Legacy Planning for Major Multi-Sport Events

vs

Faith, Hope and Charity!©

By: J. Lane MacAdam

A thesis submitted in conformity with the partial requirements for the degree of Masters of Business Administration (Sport Management), Faculty of Management
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A Thesis entitled

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By

J. Lane MacAdam

I certify that this Thesis submitted by J. Lane MacAdam conforms to acceptable standards, and as such is fully adequate in scope and quality. It is therefore approved as the fulfillment of the Thesis requirements for the degree of Masters of Business Administration.

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2011

CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions or writings of another.

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ABSTRACT

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Not unlike many nations that have bid for and hosted major multi-sport events, franchise holders and their backers in countries around the world routinely cite a number of benefits that will accrue to their country in order to garner the public and private support required to successfully bid for and stage international level major multi-sport events. These benefits include: sport development; social, cultural, economic and community benefits, among others, derived from hosting international level sport events.

Canada has an enviable record of hosting major multi-sport events. We have staged them often and we have hosted them well. Since 1967, Canada has hosted almost every major multi-sport event available to it. Billions of dollars in public expenditures have been made in support of these events from all levels of government. But do the promises that are made to convince governments, community leaders and the general public deliver the benefits that they advertise?

This research paper will examine the legacy aspects of major multi-sport games from the vantage point of **community development, economic impact** and in particular **sport benefits.** It also offers a conceptual framework to evaluate the sport benefit legacies and introduces the Major Event Return Legacy Index (**MERLIN**©).

The prospect of hosting a major multi-sport event attracts a multitude of eager bidders in pursuit of tangible and intangible legacies for a nation. However, the rising complexity and spiraling expenditures necessary to secure, plan and stage these events require more robust assessment tools to properly measure the cost/benefit of supporting these mega projects. This research paper will contribute to the body of knowledge available to assist franchise holders and policy makers in determining the true legacy benefits that can be derived from hosting a major multi-sport event instead of relying on *faith, hope and charity!*

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CHAPTER I

Introduction

> **Just as the IOC predicted seven years ago, the Beijing Olympic Games would "leave a unique legacy for both China and sport as a whole."**
>
> (Xinhua News- September 2008)

The above statement could have foretold the legacy promises made by many other major multi-sport events held around the world over the last twenty years. When examining the extensive list of proposed benefits that are claimed to be generated from the bidding, planning and staging of major multi-sport events, one could easily transpose the city name and date of the event from which these benefits are said to be achieved.

Beyond the required elements typically included in a candidacy application for a major multi-sport games event such as competition venues, or finances, or event logistics, is the concept of legacy. Proponents of these large scale sporting spectacles will often use legacy benefits as a public relations lever to influence public support for a particular bid. The promise of new and improved sport facilities, accelerated urban transformation, economic and business improvement, enhanced image and pride are aspects of legacy used to shine the best possible light on a city or country as part of a competitive bidding process. In addition, legacy considerations are also used as a distinguishing feature in a candidacy to differentiate a particular bid from the competition with a view to favourably influencing the event selectors.

When the 2004 Olympic Games were awarded to Athens in 1997, it was expected that the Athens Olympics would act as a “catalyst to promote modern sport and culture in Greece” (Kissoudi, 2009, pp. 1972-1973). Kissoudi reported that the Games “would provide the Athenians with a unique opportunity to update city infrastructure and acquire new sports facilities to enjoy for years to come… The enduring benefits of the post-Olympic use of the facilities to the economy, culture, sport and tourism in Greece still remain to be seen” (Kissoudi, 2009, p. 1987).

> **“Clearly, the Athens Olympics, it was widely agreed, should not be just a two-week flash in the pan”**
> (Kissoudi, 2009)

In contrast, the 1988 Olympic Games in Seoul, Korea represented a turning point for the Korean people. “ It engendered pride and unity among the Korean people. That unity and pride served as a prime motivation for Korea to accomplish much in the fields of politics, economics, culture, sociology, science, academics, sports, diplomacy, tourism and medical science” (Un-Yong, 1990, pp. 15-16).

For the 2008 Olympic Games in Beijing, they are regarded as a logistical success, with even some progress on environmental concerns. For the Chinese government, the Games and the performance of the Chinese team were a great source of national pride. According to Rabkin, the games were “seen as a symbol of China's pride and place in the world, while protests against the relay that occurred overseas were presented in the state media as the attempt of foreigners to deny the Chinese people that place” (Rabkin, 2008, p. 1).

From an economic impact perspective, some sectors of the economy may have benefited from the influx of tourists, and other sectors such as manufacturing lost revenue because of plant closings related to the government's efforts to improve air quality. “It is generally expected by economists that there will be no lasting effects on Beijing's economy from the games” (The Economist, 2008).

The above experiences have attempted to be repeated many times over as nations have piggybacked on major multi-sport events to advance larger areas of interest that extend well beyond a global sporting competition. The benefits that are typically identified include areas such as sport development, social, cultural, economic and community benefits expected to be to derived from hosting international level sport events. However, these benefits come with significant costs in financial and human resource terms. Also, negative impacts such as high construction costs for facilities and

other public infrastructure, inflationary pressures, and environmental concerns, among others, need to be considered as well.

In recent years, due in part to the real or perceived benefits that can be derived from the hosting of major multi-sport events, there has been a proliferation of events on offer ranging from mature event properties such as the Olympic Games, the Pan American Games and the Commonwealth Games, to new events such as the Olympic Youth Games and the Commonwealth Youth Games. The reason for the introduction of these events has as much to do with the desire for franchise holders to keep their brands before consumers (and in particular youth markets), as it does to quench the strong demand by cities around the world to attract these events to their country and thereby join in the quest to improve their domestic image and chase the real or perceived legacy benefits that they purport to offer.

But do the promises that are made to convince governments, community leaders and the general public, deliver the benefits that they advertise or are they just "benefit hyperbole" (Baade and Matheson, 2000, p.132) used to convince decision makers to pursue a particular event bid? Whitson and Horne point out that "advocates for mega-projects tend to make optimistic economic estimates, whilst opponents worry about public debt and about the 'opportunity costs', when public money is spent on architecturally dazzling stadia and other spectacular infrastructure" (Whitson and Horne, 2006, p. 73).

Haxton continues by suggesting that there is more and more scrutiny from communities surrounding games bids. "The rising cost and uncertainty surrounding both promoted benefits and possible costs … it is perhaps not surprising that groups within host communities have begun to query the wisdom of undertaking such a risky assignment… to ensure that the image portrayed to the world is one with which they are comfortable and even more importantly to ensure that a white elephant is not the only legacy left after hosting an Olympic Games" (Haxton, 2000, p. 145).

In Canada, the experience of the 2010 Vancouver Winter Olympic and Paralympic Games was recognized by senior levels of government as a "catalyst for implementing, enhancing, and/or accelerating programs for individuals, organizations, and communities" (Pricewaterhouse Coopers, 2009, p. 1). Based on these goals, the Federal and Provincial governments identified their desire to assess the economic and social impacts of the Games covering a five-year span from 2008 to 2013. This is one of the first such studies to be conducted covering such a broad range of variables over a long term horizon.

From a sport legacy perspective, Cashman notes that "it is rarely the sport legacy that is stressed in discussions about legacy, but the economic and tourism legacies. However, no satisfying definition of any type of 'legacy' is available. One reason may be that legacy is often assumed to be selfevident, so that there is no need to define precisely what it is" (Cashman, 2005, p. 15).

Given this predilection to gloss over the sport legacy aspect in favour of the economic and community development factors associated with hosting mega events, the sport factors have been largely ignored, assumed and rarely measured. In a literature review conducted by Brown and Massey for UK Sport, they note that there is a "paucity of research material on the sports development impact of major sport events" (Brown and Massey, 2001, p. 3). On this basis, what one would assume to be a well defined series of sport legacy outcomes turns out to in fact be the opposite. This paper will explore the sport legacy variables involved in large scale events, and introduce a conceptual framework called **MERLIN©** to measure the contribution that the 'sport' part of major multi-sport events makes to the legacy of these spectacles.

This research paper will contribute to the body of knowledge available to assist franchise holders (such as the International Olympic Committee) and policy makers (such as various levels of government) in determining the range and scope of legacy impacts that can be derived from hosting a major multi-sport event with a particular focus on sport legacy. This in turn will hopefully allow decisions to be made using solid analytical tools instead of relying on *faith, hope and charity!*

CHAPTER II.

Purpose and objectives

While the concept of major multi-sport games legacies can be quite broad as discussed in the next chapters, this research paper will examine the legacy aspects of major multi-sport games from the vantage point of **economic impact, community development,** and particularly **sport benefits.** It will also offer a conceptual model to evaluate the sport legacy benefits and also introduce a measurement model called the "Multi-sport Event Return Legacy Index" or **MERLIN©**.

Economic impact:

> **In part, cities and countries invest in the Olympics because of the prestige and the opportunity to make a political statement, but it is arguable that the primary motivation for hosting the Games is economic.**
>
> (Baade and Matheson, 2000, p.127)

Easily the most often trumpeted legacy benefit is the economic impact that measures the multiplier effect of direct games expenditures from the event capital and operating budgets and related visitor expenditures. The 1988 Calgary Olympic Games claim to have contributed about $1.4 billion to the Canadian economy during the 1980s through capital projects, planning and operations, visitor expenditures and induced economic benefits. The Games' host province, Alberta, benefited from 70 percent of the economic effects, including 27,400 person-years of employment (Ministry of State for Fitness and Amateur Sport, 1986).

Over twenty years later, the Vancouver 2010 Olympic and Paralympic Games projected $3.3 billion in *total* GDP, including potential multiplier impacts and employment impacts of 77,000 total person years spread throughout the 2008-2015 period (InterVISTAS Consulting Inc., 2002).

This paper will briefly discuss the prevalence of analyzing the economic impact of major games as well as outline the shortcomings from these measurements.

Community development:

Proponents of major multi-sport events will invariably refer to a series of community benefits that will be generated from hosting large-scale sporting events. These benefits range from enhanced volunteerism, upgraded skills training, accelerated non-sport infrastructure development (ie. transportation) and environmental sustainability. These factors can be measured using a combination of quantitative and qualitative assessment tools. While there are proponents that will argue that all of these benefits are positive, others will posit that "rising housing costs, mistreatment of the homeless, road closures, and venue closures create inconveniences for many people" (Gladish and Gable, 2009).

Balsas notes that

> hard physical legacy of events, as positive effects do not necessarily 'trickle down' to local people and small businesses. Therefore, softer economic and social considerations also need to be addressed. Some events have involved deliberate attempts to encourage economic and social regeneration by providing new skills and support for local people…. As volunteers are needed to help stage events, by offering training and giving volunteers employment experience, new skills can be nurtured"
>
> (Balsas, 2004 in Smith and Fox, 2007, p. 1128).

This paper will briefly discuss the most common variables and how they have been used to assess the impacts from an event.

Sport benefits:

As a sporting event, it would stand to reason that hosting a major multi-sport event in a country would produce some very tangible sport related legacies such as improved sport

and recreation infrastructure, enhanced programming for high level sport and increased opportunities for civic participation in sport and physical activity, among others. Yet these legacy aspects are often assumed and generally not properly evaluated, planned for or measured. Almost four years after the 2004 Athens Olympic Games and 11 billion euros invested in the project, the post event use of the facilities was still a source of embarrassment for the country since they were not constructed with a long-term viability plan (Kissoudi, 2009, p. 1987).

In the case of the London 2012 Olympic Games, the concept of sport legacy evolved considerably compared to previous bids in 1992 and 2005 and "indicates that the three previous unsuccessful bids mainly addressed local or regional affairs and were not concerned with sport legacy issues" (Girginov and Hills, 2008, p. 2100). This research paper will explore the sport benefits that can be derived from hosting major multi-sport events and propose a more robust measurement of legacy benefits with the introduction of a conceptual measurement model called the Multi-sport Event Return Legacy Index (**MERLIN©**). **MERLIN©** will be developed in order to assess the sport benefit impact of hosting a multi-sport event before the event is awarded, as well as measure the sport legacy after the games are over.

Research problem

History shows that there are examples of both positive and negative legacies from hosting large scale sporting events. The Barcelona Olympic Games in 1992 are widely acknowledged as having been successful on a number of measures. By contrast, the Athens Games in 2004 less so. So the question arises, do legacy benefits from major multi-sport events hold up to the claims that the event will generate the community development, economic impact and sport benefits that they promise? If so, what evidence is there that these claims are fulfilled?

In particular, how can sport benefits be measured in order to assess the strength of a bid as well as determine if these benefits will last beyond the short-term duration of the event?

Research questions

This paper will examine a number of questions:

What value does economic impact projections have in convincing policy makers (governments) and private sector backers to support the event?
As stated earlier, the economic arguments are the most often referred to when justifying bidding for and hosting major multi-sport events. Do the pre-event promises and rosy economic claims hold up to the stark post-event realities when the memories fade and the party is over?

How are community benefits defined, evaluated and reported on?
In the discussion, an attempt to cluster a series of community development factors will be undertaken. This softer side of legacy analysis is becoming more and more prevalent as bidders and event property owners realize the complexity and costs of attracting would-be hosts.

Finally, how can sport benefits be more robustly evaluated and quantified in order to ensure that these benefits are properly planned for and maximized?
Given the scarcity of reliable research on this aspect of legacy analysis, it is hoped that the concepts contained in this research report will shed new light on the sport focus of these events.

Research study approach

In undertaking this research project, a series of methods were employed, including: an extensive literature review using the world renowned Sport Information Resource Centre database (DISCUS); interviews with key informants; personal and professional experience in sport administration within government and as CEO of a Canadian major games franchise holder (Canada Games Council); and the development of a conceptual sport legacy framework and a measurement model called **MERLIN©.**

CHAPTER III

Why countries bid for major sport events

"We should not ask how much Brazil is going to spend, but how much it is going to win with the Olympic Games,"

(Brazilian President Luiz Inacio Lula da Silva, 2009).

According to Canadian Olympian and historian Bruce Kidd,

> …mega-projects like the Olympic Games require a tremendous investment of human, financial, and physical resources from the communities which stage them. Not surprisingly, bidding for and staging a public festival on this scale can be a highly charged political exercise, requiring the most consummate skills of negotiation and consensus building from those in the leadership.
>
> (Kidd, 1992, p.154).

Barghchi, Omar and Aman reference Hall when they state: “the mass audiences, celebrities, iconic structures and consumption associated with sporting spectacles mean that they are perceived by cities as valuable examples of ‘mega’ events” (Barghchi, Omar, Aman, 2009, p. 189). Roche defines mega-events as “larger scale cultural (including commercial and sporting) events, which have a dramatic character, mass popular appeal and international significance” (in Horne, 2007, p. 81).

Fry & Willis have suggested that for “places on the margin’, international Games and Expositions are occasions for self-representation, signalling the arrival of once marginal communities into membership in the dominant world order” (Fry and Willis, 1988, in Whitson and Horne, 2006, p.83).

Preuss defines major sport events as “gigantism, less frequently megalomania, the result of the noble contest between organizing cities or countries, of ever trumping one’s

predecessor in grandeur and everything else concerning the event in question". He goes on to state that:

> … large-scale sports events – and not only the largest – have significant impact for the organizers, both in the long and the short run, even though they last only for a week or two. In addition, the largest events are enormously expensive to arrange, but in return bring global media exposure with effects and a value that cannot be achieved in any other way.
>
> (Preuss, 2006, p.1).

Preuss adds "the prospect of a financial surplus and/or the chance to improve the infrastructure of the city are the key criteria that motivate a city to bid for the Olympic Games" (Preuss, 2000, p.245). Malfas notes in a review of the literature on the socio-economic, socio-cultural, physical and political impacts of Olympic Games, that "economic benefits are the prime motive for interests involved in hosting them" (Malfas et al., 2004, in Horne, 2007, p. 85).

Chalkley and Essex explain that the increased size of the Games has produced implications for host cities that extend well beyond the provision of sporting facilities and the organization of the event for the athletes.

> Investment in supporting infrastructure, such as extra and/or improved airport capacity, hotel accommodation, public transport, water and sewage systems and urban landscaping, has also been required to ensure the effective operation of the Games and that the best possible image of the host city is presented to the international audience. For the main participating nations, it has become a quest for national prestige and, for the host city, it is now both a means of achieving international prominence and an instrument for promoting physical and economic regeneration.
>
> (Chalkley and Essex, 1999, pp.369-370)

The sheer size and scope of the Olympics may well blind the suitors for the Games to the substantial financial risks.

(Baade and Matheson, 2000, p.128-129)

Despite the need to mobilize significant multi-faceted resources, the below examples illustrate the degree to which nation's will invest significant human, financial and political resources in their quest to win the right to host major multi-sport events. Table 1 shows the recent bid activity for the Olympic Summer and Winter Games and illustrates the strong competition from would-be hosts. Notwithstanding the hefty price tag to enter the race to host a mega-event such as the Olympic Games, bidders continue to come forward in great numbers. This period of 'bidder envy' contrasts greatly with a time in the late 1970's when Los Angeles was the only serious bidder to express an interest in hosting the 1984 Olympic Games. Following the success of the L.A. Games there were 22 potential host cities interested in the 1992 Games, which were eventually won by Barcelona (Chalkley and Essex, 1999, p.374).

Table 1: recent Olympic bidding activity

	Summer Olympic Games	Winter Olympic Games
2008	10 cities	
2010		8 cities
2012	9 cities	
2014		7 cities
2016	7 cities	

In the most recent bidding contest for the right to host the 2016 Olympic Games, the four shortlisted cities of Chicago, Tokyo, Madrid and Rio collectively spent hundred's of millions of dollars on the bid phase alone. In addition, bidding nations contribute significant political capital as part of their candidacies. Presidents Lula da Silva from Brazil and President Obama from the United States both personally attended the final presentations for their country's bids at the 2009 IOC session where the eventual host city of Rio de Janeiro was declared the winner.

So what do bid backers expect to gain in playing these increasingly high-stake major event lotteries? Whitson and Horne (2006) identify three major reasons for the widespread enthusiasm from countries interested in hosting sports mega-events in the past twenty years. They include:

> 1) the rapid advances in mass communications technology which allows for the creation of massive global audiences.
>
> The 2008 Beijing Olympic Games generated worldwide audiences from TV of 4.7 billion viewers, the largest global TV audience ever (Nielsen Wire). In contrast, the Montreal Olympic Games in 1976 are estimated to have generated viewing audiences of 500 million viewers.
>
> 2) Secondly, there has been exponential growth in television broadcast revenues as a result of these mass audiences.
>
> In 1960, CBS, the American television company, paid US $440 000 for covering the Rome Games. The television rights for the 1996 Atlanta Games were sold for US $900 million and the American NBC network has purchased the rights until 2008 for US $3.6 billion (Chalkley and Essex, 1999, p. 390).
>
> 3) thirdly, and integrally related to the large audiences are significant increases in corporate sponsor revenues.
>
> For exclusive international marketing rights at the 2006 Olympic Winter Games in Turin, a dozen companies each paid the IOC an average of $74 million, nearly four times the rate of such sponsorship in the 1980's (Humphreys, 2008).

However, according to Chappelet, apart from the Olympic Games that have been held in the United States, most games from the 1936 to 1972 were almost entirely financed by the public authorities, before the "emergence of substantial television and commercial rights which began with the Munich Games in 1972" (Chappelet, 1996, p. 84).

Despite the greater proportion of operating budgets that are now covered off by broadcast and sponsorship revenues, the escalating price tag for hosting Olympic level events require significant additional revenues to meet the games operating budget standards. Much of this additional revenue is provided by public authorities that in addition to contributing directly to the staging costs (operations and facilities), also expend exponentially increasing sums of money on items such as security and other essential services.

As evidenced by the most recent staging of the Olympic Games in Athens and Beijing, public authorities are more than willing to make these investments. For the 2004 Games in Athens, they were the most costly Olympics to date at 9.4 billion Euros, 2.4 billion Euros over budget (The Independent, 2008). For the Beijing Games in 2008, the official final accounting came in at $ 43 billion (Cummings 2009, p.1). This does not include investments in other public infrastructure such as roads, airports and other public assets.

Preuss argues that “mega events can also spread a general spirit of optimism, create combined visions, attract exogenous resources and accelerate city development” (Preuss, 2007, p. 207). Haxton adds that “the Olympic Games are more than just a sporting event and, apart from the potential impacts outlined above, they have the ability to influence international opinion and may be used in a similar political fashion to Centennial and Bicentennial celebrations” (Haxton 2000, pp 144-145).

Horne points out that interest in hosting sports mega-events has grown because “just as they are seen as useful in selling of all manner of commercial products, so too are they seen as valuable promotional opportunities for cities and regions, showcasing their attractions to global audiences and helping to attract tourism and outside investment (Horne, 2007, p. 83)

According to Cashman, Sydney's Olympic vision consisted of three main dimensions:

1. the creation of a super sports precinct in western Sydney (Sydney Olympic Park) that would also provide facilities, recreation, leisure and culture.
2. The establishment of an environmental showcase there (what the media dubbed as the Green Games).
3. The global promotion of the city leading to increased tourism and other business benefits (Cashman, 2007, p.2)

For the 1992 Barcelona Olympic Games, organizers aimed to ensure sporting excellence in keeping with the Olympic spirit, and also to bring about a major urban transformation leading to improved quality of life and greater attractiveness for the city as a whole (Brunet 2005, p. 5)

Chappelet, in a presentation at a think tank during the Vancouver Olympic Games in February 2010, suggested that "sport mega-events have replaced wars and dictators as catalysts for accelerated changes" (Chappelet, 2010). He went on to cite the arguments in favour of public support for major sporting events as being divided into three categories: economic impact, image effect, and political and social repercussions (Chappelet, 1996, p. 85)

Whitson and Horne, state that "Canadian cities have had aspirations to promote themselves on a world stage and prove that they are economically dynamic and culturally sophisticated cities" (Whitson and Horne, 2006, p.77). They add that "Canadian cities, on the periphery of international cultural attention until well into the 20th century, the staging of global mega-events has offered a way of putting themselves 'on the map' and showcasing their attractions to international visitors and potential visitors" (Whitson and Horne, 2006, p. 81).

The 1967 World Expo '67 and the 1976 Olympics in Montreal were envisaged as catalysts for major investments in public and private construction. "Just as important, the positive global exposure it was envisaged that Montreal would receive from these

events, both among visitors and the millions more who would see and read about the city in the international media, would confer on Montreal the status of a 'world class' city" (Whitson and Horne, 2006, p. 81).

Expo '86 in Vancouver and the 1988 Winter Olympics in Calgary offered these two western Canadian cities, historically seen as provincial, a chance to showcase themselves as cities "come of age through recent economic development" (Hiller, 1989, in Whitson and Horne, 2006 (pp. 81-82). Leaders in Calgary and Vancouver hoped that hosting mega-events (the 1988 Winter Olympics in Calgary, and Expo '86 and the 2010 Winter Olympics in Vancouver) would draw the world's attention to their attractions (Whitson and Horne, 2006, pp. 81-82).

According to Walmsley and Heine, the objective for Calgary was to demonstrate that "in spite of its reputation, Calgary is not a cowboy town. Trying to shake off the stereotype of 'Stampede City', local leaders saw the Olympics as their chance to show that "we are a vibrant, modern city eagerly awaiting the opportunity to be introduced to the world". The Premier of Alberta, Peter Lougheed, believed that the "most important legacy of the Olympics was that it demonstrated to Albertans they could shine on a global stage, and got them thinking about what they could accomplish in the future, in other fields of endeavour" (Wamsley & Heine, 1996, in Whitson and Horne, 2006, p.82).

For the 2010 Olympic Winter Games in Vancouver, "a new discourse of achievement, in which civic identity is articulated in terms of global competitiveness, is being recycled as Vancouver prepares to host the 2010 Olympics" (Whitson and Horne, 2006, p.82).

As a committed key partner in the planning and delivery of the 2010 Winter Games, the Government of Canada identified a series of benefits it expected to achieve as a result of hosting the Games. The Vancouver 2010 Olympic and Paralympic Winter Games, "will present an unparalleled opportunity to celebrate and showcase Canadian athletic, artistic and cultural excellence on a national and international scale. The Games will also create shared and lasting legacies for Canadian communities, businesses and citizens across the entire country." (GofC website, 2009). The specific benefits expected

were:

> Athletic Excellence; Aboriginal Participation; Official Languages; Sustainability-(integrating environmental considerations); Pan-Canadian Engagement (to make these Canada's Games); Domestic Business Development; Promoting Canada Abroad; and to market Canada to millions of potential visitors from around the world and to a worldwide television audience
>
> (GofC website, 2009).

In addition when large and diverse construction projects are built on time, and Games are staged successfully, it is "widely regarded as a political and organizational accomplishment… Important signals are sent to outside investors about wealth and organizational competence, and about governments that work effectively with the private sector" (Whitson and Horne, 2006, p. 83).

Whatever the motivation for investing significantly in chasing the holy grail of sporting events, nations around the world seem to be able to find the right combination of decision drivers that allow them to justify expending serious amounts of political capital, human and financial resources and international prestige in order to join the ranks of other host nations. The question then becomes, is it worth it? And as importantly, do the sport benefits from a sporting event last beyond the two weeks of celebration, intense media attention and enormous civic pride felt in the nation?

CHAPTER IV

The Canadian scene

Canada has a long record of bidding for and staging major multi-sport events. Games in Canada have been staged in almost every decade since the 1960's and they have generally been successfully delivered. Since 1967, Canada has hosted almost every major multi-sport event available to it, as outlined below:

Olympic Games (1976, 1988, 2010)
Paralympic Games (2010)
Commonwealth Games (1978, 1994)
Pan American Games (1967, 1999, 2015)
World University Games (1983)

Billions of dollars in public expenditures have been made in support of these events from all levels of government. In total, it is estimated that over $ 3 billion in direct public investments (Sport Canada, 2011) have been made over the last 35 years in support of these mega projects. This does not include billions more in indirect costs to public authorities in areas such as public infrastructure, roads, security, etc.

Not unlike many nations that have bid for and hosted major multi-sport events, franchise holders and their backers in Canada have routinely cited a number of benefits that would accrue to the country in order to garner the public and private support required to successfully bid for international level major multi-sport events. Examples include the 1976 Montreal Olympics where the Mayor of Montreal saw advantages in using 'grand projects' as a means of redeveloping the city, as in the 1967 Expo World Fair (Chalkley and Essex, 1999, p.382)

For the 1988 Olympic Winter Games in Calgary, Ritchie noted that:

> Calgary remained, at least until the late 1970's, a somewhat one-dimensional and relatively unknown Canadian city. Frustrated by this reality, community leaders

> were constantly searching for ways to draw attention to the fact that Calgary was now a dynamic center ready to join the mainstream of national and international activity of all types
>
> (Ritchie, 1990, p 265).

In the end, declares Art Smith, the prime Olympic legacy may be the casting aside of Calgary's age-old reputation as an outpost. "People will know us as not just a western frontier town, but as a metropolitan, sophisticated city …'

(Martin, 1988, p.31 in Mount and Leroux 1994, p15.)

The Vancouver Organizing Committee (VANOC) for the 2010 Olympic and Paralympic Winter Games identified a number of strategic objectives that drove the organization toward achieving its vision and mission. VANOC's Mission was: *To touch the soul of the nation and inspire the world by creating and delivering an extraordinary Olympic and Parlaympic experience with lasting legacies (Vancouver 2010.com)*

The Toronto 2015 Pan Amercian Games bid claimed that it will "create 15,000 jobs in construction, Games support and operations, attract 250,000 tourists, bring 10,000 athletes and team officials together, and shine a spotlight on Toronto for the 25-day competition. In addition, Toronto and the Greater Golden Horseshoe region would gain much-needed new sports infrastructure and legacy fund." (Toronto 2015 Pan American Games bid, 2009).

Given this impressive multi-sport event hosting record, Canada continues to see these events as important contributors to sport, economic and community development.

CHAPTER V

Legacy: A definition

"It would be very unfortunate, if the often exaggerated expenses incurred for the most recent Olympiads, a sizeable part of which represented the construction of permanent buildings, which were moreover unnecessary – temporary structures would fully suffice, and the only consequence is to then encourage use of these permanent buildings by increasing the number of occasions to draw in the crowds – it would be very unfortunate if these expenses were to deter (small) countries from putting themselves forward to host the Olympic Games in the future."

Pierre de Coubertin

Olympic Review, April 1911, pp 59-62

While de Coubertin's concerns may have been legitimate and noble over one hundred years ago, the reality of modern major games bidding is that it is only those countries willing to invest significantly in major capital infrastructure that are able to put 'themselves forward" and have any credible hope of securing the event. In addition, the 'exaggerated expenses' now include a whole host of non-games related infrastructure and service spending (ie. transportation, security) spending that is arguably as much tied to staging the games as it is for general social and civic development not to mention public safety.

According to Chalkley and Essex, the Olympic Games:

> …has developed into much more than a sporting competition. For the main participating nations, it has become a quest for national prestige and, for the host city, it is now both a means of achieving international prominence and an instrument for promoting physical and economic regeneration. For urban planners and policy-makers, the Games have come to represent a major opportunity for infrastructural investment and environmental improvement"

(Chalkley and Essex, 1999, pp. 369-370).

So where in all of this does the concept of legacy fit? How is it defined? How is it measured? This chapter will explore these questions in more detail.

Legacy Defined:

Preuss notes that measuring legacy is a difficult task because mega event are unique, complex, and occur in a fast-changing environment, making it difficult for bench-mark studies to identify and measure legacies for future events (Preuss, 2007, in Kaplanidou and Karadakis, 2010, p. 112)

Girginov and Hills refer to the "Illusive character of legacy" (Girginov and Hills, 2008, p.2101)". At a IOC sponsored symposium held in Barcelona in 2002, entitled "The Legacy of the Olympic Games: 1984-2000", participants:

> …recognised the importance of the concept of legacy in the organization and in the final evaluation of the Olympic Games, but when attempting to define legacy, we have found that there are several meanings of the concept, and some of the contributions have highlighted the convenience of using other expressions and concepts that can mean different things in different languages and cultures, and that may also better express the historical roots and continuity of the Olympic Movement than the word legacy .
>
> (IOC Olympic Studies Centre, 2002, p.1)

The Barcelona Symposium also noted that:

> the effects of the legacy have many aspects and dimensions, ranging from the more commonly recognized aspects – architecture, urban planning, city marketing, sports infrastructures, economic and tourist development – to others that are just as, if not more important, but that are less recognised… so called intangible legacies, such as production of ideas and cultural values, intercultural

> and non-exclusionary experiences (based on gender, ethnicity or physical abilities), popular memory, education, archives, collective effort and voluntarism, new sport practitioners, notoriety on a global scale, experience and know-how, etc.
>
> (IOC Olympic Studies Centre, 2002, p.2)

The IOC conference concluded that "There is a clear need for more research of a longitudinal nature into all aspects relating to Olympic legacy, beginning well before the Games and lasting for a sustained period after their completion" (IOC Olympic Studies Centre, 2002, p. 4)

Coincidentally, in November 2002, at the 114th IOC Session in Mexico City, the IOC broadened its position on sustainable host city development, which up until then focused primarily on environmental issues. An updated rule 2.13 of the Olympic Charter now states:

> The IOC takes measures to promote a positive legacy from the Olympic Games to the host city and the host country, including a reasonable control of the size and cost of the Olympic games, and encourages the organising committees of the Olympic Games (OCOGs), public authorities in the host country and the persons or organizations belonging to the Olympic Movement to act accordingly.
>
> (Kron, in Sports Business International Oct, 2003, P.58).

Furthermore, at the 2009 IOC Congress in Copenhagen, the following recommendation was adopted:

> The Olympic Movement fully embraces the importance of embedding the key values of environmental protection, development and sustainability within the Olympic ideals. As part of this commitment, all members of the Olympic Family should facilitate the delivery of a lasting sporting, environmental, and social legacy and the IOC should accelerate the integration of sustainability principles in the

> hosting of the Olympic Games, which will also help to safeguard their status as a premier event.
>
> (IOC, 2009, p. 10-11).

Kron posits that "this new holistic approach will challenge the Organizing Committees of an Olympic Games (OCOG) to demonstrate that its bid will achieve a long-term benefit for the host city, the host country and its residents. New venues and infrastructure should also provide less tangible benefits to culture, tourism and the economy" (Kron in Sports Business International Oct, 2003, p. 58).

According to Preuss, the staging of the Olympic Games is the only world-wide event that keeps the Olympic movement alive and therefore the vote to select the Olympic city is a key decision. Therefore it is in the best interests of the IOC members as a collective whole to vote for that city which will sustain the Olympic movement in the best possible way (Preuss, 2000, p.90). In this way, the movement aims to ensure that the overall legacy of the games is preserved and enhanced.

The Collins dictionary defines legacy as: **1** money or personal property left to someone by a will. **2** something handed down to a predecessor (Collins English Dictionary). Preuss argues that this type of definition is problematic on two counts. First, since "a property belongs to someone, while an event 'leftover'—such as an improved tourism image or knowledge in serving tourists—is not the property of the event organizers', nor is it that of politicians or a sport governing body". He argues, "Some legacies (e.g. positive tourism image) might perhaps best be described as a public good." Second, some legacies are unintended or unplanned such as "oversized sport arenas or a socially unjust distribution of public money" (Preuss, 2007, p.211).

Preuss therefore offers this definition of legacy taking into account the context in which games organizers and their backers operate. "Irrespective of the time of production and space, legacy is all planned and unplanned, positive and negative, tangible and intangible structures created for and by a sport event that remain longer than the event

itself" (Preuss, 2007, p.211). This definition goes beyond the IOC's mandate of promoting only a positive legacy in that it recognizes that negative legacies can be also be possible.

Mann defines legacy as "ensuring as many long term benefits are generated for the host city, region and nation well before, during and long after the event" (in www.Parliament UK, 2010).

Preuss and others have offered a long list of legacy examples that range from obvious "commonly recognized aspects (urban planning, sport infrastructure) to less recognized intangible legacies such as urban regeneration, enhanced international reputation, increased tourism, improved public welfare, additional employment, more local business opportunities, better corporate relocation, opportunities for city marketing, renewed community spirit, better inter-regional cooperation, production of ideas, production of cultural values, popular memory, opportunities for education, emotional experience and additional know-how". In addition, a number of negative legacies have been identified including "debts from construction, high opportunity costs, unneeded infrastructure, temporary crowding-out, loss of permanently returning tourists, increases of property rental, socially unjust displacement and re-distributions" (Ritchie & Aitken, 1984; Haxton, 2000; Lenskyj, 2000, 2002; Moragas et al., 2003; Kasimati, 2003; Preuss, 2004; Cashman, 2005; Vigor et al., 2005; Kesenne, 2005; O'Brien, 2006; Smith & Fox, 2007, in Preuss, 2007, pp. 209-210)

Ritchie categorizes the impact of major events in six areas:

- economic (increase expenditures);
- tourism and commercial impacts (awareness of region/potential for investment);
- physical impacts (new facilities, local infrastructure);
- sociocultural (values, traditions and interests of local residents);
- psychological (pride) and

- political (enhanced recognition, propagation of political values) (Ritchie, 1990, p. 263).

Cashman argues that “the use of the poorly defined word ‘legacy’ is elusive, problematic and even dangerous for a number of reasons: When the term is used by organizing committees, it is assumed to be entirely positive, there being no such thing as negative legacy when used in this context. Secondly, it is usually believed that legacy benefits flow to a community at the end of the Games as a matter of course” (Cashman, 2005, p. 15).

Cashman also categorizes legacies in six fields: (1) sport; (2) economics; (3) infrastructure; (4) information and education; (5) public life, politics and culture; and (6) symbols, memory and history. Another similar classification of legacies was done by Chappelet (2006). He distinguishes (1) sporting legacy; (2) economic legacy; (3) infrastructural legacy; (4) urban legacy; and (5) social legacy (Preuss, 2007, 2010).

Haxton argues that in addition to fostering economic, trade and tourism development, examples of long term benefits to the host community include the event facilities and infrastructure, fostering community development and cultural traditions, greater participation in Olympic sports, and increased employment and local business opportunities. “In contrast, potential negative impacts include high construction costs for facilities and related infrastructure (frequently carrying long-term debts), temporary crowding problems, general price and rental increases, environmental concerns and general inconvenience to the host community” (Haxton, 2000, pp 143-144).

Hiller describes the urban impacts of mega-events from four different perspectives. (1) facilities and support services for future use; (2) economic costs and benefits; (3) contribution to increased tourist activity both during and after the event; and (4) economic and sociopolitical impacts and a tool of economic development and as a means to enhance the global image of a city for further economic growth (in Haxton, 2000, p. 146).

Haxton cites the work of French and Disher who “suggest that in recent years the Olympics have taken over from World Fairs and Expositions as the event considered most able to spur promotion and development. They suggest four major types of benefits associated with the staging of large-scale events such as the Olympics, namely short-term economic stimulus, a legacy of sports facilities, a highly visible marketing opportunity and significant urban redevelopment” (Haxton, 2000, p.155).

According to Lipsitz (1984), there are six envisaged outcomes to a city’s desire to leverage a mega sport event for maximum urban regeneration benefit: “image enhancement; new inward investment; additional employment and sales; new recreational opportunities; renewed civic morale; and more interest in sport among the young (in Smith and Fox, 2007, p. 125).”

Smith and Fox note that more positive physical legacies may be left when they are “embedded within wider regeneration strategies”. Carriere and Demaziere (2002) use a similar approach by advocating “urban development that includes an event, rather than using an event to encourage urban development”. The example of the Barcelona Olympics is often cited.

> This event provided an important incentive and deadline to complete long-held visions to develop road and transport infrastructure, housing, office and commercial developments; telecommunications; and hotel facilities. More was spent on each of these four types of development than on new event venues. This ensured that the Olympic Games left a comprehensive physical legacy that provided the basis for Barcelona’s subsequent economic regeneration.
>
> (in Smith and Fox, 2007, p. 1128).

The Government of Canada defines legacy as:

> the intentional extension of the benefits of bidding and hosting beyond the delivery of a specific project, in order to build sustainable capacity for the Canadian sport system and in other sectors of importance for the Government of Canada. Legacies are planned for, operationalized and measured; and may occur prior to, during, or following a bidding or hosting event.
>
> (Government of Canada, 2008, p. 10).

Table 2 summarizes the common legacy aspects cited by many scholars around the benefits of hosting major multi-sport events.

Table 2. Common Legacy Elements from Major Multi-sport Events

Common Legacy Elements from Major Multi-sport Events		
Economic Impact	Community Development	Sport Development
○ tourism ○ employment ○ business dev't ○ trade ○ infrastructure	○ volunteerism ○ culture promotion ○ environmental improvement ○ urban development ○ pride/morale ○ image ○ skills dev't	○ increased participation ○ sport facilities ○ high performance

As J.R.B. Ritchie noted, “regardless of the actual form that a legacy may take, the idea underlying legacy creation is that it represents something of substance” (in Girginov and Hills 2008, p. 2101).

Despite the positive claims often cited from legacy benefits, there are those that challenge the view that mega-events and the developments they purport to bring with them are always good. Whitson and Horne have suggested that “bidding to host mega-events in Canada has been a project of civic and regional elites, for the good reason that these elites are best positioned to benefit from whatever economic growth materializes. There are also, however, ‘opportunity costs’, the effects of which are typically borne by poorer citizens.” For these reasons, they urge that Olympic hosting should be the subject of a “full and inclusive public debate, in which citizens in every social location have opportunities to participate” (Whitson and Horne, 2006, p. 77).

For purpose of this paper, an examination will be undertaken of the legacy aspects of major multi-sport games from the vantage point of **economic impact, community development** and with a particular focus on s**port benefits.**

CHAPTER VI

Measuring event legacies

The concept of legacy related to major multi-sport events is a relatively new one and so too are the measurement techniques used to evaluate and report on the impacts from these events. Clearly defining the intended legacy impacts therefore is critical if event planners are to understand how they are to then measure the contribution of the event to economic, social or sport benefits. This shortcoming is highlighted by Veal who refers to bidding for major sport events and other mega projects as “hallmark decision-making, where the decision to proceed with a project is made first, with attempts to justify it made at a later date" (in Haxton 2000, p.142). However, with the spiraling costs of event hosting for public authorities, there is a growing need ensure that economic, environmental and social impact assessments, as well as full public consultation before submitting bids, are conducted “if major sports events are ever to become democratically accountable” (Flyvbjerg, Bruzelius & Rothengatter, 2003, in Horne, 2007, p. 92).

In addition, as the advance planning on legacy aspects of major multi-sport events tends to be limited, the related measurement indicators become difficult to determine as well. According to Girginov and Hills “Olympic legacies are constructed and not given. Most studies so far have concentrated on measuring legacy effects after the games had finished and, with some limited exceptions, there has been a dearth of information on the actual processes involved in envisioning, framing and implementing Olympic Legacies (Girginov and Hills, 2008, p. 2092).

The other challenge associated with properly measuring the legacy impact of these mega events is that they must occur over a long-term period. The IOC’s Olympic Games Global Impact study aims to measure the overall impact of the Olympic Games over an eleven-year period. However, it ends only 2 years after the games end. According to Gratton and Preuss, “It will take fifteen to twenty years to measure the true legacy of an event such as the Olympic Games… So far nobody has been prepared to commit the research resources required to carry out the scientific study of net legacy benefits” (Gratton and Preuss in Mangan, 2008, p. 1871).

> **'The challenge for any host city . . . is 'to make the Olympics fit the city' and not the city fit the Olympics'.**
>
> Chernushenko (1994: 28)

Chappelet offers that, depending on your vantage point, the motivation for various authorities to measure the potential impact of a major event are to : "justify a bid', to oppose a bid or organising committee, to justify the expenses once the event is awarded or for scholars, to know for the future" (Chappelet, 2010).

Despite the apparent insatiable appetite for countries to advance bids to host major multi-sport events, Haxton argues "that the perceived desire for increased involvement has emerged in direct response to growing community concern over the potential benefits/impacts of hosting events of this type and the apparent willingness of many event planners to adopt hallmark decisions making practices. Potential host communities appear to be questioning whether in fact the purported benefits are realistic and whether they outweigh the potential negative impacts" (Haxton, 2000, p.143). In the current environment of major games bidding, and recognizing the significant public resources required to support these events, there is more and more scrutiny placed on weighing the pros and cons of bidding on and hosting such events.

According to Horne, the general academic consensus regarding the impacts of mega-events is that there are both positive and negative outcomes (Horne, 2007, p.85). Mangan agrees and observes that "the legacies of Sydney 2000 were a complex comixture: good and bad, pleasing and less pleasing. Assets were not as bountiful as expected: debts were greater than anticipated. He adds that with more careful attention to planning and more rigorous assessment of ambitions white elephants might not have appeared (Mangan 2008, p. 1872).

Flyvbjerg suggests that with respect to the impacts of megaprojects, "rarely is there a simple truth… What is presented as reality by one set of experts is often a social construct that can be deconstructed and reconstructed by other experts (Flyvbjerg et al,

2003, in Horne, 2003, p.86). He adds that promoters of multi-billion dollar megaprojects, including sports stadia and other infrastructure, have consistently, systematically and self-servingly misled government and the public in order to get projects approved (Flyvbjerg et al, 2003, in Horne, 2003, p.86).

According to Baade and Matheson, " legacy impacts are impossible to quantify, but can be identified and described" (2002 Winter Games, State of Utah 2002 in Owen 2006, p.249). Burton and O'Reilly posit that "evaluations must go beyond dollars and scratch at what hosting the Games really does to a city and then helping bidding cities articulate what they want the Games to do for them" (Burton and O'Reilly, 2009, p.34). They go on to describe event impacts in three areas:

1) direct financial impacts (e.g. jobs created to build facilities, visitors related to the Games, etc.
2) indirect financial impacts (e.g. Tourism incremental gains due to the Games, long-term job growth, etc.); and
3) intangibles (e.g. improved volunteer base, stronger city brand, healthier population, etc.) (Burton and O'Reilly, 2009, p.34).

Notwithstanding some of the limitations of measuring legacies from Major Mulit-sport events, below are some of the more common measurement techniques.

<u>Economic Impact Measurement:</u>

As mentioned earlier, the legacy consideration most often mentioned in relation to major multi-sport games is the economic factor. The more traditional measurement tools used to assess the economic impact from major games are economic development models. A well known method of measuring the benefits of events is known as cost-benefit-analysis, where the direct, indirect, and intangible costs and benefits of an event are measured (Preuss et al, 2007, p.6). However, according to Chappelet, "only cost – benefits analysis are appropriate to assess the pertinence of sports events public subsidies, but are difficult to do and thus scarce". (Chappelet, 2010). He goes on to

suggest that while economic impact is the most common argument, “it is also probably the weakest”. He argues that pure economic impact is very hard to calculate and that many studies are “designed to justify political decisions before or after the fact” (Chappelet, 1996, p.85).

Despite these shortcomings, Baade and Matheson argue that “some number is better than no number”(Baade and Matheson, 2000, p.132). However, “the benefits projected in economic Impact studies are commonly accepted by the public, media and even academic circles with little or no critical evaluation” (Owen, J.G., 2006, p.244).

In a review of studies on the economic impact of mega-events, Coates and Humphreys (2003) found “evidence of positive economic benefits from mega sporting events should be considered weak at best” (Coates and Humphreys (2003), p.13 in Owen, J.G. 2006, p.243.). Matheson suggests that “economic impact studies are highly subjective and vulnerable to significant error as well as manipulation” (Matheson, Victor A, 2002, p.2).

Turco and Navarro define economic impact as the “net change in the host economy as a result of spending attributed to a sporting event”. They go on to suggest that there are two components that contribute to economic impact at a local level: “the first is the degree to which the event stimulates sales by nonresidents. The second is the degree to which residents and local businesses purchase their goods and services locally. Increasing either one of these components can increase the event’s economic impact on the local economy” (Turco and Navarro, 1993, p.18).

Lieber and Alton describe economic impact as the “net change in an economy caused by activity involving the acquisition, operation, development, and use of sport facilities and services” (Lieber & Alton, 1983, in Lee, 2001, p.1). These in turn generate visitors' spending, public spending, employment opportunities, and tax revenue (Lee, 2001, p.1).

There are various techniques for estimating economic impact which are based on macroeconomic theory. Baade and Matheson describe an expenditure approach which estimates the direct expenditures attributable to the event or project. These direct

expenditures are then used to estimate indirect expenditures through the use of a multiplier. “Multipliers are thought to exist because one person’s spending becomes income for others who in turn spend a portion of that new income creating income for still others” (Baade and Matheson, 2000, p.133).

Howard and Crompton describe “three elements that contribute to the total impact of visitor spending: Direct impact (the first-round effect of visitor spending), Indirect impact (the ripple effect of additional rounds of re-circulating the initial visitors' dollars), and Induced impact, which is further ripple effects caused by employees of impacted business spending some of their salaries and wages in other business in the host community” (Howard & Crompton, 1995, In Lee, 2001, p.2).

Baade and Matheson also note that economic impact studies can be “prospective, *ex ante*, or after the fact, *ex post*, in nature. Prospective studies are more prevalent because they provide the rationale for funding. In a practical sense, once the event or project is completed, the utility the community derives from a study to determine whether the event or project achieved the hoped-for outcome is arguably of negligible value“ (Baade and Matheson, 2000, p.131).

However, the difficulty with *ex ante* studies is that they do not allow for the measurement of the net benefits of a project relative to the next best alternative use of those funds (this is referred to the opportunity cost) (Baade and Matheson, 2000, p.142) . On the other hand, as Baade and Matheson explain, “ex-post studies have found no evidence of improvements in economic growth or living standards due to mega-events, casting some doubt on the legacy effects of the Olympics, or at least whether such effects are transformed into real economic benefits to the local economy… “the evidence suggests that the economic impact of the Olympics is transitory, one-time changes rather than ‘steady-state’ change” (Baade and Matheson 2002 in Owen 2006, pp 249-250).

Other shortcomings from economic impact studies are that they normally only estimate positive aspects and do not include other potential non-economic negative impacts such as: increased traffic, vandalism, environmental degradation, disruption of residents'

lifestyle, etc. They do not measure substantial economic costs and potential social problems (Lee, 2001, p.3). In addition, there is also the issue of impartiality since the proponents of such studies will generally want to shed a positive light on the project to the extent that it justifies the resource commitments required to support the candidacy. This vested interest may therefore create questions as to the objectivity of these economic impact studies.

Finally, as Matheson points out, there are three other limitations to economic impact studies. First, the studies often ignore the *substitution effect* where people simply attend a sporting event rather than some other activity in the same local economy resulting in "reallocation of expenditures in the economy, rather than in real net increases in economic activity". Also, the *crowd out effect* can be explained by the fact that adding an event to an already busy host city simply "supplants, not supplement, the regular tourist economy. Finally, "the studies may fail to address whether money spent at a sporting event stays within the local economy" (Matheson, Victor A, 2002, p.2).

As noted in chapter 2, a study by InterVISTAS Consulting (IVC) in 2002 reported on the economic impacts that were projected to be realized in BC from hosting the 2010 Winter Games. A report released in September 2009, entitled *The Games effect. Report 4: Economic Impact of the 2010 Olympic and Paralympic Winter Games on British Columbia and Canada: 2003–2008,* (Pricewaterhouse Coopers, 2009), compared the estimates from the 2002 study to the actual impacts through 2008. The economic impact estimates produced by PwC were "broadly similar to the projections contained in the IVC report, after making adjustments for differences between assumed types of spending". The real Gross Domestic Product (GDP) impacts from 2003 to 2008 estimated by PwC was $788 million compared with a midpoint of $762 million projected in the IVC study. The midpoint for employment impacts for the PwC study was 18,362 person years compared with approximately 16,800 person years projected by IVC (Pricewaterhouse Coopers, 2009). This case seems to suggest that despite the shortcomings and methodology differences in economic impact assessment, the pre-games projections and the post event reality are remarkably close.

Community development:

Closely behind the economic motivation attracting would-be hosts are numerous social and community benefits (as well as risks) which are purported to be derived from staging a major multi-sport event. However, these impacts are even more difficult to analyze let alone mitigate. According to Chapin, “The literature on noneconomic impacts is somewhat more positive, concluding that noneconomic impacts are present and often positive, but hard to quantify” (Chapin, 2002, in Barghchi, Omar and Aman, 2009, p. 190)

There is a growing body of knowledge related to the social and community impacts of large scale sporting events. However, much of the research in this area is speculative in that it is carried out pre-games. While there is very little post games analysis available, studies such as the Olympic Games Global Impact study and the Vancouver 2010 analysis mentioned below will contribute to a wider understanding of the social and community impacts flowing from Olympic Games.

It is argued by Chappelet that direct economic impact of major events can be felt in the short term, but it is the social and economic repercussions over the long term that are important. “They bring out a whole generation of the population. They meet the inherent responsibilities of a public authority, particularly that of ensuring the conditions for sustainable development. It is these intangible repercussions which offer a true justification for state support of major sporting events and cannot alone justify public expenditure that could be more effectively spent on other projects” (Chappelet, 1996, p. 87).

One method of measuring the impact of social and community aspects is social impact assessment (SIA). According to the International Association for Impact Assessment, SIA “includes the processes of analyzing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment" (Vanclay, F. 2003).

According to Cox, using SIA for events can be difficult since major events can have multiple impacts over an extended area and for a significant period of time. The Olympic cycle for instance can have a lifespan of close to ten years from the bid phase, to the planning and games delivery and eventually the wind down of the event. Many of the impacts of hallmark events are cumulative impacts which present added problems for the impact assessment of large events (Cox, 1996, in Social Impact Assessment Newsletter, 1986, p.5).

In a post games assessment of economic and social impacts flowing from the 2010 Vancouver Olympic and Paralympic Games, Pricewaterhouse Coopers LLP have identified eight topic areas of economic and social measures to be tracked and measured. They describe Social Development as “making a commitment to individual well being and inclusion and empowerment to increase equity and access to markets and services for all”. In addition, the analysis includes separate topic areas which measure impacts on Arts and Culture and Environmental Sustainability (Pricewaterhouse Coopers, 2009).

While the community development elements from staging mega events can be broken down into a variety of categories and can be the focus of extensive additional research beyond the scope of this paper, for the purposes herein, these have been defined as: enhanced volunteerism, culture promotion, upgraded skills training, accelerated non-sport infrastructure development (ie. transportation, housing), civic pride, image enhancement and environmental sustainability.

Despite the limitations identified with both economic impact assessment and community development benefits analysis, it is suggested that these measurement techniques are nonetheless essential in providing evidenced based justification for bidders and their supporters as they seek to host large scale multi-sport events. As the costs of preparing, planning and staging these events continue to rise, the need for such assessments will continue to increase , as will the rigour that these methods will require in order to provide credible and reliable information for decision-makers.

As the central premise of this research proposes, the sport legacy aspects of major multi-sport events has been marginalized in favour of other legacy considerations in recent years. The next chapter will examine sport legacy in more detail and set the stage for the introduction of a more robust measurement model.

CHAPTER VII

Sport Legacy

According to Chalkley and Essex, the Olympic Games continue to place de Coubertin's original objectives and principles as central to the operational purposes of the Games, specifically: 1) to foster the goals of competitive sport; 2) to provide a legacy of facilities that will stimulate athletic development which would not have been possible with inferior facilities; and 3) to heighten the profile of the sports involved by providing better opportunities for training as well as sites for national and international competition (Chalkley and Essex, 1999, p. 372).

It has been argued that the modern Olympic Games were the first major international sports development project. "It emerged as a reaction to the dissatisfaction with the process of capitalist accumulation and the poor fitness of youth experienced by the founders of the modern Olympic movement, in particular Baron Pierre de Coubertin" (Girginov and Hills, 2008, p. 2094).

However, many researchers have noted the when it comes to a discussion on legacy, it is rarely the sport legacy that is stressed in discussions about legacy, but the economic and tourism legacies (Cashman, 2005, p.15). The prestige and big city status associated with mega sport events coupled with the economic arguments have tended to drown out any significant discussion about the sport legacy of major multi-sport events.

In fact, in a survey of key stakeholders involved in the hosting of the 2010 Vancouver Olympic and Paralympic Winter Games conducted in November 2009, respondents were asked to provide information on their perceived definition of the term legacy and consequently the identification of legacies. Not surpisingly the concept of sport legacy (aside from the infrastructure aspects) was overshadowed by other legacy aspects related to non-sport infrastructure, technological and environmental improvements and business network expansion (Kaplanidou and Faradakis, 2010, p.114).

Nonetheless, the International Olympic Committee defines the event legacy as

the "value of sport facilities and public improvements turned over to communities or sports organizations after the Olympic Games. The legacy includes a 'legacy-fund' for ongoing operations of sports facilities and venues. This legacy-fund is an important feature because the required event facilities, for example luge tracks developed for Winter Olympic Games, are often not economically sustainable and need ongoing operating subsidies" (Fuller & Clinch, 2000; Thorpe, 2002, p. 13 in Preuss, 2007, p. 209).

With the goal of avoiding the creation of white elephants, the IOC stresses the need to minimize the cost and maximize the use of competitive, non-competitive and training venues used for future Games. Olympic bids now need to "balance the use of (i) existing venues and infrastructure with refurbishment (as required); (ii) where there is a legacy requirement for a specific sports venue, a permanent solution, with a design that allows flexible usage; and (iii) if there is not legacy requirement, a temporary solution" (Kron, 2003, p.58). In fact, the IOC now requires clarification during the Candidature Acceptance Procedure of the difference between Olympic Games requirements and what the IOC considers a city's discretionary legacy requirements.

While the IOC provides direct funding to Organizing Committees for the Olympic Games from the sales of broadcast rights and international sponsorships, public authorities and private enterprises also pay for infrastructure used before, during and after the event. In most cases, the Games will serve as a catalyst for additional infrastructure investment beyond the sport venues. Every Olympic Games must then try and determine what costs are attributed to the Games and which ones are discretionary. "The IOC specifies that infrastructure developments used to support the hosting of the Olympic Games should be made as part of a sustainable plan for a city or country's development. For sports venues, the IOC has developed standards and encourages the building of permanent structures only where there is a viable post-Games use for those structures" (Olympic Review, 2005, p.1).

Despite these warnings related to sport infrastructure, the costs associated with providing the required sport venues for the Olympic Games can be in the billions of

dollars. For the 2008 Olympic Games in Beijing, construction and upgrading costs for 36 new Olympic venues and 66 training facilities totalled C$3.2 billion. The showpiece 'Bird's Nest' Olympic stadium alone came in at a final cost of C$513 million (Canadian Press, 2009). This represented about half of the overall cost of the games captital and operating budgets but did not include the costs of other infrastructure such as roads, airports, subways and the like. Despite the strong finanical support from the Chinese government to stage the 2008 Games, the Bird's Nest has hosted only a few sport events and sits almost entirely vacant except for a steady trail of tourists (Canadian Press, 2009).

Similarly in Athens, it is reported that "of the 22 venues in the city, 21 are in a state of disrepair and under guard to prevent vanadlism (Kissoudi, 2008, p.1985). The President of the Hellenic Olympic Committee said that "Athens in many cases, ended up building too many venues without the foresight of having them serve the athletic needs of the country following the Olympics (Earth Times, May 2009, Author, DPA).

In the case of the 2000 Sydney Olympics, according to Owen, "The legacy from building world-class facilities for athletes and spectators of obscure Olympic sports may simply be a legacy of expense. Sydney had plans for the long-term use of many of its venues, but four years later the arena that housed gymnastics and basketball is in receivership and 'the State Government has been propping up other un-economic venues since the Olympics to the amount of about $46 million a year'" (The Pain of the Games, 2004, in Owen, 2006, p. 249).

As for the Atlanta Games in 1996, the Olympic Stadium became the new home stadium for Atlanta Braves baseball. "Instead of providing a venue of high quality and instant historical significance for future track athletes, the stadium now serves as yet another chapter in the story of public subsidies for professional sports teams" (Owen, 2006, p.249).

In Canada, the story has been mixed. Canada's first foray into hosting the Summer Olympic Games in 1976 left a huge reminder of the risks associated with staging these

mega events. “The Olympic stadium, often derisively called the ‘Big Woe’ -was estimated to cost $150 million and took 30 years for the city to pay off and cost a total of $1.47 billion in construction, nearly constant renovation of the roof, and interest” (Cummins, 2009, p.4). In addition, several of the facilities constructed for the games have since been transformed for other non-sport uses such as the cycling velodrome conversion to a biodome.

Fortunately, organizers of the 1988 Winter Olympic Games in Calgary were able to learn from past mistakes and planned facilities in order to ensure that “many of the competition sites will be left with permanent Olympic Training Centres, to be used after the Games for the development of amateur sport” (Johnston, 1986, p. 44-45). An endowment fund established before the Games and supplemented with a portion of the surplus from the Games operations was used to offset the ongoing operating costs of the various facilities, including the Olympic Oval at the University of Calgary.

Canada’s recent hosting of the 2010 Olympic and Paralympic Winter Games took a balanced view of its sport infrastructure, combining the need to develop facilities to stage the events for the games, with post-games long term use. The high performance facilities that were planned as permanent, are supported by a legacy trust fund to supplement the operating and capital maintenance costs associated with these venues. The 2010 Games Operating Trust was established to provide funds to contribute to the maintenance and operating expenses of the key legacy facilities developed for the 2010 Olympic and Paralympic Games. An endowment fund of $110 million was provided by the governments of Canada and British Columbia for this purpose.

In most of the examples noted, the notion of sport infrastructure operational sustainability is raised. In many cases this was simply not planned for in any meaningful way. Where it was properly planned and supported, post event plans included professional management, full programs of use with high occupancy throughout the year and long term community involvement.

The Vancouver 2010 Organizing Committee (VANOC) broke new ground in sport legacy when it committed to staging great games on time and on budget, but also pledged to have the Canadian team achieve its highest level of performance ever at on Olympic Winter Games. Thus the Own the Podium (OTP) initiative was born. Own the Podium is a national sport technical initiative that was created in 2005 to help Canada become the number one nation (total medal count) at the 2010 Olympic Winter Games and to place in the top-three nations (gold medal count) at the 2010 Paralympic Winter Games. The initiative has also set a goal for Canadian athletes to have a top-12 placing at the London 2012 Olympic Summer Games and to be in the top-eight nations in gold-medal count at the 2012 Paralympic Summer Games. The initial funding commitments for the winter program were cost shared between the Government of Canada and VANOC. However, in 2011, close to 90% of the funding allocated to summer and winter Olympic and Paralympic sports came from the federal government.

From a pure sport development programming impact perspective, the research is even less conclusive. Most accounts of legacy from past games focus on the facility legacy only. The programming legacies as opposed to the hard bricks and mortar legacies of sporting facilities are even more difficult to measure and attribute to the hosting of the major multi-sport event. But it is precisely these types of programming legacies that can differentiate a robust sport legacy from a weak one.

Examples of programming legacies include: the development of sustainable enhanced high performance support programs that provide stable ongoing assistance to top level athletes; the creation of new technical leadership positions (coaches, sport science and medicine experts, etc); the provision of sport equipment for local use post-event; opportunities to attract future sport events; the establishment of post-event endowment funds that will assist in the operations, maintenance and programming of the event's sport facilities; opportunities to retain and build on the experienced volunteer skills; and programs that provide opportunities for under-represented groups to participate in sport programs.

Looking forward, the London 2012 bid was based on the promise to use the Olympic Games to promote sports participation for all groups across the UK. According to Girginov and Hills, "This is the most ambitious project in the history of the Olympic Games in terms of both its scope and level of change, as, in order to be implemented successfully, it has to address not only people's behaviour but also deeply rooted social structures and relations" (Girginov and Hills 2008 p. 2091).

Despite these ambitious sport legacy promises for London 2012, critics argue that in fact the Olympics have a "… negative impact of staging the games on sports participation in the UK in terms of funds diversion, lost opportunities and benefits distribution, as the present needs of some groups are sacrificed with promises to meet the needs of future generations (Girginov and Hills 2008 p. 2097). The sports management expert Fred Coalter's examination of the sustainable sporting legacy of London 2012 also concluded that "most of the evidence suggests that major sporting events have no inevitably positive impact on levels of sports participation (Girginov and Hills 2008, p. 2098).

Recognizing the paucity of research on sport legacy considerations, Girginov and Hills point out that the notion of sustainable sports development looks at the effect of this mega-event on sports participation and the overall development of the national sports system over the longer term. They describe that the concept of Olympic legacy presents sports participation as a macrolevel target while sustainable sports participation is more about microtargets and concerns specific groups, communities and activities (Girginov and Hills, 2008, pp. 2092-2093).

The question however becomes how does one measure these macro and micro targets? The next chapters will introduce a conceptual framework to evaluate sport legacy and a related measurement tool, **MERLIN©** .

> ***"To me a world class facility…. Is in the middle of a housing estate where 90% of the kids are going to use it."***
>
> (Program Development manager of StreetGames, in Girginov and Hills, 2008, p. 2108)

CHAPTER VIII

Method

Towards a conceptual framework for event legacy measurement:

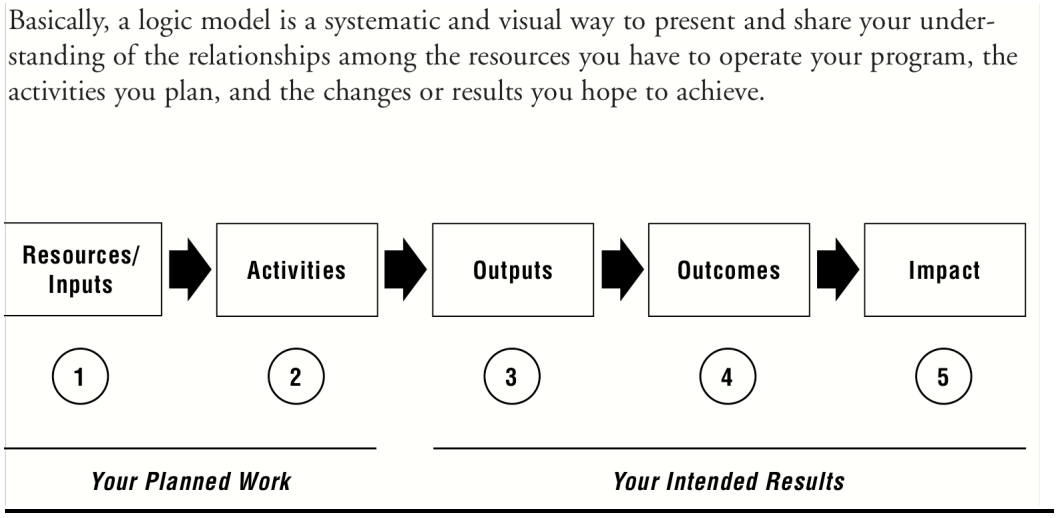
While it is clear that major multi-sport event legacy considerations look at much broader impacts than purely sport issues, the frameworks to examine the sport impacts are scarce indeed. On this basis, this paper introduces a conceptual framework which describes how the lengthy process of planning and staging a major multisport event leads to the delivery of two week event and then produces specific sport legacy impacts that will last long after the flame is extinguished.

Using a traditional logic model as a base, the conceptual framework will be used to help identify the sport variables that will be used to create a measurement model for sport legacy. A logic model sets out how "an intervention (such as a project, a program, or a policy) is understood or intended to produce particular results" (Rogers, P.J. 200, p. 232). The logic model and its processes facilitate thinking, planning, and communications about program objectives and actual accomplishments.

Logic models are often used in all forms of program/project design, planning, delivery and evaluation. According to the Kellogg Foundation, logic models "provide stakeholders with a road map describing the sequence of related events connecting the need for the planned program with the program's desired results. Mapping a proposed program helps you visualize and understand how human and financial investments can contribute to achieving your intended program goals and can lead to program improvements" (W.K. Kellogg Foundation, 2004, p.3).

Figure 1. describes the components of a logic model and illustrates the relationship between planned inputs and the intended results.

Figure #1



(W.K. Kellogg Foundation, 2004, p.3)

The components shown in Figure 1 above are defined below based on the Kellogg Foundation Logic Model Development Guide. These components illustrate the connection between planned work and intended results.

PLANNED WORK describes what resources you think you need to implement your program and what you intend to do.

1. Resources include the human, financial, organizational, and community resources a program has available to direct toward doing the work. Sometimes this component is referred to as Inputs.
2. Program Activities are what the program does with the resources. Activities are the processes, tools, events, technology, and actions that are an intentional part of the program implementation. These interventions are used to bring about the intended program changes or results.

INTENDED RESULTS include all of the program's desired results (outputs, outcomes, and impact).

3. Outputs are the direct products of program activities and may include types, levels and targets of services to be delivered by the program.

4. Outcomes are the specific changes in program participants' behavior, knowledge, skills, status and level of functioning. Short-term outcomes should be attainable within 1 to 3 years, while longer-term outcomes should be achievable within a 4 to 6 year timeframe. The logical progression from short-term to long-term outcomes should be reflected in impact occurring within about 7 to 10 years.
5. Impact is the fundamental intended or unintended change occurring in organizations, communities or systems as a result of program activities within 7 to 10 years (W.K. Kellogg Foundation, 2004, p.2)

In Canadian sport, logic models are used frequently in program/policy design and evaluation. For example, most if not all policies developed by Sport Canada have logic models associated with them. In addition, the Canadian Sport Policy, developed in 2002 as a collaborative initiative of Federal-Provincial/Territorial governments has a logic model used to plan and evaluate the joint activities that each partner undertakes in furtherance of the Policy. The recently updated Canadian Policy Against Doping in Sport approved by Federal-Provincial/Territorial Ministers of Sport also has a logic model intended to show how it is expected that the vision of the policy will be realized.

From a major games perspective, the Government of Canada played a significant role in the recent 2010 Olympic and Paralympic Winter Games. As the national government and consistent with many other hosting nations, it had outlined broad objectives for its role in planning and staging the games. Working in conjunction with the with the Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC) and other partners, "the GoC works to ensure that the organization and delivery of the Games reflect the cultural, social and linguistic diversity of Canada, and that they are a success in the eyes of Canadians – a lasting legacy of pride and opportunity for all Canadians, and credit to Canada internationally" (Canadian Heritage, 2008). The logic model which guided federal involvement in the games is outlined in Figure 2.

In the next chapter, the conceptual framework for sport legacy will be introduced based on logic model theory and process.

Figure # 2: 2010 Olympic and Paralympic Games logic model

2010 WINTER OLYMPIC AND PARALYMPIC GAMES LOGIC MODEL

Key Objectives	Activities	Outputs	Immediate Outcomes	Intermediate Outcomes	Long Term Outcomes
Enhance Canada's domestic and international profile and support federal visibility as a key partner of the 2010 Winter Games	- Promoting pan-Canadian engagement - Managing federal participation in 2010-related events	- Partner agreements - Domestic / international events and activities	- Positive exposure and heightened recognition of GoC as key partner in 2010 Winter Games	- Increased Pan-Canadian engagement - Enhanced federal visibility	Canadian excellence and values will be promoted nationally and internationally
Leverage 2010 Winter Games to advance existing federal priorities	- Supporting the FFC - Administration of federal funding - Outreach and partnerships	- Partner agreements - Issue Clusters - Capital and legacy support	- Increased awareness of public policy objectives - Inclusion of targeted audiences	- Engagement in sport, economic, social and cultural activities by target audience - Continued support for capital and legacy projects	Sport, economic, social, and cultural legacies will be established for the benefit of all Canadians, in alignment with federal policy objectives
Promote and support seamless planning and delivery of federal essential services	- Overseeing fulfilment of MPA commitments - EFS planning, coordination and management	- GoC engagement protocols - EFS Provision	- Consolidated GoC commitments for each VANOC functional area - Assistance to VANOC	- Delivered commitments to IOC, VANOC - Proven ability to meet increased EFS demand	Early planning and seamless, cost-effective delivery of mandated federal responsibilities, including Essential Federal Services, will contribute to high quality Games

CHAPTER IX

Measuring Sport Legacy

A conceptual framework and a measurement model - MERLIN©

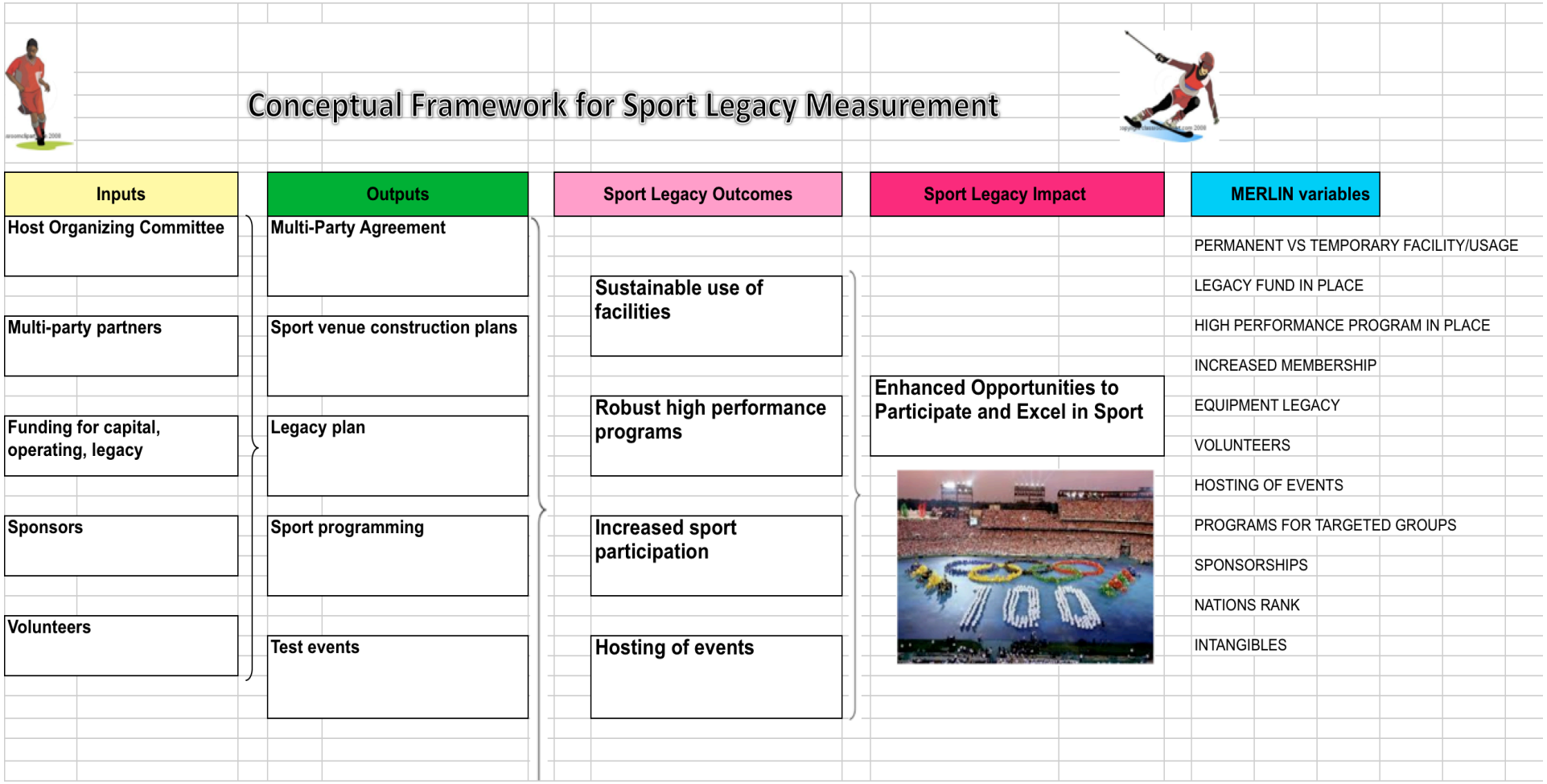
A logic model framework described previously is used to develop the sport legacy conceptual model. For the purpose of this paper, sport legacy is defined as follows:

All variables that can be directly or indirectly attributed to the major multi–sport event that contribute to the enhancement of sustainable opportunities for citizens to participate and excel in sport (in particular at venues constructed or upgraded for the major multi-sport event).

As discussed earlier, the reason that the literature offers very little information on the topic of sport legacy measurement is that it is difficult to do. The conceptual framework described in this chapter will introduce a sport legacy measurement model intended to assist policy makers and event planners with a practical, tangible sport legacy measurement tool that can be used to assess the sport legacy impacts during a bid evaluation phase as well as post event.

Figure 3 presents the conceptual framework that leads to the ultimate sport legacy impacts identified above. The framework will then allow for the identification of measurement variables to create the Multi-sport Event Return Legacy Index (**MERLIN©**). The components of the framework include: input, outputs, sport legacy outcomes, sport legacy impact. The sections that follow describe the components of the conceptual model.

Figure #3: Conceptual framework for sport legacy measurement



Inputs

Types of inputs are people, money, equipment, facilities, supplies, people's ideas and people's time. Inputs can also be major forces that influence the organization or programs. Inputs are often associated with a cost to obtain and use the item -- budgets are listings of inputs and the costs to obtain and/or use them (Free Management Library).

In the context of a major games event, inputs are the human and financial resources and participation from public and private partners that the host organizing committee mobilizes to plan and execute the staging of the event.

At the outset, a host organizing committee is struck following the award of the specific multi-sport event. The Host Corporation or Organizing Committee (OC) is charged by the event franchise holder with the planning, organization and execution of the event. The organizing committee typically includes a board of directors, a senior management team, event staff and an army of volunteers. The organizing committee provides regular reports on their planning and preparation to the franchise holder as well as the various stakeholders involved in supporting the event such as governments, sponsors, etc.

As discussed previously, the staging of large scale mega events requires significant public and private support. Government and other institutional partners (ie. Universities, schools) will normally come together and define the contributions each will make towards the delivery of the event. These organizations are typically referred to as Multi-party partners. Private sector sponsors also provide significant financial and in-kind resources to assist with the planning and delivery of the event and related legacies.

Finally, volunteers are recruited in the thousands to fulfill the many detailed tasks required to successfully stage a major multi-sport event. These roles range from the volunteers who sit on the Board of Directors, all the way to parking attendants.

Activities and outputs

Activities are the glue that connects the inputs with the outputs. As discussed earlier they include processes, tools, and actions that support the program implementation. They are used to bring about the intended program results (W.K. Kellogg Foundation, 2004, p.2). An example of an activity would be the negotiation with the various public and private sector partners on a Multi-party funding agreement. For the purpose of this paper, there will not be a lengthy description of the activities associated with major games legacy planning.

Outputs are usually the tangible results of the major processes in the organization. They are often accounted for by their number, for example, the number of students who failed or passed a test, courses taught, tests taken, teachers used, etc. (Free Management Library, http://managementhelp.org/np_progs/np_mod/org_frm.htm). In the case of sport legacy, outputs include a specific contract or multi-party agreement among the major partners which outlines roles and responsibilities of the partners. In a addition, a sport venue construction plan is developed to guide the upgrading or building of new sport facilities.

Other outputs include the creation of a deliberate legacy plan. Elements of such a plan typically includes: the disposal of sport equipment used for the event; distribution of financial surplus from the event and the provision for a legacy endowment fund to support the operation and maintenance of the key sport venues.

Sport programming is another category of output that supports opportunities for participants to access the facilities. This programming may also include high performance support to ensure that high level athletes receive support for training and competition, coaching, sport science and medicine, and access to the sport facilities. The Own the Podium initiative mentioned earlier is a good example of a high performance sport program output.

In the case of most major multisport events, test events are typically held up to a year before the major event. The purpose of organizing these competitions is to conduct a real live event to test the facility and major operational planning areas (transportation, medical support, spectator services, ect) prior to the actual large scale event. The London organizing Committee for the 2012 Olympic and Paralympic Games will conduct 40 different test events prior to the games in 2012. This is another example of an output from the sport legacy framework.

Outcomes

Outcomes are the impacts on those people whom the organization wanted to benefit with its programs. Outcomes are usually specified in terms of:
a) learning, including enhancements to knowledge, understanding/perceptions/attitudes, and behaviors
b) skills (behaviors to accomplish results, or capabilities)
c) conditions (increased security, stability, pride, etc.)
(Free Management Library).

Outcomes can be established for the short-term, intermediate and long-term. In the context of this paper, the outcomes are described as follows:

1) sustainable use of facilities: this outcome relates to the planned use of games prepared sport facilities after the event.
2) robust high performance programs: are there enhanced high performance support initiatives in place after the event to build on the momentum and excitement generated from the event?
3) increased sport participation: this outcome will focus on the overall effect that the event has on encouraging greater rates of participation from hosting the event.
4) hosting of events: with the experience gained from hosting a major sport event, what other hosting opportunities are there to bid for?

Impact

Impact is the ultimate goal stemming from the intended or unintended change that is happens as a result of program activities over the longer term (W.K. Kellogg Foundation, 2004, p.3). In the case of sport legacy resulting from staging a multi-sport event, the long term impact can be described as: ***enhanced opportunities to participate and excel in sport*** (and in particular at venues constructed or upgraded for the major multi-sport event).

Multi-sport Event Return Legacy Index- MERLIN©

The Multi-sport Event Return Legacy Index or **MERLIN©** is outlined in Figure 4. An index is simply a number or ratio (a value on a scale of measurement) derived from a series of observed facts which can reveal relative changes as a function of time (Google).
This index provides a quantitative measure of legacy outcomes, using a series of variables to produce an index score that can be measured over time and can also compare from games to games. While this model is conceptual, specific examples will be used for illustrative purposes where possible.

It is proposed that this measurement tool can be used in a prospective and a post-event manner. From a prospective point of view, the tool can be used to provide a relative comparison between different bidders for a multi-sport event. While the assessments would be based on planned commitments as opposed to a actual ones, it will nonetheless allow for an ‘apples to apples’ comparison amongst bidders. This could be implemented by event franchise holders and used during the candidacy assessment phase of the bid process to compare the sport legacy aspects plans of candidate cities. As a post-event assessment, **MERLIN©** can be used to measure the sport impact from the event long after the glow of the flame and the cheering of the crowds. Post-event, the tool could be used by government authorities or legacy organizations to track progress against the sport legacy plans flowing from the event.

In addition, by introducing such a tool early in a bidding phase, it is expected that the mere identification of the **MERLIN©** variables will encourage would-be hosts to develop more robust sport legacy plans realizing that what gets measured, often gets done.

FIGURE # 4

Multi-sport Event Return Legacy Index- MERLIN©

	MERLIN©							
	MULTI-SPORT EVENT RETURN LEGACY INDEX							
Variables								
1	Permanent Facilities (average for all venues)	Temporary	Permanent	Usage				
				none	limited	moderate	high	
		0	5	0	1	3	5	
2	Legacy Fund in place	No	Yes					
		0	5					
3	High Performance Program in place	No	Yes					
		0	5					
4	Increased membership			none	limited	moderate	high	
				0	1	3	5	
5	Equipment legacy			none	limited	moderate	high	
				0	1	3	5	
6	Volunteer recruitment/training			none	limited	moderate	high	
				0	1	3	5	
7	Hosting of events			none	limited	moderate	high	
				0	1	3	5	
8	Programs for targetted groups			none	limited	moderate	high	
				0	1	3	5	
9	Sponsorship retention			none	limited	moderate	high	
				0	1	3	5	
10	Nations rank			none	limited	moderate	high	
				0	1	3	5	
11	Intangibles (pride, image)			none	limited	moderate	high	
				0	1	3	5	
								MAX.60 pts

A description of the variables used to develop the **MERLIN©** score follows. Examples of for each variable are presented and where possible, examples relating to the 2015 Pan American Games are used in order to illustrate the application of the model to this event. However, there will be gaps in the data since not all of the variables can be assessed on the basis of the bidding documentation and other planning documents available for the event.

1) Permanent vs. temporary facility and usage:

Arguably the most visible and tangible sport legacy from hosting a major multi-sport event are the sport facilities upgraded or constructed for the games. This **MERLIN©** variable will apply to all sport venues upgraded or constructed for the games and an average score will be determined. This averaging allows for comparison amongst bids that will likely have different number of facilities required for the games. If for instance a particular bid had an existing facility to be used for the games and no upgrades or renovations were required, then the fact that the games are being staged in that city does not have a correlation with that particular sport venue and therefore it would not be measured in the variable score.

There are two parts for this variable: 1) permanent vs. temporary facility; and 2) usage plans for the permanent facilities. For each venue constructed or upgraded for the games, a score is applied based on whether it is a permanent or temporary facility. If it is a permanent new or upgraded existing facility, then five (5) points are awarded. If it is only created for the games period and then it will be decommissioned, then no points (0) are awarded.

Each new or upgraded facility is then assessed a score based on its planned post games use. If it is expected to not have any sport usage post event because it will be re-purposed for another non-sport use, it will score zero points (0). If it is expected to have limited use because there is no anchor tenant, or it is for a sport that has limited opportunities to use it (e.g. ski jumps), then its usage score would be limited and only 1 point would be awarded. If it is expected to have moderate multiple uses by attracting

events and used for local programming, then it would score in the moderate zone and collect 3 points. Finally, if the facility has a robust multi-use plan that is well programmed and has ongoing use for grassroots sport right through to elite training/competition, it would score the highest and earn 5 points.

1	Permanent Facilities (average for all venues)	Temporary	Permanent	Usage			
				none	limited	moderate	high
		0	5	0	1	3	5

This process would be applied to all the new or upgraded sport venues and a total score would be arrived at. This total score would then be adjusted based on the percentage of new or upgraded facilities against the overall number of facilities planned for the particular games. If for instance a particular major multi-sport bid had 14 planned new or upgraded sport facilities out of total facility count of 29, then the total raw score would be adjusted by this percentage. This would allow for a proper comparison to another bid that had more or less new or upgraded facilities planned.

Using the recent Toronto 2015 Pan American Games bid as an example, there were 29 Olympic sports identified in the bid stage as proposed sports on the program (Pan American Games, 2010, p.85). Of those sports, 11 facilities were proposed as new or upgraded permanent facilities. An additional 16 were existing facilities, and 2 were temporary. Using the first part of the **MERLIN©** scale, the event would garner 55 points (11 X 5 points) for the new or upgraded facilities. Assuming an average usage score of 3 points (moderate) for each of these 11 new or upgraded facilities, the total usage score would be 33 points (11 X 3). The overall score for this variable would therefore be 55+33=88 points. This raw score would then be adjusted by dividing it by the total number of facilities required for the games in order to discount the score. This discounting has the effect of rewarding those bids/events with the larger percentage of new or upgraded facilities in relation to the overall facility plan. In this case, the Pan Am **MERLIN©** score would be as follows: 55/29 + 33/29 = 3.03.

2) Legacy fund in place

In order to ensure that venues constructed for the games have a sustainable operating model to be functional after the major sport event, a legacy fund is typically established to provide the necessary financial backing to operate and maintain the facility(ies). Such funds are generally created by public funding partners in order to avoid the creation of white elephants that cannot be sustained post event. These funds can be created as endowments which allows for the capitalization of the initial fund that is re-capitalized annually to protect the purchasing power of the fund. Annual draws from the fund are made based on the returns generated from investments of the fund. For the purposes of this variable, a score of zero is assessed if there are no plans for a legacy fund. A score of five points is awarded if a legacy fund is provided.

2	Legacy Fund in place	No	Yes
		0	5

The Calgary Olympic Winter Games was one of the first large scale events in Canada to plan for a post-games legacy. This was prompted in part by Canada's previous experience in dealing with mega-sport facilities and huge cost over-runs at the 1976 Montreal Olympic Games. The Calgary Olympic Development Association (CODA) was formed to manage some of the sport and recreation assets developed for the games, namely Canada Olympic Park. CODA was also charged to manage a legacy fund established by governments and a financial surplus from the Games. To this day, the facilities created in 1988 continue to operate with the benefit of funding from the legacy trust fund.

In the case of the 2010 Winter Olympic and Paralympic Games, a legacy fund was established by the federal and provincial governments prior to the Games. As discussed earlier, this fund will support the operations of the facilities constructed for the games and will now be used for high performance and community purposes. If **MERLIN©** were used to measure the 2010 Winter Olympic and Paralympic Games, the event would be

awarded 5 points for this variable. Similarly, the 2015 PanAmerican Games have a legacy fund of $70 million in their plans intended to be used to support the operation and maintenance of several new facilities and related programming. This event would also score 5 points for this variable.

3) Enhanced high performance program in place

It is commonplace today to have a host nation of a major multi-sport event focus new or existing resources on athlete preparation programs designed to ensure optimal home team performance at the event. In China, the central government pulled out all the stops to invest in athlete preparation for the Beijing Games in 2008. This investment catapulted China to a first place finish from third just 8 years previous.

In Canada, the Own the Podium program injected significant new resources into Canada's high performance system and targeted funding to coaching, athlete training and competition, sport science/medicine and research. The program began five years before the Vancouver 2010 Olympic Winter Games and has been continued post games. The program is credited with helping Canada achieve its best ever Olympic Winter Games showing with 26 medals, including 14 gold, the highest ever for a host nation. For the 2014 Olympic Winter Games in Sochi, Russian sports officials have planned a similar program to prepare the Russian team as it aims to lead the medal table in less than 3 years.

If an enhanced high performance program is established for the event, a maximum score of 5 points is provided. If no such program exists, then no points are awarded for this variable. If the measurement is taken in the post-games period, then similar scoring would occur. For the Pan Am 2015 event, there were no specific plans in the bidding material related to this variable, therefore a score of zero would be assessed.

3	High Performance Program in place	No	Yes
		0	5

4) Increased sport membership

Intuitively, one would expect that the attention, focus, and general buzz surrounding a major multi-sport event would stimulate more participation in organized or casual sport activity. However, the causal relationship between the event and the impact on increasing participation rates is not conclusive and some would argue does not even exist. Nonetheless, this variable will measure the degree to which event organizers have specifically planned for increased membership in local, regional or national sport activity through its legacy planning. If used in the pre-event period, the assessment of this variable will be based on the degree to which such plans are in place or not on a scale of no plans, limited plans, moderate plans or high level of planning. If this variable is measured post-event, then it will be based on the actual increase or decrease in sport participation rates as measured by macro and micro level data available in the market that staged the event. A positive increase will yield three (3) or five (5) points. A neutral or negative impact will provide zero (0) points or one (1) point.

4 Increased membership	none	limited	moderate	high
	0	1	3	5

For the 2015 Pan Am Games, the bid material outlined very general comments relating to supporting grassroots community sport development to enhance participation (Pan Am bid book, 2009, p. 201). The sister Parapan American Games plans however outlined a commitment to pilot a program for building awareness of disabled sport in cooperation with the Canadian Paralympic Committee (Pan Am Games Bid Book, 2009, p. 211). The combined commitments for this event on this variable would earn a moderate score of three (3).

5) Equipment legacy

Hosting a major multi-sport event requires extensive planning to host a large number of single sport events all at the same time. The Olympic summer games includes 26 sports

and 36 disciplines. The Olympic winter games includes 7 sports and 15 disciplines. The host organizing committee is responsible for providing most of the equipment needed to stage the events outside of personal equipment used by the athletes. Examples of this equipment include: gymnastics apparatus, track and field equipment, mats for combative sports, timing equipment, snow fencing, trail setting equipment for snow sports, etc. This equipment can provide a substantial boost to local sport for use in their programming post event. Depending on the financial state of the event, this equipment may be gifted as a legacy from the event to benefit local sport. The degree to which such equipment is left behind in the community will generate a score ranging from zero (0) on the low end, to 5 on the high end.

5	Equipment legacy

none	limited	moderate	high
0	1	3	5

A recent example of a positive equipment legacy is from the 2011 Canada Winter Games hosted in Halifax, Nova Scotia. As part of the Games legacy, $1.1 million was set aside to create the Canada Games Sport Equipment Fund. The fund will be used to provide grants to community organizations to buy sport equipment. This is in addition to the $1 million in sport equipment that was used during the Games and turned over to community organizations. (Canada Winter Games 2011, website). In this situation, a high score would be awarded providing 5 points for this variable.

For the 2015 Pan American Games, organizers planned to make $4 million worth of sport equipment available to national, provincial and community sport organizations. A high score of 5 for this variable would be assessed.

6) Volunteers

In order to successfully deliver a major multi-sport event, strong leadership is required to plan and execute the myriad of details to ensure that the event runs on time and on budget. In addition to the leadership, a large part of the workforce required to fill the multitude of tasks is recruited from the local community as volunteers. The recent

Olympic Winter Games in Vancouver had over 30,000 volunteers working in areas ranging from parking attendants, to venue managers, to medical service attendants, to ceremonies performers, to torch relay volunteers and so on.

For the larger summer Olympic Games, Beijing had registered over 70,000 volunteers. According to Liu, during Games-time, 100,000 volunteers provided direct services for the Olympic and Paralympic Games at more than 30,000 positions. An additional 400,000 city volunteers were recruited to provide information consultation, language interpretation and emergency aid services at 550 posts throughout Beijing and around Olympic venues (The Official Website of the Beijing 2008 Olympic Games, http://en.beijing2008.cn/volunteers/news/latest/n214456879.shtml).

In a study conducted by a team of researchers from Australia and the UK following the 2010 Vancouver Olympic and Paralympic Games, preliminary findings showed that respondents to a survey entitled **Olympic And Paralympic Legacies: the 2010 volunteers' story so far...** overall were feeling more compelled to volunteer (Charity Village.com, 2010). The survey also indicated that nearly 25% intend to volunteer more after the Games, 4% will decrease or stop, and more than one-third said they would volunteer at a future Games.

Other data that can be used to assess patterns of volunteer activity by sector is the Canada Survey of Giving, Volunteering and Participating which is conducted every three years by Statistics Canada. The survey provides the types of volunteer activity and also provides breakdowns by Province and Territory. Based on this type of data available post games, a **MERLIN©** score can be estimated for this variable to be used in a post games assessment.

For the purposes of this **MERLIN©** variable, a score will be provided related to the extent of the volunteer workforce mobilization and training provided to these volunteers on a scale from zero to five (0-5).

6	Volunteers

none	limited	moderate	high
0	1	3	5

In applying this variable to the 2015 Pan Am Games, 19,000 volunteers are expected to be recruited and trained through "an innovative and comprehensive training program that will prepare them for the Games and develop transferable skills that enhance their abilities for future volunteer and professional positions" (Pan American Games bid book, 2009, p. 5). A series of web-based service training programs will be available to sport organizations in the Pan Am regions and will include modules on key volunteer management issues such as recruitment, roles and responsibilities, orientation, training and customer service (Pan American Games bid book, 2009, p. 201). A score of five (5) or high would be assessed for this variable.

7) Hosting of events

Typically, a host organizing committee will plan its sport venues well before the major multi-sport event in order to have them available for training and competition and to work out any kinks in the facility. In addition, many franchise holders will require a series of sanctioned test events to be held in the venues a year or two prior to the real competition. This will allow an evaluation of the required technical specifications from the relevant International Sport Federation (or domestic governing body such as the Canada Games). It will also test the readiness of the organizing committee as its deploys its functional planning areas (i.e. transportation, technology, results, etc).

After the games are held, there are also many opportunities for the host nation to bid to host subsequent single sport events using the venues created or upgraded for the major multi-sport event. This variable can therefore be measured prior to the large scale event as well as afterwards. This variable will be assessed based on the planned number of events expected to be held in all of the games venues prior to the games as well in the period following the games. This will be compared to the previous year and any increase or decrease will be assessed a score. If the majority of new or upgraded venues are

expected to hold regular events, then a maximum score of five (5) would be awarded. If very few events are planned then a 0 or limited score of 1 would be assessed.

For the 2015 Pan Am Games, all sport venues will host domestic and international competitions that will allow athletes to compete in the venues before the Games. These events will also serve as opportunities to test facility systems and procedures to ensure full readiness in July 2015 (Pan American Games bid book, 2009, p. 86). A score of 5 would be awarded for this variable.

7	Hosting of events	none	limited	moderate	high
		0	1	3	5

8) Programs for targeted groups

In 1999, the IOC adopted Agenda 21: Sport for Sustainable Development, which includes the objective to “strengthen the inclusion of women, youth and Indigenous peoples in the Games” (VANOC Website). These provisions place obligations on the host organizing committee to establish programs that are geared to involving these specific groups.

The 2010 Vancouver Organizing Committee signed a historic Protocol with the four host first Nations marking the first time an Organizing Committee has entered into such a partnership with indigenous peoples. This partnership ensured that the Nations in whose traditional territories the Games were being held were involved with their planning, hosting and legacy. VANOC also made a commitment of accessible Games by reaching out to inner-city residents and businesses, Aboriginal peoples and others who don’t typically participate in the opportunities created by the Games (VANOC Website). The degree to which programs are in place targeting underserved populations will range from no progress to multiple.

The Toronto 2015 Pan Am Games bid had very few details related to this variable. There were however several commitments directed at developing opportunities for youth engagement in the areas of training and employment, leadership, hosting an

International Youth Sport Summit, sponsorship of community sport, and support for coaching and leadership development. Based on the fairly limited commitments in support of specific targeted groups, a limited score of 1 would be awarded.

8	Programs for targeted groups	None	limited	moderate	High
		0	1	3	5

9) Sponsorships

Private sector support for the staging of large scale multi-sport events is critical to the overall financial success on the games. For the recent 2010 Olympic and Paralympic Winter Games in Vancouver, 91% of the $1.884 billion operating budget came from corporate and other non-government sources (VANOC, Dec. 2010). While it is normal to see such spikes in corporate support around the hosting of major events like the Olympics, there are opportunities to retain some of this sponsorship to support programs and events after the games. This variable will measure the degree to which incremental sponsorship support is retained in the domestic market after the event. Such measures as the Canadian Sponsorship Landscape Study can provide benchmarks to determine the year-over-year changes in sponsorship support. The scale will measure the pre-games sponsorship levels (not considering the games event-specific support) as compared to the post games levels.

In comparing this variable during a bidding phase, various bids would be assessed against the overall dollar targets from sponsorship expected to be generated for the candidate cities.

For purposes of this variable and due to limited information from other bidding cities for the 2015 Pan Am Games, no data is available to illustrate the scoring of sponsorships. Similarly, given that the Games have not been held yet, it is not possible to compare pre- and post-event sponsorship levels at this time.

9	Sponsorships	none	limited	moderate	High
		0	1	3	5

10) Nations rank

More and more, the success of staging a major multi-sport event is measured by not only delivering an operationally and financially sound project, but also by the placing of the host nation in the results table. China demonstrated this new trend in a huge way in 2008 by investing significantly in programs supporting high performance sport leading to the Beijing Games. The results catapulted China from a 2nd place finish in 2004 with 32 gold medals compared to 35 for the USA, to the top of the medals with 51 gold medals only four short years later (vs. 36 gold medals for the USA). Similarly, Canada's Own the Podium initiative, supported extensively by VANOC, had a stated objective to win the most medals of any country at the Olympic Winter Games and finish in the top three in gold medal count at the Paralympic Games.

Outside of the Olympic cycle, many nations will track annual performances for summer and winter sports using statistical analysis. In Canada, Sport Canada publishes a document called World Cup Tracker which tracks winter World Cup results year over year, by sport and by nation. This allows for a detailed comparison of all Olympic events on an annual basis. (Sport Canada).

Given that bidding cities would not generally make commitments to improving a nations rank, (since they are expected to be a neutral party in delivering the event), this variable would only be assessed in the post-event comparison. This **MERLIN©** variable will measure the degree to which the host nation improved its placing in the Games as compared to the previous games.

10	Nations rank	none	limited	moderate	high
		0	1	3	5

For the 2015 Pan Am Games, there is therefore no Host nation rank score to use in the illustration.

11) Intangibles

This measurement category captures a number of intangible variables that can be associated with the staging of a major multi-sport event. These include enhanced international reputation, destination image enhancement, renewed community spirit, emotional experience and community pride. Many host nations will use a number of measurement tools such as polling, surveys, commissioned research and media measurement, to get an idea of these intangibles. For example, polling conducted prior to and after the 2010 Vancouver Olympic and Paralympic Winter Games found that over ninety percent of Canadians thought that the performance of our athletes would have a positive impact on Canadian pride with a similar number agreeing that this was indeed the case at the conclusion of the Olympics (Sport Matters Group, 2010, p.2).

A scale of 0-5 will be used to measure this variable, although as the title suggests, this intangible is a very subjective measure.

Again using the 2015 Pan Am Games, a poll conducted in Toronto indicated that 80% of respondents in the general population supported the bid to host the Pan American Games in 2015 (Pan American Games bid book, 2009, p. 14). A score of 3 would be awarded for this variable.

11	Intangibles (pride, image)	none	limited	moderate	high
		0	1	3	5

MERLIN© Summary

Using data from the 2015 Pan American Games bidding documents, the table in Figure # 5 provides a simulation of **MERLIN©** . While every attempt has been made to populate the measurement model with appropriate real life information, there are certain variables noted that are not able to be tabulated due to lack of available source data. Notwithstanding this gap in variable source data, the table in Figure # 5 illustrates how

the measurement model can be used to provide a quantifiable measure of sport legacy. In this example, the bid would rate a score of 30.3 on a scale of 50.

The **MERLIN©** measurement model provides a practical assessment tool to examine a series of variables that will provide a quantitative measure of key sport legacy impacts from major multi-sport events. While an attempt has been made to quantify the variables that comprise the index, it is acknowledged that additional fine-tuning of the variables is required including reducing the subjective aspects in order to develop a more robust measurement tool beyond the conceptual model described herein. Much like other forms of legacy impact assessment such as economic impact and community/ social development impact, measuring sport legacy is not an exact science and certain shortcomings in methodology and variable inputs are expected. However, this work is intended to begin to bridge the gap in sport legacy assessment through **MERLIN©**.

Figure # 5

MERLIN© Simulation – 2015 Pan American Games

	MERLIN©	SIMULATION for 2015 PAN AMERICAN GAMES						
	MULTI-SPORT EVENT RETURN LEGACY INDEX							
Variables								
1	Permanent Facilities (average for all venues)	Temporary	Permanent	Usage				
				none	limited	moderate	high	
		0	5	0	1	3	5	3.03
2	Legacy Fund in place	No	Yes					
		0	5					5
3	High Performance Program in place	No	Yes					
		0	5					0
4	Increased membership			none	limited	moderate	high	
				0	1	3	5	3
5	Equipment legacy			none	limited	moderate	high	
				0	1	3	5	5
6	Volunteer recruitment/training			none	limited	moderate	high	
				0	1	3	5	5
7	Hosting of events			none	limited	moderate	high	
				0	1	3	5	5
8	Programs for targetted groups			none	limited	moderate	high	
				0	1	3	5	1
9	Sponsorship retention			none	limited	moderate	high	
				0	1	3	5	N/A
10	Nations rank			none	limited	moderate	high	
				0	1	3	5	N/A
11	Intangibles (pride, image)			none	limited	moderate	high	
				0	1	3	5	3
								30.03

CHAPTER X
Conclusion

The prospect of hosting a major multi-sport event continues to attract a multitude of eager bidders in pursuit of tangible and intangible legacies for a nation. However, the rising complexity and spiraling expenditures necessary to secure, plan and stage these events require more robust assessment tools to properly measure the cost/benefit of supporting these mega projects. While more and more work is being done to examine the gaps "between optimistic forecasts and the actual impacts of the Games on the local economy, society, and culture (Vigor, Mean and Tims, 2004, in Whitson and Horn, 2006, p.73), the common perception remains that legacy concepts associated with major multi-sport events are often only viewed as net positive outcomes". The reality is in fact that there have been many recent multi-sport games that have not been able to claim an overall positive legacy experience.

As the price of admission to the mega-sport event hosting club increases, the onus on policy makers, franchise holders and sport leaders to clearly define the cost/benefits of bidding for and staging these complex events is increasing. Despite the heralded claims from event organizers that private sector support for the operations costs of these multi-sport events forms the greatest part of the revenue sources, the fact remains that public authorities contribute as much if not more to the infrastructure and other indirect costs of the events (roads, airports, security, etc). As Owen points out, "hosting the Olympics requires billions of dollars in investments on venues and related infrastructure, of which only a fraction will have practical long-term application. The belief that the Olympics will pay for themselves is fanciful" (Owen, 2006, p.253). These same public authorities are also responsible for operating and maintaining the physical assets after the show has left town. For this reason, there is more and more pressure placed on governments at all levels to ensure that proper planning, research and evaluation is conducted before and after the fact in order to properly assess the true legacy value of staging these large scale events.

Legacy considerations are being viewed nowadays within a larger “context of a complex set of social issues rather than simply a sporting event” (Haxton, 2000, p.154). This is because it is difficult to isolate the impacts of such large-scale events from the larger economic, political, environmental and social environments. However, since the concept of legacy is a relatively new dimension in major event planning, it is not surprising that the evaluation and measurement tools available to assess these impacts are still evolving.

As the literature points out, economic impact assessment has dominated the legacy space as the ‘go-to’ legacy measure touted by bid proponents and their supporters. However, most of the economic modeling occurs as a prospective focus with revenue and expense projections and their related multiplier effect being used initially as a means to ‘win’ the bid. Once the games are awarded, inevitably, costs increase and other accelerated infrastructure demands (improved airports, roads, etc) enter the equation. Only recently however, is there any post-event economic impact analysis being conducted. The post-event study focused on the Vancouver 2010 Olympic and Paralympic Games is charting new territory as it attempts to assess the full legacy impact from the games including the economic factor.

Similarly, the Olympic Games Global Impact study has an objective to look at the impact of the games over an extended period of time. The Olympic Games Impact study uses 126 indicators to measure economic, social and environmental Impacts. This new research approach shows that there is a widening understanding of the broad impact that these large-scale events can have on the community lucky enough to win the event. Therefore, the suite of social and community benefits described earlier continue to be analyzed and reported on realizing that these factors can have much longer and deeper impacts than short term economic stimulus.

Up until recently, the sport aspect of any legacy consideration has largely been under-estimated and under-analyzed. The scarcity of research in this area confirms this fact. This paper has attempted to point out this anomaly in legacy considerations by isolating the sport legacy aspects and shining a light on the variables that could be more

deliberately tracked as both prospective and post-games measures of sport legacy. The Multi-sport Event Return Legacy Index (**MERLIN©**) was developed with a view to assisting franchise holders, public authorities, sport organizations and the academic community with a practical assessment tool so that the sport impacts of major multisport events can be clearly identified and more thoroughly assessed.

Given that there are limitations in applying the measurement tool based on strictly theoretical applications, in addition to further fine-tuning of the **MERLIN©** variables, the tool would benefit from being field-tested at the start of a bidding process. An event such as the Canada Games, which are held every two years in a region of Canada based on a pre-determined rotation schedule, would lend itself to be a perfect event where this tool could be applied. The Canada Games bid process invites interested cities to submit their candidacy and therefore allows for a relative comparison of bids based on a homogenous set of bidding guidelines. In addition, in order to conduct a full simulation of the measurement model, a comprehensive listing of the all of the variables outlined in the model would need to be factored into the bidding guidelines of the event in order to properly implement the tool. The advantage of using the Canada Games event as a first test is that a post-event assessment would also be relatively easy to conduct given the right conditions to ensure access to information that would allow researchers to apply the **MERLIN©** measurement tool. The above situation would provide an extremely useful 'laboratory' to test the application of the tool in a real life setting and can be the focus of extremely interesting additional research.

It is hoped that the preceding has provided a useful discussion on the current gaps in legacy analysis and has provided an argument that there is a need to put the 'sport' back in to major multi-sport games as opposed to simply looking at these events as 'bums in seats'. Another intended consequence of applying a measurement tool such as **MERLIN©** is that it will lead to more deliberate planning of sport factors in the overall planning and delivery of the event which will in turn allow for a greater exploitation of the positive benefits that sport can and should deliver for the benefit of communities and its citizens long after the carnival has left town.

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