



Innovations in the Integration of Sport Events into the Organism of a Paris Metropolis

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<http://doi.org/10.29227/IM-2024-02-48>

Submission date: 18.04.2024. | Review date: 26.05.2024

Abstract

Hosting the Olympic Games is always a stressful test for the world's capitals. Given the nature and size of the event, changes are needed to the transport infrastructure and often to the entire urban fabric of the city, including parts that will not be the direct venue for the Games. At the same time, however, the Olympic Games challenge new urban concepts and lead to major urban projects. Paris will be the closest venue for the 2024 Summer Olympics and, in addition to new constructions, which is less emphasised than its predecessors, it has set new standards of environmental responsibility and the integration of sport into urban life. The Paris Games will be the first to be covered by the International Olympic Committee's Agenda 2020. It aims to reduce greenhouse gas emissions associated with the Olympics. This is a major step in changing the paradigm of urban planning in the context of the Olympic Games. Paris 2024 presents the Games as a laboratory for eco-innovation, for example, by building metro stations that are as material-friendly as possible, by applying French know-how, especially in the field of wood construction, by innovations in building, by bringing more green spaces, even more space for pedestrians and cyclists, more accessible amenities, social housing and renovated municipal buildings, it wants a city that increasingly supports the most deprived communities. Although, it represents a less ambitious programme at the city level compared to former Olympic Games cities (as it plans the least new buildings with only an Olympic Village, an Olympic Aquatic Centre and some temporary modifications), it ranks among the candidates that will be the most environmentally friendly. He wants to show how sporting events of such huge scale and importance can be organised in sustainable way. This environmental ambition is therefore essentially new for the organising city.

Keywords: Olympic Agenda 2020, Local Town Planning Scheme, Local bioclimatic urban plan, Operational Guide for Active Design, Grand Paris Express

1. Introduction

The 2024 World Games in Paris is not only a sporting event, but also an opportunity to transform the city in various areas, including urban planning. This paper focuses on the analysis of the impact of the Olympic Games on the urban development and environmental agenda of Paris. In addition, it aims to assess how the 2024 Olympic Games can act as a catalyst for the city's transformation, which includes not only the development of sports infrastructure, but also new construction, renovations, and efforts to reduce its carbon footprint. Taking into account the references from Paris, the aim is to see where the Slovak capital Bratislava is moving in relation to the trends set. The article was supported by KEGA grant no.049STU-4/2021 Sustainability - prolonging life in a talented and sensitive way as part of architectural design.

Research methods. The starting point for this article was also a survey of the current state of the new construction issues in Bratislava, evaluating the positive and negative aspects of the construction with respect to the references of Paris.

2. The Example of Paris

Paris is gearing up for the historic year 2024, when it will become the epicentre of world sporting events. But much more than just the Olympic Games, this year is set to be a turning point in the city's transformation. The transformation includes major social, environmental and economic initiatives that will leave an indelible mark in the form of a more sustainable, inclusive and greener Paris. Despite some challenges and concerns, the upcoming Olympic year in particular represents an opportunity to support and promote France's image, as well as to create a better and more livable city for its residents and visitors alike.

Paris differs from previous Olympic host cities in that it adopts the least ambitious approach at the city level. Its plan includes only a few new buildings, notably the Olympic Village, the Olympic Aquatics Centre and a few temporary developments. This approach makes Paris one of the most environmentally responsible candidates, as large-scale construction often has a negative ecological impact [1].

The level of facilities is much better, with 95% of the competitive sports venues in Paris 2024 being existing or temporary [8]. However, the long-term impacts will be far from negligible, as after the Olympic Games are over, both tangible and intangible legacies remain with their legacies that may last for generations.

As new construction had to take place over a seven-year period, it was necessary to adopt a deregulation of urban planning- the Olympic Law, which simplifies the rules associated with urban planning. This process includes reducing consultations, reducing the diagnostic and study phases, speeding up the process of land sales and land acquisition by the state [1]. There are both positive and negative aspects to this move

2.1 Positive side- climate change impact assessment

The IOC (International Olympic Committee) created Agenda 2020 [13], which now asks cities to rely more on existing sites to reduce their ecological footprint. Therefore, also in the context of Paris' bid for the 2024 Olympic Games, key changes are taking

place. Paris 2024 is actively focusing on environmental innovation and sees these Olympic Games as a laboratory for ecological advances [1].

The Paris Games, which will take place from 26 July to 11 August (Olympics) and then from 28 August to 8 September (Paralympics), represent the first international sporting event in line with Agenda 2020. The carbon footprint of these Games will be reduced by 55% compared to the London Games, with 95% of existing facilities and new structures adapted to the impacts of climate change. A number of plans have been developed for this, including a local bioclimatic urban plan (PLU), a climate plan, an environmental health plan and a biodiversity plan [2].

Attention is given to the long-term impacts of Olympic Games 2024 in terms of sustainable environmental, social, sporting, cultural and economic benefits to achieve quality of life goals. Evaluating the carbon saving impacts of projects or initiatives funded by the Games will continue beyond the Games, with a long-term programme to measure environmental savings .

Key measures may include:

- New buildings are constructed from bio-based materials using low carbon techniques [4].
- The Paris Games are also an example of French know-how, particularly in the field of wood construction [1].
- In the Olympic Village, the buildings are designed with bioclimatic design principles in mind, for example, the buildings are oriented perpendicular to the flow of the Seine River, which ensures airflow, and there are plans to recycle wastewater and urine using separate toilets that will be transformed into agricultural fertilizer [6].
- Indoor thermal comfort is provided not only by the design of the timber-framed façades, but also by solar panels located outside the façades [6].
- The roofs of the buildings are adapted for bird migration and bird nests are implemented in the facades [6].
- The buildings are heated by geothermal energy and thus capable of cooling. They are prepared for the temperature increases expected in Paris by 2050, when the temperature will be the same as today in Seville [6].
- By the end of 2024, 100,000 trees will be planted from 2020.
- New urban forests will be added [2], including a forest that allows gravity treatment of water and supports biodiversity [5].
- Urban gardens will be expanded and renovated [2].
- Former polluted areas have been transformed into parks.
- Protection of the 2 800 wild animal and plant species in the city, which are essential to the city's ecosystem, has been ensured [3].
- By the end of 2024, new photovoltaic installations will be installed, equivalent to the electricity consumption of 700 households [3].
- New subway stations have been built that are materials friendly, with the least possible consumption.

2.2 On the positive side - Olympic Games as a multiplier

Olympic Games create a unique urban planning project in the history of world urban planning because they force cities to keep large commitments within a time frame of seven years [1]. Thus, the Olympic and Paralympic Games act as a driving force for spectacular urban ventures, socio-economic and ecological activities on a large scale [8].

They take into account a double dynamic [11], that is, in addition to the driving dynamics of the global event itself, the dynamics of urban transformation are multiplied and new driven industries and activities such as the creation of new jobs in tourism, commerce, services and other sectors are created, with an impact also on the development of education and the related large-scale construction of infrastructure-transportation, housing, amenities, recreation, etc.

In addition to the building of new sports infrastructure and the renovation of stadiums for the Olympic Games themselves, Paris is becoming sportier than ever. Parisians will have access to several renovated swimming pools, stadiums and sports centers that have been modernized in recent years [3]. On the occasion of the Olympic and Paralympic Games in Paris, a number of swimming competitions will take place directly in the Seine. The possibility for the general public to swim in the river should be maintained after the Olympic Games [3]. The promotion of sport in the city aims to encourage residents to take up sport while prioritising public health. In order to guide the actions of cities and communities, Paris 2024 is launching an Operational Guide for Active Design, which includes a set of principles for the design and planning of urban architecture to promote physical activity. Sports amenities such as swimming pools, sports fields, and bicycle paths will be located within a radius of walking distance of less than 5 minutes [2].

Positive transformations are also realized in urban transport and technical infrastructure. The Games were the occasion for the relaunch of the Grand Paris Express1 project, which involves public transport with 200 km of automatic metro lines to connect the suburbs and outlying areas of the metropolis. This should ultimately help alleviate congestion on the current transport network [4]. A bicycle loop has been created to ensure the mobility of the metropolis by bicycle, and improvements have been made to noise walls and high voltage power lines [12]. The extension of the T3B tramway is also part of the plans [3]. After the Games, there are plans to reduce the limited traffic zone in central Paris and create pedestrian zones. There are also plans to transform the ring road around the city into a flexible traffic route with a speed limit (50km/h) [3].

Paris plans to open new gardens and parks that will also be places for cultural and social activities. A "code of streets" has been adopted which gives priority to pedestrians in Parisian public space [3]. As part of the code, 200 new school streets will also be added; these quiet streets will be closed to vehicular traffic.

In terms of amenities, there will be new sports facilities, a refugee house, a media library, and a new theatre dedicated to democracy. At the same time, there are plans to expand health care in neighbourhoods where it has been lacking, including the creation of four new health centres [3]. New facilities will be added for tourism, commerce, services, education and social welfare.

Paris also plans to renovate housing for low-income households and provide new accommodation for families in need [3].

Although not as monumental a success as, for example, the Bird's Nest in Beijing or the tower in Montreal, the Games in Paris represent an opportunity to promote France's image internationally. Significant economic and tourism benefits are expected, as well as an influx of new investment. Some sixty Olympic venues and infrastructure projects are planned for the Île-de-France region to host the Games.

2.3 The transformation of the Seine-Saint-Denis district

The construction of the Seine-Saint-Denis Athletics Village, where the 2024 Olympic and Paralympic champions will live, has helped draw attention to a neglected neighbourhood. This Olympic village is located in the north of Paris on the right bank along

the Seine River in a brownfield site - a 52 hectare former industrial area. The entire complex includes 2,800 new housing units for 6,000 inhabitants [4]. After the Games, the village will be a self-contained neighborhood, inhabited by newcomers but also by original families displaced by the new construction.

The construction of the Athletes' Village also results in a change in the social and economic environment [5]. It does not only create a neighborhood for athletes, but it represents a transformation project for a backward neighborhood, which will later become a full-fledged residential neighborhood integrating both new and old residents [6]. The projects are also concerned with inclusion. As the buildings will also be used for the Paralympic Games, all housing units must be adapted for wheelchair access [6]. The village should be accessible for families, students, the elderly and people with reduced mobility. Although the final rent levels are not yet known, social rented housing will be offered at controlled prices, lower than the general financial market. The new neighbourhood will include two nursery schools, a primary school and two local sports facilities [5]. The new metro stop will bring the middle and upper social classes from the city centre into the neighbourhood, as property prices in central Paris soar upwards.

The transformation is expected to create a mixed-use area that will be vibrant and pleasant to live in and offer a variety of options (housing, workspaces, shops, manufacturing facilities, etc.) [7]. The quality and character of the area is changing. Old bar premises have been replaced by fresh food shops. However, Saint-Denis remains a city of contrasts [5]. The quality of life will also depend on the development of commercial infrastructure and the walkability of shops.



Fig. 1. Athletics Village (author's archive)

2.4 Negative aspects

Accelerated development is accompanied by some pitfalls. First and foremost is the arrival of the middle classes, including evictions and displacement of households, which can lead to misunderstandings between the city and its residents.

The growing attractiveness of newly built neighbourhoods can cause displacement of the working classes, gentrification, and weakening of natural social ties [5]. Critical voices suggest that this is the beginning of an increasing territorial polarization and displacement of problems to other parts of the city. On the one hand, it is about the economic strengthening of newly built neighbourhoods, and on the other hand, it is about the impoverishment of other- peripherally located neighbourhoods, their spontaneous growth and the accumulation of problems brought about by the migrating socially marginalised inhabitants of the metropolis.



Fig. 2. The transformation of Seine-Saint-Denis (author's archive)

The shortage of social housing persists despite the planned increase in social housing. It should be noted that 67 housing units in the village will contribute to the replacement of 500 destroyed social housing units [5].

On the negative side, although people will be living in areas of the sites for the duration of the Games, approximately seven or eight years, the quality of life in these areas will be greatly improved.

A certain 'push effect' in tourism is also expected. In short: the number of visitors who would like to go to Paris will temporarily decrease, but will not do so to avoid the confusion and soaring prices during this period [8].

3. An Assessment of the Current Situation with Regard to Investment in Construction in Slovakia

In Slovakia, the automotive industry has been the strongest driver over the last 30 years. Due to the fact that Slovakia is a relatively small country, which does not have a high urban population density as in the larger countries of Western Europe, we will concentrate rather on the assessment of new construction in the capital city Bratislava (it has metropolitan importance together with Košice). Our focus is mainly on the centre and the inner city. At present, there is no more significant driving force (such as Olympic Games) to catalyse positive transformations of the city in favour of elevating the importance of the metropolis and bringing it closer to the needs of its inhabitants. The most frequent investment activities in the city are in the form of housing development in an attempt to fill a gap in the market.

The main positives are:

- There is no massive destruction of original residential neighbourhoods and displacement of population, rather densification using unoccupied brownfield sites.
- Participatory planning, cooperation with developers in the creation of new neighbourhoods is becoming more practiced. By agreeing with the local government, e.g. by accelerating the change of the zoning plan in favour of the developer's plan (especially changes in favour of housing construction), the developer is obliged to contribute the construction of public utility structures (transport infrastructure, school, park, etc.).
- By applying a development charge, municipalities can finance public utility structures in their territory.
- With the entry into force of the new Act No 200/2022 Coll.[9] on spatial planning as amended and the new Act No. 201/2022 Coll.[10] on construction as amended, it will be possible to create own building regulations, i.e. building statutes for Bratislava and Košice.
- Pilot projects on decarbonisation, energy efficiency of buildings and sustainable management of storm water in the urban environment are underway with the aim of developing an Action Plan for mitigation Climate change mitigation and adaptation by 2030.
- Tree planting and green space maintenance is ongoing.
- New public transport routes, including a tram, are under construction.

The main negatives are:

- There is a lack of concepts that would bring fine-grained regulation at the smaller areas, local level that would correspond with the overarching planning documentation and would reflect the dialogue between the city, residents and specific developers.
- The demand is mainly for residential development, which is causing the destruction of important city-forming amenities.
- Housing prices were rapidly growing, the downtown and inner city are heavily gentrified, and the middle class is being pushed to the periphery.
- The new urban complexes and zones are additive attached with no structural connection to the surrounding development.
- The newly created amenities do not meet the minimum standards to address the needs of the inhabitants, they are not located within sufficient walking distances.
- The former amenities are not sufficient to meet the needs of the new residents - i.e. insufficient capacity of kindergartens, primary schools, paediatricians, etc.
- There is a lack of hierarchy of public spaces in important locations of the city, their clear legibility.
- Sports and recreational facilities in the new neighbourhoods are reduced to a minimum, or do not even meet the minimum criteria.
- Facilities for sports are often in a desolate state, sports facilities (especially top sports) are a barrier in the city's organism and there is an effort to reduce or eliminate them in favour of other functions.
- There is a lack of updated concepts for tourism - a network of accommodation facilities, multifunctional facilities and congress capacities, cultural and social capacities.
- There is minimal publicly owned land for public utility buildings.
- Connection of new neighbourhoods to public transport, cycling routes, pedestrian routes is often insufficient.
- The principles of bioclimatic design are not sufficiently translated into practice.

4. Conclusion

The 2024 World Games in Paris is an example of how a sporting event can generate positive change in a city. Conversely, an assessment of the current situation with regard to investment in construction in Slovakia shows a lack of major incentives for the development of the metropolis. Although positive aspects such as participatory planning or cooperation with developers are emerging, negative aspects such as inadequate infrastructure or the destruction of important city-forming functions still prevail. By pointing out good examples and foreign trends, we can realise how to better set up a system of positive transformations of the urban structure in our conditions.

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