

Mega Sports Events  
– Can we, will we, should we go for such events in Copenhagen?



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**Mega Sports Events  
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Copenhagen?**

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**Center for Tourism and Culture Management**

Solbjerg Plads 3, B 3. sal 2000 Frederiksberg

Phone +45 38 15 34 50 [tcm@cbs.dk](mailto:tcm@cbs.dk) [www.cbs.dk/tcm](http://www.cbs.dk/tcm)

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The Working Paper series for the Center for Tourism and Culture Management (TCM) at Copenhagen Business School deals with service economics and management with a focus on tourism, culture, leisure and aviation, in addition to, the experience economy.

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Questions or comments can be addressed to

Center Director Lise Lyck  
Center for Tourism and Culture Management  
Copenhagen Business School  
Solbjerg Plads 3, B. 3<sup>rd</sup> floor  
2000 Frederiksberg  
Denmark

Phone: (+45) 38 15 34 50

Mail: [tcm@cbs.dk](mailto:tcm@cbs.dk)

[www.cbs.dk/tcm](http://www.cbs.dk/tcm)

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Center for Tourism and Culture Management

Solbjerg Plads 3, B 3. sal

2000 Frederiksberg

Denmark

Phone +45 38 15 34 50 [tcm@cbs.dk](mailto:tcm@cbs.dk)

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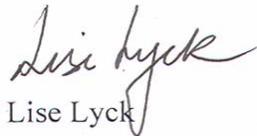
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### **Introduction**

A conference on Mega sports events took place at the Copenhagen Business School on the 1<sup>st</sup> of September 2006, see the attached program. This publication presents the paper written for the conference by Lise Lyck.

Centre Director



Lise Lyck

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Lise Lyck  
Centre Director for Centre for Tourism and Culture Management  
Copenhagen Business School  
Solbjerg Plads 3, 3. B  
2000 Frederiksberg  
Phone +45 38153464  
E-mail: ll.tcm@cbs.dk

Presented at ‘The Copenhagen conference on the economic and social impact of hosting mega sports events’, September 1<sup>st</sup> 2006 at Copenhagen Business School, Solbjerg Plads 3, SPS01.

## Introduction

Mega events are normally defined as “short-term events of fixed duration” (Harry H. Hiller, 1998, vol 1, no.1) or as “short-term events with long term consequences for the cities that stage them” (Richie, M. 2000). Studies of economic and social consequences, and impacts, often take their departure in the last mentioned definition.

Mega sports events are not a new phenomenon as they can be followed back to the Olympics of Ancient Greece. Now, however, there is an increased worldwide interest in both mega events and mega sports events as a direct effect of high income and more leisure time devoted to these activities. Greg Adranovich et al. (2001) argue that a new and potentially high-risk strategy for stimulating local economic growth has emerged. They see the reason for this, as competition among cities on jobs and capital at a global scale. They define the mega events strategy as a competition on high-profile events that can serve as a stimulus to, and as a justification for local development.

This development has resulted in researchers writing many articles and books on mega sports events. This book ‘The Economic of Staging the Olympics’ written by Holger Preuss (2004) includes for instance no less than 30 pages of references. The researchers have their background in economics, sociology, anthropology, tourism, regional economics and other disciplines, i.e. in a wide spectrum of scientific disciplines. Furthermore, several journals are published presenting both theoretical and applied studies on mega sports events. Among others are *Journal of sports economics*, *International journal of tourism research*, *Regional studies*, *Southern economic journal*, *The sports journal* and *Journal of urban affairs*. Although the research findings are comprehensive, they are often omitted when new mega sports events are discussed.

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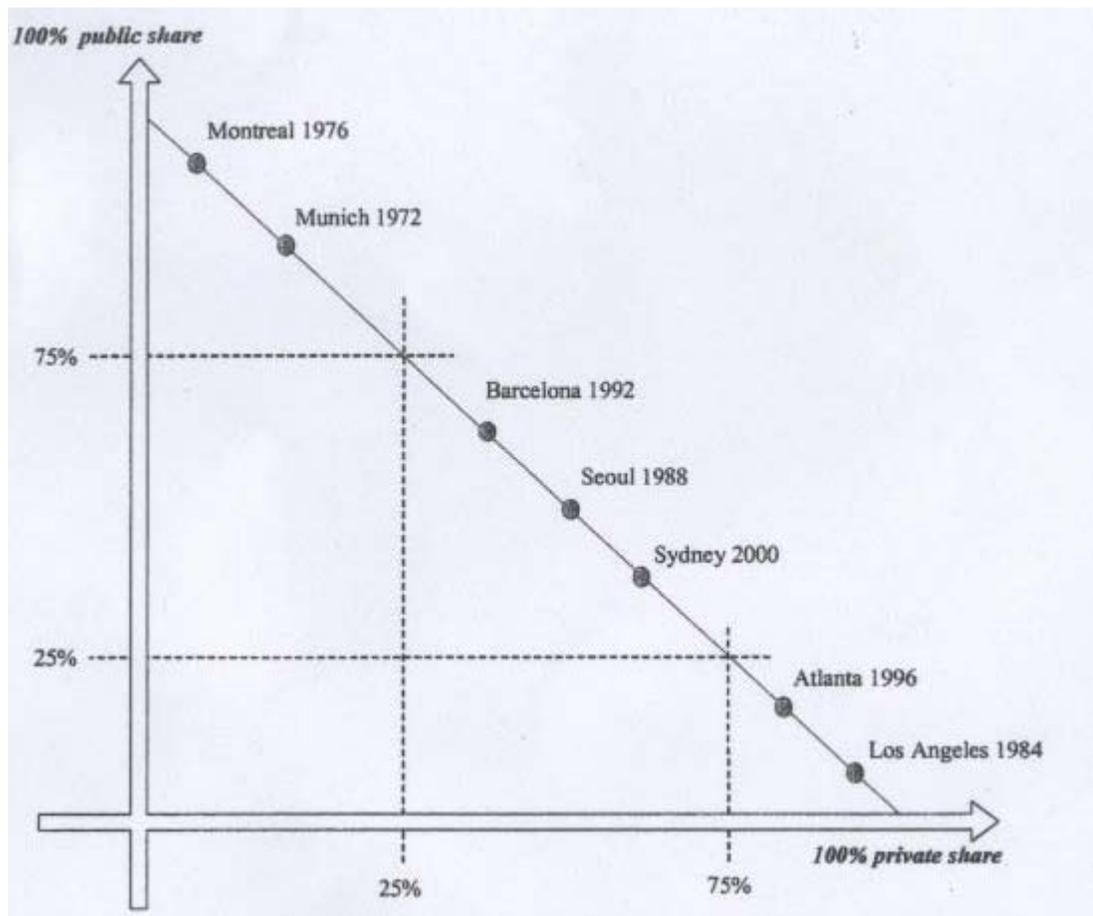
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People taking the initiative to bid for new mega sports events often order studies from consultants, creating mutual stakeholder interests in the projects. The reason for not including the research findings might be that the research findings do not generally give rosy results and positive consequences of mega sports events.

This article presents the main problematics on mega sports events as well as methods and models available to investigate the impact of these events. Furthermore, the article presents some of the applied studies on mega sports events as a background for comments on the only Danish mega sports event study presented by Rambøll Management. The aim of this article is to open up for a more research-based debate on having mega sports events in Denmark.

### The problematics of mega sports events

The crucial point concerning mega sports events is that they are so big and financial demanding, that both private and public financing are needed to have them realized. The mixture between private and public financing for the Olympics can be seen in figure 1.



Figur 1: Preuss (2004:19) Financing models of the Games from Munich 1972 to Sydney 2000

In small economies and countries with a big public sector, the largest part of a mega sports event will normally be publicly financed. It raises a decisive question: Can such a

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public spending be legitimised?

The sheer size of the project also gives rise to another fundamental question: Is it reasonable to engage in a mega sports event, if it will be a big part of the whole economy? Imagine for instance a small economy having full employment at the time, when the mega sports event takes place. This can ruin the whole economy totally by inflation and it can be impossible to have precise information about the business cycle when the decision on the mega sports event is made and consequently it can be impossible to know the position of the business cycle. In other words, labour reserves will be needed if a mega sports event shall avoid the risk of destroying the economy.

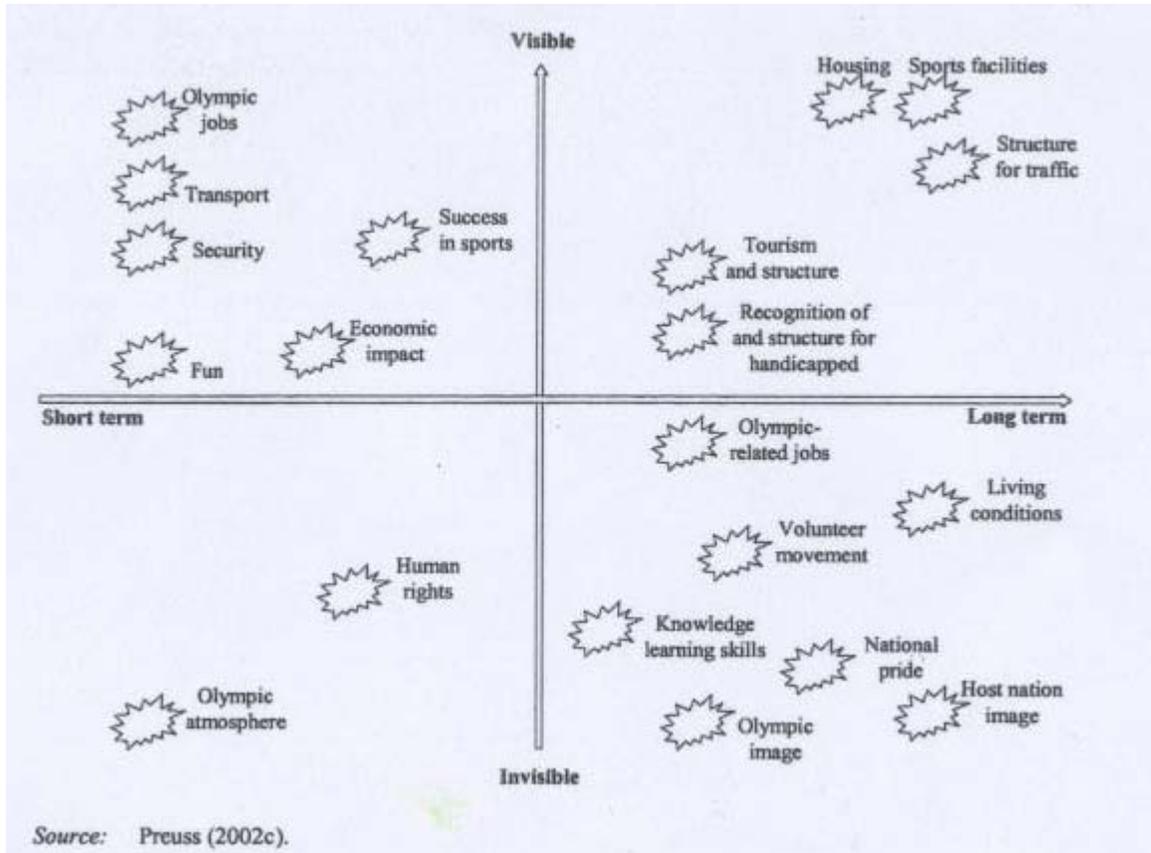
The decision-making on public participation in mega sports events is extra difficult because the costs are normally rather easy to calculate based on market prices while the outcome normally includes imputed calculations of benefits from the project. Furthermore, the projects are comprehensive and complex, hence it is always questionable how many impacts outside the main project it will be reasonable to include. The tendency in the promotion of mega sports events is that still more impacts outside the core activity are included.

Another important question is how long a period shall be included before and after the event takes place. The tendency is to include positive elements for a still longer period of time.

Calculations are usually forecasts. However, research comparisons of forecasts of events to studies made after the events have taken place almost always show that the forecast was too optimistic. The reason for this is caused by two sources of failure. One is the use of too high income multipliers (multipliers between 1.5 and 2.0), and the other is that only additive elements (positive) of an event are included. In many research studies it is found that including deductive (negative) elements are of decisive importance for the total result. Negative factors as well as the time perspective can be seen for Sydney in figure 2.

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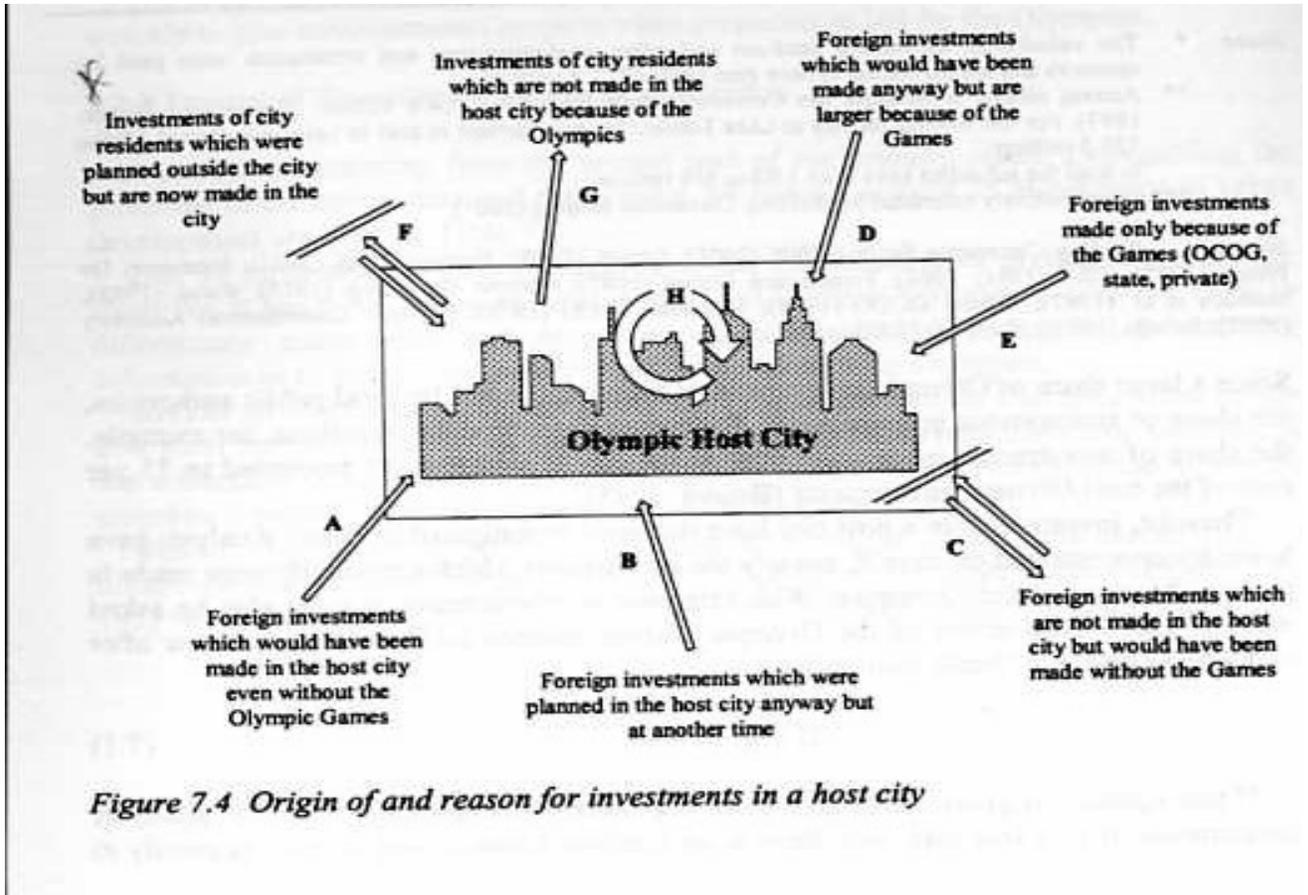


Figur 2: Preuss (2004:26) Impactmatrix of the Sydney 2000 Olympic Games

The net economic consequences can be found by use of an input/output model for activities, showing that some activities replace other activities by crowding them out. For investments it can for instance be illustrated as in figure 3.

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Figur 3: Preuss (2004:86) Origin of reason for investment in a host city

As seen from this overview an open and transparent analysis is needed if public money shall be invested in mega sports events in a legitimised way. The citizens must be able to see how their money is spent and for a plurality of the citizens it must make sense to spend public money on mega sports events.

Finally, it is decisive to choose the best investment alternative. This is difficult because it is not only to decide among different mega events but also to compare a series of smaller projects to mega projects in order to achieve the highest social utility of the investments.

### **Methods and models to estimate the consequences of mega sports events**

Different kinds of analysis can be applied. Most recommended is to use cost-benefit analysis and input/output analysis as they intend to include all impacts. A cost-benefit analysis is an investment analysis that includes costs and the value of the production of the investment. The method can be used as a forecast to determine future gains of an investment not yet made. It is most commonly used to assist governments to decide whether an investment, for example a new metro, a bridge or a hospital is worth making, but it can also be applied to decide whether it is worth investing in a mega sports event,

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such as the Olympic Games or an international soccer championship. The question the analysis seeks to answer is if the benefits of the investment equals or surpasses the costs. To answer this question, all the costs and benefits have to be identified, including both public and private monetary and non-monetary costs and benefits, such as all externalities, including derived indirect costs and benefits.

The method can also be used after an investment has been made to monitor the actual costs and benefits. Such analysis is mostly found in research studies as the original initiators and consulting agencies normally will have no interest in such studies. The value determination in cost-benefit analysis is difficult, due to the fact that products often do not have a market price. To estimate the value of a project, two different kinds of methods can be used: *indirect* and *direct*. *Indirect methods* are used to determine the value of a good by looking at individuals' *actions* in given situations *connected* to the good. *Direct methods* are used to determine the value of a good by looking at how much individuals are - or would be- willing to pay for the good. Among the indirect methods, the travel cost method is most used. The idea is that the value of a good can be found by looking at how much individuals are willing to spend on getting the good. Among the direct methods, the contingent valuation method is most used. People are asked how much they would be willing to pay for a good if it existed. Often people are asked about different goods in order to achieve a priority of their preferences, i.e. to get a ranking of the goods.

Input-output analyses measure the input needed to achieve output or what output can be achieved by use of different input in the production function. An input-output analysis is often a part of the national account and can thereby measure the impact on income (Gross Domestic Product) and on employment. The method makes use of income multipliers and technical coefficients. The method will overestimate the consequences of a mega project if the income multipliers used are too high and if the technical coefficients are imprecise.

If a decision on a project is already taken, for instance in terms of a political decision, a cost-effectiveness analysis can be used to measure which of two or more different investments is most cost-effective to obtain a specified goal. This method, however, can be problematic in certain situations. In the case of hosting a mega sports event you want to find out which is the most cost-effective way to transport the spectators around town. You might find out that a temporary increase in the number of busses and routes is the most effective solution, this however, does not take into account that the temporary investment in the busses is worth, next to nothing, once the mega sports event is over, as would not be the case with more expensive solutions like expanding the metro-net.

A cost-utility analysis can be used under some circumstances. It intends to take multiple effects of an investment into account. This is done by aggregating several effects of an investment in non-monetary terms. This form of analysis makes it possible to measure all aggregated effects of two or more different investments against each other. As it does not measure the effects in monetary terms, it is not possible to determine how to measure the costs and the effects against each other.

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In conclusion, the cost-benefit analysis is the most recommended analysis to apply in the case of determining whether or not to invest in a mega sports event. Furthermore, it is recommended not to mix the different methods as this may lead to a lack of transparency and lack of trust to the results of the calculations. Finally, it is extremely important to distinguish between promotion and analysis if the analysis shall be trusted by citizens.

### **Applied studies**

As mentioned in the introduction, a lot of studies are accessible in books and journals. A selection of those studies shall be mentioned here to draw attention to different angles and perspectives of such studies. A mentionable study is ‘The Economics of Staging the Olympic’ by Holger Preuss (2004). It is based on a comprehensive model that can be applied to a single mega event, but especially interesting is that it includes a comparison of the Games from 1972 till 2008. The question about comparisons is always rather difficult to deal with in practice, because the context and the basic conditions are different in relation to both time and place. However, the study is done very thoroughly which makes a comparison in relation to many important variables realistic. For instance it is interesting to compare the Olympic aftermaths in relation to price increases and economic legacy. The most questionable part is found to be the size of the income multipliers found and presented on page 45 which is also included in the overall analysis.

Another interesting study is made by Baade R. A. and Matheson V. A. (2004). It focuses on the World Cup, which is the world’s second largest sporting event. The 2002 World Cup, co-hosted by Japan and South Korea, spent a combined US \$4 billion on building new facilities or refurbishing old facilities in preparation for the event. Applying an ex-post analysis of the 1994 World Cup held in the US indicates that the economic impact of the event cannot justify this magnitude of expenditures and the cumulative losses of US \$5.5 to US \$9.3 billion as opposed to ex-ante estimates of a US \$4 billion gain forecasted by event ‘boosters’, that the host-cities experienced.

Lee, C. K. and Taylor, T. (2005) also made a study on the 2002 World Cup in South Korea. This is of special interest, because they use an estimation method that excluded tourists whose travel was non-events related. The study showed that inclusion of the expenditure by non-world cup tourists (42.3 %) in the calculation of the impact would have resulted in a significant overestimation due to the further multiplication of the expanded figures by an input-output analysis, thereby misleading the net economic impact of the event. The learning from this study is that models of impact assessments are not trustworthy, if they do not conceptualise aversion and diversion effects in economic forecasts for mega events.

If especially ex-ante models and forecasts compared with ex-post results are the focus, Evangelia Kasimati has made an interesting study of the economic aspects of summer Olympics. The study examines and evaluates methods and assumptions used by the economic forecasts. The study is of interest to policy makers and potential future hosts of mega sports events as it tries to identify and measure different sources of misinformation.

The study made by Chris Gratton, Nigel Dobson and Simon Shibly (2000) is also of

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special interest because it studies the results of six major sports events held in the UK in the same year. The case studies indicate that there is a wide variability in benefits and the difficulties encountered to forecast compress to what those benefits would be ex-post. The study is interesting because it attempts to develop a typology of different kinds of sports events in terms of their potential to generate a positive economic impact.

A study especially focusing on the impact on cities hosting mega sports events including 57 cities in the US have been investigated in a regression analysis. The study shows that the impact for the different cities has been remarkable. For instance the job implication for the summer Olympics in Los Angeles and Atlanta were fundamentally different. Another interesting result of the study is that the Olympics do not generate the sort of clustering which are characteristic of high-growth areas as found by Mills (1992). To a significant degree the Olympics represents an alien industry, one that does not connect or mix well with established businesses.

Mega sports events normally take place in industrial or post-industrial cities. An exception to this was the bid for the 2004 Olympics by Cape Town, South Africa, which was the first bid from Africa. The interesting aspect by this bid was that it represented a form of urban/national boosterism that repositioned South Africa in the global economy. It was a pro-growth strategy advocated by political and economic elites and the Olympic bid was less important as a sporting event. In other words, the main purpose was to promote South Africa and create a new image of a country in progress and in this way create a distance and a farewell to the former South African history.

Finally, mega sports events can be looked at from a more general perspective as an avenue of tourism development. This is done in a study made by James Higham (1999). It includes a table that summarizes contrasts based on the scale of sports. It is presented in table 1.

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**Table 1: Higham (1999:85) The tourism development potential of sports: Contrasts based on the scale of sports.**

<i>Sporting mega-events</i>	<i>Regular season</i>
<i>Bidding process:</i> Major costs associated with the bidding process. Public expense of bidding inflated (occasionally to crippling levels) by political corruption and sponsors interests. Best bid not necessary successful. Furnishing political and sponsors' interests contributes to success.	Minor expenses incurred during the bidding process. In some cases the bidding process is not required at all (e.g. regular season sporting competitions). Most suitable bid usually successful.
<i>Development issues:</i> Significant development costs associated with sporting events such as the Olympic Games and the America's Cup. Economic benefits associated with infrastructural developments received by business interests rather than host community.	Infrastructure generally exists. Takes place within the capacity thresholds of the host city. Infrastructural developments costs usually appropriate to the scale of the host city.
<i>Development legacy:</i> Legacy of under-utilised and expensive facilities with associated financial debt.	The upgrading of facilities (if necessary) benefits sportspeople, spectators and administrators.
<i>Economic benefits:</i> Dominated by big business and sponsors. Local residents see comparatively little economic benefit. Effective means of taking money from the public purse and relocating it in private interests.	Local community more likely to share in the positive economic benefits associated with sport. Far less burden placed on public funds.
<i>Short-term tourism benefits:</i> Short-term upswing in tourism offset by time-switching. Displacement of tourists commonly associated with mega sporting events. 'Sports junkies' demonstrate little interest in sampling the wider tourism product at the destination.	Visitors are likely to be more frequent travellers rather than time-switchers. Less displacement of tourists occurs if sports complement the scale of host city infrastructure. Tourists likely to experience wider tourism product of the destination.
<i>Medium-term tourism benefits:</i> Medium-term downturn in long-haul tourism associated with mega-events due to time switching.	Medium-term tourist patterns unlikely to be influenced by time-switching.
<i>Destination image:</i> Much to lose from poor publicity, capacity constraints, financial costs, political activism and terrorism.	Destination image stakes not so high. Great potential for sport tourism to act as a promotional vehicle if opportunities are recognised.
<i>Social issues:</i> Crowding and congestion of tourism infrastructure often associated with mega-events. Local residents often excluded from participation in the event due to cost. Local lifestyles generally disrupted by mega-events and security issues.	Crowding and infrastructural congestion less likely to exist if the scale of the occasion is appropriate to host city. Greater potential for local resident involvement in the sporting occasion.
<i>Local resident issues:</i> Displacement or removal of local residents takes place where cities are eager to capitalise on destination image. Facilities often developed in lower socio-economic areas. Host community displacements, evictions, increases in rates and rents.	Negligible impact on local residents. Positive impact on those who choose to be involved. Greater levels of local access to sporting occasions.
<i>Political issues:</i> Possible hijacking of sport as a political vehicle.	Lack scale and importance to be used as a political vehicle.
<i>Security issues:</i> Significant security cost and risks associated with sporting mega-events.	Negligible security issues and financial costs associated with sporting occasions.

In conclusion: It is easy to see that general as well as more specific angles and

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perspectives of mega sports events as and comparisons in time, types of events and places are covered by the existing literature. A treasure of knowledge is included in the studies open for anyone to make use of.

### **The Danish mega sports event study**

The study is entitled 'OL til Danmark – Potentialer og Barrierer'. It is a study made by Rambøll Mangement in February 2006. It is the first Danish study on the subject and it touches many issues of the problematics connected to mega sports events. It is a pioneer study and therefore of interest to debate on mega sports events in Denmark. The methodological approach and the calculations can be criticised for not being transparent and qualified for decision-making but as a first approach it can be a starting point for debate and further studies on the impact of mega sports events.

### **Perspectives**

To decide whether to have a mega sports event is a difficult task. It raises three important questions; can we do it, will we do it, and should we do it.

#### **Can we?**

The first question is about our abilities to meet the qualifications and requirements demanded. It involves both economic requirements to facilities and questions on financing as well as demands to master the variety of the disciplines in a mega sports event. Especially the financing and the sports facilities and requirements can be difficult to achieve.

#### **Will we?**

The question about 'will we', is extremely depending on the role of sport in the culture and of the leisure preferences of the population. It depends on social economic variables. In Denmark our youth culture is not particularly active in elite sports. Both the sociological pattern concerning introduction to alcohol when you grow up and the preferences for a well-trimmed body are prioritised opposed to a body developed by different kinds of sports. Furthermore, in Denmark team sports are preferred and especially team sports where spectators can party during and after the game.

Some events require a local backup among the population. For instance, hosting the Olympics demands a backup of minimum 60 percent of the population. When Stockholm made their bid to host the Olympics, this requirement turned out to be impossible to achieve. In Denmark, the same difficulty can be foreseen.

#### **Should we?**

The final question if we should decide on a mega sports event is not possible to answer with the existing knowledge in form of cost-benefit studies, and citizen as well as political attitudes to mega sports events. Based on the present information, however, it is possible to conclude that it will be a high risk strategy, for an economy such as the Danish economy to implement a mega sports events strategy.

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