

# Hyundai World Archery (Para) Championships 2019

Economic, social and media impact

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## Economic, social and media impact

Commissioned by Team TOC

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# Table of contents

<b>Key figures</b>	<b>6</b>
<b>1. Introduction</b>	<b>8</b>
1.1 World Archery (Para) Championships 2019	8
1.2 Objective	9
1.3 Method	9
1.4 Reading guide	10
<b>2. Visitor experiences</b>	<b>12</b>
2.1 Visitor and visit characteristics	12
2.2 Event experiences	14
2.3 Conclusion	15
<b>3. Participant experiences</b>	<b>17</b>
3.1 Participant characteristics	17
3.2 Event experiences	18
3.3 Conclusion	19
<b>4. Economic impact</b>	<b>21</b>
4.1 Visitors	21
4.2 Participants	22
4.3 Accompaniment of participants	22
4.4 World Archery and partners	22
4.5 Volunteers	23
4.6 Press	23
4.7 Event organisation	24
4.8 Economic impact	25
4.9 Conclusion	26
<b>5. Social impact</b>	<b>28</b>
5.1 Side events	28
5.2 Intended involvement in archery	28
5.3 Social cohesion and pride	30
5.4 Popular archers	30
5.5 Influence on view of para athletes	31
5.6 Conclusion	32
<b>6. Media evaluation</b>	<b>34</b>
6.1 TV and web-TV	34
6.2 Social media	34
6.3 Conclusion	35
<b>7. Conclusion</b>	<b>37</b>
<b>Literature</b>	<b>38</b>

<b>Appendix 1 Mulier Institute and Fontys SPECO Sport marketing</b>	<b>39</b>
<b>Appendix 2 Economic impact</b>	<b>40</b>
<b>Appendix 3 Visits and visitors</b>	<b>41</b>



# Key figures



## Key figures

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Event duration (days)	14
Competing nations (number)	88
Participants (number)	878
Participant accompaniment (number)	540
World Archery and partners (number)	175
Volunteers (number)	375
Press (number)	100
Visits (number)	10,200
Visitors (number)	5,700
Additional visitors (%)	41
Foreign visitors (%)	10
Male visitors (%)	66
Visitors with archery experience (%)	51
Visitors (somewhat) inspired to practice archery (%)	53
Visitors (somewhat) inspired to follow archery (%)	77
Visitors (somewhat) proud the WC took place in the Netherlands (%)	95
Visitors' view of para-athletes (somewhat) influenced by WAPC (%)	72
Rating of general organisation WAC and WAPC by visitors (average, scale 1 to 10)	8.3
Rating of general organisation WAC and WAPC by participants (average, scale 1 to 10)	8.2
Estimated economic impact municipality of 's-Hertogenbosch (€)	1,3 million
Estimated economic impact North Brabant (€)	4,6 million
Side events (number)	138
Side event participants (number)	13,371
WC visitors who attended a side event (%)	13
Broadcasting time WAC 29 May -19 June (hours)	235
Cumulative (web)TV audience WAC 29 May -19 June (number)	77 million
New users WorldArchery.org 29 May -19 June (number)	330,000
Follower growth Twitter World Archery 29 May -19 June (number)	307
Follower growth LinkedIn World Archery 29 May -19 June (number)	11,347
Follower growth Facebook World Archery 29 May -19 June (number)	35
Follower growth Instagram World Archery 29 May -19 June (number)	1,398

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# 1 Introduction



# 1. Introduction

## 1.1 World Archery (Para) Championships 2019

In 2015 Team TOC and the Dutch Archery Association expressed the ambition to organise the World Championships (WC) in the capital of the Dutch province of North Brabant, the city of 's-Hertogenbosch.<sup>1</sup> Following a bidding procedure, World Archery awarded the organisation rights of the event to Team TOC. The 50th edition of the WC took place from June 10<sup>th</sup> -16<sup>th</sup>, 2019.<sup>2</sup> The World Archery Para Championships (WAPC) were held from June 3<sup>rd</sup> -9<sup>th</sup>, 2019, prior to the World Archery Championships (WAC). Both the WAC and the WAPC served as qualifiers for the 2020 Olympic Games.



Three venues were used during the WC: the Parade in the city centre (the central square), the rugby fields of rugby club The Dukes and the Zuiderpark. The WC were a significant sport event in The Netherlands in 2019, as the event was one of five sport events named a 'top event' by NOC\*NSF in 2019.

The objectives of the organisation were twofold. The primary aim was to organise a successful event for all stakeholders in terms of organisation, finances, archery promotion and safety. Secondly, with the organisation of the main event (the combined world championships) and additional side events, the organisation and its partners strove for a sustainable economic and positive social impact or legacy.<sup>3</sup> There were five types of side events:<sup>4</sup>

1. Dukes of Archery clinics (archery workshops for pupils in primary schools);
2. Stay focused (archery and concentration workshops for pupils in the exam year in secondary schools);
3. Archery for everyone (archery clinic for residents of care institutions and rehabilitation centres);
4. Dukes of Archery children's parties (archery parties for children who live in poverty);
5. Experience archery (inviting lonely elderly to visit the WC).

Besides these five types of side events, other supplemental activities were offered. This included a live game show with Dutch YouTuber Djuncan, music festival Hart voor muziek (Heart for Music), a performance of the Edwin Evers Band and the Red Bull Film Fest.

<sup>1</sup> The province of North Brabant is a significant region for archery in The Netherlands. Although 15 per cent of the national population lives in North Brabant, the region hosts more than 80 per cent of the Dutch archery clubs and more than a third of club members live in North Brabant. Moreover, the best Dutch archers, who also belong to the world's best, like Sjef van den Berg, Rick van der Ven and Jan van Tongeren reside in North Brabant.

<sup>2</sup> This is not the first time that The Netherlands hosted this event: in 1967 the WAC was held in Amersfoort.

<sup>3</sup> The impact of an event is what happens more or less automatically as a result of the event, and which is usually temporary by nature (fading out gradually, or sometimes very quickly, after the event has ended). If this impact is sustained, then this is referred to as a legacy (Taks et al., 2015). Gratton & Preuss (2008) define legacy as the planned and unplanned, positive and negative, intangible ('soft') and tangible ('hard') structures created through a sport event that remain in place after the event.

<sup>4</sup> A scientific research project about the potential of archery as part of treatment of mental illness can also be seen as a sixth side event.



When organising the WC and the side events, the organisation and its partners also aimed to contribute to World Archery's strategic priorities. These included increasing the overall quality of World Archery and World Archery Members' events, specifically the spectator appeal for all World Archery events, and promoting archery both as an elite sport and as sport for all ages and abilities (World Archery, 2015).

Team TOC asked the Mulier Institute to perform an economic and social impact study for the WC. Fontys School of Economics SPECO Sport marketing operated as subcontractor. For more information about these organisations, see appendix 1.

With a silver and a bronze medal, The Netherlands reached the 7<sup>th</sup> place in the medal count. This was seen as a somewhat scant medal harvest by the Dutch team. However, the Dutch archers qualified for the 2020 Olympic Games in Tokyo, a vital achievement. The top three countries in the medal count were South Korea (8 medals), Chinese Taipei (4 medals) and the United States (4 medals).

## 1.2 Objective

The main objective of this study was to evaluate the economic, social and media impact of the WAC/WAPC. The economic impact was calculated for the municipality of 's-Hertogenbosch and for North Brabant. The study aimed to describe participant and visitor profiles, experiences, and interest in side events. Moreover, at the request of World Archery and the Archery Trade Association, questions about archery participation and experiences were included in the visitor questionnaire.

## 1.3 Method

The method used for the evaluation of the economic and social impact was based on the WESP methodology. WESP is an abbreviation for Working group for the Evaluation of SPort events. For additional information about the method and the calculation of the economic impact, see appendix 2. Two methods were used for visitor and participant data collection: face-to-face interviews and online data collection. Team TOC also provided information. During the interviews, the data were processed by the interviewer using a tablet, laptop or smartphone app. After completing an extensive personal and written briefing by the project leaders, students from the Fontys School of Economics SPECO Sport marketing performed the face-to-face interviews with visitors and participants.

**Table 1.1 Participant and visitor surveys per day (in absolute numbers)**

Day	Visitors <sup>5</sup>	Participants
Wednesday, June 5 <sup>th</sup> , 2019 (WAPC)	3	12
Saturday, June 8 <sup>th</sup> , 2019 (WAPC)	69	
Monday, June 10 <sup>th</sup> , 2019 (WAC)	85	
Wednesday, June 12 <sup>th</sup> , 2019 (WAC)	26	22
Saturday, June 15 <sup>th</sup> , 2019 (WAC)	110	1
Sunday, June 16 <sup>th</sup> , 2019 (WAC)	69	
Online questionnaire (After WAC)	197	53
Total	559	88

The information on the side events in this publication is based on information delivered by Team TOC, More2Win, Thinc Ahead, Sportservice Noord-Brabant, the municipality of 's-Hertogenbosch and World Archery.

A peer review was conducted by Noud van Herpen (researcher and lecturer from The Hague University of Applied Sciences).

## 1.4 Reading guide

The next chapter deals with visitor experiences, and chapter 3 deals with the experiences of the participants. The estimated economic impact is described in chapter 4, and the social impact is described in chapter 5. Chapter 6 describes the media evaluation, and the conclusion is outlined in chapter 7. Before chapter 1, key figures are briefly presented to provide a quick overview of the main results.

The abbreviation WAPC refers to the World Archery Para Championships, WAC refers to the World Archery Championships and WC to both of the events (World Championships).

<sup>5</sup> Among the 362 visitors who were interviewed face-toface, 237 visited a WAC day only, 46 visited a WAPC day only, and 79 visited both a WAC and a WAPC day. Of the 197 visitors who completed the online questionnaire, 151 visited a WAC day only, 2 visited a WAPC day only, and 44 visited both a WAC and a WAPC day.

# 2

## Visitor experiences



## 2. Visitor experiences

This chapter first describes the visitors of the WC: how can they be characterized? What is the balance between men and women, and to which extent did the event attract archery practitioners? Visit characteristics are subsequently discussed. Finally, insight is given into the experiences and judgments of the championships.

### 2.1 Visitor and visit characteristics

#### Number of visits and visitors

As the majority of the days of the WC were free of charge for visitors, one must rely on substantiated estimates with regard to the number of visitors and visits. It is estimated that the WAC had 10,200 visits by 5,700 individual visitors.<sup>6</sup> Spectators attended the event for an average of 1.8 days, which was also the case for the WAC in Mexico City in 2017 (Sportcal, 2018). On average, a visitor spent 5.1 hours at the event per day.

The number of visits exceeds nearly all previous editions of the WC since 2007, although one should keep in mind that the 2019 WC included the WAPC, which probably led to an extra number of visits (table 2.1).

**Table 2.1 World Archery (Para) Championships Visits 2007 - 2019 (in absolute numbers)**

Year	City	Visits
2007	Leipzig (WAC)	9,660
2009	Ulsan (WAC)	19,000
2011	Turin (WAC)	8,500
2013	Belek (WAC)	3,000
2015	Copenhagen (WAC)	7,360
2017	Mexico City (WAC)	9,100
2019	's-Hertogenbosch (WAC& WAPC)	10,200

Source: Sportcal, 2018.

#### Visitor characteristics

Two-thirds of the WC visitors were men, 41 per cent of the visitors were aged between 36 and 55 years and nearly one third was older than 56 years (figure 2.1). On average, visitors were 47 years old. This profile in terms of age and gender is fairly comparable with the profile of the visitor of the European Championships archery in Amsterdam in 2012 (Schoemaker, 2012).

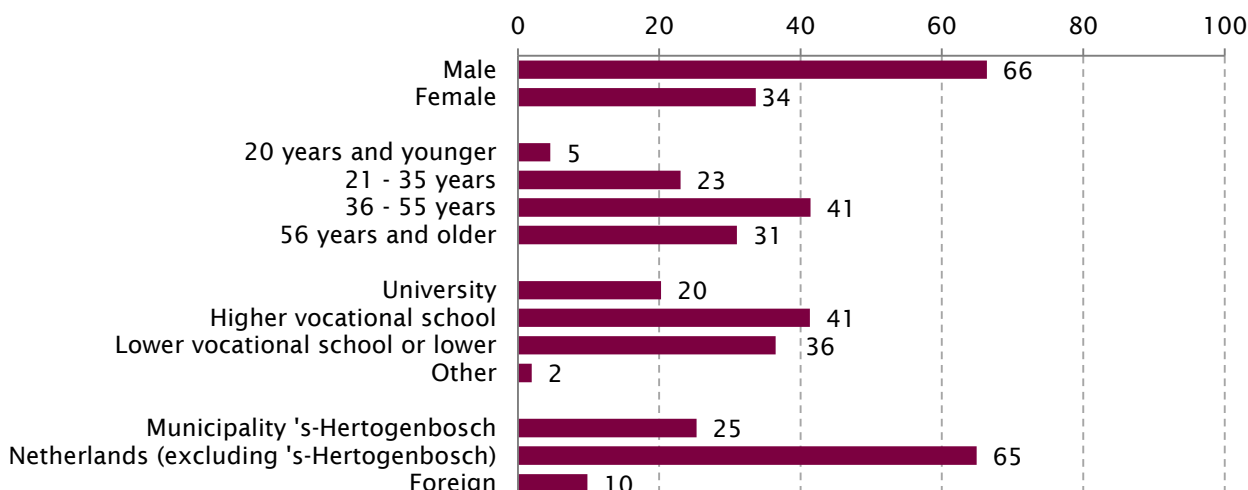
The male visitors were, on average, slightly older than the female visitors, respectively 48 and 44 years old. Three out of five visitors had completed a higher education (higher vocational school or university). Two thirds of the visitors were living in a Dutch municipality other than 's-Hertogenbosch and ten per cent of the visitors came from abroad. The remaining quarter of the WC visitors were residents from the municipality 's-Hertogenbosch. More than half of the visitors came from the province of North Brabant (55% of all visitors; not in figure). Foreign visitors were relatively often from Germany or Belgium (3% of all visitors; not in figure). Two per cent of the visitors had a visible disability (not in figure).<sup>7</sup>

<sup>6</sup> For background information about the estimated number of visits and visitors, see appendix 3.

<sup>7</sup> Interviewers noted whether or not the visitor had a (visible) disability during the face-to-face interviews.



**Figure 2.1 Visitor profiles (in percentages, n=479-523)**



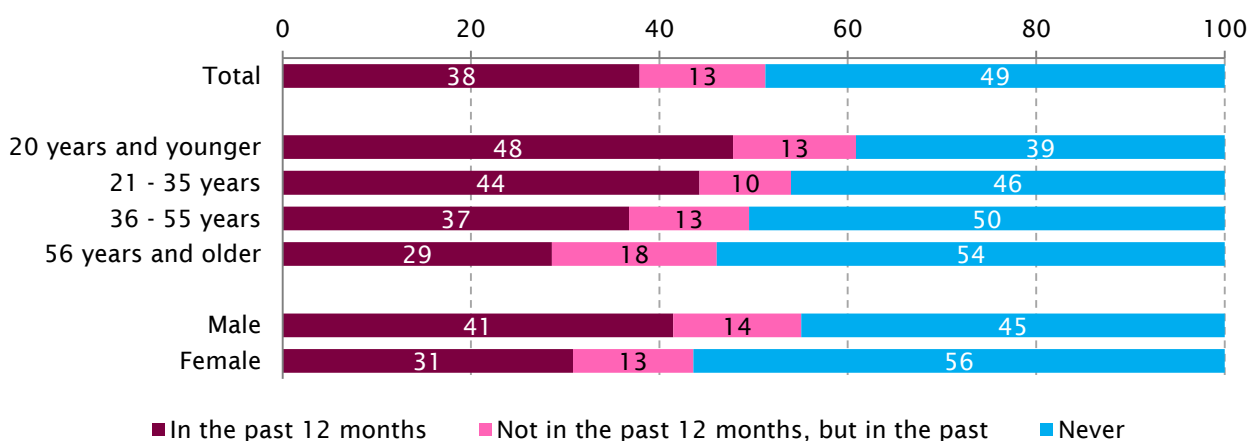
### Archery participation

Nearly two-fifths of visitors practiced archery in the twelve months before the WC (38%; figure 2.2).

Thirteen per cent of visitors practiced archery more than 12 months ago. 49 per cent of visitors had never practiced archery.

Almost all visitors who practiced archery did so as part of an archery club program (92%; not in figure). 79 per cent of the visitors practiced archery at an archery club in the past twelve months or more than twelve months ago (not in figure). The material used by the visitors who practiced archery in the past, was often owned by the people themselves and bought in an archery shop (65%; not in figure). Seventeen per cent borrowed the material from an archery club. The visitor participation in archery was higher among younger age groups. Male visitors practiced archery more often than female visitors.

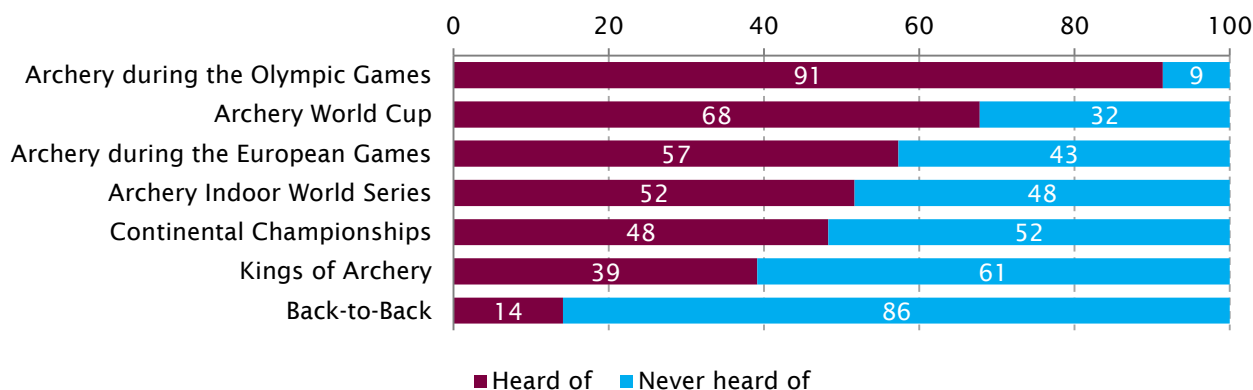
**Figure 2.2 Visitor participation in archery (in percentages, n=494-517)**



Visitors mainly knew archery from the Olympic Games; 91 per cent had heard of archery during the Olympic Games (figure 2.3). 68 per cent of visitors was familiar with the Archery World Cup.

Approximately half of the visitors had heard of archery during the European Games, Archery Indoor World Series and Continental Championships, 57, 52 and 48 percent, respectively. Two out of five visitors had heard of Kings of Archery (39%) and 14 per cent of the visitors had heard of Back-to-Back.

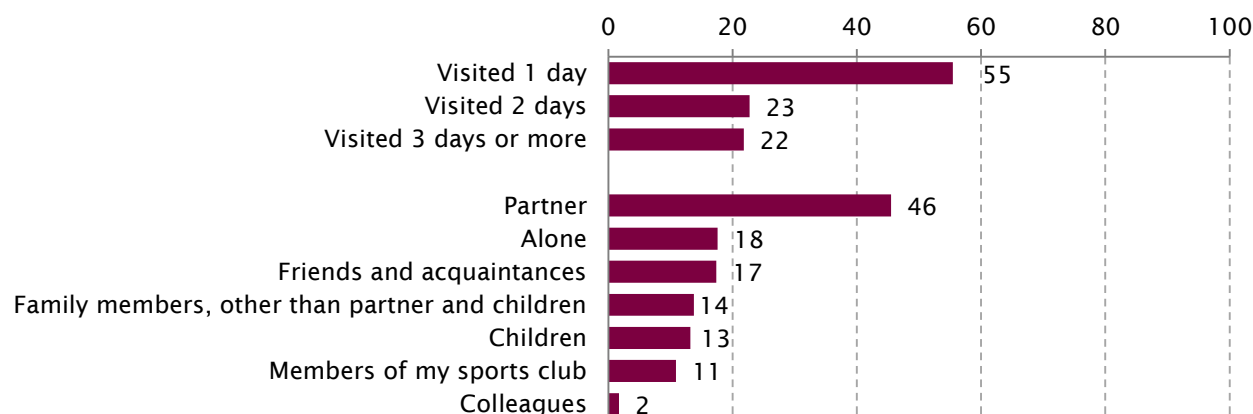
**Figure 2.3 Familiarity with archery events (in percentages, n=467-500)**



### Visit characteristics

More than half of the visitors attended just one day of the WC (55%; figure 2.4). 23 per cent visited the event two days and 22 per cent of the visitors visited the WC three days or more. Visitors planned to stay at the WC, on average, for 4 hours, with a minimum of 1 hour and a maximum of 11 hours (not in figure). Most visitors visited the WC with their partner (46%). Other visitors came alone (18%), with friends and acquaintances (17%), family members (14%) or with children (13%). 41 per cent of the visitors were additional (see appendix 2 for more information).

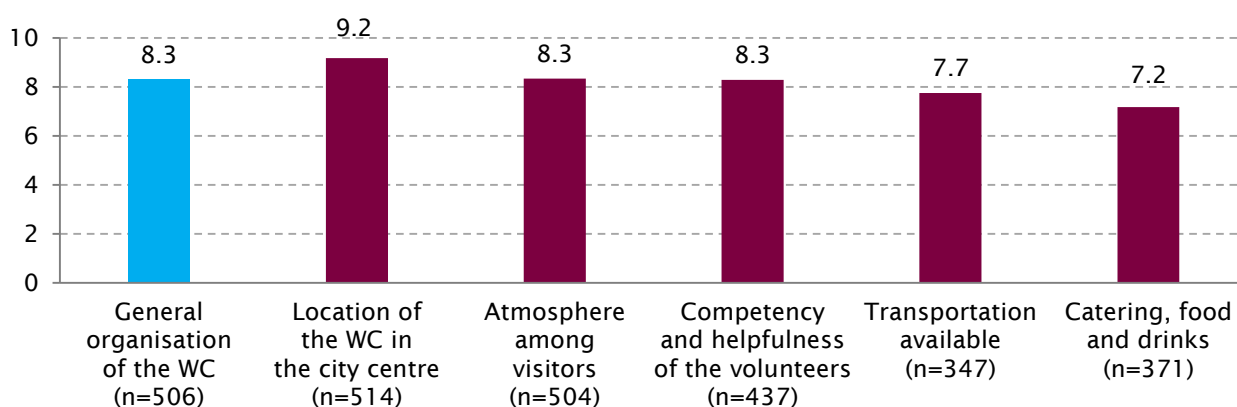
**Figure 2.4 Visit frequency and company composition (in percentages, n=523)**



## 2.2 Event experiences

The general organisation of the WC, the atmosphere among visitors and the competency and helpfulness of the volunteers were, on average, rated an 8.3 (on a scale from 1 (very poor) to 10 (excellent)). The location of the WC in the city centre received the highest rating by the visitors, on average a 9.2 (figure 2.5). Catering (7.2) and transportation (7.7) received a rating below 8.

**Figure 2.5 Rating of the experience with the 2019 WC (in average rating, on a scale from 1 (“very poor”) to 10 (“excellent”))**



### Quotes visitors

*“Hopefully ‘s-Hertogenbosch will organise this sort of events more often in the future.” (male, 62 years, visited WAPC)*

*“Nicely integrated into the city and next to the Sint Jan. Unique location!” (female, 49 years, visited WAC)*

*“This was the 6th time I visited the WC and this was by far the best one.” (male, 52 years, visited both WAC and WAPC)*

*“The closed area makes it look like it is only for the athletes. It does not look inviting.” (male, 57 years, visited the WAC)*

*“Sport is hard to follow.” (male, 26 years, visited WAC)*

*“Unfortunately the stalls were already closed. If I would have known that, I would have come an extra day.” (male, 54 years, visited WAC)*

## 2.3 Conclusion

The majority of the WC visitors were male, highly educated, 36 years or older and residing in a Dutch municipality other than ‘s-Hertogenbosch. Approximately half of the visitors practiced archery in the past. Visitor participation in archery was higher among younger age groups, and male visitors practiced archery more often than female visitors. The majority of the visitors had heard of archery during the Olympic Games and the Archery World Cup. Visitors most often visited the WC for one day with their partner. 41 per cent of the visitors were additional. Visitors rated the general organisation of the WC with an 8.3. The location of the event received the highest rating.

# 3

## Participant experiences





### 3. Participant experiences

Firstly, this chapter describes the number of participants. Furthermore participant characteristics and the experiences of participants and team officials are presented.

#### 3.1 Participant characteristics

587 individual athletes from 88 countries competed in the WAC (table 5.1) and 297 athletes from 51 nations competed in the WAPC (not in table). Together, this totals to 884 individual archers competing in the WAC and the WAPC.<sup>8</sup> The number of competing nations was among the highest in this history of WAC editions. Most participants (66%) had attended earlier editions of the WC (not in table).

338 of the 587 archers who participated in the WAC were men (58%), 249 were women (42%) (table 3.1). The male to female ratio in 2019 was comparable to previous editions (the proportion of women in preceding editions was between 41 and 44 percent).

**Table 3.1 Competing nations, athletes and team officials WAC outdoor 2007-2019 (in absolute numbers)**

Year	2007	2009	2011	2013	2015	2017	2019
Location	Leipzig	Ulsan	Torino	Belek/ Antalya	Copen- hagen	Mexico City	's-Hertogen- bosch
<u>Individual</u>							
Recurve men	173	115	199	146	212	120	200
Recurve women	144	97	148	115	157	80	152
Compound men	139	112	132	102	119	99	138
Compound women	73	83	83	78	97	74	97
Total	529	407	562	441	585	373	587
<u>Team</u>							
Recurve men	50	32	55	37	58	31	55
Recurve women	38	25	41	32	43	22	43
Compound men	40	29	38	27	31	27	39
Compound women	18	21	22	18	26	19	22
Total	146	107	156	114	158	99	159
Countries	78	61	84	69	92	58	88
Officials	229	191	322	217	351	187	311

Source: World Archery, 2019. Edited by: Mulier Institute.

IOC president Thomas Bach visited the WAC on 16 June 2019, which generated significant (media) attention.

<sup>8</sup> Team members are also individual archers.

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### Quote Thomas Bach (IOC President)

*"I think it's a great atmosphere, you can see here that the city embraces the event and the athletes obviously appreciate it too. It shows the great development archery has taken in the recent years."*

Source: <https://www.youtube.com/watch?v=NMVlplQ2fcQ>

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## 3.2 Event experiences

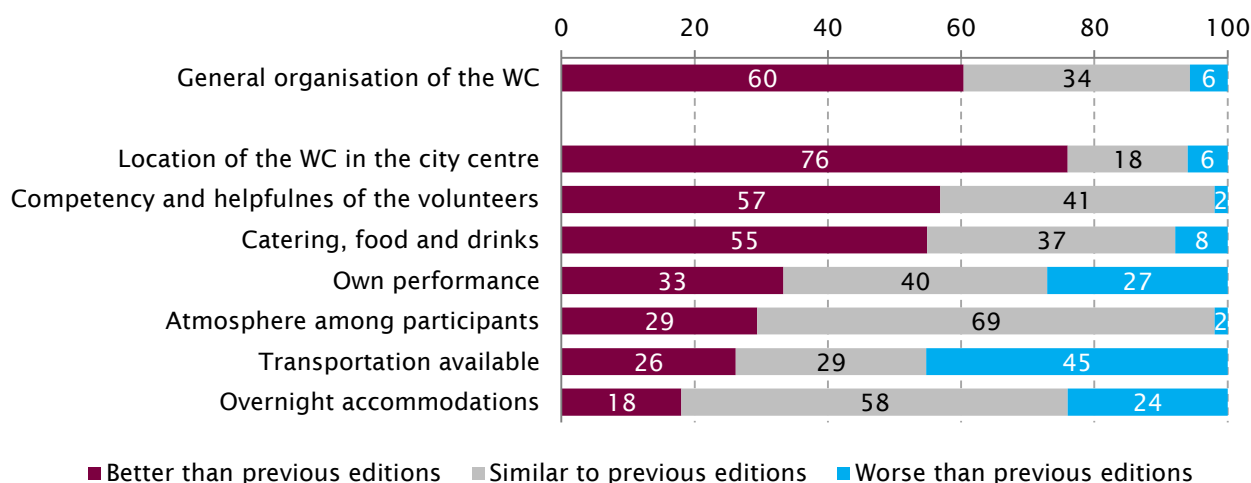
The general organisation of the WC received a rating of 8.2 on a scale from 1 (very poor) to 10 (excellent) (table 3.2). The WAC were rated slightly higher than the WAPC (8.3 versus 8.1). Participants were especially pleased with the location in the city centre (9.0) but the transportation was judged relatively low (6.7).

**Table 3.2 Participants' rating of the WC experience (in average rating, on a scale from 1 "very poor" to 10 "excellent")**

	WC (n=88)	WAC (n=59)	WAPC (n=29)
General organisation of the WC	8.2	8.3	8.1
Location of the WC in the city centre	9.0	8.9	9.0
Competency and helpfulness of volunteers	9.0	9.0	8.9
Atmosphere among participants	8.8	8.7	9.0
Accommodations	8.0	8.3	7.4
Catering, food and drinks	7.8	7.5	8.4
Transportation available	6.7	6.3	7.5

Participants who indicated that they had attended to earlier editions of the WC were asked to rate a number of event aspects in comparison to previous experiences at the WC. Six out of ten participants who participated before thought that the organiser of the 2019 edition performed better than previous organisers (34% comparable and 6% worse) (figure 3.1). The WAC were evaluated better (71% better) than the WAPC (40% better) (not in figure).

**Figure 3.1 Participants' rating of the experience at the 2019 WC comparing to previous editions (in percentages, n=42-53)**



### Quotes participants

*“Just congratulate the organising committee. It was a wonderful championship.” (male, 53 years, member of accompanying team WAC)*

*“I wish they had more space on the field for the archers and coaches behind the shooting and waiting line.” (female)*

*“The rooms at the para hotel were too small.” (female, 41 years, member of accompanying team WAC)*

*“The venue is excellent (...) with the trade show.” (male, 43 years, member of accompanying team WAC)*

Approximately seven out of ten participants argue that the combined organisation of the WAC and the WAPC was positive. Eight per cent of participants were somewhat positive about the event combination and 23 per cent thought it was not a good idea (not in table).

## 3.3 Conclusion

884 archers participated in the WC: 587 individual athletes from 88 countries competed in the WAC and 297 athletes from 51 nations competed in the WAPC. 58% of the participants were men, a proportion comparable to previous editions.

The general organisation of the WC was evaluated with an 8.2. Participants were pleased with the location, while the transportation was judged relatively poorly. Nearly six out of ten participants who had previously participated in the WC thought that the organiser of the 2019 edition performed better than previous organisers.

Approximately seven out of ten participants found the combined organisation of the WAC and the WAPC positive. Eight per cent of them were somewhat positive about the event combination and 23 per cent thought it was not a good idea.

# 4

## Economic impact





## 4. Economic impact

This chapter presents the estimated economic impact. This impact refers to additional expenditures in the municipality of 's-Hertogenbosch as a result of the event organisation. The following groups are taken into consideration: visitors, participants, participant accompaniment, World Archery and partners, volunteers, press and the project organisation. The amounts are rounded to hundreds and thousands.

### 4.1 Visitors

It is estimated that the WC led to 10,200 visits by 5,700 individual visitors (see chapter 2 and appendix 3). 63 per cent of the visits were in the Archery 2019 Arena (at the Parade in the city centre), which had a seating capacity of 2.200 people. Other visits took place at the fan plaza and the qualification and training fields.

41 per cent of the visitors were additional (see also chapter 2). Among residents of the Netherlands (excluding 's-Hertogenbosch) and foreigners these proportions were 62 and 59 per cent (not in table). The number of visitors and these proportions led to 2,300 additional Dutch visitors (excluding 's-Hertogenbosch) and 400 additional foreign visitors. The economic impact of visitors is estimated at 217,000 euros (table 4.1), most of which was spent during daytime.

**Table 4.1 Estimated economic impact of visitors on municipality of 's-Hertogenbosch (in absolute numbers, percentages and euros)**

Number of visits	10,200
Number of visitors	5,700
Number of Dutch additional visitors	2,300
Number of foreign additional visitors	400
Average duration of visit of additional visitors from NL (days)	1.7
Average duration of visit of additional visitors from abroad (days)	2.0
Average daily expenses additional visitors from NL (€)	26
Average daily expenses additional visitors from abroad (€)	91
Share of visitors who spent the night among additional visitors from NL (%)	6
Share of visitors who spent the night among additional visitors from abroad (%)	30
Average duration of overnight stay of additional visitors from NL (overnight stays)	3.8
Average duration of overnight stay of additional visitors from abroad (overnight stays)	3.3
Average expense per overnight stay per additional visitor from NL (€)	53
Average expense per overnight stay per additional visitor from abroad (€)	77
Economic impact: expenses during day (€)	162,300
Economic impact: expenses staying overnight (€)	54,400
Total economic impact (€)	217,000

## 4.2 Participants

884 archers participated in the WAC and WAPC (see also chapter 3). All of them are considered additional, meaning that these people would not be in 's-Hertogenbosch if the event would not have taken place there. The economic impact of participants is estimated at 147,000 euros (table 4.2).

**Table 4.2 Estimated economic impact of participants on municipality of 's-Hertogenbosch (in absolute numbers, percentages and euros)**

Number of participants	884
Percentage additional (%)	100
Percentage extension of stay (%)	9
Average duration of stay in days	6.3
Average number of days extension in 's-Hertogenbosch	3.7
Average spending excl. overnight stay per person in 's-Hertogenbosch (€)	25
Economic impact (€)	147,000

## 4.3 Accompaniment of participants

The total size of participant accompaniment, which mainly concerns coaches and trainers, was 540 people. It can be assumed that all of these people were additional. The economic impact of the accompaniment of the participants was estimated at 90,000 euros (table 4.3). This does not include the spending for overnight stays, as this amount is part of the event organisation expenditures (see paragraph 4.7).

**Table 4.3 Estimated economic impact of accompaniment of participants on municipality of 's-Hertogenbosch (in absolute numbers, percentages and euros)**

Number of accompaniment	540
Percentage additional	100
Percentage extension of stay	9
Average duration of stay in days	6,3
Average number of days extension in 's-Hertogenbosch	3.7
Average spending per day per person in 's-Hertogenbosch (€)	25
Economic impact	90.000

## 4.4 World Archery and partners

According to the event organisation, the number of representatives on behalf of World Archery and their partners was 175 people and all of them were seen as additional. The economic impact of World Archery and partners was estimated at 19,000 euros (table 4.4). This does not include the spending for overnight stays because that cost is part of the event organisation expenditures (see paragraph 4.7).

**Table 4.4 Estimated economic impact of World Archery and partners on municipality of 's-Hertogenbosch (in absolute numbers, percentages and euros)**

Number of World Archery and partners	175
Percentage additional (%)	100
Average duration of stay in days	4.4
Average spending per day per person in 's-Hertogenbosch (€)	25
Economic impact (€)	19,000

## 4.5 Volunteers

According to the event organisation, 375 volunteers were active during the WAC. Compared to the number of volunteers in past championships, this number is relatively high (table 4.5).

**Table 4.5 Volunteers World Archery (Para) Championships 2007 - 2019 (in absolute numbers)**

Year	City	Volunteers
2007	Leipzig (WAC)	120
2009	Ulsan (WAC)	198
2011	Turin (WAC)	400
2013	Belek (WAC)	70
2015	Copenhagen (WAC)	202
2017	Mexico City (WAC)	166
2019	's-Hertogenbosch (WAC & WAPC)	375

Source 2007-2018: Sportcal, 2018.

21 per cent of the 375 volunteers lived in the municipality of 's-Hertogenbosch and therefore were not considered additional. The economic impact of volunteers of participants was estimated at 57,000 euros (table 4.6).

**Table 4.6 Estimated economic impact of volunteers on municipality of 's-Hertogenbosch (in absolute numbers, percentages and euros)**

Number of volunteers	375
Percentage additional (%)	79
Average duration of stay in days	5.4
Average spending per day per person in 's-Hertogenbosch (€)	25.00
Percentage which stays overnight in 's-Hertogenbosch (%)	16
Average spending per night per person (€)	65.00
Economic impact (€)	57,000

## 4.6 Press

According to the event organiser, approximately 100 press professionals were present during the event. Three-quarters of them were additional. The economic impact of the press was estimated at 19,000 euro (table 4.7).

**Table 4.7 Estimated economic impact of press on municipality of 's-Hertogenbosch (in absolute numbers, percentages and euros)**

Number of press	100
Percentage additional (%)	75
Average duration of stay in days	4
Average spending per day per person in 's-Hertogenbosch (€)	25
Percentage which stays overnight in 's-Hertogenbosch (%)	50
Average spending per night per person (€)	75.00
Economic impact (%)	19,000

## 4.7 Event organisation

The event organisation had a budget of 6,358,000 euros (table 4.8). 35 per cent of the budget came from public funds: 205,000 euros from the local government, 309,000 euros from the regional government and 1,713,000 euros from the national government.

**Table 4.8 Income and expenditures of organisation WAC, WAPC and side events (in euros)**

Income		Expenditures	
<u>From municipality of 's-Hertogenbosch</u>		<u>In municipality of 's-Hertogenbosch</u>	
Subsidy local government	205,000	Facilities	1,180,000
Subsidy regional government	309,000	Communication	110,000
Tickets and hospitality	25,000	Hotels and catering	290,000
Partners and suppliers	260,000		
		<u>In The Netherlands, excluding municipality of 's-Hertogenbosch</u>	
<u>From The Netherlands, excluding municipality of 's-Hertogenbosch</u>		Facilities	1,673,000
Partners and suppliers	420,000	Communication (including TV)	490,000
Ministry of VWS (national government)	1,713,000	Hotels and catering	1,740,000
Tickets and hospitality	150,000		
Archery The Netherlands	22,000	<u>Abroad</u>	
		Fee World Archery, partnerships and suppliers	875,000
<u>From abroad</u>			
World Archery	638,000		
Athletes and teams	2,495,000		
Partners and suppliers	121,000		
Total	6,358,000	Total	6,358,000

Source: Team TOC, 2019.

The economic impact created by the organisation was calculated in three steps. First, the amount spent in the municipality of 's-Hertogenbosch was determined (1,580,000 euros). Second, the amount was reduced by the income from the municipality (799,000 euros). Third, the share of the subsidy from the Ministry of



Health, Welfare and Sport, which was not regarded as additional, was subtracted.<sup>9</sup> This led to an estimated economic impact from the project organisation of (rounded) 766,000 euros (table 4.9). The local government sent no invoice for services delivered, including safety and city marketing related activities, and were therefore these costs are not monetised.

**Table 4.9 Estimated economic impact event organisation (in euros)**

Expenditures in municipality of 's-Hertogenbosch	1,580,000
Income from municipality of 's-Hertogenbosch (-/-)	799,000
Proportion subsidy ministry non additional (-/-)	15,417
Balance / economic impact	766,000

## 4.8 Economic impact

The total economic impact of the WC was estimated at roughly 1.3 million euros (table 4.10). 58 per cent of this impact was created by the event organisation.<sup>10</sup>

**Table 4.10 Estimated total economic impact WC (in percentages and euros)**

	€	%
Visitors	217,000	17
Participants	147,000	11
Accompaniment participants	90,000	7
World Archery and partners	19,000	1
Volunteers	57,000	4
Press	19,000	1
Event organisation	766,000	58
Estimation total economic impact (€)	1,315,000	100

The event organisation estimates that 3.3 million euros of the 3.6 million euros spent in the Netherlands - but not in the municipality of 's-Hertogenbosch - was paid out in Brabant. This indicates that besides the 756,500 euros of economic impact in 's-Hertogenbosch, there was an additional economic impact as a result of the expenditures of the event organisation in North Brabant (excluding 's-Hertogenbosch). This implies the economic impact of the event for the region was  $1.3 + 3.3 = 4.6$  million euros.

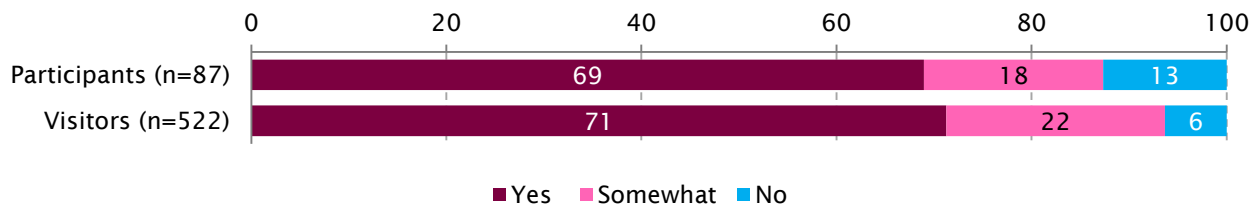
To put this economic impact in perspective, the results of two studies are worth citing. Firstly, according to Sportcal (2018), the 2017 WAC in Mexico City led to an economic impact of approximately 1.5 million euros (1.6 million USD) for Mexico City. It is important to note that impact includes the economic impact of the 52nd World Archery Congress but not the impact of the WAPC. Secondly, Schoemaker (2012) calculated the economic impact of the European Championships archery which were held in Amsterdam, which was nearly 500,000 euros for the Dutch capital.

<sup>9</sup> 0,9 per cent of the national population resides in 's-Hertogenbosch and therefore this proportion of the subsidy of the ministry is not seen as additional.

<sup>10</sup> In their prognosis of the economic impact of this event, De Boer & Valks (2015) used assumptions which were plausible at the time. Compared with the actual organised event in 2019, this includes a smaller budget (4.9 million euros) and a larger capacity of the arena (4,000 seats). These assumptions influenced the result. The prognosis of the economic impact according to this study was 3.3 million euros for North Brabant.

Lastly, a possible - but not guaranteed - legacy of the WC 2019 is an increase in tourism in 's-Hertogenbosch. This is not included in the economic impact, but is interesting from an economic point of view. Approximately seven out of ten participants and visitors expect that the event contributed to the promotion of the municipality as a tourist destination (figure 4.1).

**Figure 4.1 Does the WC contribute to the promotion of 's-Hertogenbosch as a tourist destination? (in percentages)**



## 4.9 Conclusion

The total economic impact of the WC for the municipality of 's-Hertogenbosch is estimated at 1.3 million euros. The majority of this impact was created by the event organisation. The event's regional economic impact for North Brabant is valued at 4.6 million euros.

# 5

## Social impact



## 5. Social impact

This chapter deals with the social impact of the WAC and WAPC. It offers an overview of the number of side events and its participants. In addition, the extent to which the visit of the event encouraged visitors to participate in archery more often and to follow the sport more often in the media is described. The emergence of feelings of social cohesion and pride and the identification of favourite archers is delineated as well.

### 5.1 Side events

There were five types of side events (see chapter 1). In total 138 side events were organised prior to, during and after the WC. All together these side events attracted almost 13,400 participants.<sup>11</sup>

**Table 5.1 Side events and participants of side events (in absolute numbers)**

Side event	Side events	Participants of side events
Dukes of Archery clinics	55	10,845
Stay focussed	13	345
Archery for everyone	43	1,670
Dukes of Archery children's parties	26	306
Experience archery	1	205
Total	138	13,371

Source: Thinc ahead, 2019. Adapted by: Mulier Institute.

More than three-quarters of the participants were not distracted by the organisation of side events for visitors. Eleven per cent found them distracting and the same proportion found it somewhat distracting (not in table).

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#### Quote of participant from Dukes of Archery children's parties

*"The best day of my life, I will definitely dream about this tonight."*

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### 5.2 Intended involvement in archery

Event-related stimuli have the potential to influence visitors in different ways.<sup>12</sup> A possible social outcome for visitors of the WC is the intention to participate in archery (more often), an effect referred to as a demonstration effect or trickle-down effect.<sup>13</sup> Another potential outcome is the intention to follow archery in the media (more often).

46 per cent of the visitors expected to follow archery (more often) in the media (figure 5.1). 31 per cent of the WC visitors felt somewhat inspired to follow archery in the media. The remaining 23 per cent did not expect to follow archery after visiting the WC. Compared to the previous 2017 championships in

<sup>11</sup> Nearly nine out of ten visitors of the WAC and WAPC did not visit a side event (not in table).

<sup>12</sup> E.g. Brown et al., 2017.

<sup>13</sup> E.g. Weed et al., 2015; Hover et al., 2016.

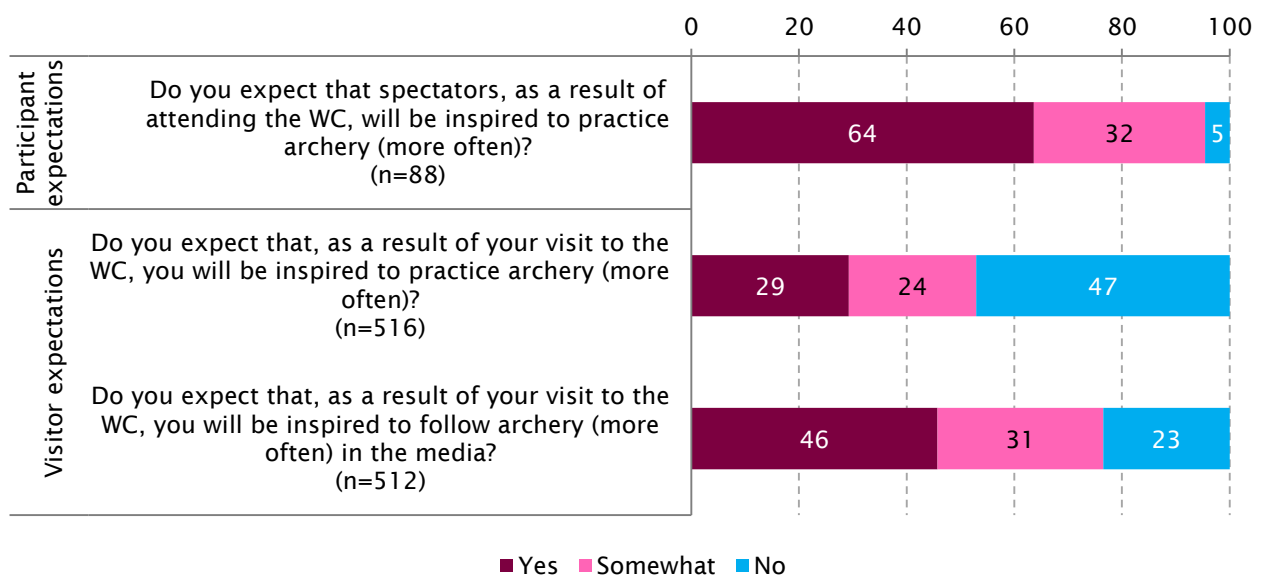


Mexico City, the proportion of visitors who expected to follow archery (more often) in the media as a result of the visit is relatively low (Sportcal, 2018).<sup>14</sup>

Nearly three out of ten visitors were inspired by their visit to practice archery (more often) themselves (29%). Close to a quarter of the visitors felt somewhat inspired to practice archery (24%) and 47 per cent was not inspired to try archery themselves. The share of visitors who were (somewhat) inspired to practice archery (more often) themselves was the highest among the visitors who had practiced archery in the past twelve months and the lowest among those who never practiced archery before (not in figure). Compared to the 2017 championships in Mexico City, the percentage of visitors who expected to practice archery (more often) as a result of the visit is relatively low (Sportcal, 2018).<sup>15</sup>

Participants expected a much higher influence of the WC on archery participation. Nearly two-thirds of the participants thought that visitors would be inspired to practice archery (more often) (64%; figure 5.1). Approximately one-third of the participants thought visitors would be somewhat inspired (32%) and five per cent of the participants did not expect visitors to practice archery more often.

**Figure 5.1 Inspired to follow and practice archery (more often) as a result of a visit to the WC, according to participants and visitors (in percentages)**



### Visitor quote

*"I am an archer myself and I went to the WC together with my father and sister, they got interested in the sport as well." (female, 25 years, visited WAC)*

<sup>14</sup> 97 per cent of the visitors said that they would follow the sport more often (Sportcal, 2018).

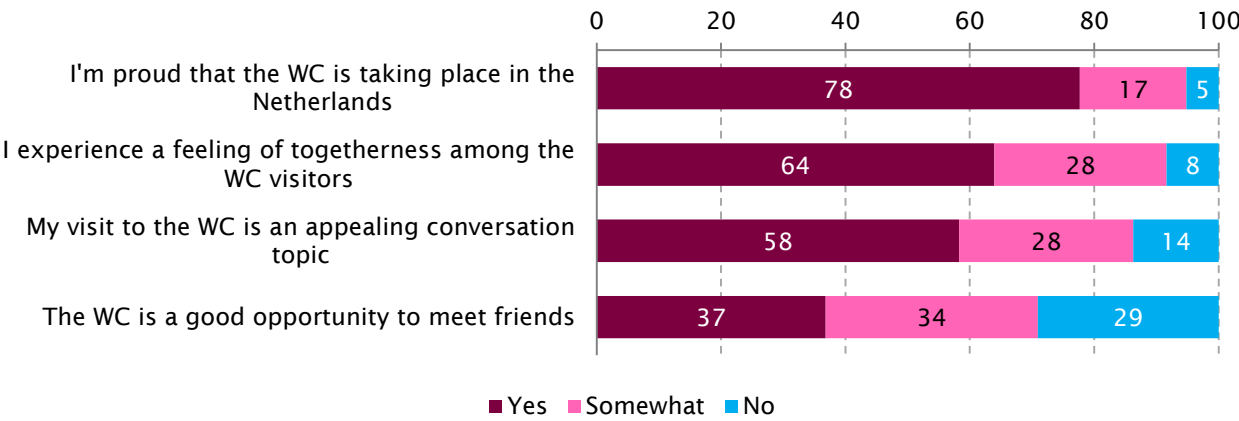
<sup>15</sup> More than 75 per cent of the visitors indicated that they would practice more archery than before (Sportcal, 2018).

5.3 Social cohesion and pride

Sporting achievements can elicit feelings of pride.<sup>16</sup> In addition, the coming together of people around a sport event presents a positive context for a ‘community of celebration’.<sup>17</sup>

Nearly all visitors felt (somewhat) proud that the WC took place in the Netherlands (figure 5.2). 78 per cent of the visitors felt proud and seventeen per cent indicated that they felt somewhat proud. 64 per cent of the visitors experienced a feeling of togetherness among WC visitors. More than a quarter of the visitors felt some feeling of togetherness among visitors during the WC (28%). The remaining eight per cent did not experience any sense of togetherness. 58 per cent of visitors considered the WC to be an appealing conversation topic and 28 per cent indicated that it was a somewhat appealing conversation topic. Fourteen per cent did not think that the WC was an appealing conversation topic. For more than a third of the visitors, the WC provided a good opportunity to meet friends (37%). 34 per cent of the visitors felt more neutral concerning the WC being a good opportunity to meet friends. 29 per cent did not experience the WC to be a good opportunity to meet friends.

Figure 5.2 Social cohesion and feelings of pride among visitors (in percentages, n=513-520)

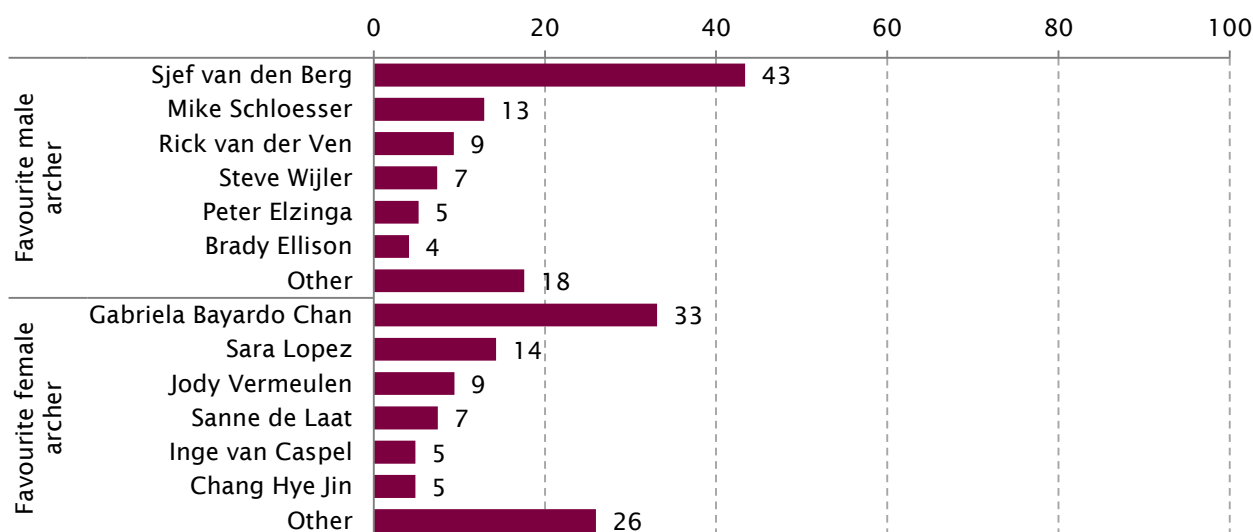


5.4 Popular archers

Sjef van den Berg was the most popular male archer among the WC visitors. He was picked as the favourite male archer by 43 per cent of the visitors (figure 5.3). Mike Schloesser was the second-favourite male archer (13%), followed by the other Dutch archers Rick van der Ven (9%), Steve Wijler (7%) and Peter Elzinga (5%). Brady Ellison was the first non-Dutch participant, he was chosen as the favourite male archer by four per cent of the visitors. American archers Braden Gellenthien (2%) and Matt Stutzman (2%) completed the top three most popular non-Dutch male archers (not in figure).

<sup>16</sup> E.g. Evans & Kelly, 2002; Elling et al., 2014.  
<sup>17</sup> E.g. Borgmann, 1992.

**Figure 5.3 Popular archer participating in the WC according to the WC visitors (in percentages, n=394)**

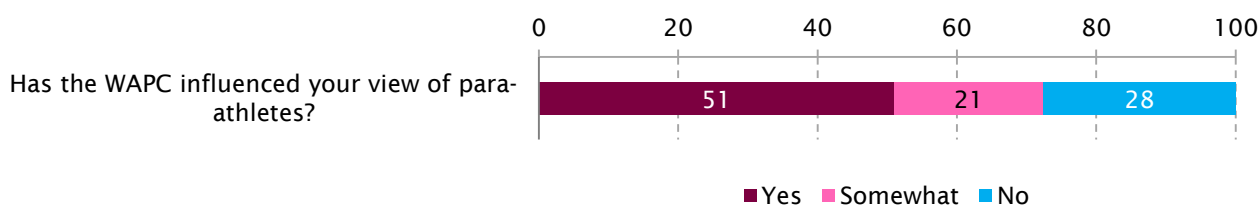


The most popular female archer during the WC was Gabriela Bayardo Chan (33%) (figure 5.4). She was followed by Colombian archer Sara Lopez who was picked as the favourite by fourteen per cent of the visitors. Next in popularity were Dutch archers Jody Vermeulen (9%), Sanne de Laat (7%) and Inge van Caspel (5%). Chang Hye Jin received five per cent of the votes. Kang Chae Young (4%) completed the top three most popular non-Dutch female archers (not in figure).

## 5.5 Influence on view of para athletes

For the first time in history the WAPC were integrated in the WC. The majority of the visitors felt that visiting the WAPC influenced their view of para athletes, 51 per cent certainly felt influenced and 21 per cent felt somewhat influenced (figure 5.4). 28 per cent of the WAPC visitors did not feel that their view of para athletes had changed due to the WAPC.

**Figure 5.4 Influence on view of para athletes (visitors who visited at least one day of the WAPC; in percentages, n=98)**



### Visitor quotes

*"I think it is great that the Para Championships were integrated in the World Championships." (female, 22 years, visited both WAPC and WAC)*

*"Nice that everyone is so open, unique chance to talk to the athletes." (male, 60 years, visited both WAPC and WAC)*

## 5.6 Conclusion

A significant number of people - nearly 13,400 - were reached through a total of 138 side events. Almost eight out of ten visitors of the WC were (somewhat) inspired to follow archery (more often) in the media, and more than half of them were inspired to practice archery (more often) themselves. Sjef van den Berg (Netherlands) was the most popular male archer among the WC visitors and Gabriela Bayardo Chan (Netherlands) was the most popular female archer. Feelings of togetherness were experienced by more than nine out of ten visitors. Three-quarters of the visitors who visited the WAPC found that the WAPC influenced their view of para-athletes.

# 6

## Media evaluation





## 6. Media evaluation

The WC did not only attract attention in the municipality of 's-Hertogenbosch and in the Netherlands, as described in the previous chapters. The event was also followed internationally on TV and web-TV (archery.tv (YouTube) and olympicchannel.com). In addition, the social media channels of World Archery were used to promote the event and the sport. In this chapter this (social) media attention is evaluated.<sup>18</sup>

### 6.1 TV and web-TV

The WAC led to 235 hours of broadcasting time, most of which in Chinese Taipei (63 hours). This coverage created a cumulative audience of 77 million people, with the vast majority in China (62 million).<sup>19</sup>

As a result of the visibility, a sponsor value of 2 million euros (tv and web tv) was generated for the city of 's-Hertogenbosch. The sponsors were Hyundai, Erreà, Longines, Spor Toto and the host city. Missed opportunities for sponsor visibility were identified as well: the sponsor logos on the grandstand's left side next to the standing archers were often concealed, due to the fact that the logos were printed too small and too deep. In addition, the advertising source Panel Infield often concealed the normal Panels around the venue.

The beach flags were the most valuable advertising source for Spor Toto and Longines and the second most valuable source for Hyundai. The main reason for the high visibility was the good position of the flags behind the archers during their shots. The ground in front of the podium was unbranded but it had a high visibility since the camera positioning often showed the perspective between the archers and the finish. This is seen as an unused advertising source.

### 6.2 Social media

Between May 29<sup>th</sup> and June 19<sup>th</sup>, 2019, the Twitter account, the LinkedIn account and the Facebook page of World Archery generated 10.9 million impressions, 315,000 engagements and 19,300 link clicks (table 6.1). The follower growth of Twitter, LinkedIn and Facebook was +307, +11,347 and +35, respectively (not in table).

<sup>18</sup> The information in this chapter is based on information from World Archery and Intelligent Research in Sponsoring (2019). The media coverage included the countries of origin of participants and secondary coverage, namely Japan, Korea, China, the Netherlands, Germany, France, India and Colombia (JAP, KOR, CHN, NED, GER, FRA, IND, COL).

<sup>19</sup> The broadcasting time refers to the length of the TV coverage of a specific contest, team, or event. The measurement starts with the first image of the analysed topic and ends as soon as it changes. The broadcasting time therefore represents the potential on-screen time for sponsors. The cumulative audience represents the average viewership of a certain programme. Cumulated audiences reported by IRIS are, if not otherwise specified, always dependent on the data provided by the country-specific rating institutes, and refer to adult audiences in terms of their advertising relevance. The event's cumulative audience represents the contact probability for a sponsor (Source: Intelligent Research in Sponsoring, 2019).

**Table 6.1 Impressions, engagements and link click social media accounts World Archery, from 29 May till 19 June 2019 (in absolute numbers)**

	Impressions	Engagements	Link clicks
Twitter account (@worldarchery)	1,278,198	44,879	3,544
Facebook page (business page)	9,620,674	270,044	15,717
LinkedIn (company page)	1,312	70	46
<b>Total</b>	<b>10,900,184</b>	<b>314,993</b>	<b>19,307</b>

Source: World Archery, 2019; Intelligent Research in Sponsoring, 2019. Adapted by: Mulier Institute.

Between May 29<sup>th</sup> and June 19<sup>th</sup>, 2019 there was an increase in followers of the Instagram account of World Archery: a growth of 1,398 followers resulting in a total of around 95,800 followers. In this period, 106,600 likes and 195 comments were given. In the same period there were 330,000 WorldArchery.org website users, of which were 317,000 new users. These users created 436,000 sessions and 819,000 on the federation's website.

## 6.3 Conclusion

The WAC led to 235 hours of broadcasting time and reached a cumulative audience of 77 million people. The event proved to be valuable for sponsors although lessons were learned as well. In addition, the event caused substantial interaction on social media, including 9.6 million impressions on the Facebook page of World Archery.

# 7

## Conclusion



## 7. Conclusion

The event organisation and its partners identified two objectives for the WC and the side events. Firstly, to organise a successful event for all in terms of organisation, finances, archery promotion and safety. Secondly, to strive for a positive economic and social impact. The objective of this study was to evaluate the economic, social and media impact of the WC. Based on the evidence gathered, this final chapter aims to delineate to which extent these objectives were met.

In general, the event as a whole was evaluated positively by visitors and archers. On a scale from 1 (very poor) to 10 (excellent) the WC received an average rating of 8.3 (visitors) and 8.2 (archers). Particularly the main venue of the event - the famous square in the centre of the capital city of North Brabant, next to the monumental Sint-Jan cathedral - was a pronounced success. It provided memorable images of archery and the city on (web-)TV. The most prominent result is that 60 per cent of the participants who participated in previous editions of the WC argued that the general organisation of the WC in 2019 was better than previous experiences (34% claimed that the 2019 edition was comparable with preceding WC's). Almost eight out of ten visitors of the WC were (somewhat) inspired to follow archery (more often) in the media and more than half of them were inspired to practice archery (more often) themselves.

The event led to 235 hours of broadcasting time and reached a cumulative audience of 77 million people. The event organisation worked with a budget of 6,358,000 euros and broke even. Feelings of togetherness were experienced by more than nine out of ten visitors. The atmosphere at the event and the 375 volunteers also received praise from both visitors and participants. The visit of IOC president Thomas Bach on June 16<sup>th</sup> and his positive comments about the event and the development of archery was meaningful and created weighty media attention.

Lessons were learned as well. Perhaps more could have been done to make the entrance to the arena in the city centre more welcoming, including the message that (on most of the days) entrance was for free.<sup>20</sup> Participants saw ways to improve the transport to the venues, and the coincidence of the WC with music event Jazz in Duketown was challenging, as were the number of visitors of the cathedral on Pentecost Day. Lastly, although the organisation anticipated on the weather forecasts well, the windy days led to minor and manageable damage.

The total economic impact of the WC for the host municipality was estimated at 1.3 million euros. Additionally, the event organisation spent another additional 3.3 million euros elsewhere in North Brabant. This implies the economic impact of the event for North Brabant is estimated at 4.6 million euros. A significant number of people - nearly 13,400 - were reached through 138 side events.

All in all, there is enough evidence to state that the organisation of the WC and its partners raised the bar in terms of event organisation and side events. A successful event in terms of organisation, finances, archery promotion and safety was realised. As to the social impact the participation numbers of the side events are impressive, although the outcome (societal impact) remains largely unmeasured.

In 2021, it is up to the city of Yankton (USA) to build on the successes in the Netherlands in 2019, to continue promoting archery at an elite and grassroots level and to further broaden its positive societal impact.

<sup>20</sup> This was also the case at the championships in Copenhagen in 2015 (Sportcal, 2015).



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## Appendix 1 Mulier Institute and Fontys SPECO Sport marketing

### Mulier Institute

The Mulier Institute was founded in 2002 and is the only independent, non-profit, scientific sports research institute in The Netherlands. As such, it is engaged in fundamental, social-scientific sport research that is practice-focused and relevant for policymaking. It monitors the developments within the Dutch sports sector by building and maintaining its own databases and trend series, in close cooperation with academic and professional universities both in the Netherlands and abroad, as well as with other research organisations and statistical administrative bodies, such as CBS Statistics Netherlands and Eurostat. Sport event research has been one of the main areas of focus for the institute for many years. The institute aspires to enhance the quality of sport research and sport policy in the Netherlands. It therefore advocates for the appointment of sports professors and organises conferences and symposiums, such as the annual Sports Research Day (DSO). The Mulier Institute plays a prominent role in many national and international research communities, including Meeting for European Sport Participation and Sport Culture Research (Measure), the European Association for Sociology of Sport (EASS), the European Association for Sport Management (EASM), the International Sociology of Sport Association (ISSA) and the network of recognised Olympic Studies Centres.



### Fontys SPECO Sport marketing

Fontys SPECO Sport marketing is a four-year specialized programme at the Fontys School of Economics. The programme results in a Bachelor's degree in Marketing. Personal development is highly valued and students work closely with highly-motivated teachers to reach their goals. Lecturers and researchers are specialized, have valuable work experience and well-developed professional networks. Fontys SPECO has partnerships with companies, sport clubs and universities/colleges in order to deliver highly qualified young professionals in sport management.



## Appendix 2 Economic impact

An economic impact study measures how much additional direct spending a sports event in a region stimulated. In this study, the so called WESP guidelines were applied to calculate the economic impact. WESP is an abbreviation for Working group for the Evaluation of SPort events. This method is frequently used in the Netherlands and the method is explicitly mentioned in the sport event policy of the Dutch Ministry of Health, Welfare and Sports. The economic impact of an event is influenced by the geographical area in the study. For this study the economic impact on the municipality of 's-Hertogenbosch was calculated.

In this study, a distinction was made between the share of visitors that were additional and the share that were not additional. The additional part of the visitors would not have been in the municipality of 's-Hertogenbosch if the WAC and WAPC were not organised there. Additional and non-additional visitors were distinguished in the following manner. In the analysis phase, the visitors were first divided into two groups: living in the municipality of 's-Hertogenbosch and not living in the municipality of 's-Hertogenbosch. Residents of the municipality of 's-Hertogenbosch are considered non-additional. The other visitors (Dutch visitors who do not live in the municipality of 's-Hertogenbosch and foreign visitors) are considered additional if they answer the question "If the WAC and WAPC had not taken place in the municipality of 's-Hertogenbosch, would you still have been in the municipality of 's-Hertogenbosch today?" answered with "Probably not" or "Certainly not". The respondents from this group who gave a different answer were seen as non-additional. This approach is called "method A" in the WESP guideline. This means that there is no real alternative location for the WAC and WAPC in the Netherlands (or 50 kilometres across the border). The share of additional persons among other groups, including participants and volunteers, was based on results of the survey, information of Team TOC and expert judgement.

When assessing the economic impact, it is important to acknowledge that an alternative investment represents a different economic return (opportunity costs). For example, the public funds involved in the WAC and WAPC could have been spent in a different way. This concerns not only the financial investment, but also the hours that civil servants (including the municipality, police) spent on the event organisation. In addition, there is a possible crowding out effect (event visitors displacing local residents and/or tourists). Opportunity costs and crowding out were not included in this study.

## Appendix 3 Visits and visitors

The estimated number of visits and visitors of the WAC is shown in the table below. The estimations were based on photos, information from the event organisation (number of tickets sold), questionnaire results and observations during the fieldwork. Tickets were sold for the Archery 2019 Arena for the 8<sup>th</sup>, 9<sup>th</sup>, 15<sup>th</sup> and 16<sup>th</sup> of June. On other days the entrance was free of charge. Entrance to the fan plaza, and the qualification and training fields was free as well. The estimation of visitors on the June 8<sup>th</sup> and 9<sup>th</sup> was increased by 200 visitors, as on these days it was possible to watch the competition for free, next to the stand. In several cells in the table “n/a” is written, because on these days there was no competition at the venue. The estimation of the number of visitors is derived from the number of visits by dividing it by 1.8 (the average number of visits per visitor, see paragraph 2.1).

**Table A3.1 Estimated number of visits and visitors WAC and WAPC (in absolute numbers)**

		Locations		Total
		Archery 2019 Arena (Parade)	Fan plaza, qualification and training fields (additional relative to Archery 2019 Arena)	
WAPC	Monday	June 3 <sup>rd</sup>	n/a	200
	Tuesday	June 4 <sup>th</sup>	n/a	200
	Wednesday	June 5 <sup>th</sup>	n/a	200
	Thursday	June 6 <sup>th</sup>	n/a	200
	Friday	June 7 <sup>th</sup>	n/a	200
	Saturday	June 8 <sup>th</sup>	1,100	300
	Sunday	June 9 <sup>th</sup>	1,800	300
WAC	Monday	June 10 <sup>th</sup>	n/a	400
	Tuesday	June 11 <sup>th</sup>	n/a	300
	Wednesday	June 12 <sup>th</sup>	n/a	300
	Thursday	June 13 <sup>th</sup>	n/a	300
	Friday	June 14 <sup>th</sup>	n/a	300
	Saturday	June 15 <sup>th</sup>	1,300	300
	Sunday	June 16 <sup>th</sup>	2,200	300
Total visits		6,400	3,800	10,200
Total visitors				5,700

