

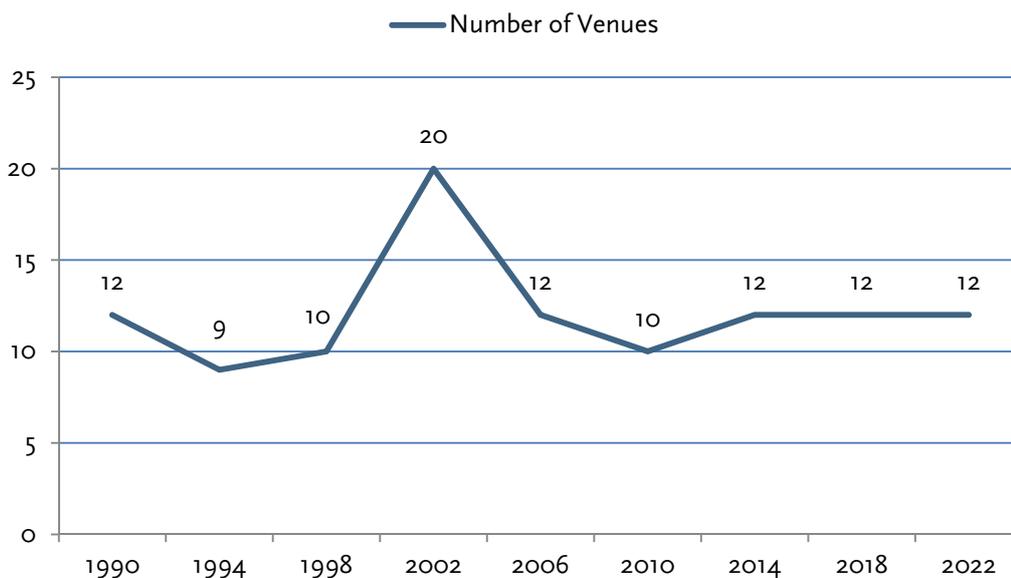
4. FIFA World Cup stadiums

FIFA has a number of requirements for stadiums hosting World Cup games. One of these is capacity. FIFA requires that a venue hosting the opening game and the final must have a net capacity of at least 80,000. For the other group matches, last 16, quarter finals and the match for third place the requirement is at least 40,000, and FIFA requests a net capacity of at least 60,000 for venues hosting the semi-finals.⁴⁴

At the first FIFA World Cup for men, which was held in Uruguay in 1930, 13 teams participated. Over time, the number of teams has increased and, as mentioned in chapter 1, the number of participating countries had become 32 by the World Cup in France in 1998.

The increase in participating teams has, as stated above, not resulted in more stadiums being built, and figure 4.1 below shows that the number of World Cup stadiums has been 9-12 per venue per event regardless of whether 24 or 32 countries took part in the finals. The exception is the 2002 World Cup in Korea/Japan where 20 stadiums were used.

Figure 4.1: Number of FIFA World Cup stadiums 1990-2022



For future World Cups, the number of venues is also about the same. FIFA advised applicants for the World Cup in 2018 and 2022 that 16-18 venues should be presented in each application, venues which, in a reasonable manner, should be spread all over the country. Of these 16-18 stadiums FIFA would then choose 12 stadiums.⁴⁵ The majority of the stadiums used for the 2018 World Cup in Russia and 2022 in

⁴⁴ http://transparencyinsport.org/The_documents_that_FIFA_does_not_want_fans_to_read/PDF-documents/%2815%29Stadium-Agreement.pdf p.17

⁴⁵ Ibid. p.8-9

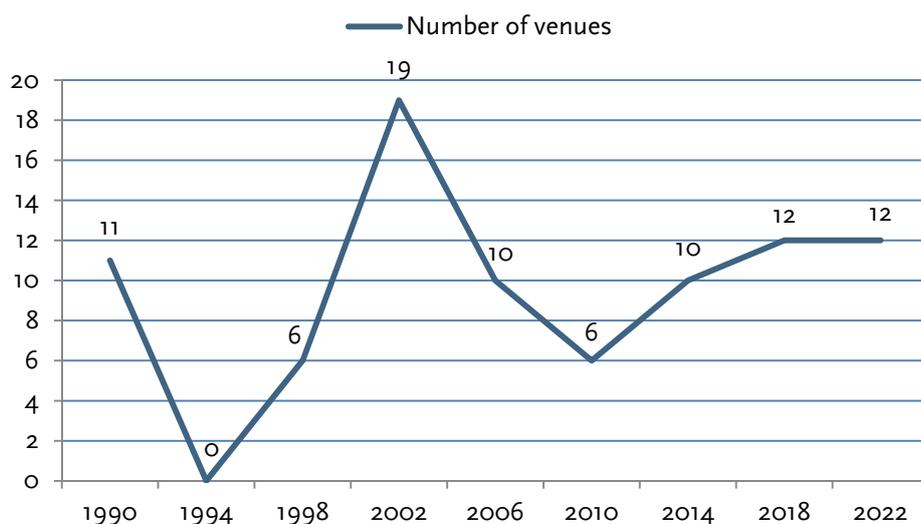
Qatar will be newly built. Brazil anticipates six new stadiums and major renovations to four others for its World Cup in 2014.

As figure 4.2 shows below, the number of venues that have been constructed or undergone major renovations varies from event to event. Before the 1998 World Cup in France, FIFA decided to only allow all-seater stadiums. France built one new stadium while five underwent major renovations partly due to these requirements.

The all-seater stadium requirements were introduced eight years before when Italy hosted the World Cup and despite the former requirements Italy had to make significant investments to be able to host the event. 11 new stadiums were built or underwent major renovations for the event. Since 1990 the majority of these World Cup venues have not undergone any significant renovations.

As figure 4.2 shows, the 1994 World Cup in the United States took place without any new stadiums being built or major renovations being carried out. Thanks to a major interest in American football in the state, on both a professional and college level, USA could organise the event without any significant stadium investments.

Figure 4.2: Number of new or major renovations to stadiums due to the FIFA World Cup



2002 FIFA World Cup in Korea/Japan

The total cost of the 19 new or renovated stadiums for the 2002 FIFA World Cup was just over \$4.6 bn. resulting in an average price of \$243 million per venue. As figures 4.1 and 4.2 show, the World Cup in Korea/Japan so far has the highest number of used venues and also the highest number of new or renovated venues due to the event.

The main reason for the many venues is that the two countries initially intended to apply for the World Cup individually. However, the two countries eventually decided to make a joint application and were awarded the event in 1996.

Miyagi Stadium, Rifu in Japan

Construction price: 318 million

Capacity: 49,133

Attendance in 2010: 73,767

World Stadium Index: 1.5

After the 2002 World Cup a number of venues in Japan have faced difficulties in attracting larger crowds. One of these venues is Miyagi Stadium. The stadium, with a capacity of 49,133 and construction costs of almost \$320 million, hosted two group matches and one last 16 match during the event. Miyagi Stadium staged nearly 80 events, but had only 73,767 spectators in total in 2010, which is a poor figure for a stadium of Miyagi Stadium's capacity.

Another major problem is that the two big teams in the prefecture, Vegalta Sendai and Tohoku Rakuten Golden Eagles, have chosen to play their home games at other venues – venues that existed before the Miyagi Stadium was built. Both teams attracted larger attendance figures than the events at Miyagi Stadium did in 2010.

The football team, Vegalta Sendai, chose to play a majority of their home games at the much smaller venue Yurtec Stadium Sendai, which has seating for 20,000 spectators. In 2010 the team had an average audience of 17,332⁴⁶ and played only three matches in the J-League at Miyagi Stadium. The baseball team in the prefecture (subnational jurisdiction), Tohoku Rakuten Golden Eagles, plays its home games at Miyagi Baseball Stadium, which has a capacity of 23,026 spectators, and had an average attendance of 15,876 in 2010.⁴⁷

The two teams have similar average attendance figures, but while Tohoku Rakuten Golden Eagles play at least 72 matches at home per season, their total attendance figures are just over 1.6 million, which results in a higher total attendance figure than Vegalta Sendai.

Miyagi Stadium needs a high profile anchor tenant if the stadium is going to increase its attendance figures. Its few major sporting events per year are not enough and the sporting legacy of the stadium is questionable. The local stadium need was fulfilled before 2002 World Cup and the new stadium has not been a boost for sport in the prefecture.

Sapporo Dome, Sapporo in Japan

Construction price: 426 million

Capacity: 42,328

Attendance in 2010: 1,965,944 (only baseball and soccer)

World Stadium Index: 46.4

⁴⁶ <http://www.worldfootball.net/zuschauer/jpn-j-league-2010/1/>

⁴⁷

http://translate.googleusercontent.com/translate_c?hl=da&rurl=translate.google.dk&sl=ja&tl=en&u=http://blog.go.o.ne.jp/renee_2008/e/29c6b80b97cf5cc9b1e79309b2f59ebf&usg=ALkJrhhgtoyatqm-MPW Ae4uLaTX8xJPKjw

Not all stadiums built for the 2002 World Cup have had a problematic sporting legacy. One example is Sapporo Dome on the island of Hokkaido. Although the stadium had a relatively high investment cost, just over \$426 million, due to its multi-functionality and roof, this has made it possible for the venue to host different types of events.

Significant events that have taken place in the stadium after the World Cup exemplifying the venue's multi-functionality are the sprint races in the 2007 FIS Nordic World Ski Championship and a special stage of Rally Japan in 2008 and 2010.

In 2010 the stadium hosted 118 events and the majority of these were sporting events. The local baseball team, Hokkaido Nippon-Ham Fighters, played 72 games at Sapporo Dome. The stadium's other main tenant, football team Consadole Sapporo, play at the venue on match days that do not clash with Hokkaido Nippon Ham-Fighters. Consadole Sapporo played eleven games in the J-League at the venue during the 2010 season.

The Hokkaido Nippon-Ham and Consadole Sapporo's games alone gave Sapporo Dome a total attendance figure of over two million in the 2010 season. The total figure for the stadium is higher, but we lack the figures from the other events.

Conclusion on 2002 FIFA World Cup in Korea/Japan

Unfortunately, we lack data on the total attendance numbers for the Korean stadiums built for FIFA World Cup 2002, which means that is impossible to give an overall picture of the sporting legacy for the 2002 World Cup venues. Desk research indicates that Korea spent nearly \$1.7 bn. on its stadiums. The equivalent figure for Japan was just over \$2.5 bn.

Table 4.1: Overview 2002 FIFA World Cup stadiums

Name	Construction Price	Price per Seat	Total Attendance	World Stadium Index
Ecopa Stadium, Fukuroi City (JPN)	\$300,837,055	\$5,859	184,296	3.6
Kashima Soccer Stadium, Kashima (JPN)	\$194,968,272	\$4,787	415,273	10.2
Miyagi Stadium, Rifu (JPN)	\$317,965,217	\$6,472	73,767	1.5
Nissan Stadium, Yokohama (JPN)	\$621,135,687	\$8,588	541,047	7.5
Ooita Bank Dome, Ooita (JPN)	\$202,549,576	\$5,064	535,516	13.4
Saitama Stadium, Saitama (JPN)	\$359,630,596	\$5,646	882,182	13.8

Misaki Park Stadium, Kobe (JPN)	\$232,345,610	\$7,711	242,979	8.1
Sapporo Dome, Sapporo (JPN)	\$426,303,684	\$10,071	1,965,944	46.4
Tohoku Denryoku Big Swan Stadium, Niigata (JPN)	\$283,348,305	\$6,699	572,099	13.5
Busan Asiad Stadium, Busan (KOR)	\$223,623,410	\$4,159	N/A	N/A
Daegu Stadium, Daegu (KOR)	\$293,203,898	\$4,414	N/A	N/A
Daejeon World Cup Stadium, Daejeon (KOR)	\$141,821,986	\$3,499	N/A	N/A
Gwangju World Cup Stadium, Gwangju (KOR)	\$156,506,820	\$4,090	N/A	N/A
Incheon Munhak Stadium, Incheon (KOR)	\$121,402,939	\$2,562	N/A	N/A
Jeju World Cup Stadium, Seogwipo (KOR)	\$124,426,864	\$3,660	N/A	N/A
Jeonju World Cup Stadium, Jeonju (KOR)	\$131,177,945	\$3,144	N/A	N/A
Seoul World Cup Stadium, Seoul (KOR)	\$197,111,864	\$2,951	N/A	N/A
Suwon World Cup Stadium, Suwon (KOR)	\$149,065,847	\$3,452	N/A	N/A
Ulsan Munsu Football Stadium, Ulsan (KOR)	\$149,213,681	\$3,500	N/A	N/A
Average	\$243,507,329	\$5,070	601,456	13.1

All prices in 2010 dollar value

The only information we have on the total inflow of spectators in Korea is from the statistics on the football games that took place at the Korean World Cup stadiums. Seven stadiums had less than 150,000

football spectators in 2010. The Korean World Cup stadium with the best figures was Seoul World Cup Stadium, which had a total attendance of 680,101 football spectators in 2010.

The FIFA World Cup in Japan resulted in an excessive construction of stadiums that led to increased competition between new and existing stadiums. This was particularly visible in Miyagi and Fukuoka City. Both cities already had stadiums that were being used by local sports teams before the World Cup and were serving local needs. These old stadiums have continued to play an important role for the local teams, which has meant that Miyagi Stadium and Ecopa Stadium have had problems attracting larger crowds.

Miyagi Stadium and Ecopa Stadium have, as Table 4.1 shows, a poor World Stadium Index and the construction of both stadiums were obviously questionable. The stadiums are owned by the Miyagi and Shizuoka prefectures, and with their low attendance figures there is an obvious risk that the local citizens bear significant annual costs of maintaining the stadiums as the revenues from the stadiums are most likely minimal.

The current over-capacity of venues in Japan could quite easily have been avoided by choosing not to build and use as many stadiums for 2002 World Cup. In the Japanese 2022 FIFA World Cup application, Japan submitted proposed to use stadiums that existed before 2002 World Cup. If these stadiums had been used in 2002, the current problems in Japan would probably not be present to the same extent.

As researcher John Horne points out in his article 'The Four 'Knowns' of Sports Mega-Events', the World Cup did result in some desired tourism developments for the two host countries, but not as much as originally hoped. Japan and Korea expected a million extra tourists in 2002, but Japan had only 30,000 more tourists than the year before. Korea had the same number of tourists in 2001 as in 2002.⁴⁸

The two countries' estimations before the 2002 World Cup are typical for the overt optimism that is often seen in connection with the construction of mega-event stadiums. Hopes and visions are not always transformed into something that can be called a sustainable success. Miyagi Stadium and Ecopa Stadium are two good examples of this.

However, there are venues that have done well and have had a positive sporting legacy after the World Cup. As mentioned above, the Sapporo Dome is an excellent example and Saitama Stadium, with nearly 900,000 spectators in 2010, could also be mentioned. Both stadiums have succeeded in playing an important role for their local sports post-World Cup and have managed to become a natural part of the local sporting landscape and fulfil a local sporting need.

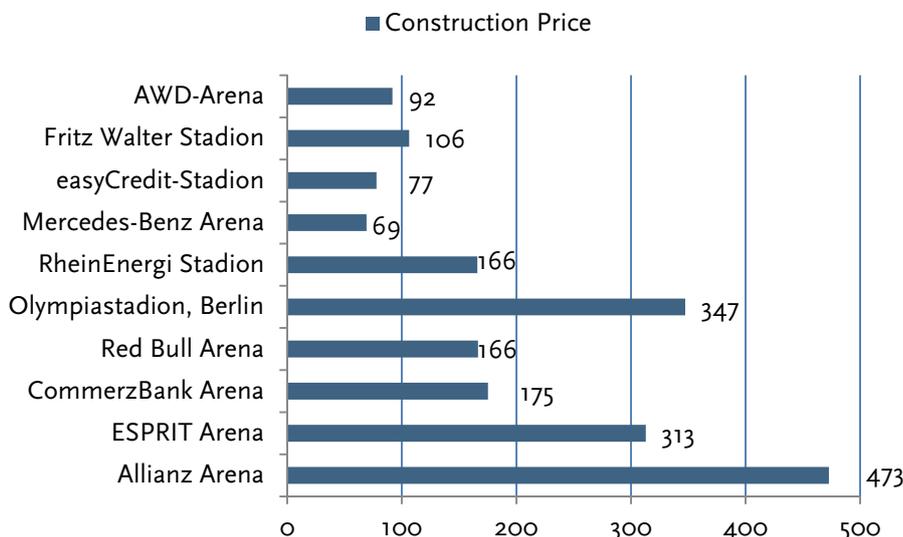
2006 FIFA World Cup in Germany

Although Germany had fairly updated stadiums before 2006 FIFA World Cup, the country made significant investments due to the 2006 tournament. Nearly \$2 bn. was invested in stadiums that were either built for or underwent major renovations for the event. The German investment is comparable to

⁴⁸ Horne, J. The Four 'Knowns' of Sports Mega-Events. *Leisure Studies*, Vol. 26, 1 p. 86

the investments Korea made before the 2002 World Cup even though the stadium infrastructure in Germany was much more modernised before the 2006 tournament than the Korean infrastructure was before the 2002 tournament.

Figure 4.3: Construction/renovation price of 2006 FIFA World Cup stadiums (million dollars)



All prices in 2010 dollar value

Allianz Arena, Munich

Construction price: 473 million

Capacity: 69,901

Attendance in 2010: 2,326,000

World Stadium Index: 33.3

In the mid-1990s, a modernisation of the Olympic Stadium in Munich was considered as the German Football Association (DFB) began to show an interest in bidding for the 2006 FIFA World Cup. An upgrade of the 1972 Olympic Stadium was necessary for the stadium to meet FIFA's requirements.

The modernisation proposal was supported by FC Bayern Munich, which wanted to convert the Olympic Stadium into a pure football ground. However, one of the Olympic Stadium's architects, Günther Behnisch, vetoed a possible conversion of the stadium and instead, a plan for a new football ground in Munich was established.

As the figure above shows, Allianz Arena was the most expensive of the German World Cup stadiums, costing more than \$472 million to build. However, FC Bayern Munich and the other major club in Munich, TSV 1860 München, covered the cost of the stadium, while the city of Munich paid for the surrounding infrastructure.

The stadium is owned by the company Allianz Arena München Stadion GmbH, in which the two clubs initially held a 50 per cent share of ownership. In April 2006 FC Bayern Munich bought TSV 1860

München's share for almost \$15 million. TSV 1860 München's administrative director, Stefan Ziffer, said that the deal would prevent insolvency for the club. Initially, the agreement stated that the club had the right to buy back their share for the selling price plus interest before June 2010. However, in 2007 TSV 1860 München chose to decline the right and FC Bayern Munich is currently the sole owner of the stadium.⁴⁹

FC Bayern Munich are still paying off the loans that made it possible to build Allianz Arena, but according to our informants they receive approximately \$6.6 million (€5 million) annually in rental payments from TSV 1860 München.

In the spring of 2004 the president of TSV 1860 München, Karl-Heinz Wildmoser Sr., his son, Karl-Heinz Wildmoser Jr., who at the time was the CEO of Allianz Arena München Stadion GmbH, and two other persons were charged for corruption in connection with the awarding of the stadium construction contracts. The prosecution against Wildmoser Sr. was closed, but he resigned as president of the club. Karl-Heinz Wildmoser Jr. did not have the same luck. He was prosecuted for fraud, corruption and tax evasion. In exchange for €2.8 million, equivalent to over \$4 million, Wildmoser Jr. gave the Austrian contractor Alpine inside information that made it possible for Alpine to win the contract. Wildmoser Jr. was sentenced later, in August 2006, to four and a half years in prison.⁵⁰

FC Bayern Munich is one of the most successful clubs in Germany, both in terms of records and attendance figures. As the local competitor, the other tenant, TSV 1860 München, does not have such a large inflow of spectators but together the two clubs generate large total attendance figures annually.

During the 2009/10 season the stadium was used exclusively for football and hosted 48 matches with over two million spectators. The stadium's success formula is thus quite simple – two attractive football teams including one which is successful at both a national and European level and another that has a relatively large and loyal fan base within the local area.

ESPRIT Arena, Düsseldorf

Construction price: 313 million

Capacity: 54,500

Attendance in 2010: 576,522

World Stadium Index: 10.6

A venue that not has had the same success as Allianz Arena is ESPRIT Arena in Düsseldorf. There was a discussion during the planning stage about whether there was a real need for a World Cup venue in Düsseldorf as the local team, Fortuna Düsseldorf, played in the 4th division at the time. But when the World Cup was approaching it was decided that the stadium should be built anyway.

⁴⁹ <http://bayernow.com/2011/05/25/allianz-arena/>

⁵⁰ <http://bayernow.com/2011/05/25/allianz-arena/>

It turned out that the \$310 million stadium in Düsseldorf did not get the opportunity to host any World Cup matches – a big setback.

The stadium was financed through both public and private funding but is now owned by the city. As Fortuna Düsseldorf was only playing in the lower divisions, it was uncertain how much the club would be able to pay in rent to the city. The club's mediocre performance on the pitch was also reflected in terms of spectator numbers, and in the early years of ESPRIT Arena the club had rather poor attendance figures in relation to the stadium's capacity. However, the club has in recent years advanced in the league system and is currently playing in the 2. Bundesliga. The club's sporting progress has resulted in more spectators and during the season 2009/10 the club had a total attendance figure of 511,522.

The club is important for the venue. Beyond the football matches ESPRIT Arena does not host many other events. It has a roof which allows concerts and other events to be held during wintertime and in the winter of 2010 the stadium hosted Race of Champions – a rare event during the football season as the match schedule is confirmed relatively late and it is difficult to plan ahead for concerts and other events to take place at the pitch. Such events are therefore most likely to be held during the summer.

Red Bull Arena, Leipzig

Construction price: 166 million

Capacity: 44,345

Attendance in 2010: 181,000

World Stadium Index: 4.1

Before the 2006 FIFA World Cup, Central Stadion in Leipzig underwent significant renovations at a cost of over \$165 million. The German government was the main financier with other financial contributions coming from the City of Leipzig and private funders. As the government accounted for the main cost there was no further debate present in Leipzig about the legacy of the new stadium.

Leipzig currently does not have a professional football team playing in the stadium. It has instead had less-profile teams as anchor tenants. The resigned club FC Sachsen Leipzig, playing in one of the German regional leagues, was the tenant 2004-2007. The team's best season attendance average during this period was 3,926. Prior to the 2008/09 season FC Sachsen Leipzig chose to relocate to their old and more suitable home ground Alfred Kunze-Sports Park.

It was not before 2010 that the venue had another anchor tenant, a newly formed club, RB Leipzig, with the company Red Bull as the main owner and sponsor. Red Bull also bought the naming rights to the stadium until 2040 for \$55 million.

RB Leipzig is currently playing in Regionalliga Nord (the 4th division) and does not attract big crowds. Although the stadium hosted more events in addition to RB Leipzig's games, the stadium had no more than 181,000 spectators during 2009/10 season, which is the lowest attendance figure of all the 2006 World Cup venues.

If the stadium is going to have a positive sporting legacy in terms of the number of spectators, it is necessary for either RB Leipzig to be a more successful or for the stadium's owners to completely change their focus and become a pure event arena. The latter option seems less likely as Red Bull started the team and bought the naming rights to the stadium. As Leipzig also has an indoor arena with seating for up to 12,300 spectators, it also seems less likely that Red Bull Arena will succeed as an event arena.

Conclusion on 2006 FIFA World Cup in Germany

Both Esprit Arena and Red Bull Arena give clear evidence that several stadiums constructed for major sporting events are being built without a clear sporting legacy plan, and it is quite obvious that local needs were not taken into account when these two German venues were built. At the time the stadiums opened, neither clubs in Düsseldorf nor Leipzig had a temporary decline since they had played in the lower divisions for a couple of years. The local situation therefore raises the question why both stadiums were built. That ESPRIT Arena in Düsseldorf did not even host any World Cup matches only makes the rationale behind the stadium project even more questionable. Fortuna Düsseldorf is at the top of 2. Bundesliga at the moment and maybe the team's sporting renaissance will result in better attendance figures for ESPRIT Arena.

The capacity of the Olympic Stadium in Munich and Allianz Arena only differs by about 700 seats, which makes it fairly easy to do a comparison of the Munich venues. The season before both of the anchor tenants left for Allianz Arena they had more than 1.5 million spectators, which is a good attendance figure and would result in a World Stadium Index of 23.

During the 2009/10 season Allianz Arena had almost a million more visitors than the Olympic Stadium had during the last season the teams played at the stadium. Allianz Arena had a World Stadium Index of 33.3 during 2009/10 season, which is the best index of any stadium in Europe built for major sporting event included in this report.

Above all, FC Bayern Munich is the main reason why Allianz Arena has a good index, but another important parameter is that Munich is located in a wealthy region and in a large catchment area, which also helps Allianz Arena to have a large number of spectators annually.

Although the public-owned Olympic Stadium in Munich lost two important tenants to Allianz Arena, the Olympic Stadium did pretty well in 2010.⁵¹ The stadium had 85 events and attracted over 515,000 spectators in 2010, which may be seen as proof that the Olympic Stadium has managed to adapt to the market, fulfilled a need and showed that a stadium can manage quite well without a permanent tenant under the right circumstances.

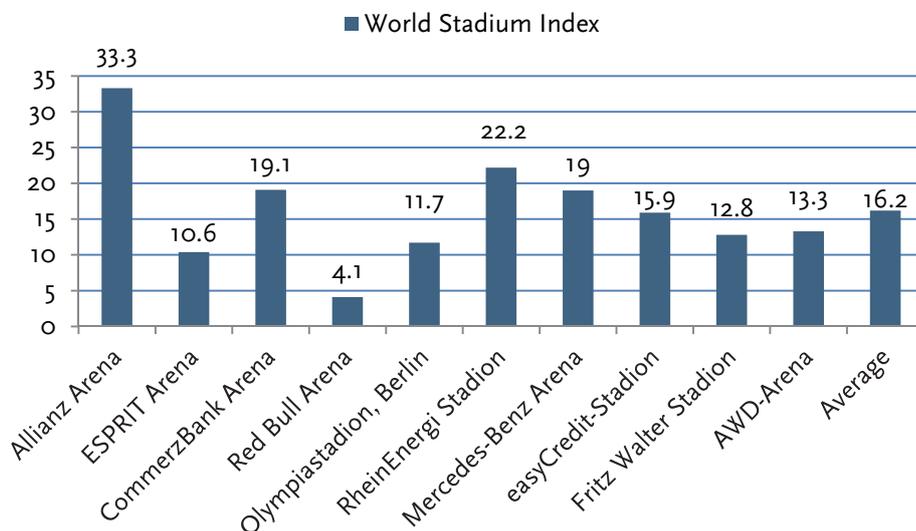
However, as mentioned above, the Munich area, and wider Bavaria, is a wealthy and densely populated region with just over 12.5 million inhabitants,⁵² which allows the two large venues the opportunity to attract big audiences on an annual basis. There also seems to be cooperation between the two Munich

⁵¹ <http://www.olympiapark.de/Geschaeftsbericht2010/>

⁵² http://www.statistik-portal.de/Statistik-Portal/de_zs01_by.asp

venues that Allianz Arena only hosts football while the Olympic Stadium hosts other big events. This allows both venues to coexist without any significant competition between them.

Figure 4.4: World Stadium Index 2006 FIFA World Cup stadiums



Apart from Esprit Arena and Red Bull Arena all numbers that have been included to obtain the index for each venue only include football matches. Despite this, both ESPIRIT Arena and Red Bull Arena have the lowest index. This is mainly due to the absence of a successful football team. The attendance figures from the other German World Cup venues indicate that football has enormous popularity in Germany and most of the teams in the Bundesliga have an impressive average attendance.

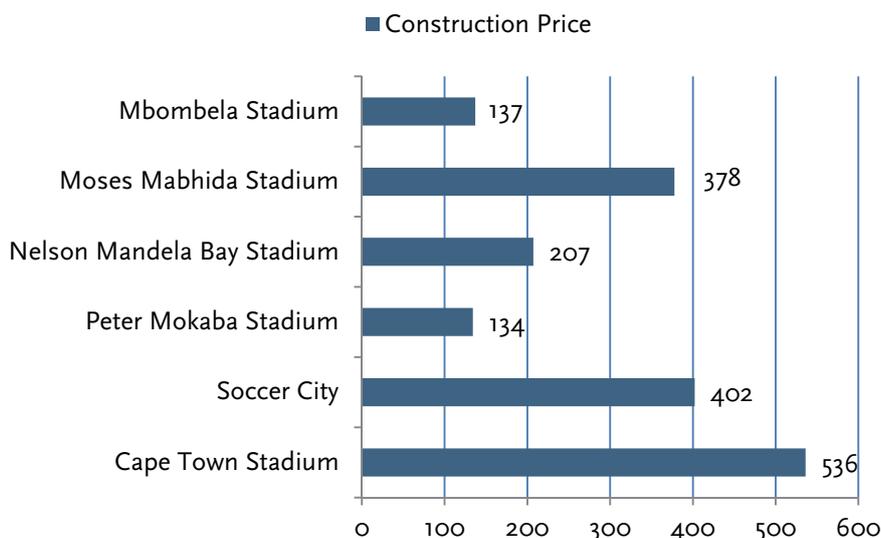
The majority of the teams that play at the World Cup venues have increased their average attendance over a 10-year period. Only the Olympic Stadium in Berlin and Fritz Walter Stadion in Kaiserslautern had a better average during the 1999/00 season than during the 2009/10 season. In connection with the 2006 World Cup the German football, primarily the national team, was given a boost, but it is hard to say if that boost stimulated an increase in the World Cup stadiums' attendance figures.

2010 FIFA World Cup in South Africa

As South Africa hosted the 1995 Rugby World Cup, the country already had a reasonable amount of venues before the 2010 FIFA World Cup. Free State Stadium in Bloemfontein and Loftus Versfeld Stadium in Pretoria hosted games both during the 1995 Rugby World Cup and the 2010 FIFA World Cup and neither of these two venues underwent any major renovations for the event in 2010.

Despite a relatively good infrastructure, South Africa chose to make significant renovations to one stadium and construct five new ones for nearly \$1.8 bn. Although it has been quite difficult to confirm the funding for the stadiums, all stadiums are public-owned, which implies that the public sector was the main funder for the construction costs and renovations.

Figure 4.5: Construction price 2010 FIFA World Cup stadiums (million dollars)



All prices in 2010 dollar value

Cape Town Stadium, Cape Town

Construction price: 536 million

Capacity: 55,000

Attendance in 2010: 849,840

World Stadium Index: 15.5

Local authorities in Cape Town had initially planned to upgrade the existing stadium Athlone Stadium. The stadium is located in a relatively disadvantaged area with a high level of unemployment, but is more accessible to the black population, who constitute the majority of football fans in the country. But as Cape Town came under pressure from FIFA and the South African government, threatening that Cape Town would not host any World Cup matches with Athlone Stadium as a venue, Cape Town Stadium was built.⁵³ However, Athlone Stadium still underwent renovations due to the World Cup and was used as a training facility during the event.⁵⁴

Cape Town Stadium cost more than \$530 million to construct, which was more than \$130 million higher than estimated.⁵⁵ The stadium hosted eight World Cup matches, among them the semi-final between Uruguay and the Netherlands.

An additional venue in Cape Town that could have been used during the World Cup instead of Cape Town Stadium is Newlands Stadium. The stadium underwent major renovations 1990-1995 to be one of the venues for the 1995 Rugby World Cup and the stadium's present capacity is 51,900. There had been a need for further renovations to meet FIFA's requirements, but the cost of these renovations would

⁵³ <http://pitchinvasion.net/blog/2010/06/21/2010-world-cup-stadiums-a-questionable-legacy-in-south-africa/>

⁵⁴ <http://www.capetown.gov.za/en/Pages/AthloneStadiumclosedforpitchrenovation2010.aspx>

⁵⁵ <http://www.iol.co.za/news/south-africa/western-cape/stadium-cost-cape-seeks-answers-1.1020510>

probably not have reached \$530 million. Using this stadium would have also avoided an over-capacity of big venues. FIFA decided, however, that neither Athlone Stadium nor Newlands Stadium was appropriate for the World Cup and that it was necessary to construct a new stadium if Cape Town was interested in hosting World Cup matches.⁵⁶

Former stadium operator Sail City France Operating Company (SSOC) chose to end its 30-year lease with the owner, the city of Cape Town, in autumn 2010. The reason for its withdrawal was the stadium's high maintenance costs, the problem of finding a high profile tenant, and the commercial restrictions the stadium had. It was therefore not financially sustainable for the company to operate the stadium as it would face significant losses. In the absence of an operator Cape Town's authorities chose to operate the stadium themselves. The operating cost is estimated at \$6 million a year after revenues are deducted, and including a further annual maintenance cost of \$2 million⁵⁷ the taxpayers of Cape Town pay \$6 million annually for the stadium.

Ajax Cape Town has been the stadium's anchor tenant since the 2011/12 season. The club has signed a three-year lease, which has been structured around five audience categories: an audience of 7,000, 10,000, 15,000, 25,000 and 40,000.⁵⁸ The rental is thus calculated around the number of spectators who attend the games. During the current season Ajax Cape Town has played ten games in the Premier Soccer League (PSL) with a total attendance number of 40,000 giving an average of 4,000⁵⁹ in a stadium with a capacity of 55,000.

Although the agreement between Ajax Cape Town and the city of Cape Town is more favourable for the football team and, to a lesser extent, helps Cape Town pay the high annual costs, it was important for the city and the stadium to get a permanent tenant, not at least from a prestige point of view, as both of the local rugby teams, Western Province and The Stormers continue to play their games at Newlands Stadium.

The choice of Western Province was not particularly surprising as Western Province owns Newlands Stadium⁶⁰ – a stadium where the debt has been paid off. Western Province, as the owner, controls all the rights concerning the stadium, and is therefore inherently against moving its team to Cape Town as a rent-paying tenant.

Cape Town Stadium's attendance figures for 2010 were, as the Table 4.7 below shows, quite good. It is, however, important to have in mind that 500,000 of the total attendance sum consisted of World Cup spectators. Cape Town Stadium was clearly the most expensive stadium built for the 2010 World Cup. Its high construction price equates to a rather high price per seat so its GNI Index of 0.95 is very high.

⁵⁶ <http://www.iol.co.za/news/south-africa/western-cape/what-now-for-cape-town-stadium-1.684199>

⁵⁷ <http://www.iol.co.za/capetimes/ratepayers-to-fork-out-r44m-to-cover-costs-of-running-stadium-1.1105131>

⁵⁸ <http://www.iol.co.za/sport/soccer/ajax-sign-stadium-deal-1.1110510>

⁵⁹ <http://stats.football365.co.za/dom/SAF/PR/attend.html>

⁶⁰ <http://www.iol.co.za/sport/demolish-absa-stadium-newlands-jordaan-1.604232>

Other 2010 FIFA World Cup stadiums

The majority of the stadiums built for 2010 World Cup have a football team as their main anchor tenant. The exception is the \$200 million Nelson Mandela Bay Stadium, which has the rugby team Eastern Province as its main tenant. The attendance information that is available indicates that Eastern Province Kings has a pretty low average attendance⁶¹ and that the World Cup venue is too big in relation to the local need.

In 2010 405,530⁶² people attended events at the stadium, a fairly good figure, but more than half of them were spectators at the eight World Cup games held at the stadium. Therefore, Nelson Mandela Bay Stadium has a World Stadium Index of 8.8, which would have been significantly lower if the World Cup games had not taken place at the venue. In 2011 the stadium hosted around 20 events.

Peter Mokaba Stadium in Polokwane is used almost exclusively for football matches. The local team, Black Leopards, plays along with Ajax Cape Town in the PSL, and has after eight games played in front of an average of 10,063 spectators in 2011/12 season.⁶³ The information we received about the total attendance at the stadium in Polokwane is quite contradictory. The two officials we have been in contact with gave different figures for 2010, one stating that the stadium had 340,000 spectators, the other 654,500. As Table 4.7 below shows, we have chosen to include the number of 654,500 in the study.

Soccer City in Johannesburg, with a capacity of 94,736, hosted eight matches during the World Cup, among them the final between Spain and the Netherlands. PSL team Kaizer Chiefs play the majority of their games at Soccer City, but have also chosen to locate some of their games to Peter Mokaba Stadium. The team has the highest average attendance figures in the PSL. Up until the time of writing the team has had an average of 14,563 spectators⁶⁴ during the 2011/12 season. Just like Cape Town Stadium, Soccer City exceeded their original budget and the final construction bill was just over \$395 million, \$136 million more than estimated.⁶⁵

In addition to Soccer City, Ellis Park Stadium also hosted World Cup matches in Johannesburg, but the stadium underwent only minor renovations for the World Cup. Another big venue situated in Johannesburg is Orlando Stadium, which has a 40,000 seat capacity. The venue underwent a complete renovation in the mid-2000s and reopened in 2008. If FIFA's limit of only two venues per city had been disregarded, Orlando Stadium could, in terms of capacity, have hosted matches during the event. Just as Athlone Stadium, Orlando Stadium was instead only used as a training facility.

Moses Mabhida Stadium in Durban cost nearly \$380 million to construct and hosted seven matches during the 2010 FIFA World Cup. We do not have any attendance information for 2010, but the stadium's main tenant, AmaZulu FC, has had an average attendance of 3,111 so far in the 2011/12 season.⁶⁶

⁶¹ <http://www.nmbstadium.com/earlierevents/4>

⁶² Ibid.

⁶³ <http://stats.football365.co.za/dom/SAF/PR/attend.html>

⁶⁴ Ibid.

⁶⁵ <http://www.sport24.co.za/Soccer/WorldCup/TournamentNews/Soccer-City-R1bn-over-budget-20100303>

⁶⁶ <http://stats.football365.co.za/dom/SAF/PR/attend.html>

Close to Moses Mabhida Stadium is the 55,000 seat Kings Park Stadium, where the local rugby team, Natal Sharks, plays all of its home games. The stadium underwent major renovations in the 1990s and hosted several games during the 1995 Rugby World Cup. Kings Park Stadium was also a venue for the 1996 Africa Cup of Nations.

The situation in Durban is quite similar to the situation in Cape Town. As in Cape Town, the local rugby team has a wider popularity than the local football team, and, similar to the Western province, the rugby club Natal Sharks owns the competing stadium in the city. The Sharks Pty Ltd. funds the stadium and is debt free. In early 2011 it came to an agreement with the publicly traded retail company Mr. Price concerning the naming right of the stadium.⁶⁷ The naming right agreement is valid until 2016.⁶⁸ With these factors in mind it is understandable that Natal Sharks have no intention to move to Moses Mabhida Stadium.

Mbombela Stadium

Turning to Mbombela Stadium in Nelspruit, evidence has emerged that the tender for the construction of some parts of this stadium was corrupt and that the company that was granted the contract was improperly awarded the contract. The former speaker of Mbombela municipality, Jimmy Mohlala, was one of those who were supposed to be in possession of evidence of corruption and irregularities linked to the stadium, but he was assassinated outside his home.⁶⁹ Since Mohlala's death, an additional three persons have been murdered and another three have mysteriously died.⁷⁰

Independent investigators have found that millions of dollars were wasted on large contracts, and the final report from the investigators suggests that charges have been laid against the former mayor and the directors of the three construction companies who were responsible for the stadium project.⁷¹

When the stadium was about to be built the municipality tried to persuade landowners to sell 173 acres of their land for one rand, equivalent to 13 US cents. A judge, however, put a stop to the deal and the final price for the land ended up being about \$1 million.⁷²

There were concerns that after the World Cup Mbombela Stadium would be without a permanent tenant and would only be used for political meetings.⁷³ These concerns have to some extent come true. The rugby team Pumas only uses Mbombela Stadium on very few occasions and play most of its games in the smaller Puma Stadium, which they share with football team Mpumalanga Black Aces. The other tenant at the stadium, football team Bidwest Wits, plays most of its home games at the stadium, but on some occasions it also uses the smaller venue Bidwest Stadium for some of its games. The team has a current average of 9,404 spectators at its matches.⁷⁴

⁶⁷ <http://www.sharksrugby.co.za/article.aspx?id=394629>

⁶⁸ http://www.sharksrugby.co.za/news/general/101119/Sharks_to_Stay_Put

⁶⁹ <http://www.nytimes.com/2010/03/13/world/africa/13stadium.html>

⁷⁰ <http://www.bbc.co.uk/news/10217817>

⁷¹ <http://www.nytimes.com/2010/03/13/world/africa/13stadium.html>

⁷² Ibid.

⁷³ Ibid.

⁷⁴ <http://stats.football365.co.za/dom/SAF/PR/attend.html>

Conclusion on 2010 FIFA World Cup in South Africa

The 2010 FIFA World Cup has contributed to an over-capacity of stadiums in South Africa, a country in which football already had major problems attracting big crowds before the World Cup.

There are some games in the PSL that attract up to 40,000 spectators, but those occasions are few and far between. Some of the venues that already existed before the event could have been used as World Cup venues as they would have met FIFA's requirements with minor renovations. It is a paradox that today those old venues have higher average attendance figures than the newly built World Cup venues.

With the low average attendance figures Ajax Cape Town and AmaZulu have – and given how few larger events take place at these venues – one can question why these two stadiums were built at all. Both Cape Town and Durban had stadiums with capacities of over 50,000 before the World Cup, yet the South Africans built two brand new ones for almost \$1 bn. After pressure from FIFA and the South African government, Cape Town had to abandon its plan of using an existing venue, while Durban constructed a new stadium not only for 2010 World Cup, but also for its application for the 2020 Summer Olympics and 2022 Commonwealth Games.⁷⁵ Durban withdrew its application for the 2020 Summer Olympics in 2011⁷⁶ and is now focusing on securing the 2022 Commonwealth Games and the 2024 Summer Olympics.⁷⁷

⁷⁵ Sport Stadia, Sporting Events and Urban Development: International Experience and the Ambitions of Durban. P. 68

⁷⁶ <http://www.eyewitnessnews.co.za/Story.aspx?Id=72249>

⁷⁷ http://www.gamesbids.com/eng/commonwealth_games_bids/1216135725.html

Table 4.2: Overview 2010 FIFA World Cup stadiums

Name	Price per Seat	Attendance 2010	World Stadium Index	GNI Index
Cape Town Stadium, Cape Town (RSA)	\$9,749	849,840	15.5	0.95
Soccer City, Johannesburg (RSA)	\$4,245	N/A	N/A	0.41
Peter Mokaba Stadium, Polokwane (RSA)	\$2,946	654,500	14.4	0.29
Nelson Mandela Bay Stadium, Port Elizabeth (RSA)	\$4,510	405,530	8.8	0.44
Moses Mabhida Stadium, Durban (RSA)	\$6,996	N/A	N/A	0.68
Mbombela Stadium, Nelspruit (RSA)	\$3,347	N/A	N/A	0.33
Average	\$5,299	636,623	12.9	0.52

All prices in 2010 dollar value

The problem South Africa now faces is how to attract bigger crowds to a majority of its new stadiums and thus help the stadiums to be sustainable in both a sporting and financial sense. This will be challenging as the anchor tenants lack big crowds, the stadium investment in South Africa has been high and the country's purchasing power parity is not comparable to Korea's, Japan's or Germany's. There is an obvious risk that more cities will find themselves in the same situation as Cape Town with significant annual deficits and citizens who, in the long run, will have to bear the financial burden.

South Africa invested over \$6 bn.⁷⁸ in various projects related to the World Cup. However, a large proportion of the population still has significant problems to getting access to clean water and electricity⁷⁹. One could ask if some of the investments made leading up to the World Cup should have been invested in basic necessities for the population instead.

It is still a bit too early to determine the state and the sporting legacy of the World Cup venues in South Africa. The figures included in the study are from 2010, which means that the attendance figures from the 2010 FIFA World Cup are included. We lack further figures as the World Cup stadiums have only had one ordinary year without a major event taking place. Cape Town Stadium had nearly 850,000 spectators in total 2010, a fairly good figure, but the main tenant of the stadium, Ajax Cape Town, with its current

⁷⁸ <http://www.eyewitnessnews.co.za/Story.aspx?id=72249>

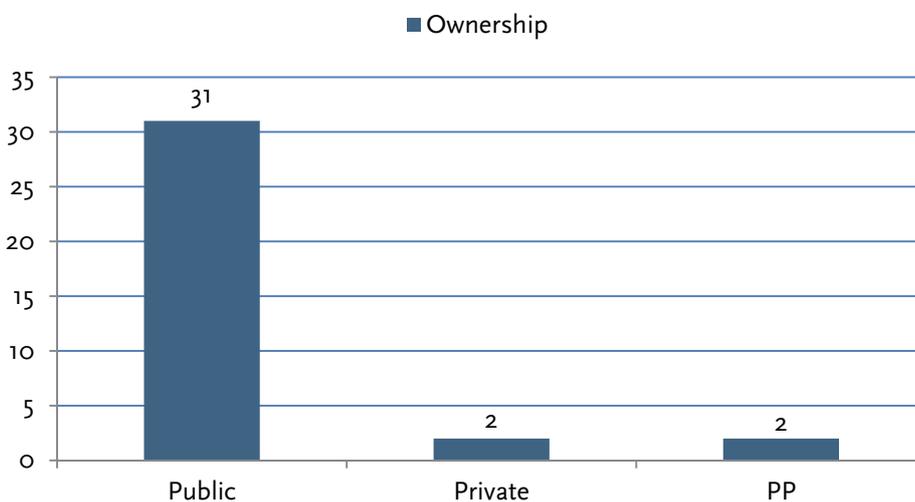
⁷⁹ <http://www.nytimes.com/2010/03/13/world/africa/13stadium.html>

attendance numbers needs to play roughly 212 games per season to reach the attendance figure the stadium had in 2010.

Conclusion on FIFA World Cup

Hosting a World Cup in football costs money – a huge amount of money. The total bill for the three World Cups included in this study is nearly \$8.5 bn., which only includes stadium investments. The bill would be much higher if minor renovations and the other necessary investments made before a World Cup were also added to the total. In South Africa alone this figure was \$6 bn. Although some private investments were made in some of the stadiums that were built due to the World Cup, particularly in Germany, the majority of the World Cup stadiums included in this study have been publicly funded. As figure 4.6 below shows, this means that there is now a clear prominence of publicly owned stadiums.

Figure 4.6: Current ownership FIFA World Cup stadiums 2002-2010



The World Cup 2002 in Korea/Japan is the most expensive event included in the study. The two countries invested over \$4.6 bn. in venues, which is around twice as much as Germany and South Africa. As mentioned earlier, the reason why Korea/Japan spent so much money was that 19 venues underwent major renovations or were newly built.

In terms of average price per venue, the 2010 FIFA World Cup in South Africa was the most expensive event, costing nearly \$300 million per venue. The corresponding figure for the 2006 FIFA World Cup in Germany was \$200 million, while Korea/Japan spent \$243 million on average.

Table 4.3: Overview FIFA World Cup stadiums 2002-2010

Name	Total Construction Price	Average Construction Price	Average Price Per Seat	Average GNI Index
Korea/Japan	\$4,626,639,256	\$243,507,329	\$5,070	0.16
Germany	\$1,985,883,219	\$198,588,322	\$3,442	0.09
South Africa	\$1,794,379,401	\$299,063,234	\$5,299	0.52

All prices in 2010 dollar value

The construction price for one seat at Cape Town Stadium is roughly at the same economic level as the annual GNI per capita in the country. The average index for South Africa is however slightly lower at 0.52, but South Africa is still well above the other World Cup host countries.

Both the 2002 FIFA World Cup in Korea/Japan and the 2010 event in South Africa have resulted in an over-investment in stadiums. Before the World Cup in 2010 South Africa had problems attracting spectators to its domestic leagues and, as figure 4.7 below shows, the average audience per game so far in season 2011/12 is very low in relation to the capacity of the World Cup stadiums. Although baseball in terms of total attendance is a high-profile sport in Japan, and although rugby has a strong fan base in many of South Africa's World Cup cities, a majority of the stadiums built for the World Cup in 2002 and 2010 have football teams as their main anchor tenants.

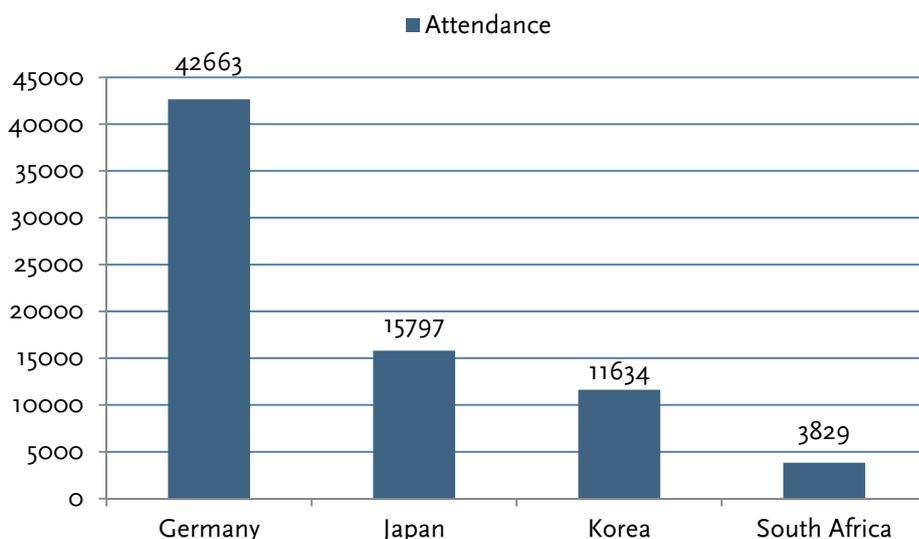
In South Africa it could have been possible, as mentioned above, to use stadiums that already existed before South Africa was awarded the 2010 World Cup. The construction of the new stadiums in Cape Town and Durban and FIFA's way of choosing the venues can be questioned. It was obvious that there was no need for a new stadium in either Cape Town or Durban and that a better consideration of the actual need would have been preferable. It is quite clear that the cities and their citizens have not seen any economic benefits from the venues, and therefore the sporting legacy of the event is highly questionable.

In Japan there is a similar problem, especially in Miyagi and Fukuroi City where the local teams have chosen other venues instead of the World Cup stadiums – other venues that are more suitable and are more adapted to the average attendance that each team has. This has resulted in low annual attendance figures especially for Miyagi Stadium and Ecopa Stadium.

The problems that are present in South Africa and Japan have not affected Germany in the same way. Even before the 2006 FIFA World Cup there was a significant interest in domestic football in Germany⁸⁰ and as a result there seemed to have been awareness that a majority of the stadiums should be used after the World Cup.

⁸⁰ <http://www.worldfootball.net/zuschauer/bundesliga-2003-2004/1/>

Figure 4.7: Average attendance for FIFA World Cup hosts domestic football top divisions 2010/2011



However, there have been some problems in Germany, particularly in Leipzig. It was probably politically impossible for the German organisers not to include an East German city such as Leipzig as one of the host cities in their World Cup application, and as FIFA has a prominent wish⁸¹ that host cities and stadiums should be scattered across the country, FIFA's election of Leipzig as a host city was not an unexpected choice.

Former East German football teams, especially teams from Leipzig, have had huge difficulties since the reunification of Germany in 1990. Only one team from Leipzig was represented in Bundesliga during the 1993/94 season. But now, in the 2011/12 season, not one single team from the former East Germany is represented in the top division.

There is a high probability that FIFA did not take the sporting legacy of the stadium or the historical and current sporting situation in Leipzig into account when they made the decision to locate some of the World Cup games in Leipzig. If they had, it would have been unlikely that FIFA would have elected Leipzig as one of the host cities. Interests other than the stadium's legacy prevailed.

One must also question the local authorities and their choice to elect certain cities as hosts. Although the German government accounted for most of the funding, there should be a greater awareness among the authorities in Leipzig of the sports situation in the city, including the fact that no local team had the fan base to sustain a World Cup-sized venue.

FIFA could also abandon the idea of the World Cup being scattered all over the host country and instead focus on making right venue selection from a sporting legacy perspective. A more careful examination should be done to avoid World Cup stadiums ending up as venues that are not sustainable from either an

⁸¹ http://transparencyinsport.org/The_documents_that_FIFA_does_not_want_fans_to_read/PDF-documents/%2815%29Stadium-Agreement.pdf

economic or a sporting point of view. FIFA and the host country should also take greater advantage of existing venues instead of building new ones that are unlikely to play a major role in the local sporting or cultural life after the World Cup.

Although the host countries also have a responsibility as they officially choose which venues will be presented in their bids, FIFA could take a more critical stance in their venue selection that would fall more in line with the organisation's official mission: 'Develop the game, touch the world, build a better future'.