IBU

SUSTAINABILITY CASE STUDIES

SUSTAINABILITY AND REGIONALITY AT THE IBU EUROPEAN CHAMPIONSHIPS 2022 ARBER, GER

What was the goal?

The district of Regen/Arberland has been a certified "Fair Trade district" since 2017. Since then, ARBERLAND REGio GmbH, under whose umbrella the OC Arber Bayerischer Wald is organised, has been committed to establishing sustainability and regionality in all areas.

As a professional organiser of major international events, OC Arber is keen to set a good example and raise awareness of how sustainability and regionality can be implemented at events with no, or low, additional financial input. Taking the IBU Open European Biathlon Championships (OECH) 2022 at Arber as a showcase event, the goal was to demonstrate that major sporting events can be held in harmony with the economy and environment.

OC Arber's approach was characterised by environmental management, participation and transparency, creation of long-term structures, strengthening of regional value creation, and raising public awareness of the issue of sustainability.

How was the goal achieved?

The OECH 2022 developed a holistic sustainability strategy to address various topics connected to a biathlon event. The main topic was regional food procurement. Products from local producers were used in catering in the Family Club and the VIP area. Additional measures included:

- 250 local on-site volunteers;
- exclusive partnerships with regional sponsors;
- e-cars from a local e-mobility provider for the VIP shuttle service;
- the procurement of team uniforms made from sustainable materials;
- rainwater for flushing toilets;
- procurement of cups made from bamboo;
- catering and guest gifts from regional producers; and
- the avoidance of plastic.

Which IBU sustainability issues does it address?

- Inadequate sustainability communication

All 250 volunteers were informed about the event's overall sustainability goals and strategy. 50 volunteers working in the indoor service areas, providing catering for teams and athletes, were trained specifically on the topic of "healthy preparation of regional food". OC Arber significantly increased its public relations to include progress updates on the implementation of the sustainability goals through various channels, including media outlets, social media platforms, and the event website.

- Unsustainable food & beverage provision

OC Arber developed a policy to purchase regionally produced food and beverages, exclusively, and Fair Trade and organic products, where possible. In addition to supporting the regional circular economy, the quality of the food and thus the health of the athletes, officials, spectators, etc. was the focus of OC Arber's activities. The use of ready-made products was prohibited, with hot meals cooked by local chefs. By using regional and fresh food, the expensive costs and environmental burdens of transport and storage were avoided. The use of frozen products was also prohibited to avoid using energy and to save costs.

- Waste production

OC Arber's goal was to produce as little waste as possible. In 2019 (before Covid), it achieved a 50% reduction of food waste compared to previous high-level events, such as IBU Cups. Although the catering was also influenced by Covid-related hygiene regulations, several measures were implemented, such as reusable tableware for VIP catering, no plastic tableware and no plastic bags at the Family Club, the use of environmentally friendly paper bags instead of plastic bags, including for the distribution of start numbers.

In addition, there were regular checks by so-called "Green Angels" during the event to ensure that no waste was left behind in the stadium. Furthermore, a strict policy of waste separation was implemented. As a result, OC Arber staff members observed the "Significantly nicer, cleaner appearance of the stadium/venue compared to previous years, with less litter, and less waste in general (due to the avoidance of plastic, waste separation, and a reusable PET bottle deposit system)."

What were the challenges faced?

- The biggest challenge was compatibility with the official Covid-related hygiene regulations. The challenge here was to organise the serving of fresh food in a hygienic way while keeping disposable packaging to a minimum.
- In relation to this, the strict separation of spectators, athletes and officials, volunteers and media also resulted in an additional organisational effort in the preparation and serving of regional products/food.

What are the next steps?

The Hohenzollern Ski Stadium is a national performance centre that is frequently used for major national and international sporting events. OC Arber has noticed an increased use of fully electric and hybrid cars, as well as e-bikes, among visitors to the stadium. Upon acquisition of sufficient funds, OC Arber would therefore like to install an e-charging station for athletes, coaches, spectators, and other visitors.

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For further information on the sustainability work of the IBU, please visit: https://www.biathlonworld.com/inside-ibu/sustainability

THE NEW WAY TO A CLIMATE-FRIENDLY EVENT!

HOCHFILZEN, AUT

What was the goal?

Ever since the planning phase for the new infrastructure for the World Championships in 2017 there has been a keen interest from the OC Hochfilzen management team, together with a local team of volunteers, and in cooperation with the Austrian Ski Federation, to further develop the sustainability credentials of the Biathlon World Cup in Hochfilzen.

This goal looks to build upon the strong foundation of a successful and long-standing user agreement between the OC and the local club together with the Austrian Ski Federation and the Austrian Military to organise a professional and sustainable event.

How was the goal achieved?

Hydroelectricity had long since fuelled the event in Hochfilzen thanks to Tyrolean waterpower; a supply of energy that is typical to many Alpine locations. The team wanted to build on this extremely positive circumstance by enhancing other aspects of the event. The outcome was an entire team effort, involving staff members and volunteers across all departments.

Initiatives conceived and implemented by the OC included:

- a sustainable and climate-friendly heating system for the entire competition venue;
- installation of a waste separation system with appropriate disposal;
- a reduction of plastic in all areas;
- a reduction of paper usage;
- climate-neutral transport options for spectators, including rail transfer and a shuttle service with climate-neutral vehicles;
- hotels with electric charging stations offered to all participants;
- procurement and usage of regional products;
- establishment of local partnerships with climate-neutral caterers; and
- free entry for children.

Which IBU sustainability issues does it address?

- Emissions from travel & transport

Spectators are offered climate-neutral transport options, including rail transfer (also run on Tyrolean hydropower), and a shuttle service with climate-neutral vehicles through a partner company that uses biogas in combination with carbon offsets.

- Emissions from energy use for heating, cooling, and power

Since 2017, a sustainable and climate-friendly heating system for the entire competition venue – including buildings and temporary buildings – was implemented, using wood pellets together with hydropower. This new solution has led to an avoidance of the use of diesel aggregates to heat temporary buildings.

- Use of water and energy for snowmaking / snow-farming

Tyrolean hydropower is used to operate the snow machines and produce the artificial snow.

- Unsustainable food & beverage provision

OC Hochfilzen has a policy in place to procure and use only regional products for catering. In practice, this means that approximately 80% of food and beverages – including meat from local butchers and seasonal fruit and vegetables – that are served in the Family Club, VIP area, Volunteers area, Media Catering, and across the entire event, is sourced locally through partnerships with climate-neutral producers.

- Waste production

In preparation for the 2017 World Championships in Hochfilzen a waste separation system was installed to ensure that visitors were able to separate their own waste and, indeed, that this waste was recycled appropriately.

- Unsustainable sourcing practices

OC Hochfilzen managed a reduction of plastic of 75% between the World Cups in 2019 to 2021 in all areas through replacing plastic cutlery with wooden cutlery and dishware. Additionally, during this time, a policy was installed aiming to reduce the amount of paper usage.

What were the challenges faced?

The OC is in contact with Tyrolean Waterpower to install charging stations for electric vehicles at the Biathlon Stadium. However, since the stadium is located within a military area, the OC first needs to obtain authorisation from the Austrian Army. Although it does not see this as a problem – the Army has always been willing proponent to sustainability improvements – it does pose as an additional step in the decision-making process.

OC Hochfilzen has found it difficult to encourage all of its visitors to use its climate neutral shuttle services. Its ambition is for this type of transport to become a habit for everyone travelling to the stadium.

What are the next steps?

OC Hochfilzen would like to further its investment into sustainability. Its current ambitions include:

- Increasing partnerships with climate-neutral producers and suppliers;
- Using even more organic and vegetarian products in catering;
- Installing electric charging stations; and
- Intensifying efforts to encourage more visitors to accept the climate neutral shuttle offer.

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For further information on the sustainability work of the IBU, please visit: https://www.biathlonworld.com/inside-ibu/sustainability

RESPONSIBLE KONTIOLAHTI

KONTIOLAHTI, FIN

What was the goal?

Raised customer awareness and public opinion of pressing societal and environmental issues demand that Kontiolahti organises its events and operations in a sustainable manner.

Kontiolahti established its Responsibility programme in 2018 to achieve several sustainability-related goals:

- to address environmental issues with sustainable solutions;
- to make operations accessible for all individuals;
- to create an atmosphere where tolerance grows, and everyone is respected as themselves; and
- to emphasise safety in all its actions and especially in its events.

How was the goal achieved?

The wheels that set the Responsible Kontiolahti programme in motion were a strong commitment from both the local authority and the OC management, as well as the addition to the team of an expert coordinator.

Responsible Kontiolahti consists of three elements:

- Environmental Sustainability;
- Inclusion and Accessibility; and
- Safety.

The first steps included recognition of issues that impact the size of the event's carbon footprint (and later the whole site operation), development of ideas to improve those issues and exploring ways in which necessary measures could be implemented. The outcome of this was an environmental programme that received an audited EcoCompass certificate in 2020 evidencing OC Kontiolahti's commitment.

In 2019, Kontiolahti expanded the scope of the Responsible programme, with efforts focused on improving accessibility and inclusion. This came about through a mixture of permit requirements relating to the provision of accessible spaces for physically impaired people as well as the desire to attract new, and unintentionally excluded, audiences to the event. It now offers specific services for physically disabled people, free entrance for all children under 12 years of age, and provides free tickets for low-income families in cooperation with local associations.

Kontiolahti is committed to developing all three pillars in cooperation with its local, regional, national, and transnational partners.

Which IBU sustainability issues does it address?

- Emissions from travel & transport

Based on visitor survey data in 2018, over 50% of local spectators used public transport to attend the event, which diminishes its transport emissions. There is also a plan to transport more spectators to and from the stadium by train in future events. Kontiolahti also uses renewable fuel in its grooming machines.

- Emissions from energy use for heating, cooling, and power

All grid electricity comes from renewable sources (mainly from windmills).

- Inadequate sustainability awareness among biathlon stakeholders

Volunteers are educated on environmental guidelines, including lighting and heating instructions as well as helping spectators with waste separation, via in-person training sessions and as part of the volunteer guideline package. Sustainability related information is also conveyed within other training sessions for volunteers that interact with spectators, e.g. for security and stadium information volunteers (approx. 30 people).

- Inactive lifestyle

The development of the Kontiolahti Biathlon Stadium to attract World Cup events makes it possible for local people to ski six months annually in good conditions. This has become an attractive exercise solution for local school children.

- Unavailability of education & training

Kontiolahti is committed to fostering biathletes' dual careers. It cooperates on a regional level with the Joensuu Sports Academy to organise training sessions for biathletes in the Kontiolahti Stadium three times a week. The Joensuu Sports Academy makes it possible for talented athletes to combine target-oriented training with studying in secondary and higher education.

- Lack of inclusion

Kontiolahti invites all children under 12 years of age to participate in its events for free. It hands out free tickets to low-income families in cooperation with its partner associations. It organises accessible events for people with physical disabilities.

- Waste production

Kontiolahti achieved its goal to reduce the amount of municipal waste by improving its own purchasing policy and adding waste sorting stations at all events, though this came about largely due to the pandemic.

- Unsustainable sourcing practices

The pandemic has also forced Kontiolahti to use more disposable materials than planned, albeit that it has a policy in place to use non-plastic disposables wherever possible. Options to re-use materials are sought, and there is a policy to recycle materials wherever possible. As an example, large guidance signs with a changeable date option were recently purchased so that they can be re-used for several events.

What were the challenges faced?

- The biggest challenge OC Kontiolahti faces as part of its environmental programme is in getting people to follow waste separation guidelines. It was realised that all recycling areas need to be staffed to ensure that visitors sort their waste correctly.
- Another big challenge is transportation and finding a suitable way to compensate emissions from such areas as team flights.
- Another challenge is staffing. Ideally, Kontiolahti would have a full-time responsibility coordinator planning and coordinating all activities in this field.

What are the next steps?

The next steps for OC Kontiolahti's responsibility programme include:

- Increasing data collection to be able to create more indicators and track progress.
- Updating its heaters to be able to use renewable energy sources to heat temporary infrastructure.
- Conducting more social inclusion projects, such as engaging with Ukrainian refugees living in Kontiolahti.

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For further information on the sustainability work of the IBU, please visit: https://www.biathlonworld.com/inside-ibu/sustainability

GOING GREENEVENT

MARTELL, ITA

What was the goal?

The South Tyrolean provincial government has set itself the goal of reducing CO_2 emissions to less than 1.5 tonnes per year per person, by 2050 at the latest. In line with this long-term climate strategy, the OC Martell has sought to make the Biathlon Martell, and other events held at the Grogg stadium, more sustainable.

"Considering the end in everything you do, that is Sustainability." The OC Martell was inspired and guided by this Albert Schweitzer quote as they took on the challenge to achieve GreenEvent certification from the Office of Waste Management in the autonomous Province of Bolzano in 2021.

In carrying out these changes to operations, and receiving this certification, they would realise their contribution to maintaining the natural beauty of the Stelvio National Park, in the Val Martello valley, where the Biathlon Martell takes place.

How was the goal achieved?

The OC identified areas of impact across the events it held, where changes could be made, and made its application for the GreenEvent certification.

GreenEvents are events that are planned, organised, and realised according to several sustainability themes. To obtain the GreenEvent certification, organisers must implement measures from the topic areas of: resources, waste, mobility, catering, energy, communication, noise, and social sustainability.

In the first year, it is only possible to receive the so-called "Going GreenEvent" certification. To achieve this, the event must fulfil requirements in a list of some 120 criteria. If the final report is positive, which it was in the case of OC Martell, the organiser can apply for the "GreenEvent" certification in the second year, and all subsequent years thereafter.

Which IBU sustainability issues does it address?

- Emissions from travel & transport

OC Martell managed to minimise exhaust emissions and lower CO_2 emissions through incentivising local accommodation by offering teams three price categories and providing them with a free shuttle service from hotels within Val Martell, and then shuttling them together in buses to the stadium.

- Inadequate sustainability communication

OC Martell communicated initiatives to volunteers and other staff members, providing relevant information according to their specific duties.

- Lack of inclusion

OC Martell realised that accessibility for disabled people to the event was an issue. One solution they found for two volunteers using wheelchairs was for them to work together with local police to carry out access control at the event, ensuring that everyone entering the venue had accreditation and the relevant Covid-related papers.

- Use of water and energy for snowmaking / snow-farming

Martell OC does not use pumps for any of its snow production, thereby saving 40% on energy usage.

- Unsustainable food & beverage provision

There was a policy on the purchase of regional (and seasonal) products for catering purposes, e.g. apples from Vinschgau, tea from Val Martello, and so on. This helped to reduce transport distances as well as supporting the local economy. Where it was not possible to procure local supplies – as was the case for coffee, for instance – a preference was given to Fair Trade products.

- Waste production

One staff member, a volunteer, oversaw waste management at all events. This was sufficient to ensure that there were well-marked bins for appropriate waste separation around the whole venue. Additional measures included low paper consumption thanks to digital advertising measures, which led to a 100% reduction in printing of advertising flyers.

- Unsustainable sourcing practices

The reduction of plastic waste was made possible by switching to recyclable materials for catering. For example, cardboard for cups, and wooden dishware and cutlery.

What were the challenges faced?

OC Martell's biggest challenge was the catering for the teams. Since the Family Club was closed due to Covid restrictions, OC Martell was forced to use lunch boxes. After months searching for a sustainable solution, it finally landed on a collaboration with a south Tyrolian start-up named Ecoisall, from which it purchased cardboard bowls and biodegradable cutlery made from maize and potato starch.

What are the next steps?

OC Martell would like to invest more in the areas of social responsibility and communication. It would like to make as many people as possible aware of what its sustainability efforts are and how they impact our future and our planet. It would like to address motivation, education, and ultimately behavioural change of all stakeholders involved, starting with its volunteers. OC Martell has observed that, for many people, sustainability is a word to which they cannot really relate. It sees changing that as an important and sustainable investment.

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SUSTAINABILITY AS AWARENESS AND SUCCESS

ÖSTERSUND, SWE

What was the goal?

The OC has noted that the mean temperature in Östersund is approximately 1.5°C warmer than it was 50 years ago. Staff members have witnessed winters becoming wetter and shorter which will likely pose a problem for future events. They also became aware that they were contributing to the problem themselves, as an international event requiring significant travel; snowmaking; textile, food, and beverage procurement; waste production; and so on.

The Östersund OC therefore set the vision of a "fossil fuel free" championships in 2019 and has, since then, continued work to reduce all greenhouse gas emissions at every Biathlon World Cup in Östersund with the ambition to eventually run the event without any reliance upon fossil fuels.

How was the goal achieved?

Aligned with the goal of the regional government to become fossil fuel free by 2030, OC Östersund worked in close co-operation with the local municipality and the OC for the Alpine Skiing World Championship 2019 in Åre, using the ISO 20121 sustainability event management system, to define sustainability strategies for the two events – both of which were third-party certified.

They took stock of all emission sources in the event, from procurement for the whole event to energy usage at the sponsor village, and from spectator transport to technical power for broadcasting. Based on this, a strategy was devised to reduce emissions arising from some of the most impactful, and manageable, activities.

The implementation process had to be affordable, relatively easy, and incremental – with initiatives put in place over time. It was felt that, through communicating simple environmental information, creative and impactful solutions could be achieved without too much investment or the necessity for rules and regulations. In implementing its strategy, OC Östersund is transparent with its emissions figures and openly communicates its reduction efforts.

In the latest WC, held during November and December 2021, the carbon footprint for the event was calculated by the IBU's Carbon Footprint Tool at 858 Tonnes of CO_2 equivalent. "Travel to host country" contributed to one-third of this amount, and nearly 15% came from Accommodation, though the OC felt the figure estimated was too high given the fact that the hotels are heated with renewable energy.

Which IBU sustainability issues does it address?

- Emissions from travel & transport

The largest contributor to Östersund's carbon footprint is due to international travel by athletes, teams, and the IBU. In the first phase, in 2017, OC Östersund focused on addressing local and regional transport emissions. It replaced petrol and diesel with the renewable diesel HVO100 (Hydrogenated Vegetable Oil) in the transport fleet and snow groomers. Sponsor BMW cooperated by running the official shuttle fleet with this new fuel, initially with a special permission. Today HVO is officially compliant with BMW diesel engines. Recently, electrical cars have started to replace the combustion engines at events.

- Emissions from energy use for heating, cooling, and power

All non-renewable energy sources are banned from the Östersund arena, which is owned by the local authority. That means that all heating, even for temporary tents, is derived from biomass. The electric power is supplied from renewable energy, and the diesel generators for technical power are replaced by doubled electrical power lines (Uninterrupted Power Supply (UPS)) to ensure redundancy.

- Inadequate sustainability communication

Staff at OC Östersund are informed of the sustainability strategy and follow the new guidance in their day-to-day decision-making. All OC Östersund's volunteers are educated in basic sustainability by the "Sustainability Inspirer" – a team member that is dedicated to driving sustainability within the OC. The event's 600-800 volunteers are given a presentation as well as being provided with a handbook to explain expectations regarding and justification for sustainable actions.

- Use of water and energy for snowmaking / snow-farming

There is a direct pipe from Sweden's fifth largest lake, Lake Storsjön, to the venue, which is also not used for the tap water system.

- Waste production

The axiom used by OC Östersund is that "We don´t talk about waste, we talk about products to be reused or recycled." In the restaurants for volunteers and athletes, the OC has banned all forms of disposable plastic. The plates are composted, the cups are recycled, and the wooden cutlery is burned for local district heating. All the food waste is collected and used for compost or biogas production. Another initiative sees athletes assigned with their own clothes bag at the arena, for use during the entire event; single-use plastic sacks are banned.

What were the challenges faced?

- OC Östersund's main challenge is one faced by all international sport events, namely handling the international transport of athletes, teams, and IBU officials and administrators. One piece of good news here is that Östersund's airport now makes it possible for biofuel to be used in some aircrafts. The OC is following these discussions closely.

- It also finds its main obstacle as part of the waste management programme is correct separation – or any separation at all – in the team areas.

What are the next steps?

The next step for OC Östersund includes installing waste separation racks for different types of waste in the team areas, with easily understandable signs in various languages and an explanation of the concept in a handbook. OC Östersund is also discussing a partnership to install charging stations to make an electric shuttle fleet a reality.

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For further information on the sustainability work of the IBU, please visit: https://www.biathlonworld.com/inside-ibu/sustainability

BIG BATTERY BOX
RUHPOLDING, GER

What was the goal?

The Ruhpolding World Cup takes place at the Chiemgau Arena, which is located in the middle of a nature reserve. This results in special requirements for the protection of the water conservation area. For example, despite the greatest care, there was a danger in the past that diesel could accidentally escape during the refuelling process or during the operation of the diesel generators and get into the soil.

The goal of this initiative, therefore, was to replace diesel generators with a battery system, that stores renewable energy from the grid, to provide an environmentally friendly backup for the power supply of the TV broadcast and the supply of the floodlight system. Given that the technical power provision for the TV broadcasting production is often one of the main operational uses of diesel at the IBU World Cup events, the total CO_2 emissions of the Ruhpolding World Cup would also be significantly reduced.

How was the goal achieved?

The Big Battery Box is a self-sufficient, easily transportable 20-foot container with lithium-ion batteries, and a control unit that regulates the connection of the individual batteries and reports, among other things, on faults in the system. In Ruhpolding, the system stores green electricity power from the grid, which is usually generated by photovoltaic and wind power plants, and from the site's own small hydropower plant.

The battery storage system supplies electricity silently and produces no CO_2 emissions. This means, as of 2022, the electricity for TV broadcasting, floodlights, race control, and the timekeeping office in Ruhpolding is being generated completely from renewable energy with no additional requirement for diesel.

Which IBU sustainability issues does it address?

- Emissions from energy use for heating, cooling, and power

The installation of the battery storage system eliminates the need to burn fossil fuels to generate electricity. In the past, two diesel generators produced the electricity for the TV production or the equipment relevant for the races during the World Cup event.

The Ruhpolding World Cup can now be powered exclusively via the grid and the site's own hydroelectric power plant. The battery storage system now allows for a reserve CO_2 neutral supply of approximately one hour, in the unlikely event that both grids fail.

During the World Cup 2021, the two generators consumed 12,448 litres of diesel. The installation of the battery box therefore resulted in an approximate saving of 32 tonnes of CO_2 equivalent.

What were the challenges faced?

Coordination was the biggest challenge faced by the OC. Since there was no comparable event in which this technology had been implemented, a lot of technical data had to be provided as part of a series of discussions with the utility company, and then the TV broadcaster in charge of the production on site, to convince them of the effectiveness of the OC's new concept.

What are the next steps?

Ruhpolding OC would like to continue making improvements to the new system by further developing the cable infrastructure in the stadium, in line with recent developments: larger and more power walls, perimeter advertising, more huts. This would include the renewing the transformer stations and, if necessary, laying new cable for the TV compound.

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For further information on the sustainability work of the IBU, please visit: https://www.biathlonworld.com/inside-ibu/sustainability