How did the SPLISS 2.0 nations do in Rio?
An international comparison of the Sports Policy factors Leading to International Sporting Success (SPLISS 2.0) in 15 nations

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1. Introduction

The SPLISS 2.0 project compared elite sport policy in 15 nations across nine Pillars: (1) financial support; (2) organisation and structure of elite sport policies; (3) sports participation; (4) talent identification and development; (5) athletic career support; (6) Sport facilities; (7) coach provision and development; (8) national and international competition; (9) Scientific research and innovation. This extensive research project is a collaboration of 53 researchers and 33 policy partners worldwide, and involves over 3,000 high performance athletes, 1,300 coaches and more than 240 Performance directors. The objective of the SPLISS project is to better understand which sport policies lead to international sporting success (and how), and to obtain further insight into the effectiveness and efficiency of elite sport policies of nations at an overall sports level.

How did the 15 nations perform in Rio and how does that relate to their policies?

2. Change analysis of Rio 2016 compared to London 2012

The graph below gives an overview of the change in total medals and gold medals won by SPLISS nations in Rio compared to the London Games. Overall, 59 NOCs won gold medals, while 87 won medals of any colour. Both of these figures are an increase on 2012. This means that 29% of NOCs won a gold medal, which is the highest proportion since 1980, despite the number of competing NOCs increasing by 3.
SPLISS nations as a group were generally successful in Rio. They took a larger market share of the medals tally (+1.36%, +14 medals). This relates, at least partially, to the exclusion of Russia from some events, such as athletics, where the SPLISS nations increased their market share by 3.5%.

Brazil increased their tally of medals by 9 (4 gold), leading to a 0.6% increase in market share at a 'home' games in line with previous hosts. Japan's share of gold medals rose by 5, in advance of their hosting of the games in 2020. South Korea (-7) and Australia (-6) saw the most notable reduction in medal counts. France and Denmark made the most gains, winning additional 8 and 7 medals respectively.

3. MONEY IN ... MEDALS OUT: who are the efficient nations?

One of the key discussions about elite sport competition is to what extent medals can be “bought”. The results in Figure 2 confirm a strong positive relationship between the absolute amount of elite sport funding invested by nations in 2012 and their subsequent success in Rio 2016. The countries that invest most in elite sport (Korea, Japan, France, Australia and Canada, all with government/lottery funding over 100 million euros a year) are also the most successful nations. Nation by nation diagnostics identify Australia, France, Japan and the Netherlands as the most efficient nations in summer sports given their investment in elite sport, because they are located above the line of best fit. Despite the reduced medal counts of the Netherlands and Australia, they still have high efficiency.

Figure 2: Elite sport expenditures and the success (market share) of the SPLISS nations at the Rio Olympic Games

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1 Values in PPP. Note that South-Korea spends 53% of its elite sport expenditures on hosting international competition; note that funding includes both winter and summer sports (more information: SPLISS-book, 2015)
4. Policy results

Figure 3 presents the Pillar scores for these four most efficient nations, ranked according to total medals in Rio.

As a general overview, it is evident that as a group, these nations all have a high level of development in Pillar 5 (athletic career and post career support), 6 (training facilities) and 7 (coach provision and development). With the exception of the Netherlands, they also perform well in terms of Financial support (Pillar 1) and Scientific Research and innovation (Pillar 9). These Pillars are the likely drivers of an effective system. The Netherlands shows quite different Pillar scores, with high scores on Pillar 2 (governance, organization and structure), Pillar 3 (sports participation) and Pillar 4 (Talent). Whilst the SPLISS project has identified that there is a strong positive relationship between the Pillar scores and success, it is also clear from these data that the development of policies varies significantly between nations.

The SPLISS analysis concluded that: "there is no generic blueprint that can be simply lifted from one context and placed in another that will guarantee success. There are no sets of Pillars, Critical Success Factors or recognised best practices that can be copied and pasted between different contexts. The reality is that there are a set of broad principles around a common framework that can be adapted to local circumstances in a culturally appropriate manner (De Bosscher et al., 2015, p337). High performance sport is a highly specialised and dynamic environment that does not lend itself well to standard (blueprinted) bureaucracy that can be replicated easily across national governmental systems, or across different sports.

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5. Brazil

It is a well-documented that countries hosting the Olympic Games have a home advantage and tend to win more medals than they would do ordinarily. Nations like Australia (Sydney 2000), Greece (Athens 2004), China (Beijing 2008) and the United Kingdom (London 2012) all performed better during their home Games and indeed in the edition prior to being hosts. Brazil won 19 medals in Rio 2016 in 12 different sports, which is an increase of 2 medals (4 gold), but not above expectations, in contrast with Great Britain in 2012.

Looking at the nine Pillars for Brazil, and how elite athletes, coaches and performance directors have evaluated them, there is a strong belief that with an increasingly strategic national approach to elite sport policy development, Brazil may improve its future medal tally. Brazil is a classic example of the time lag between making a strategic investment in elite sport, and medal success. Money alone cannot guarantee success; the crucial question is how the money is spent.

The main weakness in Brazil, covering all Pillars, is that there is no clear overall plan, leadership or co-ordination to be successful in elite sport in the short term. The only Pillar where Brazil scores around the average of the other 15 nations (except from Pillar 1) is Pillar 8 (access to international competition). There is significant funding available in Brazil (Pillar 1) but the allocation of funding is not strategic. The gaps between the scores for Brazil and the sample average are the most notable in Pillars 7 (coaches), 4 (talent) and 6 (facilities). Sport participation is a long-term development Pillar which also scores poorly in comparison with other SPLISS nations.

Figure 4: radar graph scores for Brazil against the sample averages