Introduction

Events, particularly large-scale events, offer host communities the potential for lasting legacies across a range of dimensions such as infrastructure, sport participation and volunteering (e.g. Dickson et al., 2011, FWWC15, 2014, Olympic legacy, 2005, Sochi 2014, 2007). Legacy examples include, urban redevelopment (Burbank et al., 2002), enhanced destination branding and awareness (Getz, 2012), greater opportunities for sport and event tourism (Ziakas and Boukas, 2012), an enlarged pool of skilled and experienced volunteers (Dickson et al., 2013), and increased sporting participation (Veal et al., 2012). These legacy promises suggest host communities will have improved facilities and transport, and greater human and social capital that will be of benefit for their future tourism, events and hospitality.

Disability sport events, sometimes referred to as parasport events, fall under the broader umbrella of accessible tourism. The International Paralympic Committee (IPC) believes these events can leave a legacy of enhanced quality of life for people with access needs in the host community through greater levels of accessibility and participation in social and sporting life (International Paralympic Committee, 2013). Yet Misener et al. (2013a) demonstrated the paucity of empirical research on Paralympic legacies that support the IPC’s hopes. Further, the accessibility of events and inclusiveness of destinations are also under-researched areas (Vila et al., 2014, Darcy et al., 2010, Kastenholz et al., 2012, Darcy and Dickson, 2009, Dickson and Darcy, 2012, Vila et al., 2015, Darcy, 2012, Shapiro and Pitts, 2014). This lack of attention in the scholarly literature to disability sport and events is a missed opportunity to facilitate the legacy potential of events for destinations, their residents and visitors.

To demonstrate the nexus between disability sport events and destination competitiveness, this article builds upon Ritchie and Crouch’s (2000) competitiveness/sustainability (C/S)
model where the true measure of a destination’s competiveness is reflected in the extent to which tourism enhances the sustainable well-being of residents, in this case the event host communities. Only recently has the connection between accessible tourism and destination competitiveness been investigated (Vila et al., 2015). Central to this research is having a better understanding of how to enhance the destination experience for people with disability and those with access needs, both during and after the event as part of establishing a legacy program. This paper draws upon a series of initiatives that provide direction for sport, events and tourism from a policy perspective (e.g. United Nations, 2006, United Nations, 2012, UNWTO, 2015).

Following is an exploration of four areas of literature underpinning this research: destination competitiveness; accessible tourism; disability discrimination; and event legacies; the latter emphasises social legacies, reflective of the IPC’s vision. These lay the foundation for our discussion in this paper conceptualizing the link between disability sport event legacies and destination competitiveness through the development of an event typology and research agenda specific to disability sport events that will support their legacy objectives.

**Theoretical background**

*Destination Competitiveness*

This paper recognises the traditions of tourism policy and planning for destination development (Hall, 2008, Inskeep, 1991) but adopts a destination competitiveness and sustainability (DCS) framework for this paper. Competitiveness of tourism regions and destinations has a significant body of literature extending back over 20-years with researchers seeking to compare the competitiveness of destinations (e.g. Croes and Kubickova, 2013, Hong, 2009); identifying the components, attributes and factors that contribute towards destination competitiveness (e.g. Ritchie and Crouch, 2000, Dwyer et al., 2000, Crouch and Ritchie, 1999); and strategic planning for competitiveness (e.g. Gooroochurn and Sugiyarto, 2005). The most influential definition of what makes a destination competitive is, the ability to increase tourism expenditure, to increasingly attract visitors while providing them with
satisfying, memorable experiences, and to do so in a profitable way, while enhancing the well-being of destination residents and preserving the natural capital of the destination for future generations (Ritchie and Crouch, 2003, p. 2)

Ritchie and Crouch’s (2000) model of destination competitiveness and sustainability (DCS) consists of five levels of factors that need to be considered to facilitate on-going destination competitiveness and sustainability (Figure 1): supporting factors and resources (6 sub-factors); core resources and attractors (7 sub-factors); destination management (9 sub-factors); destination policy, planning and development (8 sub-factors); qualifying and amplifying determinants (6 sub-factors). These factors are placed in context of a competitive (micro) environment and a global (macro) environment. The outcome of such a framework are a series of advantages, either resource endowments or resource deployments, that provide foci for those seeking to enhance a destination’s competitiveness and sustainability. They are i) resource endowments (i.e. competitive advantages): human resources; physical resources; knowledge resources; capital resources; infrastructure and tourism superstructures; historical and cultural resources; and size of economy, and ii) resource deployment (i.e. comparative advantages): audit and inventory; maintenance; growth and development; efficiency; and effectiveness.

Accessible tourism opportunities that build upon disability sport event legacies are thus relevant for destination competitiveness, both in terms of offering a diversified tourism product to attract visitors from a growing market segment, as well as the benefit that may accrue to destination residents from enhanced accessibility. However, it is only recently that researchers have begun to explore the nexus between accessible tourism and DCS, both at a regional level (Dickson and Darcy, 2012) and a comparative international level (Domínguez et al., 2015). Dickson and Darcy (2012), through a case study approach, discuss that the overall DCS framework needs an underpinning of an “access culture” across the five components: both a big picture vision and an underlying foundation on which to build the vision. Specifically they discuss the critical elements that contributed towards improved accessibility as (depicted in green in Figure 1):
Supporting Factors and Resources: accessibility and political-will evidenced by legislation, practices and codes and, enactment of the UN Convention;

Core Resources and Attractors: a mix of accessible activities and special events;

Destination Management: marketing, quality of service/experience, information/research, and human resource development that enables travel by people with disability;

Destination Policy, Planning and Development: an access culture and vision at the destination policy, planning and development levels; and

Qualifying and Amplifying Determinants: none noted.

*Insert Figure 1 here*

Domínguez et al. (2015) comparative modelling of DCS reduces the proposed model to 4 components with “Destination Management” and “Destination Policy, Planning & Development” being combined, similar to the model proposed by Hong (2009). The model then incorporates the destinations’ number of accessible products and services, and their level of accessibility. The level of accessibility involves not just a general measure of accessibility of how easy the destination is to reach, but also a disability specific understanding of the “technical accessibility” of the transport, accommodation and attractions. These two studies suggest that unless at the “Supporting Factors and Resources” level there is a strategic approach to accessibility supported by the political will to bring together human rights, built environment and destination management then the conditions for developing accessible destination experiences may be lacking. Depending upon the country’s political system and whether they have a unitary or federal system of government, there may be up to three levels of political will that may work independently or collaboratively on establishing destination management frameworks (Veal, 2002).

Disability discrimination, human rights framework

Directly related to the implementation of disability and access within the destination competitiveness framework is international and national human rights frameworks.
Internationally the UN developed the *Convention on the Rights of Persons with Disabilities* (CRPWD) aiming to provide a framework for signatory nations to not only implement but monitor rights of people with disabilities (United Nations, 2006). Over 161 countries have signed on to the CRPWD that has direct implications for both destination development and sport event management. The human rights aspects of leisure, sport and tourism, influenced by the CRPWD, is slowly emerging as a significant area of scholarship (Darcy and Taylor, 2009, Kidd and Donnelly, 2000, Veal, 2015, Ross, 2004, Higgins-Desbiolles and Whyte, 2015).

The CRPWD’s eight principles (Figure 2) are reinforced through articles that relate indirectly or directly to tourism, sport, and events. For example: Article 9 on accessibility to the built environment and transport that is so important for rights-based citizenship; article 19 on living independently and being included in all community activities rather than being institutionalised; and article 30 on “cultural life” identifies the importance of leisure, sport, and tourism in the context of human rights.

*Insert Figure 2 here*

The CRPWD includes an international system of monitoring quality-of-life measures associated with articles of the CRPWD. This paper is timely in that with the CRPWD monitoring mechanisms comes an opportunity to leverage a different understanding of disability, access and tourism. Accessibility is both a human rights issue and a growing business opportunity for tourism globally and for destinations locally. There around one billion people, or 15% of the world’s population, with a disability; expectations are that this market sector will grow to 1.2 billion by 2050 (UNWTO, 2015). Increasing levels of disability are due to an ageing of the population, improved medical services provision, more widespread data collection on disability and an increasing willingness to identify disability rather than hiding it, particularly in developing countries (World Health Organization, 2007, World Health Organization, 2013). It has been suggested that accessible tourism is relevant
to most people across their life span as, environments designed to be inclusive of mobility would be of assistance for people using wheelchairs, those with mobility challenges, families with prams, travellers with heavy luggage, shoppers with trolleys and workers safely going about their duties (Darcy and Dickson, 2009, p. 34).

In response to this growing market the UN World Tourism Organisation (UNWTO, 2015) has moved beyond suggesting universal design and accessible tourism within their strategic planning documents to developing resources to guide the development of accessible tourism where the focus has been on destination diversification through the development of accessible tourism experiences such as disability sport events. To support these initiatives, facilitating legislation and practices are required. Since 1990, a significant number of countries had implemented their own antidiscrimination legislation and facilitating access practices through building codes, public transport and educational environments. While laudable, the legislation, codes and practices work very differently in each country and in many countries the enacting legislation and policy has not coincided with the political will to achieve enabling outcomes (Kayess and French, 2008).

International conventions and national legislation can outlaw disability discrimination and incentivise enabling practices (Barnes et al., 2010). However tourism, hospitality, sport and events continue to be identified as areas of on-going disability discrimination (Donlon, 2000, Miller and Kirk, 2002, Kreismann and Palmer, 2001, Shaw et al., 2005, Sherwyn, 2010, Darcy and Taylor, 2009). This may be in part due to the fact that disability is “inherently complex” (Darcy, 2010) as there is a constant interplay between the individual impairment, disability and level of support needs interacting with the environment (Packer et al., 2007). For example, an individual with impairment (literally thousands of different types of medical conditions or ‘deficits’) may experience disability (social, economic or environmental barriers) that restricts their social participation depending on their level of support needs (including attendants, assistance animals or assistive technology). Hence, disability is not a homogenous group but a broad spectrum encompassing mobility, vision, hearing, cognitive,
mental health and other major groups where each individual has a level of support needs and individual “impairment effects” (Thomas, 2007). This may explain the view that tourism’s lack of response is because disability and accessibility requires a deep understanding of the complexity of the study of disability types, levels of support needs, assistive technology, enabling environments and service attitudes (Buhalis and Darcy, 2011).

For large-scale events governed by the IPC there is a relatively strict framework regarding sporting infrastructure accessibility. Yet, without a vibrant human rights advocacy sector to push the need for this to extend to the built environment, transport and common domain beyond the sports stadia, it is likely that accessibility can be overlooked in the multitude of considerations in planning the event. Event organizers’ role of event completion rarely extends to having an inclusive agenda beyond the event itself, with little hope that they will make a strong connection to the destination management practices to leverage accessible tourism legacies. In many cases, such as for the Commonwealth Games or the Pan/Parapan American Games, there is only one senior manager responsible for the access and inclusion components of the Games, and their role did not include accessible practices beyond the requirement of the event that necessitate the support and involvement of city politicians, planners and destination managers.

Awareness of impairment, disability and support needs becomes an important context to understand disability sport events that may involve participants with one or more disability types (e.g. vision and mobility) participating across one or more sports. Further, these events may attract officials, employees, volunteers and spectators with a different array of access needs (e.g. hearing) from the disability focus of the event. Of course, organising disability sport events under these circumstances also becomes more complex as does destination management responses for accessible tourism experiences. Conversely, responding to these diverse needs will support a broader array of accessible tourism markets in the future, of benefit to the well being of residents, and thus destination competitiveness. Yet, those involved in bidding for and then hosting major sport events (disability or not) must have a vision that is inclusive of disability and access considerations as part of triple bottom line
sustainability (Commonwealth Department of Environment and Heritage, 2003, Lewis et al., 2010). Major developments in planning require no extra cost to include access provisions to be socially inclusive, economically efficient and environmentally sensitive to creating enabling environments. Once a new stadium/venue has been built that has overlooked disability and access considerations, the professionals involved have ensured that the venue will be inappropriate, ineffective and inefficient for the future sustainability of the destination socially, economically and environmentally. Thus, a legacy of the event will be future costs, lost opportunity and a loss of potential benefits to individuals with disabilities and the wider community (Lewis et al., 2010).

**Disability Sport Events and Event Legacies**

Misener and Darcy (2014) emphasise that disability sport occurs across a spectrum of inclusion; disability sport events also fall under a continuum of participation with some events being segregated for athletes with a disability (e.g. Paralympic Games), and others inclusive/integrated (e.g. Commonwealth Games). Further, the goals of the events can differ quite significantly with some focusing on elite levels of participation showcasing the athleticism and physical prowess of persons with disabilities (e.g. Parapan American Games), while others encourage participation in order to provide people with disability opportunity to participate in sport not necessarily emphasising high performance (e.g. Special Olympics). Herein lays another perspective for understanding the potential legacy outcomes of each of the types of events. For high performance events, as much as there is a hope for the showcase effect where broad-based sport participation outcomes may result from the showcasing of elite talent; there is little evidence to suggest that this is the case (Veal et al., 2012, Taks et al., 2014, Bauman et al., 2015, Misener, 2015). A demonstration of the diversity of disability sport events is reflected in the expansion of Misener and Darcy’s inclusion spectrum (2014) to include exemplars of the sports and events that may fit within each category, which also informs the research conducted for this paper (Table 1).
Increasingly the buzzword around the hosting of large-scale sport events is ‘legacy’, the notoriously elusive and difficult-to-define idea that the staging of an event will offer new legacy capitals to the host area. A triple-bottom-line approach to event legacies incorporates economic, social and environmental legacies (Hede, 2007), which may also be considered along spectrums of, tangible vs. intangible; positive vs. negative as well as the spatial dimension of the legacy (c.f. Girginov and Hills, 2008, Preuss, 2015, Dickson et al., 2011).

Of these, the one that is most often discussed is economic legacies, which can be attained through improved tourism, destination awareness, external investment, and infrastructure (Dickson et al., 2011).

From the perspective of disability sport events there is little empirical research addressing any legacy outcomes from the Paralympic Games, not economic, social or environmental (Misener et al., 2013a, Misener et al., 2015). This is despite the IPC stating, for some time, that legacy and legacy planning are important components of the hosting experience. Section 5.2 of IPC Handbook indicates four legacy components with predominantly social legacies: 1) Accessible infrastructure in sport facilities and in the overall urban environment; 2) Development of sport structures / organizations for people with a disability, from grass-roots to elite level; 3) Attitudinal changes in the perception of the position and the capabilities of persons with a disability as well as in the self-esteem of the people with a disability; and 4) Opportunities for people with a disability to become fully integrated in social living and to reach their full potential in aspects of life beyond sports (International Paralympic Committee, 2013). Each of these areas has relevance to creating and facilitating destination competitiveness for an accessible tourism market beyond the event through changes in behaviours, attitudes, planning and opportunities.

Interestingly, there is a further requirement for event organising committees to set aside resources to implement and measure “to measure the impact of the Paralympic Games, as part of an overall project of measuring Games impact for the Host City, region and country” (International Paralympic Committee, 2013, p. 38). However, despite the interest in
measuring impacts and creating legacy outcomes associated with the hosting of the Paralympic Games, much of this continues to be speculative. No Paralympic Games has ever set aside the 10% budget required to use for legacy based research purposes. This evaluation experience is consistent across the range of disability sport events around the globe.

Part of the concern with this discourse around the so-called legacy outcomes from events is the lack of connection to, and engagement with, destination and community needs. Often, the event is either about showcasing participation potential (i.e. demonstrating ability of persons with disabilities (Howe, 2008)), or a political agenda within the movement to reinforce a cultural ideology of sameness or difference such as in the Deaflympics (Ammons and Eickman, 2011). In either case, there is an assumed legacy outcome of hosting events related to societal attitudes, sport participation, and accessibility. However, this evangelical perspective falls back on the assumption that events will automatically, or serendipitously, accrue positive outcomes. As with the discourse around other mega-sport events (e.g. Dickson et al., 2015), these ideals typically fail to be based on any destination needs or interests, and lack the planning and knowledge management structures to make any of these opportunities come to light (Misener, 2015).

As shown in Figure 3, it is our contention that there can be an interrelationship between disability sport events, accessible communities and ultimately destination competitiveness, such that an accessible community may be: a potential host community for disabled sport events; support accessible tourism and enhance the well being of their residents and thus, their destination competitiveness into the future. A research agenda will help progress scholarship on disability events and destination competitiveness, however beforehand a typology of events is explored to provide scholars with a framework for understanding the nature of events, impacts, reach, and destination competitiveness opportunities before moving onto a proposed research agenda.
Research Design: Developing a Typology of Disability Sport Events

With this background, we have adopted an exploratory interpretive framework (Veal and Darcy, 2014) to examine the overlapping and interdependent nature of three areas of scholarship - DCS, accessible tourism and disability sport events - to develop a typology to assist destination managers and potential event hosts to better understand and leverage opportunities to provide for accessible destination experiences. To do this we:

i) conducted a systematic literature review of disability sport events; ii) performed an audit of international disability sport events over the quadrennial 2015-18;

iii) utilized the results of these two phases to develop the typology events; iv) reflection on the DCS framework for the implications of hosting disability sport events based on the typology identified; and

v) outline a research agenda drawing upon these previous steps.

The systematic literature review of scholarly social science research was conducted using online academic search engines, including Google Scholar, Scopus, Web of Science and major journal databases (EBSCO, AUSPORT Informit, Expanded Academic ASAP, SPORTDiscus and Science Direct) to identify any English and French (the language limitations of the research team) published academic research that focused upon disability sport events. Reflecting the range of research in events (e.g. Mair and Whitford, 2013, Getz, 2008) keyword search terms included: disability sport, event, parasports, impacts, legacies, and volunteers. Due to the scarcity of research in this area, the search was not time bound. Unlike a previous review (Misener et al., 2013a), our search was broader than legacies from disability sport events and included non-empirically based works if relevant to the literature in question. We started with 57 relevant articles from our search and then narrowed based on our interest of fronting the disability event, excluding any that indicated it as a subsidiary or tangential component of the research (e.g. Olympic and Paralympic Games) or focused on
residual aspects such as media attention. We intended to narrow the focus to align with our interest in destination competitiveness. However, as demonstrated in Table 2, with the lack of scholarly research in the area, this was not necessary. Thus, we excluded articles that did not offer a perspective on a disability event more broadly or any relation to the legacy literature ending up with 18 relevant research papers. In keeping with systematic literature reviews rather than metasynthesis research, we did not intend to reinterpret or deconstruct findings from previous studies but sought to examine the key themes emerging from disability sport event legacy papers (Misener et al., 2013a).

The outcome of the systematic review was a series of indicators on which to base the audit of the typology of events. As we were not interested in analysing the results of the studies we focused on classifying events concerning: 1) Single or multisport; 2) Number of sports; 3) Frequency; 3) Scale/Number of athletes; 4) Scale/Number of volunteers; 5) Inclusion spectrum; and 6) Disability focus. Each of these indicators was defined for the purpose of analysis to apply to disability sport events uncovered during the audit. Of these indicators, most are self-explanatory except for spectrum of inclusion and disability. Table 1 outlines the spectrum of inclusion used. The operationalisation of disability draws on the definition from the CRPWD (United Nations, 2006) where physical, hearing, vision, and intellectual impairment are identified as the major disability types. Within the matrix audit, cerebral palsy as an impairment specific group are also identified, due to the nature of the event, and can be considered a multi-disability group including physical, sensory, and intellectual disability depending upon the individual participating.

We then used the classifications identified to construct a matrix upon which the audit of international sport events was operationalised. The audit was also informed by the authors’ knowledge of disability sports and then an online search of events operating during 2015-18. The search drew upon web portals for disability sport (see Appendix 1 for further information) and included a review of their management information systems including annual reports, corporate plans and other associated documents. The choice to focus only on international events was due to the fact that there are literally hundreds of disability sport events from community, regional, national and international and thus beyond the scope of
this paper. What we have identified, in concert with the literature review, provides direction for future research of these events.

The development of the typology of disability sport events involved a constant comparison for recursive iteration between the disability sport events identified, the supporting management information system and the development of the typology. The research team would review the evidence, classify the events independently and then collectively come to a consensus on the classification. As more events and criteria were uncovered, this recursive iteration would involve both the events themselves, the continual development of the typology and a reconsideration of the past events that have already been classified to ensure that the classification best represented the refinement of the typology (Glaser, 1965, Veal and Darcy, 2014, Patton, 1990). Lastly, steps iv and v form part of the findings and discussion of the paper.

Results

i) Systematic Review of Disability Sport Events Research

We present the findings of our two reviews in Table 2 demonstrating the variety of international disability sport events, and simultaneously demonstrating the lack of related empirical research across all domains of impacts, legacies, scale, experiences etc. Despite the diversity and scale of these events, there has been little academic interest in these events, whether that is a function of perceived interest or value, lack of knowledge of how to address the issues, or insufficient awareness of the very existence of these events. However, as noted before, an accessible community, as required for disabled sport events, is an accessible community for all residents and visitors across their whole-of-life whether young and old, healthy or impaired, working or visiting for leisure and, as such, a facilitator of DCS (Darcy and Dickson, 2009). Where there has been research on disability sport events, the focus has been primarily on the higher profile Paralympic Games that is co-run with the Olympics.
Very little research has had any focus on destination marketing or development. This literature has emphasized a number of areas related to destination management including volunteer and spectator experiences, infrastructure developments, and accessibility, but not specifically within a DCS framework.

ii) Audit of International Disability Sport Events: 2015-18

The audit of international disability sport events (Table 2) reveals a great diversity in the impairment focus, the position on the inclusion spectrum, as well as the range of sports and scale of the events. Some are specific to an impairment group such as the Deaflympics, while others include a range of impairments, such as those overseen by the IPC. Additional dimensions considered are: single or multi-sport; the number of events, and the degree to which each is integrated or adapted as explored via the Inclusion Spectrum. Multi-sport events are those that fall under the guidance of more than one international sport organization (ISO) such as IAAF, FINA or FIS, while a single-sport event would be under the direction of just one ISO (Dickson et al., 2015).

There are a range of ways that the scale of an event may be considered, in Table 2 we highlight just two dimensions of scale, others could include duration, ticket sales, sponsorship or government funding and economic impact. The largest event here is the Special Olympics, a participation event, with an estimated 7,000 athletes, and 30,000 volunteers, while the smallest would be the International Bowls for the Disabled World Championships with just 120 athletes.

The audit focused only on international events in the quadrennial from 2015-18, but for future research there are a plethora of other events at the local, regional and national levels that would benefit from the insights gleaned, and evidence gathered, from academic research (see Appendix).

*Insert Table 2 here*
ii) **Typology of Disability Sport Events**

A typology helps to classify and to clarify, and in this case provides a framework for future research. With the diversity of disability sport events identified, the disability sport event typology (Figure 4) developed from our findings provides categories within which each event is positioned. The typology is a synthesis of the theoretical frameworks presented earlier in the paper and draws upon: the inclusion spectrum (Interactive, 2013); the UN CRPWD (United Nations, 2006); social approaches to disability (Misener and Darcy, 2014, Barnes et al., 2010); role of sport in civil society (Allison, 1998, Hayes and Horne, 2011, Hayes and Karamichas, 2011); and sport development processes (Hylton, 2013, Thomas and Smith, 2008). The intention is that the typology provides a means to compare and contrast the diversity of disability sport events. What is confirmed by looking through the lens of this typology is that disability sport events are multi-dimensional, but central to all is a focus on inclusion, for athletes, volunteers and spectators a-like, and thus a greater propensity for achieving destination competitiveness if these differences are leveraged within the social context of the destination event schedule.

*Insert Figure 4 here*

iv) **Reflections on Destination Competitiveness and Sustainability Framework**

In reading the typology, the implications of the research for operational management within destination regions requires a considered understanding of disability, sport, event logistics and the overall accessibility characteristics of the destination. As Hong (2009) proposed generally about a four component model of DCS and Domínguez et al. (2015) confirmatory model found to be the model of best fit for accessible destinations, the typology of sport events should consider the following for each of the four components (c.f. Domínguez et al. 2015):

- **Supporting Factors & Resources**: accessibility, infrastructure, hospitality and political-will. This component is equivalent to a foundation of the building where the underlying infrastructure requires a great deal of time to put in place and must be pre-empted
by accessibility/discrimination legislation, practices and codes and, enactment of the UN Convention;

- **Core Resources & Attractors**: while this component is more generic with physiography and climate, culture and history, Tourism superstructure, market ties and entertainment, the sport event typology needs to be seen as part of the overall mix of accessible activities and special events. Where do current gaps in the event schedule occur and do these equate to the regional, national and international disability sport events on offer?;

- **Destination Management/Destination Policy, Planning & Development**: an access culture and vision, together with support from disability/access specific initiatives for marketing, quality of service/experience, information/research, and human resource development that enables travel by people with disability; and

- **Qualifying & Amplifying Determinants**: while all elements were found to be of importance (cost/value; location; safety/security; awareness/image), it is suggested that a great deal more work needs to be undertaken around the awareness and image of the destination region from an accessible tourism perspective. This is closely linked with destination management factors of promotion and branding, and quality service experience (Domínguez, Darcy, and Alén, 2015).

As noted in the beginning of the paper about sport events generally, the underlying infrastructure for sport is costly, has questionable long-term legacy unless planned for and may or may not have been built at a time when disability accessibility was part of games planning agendas. The access specific needs of those with different dimensions of disability (mobility, vision, hearing and cognitive as the major four) vary significantly with some (mobility) requiring infrastructure with exacting technical requirements (Beasley and Davies, 2001, Darcy and Taylor, 2013), with other disability types (Deaf/hearing impairments) not as infrastructure-dependent but requiring alternative communication, wayfinding and cultural awareness. Destination managers may like to consider relatively more simple disability sport events (one disability type and one sport) to build their capacity and reputation. Like all events, even when destinations and venues are well equipped for the DCS Components, all
sport events require some temporary overlay. For example, the most recent IPC Vista Congress (Girona, Spain) required wheelchair accessible shuttle bus services going from the accommodation hotels to the sport conference facilities, which were handled by a specialist travel provider in conjunction with the IPC event Logistics coordinator (International Paralympic Committee, 2015, Barcelona Special Traveller, 2015).

v) Research Agenda

With the proposed typology and the understanding of DCS as it applies to accessible tourism and disability sport events, the following research agenda builds upon the research explored here and provides direction for future research. With the plethora of disability sport events and the complexity of disability as a construct, it is not intended to provide a comprehensive research agenda, but rather to provide direction for those interested in pursuing research that may support DCS because of hosting disability sport events. The diverse topics included in this research agenda will require going beyond discipline-specific and interdisciplinary research by drawing upon transdisciplinary and postdisciplinary research approaches (Gill, 2012).

With the increasingly crowded marketplace for events and considerable competition among cities to host events, a business case needs to be made for why a destination would choose to host a disability sport event. From a social development perspective, it seems logical that they could use such an event to increase accessibility and generate a greater understanding of disability related issues. However, these opportunities do not necessarily generate a return on investment in the same way that other events might do with new infrastructure developments and knock-on tourism effects. In noting triple bottom line approaches to event evaluation, destination managers can make an improved social case for disability sport events through a combination of corporate social responsibility and social return on investment (Misener et al., 2013b, King, 2014). These non-economic outcomes can have a significant effect on communities but require strategic approaches to presenting corporate social responsibility opportunities to sponsors, the timeframe for sport development, education and awareness programs, and a commitment to research to include such outcomes.
Event leveraging provides social, sound economic and financial opportunities for disability sport event hosting (Chalip, 2006). As shown in the typology of disability sport events, there are numerous opportunities for creating a business case around destination management through varying types of events. For example, often event-related research focuses only on large-scale events, yet test events are a significant generator in their own right for testing logistics, accommodation, transport, ticketing, etc. and provide the platform for considering broader issues of accessibility and inclusion, both for the event and beyond. Given the logistics of staging a large-scale event, additional considerations come into play that could help facilitate the business case for hosting these events such as inviting international visiting teams prior to major events for athletes’ acclimatization and training. This can benefit peripheral communities outside the Games site, going to smaller centres and communities with accessible precincts (accommodation, sport facilities, transport, and food and beverage) (Chalip and McGuirty, 2004). Creation of accessible precincts is a significant consideration from a destination competitiveness perspective particularly when considering the long-term benefits for the well-being of residents. Thus being able to leverage off mega-events would enable them to host future smaller disability sport events, from the local to the national, and other events such as scientific congresses that are looking for accessible venues, is a significant and on-going opportunity (Darcy et al., 2014).

The current state of empirical research is prohibitive in helping cities build their destination competitive business case due to the lack of understanding and investigation of these opportunities, within both sport events and other events. We suggest that there are numerous prospects for research that could help drive this destination marketing agenda and build the business case for hosting disability sport events. As demonstrated in Table 2, there are still many opportunities to study these events beyond the focus on external factors of the event, including internal variables such as people with disabilities involved in the event, e.g. athletes, staff/officials/coaches, volunteers, and spectators. Research questions that emerge from our review include:

• To what extent is the IPC legacy objectives achieved?
What are the facilitators of disability sport event legacies? Who are the beneficiaries of accessible disability sport event precincts and facilitating services?

What are the social and economic impacts of enhanced accessibility from disability sport events?

What are the service experiences of disability sport event clients, e.g. athletes, volunteers, carers and spectators, who themselves have a disability?

For this latter question, one approach that may underpin research of the whole of the disability sport event visitors’ journey comes from transformative service research and the service blueprint. An emerging body of work related to disability and sport events provides a more holistic and integrated approach to the event experience (e.g. Bamford and Dehe, 2016, Dickson et al., In review) which is of benefit when considering the ability of a destination as a whole to deliver equitable, quality accessible tourism experiences.

Table 3 further expands the range of potential research topics emerging from the hosting of disability sport events; the three areas of literature considered here; our analysis; and the IPC’s legacy objectives; set within a broader triple bottom-line evaluation approach.

**Table 3**

**Conclusion**

**Practical Implications**

Research demonstrates that cultures and environments that are designed to be inclusive of residents with disabilities and access needs will, by default, end up being good environments for tourists and that these environments may be leveraged for on-going event development and appeal from a destination competitiveness perspective, and vice-versa. However, accessible precincts and destinations do not just emerge from a tourism perspective they are the result of engagement across all levels of destination competitiveness and sustainability (Ritchie and Crouch, 2003): vision, commitment, planning and collaboration of governments, destinations, and individual businesses. In the same way that accessible tourism has developed beyond just understanding access requirements, accessible destination experiences
for sport events require collaboration by stakeholders who have not worked together collaboratively before to specifically bid for the events and market the event to new participants, audiences and communities (Buhalis & Darcy, 2011).

(Ritchie and Crouch, 2003)

**Theoretical Implications and Future Research**

Despite calls for increased research into accessible tourism (Darcy, 2006) and accessible events (Darcy, 2012) understanding of the potential impacts and legacy for communities and destinations from conducting disability sport events, remains absent from most sport, event and tourism literature (Misener et al., 2013a, Shapiro and Pitts, 2014). The review of literature on destination competitiveness, disability discrimination, and event legacies, lays the groundwork for a disability event typology and disability event research agenda to guide future research that will be beneficial to host communities and their sustainable destination development and competitiveness strategies, and including the well-being of their residents.

The systematic review of research and the audit of disability sport events for the quadrennial 2015-18 demonstrates the numerous research opportunities at all levels, facets of competition and inclusion spectrum, requiring trans and post-disciplinary approaches.

Therefore from both a theoretical and practical perspective this typology and research agenda offers a framework upon which to plan, promote, evaluate and monitor the impacts and legacies of the diversity of disability sport events. It does so from the perspectives of sustainable development, accessible tourism, community engagement, and public policy. It is hoped that these approaches will enhance destination competitiveness through adding to diversity offerings and attract a growing market segment that can also be of benefit to destination residents across their life span.

**Limitations**

In order to evaluate the current state of research and future research opportunities in relation to disability sport events, this research focused only upon international events in the
As such, this overlooks the amplification of disability sport at the national, regional and local levels within nation states. Further, beyond disability sport events are a whole other area of disability events including cultural, medical/rehabilitation, assistive technology, disability organisation congresses, human rights, inclusive education and tourism specific. These other types of disability events provide a rich area for further event leverage and research.

References


International Paralympic Committee (2015), "Vista Congress - "Securing the Future for Young Para-Athletes"".


Olympic legacy (2005), "PM hails Olympic 'legacy'", *The Sun*, London.


United Nations (2012), "UN Millennium Project - commissioned by the UN secretary general and supported by the UN development Group".


**Appendix: Further disability sport event information**

Deaflympics [http://www.deaflympics.com](http://www.deaflympics.com)

Disabled Sports USA Events: [http://www.disabledsportsusa.org/events/](http://www.disabledsportsusa.org/events/)

English Federation of Disability Sports, Disability Sport Events [http://www.efds.co.uk/our_work_in_sport/disability_sport_events](http://www.efds.co.uk/our_work_in_sport/disability_sport_events)


International Paralympic Committee Events and Competitions [http://www.paralympic.org/events](http://www.paralympic.org/events)

Special Olympics Worldwide Events Calendar
http://www.specialolympics.org/Special_Olympics_Global_Calendar_of_Events.aspx

<table>
<thead>
<tr>
<th>Inclusion spectrum</th>
<th>Sport Examples</th>
<th>Sport Event Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fully integrated activities</strong> where everyone participates without adaptation or modification</td>
<td>Community fun run or marathons where people of all abilities participate over the same course at the same time</td>
<td>Terry Fox Run (Canada) The Colour Run</td>
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<tr>
<td><strong>Modified integrated activities</strong> where persons with a disability participate with some modification to rules, equipment, or area within a mixed context of ability</td>
<td>Tenpin bowling: people with a mobility disability participate using a ramp bowling ball delivery system Skiing (vision-impaired with a guide; sit-skiing)</td>
<td>Special Olympics World IPC Alpine Ski and Snowboard Championships</td>
</tr>
<tr>
<td><strong>Parallel activities</strong> where persons with a disability participate in the same activity but access it in their own way, participating with others of similar ability</td>
<td>Adapted swimming; Athletics; Tennis</td>
<td>IPC World Swimming Championships Commonwealth Games or IPC World Championships Wimbledon or US Open</td>
</tr>
<tr>
<td><strong>Adapted activities</strong> where nondisabled persons participate in activities designed specifically for those with a disability, where parity is considered reached through a common adaptation</td>
<td>Integrated wheelchair basketball where people without disabilities play in competitions through wheelchairs provided for the use Sitting volleyball</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Discrete activities</strong> where persons with a disability participate in activities with similarly disabled peers'</td>
<td>Wheelchair Rugby for athletes with physical disability requiring use of a wheelchair Goalball for vision impaired athletes</td>
<td>National Veterans’ Wheelchair Games (US) World Wheelchair Rugby Challenge Deaflympics</td>
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<tr>
<td>Single or multi-sport</td>
<td>Number of sports</td>
<td>Quadrennial</td>
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<tr>
<td>Multi (e.g. IAAF, FINA, IBD)</td>
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<td>Previously held in 2005</td>
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<td>Multi FIS,IIHF, WCF</td>
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<td>Multi (e.g. IAAF, FINA)</td>
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<tr>
<td>Special Olympics World Summer Games, Los Angeles (<a href="http://www.la2015.org">http://www.la2015.org</a>)</td>
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<tr>
<td>4th INAS Global Games, Ecuador (<a href="http://www.inas.org/event/2015-inas-global-games/instance_id=33">http://www.inas.org/event/2015-inas-global-games/instance_id=33</a>)</td>
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<td>Seoul 2015 IBSA World Games (<a href="http://www.ibsa.org/2015seoul/en-us">http://www.ibsa.org/2015seoul/en-us</a>) 9 sports</td>
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<td>18th Winter Deaflympics 2015, Russia (<a href="http://www.2015deaflympics.org">http://www.2015deaflympics.org</a>)</td>
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<td>Paralympic Games Tokyo (<a href="http://www.paralympic.org/paralympic-tokyo-2020">http://www.paralympic.org/paralympic-tokyo-2020</a>)</td>
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<td>Canada (<a href="http://www.paralympic.org/panorama-2015">http://www.paralympic.org/panorama-2015</a>)</td>
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<td>2015 IPC Athletics World Championships, Doha, Qatar (<a href="http://www.paralympic.org/doha-2015">http://www.paralympic.org/doha-2015</a>)</td>
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<td>IPC World Swimming Championships, Glasgow (<a href="http://www.paralympic.org/glasgow-2015">http://www.paralympic.org/glasgow-2015</a>)</td>
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<td>Parapan Am, Toronto 2015 (<a href="http://www.toronto2015.org">http://www.toronto2015.org</a>)</td>
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<tr>
<td>8th ASEAN Para Games, Singapore (<a href="http://www.aseanparagames2015.com">http://www.aseanparagames2015.com</a>)</td>
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<td>Single or multi-sport</td>
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<td>Rio 2016 Paralympic Games</td>
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<td>Special Olympics World Winter Games, Austria 2017</td>
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<td>rd Summer Deaflympics, 2017, Turkey Multi</td>
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<tr>
<td>PyeongChang 2018 Winter Paralympic Games</td>
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<td>Gold Coast Commonwealth Games</td>
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<td>(<a href="http://www.gc2018.com/the-sport">http://www.gc2018.com/the-sport</a>)</td>
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</table>
| Economic | Aim: To explore the economic costs and benefits for the host community of hosting the event  
What is the business case for hosting disability sport events?  
Where has accessibility become the norm, rather than the exception, in public policy?  
E.g. destination management plans, building codes, transport plans, festival and event approvals  
To what extent have the profile of tourists changed before, during and after the event?  
What new accessible tourism opportunities have developed as a result of hosting the event? | Cost of participation, especially for volunteers and officials  
Economic contribution of volunteers to the event and thus the destination | Economic impact of the event for the host community  
- Pre-event visiting team training camps  
- Test-events  
- Main event  
- Destination awareness and branding  
Opportunity cost of funding events | Creation of a business case and strategy for disability sport events and accessible tourism  
Evaluation of growth in accessible events and tourism experiences  
- Lower –profile/tier disability training and events  
- Growth in accessible tourism markets  
Increase in public and private sponsorship of disability sports |
| Social Aim: To explore the social costs and benefits for the host community of hosting the event  
As a result of hosting the event, how have attitudes and behaviours changed towards people with a disability in the host community?  
How have opportunities for people with disabilities improved as a result of hosting the event?  
E.g. sport participation, social and civic inclusion, work opportunities, | Quality of experience of the event across the whole journey and the range of service touchpoints via service blueprinting | Increased participation of people with disabilities as volunteers, officials and spectators at the event | Changes in attitudes towards people with disability by:  
- Spectators;  
- Volunteers;  
- Sponsors  
Change in opportunities for people with disability, e.g.:  
- Sport participation;  
- Work participation;  
- Civic participation, including volunteering  
Increased human capital (i.e. knowledge and skills) in host communities related to |

Table 3 Disability sport event research agenda
| working with people with disabilities | Enhanced destination competitiveness including well-being for residents |
Figure 1 Destination Competitiveness and Sustainability Source: Dickson and Darcy (2012) (Adapted from Ritchie and Crouch (2000))

Figure 2 General principles of the UN Convention on the Rights of Persons with Disabilities

1. Respect for inherent dignity, individual autonomy including the freedom to make one’s own choices, and independence of persons;
2. Non-discrimination;
3. Full and effective participation and inclusion in society;
4. Respect for difference and acceptance of persons with disabilities as part of human diversity and humanity;
5. Equality of opportunity;
6. Accessibility;
7. Equality between men and women;
8. Respect for the evolving capacities of children with disabilities and respect for the right of children with disabilities to preserve their identities.
Figure 3 Bringing together three bodies of knowledge

Figure 4 A typology of disability sport events