artykułu jest analiza megaprojektów na przykładzie zimowych igrzysk olimpijskich w Turynie w 2006 i Vancouver w 2010. Celem artykułu jest identyfikacja sukcesów i porażek dotyczących zarządzania projektami w przypadku tego typu przedsięwzięć. W badaniu wykorzystano metodę case study. Pierwszy z przedstawionych przypadków jest postrzegany jako przykład porażki w kontekście zarządzania projektami, podczas gdy drugi uważany jest za przykład sukcesu w kontekście zarządzania megaprojektami. Ponadto w artykule przedstawiono główne założenia planowanej w 2026 olimpiady w Mediolanie. Artykuł zawiera wnioski z przeprowadzonej analizy oraz rekomendacje w kontekście organizacji przyszłych igrzysk olimpijskich w 2026 oparte na doświadczeniach w zakresie zarządzania megaprojektami.

Słowa kluczowe

igrzyska olimpijskie, zarządzanie megaprojektami, kluczowe czynniki sukcesu