Part I Theorizing mega-events on the ground

Chapter 1

What makes an event a mega-event? Definitions and sizes

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Abstract

There is considerable ambiguity about what makes an event a mega-event. Intervening in this debate, this chapter develops a definition and classification scheme for mega-events. On the basis of a review of existing definitions, it proposes four constitutive dimensions of mega-events: visitor attractiveness, mediated reach, costs, and transformative impact. The chapter suggests indicators for each dimension and maps onto these four dimensions a sample of the latest editions of nine large events: (Expo, Summer and Winter Olympics, Football World Cup, European Football Championship, Asian Games, Commonwealth Games, Pan American Games, Universiade). From this, it develops a multi-dimensional, point-based classification scheme of large events according to size, distinguishing between major events, mega-events, and the recently emerging class of giga-events. Concluding, it identifies the need for more systematic data on the size, costs, and impacts of a broad range of large-scale events over time.

Introduction

Mega-events are much discussed but seldom defined. Many of us seem to have an intuitive understanding of what the term refers to: we know one when we see one. The Olympic Games certainly, the Football World Cup too. But what about the Asian Games, the Rugby World Cup, the Expo?

The question "What is a mega-event?" is more than definitional bickering. First, having a common understanding makes it easier to talk about the same subject when talking about mega-events – an issue of crucial importance not only for this edited volume. That is currently not the case. Some scholars include Expos, political summits, conventions, or festivals, while others focus on sports events only. Some regard the Winter Olympics as a mega-event, while others consider them as a second-order event. Some add single-sports events beyond the Football World Cup, such as the Rugby World Cup or the Super Bowl, to the list. Second, what turns an event into a mega-event will vary depending on the focus. Mega-events have different dimensions in which they can be 'mega' and not all mega-events are 'mega' in the same dimensions and to the same degree. We should thus not only ask 'if' an event is mega, but 'how' it is so.

The distinction between an event and a mega-event is essentially one of size. Mega-events are larger than regular events. Yet, the size of what? And where does 'large' start? This chapter takes a dual approach to these two questions. It extracts four key dimensions of mega-events from the array of existing definitions: visitor attractiveness, mediated reach, cost, and transformative impact (Table 1.1). It then maps the most recent editions of nine large events on those four dimensions to see how they differ in terms of size (Table 1.2). In so doing, the chapter identifies both the relevant characteristics of mega-events and how events vary across these characteristics to finally propose a matrix of classification for large events into three size classes: major events, mega-events, and giga-events (Table 1.3). It concludes with a call for a more systematic investigation of the size, costs, and impacts of large-scale events over time to compliment the predominant focus on individual case studies and on the Olympic Games in the existing literature.

Visitor attractiveness

The term 'mega-event' appeared fairly recently in academic studies. Its first use can be traced to the 37th Congress of the *Association Internationale d'Experts Scientifiques du Tourisme* (AIEST) in Calgary in 1987 with the theme "The Role and Impact of Mega-Events and Attractions on Regional and National Tourism Development". At that time, scholars had extensive discussions of what would make an event a mega-event, but a commonly agreed-on definition remained elusive (Jafari 1988). The definition in the conference proceedings (Ritchie and Yangzhou 1987:20) relied on Ritchie's (1984) earlier and highly cited the concept of hallmark events (see Table 1.1). It understood mega-events primarily as tourist attractions, as is also evident from the title theme of the conference. In Jafari's (1988:272) blunt words: "in the mind of the majority of the participants and in the word of most presentations, mega-events still meant simply mega-onslaught of visitors". The weight accorded to mega-events' role as tourist attractions in these early discussions reflects that their study was – and continues to be – firmly rooted in tourism and leisure studies (Getz 2008 2012).

Measuring the number of visitors directly is difficult. In the absence of primary surveys, the number of tickets sold can be a proxy for estimating attendance for ticketed events (see Ritchie and Yangzhou 1987:28; 39). It should be noted, however, that this is an overestimation of the number of unique visitors, since many visitors go to several competitions. For the 2002 Commonwealth Games, for example, one study found that an average visitor bought between three and four tickets (Preuss, Seguin, and O'Reilly 2007). On the other hand, not every ticket translates into attendance, since not every ticket is used. Often tickets are given away for free by sponsors or governments, notably for less popular events, and some, mostly authoritarian, political regimes have been reported to force civil servants to acquire tickets (Rysaliev 2017). Despite these shortcomings, the number of tickets sold is the best proxy variable for visitor attractiveness for which data are available across a large number of events.

Table 1.2 presents the number of tickets sold for the top two tiers of large events in the period between 2015 and 2019. Roche (2000:4) includes in those tier global events (Summer and Winter Olympics, Men's Football World Cup, World's Fair (Expo)) and world regional events (Asian Games, Commonwealth Games, Pan American Games, Men's European Football Championship, Universiade). This, of course, is a selective sample, but it does show some general tendencies. However, the list demonstrates that even among these largest events there is a substantial difference in the number of tickets sold. The EXPO 2015 in Milan sold over 3 times more tickets than the Summer Olympics 2016 in Rio, which is the second biggest event in this sample by the number of tickets sold. Moreover, the EXPO 2015 has sold 215 times more tickets than Universiade 2019 in Napoli, which is the smallest event in terms of visitor attendance. In part, this significant difference between the EXPO and other events is due to its long duration of six months and the absence of a limited number of seats, which is not the case for all other large events in the sample. The Summer Olympics 2016, as the runner-up, have many and rather large venues and thus a high number of spectators, whereas the FIFA World Cup and the UEFA EURO have few venues but very large average capacities.

Table 1.1 **Definitions of mega-events**

Source	Definition	Tourist Attraction	Mediated Reach	Cost	Trans-formation
Ritchie and Yangzhou (1987: 20) (from Ritchie 1984: 2)	Major one-time or recurring events of limited duration, which serve to enhance the *awareness, appeal, and profitability of a tourism destination* in the short and/or long term. Such events rely for their success	+	–	–	–

	on uniqueness, status, or timely significance to create interest and *attract attention*.				
Roche (1994: 1-2)	Mega-events … are short-term events with *long-term consequences for the cities* that stage them. They are associated with the creation of infrastructure and event facilities often carrying *long-term debts* and always requiring long-term use programming. … [T]hey project a new (or renewed) and perhaps persistent and positive image and identity for the host city through *national and international media*, particularly TV, coverage.	−	+	+	+
Jago and Shaw (1998: 29)	A one-time major event that is generally of an *international scale*. [A major event is] a large-scale special event that is *high in status or prestige* and *attracts a large crowd* and *wide media attention*. … They are *expensive to stage*, attract funds to the region, lead to demand for associated services, and leave behind legacies.	+	+	+	o
Roche (2000: 1)	Large-scale, cultural (including commercial and sporting) events, which have a dramatic character, *mass popular appeal,* and *international significance.*	o	+	−	−
Hiller (2000: 182-183)	A short-term, one-time, high-profile event. … The m*ass media carries the event to the world*, … it has a significant and/or permanent *urban effect*.	o	+	−	+
Horne (2007: 81-82)	Have *significant consequences for the host city, region, or nation* … [and] attract *considerable media coverage*.	−	+	−	+
Gold and Gold (2011: 1)	Cultural and sporting festivals that achieve sufficient size and scope to *affect whole economies* and to receive *sustained global*	−	+	−	+

	media attention.				
Mills and Rosentraub (2013: 239)	Significant national or global competitions that produce extensive levels of participation and *media coverage* and that often require *large public investments* into both *event infrastructure, for example, stadiums to hold the events, and general infrastructures, such as roadways, housing, or mass transit systems*.	–	+	+	+
This chapter	Mega-events are ambulatory occasions of a fixed duration that a) *attract a large number of visitors*, b) *have large mediated reach*, c) *come with large costs,* and d) *have large impacts on the built environment and the population*.	+	+	+	+

+ = strongly present in definition o = somewhat present in definition – = hardly or not at all present in the definition

Table 1.2 **Size indicators of recent large events 2015-2019** (Sources: Expo: Il Giorno 2016. Ponzini et al. 2020; Olympic Summer Games: IOC 2020. Reuters 2017; FIFA Men's World Cup: FIFA 2018. RBC.RU, 2018; Asian Summer Games: Around the Rings 2018. Inside the Games, 2018; Olympic Winter Games: IOC 2020. Wood and Meng 2020; European Football Men's Championship: Cour des Comptes 2017. Gayant 2016. Les Echos 2016. UEFA 2017; Commonwealth Games: Queensland Government and Gold Coast 2018. Sportcal 2019; Universiade: FISU 2019. Sportcal 2020; Pan American Games: Inside the Games 2019).

Event	**Most recent edition**	**Tickets Sold**	**Broadcast Rights**	**Total Costs**	**Capital Investment**	**Capital Investment**	**Operating Budget**
		Million	USD million	USD billion		(of total costs) (%)	USD billion
Expo	Milan 2015	21.5		17.4	13.4	77.6%	1.29[1]
Olympic Summer Games	Rio 2016	6.2	3.001	13.7	10.7	78.3%	2.84
FIFA Men's World Cup	Russia 2018	2.7	3.127	14.2	14.2	72.1%	3.95
European Football Men's Championship	France 2016	2.5	1.207	3.2	2.2	69.4%	0.96
Asian Summer Games	Jakarta–Palembang 2018	1.3	n/a	3.2	2.4	75%	0.80[2]
Commonwealth Games	Gold Coast 2018	1.2	108	1.4	0.9	52.6%	0.65
Olympic	Pyeongchan	1.1	1.436	13	10.4	80.3%	2.55[2]

Winter Games	g 2018						
Pan American Games	Lima 2019	0.5	15	1.2	0.7	57.1%	0.53[2]
Universiade	Napoli 2019	0.1	0	0.3	0.1	62.1%	0.10
TOTAL		35.85	8.761	53.23	50.5		13.38
MEAN		4.48	1.252	5.91	5.6	44.6%	1.54
MEDIAN		1.85	1.207	3.20	2.2	57.1%	0.96

Cost estimates are in USD in the year of the event; conversions to USD used the average exchange rate in the year of the event n/a = not available; —- = not applicable 1 = estimate; 2= calculated by deducting the capital investment from the total cost

Mediated reach

To consume a mega-event, however, it is not essential to travel and watch it *in situ*. In fact, the wide-spread broadcasting of events since the 1980s has meant that the vast majority of those who watch an event do so in front of a screen (Horne 2007; Sugden and Tomlinson 2012). From Montréal 1976 to Rio 2016, the value of broadcasting rights for the Summer Games has risen exponentially from USD 34.9 million to USD 3,001 million in nominal terms or almost 85 times in real terms. According to the IOC, about half of the world's population, 3.64 billion, saw at least one minute of coverage of the 2016 Summer Games (IOC 2020). From Barcelona 1992 to Rio 2016, the number of accredited media personnel almost doubled to more than 25,000 – more than two media representatives per athlete (IOC 2016b:17).

This explosion underscores the extent to which large events are nowadays mediated rather than directly experienced. The importance of the media has grown to such an extent that Horne (2007:82) even claims that "an unmediated mega-event would be a contradiction in terms". More than transmitting information, the media are instrumental for creating a celebratory atmosphere and emotional attachment to mega-events, turning them into the spectacles they are (Roche 2017; Rojek 2014; Tomlinson 1996). Media coverage also plays a crucial role in forming place images and awareness. Improving these and building a country or city brand is one of the central goals of many mega-event hosts today (Grix 2012; Vanolo 2017; Zhang and Zhao 2009).

Although governing bodies such as the IOC and FIFA often tout global viewership figures, these come with two problems. First, they are rough estimates, based on extrapolations, and as such unreliable and prone to exaggeration and manipulation (Horne 2007; Maennig and Zimbalist 2012). Second, due to differences in estimation methods and units, figures are often not comparable between events. Instead, the value of broadcasting rights can function as an alternative proxy for measuring the importance of mediated reach. It is a direct correlate of anticipated global reach and puts a price tag on viewers' attention, thus reflecting the mediated commercial value of the event. It is also better suited for comparisons between different events.

Table 1.2 shows that the mediated reach of mega-events partly correlates with visitor attractiveness– for the Olympics and the World Cup – but partly strongly diverges from it, as is the case with the Expo. The Football World Cup and the Summer Olympics compete for first place in revenues from television broadcasting rights, with each ranking over USD 3 billion. Next comes the 2018 Winter Olympics in Pyeongchang that received over USD 1.4 billion while the Euro 2016 had broadcast income of almost USD 1.2 billion. The other events play in a completely different league. The rights for the Commonwealth Games 2018 were valued at USD 108 million, which increased more than twice compared to the 2010 edition but is barely 3.5% of what the 2018 edition of the World Cup earned. The Pan American Games 2019 reported a maximum of USD 15 million while the 2019 Summer Universiade in Naples did not account for the income from broadcasting rights as

most rights were transferred for free. The global media value of Expos is negligible and its governing body, the Bureau International des Expositions (BIE), does not market broadcasting rights.

Cost

Using visitor attractiveness and mediated reach as size indicators for mega-events focuses on the output side of mega-events, on the attention they generate. Yet, mega-events also have an important input side: their costs. Mega-events typically cost hundreds of millions if not billions of US dollars. That is money that goes into the infrastructure required for hosting the event, such as accommodation, transport, or venues, but also into the operational cost of organizing the event itself, such as salaries, temporary overlays, and security.

Some definitions, though by far not all, rely on costs as an input indicator to define mega-events (see Table 1.1). Roche (1994), Jago and Shaw (1998), or Mills and Rosentraub (2013) characterize mega-events variously as requiring "large public investments", "expensive to stage" or even as "carrying long-term debts". They are all clear, however, that cost cannot be the only defining element for mega-events, always linking it with other features such as visitor attractiveness and mediated reach.

For the nine events in the sample, Table 1.2 presents an overview of the estimated costs. Calculating costs for large events is contentious, because of frequent intransparencies about spending and a certain arbitrariness regarding which costs to attribute to the event. This often can even lead to inconsistencies in numbers published by the same official source. Much of the investment in infrastructure, for example, has longer depreciation periods due to its use after the event. There are also opportunity costs, costs of lost productivity during the event, and foregone earnings through tax exemptions and other indirect subsidies, which usually remain unaccounted for. The costs shown in Table 1.2 are from government or academic sources calculating both operational and capital cost expenditures connected to the event. They thus do not show the unique costs of the event, but they show the costs *induced* by the event.

As with the previous two indicators, costs differ widely between events in the sample, but none is below USD 1 billion except the Summer edition of the Universiade held in Naples. Besides this event, the total cost ranges from almost USD 1.2 billion for the Pan American Games 2019 in Lima to USD 17.4 billion for the EXPO 2015 in Milan. The mean cost is USD 7.4 billion, which places mega-events among the largest of mega-projects. For comparison, the two largest mega-projects in Germany, the new international airport in Berlin and the new train station in Stuttgart, were valued at about USD 7 billion each. The total cost of the latest cycle of these nine mega-events alone was just under USD 68 billion!

It is important to point out that costs for the same event fluctuate more between host cities and countries than visitor numbers or the value of broadcasting rights. The Winter Games in Pyeongchang, for example, cost USD 13 billion, almost two times more than those of Vancouver (Dyck 2013). The costs for the World Cup increased from USD 7.5 billion in South Africa in 2010 to USD 14 billion in Brazil in 2014 (Gaffney 2014) to an estimated USD 21 billion in Russia for 2018 (Müller 2014).

Urban transformation

The multi-billion-dollar spending on mega-events has an immediate impact on host cities and regions, both on the population and the built environment, as hosts construct or upgrade stadia, conference facilities, security infrastructure, roads, railway, and metro lines, hotels and power stations. In fact, most cities, countries, and regions aim to make strategic use of mega-events to

develop infrastructure and push urban renewal, often through leveraging funds that would not be available otherwise. Governing bodies such as the IOC and FIFA encourage such transformative impacts under the label of 'legacy', i.e. long-lasting transformative impacts on the urban and regional fabric that justify the high outlays for mega-events.

Urban transformation is the fourth and last dimension that appears in definitions of mega-events, though again not in all of them (see Table 1.1). A mega-event must have "long-term consequences for … cities" (Roche 1994:1) or a "significant and/or permanent urban effect" (Hiller 2000:183). Some even go so far as to claim that mega-events must "affect whole economies" (Gold and Gold 2011:1). Others place an emphasis on the effects of mega-events on the population of host cities (Gursoy, Jurowski, and Uysal 2002; Hiller 2012). An event that does not intervene to a significant degree in its host city, region, or even country would thus not qualify as a mega-event.

One way of gauging the transformative dimension of mega-events is to look at the share of capital investments in total costs. Using this approach, Liao and Pitts (2006:1247), for example, found that 97% of the spending on the Olympic Games in Tokyo in 1964 was on ancillary infrastructure, whereas it was just about 50% for Los Angeles in 1984. While this does not say much about the nature and the impacts of the spending and therefore cannot substitute for a qualitative investigation of urban transformation, it provides a useful scale for comparison between different events.

Table 1.2 shows the capital investment, operating budgets, and the percentages of capital investment in total costs. Capital investment here includes infrastructure (transport, energy, ICT, accommodation, etc). and spending on the construction of venues and ancillary buildings (e.g. athletes villages, media centres, etc), but it excludes operating costs (e.g. administration, ceremonies marketing and communications, overlays, security, technology, transportation services). In all cases, capital investments surpass operating costs. In more than half of the cases, it is more than 70% of total cost. This is a clear indication of the transformative impact of this most recent round of mega-events. Spending over 80% on capital investment, Pyeongchang, for example, utilized the 2018 Winter Olympic games for revamping its metropolitan arterial transport network which took a large share of this expenditure combined with the upgrading of the sporting venues and supporting infrastructure (Wood and Meng 2020:7). Similarly, the capital investment for the 2016 Summer Olympics reached almost 80% and translated into a massive extension of transport infrastructure such as four new bus rapid transit lines and a metro line as well as the creation of two new Olympic parks and the extensive construction of offices and upmarket apartments (Kassens-Noor et al. 2018; Müller and Gaffney 2018:258). Similar developments took place in preparation for the Milan 2015 EXPO and the FIFA Men's World Cup 2018 in Russia, where the large total cost can be attributed to a high share of capital investments channeled into upgrading transport infrastructure, housing, and urban renewal (Di Vita and Ponzini 2020; Makarychev and Yatsyk 2020; Wolfe and Müller 2018). The picture is similar for the 2018 Summer Asian Games where despite significantly lower total costs of the event the major expenditure was on urban infrastructure like the Palembang Light Rail Transit (Financial Tribune 2018).

Towards a definition and classification: major, mega, giga

Existing definitions of mega-events in Table 1.1 incorporate one or several of the four dimensions this chapter has discussed so far: visitor attractiveness, mediated reach, cost, and transformational impact. Yet, none of them incorporates all four. For an event to become truly 'mega', however, it should be large on each of the four dimensions. Thus, this chapter proposes a consolidated definition:

Mega-events are ambulatory occasions of a fixed duration that attract

a) *a large number of visitors,*
b) *have a large mediated reach,*
c) *come with large costs,*
d) *have large impacts on the built environment and the population.*

This is a parsimonious definition incorporating constitutive necessary elements of mega-events. It goes without saying that most mega-events share several other characteristics, such as temporary organizations in charge of the planning, a fixed date for delivery, governing bodies that set the rules and own most of the rights for the event, and so on (e.g. Gold and Gold 2008; Hiller 2000). These features, however, shall not be considered necessary elements for turning events into mega-events.

This definition, however, does not resolve the question of what qualifies as 'large'. This is where the mapping of Roche's (2000) top two tiers of mega-events on the four key dimensions helps to provide thresholds for differentiation (see Table 1.3). The largest of events have more than 3 million tickets sold, more than USD 2 billion in broadcast revenue, more than USD 10 billion in total costs, and more than USD 10 billion in capital investment. These largest events are rare. In the given sample of mega-events, it is the Rio Summer Olympics 2016 that scores highest on all of the four categories and is followed by the FIFA World Cup 2018 while the Milan EXPO 2015 scores highly on three, but misses the mediated reach of the other events due to its character. The Winter Olympics held in Pyeongchang in 2018 scored "giga" on cost and transformative impact and is close on the threshold to be included in the giga-event group as well. Events such as the Universiade or the Pan American Games score relatively low on all size indicators and thus are placed towards the lowest threshold of major events. Thus, their impacts are overall limited compared to other events in the sample.

Based on the distribution of size indicators in Table 1.2, this chapter proposes a differentiation of each of the four dimensions into three size intervals (L, XL, and XXL) with a point-scoring scheme, as shown in Table 1.3. The maximum number of points (3 points) can be obtained if an event belongs to the largest of its size in a particular dimension (XXL). Two points are awarded for events that range in the middle of the size distribution (XL) and one point for events at the lower end of the distribution (L) but still meeting a certain minimum value (to distinguish them from regular events). The following thresholds divide events into three different size classes:

- Major events (1 to 6 points): With a maximum average score of 1.5 on each of the four dimensions, major events are of significant size. To qualify as a major event, an event needs to have an L size on at least one dimension.
- Mega-events (7 to 10 points): Mega-events need to have an XL size on at least three of the four dimensions, but not more than two XXL sizes.
- Giga-events (11 to 12 points): Giga-events are the very largest of events and need to have an XXL size on at least three of the four dimensions. Thus, they have to be very large across the board. Giga-events are rare, but they have become more common since the original version of this chapter appeared in 2015, which featured only one giga-event (Müller 2015).

This categorization is a heuristic, since it is only based on the latest cycle of mega-events. It does not claim to represent somehow objective cut-offs for size, which do not exist, and other studies have used different thresholds, for example for mega-projects (Flyvbjerg 2014). Yet, applying it to the sample of nine mega-events (Table 1.4), it shows face validity, providing a useful differentiation of the events into the three size classes: Only the 2016 Summer Olympics and the 2018 FIFA World Cup which are arguably the biggest mega-events, for example, emerge as giga-events, whereas the much costlier (but less mediated) Expo qualifies just as a mega-event. Four events are classified as

mega-events and three as major events (Commonwealth Games 2018, Universiade 2019, Pan American Games 2019). There are also some surprises: the Euro 2016 and the Commonwealth Games 2018 are almost the same size despite their marked differences within specific variables such as mediated reach or ticket sold. Moreover, the Winter Olympics 2018 in Pyeongchang is almost the same size as the FIFA World Cup 2018 and the Summer Olympics 2016 which is mostly caused by its total high cost.

Table 1.3 **Scoring matrix for event classes according to size**

Size	**Visitor Attractiveness**	**Mediated Reach**	**Cost**	**Transformation**
	Number of Tickets Sold	*Value of Broadcast Rights*	*Total Cost*	*Capital Investment*
XXL (3 points)	> 3 million	> USD 2 billion	> USD 10 billion	> USD 10 billion
XL (2 points)	> 1 million	> USD 1 billion	> USD 5 billion	> USD 5 billion
L (1 point)	> 0.5 million	> USD 0.1 billion	> USD 1 billion	> USD 1 billion
Giga-Event		11 – 12 points total		
Mega-Event		7 – 10 points total		
Major Event		1 – 6 points total		

Table 1.4 **Size classification of selected events** (Rugby World Cup: IRB 2019; Super Bowl: USA Today 2018. Rockport Analytics 2019; APEC Summit: ABC 2018; European Capital of Culture: Bugeja and Vella 2019. Valletta, 2019).

Event	**Location**	**Visitor Attractiveness**	**Mediated Reach**	**Cost**	**Trans-formation**	**TOTAL**	**Class**
Olympic Summer Games	Rio de Janeiro 2016	3	3	3	3	**12**	**Giga**
FIFA Men's World Cup	Russia 2018	2	3	3	3	**11**	**Giga**
Olympic Winter Games	Pyeongchang 2018	2	2	3	3	**10**	**Mega**
Expo	Milan 2015	3	N/A	3	3	**9**	**Mega**
Euro	France 2016	2	2	2	1	**7**	**Mega**
Commonwealth Games	Gold Coast 2018	2	1	2	1	**6**	**Major**
Asian Summer Games	Jakarta and Palembang 2018	2	No data	1	1	**4**	**Major**
Pan American Games	Lima 2019	1	0	1	0	**2**	**Major**
Universiade	Napoli 2019	1	0	0	0	**1**	**Major**
Rugby World Cup	Japan 2019	2	No data	2	1	**5**	**Major**
Super Bowl	Minneapolis 2018	0	No data	0	0	**0**	
APEC Summit	Port Moresby 2018	0	N/A	0	0	**0**	

European Capital of Culture	Valletta 2018	0	N/A	0	0	**0**	

How do other large events compare in this classification, such as world championships, sports finals, political summits or cultural events such as the European Capital of Culture programme? For comparison, Table 1.4 includes scores for four recent editions of events: the Asia-Pacific Economic Cooperation (APEC) summit, the European Capital of Culture, the Rugby World Cup and the Super Bowl. However, three of them do not pass the threshold to qualify as major events in any of the categories. On the other hand, the 2019 Rugby World Cup in Japan is very close to the mega-event category.

Conclusion

Mega-events are ambulatory occasions of a fixed duration that attract a large number of visitors, have a large mediated reach, come with large costs and have large impacts on the built environment and the population. This is the consolidated definition of a mega-event this chapter has proposed on the basis of a review and synthesis of existing definitions. It includes sports and non-sports events alike, but it excludes recurring events in the same location.

The definition per se does not designate certain events as ‘mega’ or postulate a certain minimum size. For that purpose, a scoring scheme has been developed from the size distribution of the latest editions of large events (Table 1.3). It works with three size classes to distinguish between ‘major’, ‘mega-’ and ‘giga-events’. Giga-events are a recently emerging and still rather rare class of the largest events in the world. The Olympic Games Beijing 2008, London 2012 and Rio 2016 and the World Cups 2014 and 2018 fall in this category. Moreover, both the EXPO 2010 and 2015 events can also be attributed to this category if we disregard their mediated reach. Yet, if the upward trend in size continues, giga-events might well become the norm rather than the exception.

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