


An aerial photograph of Brisbane, Australia, showing the city skyline and the Brisbane River at sunset. The sky is a mix of orange, yellow, and blue. The city features a dense cluster of skyscrapers in the center, with a mix of residential and commercial buildings in the foreground. The Brisbane River flows through the city, with several bridges crossing it. The overall scene is a vibrant and modern urban landscape.

QUT

Brisbane 2032 Olympic and Paralympic Games: **Urban Planning for a Lasting Legacy**

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QUT acknowledges the Turrbal and Yugara, as the First Nations owners of the lands where QUT now stands. We pay respect to their Elders, lores, customs and creation spirits. We recognise that these lands have always been places of teaching, research and learning. QUT acknowledges the important role Aboriginal and Torres Strait Islander people play within the QUT community.

We respectfully acknowledge the Traditional Owners of the lands on which the Brisbane 2032 Olympic and Paralympic Games will take place. We pay our deepest respects to Elders past and present and recognise their enduring connection to Country, culture and community.

This report aspires to reflect the values of equity, inclusion and stewardship that First Nations peoples have long upheld in caring for land and place.



Authors: Tan Yigitcanlar, Tracy Washington, Umberto Baresi, Wenda Li, Abdulrazzaq Shaamala, Anne David, Ke Liu, Raveena Marasinghe, Sajani Senadheera and Sk Tahsin Hossain
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Olympic and Paralympic events through the lens of urban planning and is not intended as a critique of decisions made by the Queensland Government or the Brisbane Organising Committee for the 2032 Olympic and Paralympic Games.

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Foreword

“ As an Olympic athlete, I’ve had the privilege of standing on the world stage and experiencing firsthand how sport can bring people together, spark inspiration and create lasting impact. Competing at the Tokyo 2020 and Rio 2016 Games was a defining chapter in my life—one that taught me the importance of preparation, resilience and leaving a legacy.

Now, in my role as an engineer and operations manager working across various infrastructure projects, I see those same values reflected in the way we shape our cities. During my swimming career, I trained in venues built for previous Games—facilities that had been thoughtfully repurposed to serve communities long after the final race. I’ve seen how good design can foster connection, accessibility and pride. I’ve also seen the opposite: venues left idle and disconnected from the people they were for.

Brisbane 2032 is more than just a sporting event—it’s a once-in-a-generation chance to rethink how we build our urban future. This report captures that vision with clarity and purpose. It encourages us to look beyond the podium and focus on the long-term public good: designing infrastructure that lasts, building communities that thrive and embedding sustainability and equity into every decision.

From my time in the pool to my work in the field, I’ve come to believe that true success lies in what we leave behind. The Games should be a catalyst—not just for celebration, but for transformation. Whether it’s integrating smart transport systems, creating climate-resilient public spaces, or ensuring housing and infrastructure serve all Queenslanders, this report offers recommendations free from corporate or personal gain. It highlights both successes and lessons from the past.

I’m proud to support this vision and to see engineers, planners and policymakers working together to deliver a legacy that reflects the best of Brisbane. Let’s make sure that when the final race is run and the last medal awarded, what remains is a city shaped by the legacy of the Olympics—and built to serve generations to come. ”



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Executive summary

The Olympic and Paralympic Games— collectively referred to as ‘the Games’—present a powerful and time-sensitive opportunity to drive transformative, long-term urban development. As South East Queensland prepares to host the Brisbane 2032 Games, the region stands at a critical juncture. These Games offer more than a showcase of athletic excellence; they are a chance to catalyse inclusive, sustainable and forward-looking change across cities and communities.

This report, developed from an urban planning perspective, is prepared with the following key audiences in mind: government decision-makers and planners, the Brisbane 2032 Games Organising Authorities, urban and regional planners, community and civil society organisations, private sector partners and academic and policy researchers. Each group plays a vital role in shaping and implementing a vision for a Games legacy that delivers real, lasting benefits.

To support this goal, the report outlines 30 actionable recommendations across five thematic domains—economy, society, environment, infrastructure, governance— designed to inform strategic planning and long-term decision-making.

While the Games bring opportunities for economic investment, international recognition and community celebration, they also pose risks.

Cities that fail to plan strategically often face legacy burdens, such as underutilised infrastructure, deepening inequality and long-term fiscal stress. Drawing on lessons from previous host cities, this report emphasises the importance of embedding legacy thinking from the outset. The Games should not be viewed as an end in themselves, but rather as a vehicle for advancing Brisbane and South East Queensland’s broader social, environmental and economic objectives.

Importantly, this report does not seek to critique or evaluate the current decisions or approaches undertaken by Brisbane 2032 planning authorities. Rather, it draws on lessons—both successful and cautionary—from past host cities to provide a comparative and constructive planning perspective.



Infrastructure

Infrastructure built for the Games must serve not just the event, but the daily lives of Brisbane residents for decades. Legacy planning should emphasise multi-functional design, flexible reuse and integration with broader transport and urban strategies. Compact venue clusters, smart mobility systems and improved accessibility should underpin infrastructure delivery. The report recommends leveraging technologies such as artificial intelligence, the Internet of Things and digital twins to support data-driven decision-making across planning, construction and operations. Infrastructure must also reflect Brisbane's distinct natural and cultural identity, with public spaces designed to support walkability, ecological connectivity and cultural expression.



Society

Ensuring that the Games uplift all communities is critical to their long-term success. Large-scale events often lead to the displacement of vulnerable populations, rent inflation and gentrification. The report calls for proactive, equity-focused policies that protect residents— particularly renters, long-term locals and Traditional Owners—from exclusionary development outcomes. It also underscores the importance of meaningful community engagement through ongoing dialogue, participatory planning mechanisms and inclusive legacy initiatives that promote social cohesion and cultural recognition. Projects must be tailored to meet the diverse needs of communities across South East Queensland, fostering place-based solutions that reflect local aspirations and strengthen community identity.



Environment

Environmental sustainability must form the backbone of all Games-related development. From carbon emissions and land use changes to waste generation and biodiversity loss, the environmental footprint of the Games can be significant. This report stresses the need for climate-responsive design, green infrastructure integration, habitat restoration and the use of renewable energy. It also advocates for circular economy approaches, including the use of eco-friendly, modular and locally sourced materials and zero-waste operational models. Strategic assessments under the Environmental Protection and Biodiversity Conservation Act 1999 are recommended to evaluate and manage cumulative ecological impacts. A nature-positive Games is essential for setting a global benchmark in sustainable urban transformation.



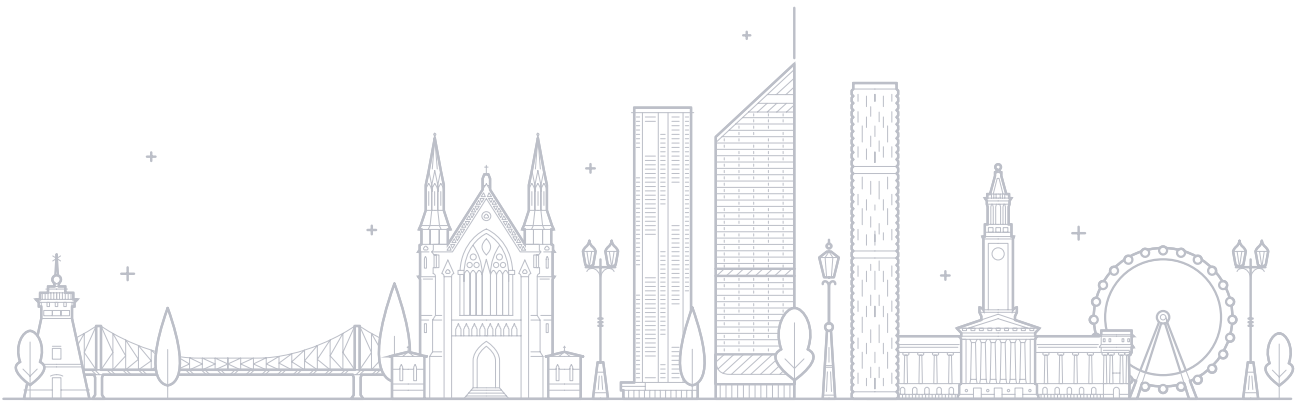
Economy

The Games can drive significant economic activity—generating employment, increasing tourism, boosting infrastructure investment and strengthening Brisbane's global position. However, without strategic planning, these benefits can be unevenly distributed or short-lived. Past events have shown that 'white elephant' infrastructure, cost overruns and displaced local businesses are common pitfalls. The report advocates for economic policies that support inclusive growth, encourage local procurement and workforce development and foster economic diversification, including opportunities in the digital economy. Long-term utility and financial sustainability must be prioritised to ensure investments continue to deliver public value well beyond 2032.



Governance

Effective governance is the foundation of a successful Games and a meaningful legacy. Strong institutional coordination, transparent decision-making and inclusive planning are essential to align short-term project demands with long-term goals. The report highlights the need for a collaborative, multi-level governance framework that includes not only government agencies and private partners but also local communities and Traditional Owners. Critically, it argues that engagement with Traditional Owners must move beyond consultation toward genuine power sharing and collaborative governance ensuring that Indigenous knowledge systems and cultural aspirations are embedded in planning processes. Governance must also be adaptive, allowing for scenario planning, regulatory innovation and flexible management structures capable of responding to emerging challenges.



Lessons from past hosts

International case studies of past Olympic and Paralympic Games provide invaluable insights into what works—and what does not—when it comes to planning and legacy delivery. Barcelona 1992 is widely recognised as a benchmark for urban transformation.

By leveraging the Games to revitalise its waterfront and embed long-term urban regeneration strategies, Barcelona repositioned itself as a global city.

Similarly, the London 2012 Games stand out for their legacy-oriented planning, particularly in regenerating East London, integrating public transport upgrades and prioritising affordable housing and community benefit. The Paris 2024 Games demonstrated leadership in participatory governance, aiming to reduce inequalities through inclusive infrastructure and sustainability-first approaches. Conversely, the Athens 2004 and Rio 2016 Games highlight cautionary tales. In Athens, a lack of long-term planning and economic foresight led to the abandonment of numerous purpose-built venues and caused significant financial strain. Despite initial ambitions of urban renewal, the Rio 2016 Games were marred by large-scale evictions, social exclusion and inadequate post-Games infrastructure use, resulting in missed legacy opportunities and public disillusionment. These examples underscore the critical importance of embedding legacy planning from the outset. They reveal that successful Games are not merely defined by flawless event delivery, but also by integrated planning, early visioning and community-centred development models. Brisbane must learn from these experiences to avoid similar pitfalls. This report reinforces the essential role urban planning plays in shaping more than a successful Games—one whose legacy extends far beyond the closing ceremony.

A call to action

Brisbane has a once-in-a-generation opportunity to lead by example and redefine how mega-events are planned and delivered. With visionary leadership, bold urban planning and collaborative governance, the Brisbane 2032 Olympic and Paralympic Games can be transformed from a temporary spectacle into a catalyst for long-term public good. This report advocates the critical role that urban planning plays in achieving successful Games, ensuring that their legacy extends far beyond the event period. It outlines 30 actionable recommendations designed to guide planners, policymakers and stakeholders across sectors in delivering an inclusive, equitable and future-focused Games. By embracing legacy-first thinking—prioritising long-term social, environmental and economic outcomes—Brisbane can set a new global standard for how host cities approach such events. The report urges decision-makers to adopt a human-centred, place-based and sustainability-driven planning approach, underpinned by strategic leadership and meaningful community engagement. If implemented with intent and coherence, the 2032 Games will not only elevate Brisbane's international standing but also create a lasting legacy for the benefit of generations to come.

Introduction

The primary aim of this report is to offer an urban planner’s perspective on the Brisbane 2032 Olympic and Paralympic Games. It is predominantly intended for urban planning and development professionals, other built environment specialists and policymakers. Additionally, it seeks to engage a broader range of community stakeholders who have an interest in understanding the significance of urban planning within the context of hosting the Games.

In developing this report, we have drawn on relevant academic and grey literatures, best practices and the insights of context-aware urban planners. Alongside examining the successes and challenges of previous Olympic and Paralympic Games—or Games in short—, we have thoroughly analysed the experiences and lessons from other mega-events, including the FIFA World Cup, World Expositions, Commonwealth Games and similar global undertakings. By synthesising these diverse insights, the report aims to present a holistic strategy tailored to Brisbane’s unique context, using the Games as catalysts for urban transformation.

Hosting an event of this scale presents both extraordinary opportunities and significant challenges. Brisbane’s preparation for the 2032 Games offers an unparalleled chance to showcase the city on the global stage while creating a meaningful and lasting legacy for its residents. This report underscores the importance of learning from the urban planning experiences of previous host cities, integrating global best practices and proactively addressing common challenges associated with Games hosting.

This report employs a comparative analysis that draws on the experiences of past Games’ hosts, as well as other major event organisers. In doing so, it identifies both successful strategies and critical pitfalls that have impeded long-term success. This robust approach not only extracts lessons from global best practices but also distils actionable, evidence-based recommendations to Brisbane’s urban planning aspirations for 2032.

The importance of this report lies in its capacity to merge scholarly insight with practical implications, positioning it as a vital resource that demonstrates how the Games can serve as a transformative catalyst for urban development—enhancing liveability while advancing broader goals such as climate resilience, social equity and economic prosperity. It is important to note that the purpose of this report is not to critique or assess current Brisbane 2032 planning decisions. Instead, it uses the experiences of previous host cities as a lens to offer forward-looking insights and support strategic urban planning efforts.

Sustainability, inclusivity and long-term impact are central themes throughout this report. Hosting the Games provides an opportunity to reimagine urban spaces, integrate green infrastructure and foster a more connected and accessible city. By aligning event preparations with Brisbane’s broader urban planning and development goals, the city can ensure that the Games not only inspire but also leave a profound and positive legacy for future generations.

This report offers a visionary yet practical framework of lessons and recommendations for the Brisbane 2032 Games from an urban planning perspective. Its primary objective is to inform and engage a diverse range of stakeholders, fostering dialogue and collaboration, while providing actionable insights and contributing to the broader discourse on the Brisbane 2032 Games. By building on the foundation of the existing planning framework and encouraging collaborative, sustained efforts, South East Queensland can leverage this historic opportunity to set a global precedent for sustainable, inclusive and impactful urban development. The report serves as a valuable resource to support this ambitious endeavour, promoting a comprehensive approach that addresses the multifaceted challenges and opportunities presented by hosting the 2032 Games.

“ Legacy planning is about the long view—creating places and systems that continue to serve future generations, long after 2032. It means making decisions today that remain relevant, resilient and meaningful tomorrow—shaped by community needs, guided by shared values and grounded in long-term public benefit. ”

Wenda Li, Specialised in Smart Living



Methodology

This report adopts a comparative, multi-case study methodology grounded in an urban planning perspective. It draws on a combination of academic literature, grey reports, planning documents and post-Games evaluations to analyse the successes and challenges of past Olympic and Paralympic host cities—including Barcelona 1992, Sydney 2000, Beijing 2008, London 2012, Rio de Janeiro 2016, Tokyo 2020 and Paris 2024. Each case was assessed across five key urban domains: infrastructure, society, environment, economy and governance. These domains align with the report’s thematic structure and inform its 30 forward-looking recommendations for Brisbane 2032. The methodology also integrates cross-sectoral best practices from other mega-events (e.g. World Expos, Commonwealth Games) and draws on the applied expertise of urban planning professionals. While the report does not evaluate current Brisbane 2032 plans, it uses past experiences as a lens to inform legacy-focused, evidence-based urban planning strategies tailored to South East Queensland.

Report structure

The report is structured as follows:

- 1** **Section 1** introduces the purpose and scope of the report.
- 2** **Section 2** explores how the Games can drive positive urban change and identifies key benefits and associated challenges across major urban domains.
- 3** **Section 3** emphasises urban planning as central to overcoming challenges and provides strategies to align the Games with long-term city-shaping goals.
- 4** **Section 4** outlines international case studies and precedent examples.
- 5** **Section 5** presents recommendations across five domains: economy, society, environment, infrastructure and governance.

Finally, the report concludes by reflecting on the broader implications for South East Queensland, emphasising how the Olympic Games can set a new global standard for leveraging such events as instruments of sustainable urban development.



sectio



Games as initiators of urban progress

While this section discusses common benefits and challenges faced by host cities, it does so with the intent of distilling lessons from international cases. The discussion does not serve as an evaluation of current Brisbane 2032 plans or decisions.

The Olympic and Paralympic Games (along with other mega-events considered in this report for a broader perspective) are transformative occasions that place host cities firmly in the global spotlight. These large-scale events offer unparalleled opportunities to drive urban regeneration by stimulating economic growth, enhancing international visibility and improving urban infrastructure and services for residents.

Nevertheless, they also introduce significant challenges across urban domains of economic, social, environmental, infrastructure and governance.

This section explores these multifaceted impacts of the Games on host cities, emphasising their potential as powerful catalysts for urban transformation and their potential challenges. Understanding these complex dynamics allows cities to navigate their intricacies and design strategies that deliver meaningful urban planning outcomes. This ensures that the legacy of these events not only elevates the global stature of the host city but also contributes significantly to the wellbeing and prosperity of its broader urban community.

One of the most immediate and noticeable impacts of the Games is their capacity to drive urban transformation [1]. One might say as a catalyst for urban transformation, the Games accelerate development and innovation in host cities, propelling projects that might otherwise take decades to complete. Just as a catalyst expedites a reaction, the Games inject energy and urgency into urban renewal, igniting infrastructure upgrades, economic activities and social initiatives.

Host cities often undertake large-scale infrastructure projects to accommodate the influx of visitors, including the construction of new sports facilities, transportation networks and public amenities [2, 3]. These investments can revitalise underdeveloped areas and fast-track existing development plans, transforming the urban landscape and enhancing its appeal [4]. A prime example of this is the Barcelona 1992 Games, which spurred significant urban renewal, particularly along the city's waterfront. This transformation not only boosted tourism but also reshaped Barcelona's international image, positioning it as a global city [5-7].

Similarly, the Games have the potential to profoundly impact key urban domains, including economic, social, environmental, infrastructure and governance.

Economy-wise, the Games stimulate immediate growth through tourism, job creation and increased local business activity, while laying the groundwork for sustained investment and diversification. Socially, they inspire civic pride, foster cultural exchange and promote inclusivity and community engagement. Environmentally, the Games encourage the adoption of sustainable practices, such as renewable energy, green infrastructure, active and low-carbon transportation, aligning urban development with global climate objectives. Infrastructure investments often transform underdeveloped areas, enhance transportation networks and provide multi-functional public amenities that improve connectivity and liveability. Furthermore, governance efforts, driven by the complex requirements of hosting the Games can foster collaboration, transparency and stakeholder engagement, leaving a legacy of strengthened governance frameworks.

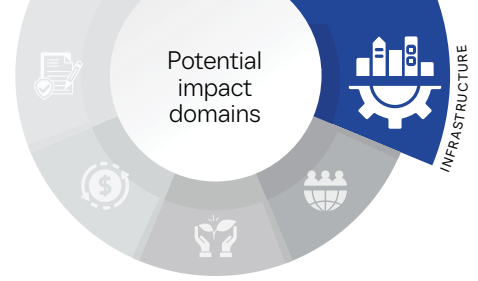
Nevertheless, this catalytic effect of the Games is a multifaceted force. While the Games offer transformative opportunities for urban renewal, they also risk posing unintended consequences.

The potential of both positive and negative impacts deriving from hosting the Games underscores the critical importance of strategic alignment, community-focused planning and sustainable implementation aimed at ensuring that the Games will benefit the host city well beyond the event itself [8, 9].

This dual nature of the catalytic effect will be explored in the following sections, detailed across key urban domains.

The downside of a catalyst, however, lies in the risks it presents when the transformation it accelerates is not strategically planned or aligned with broader goals. In the context of the Games, this can manifest as rushed development, financial strain and uneven distribution of benefits. Infrastructure projects may result in underutilised 'white elephants' (refers to something that is costly to maintain but provides little practical value, especially after its initial use has ended), social inequities may be exacerbated through displacement or gentrification and environmental sustainability efforts may remain superficial, leading to ecological degradation. Without thoughtful planning and alignment with community needs, the catalytic effect of the Games risks amplifying challenges instead of delivering the transformative legacy envisioned.





2.1 Catalytic effect on infrastructure

Long-term legacy and white elephants 2.1.1

In the Games context, infrastructure extends beyond sports venues and housing to include transportation, public amenities, digital networks and urban spaces. These components collectively form the backbone of successful Games in delivering a seamless experience for participants and spectators. Hosting the Games gives cities a valuable opportunity to upgrade infrastructure, address service gaps, and foster long-term urban growth, with investments in transportation and smart technologies improving accessibility and mobility for affected communities.

One of the enduring challenges of hosting Games is ensuring that event infrastructure serves a meaningful purpose beyond the event itself [9, 10]. While some host

cities, such as Barcelona, have successfully repurposed partial facilities for long-term public benefit, others face the issue of underutilised ‘white elephants’—expensive venues and infrastructure that fail to deliver ongoing value, instead becoming financial liabilities [11, 12].

The Athens 2004 Games exemplify this issue, with many of its purpose-built venues now standing largely abandoned, placing a heavy financial burden on the city [13]. This highlights the critical importance of integrating legacy planning into the early stages of event preparation. Without thoughtful post-event strategies, the substantial investments required to host the Games risk being wasted, leaving behind infrastructure that offers little benefit to local communities.

Infrastructural challenges for host cities 2.1.2

The infrastructural challenges associated with hosting the Games are varied and complex. Key challenges, including the risk of white elephants and absence of legacy planning, integration with existing urban landscape and long-term urban planning, logistical challenges in transport and accessibility, accommodation and visitor capacity issues, financial and logistical constraints of tight timelines and ethical incorporation of advanced digital technology, are outlined below.

Infrastructural challenge 1:

Many sports facilities constructed for the Games become underutilised ‘white elephants’ after the events, leaving host cities burdened with expensive maintenance costs while delivering minimal community value. The event-specific design of these facilities often restricts their potential for adaptive reuse, limiting opportunities for integration into broader urban needs. Similarly, newly developed open spaces and plazas, while visually appealing, frequently lack the commercial and recreational activities necessary to sustain vibrancy. As a result, these areas often fail to provide meaningful long-term benefits to the community, highlighting the importance of strategic, multi-purpose planning for post-event legacy.

01

Risk of white elephants and absence of legacy planning

Infrastructural challenge 2:

The rapid construction and development required for the Games often conflict with existing urban plans, creating mismatches that impact the host city's long-term planning objectives. In densely developed cities, finding suitable sites requires extensive redevelopment, which can disrupt established neighbourhoods and may fail to address the broader needs of local communities. Additionally, temporary structures designed for short-term use during the Games frequently lack functionality or purpose beyond the event, highlighting the difficulty of balancing the demands of event-specific infrastructure with the goals of sustainable and inclusive urban growth.

Infrastructural challenge 3:

The Games significantly exacerbate traffic and congestion in host cities, particularly in densely populated areas with limited parking and pre-existing high congestion levels. The extraordinary transport demands place immense pressure on aging infrastructure, often necessitating short-term investments that fail to align with the city's long-term urban transport needs. Despite infrastructure upgrades, these improvements are frequently insufficient to manage peak demands effectively. The sudden and intense influx of spectators, combined with complex logistical requirements, further complicates efficient traffic flow and access management, creating substantial challenges for host cities during the events.

Infrastructural challenge 4:

Providing adequate accommodation for the influx of visitors during the Games presents a significant challenge, especially in cities with limited hotel infrastructure. Building temporary accommodations or upgrading existing facilities often involves substantial costs, while poor planning can lead to adverse outcomes. Underutilised facilities post-Games can become costly burdens, while overburdened local infrastructure during the event may strain the host city's capacity to meet long-term housing and tourism demands. Balancing short-term needs with sustainable, adaptable solutions is essential to ensuring that accommodation investments provide lasting value to the community.

Infrastructural challenge 5:

Host cities face immense pressure to complete complex infrastructure projects within strict timelines, often leading to rushed construction that compromises quality, durability and functionality. Financial constraints exacerbate these challenges, as the high costs associated with expedited schedules may force cutbacks in materials, design, or scope. These issues not only affect the immediate usability of infrastructure but also undermine its long-term sustainability, leaving host cities with maintenance burdens and reduced value from their investments.

Infrastructural challenge 6:

The ethical incorporation of advanced digital technology in Games planning is essential to ensure transparency, inclusivity and sustainability [14]. Technologies such as artificial intelligence, the Internet of Things and big data analytics can optimise logistics, enhance security and improve spectator experiences [15]. However, their implementation must prioritise data privacy, equity and accessibility to prevent exacerbating digital divides or infringing on civil liberties. Transparent governance frameworks should guide technology use, ensuring public trust and accountability. By addressing ethical concerns and fostering stakeholder collaboration, host cities can leverage digital innovation responsibly, creating an inclusive, efficient and secure environment while aligning with long-term sustainable urban development goals.

02

Integration with existing urban landscape and long-term urban planning

03

Logistical challenges in transport and accessibility

04

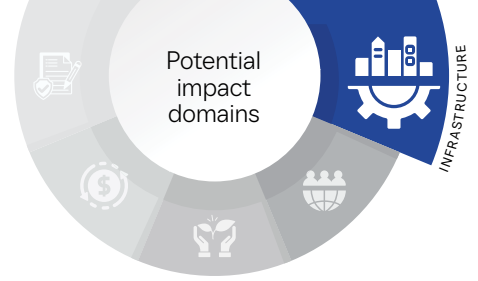
Accommodation and visitor capacity issues

05

Financial and logistical constraints of tight timelines

06

Ethical incorporation of the advanced digital technology



Successful legacy planning

Successful legacy planning involves designing venues and facilities that are adaptable and align with the long-term needs of the city. This includes re-purposing venues for community use, converting them into commercial or educational spaces, or ensuring they meet broader urban development goals [16-18].

For instance, some cities have incorporated modular designs or temporary structures that can be dismantled or relocated, reducing the likelihood of long-term under use. Qatar’s Stadium 974 for the 2022 FIFA World Cup is a notable example. It was constructed using shipping containers and modular steel, allowing for complete disassembly and reuse after the event [19].

Moreover, the incorporation of advanced digital infrastructure, such as artificial intelligence, into Games planning offers transformative potential for host cities [20-22]. AI can optimise transportation systems by predicting traffic patterns and managing real-time logistics, significantly enhancing accessibility for participants and spectators. It also streamlines event logistics and strengthens security through surveillance and threat detection.

During the Tokyo 2020 Olympics and Paralympics, AI-powered facial recognition systems expedited security checks, allowing accredited individuals quick access to venues, while athletes and visitors were ushered upon arrival by AI-driven robots with language translation. However, the use of AI raises persistent concerns about data privacy and civil liberties and if not integrated into broader urban planning or designed for adaptability, it risks becoming underutilised after the Games, adding to the burden of maintaining a long-term legacy or becoming another costly white elephant.

In addition to physical and digital infrastructure, legacy planning must also consider broader urban and social outcomes. Investments in transportation, housing and public spaces should be guided by principles of sustainability and equity to ensure they benefit the community well into the future. Engaging local stakeholders in the planning process is crucial to aligning infrastructure development with the needs and aspirations of residents.

“ The responsible use of cutting-edge urban technologies, including Urban AI, transforms Games infrastructure planning—enabling data-informed, ethical and inclusive decisions that foster resilience, adaptability and enduring public value, while actively minimising technological harms and externalities. ”

Tan Yigitcanlar, Specialised in Smart Cities



2.2 Catalytic effect on **society**

Social and cultural impacts

2.2.1

The Games significantly influence the social and cultural fabric of host cities [13, 23]. These events have the potential to foster community pride, promote cultural exchange and enhance the global image of the host city [24]. They often serve as platforms for showcasing the city's cultural identity and diversity, inspiring civic engagement and bringing residents together through shared experiences.

Nonetheless, the social and cultural benefits of these events are not always evenly distributed across different groups or communities [25, 26].

Infrastructure developments associated with the Games frequently prioritise wealthier or more visible areas, sometimes neglecting or displacing lower-income communities. This trend can lead to increased gentrification and exacerbate existing social inequities [27, 28].

The Rio 2016 Games exemplified these challenges, as large-scale evictions displaced many residents to make way for event-related projects. These forced relocations not only disrupted lives but also highlighted how the Games can deepen social divides rather than bridging them [29, 30]. Such outcomes underscore the need for equitable and inclusive planning to ensure that the benefits of hosting the Games are accessible to all segments of the community.

Striking a balance between meeting community needs and satisfying the demands of hosting the Games remains a critical yet often overlooked aspect of planning [31, 32]. Successful host cities must prioritise inclusivity and social equity by engaging with diverse stakeholders, minimising adverse social consequences and ensuring that event-related developments contribute to long-term community well-being. By doing so, the Games can serve as a contributor to social cohesion and cultural legacy rather than disrupting local social dynamics.



Social challenges for host cities

2.2.2

The social challenges associated with hosting the Games are varied and complex. Key challenges, including social inequalities and marginalisation, public scepticism and opposition to mega-events, social and cultural disruption and balancing security with civil liberties, are outlined below:

Social challenge 1:

Infrastructure upgrades for the Games can unintentionally segregate urban spaces, leading to the creation of exclusive high-income zones that exclude low-income residents and exacerbate social and spatial divisions. Forced evictions, inadequate compensation and coercive relocation tactics often result in psychological trauma, community fragmentation and social unrest, with low-income and minority populations bearing the brunt of these impacts. Additionally, security measures and urban beautification efforts frequently target disadvantaged groups, further marginalising them from revitalised urban spaces. This exclusion not only deepens existing inequalities but also undermines the potential for inclusive urban development, turning what should be an opportunity for city-wide progress into a source of division and resentment.

Social challenge 2:

Public scepticism regarding the benefits of hosting the Games is growing, driven by the frequent transfer of costs to taxpayers and the shortfall of actual returns on investment. This has led to grassroots opposition movements such as the No Boston Olympics, which exemplify community resistance to hosting such events. The disconnect between the objectives of the Games' organisers and the expectations of local residents fosters widespread distrust and dissatisfaction. In many cases, this misalignment results in protests, community backlash and even the cancellation of bids, reflecting a broader concern about the long-term value and equity of hosting these mega-events.

Social challenge 3:

Rapid urban transformation driven by the Games often results in the commodification of heritage areas, undermining local culture and eroding collective memory. Aggressive redevelopment efforts tend to prioritise commercial appeal and global visibility over the preservation of a community's historical and cultural identity. This approach not only dilutes the unique character of the host city but also risks alienating residents who feel disconnected from the reimagined urban spaces, ultimately diminishing the Games' potential to foster a sense of local pride and cultural continuity.

Social challenge 4:

Large-scale security protocols implemented for the Games often result in a militarised atmosphere that can infringe on civil liberties and disrupt the daily lives of residents. Stringent measures, such as restricted public access and surveillance, can foster a sense of exclusion, altering the social fabric and diminishing the community's enjoyment of the events. This heavy emphasis on security frequently conflicts with public expectations for freedom of movement and an open, inclusive environment, raising critical concerns about how to balance safety requirements with the preservation of civil liberties and the overall spirit of the Games.

- 01 Social inequalities and marginalisation
- 02 Public scepticism and opposition to mega-events
- 03 Social and cultural disruption
- 04 Balancing security with civil liberties

2.3 Catalytic effect on environment

Environmental considerations and sustainability 2.3.1

The Games place significant environmental pressure on host cities due to large-scale construction projects, increased traffic and the amount of waste generated by massive crowds [33, 34]. In response, many host cities adopt green technologies and practices to mitigate their environmental impact. In this context, green initiatives include the use of renewable energy, reducing carbon emissions, minimising waste and incorporating eco-friendly building materials. To implement these practices, host cities usually prioritise building sustainable venues and expanding eco-friendly public transport systems [35, 36].

Despite these efforts, the carbon footprint of the Games often exceeds initial estimates, reflecting the challenges of aligning sustainability ambitions with the realities of hosting such large-scale events [37, 38].

The environmental legacy of the Games can vary significantly, depending on the extent to which sustainability principles are embedded in the planning and execution phases [39, 40].

Cities that prioritise sustainable practices, such as incorporating renewable energy, creating infrastructure that promotes active transport and re-purposing venues for post-event use, are better positioned to mitigate long-term environmental impacts. For instance, Tokyo 2020 demonstrated innovative approaches by utilising renewable energy, such as solar and biomass and re-purposing existing venues—such as the original stadiums from the Tokyo 1964 Games— thus demonstrating a conscious effort to minimise environmental impacts and setting a benchmark for sustainable Games [41, 42].

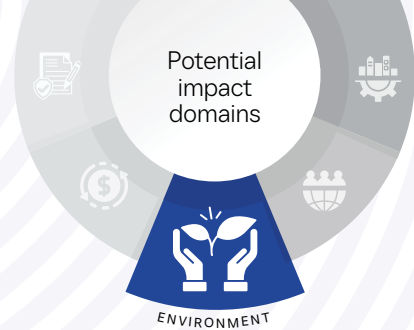
Despite growing recognition of the importance of ‘Green Games’, implementing these practices remains a formidable challenge. Rapidly changing development timelines, high public expectations and budget constraints often impede the integration of robust environmental strategies [32, 43].

Additionally, cities must balance the immediate demands associated with event hosting with broader environmental goals, aiming for sustainability efforts that extend beyond the Games and contribute to long-term urban resilience.

“ Planning with nature ensures Brisbane 2032 leaves not just world-class venues, but cleaner air, cooler streets and more connected communities—setting a global benchmark for climate-resilient, regenerative city-making. ”

Umberto Baresi, Specialised in Environmental Planning





Environmental challenges for host cities

2.3.2

The environmental challenges associated with hosting the Games are varied and complex. Key challenges include the high costs of sustainability initiatives, heat-island effects and pollution, as well as ecological damage from construction projects, which are outlined below:

Environmental challenge 1:

In the context of the Games, balancing innovative sustainable practices with the significant costs associated with these projects presents a considerable challenge. Budget constraints and the pressure to deliver within strict timelines often result in scaled-back or compromised sustainability initiatives. This can undermine the environmental goals of the Games and limit their potential to set a benchmark for sustainable urban development. Achieving a balance requires careful planning, prioritisation and investment in cost-effective, impactful solutions that align with both sustainability objectives and financial constraints and expectations.

Environmental challenge 2:

In the context of the Games, increased urbanisation and rising car traffic exacerbate the urban heat island effect, particularly in densely populated areas [44]. The surge in motor vehicle dependency and insufficient maintenance of green spaces contribute to elevated pollution levels and deteriorating air quality. Neglected vegetation further accelerates ecological degradation, reducing the city's capacity to mitigate environmental impacts. Urban rivers are particularly vulnerable, with heightened risks of pollution exacerbated by soil sealing and the loss of natural filtration systems. These issues complicate efforts to achieve ecological restoration and sustainable event planning, underscoring the need for comprehensive environmental strategies that prioritise green infrastructure, air quality management and waterway protection. Without these measures, the long-term environmental legacy of the Games risks being overshadowed by increased ecological and urban challenges.

Environmental challenge 3:

The construction of infrastructure for the Games often results in the destruction of natural habitats, soil erosion and water conservation challenges, significantly compromising regional ecological security. Vulnerable ecosystems can face substantial ecological risks from large-scale development projects associated with the Games. These activities threaten biodiversity, disrupt ecosystem balance and undermine efforts to preserve natural resources, highlighting the need for careful environmental planning and mitigation strategies to protect regional ecological integrity.

01

High costs of environmental sustainability initiatives

02

Heat island effects and pollution issues

03

Ecological damage from construction projects

To achieve meaningful environmental outcomes, host cities must adopt a holistic approach, embedding sustainability into every stage of the event lifecycle. This includes leveraging green infrastructure, engaging local communities in eco-conscious initiatives and rigorously monitoring and reporting environmental performance. By doing so, the Games can serve as a model for sustainable urban development and leave a positive environmental legacy for future generations.

2.4 Catalytic effect on economy

Economic stimulus and employment 2.4.1

The economic allure of hosting the Games serves as a powerful incentive for prospective host cities [45, 46]. These events typically attract large numbers of visitors, delivering a significant boost to local businesses, hotels and restaurants [4, 47]. Moreover, the lead-up to the Games often generates substantial employment opportunities, particularly in the construction and service sectors, as cities prepare the necessary infrastructure and amenities [48, 49].

Nonetheless, the extent to which these economic benefits materialise is a topic of ongoing debate among academics and the public [45, 50]. While the immediate influx of visitors and investment can provide a short-term economic boost, many studies suggest that this impact diminishes quickly once the event concludes, leaving host cities to grapple with the challenge of sustaining financial momentum [45].

Additionally, concerns often arise regarding underutilised infrastructure and inflated costs, which can burden cities with long-term financial obligations [51, 52].

Economic challenges for host cities 2.4.2

The economic challenges associated with hosting the Games are varied and complex. Key challenges, including high financial costs and budget overruns, increased public debt and financial burden on taxpayers, economic development inequalities, real estate speculation and market instability, short-term gains versus long-term sustainability, limited private sector investment and public funding dependence, inadequate financial planning and mega-event syndrome, negative impacts on local businesses and diversion of resources from essential services, are outlined below:

Economic challenge 1:

Hosting the Games requires significant financial investment, often exceeding initial budgets due to cost overruns, as seen with Tokyo 2020 and other recent Games. The substantial non-refundable fees paid to the International Olympic Committee, coupled with the extensive infrastructure developments needed, place considerable economic pressure on host cities. This financial strain frequently fuels public scepticism about the true economic benefits of hosting the Games.

Economic challenge 2:

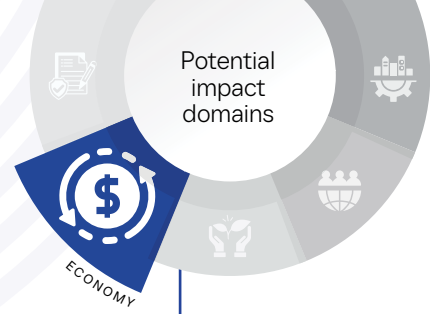
The financial burden of hosting the Games often falls disproportionately on public authorities and taxpayers rather than private investors. This raises concerns about escalating public debt and the financial strain placed on local governments. Public subsidies directed towards elite projects and infrastructure that fail to deliver lasting benefits to taxpayers further contribute to negative public perception and growing resistance to hosting future Games.

01

High financial costs and budget overruns

02

Increased public debt and financial burden on taxpayers



Economic challenge 3:

Hosting the Games can exacerbate economic inequalities, as financial gains often flow to select private entities and elites rather than benefiting the broader community. Investments typically prioritise short-term returns over sustainable, long-term outcomes, intensifying disparities— particularly in cities already facing economic challenges. This widening economic divide in the aftermath of the Games can foster public opposition and resentment, further complicating efforts to secure future bids for similar events.

03 Economic development inequalities

Economic challenge 4:

The Games often lead to a surge in real estate prices, triggering housing bubbles and inflated property values that frequently collapse after the event. This destabilisation of the property market can create enduring economic challenges for host cities. Additionally, the speculative increase in property values often displaces small businesses, disrupts local economies and contributes to broader economic instability, further exacerbating the long-term impact on communities and the local economy.

04 Real estate speculation and market instability

Economic challenge 5:

Economic activities associated with the Games, such as tourism and land revenue are often overestimated in terms of their long-term benefits. Anticipated gains frequently fail to materialise, leaving host cities to contend with negative post-event economic impacts. Furthermore, economic policies and infrastructure developments driven by the demands of mega-events often prioritise short-term profitability over sustainable urban growth, potentially undermining broader long-term development goals and hindering the city's overall progress.

05 Short-term gains versus long-term sustainability

Economic challenge 6:

Organisers of the Games often face challenges in securing financial backing from local businesses, leading to budget shortfalls and an over-reliance on public funding. Private sector reluctance to invest—particularly in projects with limited commercial appeal— further intensifies financial pressure on host cities. This dependence on public resources creates significant fiscal challenges, especially if anticipated private investment or revenue streams fail to materialise, leaving local governments to shoulder the financial burden.

06 Limited private sector investment and public funding dependence

Economic challenge 7:

The lack of comprehensive cost-benefit analyses in initial feasibility studies, combined with inadequate financial transparency, often results in significant budget underestimations. This phenomenon, commonly referred to as the 'mega-event syndrome', is characterised by a systematic overestimation of economic benefits and an underestimation of costs. Such misrepresentations mislead stakeholders and foster unrealistic expectations, ultimately leading to financial disappointment and long-term post-event economic challenges for host cities.

07 Inadequate financial planning and mega-event syndrome

Economy challenge 8:

The Games often prioritise high-income markets and international tourism, implementing strict regulations that favour larger corporations over smaller businesses and local vendors. This approach can disrupt local economies by displacing or restricting small businesses and informal vendors, which are vital to the economic fabric of host communities. Furthermore, while these events may generate short-term job opportunities, the lack of sustainable planning means these positions rarely translate into long-term economic benefits. As a result, impacted communities are often left with minimal lasting gains post-event, exacerbating economic inequalities and undermining local economic stability.

Economy challenge 9:

Public funds and resources are often diverted to meet the significant demands of hosting the Games, potentially depriving critical sectors such as housing, education, and healthcare of much-needed investments. These opportunity costs are considerable, as the focus on event-related infrastructure can constrain long-term economic development and limit the ability of host communities to address pressing social and economic needs. This misallocation of resources may result in lasting negative impacts on the well-being of residents and the broader urban fabric.

08

Negative impacts on local businesses

09

Diversion of resources from essential services

In summary

The economic challenges highlight the significant financial risks and resource misallocations that can accompany hosting the Games. Issues such as inflated budgets, inadequate planning and a focus on short-term gains often undermine the economic potential of these events. For example, many host cities face public scepticism due to rising debt levels and the diversion of resources away from essential services like housing and healthcare.

Despite these challenges, the economic potential of the Games, both during and after the event, can be significant if host cities implement effective strategies to sustain growth beyond the event's lifespan ^[24]. This includes fostering a vibrant post-event tourism industry, re-purposing facilities to boost the local economy and leveraging the international exposure gained from hosting to attract future investments and events. By prioritising long-term economic planning, cities can maximise the benefits of hosting the Games and mitigate the risks of financial instability.

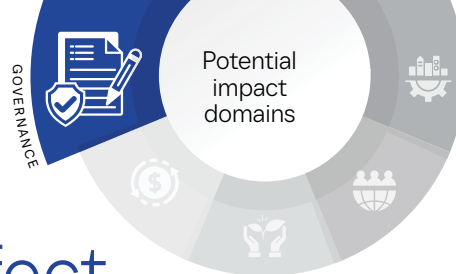


Ensuring a safe Games is only the beginning—it is about embedding resilience, adaptability and long-term safety into the very fabric of our cities, through inclusive planning, smart design and infrastructure that can evolve with changing needs and future challenges. ”

Abdulrazzaq Shaamala, Specialised in Spatial Intelligence



2.5 Catalytic effect on governance



Governance, security and community involvement 2.5.1

The organisational complexity of hosting the Games necessitates collaboration among a wide range of stakeholders, including city officials, private sector partners and international event committees [26, 53]. The sheer scale of these events often prompts significant upgrades to security infrastructure, designed to manage large crowds and address potential risks. These changes can leave a lasting impact on the governance landscape of host cities, influencing how future events and crises are managed [45, 54, 55].

Nonetheless, the centralised decision-making processes typically involved in Games planning often overlook community voices. Policies shaped primarily by event-related goals may fail to reflect the needs and priorities of local residents, leading to tensions and resistance [56, 57]. For example, Berlin's opposition to hosting the 2000 Games highlighted how inadequate community involvement can fuel public discontent and derail planning efforts [58].

Governance challenges for host cities 2.5.2

The governance challenges associated with hosting the Games are varied and complex. Key challenges, including limited public engagement and Olympic urgency, fragmented governance and coordination challenges, security concerns and emergency preparedness, regulatory and governance constraints, inadequate policy frameworks, transparency and public accountability and challenges with legacy organisation and knowledge continuity, are outlined in the following sections.

Governance challenge 1:

Decision-making processes for the Games often adopt a top-down approach, excluding local residents and limiting public engagement, transparency and community ownership. This lack of stakeholder involvement fosters scepticism, resistance and a disconnect between the event's vision and the needs of the host community. Additionally, many projects are fast-tracked under the guise of 'Olympic urgency', allowing organisers to bypass local regulations, public consultation and democratic norms. This expedited approach can lead to poorly considered developments, marginalise community voices and create lasting impacts on urban planning and development, undermining trust in public institutions and the long-term benefits of hosting the Games.

Governance challenge 2:

Complex governance structures, involving multiple stakeholders and fragmented decision-making, often hinder effective planning for the Games. Misalignment among local, regional and national bodies exacerbates these challenges, creating obstacles to cohesive strategy and execution. Political conflicts and competing priorities further complicate coordination, as demonstrated by tensions between city councils, regional governments and national authorities in past events. This lack of unified direction can delay critical decisions, impact project delivery and ultimately compromise the Games' potential to achieve long-term urban and community benefits.

- 01** Limited public engagement and Olympic urgency
- 02** Fragmented governance and coordination challenges

Governance challenge 3:

Extensive pre-planning and the necessity to address evolving security threats require continuous updates to security strategies, posing substantial logistical and financial challenges for host cities. The complexity of coordinating multiple security agencies often leads to conflicts, miscommunication and inefficiencies, particularly during large-scale operations for the Games. These challenges highlight the need for robust, adaptable security frameworks and effective inter-agency collaboration to ensure safety while minimising disruptions and managing costs.

Governance challenge 4:

The urgency imposed by the Games timelines often requires changes to existing regulatory and policy frameworks, which can conflict with public interests and undermine local governance norms. The expedited nature of planning and decision-making frequently sidelines democratic processes, resulting in the marginalisation of local participation. The inadequacy of existing policy frameworks (e.g. strategic assessments) for large-scale events such as the Olympics and Paralympics only contributes to worsening these issues. This lack of community involvement and transparent governance fosters dissatisfaction among residents, further straining the relationship between event organisers and host communities and potentially jeopardising the long-term success and acceptance of the Games.

Governance challenge 5:

In the context of the Games, a lack of transparency in financial and operational planning, coupled with inadequate public reporting, often fosters distrust and scepticism among the public. The absence of clear accountability in decision-making processes reinforces perceptions of event planning as an opaque, elite-driven endeavour with minimal public oversight. This disconnect not only undermines public confidence but also risks alienating communities, ultimately affecting the legitimacy and long-term success of the Games.

Governance challenge 6:

The dissolution of Games event management bodies following the conclusion of a mega-event often leads to a significant loss of institutional knowledge. This diminishes the host city's capacity to capitalise on the long-term benefits of the Games. The lack of follow-up organisations to build upon the event's investments and initiatives prevents sustained development, undermining the potential to maximise the social, economic and infrastructural advantages initially gained. This highlights the need for legacy-focused structures to ensure continuity and long-term value for host communities.

03

Security concerns and emergency preparedness

04

Regulatory and governance constraints

05

Transparency and public accountability

06

Challenges with legacy organisation and knowledge continuity

Transparent governance and meaningful community engagement are critical to the success of such events. Incorporating public input and ensuring open communication can build trust, foster local support and align the event's objectives with the broader interests of the host city [59, 60]. Furthermore, involving residents in the planning process can help identify potential challenges and opportunities that might otherwise be overlooked by centralised decision-makers.

In addition to governance, the legacy of enhanced security infrastructure must be carefully managed to ensure it benefits residents in the long term. While heightened security measures are often necessary during the Games, they should not lead to excessive surveillance or restrictions on civil liberties post-event. Striking a balance between safety and community well-being is crucial to maintaining public trust.



2.6 Catalytic effect on other urban domains

Political and economic risks 2.6.1

Hosting the Games comes with significant financial implications, often presenting host cities with political and economic risks. Budget overruns and increased public debt are common challenges, with many cities struggling to manage the escalating costs associated with the Games [51, 52]. While governments frequently justify these expenses by projecting long-term economic returns, such benefits often fall short of expectations, leading to public scepticism and resistance to future bids [13, 50].

One of the critical risks is the strain these events can place on public finances. Resources that could otherwise be allocated to essential services such as healthcare, education and housing may be diverted to fund event-related infrastructure and operations. This reallocation of funds can negatively impact resident quality of life, further fuelling public discontent [61, 62].

Public resistance to hosting the Games often stems from concerns over transparency and accountability in financial management. Unrealistic projections of economic returns, coupled with inadequate oversight, exacerbate public mistrust and highlight the need for rigorous planning and governance. To mitigate these risks, cities must adopt a cautious and realistic approach to budgeting, grounded in detailed cost-benefit analyses and transparent communication with stakeholders [32, 50].

Moreover, political risks can arise when the Games are used as tools for political agendas, overshadowing the needs and priorities of local communities. Decisions driven by political ambitions rather than sound economic reasoning can lead to poorly planned projects that fail to deliver long-term value.

Other challenges for host cities 2.6.2

Other challenges associated with hosting the Games are varied and complex. Key challenges, including compliance with International Olympic Committee standards and requirements, security and safety concerns and the impact of external factors and unforeseen events, are outlined in the following sections.

Security and safety concerns

The International Olympic Committee's stringent infrastructure and facility In the context of the Games, ensuring a safe and secure environment for global participants, free from threats such as terrorism and organised crime, is a top priority but remains a formidable challenge. Achieving this level of security demands extensive resources, meticulous planning and the integration of advanced security technologies.

However, rapid deployment of security measures, such as surveillance systems, crowd control mechanisms and enhanced law enforcement presence, often raises significant privacy concerns and risks infringing on civil liberties. Balancing the need for robust security with the protection of individual rights and freedoms is a complex but essential task, requiring transparent governance, public engagement and thoughtful implementation to maintain trust and uphold democratic values.



Ensuring a safe Games is only the beginning—it is about embedding resilience, adaptability, and long-term safety into the very fabric of our cities, through inclusive planning, smart design, and infrastructure that can evolve with changing needs and future challenges.

Ke Liu, Specialised in Urban Science

Impact of external factors and unforeseen events

Natural disasters and political crises have historically tested the resilience of host cities for the Games, challenging their ability to maintain public confidence and secure international support. For example, the 2011 Fukushima disaster raised concerns over safety and preparedness for hosting large-scale events in affected regions. More recently, the COVID-19 pandemic introduced unprecedented challenges in health, safety, logistics and financial planning.

The global outbreak led to the cancellation or postponement of nearly all major events in 2020, including the Tokyo 2020 Olympics and Paralympics, which was rescheduled to 2021. These disruptions highlighted the vulnerability of mega-events to external crises, underscoring the need for robust contingency planning, adaptive strategies and flexible governance frameworks to safeguard the feasibility and legacy of such events in the face of unforeseen circumstances.



Compliance with International Olympic Committee standards and requirements

The International Olympic Committee's (IOC's) stringent infrastructure and facility standards place substantial financial and logistical pressures on host cities, often straining public resources and creating significant technical and economic challenges. The strict deadlines and requirements associated with hosting the Games can compel cities to bypass democratic processes, contributing to a perceived 'de-democratisation' of urban planning and decision-making. Although the IOC's *New Norm* framework aims to reduce costs and streamline event delivery, it has struggled to adapt effectively to the unique social, historical and logistical contexts of individual host cities.

This mismatch often perpetuates, rather than alleviates, financial and structural difficulties. In many instances, the framework has amplified local conflicts, as its standardised approach fails to address the diverse and complex needs of host communities. The persistent challenges associated with the new framework underscore the need for a more flexible and tailored strategy. A customised approach that prioritises local contexts, engages communities and aligns event requirements with long-term urban development goals is essential for future host cities to navigate the demands of the Games effectively while ensuring lasting benefits for their residents.

These challenges reflect the multifaceted pressures host cities face, including the demanding compliance requirements of the IOC, which often strains local resources. The IOC's *New Norm* framework, while aimed at reducing costs and streamlining event delivery, frequently falls short of addressing city-specific needs, intensifying financial and logistical burdens.

Additionally, ensuring security for participants and attendees requires extensive resources and advanced technologies, but rapid implementation of these measures can lead to privacy concerns and civil liberty infringements. External factors such as natural disasters, political crises and global health emergencies, as seen with the Fukushima disaster and the COVID-19 pandemic, further highlight the need for robust contingency planning and adaptive strategies.

Addressing the challenges of hosting the Games requires a strategic and adaptable approach. Host cities must align IOC requirements with local priorities, emphasise transparency in decision-making and develop governance frameworks capable of addressing both foreseeable and unexpected issues. By balancing global expectations with community needs, cities can mitigate risks and enhance the legacy benefits of hosting. Proactive planning and inclusive strategies can turn these challenges into opportunities for sustainable urban development and long-term progress.

“ Hosting the Games is both an honour and a challenge—it calls for flexible planning, transparent governance and strong community alignment. By balancing global expectations with local realities, host cities can transform complexity into opportunity and ensure that every challenge becomes a stepping stone toward long-term urban resilience.”

Raveena Marasinghe, Specialised in Spatial Planning







Urban planning for meeting the challenges of the Games

The Games place extraordinary demands on host cities, necessitating comprehensive strategies to manage their scale, complexity and multifaceted impacts. This section highlights the pivotal role of urban planning in addressing these challenges, showcasing its capacity to align the immediate operational needs of mega-events with broader long-term urban development objectives.

Urban planning provides the foundation for ensuring that investments related to the Games not only meet event-specific requirements but also foster sustainable, inclusive and transformative urban progress. By incorporating infrastructure development, stakeholder engagement, environmental sustainability and legacy creation, urban planning enables cities to derive enduring benefits from hosting these events while mitigating potential risks such as financial burdens, social displacement and environmental degradation.

This section explores how urban planning addresses critical demands and challenges of the Games, focusing on the integration of new and existing infrastructure, stakeholder collaboration, environmental responsibility and the creation of a meaningful legacy. It underscores the importance of balancing the economic and social impacts of these events while safeguarding community well-being and ecological integrity. By strategically aligning event requirements with long-term urban development goals, urban planning ensures that the Games not only deliver short-term success but also create lasting, positive outcomes for host cities and their residents.

This section draws on insights from previous Games to illustrate the necessity of thoughtful and strategic urban planning. By learning from successes and challenges, host cities can leverage the transformative potential of the Games to achieve tangible, long-lasting benefits for their residents.

Urban planning is key to balancing the economic, social and environmental impacts of hosting the Games while safeguarding community well-being and ecological integrity. Proactive and inclusive planning enables cities to navigate the unique challenges of the Games, fostering sustainable urban development, enhancing global recognition and building a meaningful legacy for future generations.

The following sections discuss the key strategies for urban planning in meeting the earlier-mentioned challenges.

3.1 Infrastructure domain

Infrastructure integration and post-event utility beyond event-

Urban planning is fundamental to the successful hosting of the Games. Its role extends beyond addressing immediate logistical and operational demands, focusing on the long-term integration and sustained utility of infrastructure [32, 63]. By adopting a dual-purpose approach, urban planning ensures that event-related investments are efficient during the event and aligned with broader urban and regional development goals, delivering enduring value for the host city [9, 64, 65].

One of the critical challenges in hosting these events is the seamless integration of new or upgraded facilities into the existing urban landscape [66, 67]. Without careful planning, cities risk creating isolated, underutilised ‘white elephants’—facilities that lack purpose post-event [8, 23].

Effective urban planning mitigates this risk by ensuring that event-related infrastructure, such as sports venues, transportation networks and public spaces, fits cohesively within the city’s urban fabric [7, 68]. This integration is crucial for maintaining functionality and improving urban life quality. Additionally, technologies, such as digital modelling, Geospatial Artificial Intelligence (GeoAI) and data-driven planning, play an essential role in the integration of event-related infrastructure by optimising design and assessing environmental, social, economic and operational impacts early in the planning phase [69, 70].

Additionally, emerging technologies like quantum computing can accelerate urban planning by enhancing smart city solutions and transportation. It enables real-time adjustments to infrastructure design and simulates systems like traffic flow and energy use, helping address challenges like congestion and pollution that are hard to model with classical computing [71, 72].

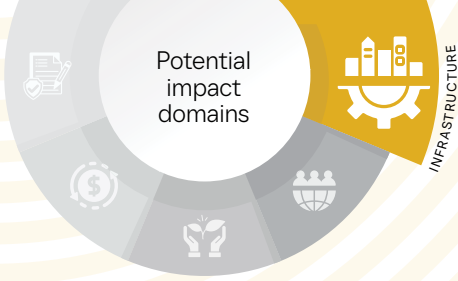
Strategic planning to achieve this integration relies on early collaboration among event organisers, government agencies, urban planners and local stakeholders [73, 74]. An inclusive approach bridges gaps in connectivity and usability, ensuring that event-related developments enhance the city rather than disrupt it [75, 76]. For example, the London 2012 Games prioritised the development of transportation links and pedestrian-friendly pathways, improving walkability and accessibility between venues and the broader urban area [13].

Similarly, the Beijing Winter Olympics effectively repurposed venues from the 2008 Summer Olympics, demonstrating how leveraging existing assets can reduce costs and waste [47].

Key considerations for infrastructure integration and post-event utility beyond event-specific needs



Aligning short-term event needs with long-term urban goals



Urban planning specific needs 3.1.1

Urban planning also ensures that Games infrastructure retains its utility after the event concludes [9, 32]. A forward-looking vision that prioritises adaptability and multi-functionality is key [13]. For instance, Olympic Villages can be converted into residential housing complexes, while sports venues can be repurposed for community use or professional sports leagues [43]. Designing infrastructure with future uses in mind prevents obsolescence and maximises the long-term value of these investments [77, 78].

Additionally, enhancing post-event utility can be achieved by actively involving the community during the design and planning phases. Integrating local perspectives ensures that developments align with residents' needs and aspirations, fostering the long-term sustainability of these facilities.

Harmonising the short-term requirements of the Games with long-term urban development goals ensures that the benefits of hosting extend far beyond the event itself. Thoughtful infrastructure planning creates a lasting legacy for host communities, fostering sustainable growth and delivering enduring value [50, 79].



Seamless integration with the existing urban fabric



Strategic collaboration with stakeholders



Effective design and re-purposing of assets



Use of innovative technologies

Transport and accessibility improvements

The Games serve as powerful catalysts for advancing urban transportation networks due to their demanding requirements for accessibility. Hosting these events compels cities to enhance mobility frameworks, ensuring seamless connectivity between airports, event venues, accommodations and city centres.

The Barcelona 1992 Games exemplify this dynamic, spurring infrastructure upgrades such as new roads and an expanded airport, which not only facilitated the Games but also provided enduring benefits for residents. Similarly, Tokyo's preparations for the 1964 and 2020 Games drove expansions of its metro and high-speed rail systems, showcasing how urban planning can meet immediate event demands while fostering long-term urban mobility solutions. In both instances, these upgrades also increased regional economic integration, connecting peripheral areas to central urban hubs and promoting inclusive growth.

Effective transportation planning often focuses on leveraging and improving existing transport systems to meet the needs of the Games. Strategically locating venues and accommodations near established transit networks can reduce the need for extensive new infrastructure, minimising both costs and environmental impact.

For instance, London's preparations for the 2012 Games included extensions to the Docklands Light Railway and upgrades to Stratford Station; this investment in public transport infrastructure not only supported the Games but also delivered lasting value to the city's accessibility and encouraged walking and cycling. Additionally, London's prioritisation of low-emission zones and enhanced walking and cycling infrastructure during the Games highlighted the potential for integrating sustainable transport solutions.

The Games also provide opportunities to implement ambitious transportation projects that might otherwise face delays or funding challenges. Preparations for Paris 2024 are closely tied to the Grand Paris Express project, a major rapid transit expansion aimed at improving regional connectivity.

This alignment demonstrates how event-driven transportation upgrades can be integrated into broader urban development objectives, promoting equitable accessibility and supporting economic growth. Such projects also help address long-standing urban mobility gaps and boost local economies through improved commuter access.

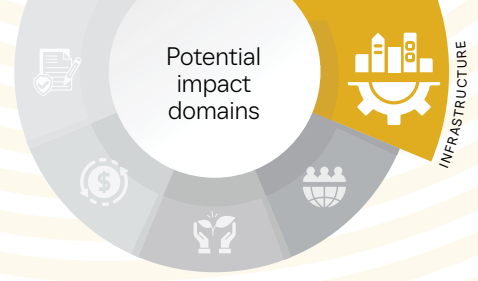
A crucial consideration in transportation planning for the Games is ensuring that investments leave a meaningful legacy. Barcelona's post-Games mobility success highlights the importance of aligning event-driven projects with broader urban development plans.

Conversely, rapid construction for events in cities like Rio de Janeiro in 2016 and Beijing in 2008 has in some cases, led to underutilised infrastructure after the Games, emphasising the need for thoughtful legacy planning to maximise long-term value. Developing adaptive reuse strategies for temporary facilities and ensuring interoperability between newly constructed and existing systems can prevent such outcomes and enhance post-event utility.

The Games serve as platforms for transportation innovation, allowing cities to trial new technologies and systems. Beijing 2022 introduced hydrogen-powered buses and advanced high-speed rail to connect Games venues efficiently. These urban innovations, alongside real-time data systems and crowd management technologies, not only improve the event experience but also provide valuable insights and templates for future urban transportation initiatives. Artificial intelligence (AI) technologies can optimise transportation planning and crowd management through real-time data analysis and predictive algorithms.

For instance, by integrating AI and computer vision into traffic management systems, cities can enhance crowd flow, reduce congestion and ensure participant and spectator safety during the Games, as AI-driven simulations and computer vision can model crowd movement, aiding in the design of venues and transportation networks capability of handling high traffic ^[69]. The use of GeoAI can enhance route planning and accessibility, providing a more dynamic, real-time understanding of transportation needs and allowing for adjustments based on real-time data.

By integrating transportation improvements into long-term urban development plans, cities can ensure that the investments driven by the Games deliver benefits far beyond the event itself. Thoughtful planning and a commitment to sustainability and accessibility enable host cities to enhance their mobility infrastructure, driving immediate success and supporting lasting urban progress. In turn, prioritising public engagement and transparent governance ensures that transport improvements are better aligned with community needs— demonstrating how the Games can advance sustainable urban mobility goals.



“ When transport is designed with health and accessibility in mind, it becomes more than just movement—it becomes a daily asset for wellbeing. Active and inclusive transport networks connect people not only to places, but to opportunities for healthier lifestyles, reduced emissions and stronger social ties. By prioritising walkability, universal access and seamless integration across modes, Brisbane 2032 can set a benchmark for transport that supports both mobility and public health—long after the Games. ”

Tracy Washington, Specialised in Active Transport



Key considerations for transport and accessibility improvements



Infrastructure upgrades for seamless connectivity and demand



Sustainable transport solutions



Event-driven innovation



Legacy planning with long-term mobility and urban goals alignment

Strategic urban transformation and regeneration 3.1.3

Urban planning serves as a crucial mechanism for strategic transformation and regeneration through the Games, extending beyond immediate infrastructure needs to catalyse comprehensive urban renewal [32, 68]. Research demonstrates that these mega-events provide unique opportunities to implement large-scale urban interventions that might otherwise remain unrealised due to financial or political constraints [9, 76].

Advanced technologies play an increasingly vital role in strategic urban transformation. Digital twins and AI-powered simulation tools enable planners to visualise and optimise regeneration strategies before implementation [69, 70, 80]. These technologies facilitate more precise decision-making in brownfield redevelopment and urban renewal projects, allowing planners to assess potential impacts across multiple scenarios [71]. For instance, GeoAI applications help identify optimal locations for new developments while preserving cultural heritage and environmental assets.

The success of strategic regeneration depends heavily on innovative financing mechanisms and public-private partnerships [73, 77]. Research indicates that cities implementing diverse funding models achieve more sustainable transformation outcomes [78]. The Milan-Cortina 2026 Winter Olympics exemplifies this approach through its distributed hosting model, which spreads investment risks while maximising regional development opportunities [43]. This strategy represents an evolution in mega-event planning, moving away from concentrated investments toward more balanced regional development.

Data-driven decision-making has emerged as a cornerstone of successful urban transformation strategies [7, 81]. Contemporary urban planning tools integrate real-time data analytics with traditional urban planning methods to optimise regeneration outcomes.

Tokyo 2020's use of smart city technologies demonstrated how digital infrastructure could enhance both event operations and long-term urban management [63]. These innovations enable more responsive and adaptive approaches to urban transformation, ensuring infrastructure investments align with evolving city needs.

Cultural preservation and identity enhancement represent critical components of strategic regeneration [66, 67]. Advanced mapping technologies and heritage documentation systems help planners integrate historic preservation with modern development needs. The Barcelona 1992 Games successfully demonstrated this balance, preserving historical waterfront elements while creating new urban spaces [75]. This approach ensures that urban transformation respects and enhances local identity rather than erasing it.

Strategic urban transformation must also address emerging challenges such as climate resilience and digital connectivity [47, 50]. Modern regeneration projects increasingly incorporate smart infrastructure and climate adaptation measures. Paris 2024's emphasis on digital infrastructure and climate-resilient design set new standards for sustainable urban transformation [13].

These innovations help cities prepare for future environmental and technological challenges while meeting immediate event needs.

The Games thus serve as accelerators for strategic urban transformation, enabling cities to implement comprehensive regeneration projects that might otherwise remain unrealised [74, 79]. By leveraging advanced technologies, innovative financing and data-driven planning approaches, host cities can ensure that these transformations create lasting benefits while preserving local identity and enhancing urban resilience.

Key considerations for strategic urban transformation and regeneration



Urban renewal frameworks



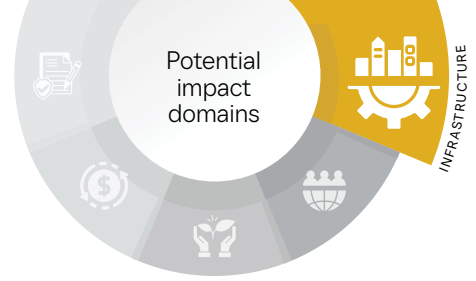
Resource mobilisation



Heritage preservation



Resilience building



Catalysing development and addressing historical urban issues

3.1.4

The Games serve as powerful catalysts for addressing persistent urban challenges through strategic planning interventions [9, 32]. Research demonstrates that these Games provide unique opportunities to accelerate development in historically underserved areas, offering solutions to long-standing urban issues that might otherwise remain unaddressed [68, 76]. However, success requires careful alignment of event-related investments with broader urban development objectives.

Historical analysis reveals that mega-events can effectively trigger urban renewal in neglected areas [66, 67]. Contemporary urban planning approaches leverage data analytics and spatial modelling to identify optimal intervention points in underserved regions [69, 70]. For example, London 2012’s transformation of East London employed advanced mapping technologies to guide strategic investments, creating a comprehensive development framework that addressed historical socioeconomic disparities [13]. Similarly, Barcelona 1992’s waterfront regeneration demonstrated how data-driven planning could revitalise degraded urban zones while preserving cultural heritage [75].

Innovative financing mechanisms play a crucial role in addressing historical infrastructure deficits [73, 77]. Research indicates that successful urban regeneration often depends on creative funding approaches that combine public investment, private capital and community benefits agreements [78]. The Tokyo 1964 Games exemplified this approach, utilising mixed funding models to develop transportation infrastructure that continues to serve the city today [63]. Contemporary planning tools help optimise these investments through predictive analytics and scenario modelling.

Digital technologies have revolutionised approaches to historical urban challenges [7, 81]. Smart city solutions and AI-powered planning tools enable more precise interventions in complex urban environments [71]. Paris 2024’s preparation demonstrates how digital twin technology can help planners identify and address historical urban inefficiencies while minimising disruption to existing communities [47]. These innovations allow for more targeted and effective urban renewal strategies.

Climate resilience and environmental justice have emerged as critical considerations in addressing historical urban issues [43, 50]. Contemporary urban regeneration projects must balance development needs with environmental protection and climate adaptation. The Milan-Cortina 2026 Winter Olympics showcases how planners can integrate climate considerations into urban renewal strategies while addressing historical development gaps [74]. This approach ensures that urban regeneration contributes to both social equity and environmental sustainability.

The success of urban transformation depends heavily on community engagement and social impact assessment [8, 79]. Advanced stakeholder engagement tools and social impact monitoring systems help planners ensure that development benefits are equitably distributed. Research emphasises the importance of preventing displacement and gentrification through carefully designed policy interventions and community protection measures [64, 65].

Key considerations for catalysing development and addressing historical urban issues



Strategic development planning



Community impact management



Historical issue resolution



Environmental justice



Security and safety incorporation

Urban planning plays a critical role in embedding security and safety within the broader ambitions of hosting the Games [8, 82]. A key contribution of urban planning lies in seamlessly integrating event facilities into existing urban networks [40]. This approach mitigates risks such as underutilisation and isolation, which can create vulnerabilities post-event [10, 28, 76]. Strategic placement of facilities ensures that they remain accessible and integrated into the city's everyday life, minimising the risk of abandonment. Central to this effort is the application of Crime Prevention Through Environmental Design principles, focusing on visibility, natural surveillance and controlled access to deter crime and enhance public safety [83, 84].

Collaboration between urban planners, security stakeholders and event organisers is essential to integrating safety measures into both the operational and spatial planning of the Games [8, 54]. A notable example is the development of Host Event Zones, which utilise enhanced surveillance, strategic fencing and controlled access points to ensure safety while managing large crowds [81, 85]. The incorporation of real-time crowd-sensing and predictive analytics technologies can also prevent dangerous overcrowding.

By embedding these measures into the city's urban fabric, planners create a long-term security legacy, ensuring that the infrastructure and spaces developed for the event remain safe, functional and beneficial to the community after the Games conclude [8, 84].

Transportation systems also play a pivotal role in ensuring safety and efficiency during the Games [35]. Well-designed and accessible public transit reduces congestion, facilitates smooth crowd movement and supports swift emergency responses [81, 86]. Implementation of multimodal transport strategies ensures seamless connections between venues, while also enhancing security by enabling easier access for emergency services.

Collaborations between entities like the Olympic Delivery Authority and local governments help enforce stringent safety standards and enable real-time adjustments to address evolving challenges [76]. This integrated governance framework ensures the seamless alignment of urban and event-specific security measures [54].

Beyond immediate safety concerns, urban planning should incorporate counter-terrorism strategies and adaptable infrastructure that also meet post-event needs [40, 84].



Key considerations for security and safety incorporation



Resilient and adaptable infrastructure design



Integration of predictive analytics and surveillance



Collaborative safety planning



Post-event resilience



Alignment of security frameworks with legacy urban needs

3.1.5

Defensive designs, including surveillance systems and strategically placed physical barriers, provide robust protection without compromising functionality or accessibility [82, 83]. These are complemented by sustainable urban designs such as emergency green spaces and accessible pathways, which enhance the city's long-term resilience and safety [87, 88].

Incorporating resilient infrastructure systems, such as flood or earthquake-resistant designs, enhances the city's preparedness for unforeseen events, ensuring safety measures extend beyond event-specific risks, particularly in areas prone to natural calamities.

By aligning infrastructure development, governance frameworks and social considerations with comprehensive safety protocols, urban planning ensures both the immediate success of the Games and the creation of a lasting positive legacy [57, 68].

This holistic approach transforms urban spaces into safer, more inclusive environments, meeting the needs of event participants while strengthening the city's overall resilience for future generations.

3.2 Society domain

Stakeholder engagement and public trusts

Urban planning is pivotal in facilitating stakeholder involvement and enhancing public trust in the Games [4]. Successful Games planning requires the active participation of diverse stakeholders, including local governments, community members and private entities, through transparent and inclusive processes [84, 89]. Effective engagement that fosters shared decision-making among stakeholders ensures that community concerns are addressed while balancing the competing interests of the public and private sectors [32, 74]. By aligning urban development with community aspirations, such an approach fosters a sense of ownership and reduces resistance to these events and related large-scale construction projects [90].

Building public trust is central to the success of mega-events and relies heavily on a transparent and inclusive decision-making process [13]. Proactively involving local voices reassures stakeholders that their needs are prioritised, addressing fears of displacement and gentrification through equitable planning frameworks that prioritise housing and employment for affected communities [88]. Demonstrating long-term benefits, such as effective post-event infrastructure use and community enrichment, further strengthens public confidence [32]. Integrating security-by-design principles into urban planning enhances safety without sacrificing accessibility or inclusivity, bolstering public trust [84].

Nonetheless, effective stakeholder engagement remains challenging [32]. Centralised decision-making processes often exclude local authorities and communities, eroding trust and fostering opposition [89]. A narrow focus on short-term event needs at the expense of broader community benefits undermines the long-term legacy of the Games [23]. Transparency gaps, particularly around funding allocation and unmet promises, frequently lead to public scepticism when private interests overshadow public priorities [89].

Historical examples illustrate the successes and pitfalls of stakeholder engagement in Games planning. For instance, the London 2012 Games highlighted the value of transparent governance, community engagement and innovative legacy planning, which helped build public trust despite initial scepticism [76]. Conversely, the Rio de Janeiro 2016 Games showcased the risks of insufficient stakeholder involvement, including forced evictions and a lack of transparency, which sparked protests and diminished public confidence [8]. Learning from these experiences, the Paris 2024 Games emphasises participatory governance and integrates local needs into urban redevelopment strategies, setting a new benchmark for inclusive stakeholder engagement [26].

To ensure the success of future Games, urban planners must prioritise public participation through regular community consultations [89].

Key considerations for stakeholder engagement and public trust



Participatory governance

society



3.2.1

Technological tools and platforms that facilitate real-time feedback from local communities can further enhance engagement efforts and ensure that stakeholders are continually informed throughout the process. Holistic governance models that balance diverse stakeholder interests, from international organisations to local citizens, are crucial for equitable representation [91]. Transparent legacy commitments, coupled with mechanisms to track and deliver promised outcomes, are essential for maintaining public trust [27].

Moreover, integrating security measures with community-friendly designs ensures safety while fostering inclusivity and enhancing public confidence in the Games [84].

Urban planning serves as a powerful tool for cities to host the successful Games in ways that inspire public trust through transparency, inclusivity and sustainable development [60, 92]. Effective stakeholder engagement, equitable governance and a steadfast commitment to long-term benefits ensure that the Games leave a positive and lasting legacy for host communities [4]. By prioritising participatory planning and learning from past experiences, cities can use the Games as catalysts for meaningful and inclusive urban transformation.



Building public trust and accountability



Transparent legacy commitments



Integration of security-by-design principles



Transparent and inclusive decision-making

Social equity and community benefit

3.2.2

Urban planning plays a central role in the sustainable planning of the Games, with particular emphasis on ensuring equitable distribution of benefits across all community segments [4, 32]. Research indicates that these events often risk benefiting elite stakeholders at the expense of marginalised communities, highlighting the critical need for inclusive planning frameworks [89, 90].

Participatory frameworks and community engagement enable planners to create solutions that reflect resident needs, mitigating displacement risks and fostering community ownership [74, 88].

To enhance social equity, urban planners must prioritise inclusive planning policies that amplify marginalised voices and address systemic inequalities [13]. Historical evidence shows that underserved areas often face disproportionate impacts from rapid urbanisation associated with hosting the Games [8]. Community engagement proves critical in achieving equitable outcomes through collaborative planning processes involving residents, local businesses and non-governmental organisations [76]. Preparation for the Paris 2024 Games exemplify this approach, incorporating participatory frameworks to counteract the top-down methods that often marginalise vulnerable communities. By prioritising input from diverse stakeholders, Paris sought to foster social inclusion and ensure the Games align with broader community needs.

Equity-oriented urban planning must ensure sustainable utilisation of post-event infrastructure [27]. Research demonstrates that re-purposing facilities, such as Olympic villages and stadiums, to meet community needs prevents waste and sustains investment benefits [91]. Redevelopment for the Barcelona 1992 Games exemplifies this by successfully transforming its urban landscape while ensuring infrastructure served long-term community purposes [32]. Such approaches balance immediate event requirements with enduring community value.

Major urban development initiatives, such as the Games, offer a critical opportunity to embed health-promoting principles into planning and design frameworks. Urban environments that support physical activity, mental wellbeing and social inclusion have been shown to improve public health outcomes and reduce health inequalities [93, 94]. This includes the creation of inclusive public spaces that encourage walking, cycling and recreational activity; equitable access to green infrastructure to support psychological and physiological wellbeing; and the integration of active and public transport infrastructure to reduce reliance on private vehicles and promote healthy mobility [95, 96]. Embedding these principles into long-term urban strategies not only contributes to healthier populations but also aligns with broader goals of sustainability, social equity and liveability, ensuring that legacy outcomes deliver enduring benefits to communities.

Security and public safety planning must intersect with equity considerations [84]. Studies emphasise the importance of integrating safety measures into urban design without creating exclusionary environments and maintaining open, accessible public spaces [89]. London 2012 Games demonstrated how security could be embedded in urban design while prioritising inclusivity and enhancing safety [76]. This approach ensures all residents benefit from secure environments without compromising accessibility or community cohesion.

Environmental sustainability initiatives contribute significantly to equitable urban transformation [60, 92]. Enhanced public transport systems, energy-efficient infrastructure and green initiatives address both environmental concerns and ensure broader access to improved urban amenities [23]. These measures benefit all residents while reducing disparities in mobility and environmental quality across communities [8].

Urban planning for the Games must extend beyond project execution to envision an inclusive, sustainable and equitable urban future [4]. By centring community needs, addressing systemic inequalities and planning for a meaningful legacy, the Games can become catalysts for transformative urban development [32]. Evidence suggests that thoughtful urban planning becomes a powerful tool for social empowerment, ensuring the benefits of these global spectacles are broadly and equitably shared across host communities [89].



Key considerations for social equity and community benefits



Equitable benefit distribution



Participatory planning implementation



Marginalised community protection



Sustainable infrastructure utilisation



Inclusive security integration



Social-environmental benefits alignment

3.3 Environmental domain

Achieving long-term sustainability

The environmental impact of the Games is another critical consideration. Extensive construction and development required for these events can strain local ecosystems, underscoring the importance of prioritising sustainable practices. Incorporating green infrastructure into event venues, public spaces and transportation systems can reduce carbon emissions and enhance urban resilience. Renewable energy, optimised water use and comprehensive waste management systems ensure the infrastructure remains environmentally beneficial even after Games conclusion.

Efforts to preserve and restore local ecosystems, such as integrating natural elements into urban designs and mitigating construction damage, contribute to lasting environmental health. Encouraging the use of temporary or existing facilities, as outlined in the *Olympic Agenda 2020*, further aligns the Games with global sustainability goals.

Moreover, the Games should encourage the use of eco-friendly materials and sustainable supply chains, reducing their overall environmental footprint. Furthermore, embedding circular economy principles into design and construction helps reduce environmental costs.

The Strategic Assessment process, as outlined under the *Environmental Protection and Biodiversity Conservation Act 1999*, offers an opportunity to evaluate the cumulative and sectoral impacts of the Brisbane 2032 Games. This framework allows for an integrated assessment of the environmental, social and economic consequences of urban interventions beyond the event's implications on *Matters of National Environmental Significance*. Strategic Assessment could inform policies that mitigate adverse impacts on vulnerable populations, preserve ecosystems and ensure equitable economic outcomes. By undertaking such an assessment, urban planners can ensure that the Games align with environmental, social and economic sustainability goals, minimising unintended consequences while fostering long-term benefits for South East Queensland. While the potential for such assessments to guide sustainable urban transformations is substantial, their implementation will depend on the commitment of federal and state governments to adopt a proactive and transparent approach^[97].

Sustainable urban planning for the Games requires a holistic approach that integrates economic, environmental and social dimensions into a cohesive framework.

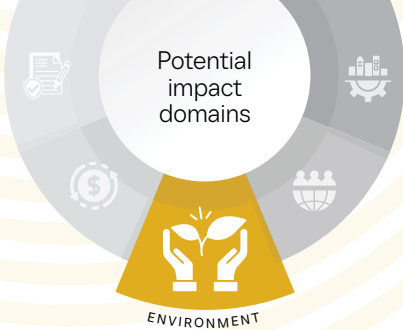
Key considerations for achieving long-term sustainability



Environmental sustainability integration



Ecosystem preservation measures



3.3.1

Aligning these elements ensures that the transformative potential of the Games extends beyond their duration, creating enduring benefits for host cities and their residents. Innovative and inclusive strategies, such as developing compact, mixed-use neighbourhoods that reduce urban sprawl and encourage economic vitality and social interaction, demonstrate how these events can be leveraged for long-term urban progress.

Urban planners play a critical role in creating environments that prioritise sustainable modes of transportation, such as public transit, cycling and walking. By thoughtfully designing these spaces, cities can effectively reduce car dependence, encourage healthier lifestyle choices and make the reduction of carbon emissions a central focus of urban development strategies. This approach enhances liveability within cities, contributing to healthier environments and a more sustainable future. By addressing stakeholder needs and prioritising legacy outcomes, the Games can move beyond their role as a short-term spectacle to become a catalyst for meaningful and lasting urban transformation. Ultimately, fostering a culture of sustainability and inclusivity ensures that the Games balance development, equity and environmental stewardship.



Circular economy implementation



Strategic impact assessment



Green infrastructure development



Holistic urban planning approach

Environmental policy support

Environmental policy integration in Games planning requires robust institutional frameworks and strategic implementation mechanisms [32, 65]. While sustainable practices form the foundation of environmental stewardship, effective policy support ensures these practices are systematically implemented and monitored throughout the event lifecycle [31, 39]. Research demonstrates how comprehensive environmental policies can transform mega-events from potential environmental burdens into catalysts for ecological innovation.

Policy frameworks must address both immediate event requirements and long-term environmental objectives [8]. Contemporary environmental policies increasingly emphasise regulatory compliance with international standards while promoting local environmental protection [13]. For instance, the Paris 2024 Games demonstrates this evolution through mandatory environmental impact assessments, stringent carbon emission targets and integrated green infrastructure requirements [37]. These policies establish benchmarks for future host cities while ensuring accountability in environmental performance.

In addition, the implementation of environmental policies requires coordinated efforts across multiple governance levels [35]. Studies indicate that successful policy integration depends on clear jurisdictional responsibilities, robust monitoring systems and effective enforcement mechanisms [23, 98]. Tokyo 2020's environmental governance structure exemplified this approach through its comprehensive policy framework that coordinated national environmental regulations with local implementation strategies [63]. This multi-level governance approach ensures consistent environmental standard application while allowing for context-specific adaptations.

Strategic Environmental Assessment (SEA) is a systematic process that integrates environmental considerations into policies, plans and programs at the earliest stages of decision-making, providing a structured, participative and transparent framework to assess environmental impacts and promote sustainable development [99].

SEA can play a crucial role in the planning of mega-events by integrating environmental considerations into the decision-making processes at higher levels. Unlike Environmental Impact Assessment, which is typically applied to individual projects, SEA is designed to evaluate the broader implications of strategic decisions, thereby ensuring that sustainability is embedded from the outset of planning activities [100].

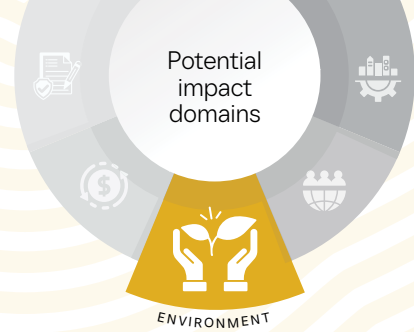
This early integration is essential for Games, which often have significant and far-reaching environmental impacts that—when not properly accounted for—can lead to negative outcomes for social as well as natural environments [101].

As a result, the application of SEA in the context of the Games allows for a comprehensive understanding of potential environmental consequences, including impacts on climate change and related mitigation efforts, enabling planners to anticipate and mitigate negative effects. By addressing these concerns early in the planning phase, event organisers can develop strategies that promote sustainability, such as waste management protocols and transportation plans that encourage active modes, such as the use of public transit or non-motorised travel [102]. SEA also facilitates public participation, which is vital for the successful planning of Games, as it enhances transparency and leads to greater acceptance by affected communities [103].

This participatory approach not only enhances the legitimacy of the planning process but also fosters a sense of ownership among local residents, which can be crucial for the long-term sustainability of the event and its legacy [104].

Environmental policies must also support innovation in sustainable technologies and practices [8]. Policy frameworks that incentivise green technologies, circular economy principles and sustainable procurement practices drive environmental improvements beyond compliance requirements. Research demonstrates that supportive policies can accelerate the adoption of renewable energy systems, water conservation technologies and sustainable building practices in Games infrastructure development [32].

Effective environmental policy support transforms the Games from potential environmental challenges into opportunities for ecological advancement [65]. By establishing clear regulatory frameworks, implementing robust monitoring systems and promoting environmental innovation, policies ensure that mega-events contribute positively to urban environmental quality [31]. This systematic approach to environmental policy integration helps create lasting ecological benefits while setting new standards for sustainable urban development.



“ With the right policies in place, the Games can go beyond being a few-weeks’ spectacle—they can become a catalyst for environmental innovation, stronger regulatory practices and long-term urban sustainability. Effective environmental policy support ensures that sustainability is embedded from the outset, transforming challenges into opportunities and leaving behind a legacy of cleaner, greener and more resilient cities. ”

Anne David, Specialised in Urban Policy



Key considerations for environmental policy support



Policy integration framework



Regulatory compliance management



Multi-level governance coordination



Strategic environmental assessment



Sustainable innovation support

3.4 Economy domain

Economic and sustainable growth

The Games represent a double-edged sword in urban transformation, offering opportunities to accelerate development and foster socio-economic growth while also risking the exacerbation of existing inequalities. Urban planning plays a pivotal role in determining the ideal outcomes, which provide opportunities to bridge the aspirations of host cities with the needs and expectations of local communities. For instance, the London 2012 Games demonstrated how strategic planning could integrate urban regeneration projects aimed at addressing socioeconomic disparities in East London. These efforts included the development of affordable housing, upgrades to public transport and the development of accessible green spaces, highlighting the potential of inclusive urban planning to deliver tangible benefits to vulnerable communities.

Nevertheless, gentrification remains a key challenge in Games planning. Urban renewal projects focused on beautification and modernisation frequently lead to rising property values and the displacement of long-term residents. Addressing these issues requires proactive measures, such as rent controls, affordable housing mandates and protections against speculative real estate practices. These policies can help preserve the social fabric of communities while balancing the benefits of urban development. Economic challenges such as gentrification and real estate speculation often accompany the Games, highlighting the need for stringent policies to protect vulnerable populations.

Proactive measures to safeguard low-income residents from displacement, affordable housing initiatives and ensuring equitable access to benefits generated by the Games are essential for fostering social stability and reducing inequality. Financial sustainability must also include long-term planning to mitigate post-event burdens and maximise the utility of new infrastructure.

Urban planning plays a crucial role in ensuring the economic sustainability of post-event infrastructure for the Games. By repurposing facilities and integrating event infrastructure into community needs, cities can avoid waste and extend the economic benefits of these investments. Barcelona's redevelopment for the 1992 Games exemplifies this approach, transforming the urban landscape while long-term utility for the community. Such strategies balance immediate economic impacts with enduring value, maximising the legacy of the Games and fostering sustainable urban development.

The Games require substantial financial investments in infrastructure, transportation and housing, creating significant challenges for urban planners to ensure these investments provide long-term value. Embedding event infrastructure into the city's economic fabric allows it to stimulate growth beyond the Games, enabling sustainable development while addressing immediate needs.

Key considerations for economic revitalisation and sustainable growth



Strategic
infrastructure
integration



3.4.1

Cost-effective approaches, such as regional hosting or the use of temporary structures, reduce financial burdens on host cities and promote inclusivity by redistributing investments across multiple areas rather than concentrating development in one zone. These strategies ease the strain on resources while maximising the benefits for diverse communities.

For example, transportation planning for the Games should focus on investments that deliver lasting economic value. Barcelona’s post-Olympics mobility success demonstrates the benefits of integrating event projects with long-term urban plans. In contrast, cities like Rio and Beijing faced underutilised infrastructure, underscoring the economic importance of legacy-focused planning [105]. Strategies such as adaptive reuse of temporary facilities and seamless integration of new and existing systems can enhance post-event utility and maximise the economic impact of infrastructure investments.

Economic revitalisation is another critical aspect of urban planning for the Games. The Games attract investment, promote tourism and create new economic hubs, stimulating local economies and enhancing international visibility. The strategic reuse of event venues, such as converting stadiums into community centres or housing, further reinforces their economic utility and ensures sustainable long-term benefits. Milan’s post-Expo 2015 developments, which balanced economic growth with environmental and social inclusivity, exemplify how careful planning can maximise the legacy of the Games.



Community-focused development



Sustainable economic benefits



Social equity protection



Post-event facility utilisation

Key considerations for economic policy support



Strategic economic
policy integration



Post-event facility
optimisation



Sustainable
infrastructure investments



Long-term urban
regeneration planning



Public-private
partnership management



Economic risk
mitigation

Economic policy support 3.4.2

Urban planning plays a pivotal role in aligning the organisation of the Games with sustainable economic policies. The Games create significant urban transformations that offer host cities opportunities to achieve long-term economic objectives [31, 32, 65]. However, without strategic planning, these events risk becoming costly and economically unsustainable undertakings.

Economic policy support is another critical dimension where urban planning ensures that the Games generate lasting benefits for local economies [51, 64]. By aligning mega-event planning with broader economic strategies, cities can leverage infrastructure investments to stimulate long-term growth. Projects such as the regeneration of underutilised industrial or urban areas exemplify this approach [31, 51, 92]. The case of the Barcelona 1992 Games further underscores this point—beyond reshaping the city’s image, it also revitalised the city’s waterfront, attracting tourism, investment and business opportunities while providing new housing and commercial spaces. Such transformations demonstrate how urban planners can synchronise event demands with sustainable economic development [6, 8, 37].

Nonetheless, achieving economic sustainability requires mitigating the risks of financial overreach and underutilised ‘white elephant’ structures [13, 106]. Careful planning ensures that investments in event venues and facilities consider their post-event utility. Multi-functional designs that repurpose sports facilities into community spaces, housing complexes, or commercial hubs can maximise their economic value and ensure public benefits [8, 16, 107]. For example, the London 2012 Olympics and Paralympics Village was successfully converted into residential units, addressing the city’s housing needs while avoiding infrastructure redundancy [107, 108].

Strategic urban planning facilitates public-private partnerships, which are crucial for mobilising financial resources and delivering Games projects. These collaborations can mitigate public budget strains by sharing costs and risks with private stakeholders [45]. However, planners must ensure transparency and accountability in these partnerships to prevent resource mismanagement and prioritise public interests over private profits [27, 74].

Urban planning is instrumental in embedding economic policies into the Olympic and Paralympic Games preparations. By promoting sustainability, fostering long-term economic growth and ensuring post-event utility, planners can transform the Games into opportunities for cities to achieve lasting urban regeneration [16, 92]. Aligning short-term demands with long-term objectives ensures that mega-events serve as catalysts for sustainable, resilient and economically vibrant urban futures.



Digital economy and innovation development 3.4.3

Digital transformation and innovation development represent crucial dimensions of economic planning for the Games [69]. Research indicates that strategic investment in digital infrastructure and innovation ecosystems can significantly enhance the long-term economic benefits of hosting mega-events [63, 76]. Cities increasingly recognise the potential of Olympic-driven digital transformation to catalyse broader economic modernisation and innovation-led growth.

Advanced technologies play an increasingly vital role in maximising economic benefits from mega-events [7, 109]. Digital infrastructure investments, including high-capacity networks, smart city platforms and data centres, create foundations for innovation clusters and technology-based industries [13]. Tokyo 2020's experience demonstrated how strategic digital investments could strengthen a city's position as a technology hub while supporting operational efficiency. Similarly, Paris 2024's emphasis on digital innovation and entrepreneurship shows how Olympic preparations can accelerate the development of local innovation ecosystems [8].

Data-driven planning and AI technologies enable more precise economic impact assessment and resource allocation [69]. Contemporary planning approaches leverage advanced analytics to optimise investment strategies and maximise returns from Games-related developments [47].

Brisbane 2032's preparation exemplifies this trend, utilising data analytics and AI-driven planning tools to inform economic strategies and enhance decision-making processes [76]. These innovations help ensure more efficient resource utilisation while supporting evidence-based policy implementation.

Digital skills development and workforce preparation emerge as critical components of Games economic planning [50]. Research emphasises the importance of building local digital capabilities through training programs, educational partnerships and support for technology entrepreneurship [74]. These initiatives help ensure that local communities can participate in and benefit from digital economic opportunities, promoting more inclusive growth and innovation. Paris 2024's comprehensive approach to digital skills development demonstrates how Games preparations can enhance local innovation capacity while promoting economic inclusion.

Key considerations for digital economy and innovation development



Digital infrastructure investment



Digital skills enhancement



Data-driven economic planning



Innovation ecosystem development

3.5 Governance domain

Institutional coordination and governance

The successful delivery of the Brisbane 2032 Games requires more than operational efficiency and logistical coordination. It demands an ambitious and forward-thinking governance approach—one grounded in principles of collaborative leadership, multi-level cooperation and shared purpose. In an era where urban challenges are increasingly interconnected and complex, governance is no longer limited to managing institutions or reconciling competing interests. It is about bringing people together around a shared vision and working collectively across scales to overcome structural barriers, unlock innovation and seize opportunities to plan and deliver differently.

Mega-events such as the Olympic Games magnify both the capacity and limitations of urban governance systems. Research shows that such events require sophisticated institutional coordination frameworks that can effectively manage a multitude of stakeholders and reconcile often divergent objectives [32, 68]. Urban planning plays a critical role in this context by providing the strategic scaffolding to integrate infrastructure, environmental, social and economic priorities into coherent governance models that deliver both short-term outcomes and long-term legacy benefits [9, 76].

Nonetheless, governance for mega-events must evolve beyond a transactional model focused on project delivery. Drawing on The Collective Action Theory, success in complex governance environments often depends on the formation of coalitions—networks of actors that span sectors, institutions and jurisdictions—who work together under shared goals and mutually beneficial arrangements [110, 111].

Collaborative governance, as defined in the literature, emphasises joint decision-making, trust-building, iterative negotiation and capacity-sharing among public, private and civil society stakeholders [112]. To this end, bridging administrative silos is essential. The Games will necessitate specialised governance bodies—such as organising committees and legacy authorities—but these entities must be embedded within a broader, integrative governance ecosystem that fosters continuity, inclusivity and public value. The Olympic Delivery Authority for London 2012 exemplified such an approach, successfully coordinating infrastructure development with urban regeneration goals through a flexible yet accountable structure [13]. Similarly, the Barcelona 1992 Games showcased how municipal, regional and national authorities can align their efforts to drive transformative change when multi-level governance mechanisms are well-designed and collaborative in practice [75].

Yet, these governance frameworks must also reflect local capacities, histories and aspirations. Brisbane's opportunity lies not only in delivering an efficient and spectacular event but in modelling a new civic culture of governance that celebrates inclusive decision-making and long-term stewardship. This includes genuine power sharing with Traditional Owners, moving beyond tokenistic engagement toward co-design, co-ownership and culturally grounded governance practices. Embedding Indigenous knowledge systems and governance traditions into the fabric of the Games' planning and legacy frameworks could set a new international benchmark for respectful and reciprocal governance relationships.

Key considerations for institutional coordination and governance



Multi-stakeholder collaboration and management



Bridging administrative silos and fostering cross-sector partnerships



3.5.1

Furthermore, successful governance in the Games context requires balancing centralised strategic oversight with decentralised local responsiveness [73, 77].

While national governments may focus on international visibility and geopolitical significance, local authorities are more attuned to community well-being, environmental justice and place-based outcomes. Navigating these differing perspectives necessitates structures that facilitate both vertical coordination and horizontal collaboration. Digital governance tools, including integrated data platforms, scenario modelling and real-time participatory technologies, are increasingly critical in bridging these divides [113].

Transparency and accountability are also non-negotiable principles in contemporary Games governance. With public investments under heightened scrutiny, cities must ensure clear reporting mechanisms, open data and participatory oversight processes to build legitimacy and trust [7, 81]. The participatory models embraced by Paris 2024 offer an instructive example—citizen juries, deliberative forums and publicly accessible project dashboards have created new pathways for meaningful civic engagement and oversight [63].

Additionally, public-private partnerships are indispensable tools for resource mobilisation and innovation. Nevertheless, they must be structured within a governance framework that safeguards public interest, ensures equity and avoids technological or financial lock-in [43, 47].

The Milan-Cortina 2026 Winter Olympics illustrates how innovative PPP models can support both infrastructure and service delivery when anchored in transparent, performance-based contracts and supported by strong institutional checks [74].

Crucially, governance models must remain adaptive. No two cities or events are alike and rigid, one-size-fits-all approaches are unlikely to deliver lasting value. In developing and resource-constrained contexts in particular, governance must be pragmatic, context-sensitive and capacity-enhancing.

Strategic use of planning tools, data analytics and international frameworks can help close institutional gaps while maintaining compliance with global standards [8, 69, 71].

In summary, the Brisbane 2032 Games present an unparalleled opportunity to define a new legacy of collaborative governance—one that moves beyond managing complexity toward enabling transformation. By leveraging strategic planning, inclusive leadership and shared accountability, Brisbane can demonstrate to the world what it means to govern differently: to lead across boundaries, to listen and co-create with communities and to embed equity and resilience at the heart of city-shaping. Governance, when conceived as a platform for collective action, is not just a means to deliver the Games—it is the legacy itself.



Balance between centralised oversight and local input



Transparency and accountability in decision-making



Adaptive governance frameworks for local contexts



Public-private partnership optimisation

Adaptive governance and legacy stewardship 3.5.2

Adaptive governance is crucial for managing the complex, evolving demands ^[114] associated with the Games and ensuring that legacy ambitions are achieved over the long term. Traditional governance models often struggle to accommodate the dynamic nature of mega-event planning, which requires flexibility, innovation and the ability to respond to unforeseen challenges. As such, Brisbane 2032's governance approach must be rooted in adaptability, transparency and long-term stewardship to maximise legacy outcomes.

Adaptive governance emphasises flexible decision-making structures that can evolve in response to changing circumstances without losing sight of core legacy goals ^[115]. This requires decentralised coordination across multiple tiers of government, alongside strong mechanisms for stakeholder engagement and continuous learning. Instead of rigid, top-down hierarchies, adaptive governance encourages collaborative platforms where knowledge exchange, scenario planning and risk management are institutionalised throughout the Games lifecycle.

A critical aspect of adaptive governance is the establishment of permanent legacy institutions. Past Games have often struggled to maintain momentum after the event due to the dissolution of organising committees and the loss of institutional memory.

To counter this, Brisbane should establish a Legacy Stewardship Body tasked with overseeing the transition from Games-time operations to long-term legacy delivery. This body should be empowered with clear mandates, stable funding and broad representation, including local communities, Traditional Owners, business groups and environmental advocates.

Legacy stewardship must begin well before the Games and extend decades beyond their conclusion. It should involve regular reporting on progress towards legacy goals, public accountability frameworks and the capacity to adapt strategies as community needs and urban dynamics evolve. This long-term view ensures that infrastructure, economic initiatives and social programs developed for the Games remain beneficial and relevant.

Moreover, embedding resilience thinking within governance structures is essential. Adaptive governance frameworks should include scenario-based planning for emerging challenges, such as climate risks, technological disruptions, or socioeconomic shifts ^[116]. This approach enables Brisbane to future-proof its legacy investments and maintain relevance in an increasingly uncertain world.



Lessons from international examples reinforce the value of adaptive governance. London 2012's Olympics and Paralympics Legacy Development Corporation (now the London Legacy Development Corporation) exemplifies how a dedicated legacy body, with statutory authority and cross-sector collaboration, can successfully manage post-Games urban regeneration [117]. Similarly, Paris 2024's strong focus on participatory governance and dynamic planning mechanisms provides a model for fostering resilient, inclusive legacy outcomes.

For Brisbane 2032, adopting an adaptive governance model supported by a dedicated legacy stewardship framework will be pivotal to delivering a transformative, enduring legacy. It will enable the Games to move beyond a transient spectacle and become a generational opportunity to strengthen urban resilience, social equity and economic prosperity across South East Queensland.



Key considerations for adaptive governance and legacy stewardship



Comprehensive risk assessment and prevention systems



Integration of emergency response with urban services



Public health and safety protocol development

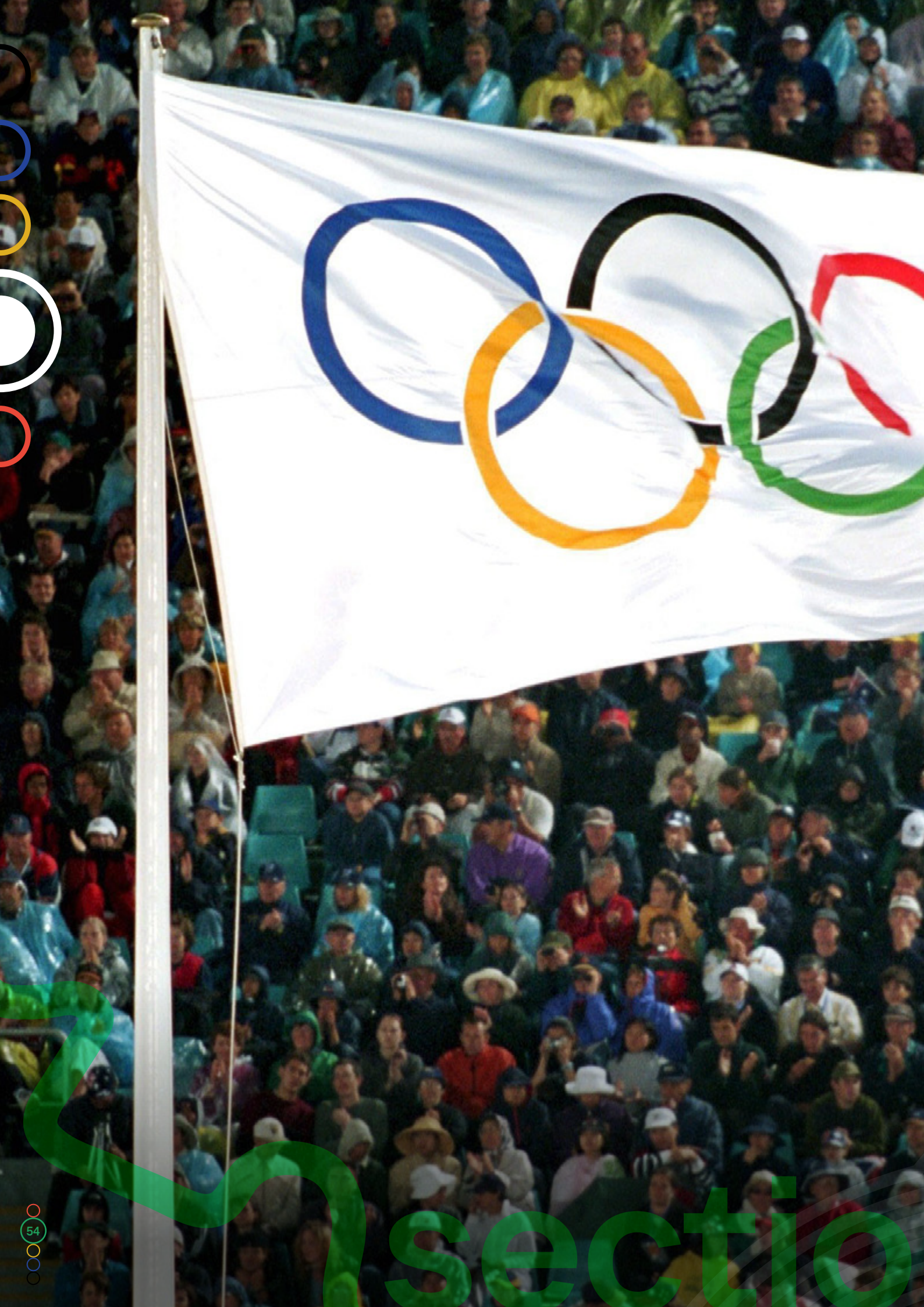


Climate risk adaptation strategies



Clear governance structures for rapid response





section



Case studies in perspective

The Games provide a unique perspective on the complex dynamics of urban transformation, economic impact and community engagement. This section examines the experiences even past Games of significance—Barcelona 1992, Sydney 2000, Beijing 2008, London 2012, Rio de Janeiro 2016, Tokyo 2020 and Paris 2024—to analyse how hosting the Games has influenced cities' landscapes, economies and societies.

These case studies serve as critical explorations of how cities have navigated the opportunities and challenges associated with hosting the Games, offering insights into best practices, pitfalls and lessons learned.

This section explores how host cities have addressed pressing issues such as environmental responsibility, social equity, economic viability and post-event legacy planning. Additionally, the unique approaches adopted by each city reflect their specific contexts and priorities, providing valuable lessons for future hosts.

Through these case studies, this section identifies actionable insights that can guide cities in optimising the transformative potential of the Games. By highlighting successes and acknowledging shortcomings, the analysis underscores the importance of thoughtful planning, stakeholder collaboration and the integration of broader urban development goals. This balanced evaluation provides a comprehensive understanding of how the Olympic and Paralympic Games can leave enduring positive legacies and contribute to more inclusive and sustainable urban outcomes.

4.1 Barcelona 1992: A model for urban transformation

The Barcelona 1992 Games are widely celebrated as a benchmark for leveraging mega-events to drive urban regeneration, elevate global reputation and foster long-term development. This ‘Barcelona Model’ has since become a reference point for cities aspiring to use such events as catalysts for transformative urban change.

Success highlights

4.1.1



Extensive urban regeneration: a remarkable 83% of the Games’ budget was allocated to urban projects, enabling the revitalisation of Barcelona’s seafront, the development of the Olympic Village with integrated residential, cultural and commercial spaces and significant improvements in public spaces and transportation infrastructure [6, 13, 43].



Global rebranding and economic growth: the Games rebranded Barcelona as a premier global tourist destination. Investments in hotels, environmental enhancements and strategic urban improvements spurred lasting increases in tourism and international recognition [7, 43, 64, 118].



Cultural integration: by blending the Games spirit with the city’s rich Catalan heritage, the Games reinforced Barcelona’s cultural identity. The fusion of local traditions with world-class sports promoted values of pride, love and freedom, cementing its status as a cultural capital [24, 119, 120].



Infrastructure and connectivity enhancements: transformative improvements in transportation—such as enhanced rail links, new ring roads and the integration of previously divided urban areas—laid the groundwork for a more connected and accessible city, a legacy that continues to influence urban planning [57, 121].

Challenges and criticisms

4.1.2

Overoptimism and limited local engagement: early planning was marked by an overly optimistic projection of local business and community support, compounded by limited public consultation. This shortfall in participatory planning raised concerns about the exclusion of local voices [6, 32, 119].

Social disparities and gentrification: the rapid urban transformation spurred gentrification and escalating property values, leading to the displacement of local residents and exacerbating social inequalities. This challenge underscored the difficulty of ensuring that regeneration efforts benefit all sectors of society [37, 122, 123].

Post-Games utilisation of facilities: while several venues were successfully repurposed, key facilities like the Olympic stadium encountered challenges in securing sustained use, highlighting issues related to the long-term viability of infrastructure investments [107, 124].

Coda

The Barcelona 1992 Games was a transformative event that reshaped the city’s urban landscape, reinforced its cultural identity and established a legacy of strategic urban planning. While challenges related to inclusivity and social equity remain critical lessons, the Barcelona Model demonstrates how Games, when strategically integrated, can leave a lasting positive impact on a city and its people. Brisbane has the opportunity to build on Barcelona’s legacy, particularly in global city branding and economic growth.



Legacy and lessons learned

4.1.3

Blueprint for urban integration: the integration of the Games with broad urban development initiatives set a precedent for using mega-events as catalysts for lasting transformation, influencing future planning strategies in host cities [6, 7, 74].

Visionary leadership and public–private partnerships: the decisive leadership of city officials, notably Mayor Pasqual Maragall and the effective use of public–private partnerships were instrumental in achieving transformative outcomes, offering a model for future urban renewal projects [32, 121].

Balancing economic growth with social inclusivity: the experiences of displacement and inequality underscored the need for policies that balance economic revitalisation with social equity, ensuring that urban renewal benefits all residents [43, 120].

A lasting global legacy: the Barcelona model remains a reference point for cities around the world, illustrating both the potential and the pitfalls of leveraging mega-events for comprehensive urban regeneration [37, 106, 123].

4.2 Sydney 2000: Environmental leadership and urban revitalisation

The Sydney 2000 Games are often regarded as a milestone in sustainable event planning and urban regeneration. Known as the ‘Green Games’, Sydney set a precedent for embedding environmental sustainability into Games planning, while also contributing to urban revitalisation and enhancing the city’s international profile.

Success highlights

4.2.1



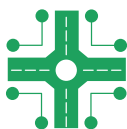
Environmental remediation and sustainable design: the transformation of the heavily polluted Homebush Bay into the dynamic Sydney Olympic Park stands as a cornerstone achievement. The regeneration included the creation of expansive green spaces—such as Bicentennial Park and preserved wetlands—that garnered international accolades, including a perfect environmental sustainability score and the Global 500 Award for Environmental Excellence [6, 16, 66, 107]. Additionally, the Olympic Village in Newington showcased sustainable design by incorporating solar energy and energy conservation measures, setting new standards for eco-friendly infrastructure [16, 57].



Showcasing indigenous culture and multiculturalism: the opening ceremony featured an ‘Awakening’ segment led by Aboriginal performers and artists, symbolising over 60,000 years of continuous culture and history [127]. Notably, the selection of Cathy Freeman, a proud Indigenous Australian, to light the Olympic cauldron and later win gold in the 400 metres, powerfully conveyed themes of reconciliation, inclusion and national unity [128, 129]. Furthermore, the Games celebrated multicultural Australia through diverse cultural performances and narratives integrated into both ceremonies and supporting arts festivals. This conscious framing of identity helped position Sydney—and by extension, Australia—as a progressive and inclusive host on the world stage.



Economic revitalisation and urban renewal: with infrastructure investments totalling approximately \$10 billion, the Games not only revitalised public spaces but also bolstered Sydney’s international profile. Collaborative governance between the state government and the city council drove urban renewal projects and spurred residential development—with over 6,000 new dwellings built by 1999—catalysing urban consolidation and, in some cases, gentrification [122, 125, 126].



Transport and infrastructure upgrades: major investments in transport infrastructure— such as the construction of a new rail loop, the implementation of intelligent transport systems and a policy banning private car access to venues—significantly reduced car dependency and enhanced public transport efficiency [57, 86].

Coda

The Sydney 2000 Games demonstrated how sustainability and urban revitalisation could coexist in the context of a mega-event. While challenges in post-Games utilisation and inclusivity provided lessons, Sydney’s pioneering efforts in environmental planning remain a benchmark. Brisbane has the opportunity to build on this legacy, incorporating sustainability and inclusivity into its preparations to create Games that leave a meaningful and enduring impact.

Challenges and criticisms

4.2.2

Post-Games venue utilisation: several facilities, originally designed to meet the high demands of the Olympics, struggled to secure long-term tenants or consistent use after the Games. These white elephant concerns underscore the need for better alignment between venue design and post-event requirements [12, 43, 81, 107].

Social inclusivity concerns: critiques of the Games also focused on social inclusivity. Issues of elite capture emerged and budget cuts in local arts programs intended to foster broad community engagement meant that the social

benefits of the event were not equitably distributed [64, 119, 130].

Location and zoning issues: although the environmental transformation of Homebush Bay was a significant success, its remote location and zoning challenges—such as the separation of land uses—hampered the integration of the precinct into the broader urban fabric, limiting its potential as a vibrant, mixed-use community hub [6].

Legacy and lessons learned

4.2.3

A benchmark for sustainable mega-events: Sydney 2000 has influenced subsequent Games, such as Beijing 2008 and London 2012, by setting a high standard for environmental sustainability and urban renewal [6, 78].

Establishment of legacy management frameworks: the creation of the Sydney Olympic Park Authority in 2001 was instrumental in guiding the post-Games development of the precinct into functional residential, commercial and recreational zones [106, 107].

The imperative of comprehensive legacy planning: Sydney's experience highlights the necessity for early and thorough legacy planning—ensuring that venue designs and infrastructure investments are viable for long-term use—and for aligning urban development with the needs of local communities to mitigate social inequalities [66, 81, 130].



4.3 Beijing 2008: Global power and urban modernisation

The Beijing 2008 Games symbolised China's emergence as a global power, combining extensive urban redevelopment with the construction of iconic infrastructure. While the Games showcased China's ambition on the world stage, they also highlighted challenges related to sustainability and equitable urban development.

Success highlights

4.3.1



Transformative urban redevelopment and landmark architecture: the Games accelerated urban renewal through massive investments in infrastructure and citywide transformation. The development of the Olympic Green, featuring world-renowned landmarks such as the Bird's Nest National Stadium and the Water Cube National Aquatics Centre, became a symbol of China's modernity and global aspirations [24, 131]. Additionally, the Olympic Green also integrated a new cultural quarter and expansive green spaces, positioning the area as a central recreational and cultural hub [66].



Expansion of transportation infrastructure: Beijing's transport network underwent dramatic expansion as the subway system grew from just two lines in 2001 to eight by 2008—with further expansion in subsequent years—complemented by the introduction of a bus rapid transit system and effective traffic control measures that significantly reduced car usage during the Games [1, 86, 132].



Significant environmental initiatives: about \$25 billion investment was directed toward environmental sustainability, focusing on air quality improvement, wastewater treatment and the creation of enhanced green spaces. These efforts promoted Beijing as a model for environmentally conscious urban design, with the Olympic Green and adjacent Forest Park serving as iconic examples [6, 16, 17].



Boost to global visibility and economic positioning: the Olympics elevated Beijing's international profile, attracting global investment and reinforcing China's narrative as an emerging modern power. The event was integral to the nation's broader strategy of showcasing economic achievements and cultural transformation [48, 49, 123, 133].

Coda

The Beijing 2008 Games showcased China's global ambitions and transformed the city's urban landscape. However, the event also highlighted critical challenges in achieving sustainability and social equity. Brisbane has the opportunity to build on these lessons by prioritising inclusive planning, sustainability and adaptive infrastructure, ensuring the 2032 Games leave a positive and lasting legacy.

Challenges and criticisms

4.3.2

Exacerbation of social inequalities: the rapid urban transformation led to the displacement of up to 1.5 million residents, with limited compensation and significant public dissatisfaction. This displacement, coupled with a focus on creating a sanitised urban environment, underscored deep socio-spatial polarisation and marginalisation of vulnerable groups [17, 83, 123, 130].

Post-event venue utilisation concerns: despite their iconic status, several facilities—most notably the Bird's Nest stadium—have struggled to secure sustainable post-Games uses. High maintenance costs and underutilisation have led to their frequent characterisation as white elephants, raising questions about long-term economic viability [12, 131].

Transient environmental improvements: while significant environmental initiatives were implemented, many measures—such as temporary shutdowns of polluting industries—resulted in only short-term improvements. Pollution levels tended to rebound after the event, emphasising the need for enduring and accountable environmental planning [16, 48].

Centralised planning and limited community engagement: the top-down planning approach, characterised by limited public consultation and transparency, prioritised national objectives over local community needs. This centralised strategy contributed to criticisms that the process overlooked long-term urban benefits for local populations [6, 7].

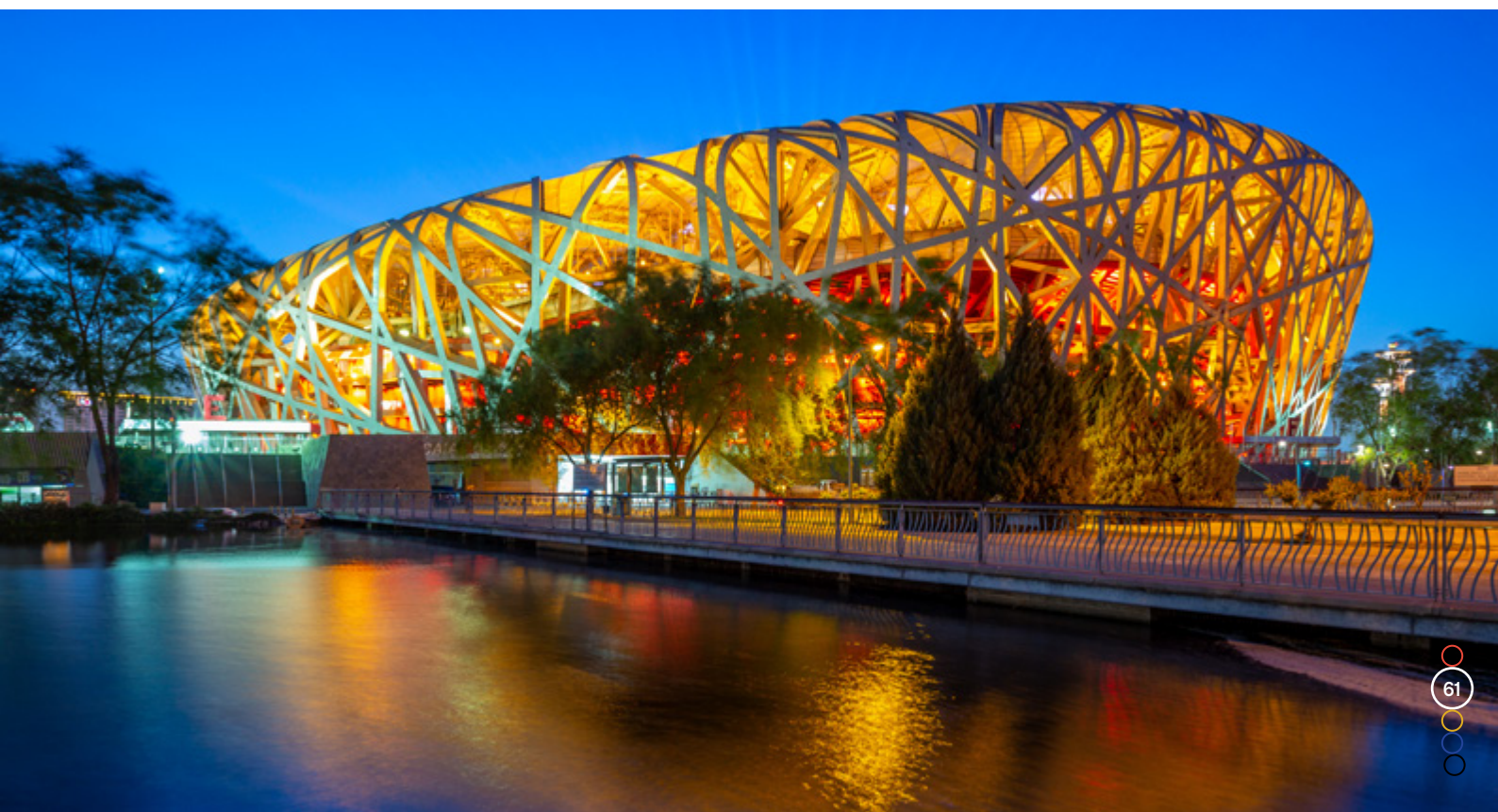
Legacy and lessons learned

4.3.3

A benchmark for urban modernisation: the Beijing 2008 set a new standard for integrating Games planning with urban redevelopment. Its transformative infrastructure investments and strategic city branding offer a useful blueprint for future host cities [61].

The imperative of comprehensive legacy planning: Beijing's experience underscores the necessity of early and thorough legacy planning. Ensuring that event facilities and infrastructure are adaptable for long-term use while integrating realistic environmental goals is critical to avoiding issues of underutilisation and transient benefits [6, 47, 48].

Balancing national ambition with social equity: the socio-spatial challenges that emerged during the Games highlight the importance of aligning national development strategies with inclusive urban policies. Future Games must integrate community engagement to mitigate displacement and promote equitable benefits [78].



4.4 London 2012: A legacy of regeneration and social inclusion

The London 2012 Games are celebrated for their emphasis on urban regeneration, sustainability and community engagement. Positioned as the ‘Legacy Games’, London sought to create long-term benefits for its residents, particularly through the transformation of East London.

Success highlights

4.4.1



Catalyst for urban regeneration: the Games spearheaded the redevelopment of East London’s Lower Lea Valley, transforming a 280-hectare contaminated brownfield into the Queen Elizabeth Olympic Park—a vibrant, mixed-use area that now features over 45 hectares of newly created habitats, enhanced rail connections and pedestrian pathways [7, 13, 57, 134].



Comprehensive legacy planning: from the bid stage onward, a robust legacy masterplan framework guided the transformation of the Games site. The Olympic Village was redeveloped into East Village—a sustainable urban neighbourhood blending social rent and private housing—while the International Broadcast Centre was re-purposed into ‘Here East’, a hub for creative and high-technology industries [43, 106, 107, 135].



Transformative transport infrastructure: significant upgrades to London’s transport network—key improvements included the introduction of the Javelin train service, enhancements to the London Underground with additional trains, lines and platform upgrades—and a more accessible bus network connecting to the Olympic Park. Emphasis on reducing car dependency and promoting pedestrian-friendly options set new benchmarks for sustainable urban mobility [57, 86, 136].



Global branding and ecological enhancement: the Games bolstered London’s international image as a dynamic, multiracial and inclusive city. The revitalisation of waterways and public spaces in the Lower Lea Valley further enhanced the city’s ecological sustainability and appeal as a major visitor destination [24, 77, 136, 137].

Challenges and criticisms

4.4.2

Escalating costs and equity concerns: with final expenditures exceeding \$19 billion— a 101% increase from initial estimates— the high costs raised concerns about the equitable distribution of benefits. The reduction of social housing in favour of private developments and the displacement of local businesses further questioned the project’s social sustainability [9, 12, 13, 37].

Post-games venue utilisation: despite efforts to avoid creating white elephants, some facilities, including parts of the Olympic Park and features like the ArcelorMittal Orbit, have faced challenges related to high maintenance costs and underutilisation, impacting their long-term economic viability [6].

Limited public consultation and governance issues: the planning process for rapid transformation was marked by limited public consultation and the under-representation of civil society in decision-making. This exclusionary approach led to tensions between overarching event goals of large-scale events and the specific needs of local communities, particularly in the context of gentrification and socioeconomic impacts [83, 130, 135].

Coda

The London 2012 exemplified how the Games can drive urban regeneration and foster social inclusion. While challenges such as gentrification and budget overruns remain critical lessons, the Games set a high standard for sustainability, legacy planning and community engagement. Brisbane has the opportunity to build on London's successes, ensuring the 2032 Games deliver transformative and inclusive benefits for all.

Legacy and lessons learned 4.4.3

Strategic legacy integration: London's approach underscored the importance of integrating sustainability, urban regeneration and community needs into the planning framework of mega-events—a lesson that continues to inform legacy strategies globally [74, 106].

Institutionalising legacy management: the creation of the London Legacy Development Corporation has been instrumental in ensuring that the Olympic Park and its surrounding areas continue to evolve, driving both economic growth and sustained community engagement [77, 134].

Balancing investment with social equity: the experience highlighted the necessity of aligning substantial event investments with long-term urban development goals and equitable social policies. Early and inclusive stakeholder engagement, coupled with the adaptive reuse of facilities, emerged as critical components for future host cities [43, 81].



4.5 Rio de Janeiro 2016: A legacy of contrasts

The Rio de Janeiro 2016 Games showcased Brazil's ambition to elevate its global profile while addressing urban and infrastructural challenges. However, the Games also underscored critical issues related to social equity, sustainability and financial management, leaving a complex legacy.

Success highlights 4.5.1



Urban infrastructure and global rebranding: the Games spurred substantial investments in urban development, notably through the creation of the Barra Olympic Park—constructed on the former Nelson Piquet International Race Track—and the establishment of 70 kilometres of Bus Rapid Transit corridors. These initiatives were central to rebranding Rio as a modern, global hub [6, 49, 86, 138].



Enhanced urban security measures: in alignment with its bid commitments, the event introduced pacification police units in over 30 areas to tackle long-standing issues of violence. This strategy aimed to integrate marginalised communities into the city's socioeconomic framework and enhance urban security [82, 84].



Commitment to a sustainability narrative: the Rio Games promoted environmental responsibility by planning green initiatives such as cleaning Guanabara Bay and striving for a carbon-neutral footprint. Although these sustainability goals were not fully realised, they initiated important discussions on sustainable urban development [29, 48].

Challenges and criticisms 4.5.2

Social displacement and inequality: the event led to the displacement of over 77,000 people, including residents from informal settlements like Vila Autódromo. These evictions, justified as necessary for urban renewal, exposed deep-seated neglect of marginalised communities [8, 29, 30, 139, 140].

Unrealised environmental promises: despite ambitious plans, key environmental initiatives—such as the cleanup of Guanabara Bay and tree planting programs—remained largely unfulfilled, leaving enduring concerns over ecological degradation [29].

Post-Games infrastructure and fiscal strains: many Games facilities, including the underutilised Barra Olympic Park, have struggled with high maintenance costs and limited long-term utility, contributing to Rio's broader fiscal crisis and the declaration of a state of emergency before the Games [130].

Imbalanced urban planning: the urban planning agenda favoured affluent areas, such as Barra da Tijuca, while transportation projects failed to bridge accessibility gaps in low-income neighbourhoods, perpetuating historical spatial inequalities [6, 8].

Coda

The Rio 2016 Games presented both achievements and setbacks, leaving a legacy marked by contrasts. While the Games brought infrastructure improvements and global recognition, they also exposed issues of inequality, sustainability and financial mismanagement. Brisbane has the opportunity to learn from Rio's challenges by prioritising inclusivity, sustainability and accountability, ensuring the 2032 Games deliver enduring benefits for all stakeholders.



Legacy and lessons learned

4.5.3

A mixed legacy narrative: while the Rio 2016 Games temporarily boosted Brazil's global image and drove infrastructure improvements, their legacy is marred by significant social and environmental costs. This mixed outcome reinforces the need to align mega-event planning with long-term community and sustainability goals [29, 48].

The imperative of robust planning and community engagement: Rio's experience highlights the critical importance of early, inclusive planning, realistic environmental targets and stringent financial accountability to ensure that the benefits of such events are equitably distributed and enduring [48].

4.6 Tokyo 2020: Resilience amidst challenges

The Tokyo 2020 Games, postponed to 2021 due to the COVID-19 pandemic, became a testament to resilience and adaptability. Despite unprecedented challenges, Tokyo leveraged the Games to promote innovation, sustainability and urban enhancement while addressing the complexities of hosting a mega-event during a global crisis.

Success highlights

4.6.1



Dual urban planning approach: the Games maintained a strategic division between the Heritage Zone—reusing venues from the Tokyo 1964 Games—and the Tokyo Bay Zone, which featured new, futuristic facilities. This dual approach balanced historic preservation with modern urban transformation [63].



State-of-the-art infrastructure: a notable achievement was the construction of the new National Stadium, replacing the 1964 structure. Despite criticisms regarding its high costs, the stadium underscored Tokyo's commitment to delivering cutting-edge facilities [50].



Commitment to sustainability: Tokyo embraced green initiatives by incorporating zero-carbon building designs, green roofs and permeable pavements, aiming to position the city as a global leader in sustainable urban development—even as challenges remained in fully realising these goals [78].



Enhanced security and biosecurity measures: in response to the pandemic, advanced surveillance technologies—including facial recognition and contact tracing systems—were deployed to safeguard public health. This integration of biosecurity with traditional security measures marked a significant evolution in Games planning [84].

Challenges and criticisms

4.6.2

Pandemic-related disruptions: the postponement of the event led to empty venues and reduced revenue from ticket sales, highlighting the vulnerability of the Games to global crises [81].

Financial overruns and environmental concerns: substantial cost overruns—most notably in the construction of the new National Stadium—exceeded initial estimates. Moreover, the use of rainforest timber for construction drew public criticism, challenging Tokyo's sustainability narrative [50].

Legacy integration uncertainties: while the Olympic Village was designed to transition into luxury apartments post-Games, concerns remain regarding its effective integration into Tokyo's urban fabric and its ability to meet long-term legacy goals [43].

Dispersed venue impact and environmental trade-offs: the scattered location of venues, particularly in the Tokyo Bay area, limited the potential for a cohesive urban impact. Additionally, flood defence works in waterfront areas adversely affect natural environments, raising further questions about the overall sustainability of the Games [6].

Coda

The Tokyo 2020 Games demonstrated resilience and innovation amidst extraordinary circumstances. While financial and engagement challenges tempered its legacy, the Games set new standards for sustainability and technological advancement. Brisbane has the opportunity to build on these successes, ensuring that the 2032 Games prioritise adaptability, sustainability and community engagement to create a truly transformative legacy.

Legacy and lessons learned 4.6.3

Balancing immediate and long-term objectives: Tokyo's experience underscores the necessity of adapting event planning to unexpected global disruptions while still pursuing long-term urban and environmental objectives [7].

Innovation amidst crisis: the integration of sustainable design and advanced technology into the urban landscape provides valuable lessons for future mega-events, emphasising the importance of robust legacy planning that can withstand unforeseen challenges [49].

Guidance for future hosts: the challenges and successes of Tokyo highlight the critical need for aligning mega-event infrastructure with community needs and environmental sustainability. Future host cities must prioritise adaptable, inclusive and accountable planning to ensure lasting benefits.



4.7

Paris 2024: A vision of sustainability and innovation

The Paris 2024 Games are set to be a landmark event, with a bold vision centred on sustainability, inclusivity and urban transformation. As preparations progress, Paris aims to deliver Games that aligns with the goals of environmental stewardship and social equity, setting a benchmark for future host cities

Success highlights

4.7.1



Sustainability commitments: Paris 2024 set an ambitious target to become one of the greenest Games ever. The organisers report that the Games achieved a total carbon footprint of 1.59 million tons of CO₂ equivalent—a 54.6% reduction compared to the average emissions from the London 2012 and Rio 2016 Games ^[141, 142]. Detailed information in the *Paris 2024 Sustainability and Legacy Report* indicates that this reduction was achieved by using 95% of existing or temporary venues, relying on renewable energy (98.4% from wind and solar sources) and implementing comprehensive waste and resource management measures ^[143].



Urban revitalisation: the Games have served as a catalyst for urban renewal in Seine-Saint-Denis. Significant investments have been made to redevelop housing, public spaces and transportation infrastructure—including extensions of Paris Métro Line 14 and components of the Grand Paris Express ^[144, 145]. These efforts are aimed at creating lasting economic and social benefits, although concerns remain regarding gentrification and ensuring that long-term benefits reach current residents ^[146].



Economic opportunities: Paris 2024 prioritised local economic development by projecting the creation of over 89,000 new jobs after the Games and involving local small and medium-sized enterprises in the procurement process. Strong ticket sales and effective cost management have even resulted in a slight budget surplus ^[145, 147].

Challenges and criticisms

4.7.2

Social equity: although urban renewal has brought improvements, there are ongoing concerns about gentrification in areas such as Seine-Saint-Denis. Local residents and community leaders fear that without careful measures, the benefits of redevelopment may not extend to the existing population, potentially leading to displacement ^[146].

Emission trade-offs: despite impressive sustainability measures, Paris 2024 faces key challenges. International spectator travel far exceeded initial projections, accounting for 53% of total emissions—a major factor driving the overall carbon footprint to 1.59 million tonnes CO₂ equivalent. Although using existing venues, renewable energy and carbon offset projects reduced emissions by 54.6%, these offsets do not fully counterbalance the unavoidable impact of long-haul travel. As a result, organisers refrain from claiming 'carbon neutrality' but instead emphasise the need for innovative strategies to further mitigate travel-related emissions in future Games ^[141, 142].

Coda

The Paris 2024 Games represent a bold vision for hosting mega-events in the 21st century, combining sustainability, innovation and cultural celebration. While challenges like financial management and social equity remain, Paris's commitment to creating a lasting positive impact sets a powerful example. Brisbane can draw useful lessons from the difficulties Paris faced in achieving a carbon-neutral Games.



Legacy and lessons learned

4.7.3

Sustainable urban renewal: the Games have catalysed long-term urban renewal in areas like Seine-Saint-Denis, with extensive investments in housing, transport and public amenities that promise lasting community benefits. By relying on 95% existing or temporary venues and renewable energy, the organisers reduced the carbon footprint by over 50%—a model that emphasises a circular economy and resource reuse.

Travel emissions challenges: the Games also highlighted persistent challenges. Record-breaking spectator travel led to travel emissions accounting for 53% of the overall footprint, demonstrating that innovative strategies are needed to mitigate long-haul travel impacts in future Games.





Planning principles, strategies and recommendations for Brisbane 2032

The Games offer host cities unique opportunities to drive urban transformation, economic growth and international recognition. Nevertheless, the scale and complexity of these events pose significant challenges that require meticulous planning to maximise benefits and minimise drawbacks.

This section outlines a comprehensive framework of principles, strategies and recommendations designed to leverage these Games as a catalyst for sustainable urban development while addressing social, environmental and economic dimensions.

Inclusive stakeholder engagement is crucial for successful mega-event planning, as evidenced by evaluations from previous Games. Lessons from Barcelona 1992 and Rio 2016 highlight the importance of actively involving local governments, private sector entities, non-governmental organisations and residents early in the planning stages to mitigate risks related to displacement, gentrification and unequal resource distribution. The implementation of participatory frameworks in Sydney 2000 and London 2012 demonstrated that transparency and collaborative decision-making effectively reduced community opposition and foster public trust.

Legacy-driven design is another key principle validated by case studies of past host cities.

Successful examples from Barcelona 1992 and London 2012 indicate that designing venues for adaptability and multi-functional use is essential to avoid creating costly and underutilised infrastructure known as white elephants.

Facilities intentionally planned for long-term community benefits—such as affordable housing, public parks and cultural spaces—align short-term event investments with broader urban development goals, maximising sustainable outcomes.

Continuous planning and adaptability have been vital to managing the complexities associated with hosting the Games, as underscored by Tokyo 2020. The resilience demonstrated in Tokyo's adaptive response to the COVID-19 pandemic highlights the necessity for flexible frameworks and robust feedback mechanisms to effectively respond to unforeseen economic, logistical and environmental challenges.

Integrating event-specific projects into comprehensive urban master plans is essential for ensuring sustained urban transformation, as shown by the urban revitalisation achieved by Barcelona 1992 and the successful regeneration efforts of Sydney 2000. Embedding Games-related developments into broader city strategies effectively addresses long-standing urban issues, maximising long-term benefits from short-term investments.



Environmental sustainability remains a foundational aspect of responsible Games planning, particularly relevant to Brisbane’s climate commitment [148, 149]. Successful practices implemented in Sydney 2000 and Paris 2024 include extensive use of renewable energy, integration of green infrastructure, waste minimisation and sustainable mobility solutions, significantly reducing environmental impacts and aligning with global sustainability objectives [150].

Brisbane can leverage these best practices and lessons from previous host cities to realise the transformative potential of the 2032 Games. By emphasising stakeholder inclusivity, legacy-driven infrastructure, adaptive planning, integrated urban development and robust environmental sustainability, Brisbane has an opportunity to establish itself as a global benchmark for future Games, ensuring meaningful, lasting and sustainable urban progress. To achieve this, it is essential to assess the Olympics not as a collection of isolated projects, but as an integrated event with wide-ranging social, environmental, economic and cultural implications. Without a comprehensive and strategic approach, there is a risk of sectoral fragmentation—where transport, housing, infrastructure and environmental initiatives are planned in silos, undermining long-term cohesion and public value. A holistic, participatory, transparent and cumulative strategic assessment can guide decision-makers in aligning Olympic planning with broader regional goals, ensuring that benefits are distributed equitably, trade-offs are openly addressed and the Games leave a legacy that reflects the aspirations of all communities.

Brisbane can leverage these best practices and lessons from previous host cities to realise the transformative potential of the 2032 Games. By emphasising stakeholder inclusivity, legacy-driven infrastructure, adaptive planning, integrated urban development and

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In this section, we propose key planning principles, strategies and recommendations for Brisbane 2032, organised under specific thematic domains. These domains provide an overall framework to guide the city’s preparation, delivery and legacy outcomes of the Games, ensuring alignment with long-term urban development goals.

The primary audience for these recommendations includes government decision-makers and planners across local, state and federal levels who are responsible for infrastructure, urban development and policy coordination. It also targets the Brisbane 2032 Olympic and Paralympic Organising Authorities, including any dedicated legacy or coordination bodies.

Urban and regional planners involved in strategic planning and precinct development will find the recommendations particularly relevant. Additionally, community and civil society organisations— including Traditional Owners, local advocacy bodies and NGOs—are key stakeholders in ensuring inclusive and equitable outcomes. Private sector partners, such as infrastructure developers, technology providers and investors, are also an important audience, as they play a critical role in project delivery.

Lastly, academic and policy researchers can use these recommendations to inform evaluation, research and innovation in the context of sustainable and legacy-focused urban development.

“ Legacy is not a by-product of the Games— it is the purpose. Brisbane 2032 can set a global benchmark by aligning Olympic planning with long-term urban goals and inclusive community outcomes. ”

Sajani Senadheera, Specialised in Community Engagement





5.1 Infrastructure



Design for adaptability and long-term use

Ensure all infrastructure is thoughtfully designed to be flexible, sustainable and adaptable, allowing it to evolve with future needs, serve diverse communities and generate long-term social, environmental and economic value.



Align with strategic urban development

Select strategically located sites that integrate with existing transport networks and development plans to maximise long-term value, enhance accessibility, reduce environmental impact and support cohesive urban growth.



Adopt smart and innovative technologies

Utilise digital twins, AI and IoT technologies to enhance infrastructure planning, streamline project delivery, improve operational efficiency and support data-driven decision-making across all stages of development.



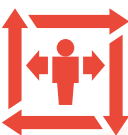
Enhance and strengthen sustainable transport systems

Invest in integrated public transportation, eco-friendly mobility solutions and interconnected infrastructure to enable efficient, seamless and inclusive urban mobility that supports sustainability, accessibility and long-term behavioural change.



Encourage active and healthy travel

Promote walking, cycling and scootering by developing safe, accessible and appropriately designed active transport infrastructure that connects key destinations, supports diverse users and encourages healthy, low-emission urban mobility choices.



Ensure accessibility and universal design

Implement comprehensive inclusive and universal design standards to ensure that all venues, infrastructure and services are accessible, functional and welcoming to people of all ages, abilities, backgrounds and circumstances.



5.2 Society



Foster ongoing community engagement

Maintain continuous dialogue with residents and Traditional Owners through workshops, forums and digital platforms to ensure inclusive, culturally respectful planning and foster lasting community ownership, trust and shared legacy outcomes.



Prioritise community-oriented design

Design Games infrastructure with long-term public utility in mind, ensuring that venues can be repurposed to meet evolving local needs, support community wellbeing and reflect the aspirations of residents and Traditional Owners.



Implement localised legacy strategies

Tailor projects to suit the diverse needs of communities across South East Queensland, promoting equity, place-based outcomes and culturally responsive development that respects and includes the voices of Traditional Owners.



Support urban renewal and social equity

Use the Games as an opportunity to revitalise neglected areas, address longstanding infrastructure gaps and improve access to essential amenities, while ensuring outcomes are inclusive and responsive to the needs of Traditional Owners and local communities.



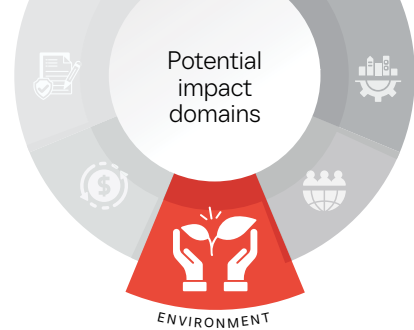
Celebrate cultural identity and context

Reflect Brisbane's unique cultural heritage—both traditional and contemporary—and its natural environment in all developments to strengthen local pride, honour Traditional Owners' connections to Country and enhance the city's distinct urban character.



Safeguard against displacement and gentrification

Adopt inclusive housing, land use and rental policies that protect vulnerable communities—including Traditional Owners and long-term residents—from displacement and unaffordable cost escalations, ensuring equitable access, cultural continuity and residential stability during and after the Games.



5.3 Environment



Promote compact and connected design

Develop compact venue clusters in close proximity to minimise travel demand, reduce urban sprawl, enhance operational efficiency and support walkability, active transport and vibrant, connected communities.



Advance renewable energy integration

Power all Games infrastructure using clean, renewable energy sources such as solar, wind and battery storage to enhance sustainability, reduce greenhouse gas emissions and support a low-carbon energy transition.



Adopt sustainable construction practices

Use eco-friendly, modular and locally sourced materials to minimise environmental impact, reduce construction waste and support a circular economy through sustainable resource use and adaptive reuse.



Enhance green infrastructure and biodiversity

Incorporate green spaces, biodiversity corridors and habitat restoration within and around Olympic precincts to enhance ecological resilience, support urban cooling and promote healthy, nature-connected communities.



Implement climate and waste-responsive solutions

Design infrastructure to be climate-responsive, energy-efficient and resilient, while establishing comprehensive zero-waste and circular economy systems to manage all Games operations sustainably and minimise environmental impact.



Strategically assess cumulative impacts

Adopt a holistic and integrated approach to developing a strategic assessment that estimates and appraises the cumulative environmental, social and cultural impacts of all Games-related operations and developments.



5.4 Economy



Align with long-term economic strategy

Integrate Games projects into Brisbane's broader economic development plans to ensure lasting, strategic value through job creation, industry growth, innovation and long-term regional competitiveness.



Enable regional economic inclusion

Distribute economic benefits across South East Queensland through coordinated regional planning, strategic investment and enhanced transport connectivity to promote inclusive growth and balanced regional development.



Promote inter-city collaboration

Encourage shared responsibilities and partnerships among regional cities to leverage their diverse strengths, promote collaborative development and foster a unified, inclusive and enduring legacy across South East Queensland.



Catalyse urban and regional transformation

Leverage the Games as a transformative springboard to revitalise underdeveloped areas, attract long-term investment and stimulate inclusive, sustained economic, social and cultural growth across diverse sectors and communities.



Optimise infrastructure use and investment

Prioritise the use of existing venues and integrate well-designed temporary structures to minimise costs, reduce construction waste, lower long-term maintenance burdens and promote efficient, resource-conscious event planning.



Support local enterprises and workforce development

Boost local procurement, workforce training programs and job creation initiatives to ensure economic benefits are widely distributed across diverse communities, industries and socio-economic groups throughout the region.



5.5 Governance



Implement adaptive and data-driven planning

Adopt iterative planning approaches with regular monitoring and data-informed adjustments to stay responsive to evolving needs, while integrating knowledge systems, perspectives and priorities of Traditional Owners where relevant.



Establish a multi-lateral framework

Create a governance structure grounded in subsidiarity and multilateral collaboration—including the meaningful participation of Traditional Owners—to enable effective decision-making and coordinated action within a complex governance landscape.



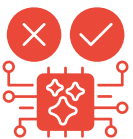
Ensure transparent and inclusive decision-making

Develop a governance framework that involves diverse stakeholders, including Traditional Owners across regions and communities and provides clear channels for public engagement, cultural recognition and accountability.



Embed legacy from the start

Integrate legacy planning into all stages ensuring it reflects the cultural aspirations and long-term interests of Traditional Owners. This should be supported by dedicated management bodies and knowledge-sharing platforms that include Indigenous governance models and practices.



Enhance risk preparedness and regulatory efficiency

Use scenario planning to anticipate potential disruptions, streamline approval processes and incorporate culturally specific risks, resilience strategies and knowledge systems identified by Traditional Owners.



Institutionalise intergovernmental collaboration

Formalise mechanisms that facilitate coordination among local, state and federal agencies and ensure these structures provide formal roles for Traditional Owners to support aligned, respectful and coherent delivery of Games outcomes.

Concluding remarks

The Brisbane 2032 Games present an unprecedented opportunity to shape the city's urban future by not only delivering a successful global event but also by creating a long-lasting and inclusive legacy for South East Queensland. This report has underscored the critical role of urban planning in guiding this transformation—ensuring that the Games serve as more than a two-week spectacle but as a catalyst for sustainable, equitable and resilient urban development.

Drawing upon lessons from previous host cities and international best practices, the report highlights both the potential and challenges associated with Games planning. Brisbane's success will depend on a planning approach that prioritises community engagement, environmental sustainability, long-term infrastructure utility and robust governance. It is imperative that the Games align with Brisbane's broader strategic goals objectives— such as housing affordability, climate resilience, economic diversification and social equity—through proactive, evidence-based and participatory planning processes.

Urban planners must assume a leading role in bridging the short-term imperatives of event delivery with the long-term needs of communities. This includes embedding legacy considerations at the inception of planning, mitigating risks of displacement or

underutilised assets and leveraging digital innovation to optimise both planning and implementation processes. The strategic assessment process provides a pathway to holistically evaluate the cumulative impacts of the Games' and guide their integration into sustainable urban development strategies.

If managed strategically, the Brisbane 2032 Games can serve as a model for future host cities— one that demonstrates how Games, when thoughtfully planned and inclusively executed, can elevate urban liveability, strengthen public trust and generate transformative and enduring legacies. It is imperative to transition from conceptualisation to implementation, ensuring the Games deliver significant benefits for all Queenslanders—both during and well beyond the 2032 event.



The true measure of Brisbane 2032 will not be in podium finishes, but in the places we build, the trust we earn and the legacy we leave. With thoughtful planning and inclusive action, the Games can become a catalyst for a more sustainable, equitable and connected urban future.

Sk Tahsin Hossain, Specialised in Urban Technologies



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Honouring Brisbane's Traditional Custodians

As we look toward the Brisbane 2032 Olympic and Paralympic Games, it is vital to honour the Turrbal and Yugara peoples, the Traditional Custodians of Meanjin (Brisbane)—the very land on which the Games will take place. These lands have been places of learning, ceremony and gathering for over 65,000 years.

Queensland is uniquely home to both Aboriginal and Torres Strait Islander cultures—the oldest continuing cultures in the world—making it a powerful setting not just for global sport, but for truth-telling, reconciliation and celebration.

Hosting Brisbane 2032 on unceded First Nations land offers an opportunity to listen, learn and honour Indigenous knowledge, stories and creativity. From the Torch Relay to the Opening Ceremony and across the city, the Games will spotlight the diversity and resilience of Indigenous communities throughout Queensland.

The Brisbane 2032 Organising Committee is the first in Olympic history to launch a Reconciliation Action Plan (RAP), with a strong commitment to uplifting Aboriginal and Torres Strait Islander peoples. This legacy must continue well beyond the final event.

As researchers living and working on these lands, we recognise our role in building platforms that are inclusive, respectful and culturally aware. The report we present is part of that commitment—striving to shape future innovations that honour and include Indigenous voices from the very beginning.

Let the Games begin—with athletic excellence, cultural respect and a shared path toward an inclusive future.



The Brisbane Games must stand for more than a celebration of sport—they must embody the spirit and story of this land. That begins with truth-telling and a genuine recognition of the Traditional Custodians who have cared for Country since time immemorial. Honouring their enduring connection to land, waters and culture is fundamental to creating Games that is inclusive, respectful and reflective of Australia's full history.

Report authors







