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## Public-private partnership in Singapore sports hub

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*Suggested Citation:* Yuen, Belinda (2012) : Public-private partnership in Singapore sports hub, In: Büch, Martin-Peter Maennig, Wolfgang Schulke, Hans-Jürgen (Ed.): Zur Ökonomik von Spitzenleistungen im internationalen Sport, ISBN 979-3-937816-87-6, Hamburg University Press, Hamburg, pp. 207-229, <https://doi.org/10.15460/hup.250.1899>

This Version is available at:

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Hamburgisches  
WeltWirtschafts  
Institut

Reihe Edition HWWI Band 3

Belinda Yuen

Public-Private Partnership in Singapore Sports Hub

in:

**Zur Ökonomik von Spitzenleistungen im internationalen Sport**

Herausgegeben von Martin-Peter BÜch, Wolfgang Maennig und  
Hans-Jürgen Schulke

S. 207–229

Hamburg University Press  
Verlag der Staats- und Universitätsbibliothek Hamburg  
Carl von Ossietzky

## Impressum

Bibliografische Information der Deutschen Nationalbibliothek

Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über <http://dnb.d-nb.de> abrufbar.

Die Online-Version dieser Publikation ist auf den Verlagswebseiten frei verfügbar (*open access*). Die Deutsche Nationalbibliothek hat die Netzpublikation archiviert. Diese ist dauerhaft auf dem Archivserver der Deutschen Nationalbibliothek verfügbar.

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Archivserver der Deutschen Nationalbibliothek – <http://http://deposit.ddb.de/index.htm>

ISBN 978-3-937816-87-6 (Printausgabe)

ISSN 1865-7974 (Printausgabe)

© 2012 Hamburg University Press, Verlag der Staats- und Universitätsbibliothek Hamburg Carl von Ossietzky, Deutschland

Produktion: Elbe-Werkstätten GmbH, Hamburg, Deutschland

<http://www.ew-gmbh.de>

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# Public-Private Partnership in Singapore Sports Hub

*Belinda Yuen*

## Introduction

In recent decades, a widening number of cities around the world have been developing cultural infrastructure, including new sports facilities, to regenerate old spaces and create new growth around “places to play”.<sup>1</sup> The ostensible planning objectives for the new cultural infrastructure generally embody the need to shift these cities from dependence on a declining conventional industrial base to new growth areas of services, tourism, culture and the creative class, to remake urban spaces to enhance regeneration, and to project a more positive city image to attract households and visitors back to the heart of the city where they can spend leisure time, work and live.<sup>2</sup> A review of the literature indicates three major components in the new urban regeneration approach.

The first involves the creation and expansion of new cultural leisure and consumption spaces through the development of flagship projects in central city locations, such as waterfronts.<sup>3</sup> The run-down parts of the city’s built heritage are being regenerated and reused as new cultural, leisure and entertainment venues. Included in this regeneration is the development of festival marketplaces<sup>4</sup> and cultural precincts such as the Birmingham Balti<sup>5</sup> and Chinatown<sup>6</sup> to create marketable local cultural products and services. These projects often

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<sup>1</sup> Judd/Fainstein (1999).

<sup>2</sup> Hall/Hubbard (1998) and Alsayyad (2001).

<sup>3</sup> Bianchini/Parkinson (1993) and Mommaas (2004).

<sup>4</sup> Hannigan (1998).

<sup>5</sup> McEwan et al. (2005).

<sup>6</sup> Anderson (1990) and Shaw et al. (2004).



comprise leisure, retail and entertainment complexes, sports stadiums, casinos, aquariums, and/or cultural facilities in multi-use complexes. Prominent examples include the Guggenheim Museum in Bilbao, London's Docklands and Barcelona's central waterfront redesigned for the 1992 Olympics.

The second concerns the promotion of city visioning and place marketing around the new entrepreneurialism and physical redevelopment. City image-building is not just limited to flagship architectural and engineering projects such as the revitalized waterfront or iconic designer building but also includes the promotion of mega-events such as the European Capital of Culture, World Expo or the Olympic Games.<sup>7</sup> The world's leading and wannabe world cities would compete to host these events in hope to further their national and international positions. Under the 'arts means business' theme, these cities are investing in expressive arts, sports, and cultural activities to create a new business climate and an impetus for local economic rejuvenation. The project often includes a programme of cultural festivals and performance spaces (from theatre and visual arts to pop music), new-build and renovated.

Because of their size and international significance, mega-events present an important opportunity for a city's economic and physical development. For example, London is spending 3.3 billion Pounds Sterling on construction costs, 1.8 billion Pounds Sterling on regeneration costs, and 900 million Pounds Sterling on security costs in preparation for the London Olympics 2012.<sup>8</sup> Included in this expenditure are substantial new venues and facilities built expressly for the Olympics that would be catalysts for re-imaging and re-developing the Lower Lea Valley in East London. The increasing role of place marketing and re-imaging strategies has amplified the importance of place, identity and the image of the city.<sup>9</sup>

The third concerns funding regimes of the physical redevelopment through new forms of partnership, such as between public and private sectors. The London Olympic Games 2012, for example, will be funded by businesses, by the London Development Agency and by the government including via the National Lottery and a council tax.<sup>10</sup> The origins of this approach have been traced to American cities, notably Baltimore and its waterfront regeneration.<sup>11</sup> Recog-

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<sup>7</sup> Kearns/Philo (1993) and Roche (2000).

<sup>8</sup> BBC News, 24 Feb 2007.

<sup>9</sup> Evans (2003) and Hannigan (2003).

<sup>10</sup> Planning (30 May 2003, p. 8).

<sup>11</sup> Harvey (1989).

nising the scale of regeneration, Baltimore has sanctioned the use of public funds as seed money for private investment. The concept has since been widely copied throughout North America, Europe and Australia. Massive urban growth and infrastructure expansion underscores the need for alternatives and supplements to existing ways and means of budgetary financing.

The growth of “play spaces” is not new. Cities have long provided for the recreational and cultural interests of their populations. The development of New York’s Central Park (1857) and Philadelphia’s public zoo (1860s) are some early examples.<sup>12</sup> In more recent years, the suite of municipal provided leisure facilities has expanded to include golf courses, sports fields and sports stadium. The emphasis on economic innovation and competition has fuelled the inclusion of sports as an anchor in urban regeneration policy. As Coaffee and Shaw put it:<sup>13</sup>

“In Britain a great importance is now being placed upon developing a strategic agenda for sport and its implications for the development of sustainable communities, liveable places and healthier populations.”

A similar development pattern is observed across urban America. According to Noll and Zimbalist, there has been an unprecedented development of sports facilities in recent decades:<sup>14</sup>

“New facilities costing at least \$200 million [each] have been completed or are under way in Baltimore, Charlotte, Chicago, Cincinnati, Cleveland, Milwaukee, Nashville, San Francisco, St Louis, Seattle, Tampa, and Washington, D.C. and are in the planning stages in Boston, Dallas, Minneapolis, New York, and Pittsburgh. Major stadium renovations have been undertaken in Jacksonville and Oakland. Industry experts estimate that more than \$7 billion will be spent for professional sports teams before 2006. Most of this \$7 billion will come from public sources.”

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<sup>12</sup> Cranz (1982) and Teaford (1984).

<sup>13</sup> Coaffee/Shaw (2005).

<sup>14</sup> Noll/Zimbalist (1997, p. 35).

As Eisinger analysed, the current period of local government sports and entertainment investment differs from earlier times in four major ways:<sup>15</sup>

- the pace and variety of construction have markedly increased;
- the demographic and economic context is different;
- the intended patron base has shifted from the city's residents to visitors; and
- the scale of entertainment construction is significantly greater.

Sports stadium development has evolved from the early (pre-1940) classic stadium having the attributes of neighbourhood focus, basic and limited amenities for spectators and dedicated to a single sporting activity to the modern, national and sub-national stadium offering a wide range of sporting and leisure activities, especially for convention and conference markets. Many of the new sports stadiums are large multi-purpose venues, often designed to optimise the effects on local communities. A case in point is the Telstra Stadium in Sydney, built at a cost of 690 million Australian Dollars as the centrepiece within the Sydney Olympic Park to host the 2000 Summer Olympics. With an as-built seating capacity of 110,000, the Telstra Stadium was the largest stadium ever used for the Olympics at the time of the Games.<sup>16</sup> In addition to sports fields for rugby, football and cricket, the stadium has 16 function rooms to cater to large dinners, conferences and exhibitions that may draw additional visitors.

A number of other new generation stadiums such as the Toronto Skydome, Fukuoka Dome and Cardiff Millennium Stadium have followed similar concepts of multiple-use to create all-year-round visitor attraction in destination marketing. Many have become must-see tourist attractions of their cities. According to Cardiff Tourist Information, the Cardiff Millennium Stadium which offers a range of sporting events, concerts and performances, conferences and exhibitions has welcomed over 1.3 million visitors per year since its opening in June 1999.<sup>17</sup> Several emerging cities such as Dubai and Singapore are building modern and advanced multi-purpose sports stadium in their respective regions. The endeavour is towards an integrated tourism and leisure strategy that features world-class sports facility. Various authors have ex-

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<sup>15</sup> Eisinger (2000, p. 319).

<sup>16</sup> See [http://www.worldstadiums.com/stadium\\_menu/architecture/stadium\\_design/sydney\\_telstra.shtml](http://www.worldstadiums.com/stadium_menu/architecture/stadium_design/sydney_telstra.shtml) (accessed on July 4, 2007).

<sup>17</sup> See [http://www.somewheretogo.co.uk/cardiff\\_attractions.html](http://www.somewheretogo.co.uk/cardiff_attractions.html) (accessed on July 4, 2007).

amined the impact of sports and recreation on urban renaissance and quality-of-life agendas.<sup>18</sup> There is also an expanding literature relating to the costs and benefits of sports stadiums, primarily in the US and UK.<sup>19</sup> Some have sought to locate their analysis of sports stadium construction within urban regime theory.<sup>20</sup> As the scale and importance of sports stadiums in the city expands, the magnitude of investment is expected to increase. According to Gratton et al., the escalating stadium construction costs have increased the size of stadium subsidies, leading to more rational investment appraisal in new investments in sports infrastructure.<sup>21</sup> This is often expressed in terms of financing options, and has prompted research on alternative financing and public-private partnership. Cochrane, Peck and Tickell provide an early example when they seek to investigate the “grants coalition” around which public-private partnership is mobilised in Manchester’s bid for the 2000 Olympics.<sup>22</sup>

A first purpose of this paper is to situate and discuss the theoretical notion of public-private partnership (PPP) and its application to sports stadium development. Second, and more empirically, through an examination of the Singapore sports hub, this paper will analyse the justification for PPP and assess the evidence on such a development option. The intent of the analysis is to enquire: does PPP make sports stadiums a better investment for the city? It will examine the economics of the partnership, and the institutional and legal changes required for the shift in financing arrangements. While much has been written about American, European and other developed countries’ sports stadium development,<sup>23</sup> there is comparatively scarce literature on Asia, even though Asian cities are the hotbed of urban development. Most countries in Asia are witnessing rapid population growth and urbanisation, necessitating a reorientation of national development plans, policies and priorities for urban areas.<sup>24</sup> Several countries, for example, China, Korea and Singapore, have begun to incorporate major international sports events and new sports stadiums as central components in local economic and urban development strategies.

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<sup>18</sup> For example, Hannigan (1998) and Gratton et al. (2005).

<sup>19</sup> For example, Churchman (1995) and Shropshire/Dunn (1996).

<sup>20</sup> For example, Rosentraub et al. (1994) and Sack/Johnson (1996).

<sup>21</sup> Gratton et al. (2005).

<sup>22</sup> Cochrane et al. (1996).

<sup>23</sup> Stiftel/Watson (2005).

<sup>24</sup> Roberts/Kanaley (2006).

## Funding Sports Stadium Development

Traditionally, it is the public sector that funds sports stadium development. A principal justification involves the extent to which stadium development generates economic development and enhances local communities. Like other public goods, the argument is that stadiums would not be built in sufficient numbers if the production is in the private sector. Often, this is the main reason put forward to justify government subsidies for new stadiums.<sup>25</sup> The use of public subsidies for stadium development is a hotly debated issue. While many have argued that a new stadium is integral to rebuilding the city,<sup>26</sup> others have concluded that economic returns do not justify the use of public funds.<sup>27</sup>

In extreme cases, as Searle identifies, stadium subsidies may even have a negative effect on urban development by diverting taxes and crowding out investments which would otherwise have been spent on social infrastructure and services such as schools.<sup>28</sup> In considering stadium development, a growing number of economic analyses have argued for also quantifying the value of intangible benefits and the wider contribution to economic stabilisation and vitality of the downtown.<sup>29</sup> As Austrian and Rosentraub argued, what must be assessed is the extent to which economic activity, vitality and centrality, which benefit the downtown core, are changed by the presence of the sports facilities.<sup>30</sup> In other words, how much will the city lose by not building at all?

The theme of public subsidies for sports stadium development is ever more important in developing countries. Its importance is marked by a situation where high rates of urbanisation and population growth are accentuating the inadequacies of urban infrastructure and services, especially in regards to the poor. According to Asian Development Bank and World Bank estimates, developing countries in East Asia, for example, will need to spend more than 200 billion US-Dollars per year over the next five years (2005–2010) on roads, water, communications, power, and other infrastructure to cope with rapidly expanding cities and increasing populations. In the face of growing infrastructure demands, it is increasingly being realized that infrastructure investment

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<sup>25</sup> Euchner (1993) and Searle (2005).

<sup>26</sup> For example, Rich (2000) and Chappelet/Junod (2006).

<sup>27</sup> Swindell/Rosentraub (1998) and Humphreys (2001).

<sup>28</sup> Searle (2005).

<sup>29</sup> For example, Noll/Zimbalist (1997), Swindell/Rosentraub (1998), and Austrian/Rosentraub (2002).

<sup>30</sup> Austrian/Rosentraub (2002).

will have to be raised from sources other than budgetary financing. In Asia, the prospect has moved towards decentralized governance.

Since the 1980s, decentralization processes have been introduced in Asian countries, by different regimes and within different national contexts, from military dictatorships, authoritarian presidencies and monarchies through single-party or dominant-party systems to multi-party competitive democracies.<sup>31</sup> As indicated in the decentralization literature, the decentralization process implies the decentralization of the delivery of basic services, offering an opportunity for transferring the responsibility of planning, raising and allocating resources from the central government and its agencies to regional and local governments.<sup>32</sup> Decentralization can take the form of devolution, deconcentration, delegation, or transfer/privatization/partnership.

The private sector, with its defining objective of profit, is conventionally considered an inappropriate choice for public service provision. However, with the trend towards decentralization, and service demands growing faster than public sector investment capacity, private participation is increasingly being seen as having an important role to play in urban infrastructure, both in terms of augmenting the financing and efficiency in service delivery. As Suresh summarized, private sector participation could help to:<sup>33</sup>

- bring technical and managerial expertise to the service sector;
- improve operating efficiency;
- result in large-scale injections of capital and greater efficiency in the use of that capital;
- reduce the need for subsidies; and
- increase responsiveness to consumer needs and preferences.

The reasons for involving the private sector vary. Generally, the spectrum of possible partnership is some degree of private participation in the financing, design, construction, operation and maintenance of public infrastructure and services that may range from contracting, leasing, franchising, build-own-operate, build-operate-transfer, build-own-operate-transfer to privatization or complete divestiture and commercialization of the urban infrastructure. The United Kingdom has used public private partnership (PPP) extensively to develop roads, defence contracts, prisons, schools and hospitals. In the US and

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<sup>31</sup> Smoke (1999).

<sup>32</sup> Klugman (1994) and Blaser et al. (2003).

<sup>33</sup> Suresh (2000, p. 13).

Canada, a number of states, including Minnesota (St. Paul) and British Columbia, have employed the public-private partnership model at the municipal level to develop public facilities such as sports complexes and arenas. In Australia, the government has invited the private sector through competitive bidding to design, build, operate, and maintain the stadiums for the 2000 Sydney Olympics. As Searle argued, the private sector proposal offered little risk to the government, and public expenditure savings under situation of fiscal restraint and debt reduction. Public-private partnerships can vary in the sharing of investment, risk, responsibility and reward between the partners.<sup>34</sup>

As new sports facilities are often designed to attract a wide fan base, corporations have also seized the opportunity to advertise at sporting facilities, and buy naming rights to stadiums such as the case of Telstra Stadium. Formerly known as Stadium Australia, Telstra, a major Australian communications company, bought the exclusive naming rights in 2002 until 2009, with further options. An increasing number of academic analyses are calling on the use of private investment to rebuild sports stadiums “tax free”.<sup>35</sup> Sports stadiums are fast becoming sites through which to view and interpret policy solutions in competition, deregulation and privatization in the present era of entrepreneurial urbanism.<sup>36</sup>

### Singapore: Sports Moving to Centre Stage

With deepening globalisation, Singapore has widened its strategic planning focus with the aim to become a “thriving world-class city” and deliver a “dynamic, distinctive and delightful city” by planning for a good quality of life, providing more choices for recreation, and conserving places with a sense of history and identity.<sup>37</sup> Under its current long-term plan, its planners have framed proposals on play spaces to provide places for all to enjoy. There will be more and accessible green spaces to create the feel of a city in a garden, and more arts, cultural and sporting facilities to choose from. The renewed emphasis on play spaces has seen the rise of sports in Singapore’s urban agenda.

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<sup>34</sup> Searle (2005).

<sup>35</sup> Rosentraub (1999).

<sup>36</sup> Harvey (1989) and Hall/Hubbard (1998).

<sup>37</sup> Urban Redevelopment Authority (2001).

At the national level, sport activity is identified as a key human development strategy with multiple benefits.

“As Singapore matures, sport will become an increasingly important facet of our individual lives and an indispensable component of our culture ... Sport provides many benefits to the individual, community and country. We envision a Sporting Singapore, where:

- sports participation helps develop a resilient people with the virtues of perseverance, focus, discipline, teamwork, creativity, a drive to excel and a healthy lifestyle;
- sport is an effective channel to bond people from various communities of our multi-racial society;
- sports excellence helps enhance our national pride and international standing;
- a vibrant sports industry contributes to the economy and sustains the sports delivery system; and
- sport helps strengthen friendship with other nations.”<sup>38</sup>

The national emphasis has produced a spate of initiatives at the community level to encourage sport as a healthy lifestyle. An emblematic approach is the Sport for Life program launched by the Prime Minister in 1996. This is a national program aimed at actively promote broad-based sport and fitness participation, and increase sport and exercise participation at the individual level. It provides a wide range of sports, fitness programs and learn-to-play schemes that cater to all ages. In order to generate substantive participation, the initiatives have been complemented by various policy vehicles including:

- in 2000, a Committee on Sporting Singapore comprising public, private and people sector representatives was set up under the Ministry of Community Development to establish the vision and desired outcomes for sport in Singapore, to identify the issues impeding the development of sport, to formulate the development strategies for sport in Singapore and to recommend specific initiatives for future development of sport in Singapore. In response to the Committee’s 2001 report, the government committed an additional 500 million Singapore Dollars over a five-year period to sport;

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<sup>38</sup> Committee on Sporting Singapore (2001, p. 11).



- in 2001, the Ministry of Community Development was renamed to Ministry of Community Development and Sport to signify the Government's commitment to sport, and more recently, to the Ministry of Community Development, Youth and Sports;
- in 2004, a five-day work week was introduced nationally to encourage more family and recreation time during the weekends. The 2005 targets set by the Sport for Life program were to encourage 50 % of Singaporeans to exercise at least once a week and 20 % of Singaporeans to exercise three times a week (in 1997, 34 % of the population aged 15 years and above had participated in sport and physical fitness at least once a week. In 1992, the proportion was 24 %);
- in 2004, a Singapore Sport School was established to provide comprehensive sport training to school children with sporting aspirations;
- in 2002, the ministry commissioned a feasibility study on a new Sports Hub; in 2005, the pre-qualification tender was released and re-development set to begin in 2007.

The proposed Sports Hub (35 ha) will be the largest sport and leisure development in Singapore. Branded as a lifestyle hub with sports as a theme, the Singapore Sports Hub with its waterfront location along the Geylang River/Kallang area is expected to become a major focus for sporting and lifestyle activities when built. As with many other new generation sports stadiums, a strong distinguishing component is its multi-use. In the Singapore case, this will include a cluster of developments that includes a 55,000 seating capacity new stadium with a fully retractable roof over the pitch area, a 6,000-capacity new indoor aquatic centre, a 400 m warm-up athletic track, a 3,000-seating capacity multi-purpose arena, 36,000 m<sup>2</sup> of commercial space and other leisure and hotel developments. It will also include foreshore development for water sports and other recreational activities. The increased size of the Sports Hub embodies the quest to establish Singapore as a premier centre for major sport events. The Sports Hub will form a major element of Singapore's long-term plans for a vibrant sports city that is anticipated to play a critical role in accelerating the fusion of sports industry, excellence and participation, and elevating sports to the next level in Singapore. As articulated in the Singapore Sports Hub 'Pre-invitation to Tender' briefing (July 27, 2006), the key objectives of the multi-use sports hub are to develop:

- an integrated lifestyle hub for world-class sports and entertainment events;
- a commercially viable business model; and
- a national and global landmark.

It is to be a place for the sports industry and professionals as well as ordinary Singaporeans, where they can enjoy various events, participate in sports and patronize the commercial outlets. The vision is a fully integrated sports, entertainment and lifestyle hub for everyone in Singapore. The desired outcomes include:

- a thriving sports and entertainment ecosystem, which can react positively to market needs over the life of the asset;
- a key driver to achieving the “Sporting Singapore” vision;
- a platform for a successful business network, partnerships and collaborations amongst stakeholders;
- creation of a global sports and entertainment brand to become a preferred sports and entertainment destination worldwide;
- a successful urban regeneration of the Kallang area, well-integrated within the city;
- a vibrant lifestyle hub with world-class customer service.

Several benefits are anticipated from the sports hub development. The first is employment generation during and post-construction. The second is urban regeneration, and expansion of tourism and the sport industry. The sport industry has contributed 0.49 % (680 million Singapore Dollars) to Singapore GDP in 1998. There is therefore opportunity to grow the industry. As the Singapore Minister for Community Development, Youth and Sport has indicated in January 2006, the Asia Pacific sport market is worth about 7.5 billion US-Dollars and rapidly expanding at an annual rate of 4.9 % from 2003 to 2007.<sup>39</sup> At the present time, Singapore hosts an average of 60 international sports events annually including a stable of marquee events such as the Aviva Badminton Open, the OSIM Triathlon, and the Standard Chartered Singapore Marathon. The hosting of major sport events offers the opportunity to promote Singapore internationally.<sup>40</sup> Singapore’s hosting of the 117<sup>th</sup> IOC meeting in 2005 provides

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<sup>39</sup> Weekend Today (January 21–22, 2006).

<sup>40</sup> Committee on Sporting Singapore (2001).

a case in point.<sup>41</sup> International profile-raising is at the heart of its vision of a world-class city, and an integral part of a major national program to attract visitors and global investment to Singapore. The Singapore Sports Hub is also envisaged to be an international architectural icon.

### Investing in Singapore Sports Hub

Traditionally, the sports facilities in Singapore are built by the public sector. According to the Report of the Committee on Sporting Singapore, there are some 3,000 large and small public and private sports facilities throughout Singapore, with public sports facilities generally within a 3 km radius of 60 % of Singaporean households. The biggest of the publicly-provided sports facilities is the National Stadium. Located within the central region of Singapore, some 3 km east of the Central Business District, the National Stadium has an eight-lane running track built to Olympic standards, a soccer field and other miscellaneous facilities such as table tennis tables, weight rooms and an auditorium in the large spaces under the spectator stands. These facilities were used by the public and local organizations for a fee. Built in 1973, with parking lots for more than 4,000 cars and 100 motorcycles, the National Stadium presents a singular venue for major sporting, cultural, entertainment and national events in Singapore, including the Southeast Asian Games, the Singapore Youth Festival, the Singapore Armed Forces Day, and the Singapore National Day Parade. However, compared to new-generation sports stadiums, the facilities at National Stadium are deemed inadequate and a new multi-use sports hub is conceived to “give Singapore the edge to compete with the worlds best in attracting major sporting events.”<sup>42</sup> In June 2007, the National Stadium was closed. Demolition works are expected to begin in the second half of 2007.

The new Sports Hub is scheduled to be constructed by 2011. Unlike other publicly-provided sports facilities, the redevelopment of the National Stadium and surrounding area (Singapore Indoor Stadium) into a multi-purpose Sports Hub employs the public private partnership (PPP) procurement process. The private sector is expected to design, build, finance, and operate the facilities for a contract period of 20 to 30 years with potential to subcontract the operation of various activities to consortium shareholders or third parties. The govern-

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<sup>41</sup> Yuen (2005).

<sup>42</sup> Committee on Sporting Singapore (2001, p. 63).

ment will own the project site and grant a lease to the successful PPP consortium. The government will have usage rights of the facilities as specified in the PPP contract. Upon conclusion of the PPP contract and land lease, the Sports Hub will revert to the Singapore Sports Council at no charge. The partnership will enable the public sector to benefit from the commercial dynamism, innovation and efficiencies of the private sector which will also bring its own capital, skills and experience to deliver quality service to the community. The Singapore Sports Council (SSC) is a statutory agency under the Ministry of Community Development, Youth and Sports with the dedicated task of developing sports in Singapore. More specifically, the Council will act to champion and lead all stakeholders towards the Sporting Singapore objectives as well as act as a venture capitalist in funding towards the desired Sporting Singapore outcomes.

As demonstrated by the European and America experience, public-private partnerships are not a single model applied to every circumstance.<sup>43</sup> Instead, they are a tailored approach. The Singapore development enters several stages to the PPP process (Table 1).

**Table 1: Singapore Sports Hub PPP Process**

Bidding stage	Timescale
Issue pre-qualification documentation (PQD)	December 2005
PQD submission	February 2006
Invitation to tender to short-listed bidders	April 2006
Tender submission	December 2006
First clarification stage	February 2007
Evaluation of final clarifications	April 2007
Appointment of preferred bidder	May 2007
Financial close	July 2007
Scheduled commercial operation date	July 2011

Note: Designs will only be required at the Invitation to Tender stage. There is no design required for pre-qualification submission. At that stage, only a description of the proposed approach to development and design is required.

<sup>43</sup> Rosentraub (1999) and Searle (2005).

Three finalist consortia have submitted their proposals. One will eventually deliver new investment and provide the facilities to the community. Announcement of the successful consortium and financial close is expected in July 2007. Evaluation will be made along several dimensions, including appeal of sports, leisure and entertainment programming (40%), functionality and quality design (25 %), financial and legal aspects (25 %), and facility management (10 %). At the Pre-Qualification stage, the firms were assessed on their eligibility, compliance with requirements, financial capacity and technical ability. During the Invitation to Tender stage, firms were asked to provide a response to the tender documents and a price for the design, construction of all facilities, finance solution – equity and debt, facilities management and operation – attract, promote and manage events, lifestyle and maintenance requirements and insurance.

Although PPP may have been employed in many other cities, it is a relatively new development experience in Singapore. Thus, to raise awareness, PPP market awareness brochures and videos on the proposed Sports Hub were prepared. The intention is to enhance private sector understanding and participation. In view of the size and complexity of the development, interested companies are encouraged to form a consortium. There is no restriction on international participation. In other words, the bidding consortium may comprise international and/or local parties. It may include equity providers, institutional investors, construction companies, facility/estate service companies, stadium/arena facility operators, technical expertise/technology companies, insurers and catering operators. Table 2 illustrates the composition of the consortia.

The Sports Hub project advisory team would work with interested companies towards the development of potential bidding consortia. This process involves collating a list of interested companies and distributing project information to all companies on the list. Interested companies are then expected to form a consortium in preparation for the Pre-Qualification and Invitation to Tender stages. As the process is detailed and involved, the Singapore Sports Council has appointed a group of law, sport stadium and accounting firms – PricewaterhouseCoopers (lead consultants), PMP (stadium consultant), Lovells Lee & Lee (legal advisor), Davis Langdon and Seah Singapore (technical advisor) – to oversee the PPP procurement process on its behalf. This team is responsible for providing key inputs to the PPP model, input to tender documents and evaluation criteria, and assisting in evaluation of tenders up to financial close.

Table 2: Singapore Sports Hub Finalist Consortia

Key Areas	Consortia		
	Singapore Gold	Singapore Sports Hub Consortium	Alpine Consortium
<i>Bid leader</i>	Macquarie Group	Dragages Singapore Pte Ltd	Alpine Mayreder Bau GmbH/Alpine Bau Deutschland AG/AFP
<i>Design</i>			
<i>Lead architect/master planner</i>	HOK Sport	Arup Sports	Tim Hupe Architects Germany
<i>Local architect</i>	CPG Corporation	DP Architect	RSP Architects Planners and Engineers Pte Ltd
<i>Landscape architect</i>		CICADA	
<i>Construction</i>			
<i>Structural engineer</i>	CPG/SKM	Arup	SBP Schlaich Bergermann and Partners Germany
<i>M&amp;E engineer</i>	CPG/SKM	Arup	Squire Mech Pte Ltd
<i>Environmental</i>	SKM	DHI Water & Environment	Squire Mech Pte Ltd
<i>Construction</i>	Shimizu Corporation	Dragages Singapore Pte Ltd	Woh Hup Pte Ltd; Alpine Bau Germany AG
<i>Traffic consultant</i>		Duffill Watts	
<i>Technical advisor</i>		Faithful & Gould	
<i>Facility management</i>			
<i>Facility management</i>	CPG FM	United PREMAS Ltd	Dalkia
<i>Venue management</i>	Ogden IFC	Global Spectrum-Comcast Spectator-PICO	SMG
<i>Bid management/project management</i>	PM Link		

Key Areas	Consortia		
<i>Event management</i>			
<i>Event programming and marketing</i>	IMG & Ogden IFC	Global Spectrum-Comcast Spectator-PICO	SMG
<i>Event promoter</i>		World Sport Group	
<i>Sport consultant</i>		ARM	
<b>Legal &amp; Finance</b>			
<i>Financial advisor</i>	Macquarie Group	HSBC Singapore	APF Alpine Project Finance
<i>Retail/commercial advisors</i>	Land Lease/United Engineers	Knight Frank	Guocoland
<i>Lead financial arranger</i>	Macquarie Group	HSBC Singapore	SMBC Sumitomo Mitsui Banking Corporation
<i>Funding partner</i>	John Laing Infrastructure Ltd	HSBC Infrastructure Fund	Alpine, Babcock & Brown; Great Eastern
<i>Taxes advisor</i>		Ernst & Young	
<i>Legal advisor</i>	Freehills	Rajah & Tann	Ashurst International Lawyers
<i>PPP Legal advisor</i>		Norton Rose	
<i>Insurance advisor</i>	Marsh	AON	

Source: Singapore Sports Council.

Even as the selected PPP consortium will have to comply with a range of mandatory requirements, it is recognized at the outset that to achieve the project vision and objectives will require a creative fusion of talent, facilities, capital and entrepreneurialism. Bidders are therefore given significant freedom to innovate and articulate their vision for the project as well as have opportunities to pursue commercial rights such as media, concession rights, and other supporting leisure and commercial development opportunities. This flexibility is offered to help optimize the overall commercial potential of the Sports Hub and future revenue streams. In financial terms, the Singapore Sports Council will enter into a Financial Arrangement (i.e. payment mechanism) with the successful PPP consortium. The successful PPP consortium will be paid on an ongoing basis in the form of an annual Unitary Payment. This financial ar-

rangement is structured on availability based payment, and will be defined with respect to access to specified facilities, of specified quality and condition. Such an arrangement improves budget certainty as services are provided at a predictable cost as set out in contract agreements.

However, the Unitary Payment will not be the Consortium's only source of revenue. The Sports Hub will have multiple revenue streams from sporting and non-sporting events, commercial developments, etc. Therefore, a revenue sharing mechanism will also be implemented to incentivise the PPP contractor to increase usage of the site. The PPP payment mechanism will be structured to incorporate:

$$\text{Unitary Payment} = AP + VP - AD - PD +/\text{- Adjustments}$$

where:

- *AP = availability payment*: debt service payments, equity return and fixed costs of servicing facilities (this payment is not dependent on usage or event profile);
- *VP = variable payment*: government event days (SSC requires a certain number of event days to stage government sponsored events, for example, National Day Parade);
- *AD = availability deductions*; if the facility or any part of it is unavailable, the payment is reduced;
- *PD = performance deductions*; if services are not performed as required, the payment is reduced;
- *Adjustments* = third party revenue share for PPP contractor sporting and non-sporting event days, naming rights, rental income; PPP contractor is obliged to attract additional events that improve the financial viability of the Sports Hub.

*AD* and *PD* form part of the performance incentives. In addition, there are other nonfinancial remedies such as rectification plans, formal warning notices, service provider replacement and contract termination. The Unitary Payment mechanism is aimed at providing adequate performance incentive while ensuring that the Singapore Sports Council has appropriate remedies for non-performance. The Singapore Sports Council has emphasized two key areas for a differentiable, sustainable competitive advantage: customer centricity to attract and retain customers (both local and foreign) through total experience, and competition in terms of positioning against in-kind and not-in-kind sports and entertainment hubs, both local and foreign. To reach the desired outcomes,



customer satisfaction will be scored along several experience dimensions such as accessibility, adequacy, diversity; unique, evolving, participative; connectivity, adaptability, integrated; people-centred, end-user friendly, welcoming; secure and safe, colours and lighting, service quality; open to tourists, space for temporary usage, flexible, scalable and modular, 24/7 vibrancy, central place to gather and celebrate, efficient life-cycle cost and maintenance. The focus is on results and performance assessments are an important aspect towards meeting improved services and competitiveness.

Even though the final selection is yet to be made, the immediate outcome of PPP seems inclined towards more creative design. According to the Community Development, Youth and Sports Minister, “truly spectacular” and location sensitive design proposals have been submitted.<sup>44</sup> The Singapore Gold Consortium design, for example, shows an iconic horse shoe-shaped gold-coloured waterfront stadium with a retractable roof that is also environmentally friendly and laced with a generous provision of public spaces including a 1 km long waterfront promenade to support activities 24 hours a day, seven days a week. The consortium has envisaged a “busy site” of people and activities.<sup>45</sup> However, not all the bidders have made public their plans.

## Conclusions

Sports-related urban development has never been more important in cities. Singapore is no exception. It has in its latest long-term plan included proposals for more play spaces, introducing more and accessible open spaces, arts, cultural and sports facilities. The aim is to celebrate culture and leisure both as a lifestyle and as a growth industry. Given the overwhelming emphasis on iconic sport stadium development, Singapore in a similar vein has taken a decision to demolish its older-generation National Stadium, and build a contemporary state-of-the-art multi-use Sports Hub to create new leisure spaces that would enhance Singapore's long-term plans for a vibrant Sports City.

The new Sports Hub moves away from traditional financing to public-private partnership where the public and private sector organizations will work together to achieve a common objective. In this case, the private sector

<sup>44</sup> All 3 proposals for new Sports Hub “truly spectacular”: Vivian Balakrishnan by Satish Cheney, Channel News Asia, posted: 28 March 2007, <http://www.channelnewsasia.com/stories/singaporelocalnews/view/267019/1/html>, accessed 27 Jul 2007.

<sup>45</sup> Consortium reveals horse shoe-shaped iconic design for Sports Hub by Patwant Singh, Channel News Asia.

will play a significant role in the design, build, finance, and operation of the facilities. The basic principles of the partnership involve a contract for works and performance of services, the payment of fees based on the standard of performance of services, and payments to commence only when services commence. This is a common formula widely employed in stadium development elsewhere. Stadium Australia (or Telstra Stadium) and SuperDome in Sydney, for example, were “build, own, operate, transfer” developments. The common justification for partnership funding is that it encourages creativity and innovation in design while supposed to provide greater guarantee of its viability. It is an exercise in balancing risk transfer, reward and control where risk is allocated to the party that is best placed to manage the risk.

Although the issue of creative design may be relatively easy to relate to in the immediate physical manifestations of the project, the verdict on the latter is still out. A case in point is Stadium Australia (or Telstra Stadium) in Sydney where the consortium’s proposal, as Searle (2005) recounted, offered little risk to the government. But the proposal did not give way to long-term financial viability. A major problem was the lack of major events for the Stadium. In other words, the option of private sector partnership does not provide an automatic solution to urban infrastructure problem. Without events and visitors, the stadium is doomed to fail. The implication, in strategic planning terms, is to enhance the attractiveness of the stadium as a sporting venue, a magnet of people activities where the private sector can generate business opportunities and the public can receive better or more accessible services. The building of facilities is but the beginning. Broader strategic initiatives in sports-related development, events and entertainment, business networks are important to project sustainability. The Singapore emphasis on customer centrality and competition are crucial considerations that lend an interesting analysis when the project goes into implementation. What is certain is that the vibrancy of the sports stadium appears more not less crucial in partnership funding.

## References

*Alsayyad, N. (2001):* Consuming Tradition, Manufacturing Heritage: Global Norms and Urban Forms in the Age of Tourism, Routledge, London.

*Anderson, K. (1990):* Chinatown Re-oriented – A Critical Analysis of recent redevelopment schemes in Melbourne and Sydney enclave, *Australian Geographical Studies*, Vol. 28, pp.137–54.

*Austrian, Z., Rosentraub, M. S. (2002):* Cities, sports and economic change: A retrospective assessment, *Journal of Urban Affairs*, Vol. 24, No. 5, pp. 549–563.

*Bianchini, F., Parkinson, M. (1993):* Cultural policy and urban regeneration: the West European experience, Manchester University Press, Manchester.

*Blaser, J., Besdziek, D., Byrne S. (2003):* Lessons learned on decentralisation: a literature review, Institute of Federalism and Swiss Agency for Development Cooperation, Fribourg.

*Chappelet, J. L., Junod, T. (2006):* A tale of 3 Olympic cities: what can Turin learn from the Olympic legacy of other Alpine cities?, Valencia Summit 2006, Instituto Noos, Valencia, pp. 83–89.

*Churchman, C. (1995):* Sports stadia and the landscape: a review of the impacts and opportunities arising as a result of the current development of football grounds, *Built Environment*, Vol. 21, No. 1, pp. 6–24.

*Coaffee, J., Shaw, T. (2005):* The liveability agenda: new regionalism, liveability and the untapped potential of sport and recreation, *Town Planning Review*, Vol. 76, No. 2, pp. i–v.

*Cockrane, A., Peck, J., Tickell, A. (1996):* Manchester playing games: exploring the local politics of globalisation, *Urban Studies*, Vol. 33, No. 8, pp. 1319–1336.

*Cranz, G. (1982):* The politics of park design: a history of urban parks in America, MIT Press, Cambridge.

*Eisinger, P. (2000):* The politics of bread and circuses: building the city for the visitor class, *Urban Affairs Review*, Vol. 35, pp. 316–333.

*Euchner, C. C. (1993):* Playing the field: why sports teams move and cities fight to keep them, John Hopkins University Press, Baltimore.

*Evans, G. (2003):* Hard-branding the cultural city: from Prado to Prada, *Journal of Urban and Regional Research*, Vol. 27, No. 2, pp. 417–440.

*Gratton, C., Shibli, S., Coleman, R. (2005):* Sport and economic regeneration in cities, *Urban Studies*, Vol. 42, No. 5/6, pp. 985–999.

*Hall, T., Hubbard, P. (1998):* The entrepreneurial city – geographies of politics, regime and representation, John Wiley and Sons, Chichester.

*Hannigan, J. (1998):* Fantasy city: pleasure and profit in the postmodern metropolis, Routledge, London.

*Hannigan, J. (2003):* Symposium on branding, the entertainment economy and urban place building: introduction, *International Journal of Urban and Regional Research*, Vol. 27, No. 2, pp. 352–360.

*Harvey, D. (1989):* From managerialism to entrepreneurialism: the transformation of urban governance in late capitalism, *Geografiska Annaler*, Vol. 71B, No. 1, pp. 3–17.

*Humphreys, B. R. (2001):* The myth of sports-led economic development, *Economic Development Commentary*, Vol. 25, No. 1, pp. 34–37 b.

*Judd, D. R., Fainstein, S. S. (1999):* The Tourist City, Yale University Press New Haven.

*Kearns, G., Philo, C. (1993):* Selling Places: the city as cultural capital, past and present, Pergamon, Oxford.

*Klugman, J. (1994):* Decentralization: a survey of literature from a human development perspective, *UNDP Occasional Paper*, No. 13.

*McEwan, C., Pollard, J., Henry, N. (2005):* The global in the city economy: multicultural economic development in Birmingham, *International Journal of Urban and Regional Research*, Vol. 29, No. 4, pp. 916–33.

*Mommaas, H. (2004):* Cultural clusters and the post-industrial city: towards the remapping of urban cultural policy, *Urban Studies*, Vol. 41, No. 3, pp. 507–532.

*Noll, R. G., Zimbalist, A. (1997): Sports, jobs and taxes: the economic impact of sports teams and stadiums, Brookings Institution Press, Washington.*

*Committee on Sporting Singapore (2001): Report of the Committee on Sporting Singapore, Ministry of Community Development and Sport, Singapore.*

*Rich, W. R. (2000): The economics and politics of sports facilities, Quorum, Westport.*

*Roberts, B., Kanaley, T. (2006): Urbanisation and sustainability in Asia: case studies of good practice, Asian Development Bank, Manila.*

*Roche, M. (2000): Mega-events and modernity: Olympics and expos in the growth of global culture, Routledge, London.*

*Rosentraub, M. S. (1999): Rebuilding Yankee Stadium: the case for private investment, Viewpoint, American Planning Association, Chicago.*

*Rosentraub, M. S., Swindell, D., Przybylski, M., Mullins, D. R. (1994): Sport and downtown development strategy: if you build it, will jobs come?, Journal of Urban Affairs, Vol. 16, No. 3, pp. 221–239.*

*Sack, A. L., Johnson, A. T. (1996): Politics, economic development and the Volvo-International-Tennis-Tournament, Journal of Sport Management, Vol. 10, No. 1, pp. 1–14.*

*Searle, G. (2005): Uncertain Legacy: Sydney's Olympic Stadiums in: B. Stiffler, V. Watson (eds): Dialogues in Urban and Regional Planning I, Routledge, London.*

*Shaw, S., Bagwell, S., Karmowska, J. (2004): Ethnoscapes as spectacle: reimagining multicultural districts as new destinations for leisure and tourism consumption, Urban Studies, Vol. 41, No. 10, pp. 1983–2000.*

*Shropshire, K., Dunn, R. (1996): The sports franchise game: cities in pursuit of sports franchises, events, stadiums and arenas, Journal of American Planning Association, Vol. 62, No. 3, p. 407.*

*Smoke, P (1999): Understanding decentralization in Asia: an overview of key issues and challenges, Regional Development Dialogue, Vol. 20, No. 2, pp. 1–17.*

*Stiftel, B., Watson, V. (2005): Dialogues in Urban and Regional Planning I, Routledge, London.*

*Suresh, V. (2000): Options for Urban Infrastructure Development, in: K. Singh, B. Ta'I (eds.): Financing and Pricing of Urban Infrastructure, New Age International, New Delhi.*

*Swindell, D., Rosentraub, M. S. (1998): Who benefits from the presence of professional sports teams? – The implications for public funding of stadiums and arenas, Public Administration Review, Vol. 58, No. 1, pp. 11–19.*

*Teaford, J. (1984): The unheralded triumph, Johns Hopkins University Press, Baltimore.*

*Urban Redevelopment Authority (2001): Concept Plan 2001, Urban Redevelopment Authority, Singapore.*

*Yuen, B. (2005): A Leverage for City Development: Learning from 117th IOC Session, Valencia Summit 2005, Instituto Noos, Valencia.*