

# WOC 2019 Final report

## Contents

1. Prologue
2. Background info
3. Strategical platform
4. Organisation
5. Economy
6. WOC Program
7. Arenas
8. Sport
9. WOC Clinic
10. Event Centre
11. Spectator Races
12. Market & communication
13. Culture
14. Volunteers
15. Safety and transportation
16. Environmental issues
17. Norges Orienteringsforbund
18. Commercial partners

## Prologue

It is a great honour to host a World Orienteering Championships on home soil in orientation home. We set a high ambition to become "BEST WOC EVER". This meant that we had to use the best of the past experience local clubs had with big orienteering events combined with a strong focus and the o-circle had theirs on development. Fair and equal competition for the athletes was our main focus. We challenged the International Association (IOF), their Event Advisors and the national inspectors to have all three finals at Mørk. By this we could concentrate the resources and build one high quality arena. Sarpsborg square was the arena for the opening ceremony and two medal ceremonies. To ensure a large audience at the WOC finals we also believe it was particularly important to add spectator races alongside the WOC races. Together with our owners (8 o-clubs and the o-union in Østfold), the municipalities of Sarpsborg and Spydeberg became very central partners through their roles as host municipalities. Our other main partners were IOF, NOF, Østfold county, The Ministry of Culture and NRK. We thank all the World Cup organisation, volunteers, partners, sponsors, owners and others who contributed in making the ambitions and plans realised, and that WOC 2019 became such a success.

## Background info

As an orienteering nation of tradition and size Norway should host WOC every once in a while. The first WOC held in Norway was in Kongsberg in 1978 and the second Norwegian WOC was Grimstad in 1997. The last WOC held in Norway was Trondheim in 2010, and in 2015 the JWOC was held in Rauland.

### Ambition

NOF's ambition with hosting WOC is to increase the visibility and attention drawn towards the sport of orienteering in Norway.

### Bidding process

NOF began the bidding process in 2015, after IOF had requested Norway as host nation. Three candidates applied to host WOC 2019; Troms, Nord-Trøndelag and Østfold. Østfold was chosen after having the highest score on the parameters that IOF considered most important. NOF and Østfold were awarded to host WOC 2019 in April of 2016.

Østfold established an organising company where the Østfold Orienteering Union and all of its 8 clubs were equal owners. The bidding process was conducted by volunteer effort in cooperation with NOF. The first ever world championships in any sport in Østfold was finally becoming a reality, in a strong area for orienteering within Norway

## **Strategical platform**

This will be the first ever WOC in Østfold.

Sarpsborg Municipality was chosen as hosts for WOC 2019. This meant responsibility for official gatherings as well as facilitating a guest program for international guests and media.

### **Main ambition**

We will create THE BEST WOC EVER WITH UNIQUE EXPERIENCES IN ØSTFOLD.

### **Partial goals**

The following partial goals were chosen during the planning phase:

1. We will create a happening with an average of 8000 spectators for three finals.
2. We will create an environmentally friendly WOC with innovative solutions for the future. Among other things serving local food and choosing innovative technological solutions as well as transportation.
3. 300 athletes from more than 50 nations will compete in the WOC, and an average of 4000 will take part in the spectator races,
4. We will be visible locally, regionally, nationally and internationally. This means a good cooperation with tourist agencies, the municipalities and schools in Østfold, the local companies as well as the national and international media.
5. We will make attractive spectator races. This means six spectator races where the WOC courses are reused and the competitions are effective. At least one of the races should stand out as very typical for Østfold.
6. We are going to make an economical profit. The owner clubs and union will have at least NOK 50000 each, in addition to increased recruitment, maps, equipment and a higher level of competence among race planners where the younger generation is stimulated to participate.
7. We will offer good service to our guests and build a good reputation. This means that we will be service minded hosts, offering the very best Østfold has to offer concerning food and experiences.
8. We will have a committed and service minded staff. This means in the range of 350-500 volunteers receiving positive experiences and increased competence levels. Youths are stimulated to take part to secure future growth.

### **Facilitating TV Production**

We will arrange the possibilities for a good TV production and stimulate motivation to further developing TV broadcasts of orienteering events in cooperation with the production team and the national broadcaster.

Together with NOF we will actively work to establish profiles from the sport. NOF will take the main responsibility on this matter.

### **Spectator races**

We aim to reuse the WOC courses as much as possible. We will emphasise short distances in areas like parking, arena, start and starting intervals, and offer flexibility in form of direct open courses. We

will focus on making both parts of the event attractive, with capacity and accessibility as key factors. The class- and course display should be divided with stimulating the attention to the younger runners in mind.

Races for school children and other people, both before and after WOC, are also offered.

### **Positive attention**

We will work actively with PR activities through our own PR group, in addition to use digital media platforms, invitations, stands and other cost-effective activities.

This will contribute in making the events visible. We will actively offer attractive WOC merchandise.

### **Profile**

We will establish a simple and cost-effective profile that easily is associated with the sport of orienteering.

## **Organisation**

### **Organising company**

The organising company VM Orienteering 2019 AS was established in the summer of 2016 by the orienteering clubs from Halden, Gimle, Sarpsborg, Trøsken, Varteig, Fredrikstad, Moss and Indre Østfold together with Østfold O-krets (Østfold Orienteering Union). The purpose of the company was planning and conducting the pre-WOC/World Cup races in 2018 and World Orienteering Championships 2019. Shares were split between each shareholder by 11,11%.

The foundation for the work in VM Orienteering 2019 AS will be Partnership Agreement World Orienteering Championships Norway 2019 between IOF and NOF. An agreement was established between NOF and VM Orienteering 2019 AS to move responsibility to the organising company. The organiser is obliged to follow IOF's guidelines in planning and conducting a WOC.

### **WOC-board**

The VM Orienteering 2019 AS board contains the following people:

Sigmund Vister (leader), Solveig Sikkeland (co-leader), Erik Unaas, Marianne Riddervold Kahrs, Thor Fagereng, Ingrid Solberg Sætre, Elsie Brenne (First substitute), Simen Gjølsjø (second substitute). NOF has received all summonings and protocols from each board meeting.

### **Organisational structure**

All operative sections were established with both a leader and a co-leader to reduce risk of information flow being lost if anyone in responsible roles were obstructed from completing his/her mission.

The functions where the working areas concerned multiple sections were further defined.

A committee of its own was appointed to handle any unforeseen events where the organising committee lacked the necessary authorities to take appropriate actions and solve problems.

In the period of August 2017 to January 2019 the main focus for the organising committee was to plan the arrangements for pre-WOC/World Cup 2018 and WOC 2019. From February of 2019 the focus was to operationalise the plans.

The Managing Director has been employed full time from April of 2017 to October of 2019. In addition, a 25% engagement has been given to one staff responsible. This position also had the responsibility for recruiting activities, to make the arrangements for the volunteers and younger volunteers. All other work put in has been a voluntary basis.

The total amount of volunteer work is 30000 hours, where 14445 of these are related to the WOC week exclusively.

## **Economy**

The owner clubs and Østfold Orienteering Union established a corporation with NOK 270000 in shared capital. NOF granted a loan of NOK 500000 in the primary phase until the corporation achieved proper liquidity.

Already at the establishment of the shareholding corporation the foundation protocols defined how to allocate eventual benefits. An economical ambition of at least NOK 50000 back to each owner was set as well.

The initial phase had a focus to establish dynamic planning- and prognose tools that were used during the duration of the project to adjust costs in accordance to expected incomes. Experiences from WOC 2010 Trondheim and WOC 2016 Strømstad were also used in the estimations.

In the planning phase the main focus was on the major income sources (Public allocations, incomes from spectator races and sponsors) and the most expensive costs (proverories, Arena Mørk and administration).

In the beginning 5% of estimated incomes were set aside to create a buffer for unforeseen expenses, a necessary measure as the costs of building the arena for the finals and incomes from the spectator races were difficult to estimate precisely.

Another important strategical choice was to reduce risk and expenses in areas not defined as the event's core activities. With that in mind partnership deals were signed on important areas like managing food and refreshments on the arenas at Mørk and Knatterudfjellet, the rigging of tents at the arenas and power aggregates, toilets, fences and electrical equipment both for WC 2018 and WOC 2019.

The turnover for the WOC project was NOK 18,3 million with a profit of NOK 1,7 million. Profits are allocated back in accordance to resources put in back to the owner clubs and union. The result is a calculation before eventual VAT compensations that will be disbursed during 2020.

## **Arena**

Section Arena had main responsibility for the arenas Knatterudfjellet and Mørk during WOC 2019 and the WC arena in Aremark 2018. The section's management was also available on request to help out with arena matters in Sarpsborg and Kongsten Fortress. Arena Knatterudfjellet was meant to be a low-cost arena build with the club's own equipment.

Arena Mørk was to be designed with space and facilities to host 6 – 10000 spectators and become an arena where the spectators were given great experiences as well as television broadcasts with astonishing pictures.

Arena Mørk had a total tent coverage of 3100 square meters, in which 2400 of these were set up by OB Wiik. 8 working barracks were set up from UCO for the announcer, arena production and commentary boxes. In addition the arena contained:

- 900 tons of load mass
- 2036 m<sup>2</sup> floors inside tents
- 500 m<sup>2</sup> of scaffolding for two of the tents
- 331 tables
- 912 chairs
- Photo stand
- 1600 meters of fencing, in which 600 meters were constructed.
- 76 toilets
- 10 power aggregates
- 1500 meters of electrical cables

Arena Knatterudfjellet contained 1100 m<sup>2</sup> of tents, in which 300 m<sup>2</sup> was set up by OB Wiik.

### **Planning**

The most important and most difficult issue was to clarify the different section's needs and demands. The dialogue with the media section was particularly important to facilitate good television pictures.

It was a key factor to scheme the arena with the correct measurements to feel safe that all the functions were given the right location and correctly aligned with each other. The arena was stuck out based on coordinates from this scheme. This made the construction process easier and reduced the risk of misunderstandings and mistakes.

### **Positive experiences**

The section had a core of people with long term experience with building arenas for orienteering and other sporting events. The leader and co-leader were well acquainted and possessed complementary skills (planner and entrepreneur), and the section worked together well.

Detailed planning resulted in knowing exactly where to place and build.

During the construction process we depended on self-driven and distinct group leaders to carry out tasks alongside a group of less experienced volunteers.

The cooperation with the owner and manager of Mørk Golfclub and the landowners was good. This resulted in flexible solutions like that we could use the facilities' special vehicles for driving on a golf course.

## **Key learning areas**

Collecting information from all the other sections regarding their needs, external participants and opinions from control organs should have worked better. Some of the needs were reported too late which called for some last-minute planning. This made some solutions not being optimised technically and/or economically.

We received little understanding of the need for reporting needs at an early stage, so that co-partners could be engaged, and we could discuss optimisation of the deliverances with them.

## **Sport**

The preparations and communication within the sport section was split between three platforms: Dropbox, Mobilise and e-mail. Different dropboxes were prepared and administered by the section leader. The section handles a considerable amount of confidential information of restricted access. At an early stage we agreed upon not sending any information regarding maps and courses via e-mail. To the WOC organisation's knowledge there have been no leaks concerning course information.

### **Bulletins**

Four bulletins were worked out, all of them published ahead of deadline. B3 and B4 were published in two versions due to further increase the level of service. The bulletins were made by the section leader in close dialogue with the main functionary and advisers.

### **Team Official Meeting**

Three Team Official Meetings were held during WOC, one for the middle-distance qualification, one for the long-distance and one that covered both the middle-distance final and the relays.

### **Maps**

Mapmaker Kristen Treekrem prepared and produced three map foundations: Mørk, Knatterudfjellet and Rudskogen. Rudskogen includes a section of previously published maps and was used for Model Event. Five maps were produced. There was also produced a warmup map for quarantine 1 and four warmup maps for quarantine 2, one for each distance.

### **Courses**

Ten courses were laid out for the individual competitions as well as two relay courses containing 35 different forkings.

Designated maps for cables (television and time measuring), refreshment stations, control guards and memory maps for the qualification and relays were made.

### **Print**

All competition and memory maps with courses were printed at OK Trykk in Halden. The warmup maps were produced by the national controller. Loose definitions were printed by OK Trykk. To test the quality of the maps and course print the same procedures were used when Halden SK hosted the WOC selection races in July 2019. Printing work was closely inspected on location. Number of maps printed:

### **Map handling**

All maps were packed in map covers, welded and given a number. Two sets of maps were made and kept by the Map Manager and national controller respectively. Maps were released to the start, the sales and media in accordance to the timeline stated in the Masterplan. Maps were published online according to the same time plan.

### **Terrain markings**

There was approximately 10000 m<sup>2</sup> of plastic band markings in the competition area to embargo open fields, private properties and other areas runners were not allowed to enter in the terrain. Four footbridges were built for the finals. Acres and grass were cut to an amount of 6000 m<sup>2</sup>.

### **Controls**

Control tripods were built for each control by the course planners aided by the setters. The control flags were delivered by Silva. Some controls were camera controls and TV controls. They were designed in cooperation with the media representatives, TV, controllers and course setters. All the controls were guarded by one control guard for the duration of the races, placed at a designated spot and operating in accordance with guidelines.

All Touch-free units were installed and activated by the course setters early in the morning each competition day. Back-up routines were followed when technical problems with any units made them be replaced. The procedure was used for each of the individual events, and all units were collected back from the terrain the same day or the day after.

### **Quarantine**

Quarantines was placed at three different locations. At the middle-qualification on a field close to the start. According to the plans we should have set up tents, but logistical problems at the arena combined with beautiful weather made us skip the tents. At the long-distance and middle-distance finals, the quarantine check-in was at Spydeberg Elementary School. From here the athletes and coaches were transported to the quarantine at Mørk. For transportation we used eight different cars from Bilbutikk1 with drivers. At Mørk we used a large tent with solid floor. The warmup areas were adjusted to areas where they did not have any contact with the competition area. During the relays all quarantine areas were at Mørk. Toilets and refreshments were available in the quarantine zone.

### **Start**

Two starts were prepared. At Knatterudfjellet the pre-start and start were in the forest. Some tidying and tent building were conducted the last days before the race. At Mørk the pre-start was prepared in connection with the quarantine, and the start from a ramp placed inside the arena. The start set up is explained closer in bulletin 4. On the relay the GPS handout was moved to the quarantine due to rainy weather forecasts.

Changeovers was performed with the same map stand as used during pre-WOC, a board with holes for maps and reserve maps.

### **Refreshment stations**

During the long-distance six refreshment stations were prepared in the forest. All distances with arena passages had one refreshment station at the arena as well. Runners could choose from water and/or Maxim Sports Drink, "Fresh Orange Taste".

## **Model events**

On the Monday the Model Event and Technical Model Event were performed. This to give runners and coaches a demonstration of the event.

## **Test runners**

Two hours ahead of each competition a Site Acceptance Test was performed where a few test runners, equipped with GPS and going through the entire starting routine, ran through the day's courses. This ensured that all the communication from the intermediate time controls and GPS tracking were operational. TV commentators could have comments from the test runners if wanted. As the runners were quite skilled, mainly elite NTNUI runners, some feedback on the course planners stipulated times was secured.

## **Anti-doping**

Anti-doping was organised in accordance to "IOF Organiser guide to anti-doping". We chose a tent with three separated sections. The testing room in one end, and the waiting room in the other end. In the middle there was a resting room with insight to the waiting room. A refrigerator was placed in the waiting room with pre-packed fruit and snacks and drinks. Any opened package/bottle of food/drink was tossed as athletes were done testing.

We had to have a good dialogue with the media manager in the mixed zone as to how to get hold of the athletes and chose to bring them in when they returned their GPS-units. To follow the athletes around was a bit more hectically than expected. We recommend using the same followers as many days as possible. Especially during the relays where the activity both in the exchange area and mixed zone is a bit chaotic. In cases where athletes are picked for control based on results, personnel should be placed by the finish line in case of a sprint deciding the result. At relays we recommend one follower of each gender as a reserve at every time. The cooperation with the team coaches went well and they showed much appreciation and understanding for the anti-doping work.

## **Positive experiences**

1. Many skilled and dedicated people contributed in the event became a success. It is essential to have this kind of experience in key roles aboard, both organisational wise and practical wise.
2. Good communication with other sections, especially arena and media. They influence directly the borderline between arena and forest, and how controls and legs are arranged.
3. Regular communication with controllers. Success in going from mail-based contact to phone, and then video meetings.
4. Regular meetings and communication with the section leaders and course planners. This to clarify borderlines, challenges and solutions at an early stage.
5. Recruitment of many volunteers at pre-WOC. Many received training in their working fields.
6. The recruitment of test runners from NTNUI, a resource that could have been hard to come by.
7. Bulletins and Masterplan ready at an early stage to have a common understanding of how to proceed.
8. The usage of Mobilise as an information board and archive in the working process.

9. The usage of Dropbox with good accessibility controls. A digital platform that allows sharing documents and other files safely. A lot of confidential information is handled.

10. Some unexpected episodes will always occur. The staff was always flexible and mindset on solutions, instead of looking for someone to blame or pointing out mistakes.

### **Key learning areas**

1. How the responsibility is divided between controllers and other IOF representatives. At several occasions we ended up discussing matters with controllers and IOF representatives that should have been settled outside of WOC. At some occasions our experience was that controllers didn't draw a clear line between important matters and details that did not carry any effect on the result.

2. Changed expectations and demands from external controllers. Late changes are difficult to implement and comes with a considerable cost.

3. The acknowledge on the interplay needed to create a good TV production. A lot of interests will have to cooperate to have a good TV broadcast.

4. The need and purpose of secrecy. Most teams could guess well enough where the start was on the background of planned infrastructure. The courses were also of a quality that ensured that knowledge about the arena start would have no impact. This would have made the event simpler to conduct, cheaper and required less staff.

5. The competition rules and the interpretation are difficult for runners, leaders, organisers and controllers. A revising is recommended, with simplification as focus. The IOF ambition of many nations represented at WOC should comply with the actual number of rules and limitations. To the organisers the limitations had little practical impact.

6. We depend on every runner carrying and take responsibility for their own GPS vest, and some problems occurred because of that. The GPS vest should be handed out with the GPS unit inside of it.

7. Ensure even better contact with the landowners.

### **IT and time measurement**

GPS Provider:

TracTrac

Timekeeping provider:

EQ Timing and Emit provided us with timekeeping and the technical equipment respectively.

Cabling:

We had a group of its own to draw cables for timekeeping and TV cables through the forest.

Finish:

A group of its own handled tag reading and backup reading in the finish area.

Collecting GPS units:

A group that aided the GPS provider to prepare and collect the units and to recharge them for each competition. TracTrac handled much of this work themselves, so our contribution here was less than planned.

IT Infrastructure:

A group separated from the IT & Timekeeping-group to support all other sections and functions' IT solutions. On an event of this magnitude we recommend internet access through fibre optic cables.

### **Positive experiences**

The event plan was a good document to use as a tool in the early planning stages. At a later point the Masterplan took over as the main tool. With the television production involved a good and detailed Masterplan is essential with every activities' tight time schedule in mind.

Each group had their own time schedules stated in the Masterplan.

The coordination between each group involved with IT & Timekeeping, section Sport and other sections was decisive for the good conduction. This also apply to external providers of GPS, time keeping, mobile companies and more. Regular meetings to keep up to date with the status and other arrangements and clarifications were dealt with at theme meetings, mail and phone as well.

A good digital platform to secure safe sharing of documents between only people supposed to have access is important with all the confidential documents. We used Dropbox for this matter.

The staff was big enough to handle any unexpected situation that occurred.

### **Key learning areas**

We had some problems with the entry system in IOF Eventor. An error concerning dates caused some team leaders not being able to make changes to entries already done. This resulted in some extra work for both organisers and IOF Eventor support. IOF Eventor support's help was very valuable to us.

It's important to study the competition rules good enough. The teams and team coaches can't be expected to know them by hand.

Start lists for the long-distance were not ready until late in the evening before the competition. This was due to a protest that some runners were included in the list despite not having collected enough WRE points.

The organiser needs to supervise the entry process all the way through to the entry deadline. The number of runners entered from each nation must comply with the nation's quota, defending champions and regional champions are not included in the national quota and runners need to have enough WRE points to enter the long-distance.

We endorsed runners that had GPS vests on their own to use these. Runners without vests were supposed to order rental vests at entry. Many didn't. Even though we had some reserve vests we ran out of them and had to order more. Around 25% of accredited runners ordered vests in advance, whereas 40% of the runners should have ordered GPS vests. The vests were handed out alongside the accreditation and were supposed to be returned prior to leaving. A few vests did not come back. An alternative arrangement will be to hand out and collect the vests for each competition.

### **Other matters**

Testing and practicing the different tasks were decisive to the result. To organise the World Cup with pre-WOC the year before WOC was a very useful experience. Most sections and groups got to test their planning and experience how it worked out in real life. Towards WOC changes were made in the planning in accordance with the experiences from pre-WOC. Whatever worked well was kept and further developed for WOC.

## **WOC Clinic**

WOC Clinic is IOF's project to help the smaller orienteering nations having participants in WOC and to learn them about how to reach a top level.

WOC Clinic 2019 had 12bparticipants from 9 nations. The leader of WOC Clinic was Zoran Milovanovic and Ingrid Okkenhaug. Hanne Sophie Wold Gundersen, leader of OK Moss, was responsible for all their arrangements during their stay in Østfold.

WOC Clinic participants represented the following nations: Cyprus, Croatia, Slovenia, South Africa, Serbia, Colombia, Moldova and Argentina.

The group arrived on the 8<sup>th</sup> of August and stayed at Vansjøheimen, Moss. During the week before WOC they performed different training sessions, often twice a day. From the 13<sup>th</sup> of August they participated in the WOC competitions or in the spectator races. They returned back home on the 18<sup>th</sup> of August.

WOC 2019 had the responsibility to cover any expences during their stay in Østfold, namely food, transportation and accommodation.

WOC 2019 will like to thank Moss municipality, Rygge municipality, Eidsberg Sparebank and Hertz Østfold as partners for WOC Clinic.

## **Event centre**

The event centre was outside of competitions located at Quality Hotel Sarpsborg. The main function was to serve the athletes and teams with accreditation, financial follow up of the teams, info centre for the nations, media, IOF and other accredited. The event centre also took care of the volunteer accreditation and pick up point for the volunteer outfit. During the WOC competitions the event centre could be found at the arena.

### **Accreditation**

The accreditation process was demanding as it happened in a very short time span. IOF was developing the accreditation tools up until a week before WOC. Still there were some manual work that had to be done, which needed a lot of resources.

The leader of the event centre developed an accreditation tool of its own for handling WOC staff, sponsors and domestic guests. Without this tool we wouldn't have succeeded in landing all accreditations before WOC started.

A total of 2 300 accreditations were produced, whereof 958 were made with the IOF accreditation tool. Of these 958, 400 were made manually and the rest through IOF Eventor.

### **Key learning areas**

A leader for the event centre should have been established at a much earlier stage. The time to plan, research, build competence and coordinate the work was limited. Instead we had to learn and develop during the execution phase, this is not a good idea.

With such a compact event matters from the WOC-part and the spectator race part of the event crossed each other's boundaries. As previous organisers had not organised it the same way it was a bit challenging organisational wise.

### **Positive experiences**

A lot of committed personnel worked together in an admirable fashion. Many took more responsibility than we asked for and were committed in finding solutions rather than dwell on the problems. The youth volunteer group, both from Norway and abroad, were fantastic.

### **Spectator races**

Six spectator races were held in six days. The first race in connection with the opening ceremony, and the last race in connection with the WOC relays on Saturday. We had one race during the WOC rest day.

The number of participants varied from 977 to 2451. In total we had 10 085 starts during the six competitions. 8 611 were pre-entered and 1 474 direct entries. The table below shows details on how the entries were divided for each day.

Participants came from above 30 nations. Out of approximately 3 500 unique runners, around 1 200 were from outside of Norway. All corners of the world were represented with competitors from Australia, Japan and Canada.

We had a staff of approximately 110 functionaries each day, with a slightly higher number for the urban sprint. We calculated the possibility for a big turnout and had as many as 67 courses prepared, ranging from children's beginner's courses to M85. Key tasks are race direction, arena, coordination of personnel and race office.

A lot of time were put into coordinating the races with WOC to have the perfect combination of running your own race before attending the WOC race.

The result service was a combination of online results and a result board on the arenas.

The start disposed three 3x3m tents and at the arena we used one big 9x12m tent for information, prize giving and direct entries. The finish area was organised with three tents: 3x6m for card reading, 3x3m for Red Zone and 3x3m for leg-time reading in addition to a wagon for the computer server. The wagon followed us around from day to day.

### **Organising**

The spectator races were organised as a section of its own under the WOC 2019 umbrella.

Key functions were:

- section leader and co-leader
- Race directors for each race (one director for all races at Mørk)
- One main responsible for the start with assistants that were responsible for each single day

- One main responsible for the race office with an assistant responsible for direct entries
- The races outside of the WOC Arena had groups of its own responsible for the arena.
- Course planners organised by a main course planning responsible for WOC 2019
- Service functions (sale, nursery station etc)

Activities were coordinated on the races that shared arena with WOC.

### **Positive experiences**

1. Positive feedback on the tight integration with the WOC races
2. The spectator racers got good value for the money as the entry fee covered entrance, parking, a fantastic arena, activities and WOC experienced up close.
3. The dialogue between the functions leaders like start and race office saw through that there was a coherent structure through all the races. This was an advantage both to organisers and participants.
4. Good capacity for direct entries with 10-12 people working in parallel with registrations. They managed 300 entries per hour with no queuing building.
5. Common WOC/spectator race arena
6. The reuse of maps and terrains for the spectators as soon as the WOC competitors were done
7. Tight integration with WOC made the spectator racers feel like a part of WOC 2019.
8. The spectator race ahead of the opening ceremony secured extra people attending the ceremony

### **Key learning areas**

1. The extra day on Thursday was well received by the spectator racers but required extra effort from us as we had established ourselves at the final's arena on Wednesday – and were to go back there for the last two races.
2. Additional services like transportation and camping would probably have been easier to manage if it had been kept away for the Eventor entries.

## **Market/Communication**

Professional volunteers were brought in, primarily from the clubs in Østfold, but also from outside of the area. Several in the group works, or have previously worked, in the local media in Østfold. Others had other relevant experience.

Looking back, we are extremely proud of the competence gathered in the group. We summoned five meetings for all members, whilst the communication mainly took place within the subgroups. A key success factor was that the section was present in meetings where other sections were co-working.

### **Market**

A key learning note is that the logo needs to be functional regardless of platform.

The WOC ambassadors were sorted 1,5 years ahead of the event, and they contributed a lot PR-wise.

The partnership with Visit Østfold, Amedia and designated promotion allocations from NOF made sure we made good marketing both inside and outside the orienteering sphere.

Different marketing events:

- Regular advertising and WOC narrative in orienteering magazines both in Norway and abroad.
- Partnership with the Amedia-papers in Østfold and Follo.
- Partnership with Visit Østfold.
- Promotional campaign tour in Norway with NOF, the WOC maze-O and the WOC caravan car.
- Advertisements in several tourist brochures.
- Advertisements inside the tour orienteering envelopes.
- Leaflets focusing on ordinary spectators.
- Leaflets focusing on orienteers.
- Campaigns in social media.
- Visibility through stands, leaflets, giveaways and prize sponsorship of national and international orienteering events. Especially O-Ringen 2018 and O-Festivalen 2018 were high priorities.
- Exterior and interior advertisements on public buses.
- Advertisements on info screens at places like high schools, public dentist offices, the Municipality House, colleges and at cultural events in Østfold.
- Profile articles
- Articles for sale

### **Sales and commercial dressing**

The Managing Director has led the sales work, aided by the board and other central resources. Sales were conducted in accordance with IOF guidelines.

The arena was balanced and good looking commercial-wise. Both the sponsor car and two big commercial arches were clearly visible inside the arena. One person was main responsible during WOC, while more people shared responsibility in the planning stages. External expertise was brought in. We started planning the arena dressing 1,5 years before the event together with the arena section.

The arena section installed all fencing, both wooden and steel, whilst the commercial dressing was performed as a co-project across several groups. This work began four days ahead of the first televised competition. Sketches and principal main ideas for the commercial board distribution were drawn, although in retrospect these should have been even more precise. Ahead of each competition day discussions were made with the TV producers and mobile commercial boards were moved and adjusted in accordance. We recommend drone pictures for good exposure. Wooden fencing was a good choice as they are easier to install good looking commercial boards on than steel fences.

## **Webpages**

The webpages were established to cover three primary functions:

1. Competition info for elite athletes and national teams with training possibilities (including bulletins).
2. Information for spectators and spectator races.
3. News.

The first two categories are static content and were only adjusted to adapt to changed conditions as the pages were improved. The news content has been updated on a regular basis throughout the entire period, with a total of 241 news updates. The news content has been published mainly in Norwegian and English and occasionally some news articles in Swedish when we have found it commercially beneficial. The invitation was published in Finish, German and Russian as well.

The website has been beneficial in a market perspective as we have been able to release news concerning the spectator races on a regular basis, and at the same time lead the readers from our social media platforms to our webpage - where our sponsors have received exposure.

Figure 1 tells us that even though social medias are important, Google still provides us with the most hits on our webpages. In retrospect we could maybe have focused even more on actively optimise towards search engines and on Google advertisements.

Another key momentum is to have a good plan for the webpage content during the event. As showed in fig 2 most of the webpage traffic came during the WOC week. To make sure that a) relevant content and information requires few clicks and b) relevant news for anyone following the competition were published was very important.

We solved the first matter by remodelling our website in the weeks before WOC. We went for a mobile optimised solution where news and social feeds were downscaled and information on direction, programme and results were emphasised. This turns out well and we received positive feedback that necessary information was easy to find.

## **Social media**

We have been operating on all the big three social media platforms in the marketing of WOC 2019. The WOC Facebook page was operating before the webpages were released. On Facebook we have shared all articles from the website, in addition to publish more news, clips and pictures. Videos have been particularly popular. Here is an overview regarding each of the three platforms and their respective number of followers:

An invention for this WOC was that our WOC channels were established as regular WOC channels, rather than unique for only this year's edition. By this we hope to give future WOC organisers a flying start with more followers on already established channels. We enjoy that we got the opportunity to sculpt the way to do things on both a system level and a creative level.

### *Facebook*

Both in 2018 and 2019 we've to a certain extend went for paid placements of targeted messages at key moments of the orienteering season. During O-Ringen 2018 we bought Facebook advertising with messages specially targeted towards the Swedish audience.

We've repeated this tactic twice, during the spring of 2019 and during O-Ringen 2019. The effect was good, and we reached well over 100000 Swedes during these advertisement periods. On the side of this we did one advertising period in partnership with Visit Østfold to highlight other activities during the WOC period, and one in partnership with NOF concerning the beginner's tutorial on the WOC arena.

### *Instagram*

The Instagram following exploded during 2019, and we had twice as many followers on Aug 1<sup>st</sup> than we had on Jan 1<sup>st</sup>. We can identify three main reasons for this development:

1. We entered the year of the competition and became more relevant in the media world.
2. The transition to a "common" WOC account gave us a good start as IOF's established channels drew attention to the WOC 2019 channel.
3. Over time we've learned more about our followers and have been able to adjust the content depending on who we want to reach.

### *Twitter*

Twitter has mainly been used as an alternative live channel to back up the IOF live blog in cases where it has been down due to technical errors.

### **Press group**

The main tasks have been delivering content for the website, press bulletins to national and local media and production of news articles in the local Østfold media. The work within the group went on for the last two years entering WOC 2019. There have been regular news articles, features of previous WOC medallists from Østfold and different kinds of WOC 2019 promotion. Norwegian and English were mainly the communicational languages. The leader of the press group planned the work together with the rest of the group.

### **Media centre**

Our ambition was to create a good working environment for all media representatives present at the arena for the final at Mørk. We deliberately went for a bit simpler conditions for the qualification at Knatterudfjellet. The press centre leader attended the WOC 2018 in Latvia as a member of the press. This was a good experience, and many advices and services could be carried on and further developed for World Cup 2018 and WOC 2019.

Many of the press centre staff had experience with similar work and knew what to expect when WOC started. The instalment of fibre optic cables around Mørk was a significant plus and laid the foundations for the most important working tool to members of the press; a functional internet connection. We made clear that IT resources, web connection and systems needed to be available in and close by the press tent.

At an early stage we delivered specifications on size and seating capacity requirements based on estimations. In close dialogue with electricians the media centre tent was rigged to meet our specifications. In addition to a good wireless connection for the media, plug ins, cables and switches for about half of the seats were put up. We had the opportunity to use more cables if needed. We used the World Cup 2018 and the selection races 2019 as practicing and testing for WOC 2019.

### *Equipment and capacity*

We used two main PC's for administrative matters, both connected to laser printers with possibility to print in colours. We had two 55" TV screens running the live results and the arena TV production, which was well received. Our social media group had a working booth of its own and NRK disposed a closed section to run internal meetings.

### *Food & refreshments*

We had a simple selection of free fruits, nuts, luse, water and coffee inside the press tent, and media representatives received discounted buffet meals with their accreditations in the food tents.

### *Personnel resources*

The media executive kept available to the press and managed the press conferences. The Head of Communication led the media briefings ahead of each competition. We had meetings with each nation's responsible for press and communications. We had a team of hosts and other people with designated tasks.

### **The planning**

Our ambitions as TV coordinators were divided in two main areas:

\*To be a connection between the TV production team/NRK and the organisers.

\*Lay foundations for a TV production raised to new levels of quality.

The concepts for the different distances were laid out at an early stage. We made clear that the arena needed to be highlighted even more, with arena start and quarantine zones close to the arena. The course planners adjusted their plans according to our expectations and worked hard to have the best level of courses with the TV production in mind. Especially important to the production was to raise the level of the long-distance. We envisioned a narrative with more intermediate time passages and the use of the GPS-tracking to tell the story of the event as it unfolded. The arena section was positive towards input from the media section and demands from the producer and NRK. This cooperation led to a high-quality TV production.

EQ Timing delivered time-keeping services at the utter most professional level towards the TV production that worked close to perfection and better than ever before. A good set of routines have been worked out. The time-keeping provider should receive access to maps and terrain at an early stage.

TracTrac worked hard to deliver the quality needed for the GPS tracking. The quality of the tracking towards the TV productions was satisfying, even though there are room for improvements. In time TracTrac will be a very good provider for TV given their levels of cooperation and understanding of the concept of story telling inside the TV bus.

The cooperation with the mixed zone worked well, ceremonies were on time and interviews with the victors on the international production worked well.

Commentators received information through Dropbox and were given the opportunity to test the courses the day ahead of each competition. SVT went for the opportunity to have their own site inspection. During the competitions all commentators gathered in one WhatsApp group to receive info from the TV bus quickly. This worked well.

## **TV Cables**

There were laid, moved and collected approximately 35k of cables during WOC. The TV representatives did much of the cable work themselves. We took responsibility to make sure they were laid where and how they were supposed to. The group also handled laying out and collecting the Emit ETS boxes each competition day.

## **Mixed zone**

The mixed zone team did much of the coordination work between sections during ongoing events. The team is responsible for the runners from they've crossed the finish line until they enter the team zone. The team ran the flower ceremonies in cooperation with the TV director. They operated as a service function for the commentators and the announcer and arranged for TV interviews and locations according to level of rights.

It's important to limit the number of people in the finish area and mixed zone during and after competitions, and the interviews in the speaker tent could probably have been moved closer to the finish line. The mixed zone team consisted of eight people. A good link between mixed zone and Head of Communications is important.

A good placement of the coaches is important, and that they could be close to the finish line was appreciated during WOC 2019.

Recommended measurements for paddock and photo stand for future WOCs:

6 m width x 12 m length (3 m longer than we used. This will leave room for the host broadcaster making interviews inside the paddock as well.

## **Arena production**

Two big screens were rented, which was important regarding spreading people on the entire arena. Commercials ran on the big screens in addition to the TV production. The arena production and announcer held high quality. The interviews were performed on the speaker's stand, which made it a bit more challenging.

## **Culture**

Section Culture had the responsibility for accommodations, ceremonies, food and guests. For more details on the programmes, view attached files.

### **Accommodation**

We worked together with Visit Østfold and other tourist agencies to offer arrangements in all possible varieties when it came to quality and pricing. We established a common landing site at Visit Østfold with links to WOC 2019. The landing site gathered advertisements for all possible accommodation offers as well as private offers, club cabins and the o-camp. All bookings were channelled directly to each offer's origin site, with exception of the o-camp that was booked through Eventor.

We established price- and kick back agreements with Quality Hotel Sarpsborg, Quality Hotel Fredrikstad, Scandic Brennemoen, Scandic Sarpsborg and Scandic City Fredrikstad to ensure national teams and spectator runners good offers. Quality Hotel Sarpsborg was chosen as the main hotel.

## **Ceremonies**

The opening ceremony with concert was located at the town square in Sarpsborg, as well as the medal ceremonies for the long- and middle-distance. The medal ceremonies for the relays and closing ceremony were held at the arena in Spydeberg.

## **Food serving**

We operated with three different food serving concepts.

In Sarpsborg we let adjacent restaurants take care of food serving at the town square, which was well received by the city's restaurants. At Kongsten Fortress we handled the food serving ourselves based on the concept of the local annual long-distance race Blodslitet.

At Knatterudfjellet and Mørk we outsourced the food and refreshments to EventPartner Norway. The food concept for these two arenas was developed in cooperation with Guldkorn, with financial support from local authorities within the field of agriculture.

## **Food concept**

The food concept was partly developed for pre-WOC 2018 and fully developed for WOC 2019. The concept depends 100% on local producers and providers.

## **Guests**

We were the first WOC where we experimented with a new VIP concept in addition to the traditional, IOF Family. The concept was somewhat simpler and more affordable to most people than the regular VIP concept. The incentive was to get even more of the nation's presidents and General Secretaries to meet and create bonds. The IOF Family ticket was NOK 400 and was also used by the organiser's sponsors and guests.

Because of IOF Family, the regular VIP was only for invited guests. (Invited by either IOF, NOF or WOC 2019). At the three days of finals at Mørk there were in the range of 42-65 VIP guests each day.

We arranged for an official dinner with 75 invited guests on Thursday Aug 15<sup>th</sup>, hosted by the municipalities of Østfold and Sarpsborg. Inspiria was chosen as a suited location. Apart from key persons from the local municipalities, invitations went out to the presidents of the participating federations, the majors from Østfold, the Østfold representatives in the Parliament, the Ministry of Culture, the board and General Secretary of NOF, the Sports Union of Østfold and the board/organising committee of WOC 2019.

## **Volunteers**

We estimated that we needed 504 volunteers based on each taking part at least three days. It was difficult to get as many working three days because of their job obligations, but we had as many as 711 people volunteering.

The side project YOUNG volunteer aimed for 75 volunteers between the age of 16 and 16. We succeeded in recruiting as many as 96 youths through this project, who are included in the total of 711.

We had 29 volunteers from abroad who contributed strongly, especially valuable in cases where we needed lingual skills outside of the Scandinavian and English segment.

## **Volunteer workload**

In the table below an estimated overview of volunteer working hours follows. The estimations are based on the number of volunteers for each day multiplied by the average length of a working day. Some extra work is added and then the total is summed.

More detailed facts on volunteer worked is attached.

## **Volunteer working tasks**

Below you'll find an overview on how the volunteers were distributed across sections compared with the estimated needs.

## **Security and transportation**

### **Security**

We established a group of three key persons, and the group was managed by chief of security. All three had a good flow of information before, during and after the WOC2019. Chief of security developed an emergency plan with input from all divisions in the WOC organization. The board had an emergency training session ahead of the world championships.

### **Medic**

The medics contract was given to Red Cross Norway. They had their own staff, and in addition WOC2019 had supporting medics staff. WOC2019 had in total 84 incidents during the world championships.

### **Accredited transportation**

The car pool consisted of nine sponsor cars from Volvo with designated drivers. In addition, we hired a 15-seater mini bus. The mini bus was of very good use.

### **Parking**

We had total of 15 volunteers on parking. No prior training needed.

### **Arena security**

The main task of this group was to prevent theft from the arenas. We had patrolling security every night from 8pm to 8am. There was always two persons on patrol together.

### **Traffic security**

All races during WOC2019, including spectator races, involved running alongside or crossing roads with common traffic. Because of this we had multiple meetings with road authorities before WOC2019.

We recommend future organisers to minimize the use of road crossing courses.

### **Bus transportation**

It's very important to have a good flow on information on the bus transportation, both internal and external.

## **Positive experiences**

1. We started early with planning and had representation in most meetings.
2. It's important that the security group has a good understanding of orienteering.
3. Create groups with leaders.

## **Important areas of learning**

1. Don't use road crossing courses.
2. Good use of signs is hard, especially in countries with a strong road authority.

## **Environment**

In the final stages of the planning we brought in an environment adviser from Østlandsforskning. Our partner on sustainability and waste management was Norsk Gjenvinning.

Based on our goal to be sustainable event we established a number of environmental measures. Every measure was based on a cost/gain perspective Our main measures was:

1. Focus on waste management before, during and after the world championships.
2. A sufficient number of waste bins on the arenas and good information on waste management.
3. Good arrangement for waste management for the food production on arena.
4. Use local food suppliers to minimize the use of long range transportation.
5. All entrepreneurs used for arena construction where local.
6. Create a good public transport service for spectators and runners.
7. All cars from Volvo where hybrid cars with low emissions.
8. All WOC finals on the same arena.