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THE SUSTAINABLE LEGACY IN THE OLYMPIC REGION

LILLEHAMMER OLYMPIC LEGACY SPORTS CENTRE
NORGES IDRETTSFORBUND

Background for the project

Sustainability is a topic that has gained significant traction in the work and practices of many organizations in recent years. Sustainability is about ensuring that we provide future generations with the opportunity to meet their needs, just as we utilize our resources to meet the needs of today. The term gained substantial recognition when the World Commission on Environment and Development, led by Gro Harlem Brundtland in 1987, presented "Our Common Future." The report, among other things, laid the groundwork for Norway's bid for the Olympics. Brundtland also expressed that by using collaboration as a method and working together, we would safeguard the future, something that can be directly linked to UN Sustainable Development Goal 17. Much of the work carried out at that time has had a significant impact on how the region is working towards a more sustainable society. This is precisely what we at the Lillehammer Olympic Legacy Sports Centre have spent time documenting. We aim to focus on what various stakeholders have done since the Olympics and, importantly, what their future focus and aims are. We see this as an important task on our part to communicate the legacy of the 1994 Winter Olympics in Lillehammer, described as the "first green Olympics".

With the support from the Regional Council, we have secured funding to carry out this project. The project is divided into three parts and is scheduled to be completed by 2023. The first part involves collecting and documenting environmental and sustainability efforts related to major events and the Olympic facilities from 1988 until today. The second phase will focus on developing presentations, documents to go on our website, and a simple educational program based on the historical and future sustainability profile of the region. The final phase will involve sharing materials and educational programs with relevant stakeholders and interested parties, including the Lillehammer Olympic Legacy Sports Centre's international camps and youth leadership development programs. We would like to express our gratitude to the Regional Council for their support and trust in our work.

This report will present the findings from the first phase of the project. Since the 1994 Winter Olympics marked the beginning of sustainability efforts, we have chosen to spotlight the organizations that were part of the games to examine developments since then. We have gathered information from the following stakeholders: Olympiaparken AS, Hamar Olympic Facilities, Hafjell-Kvitfjell Alpin AS, and an event that is not directly linked to the Olympics, but which still demonstrated a strong focus on sustainability – namely, the 2021 World

Championships in snow sports for para-athletes. The report is structured to present each actor individually, detailing their accomplishments and outlining their future plans.

Olympic Games 1994

The Winter Olympic Games in 1994 set a new standard for sustainability. As the first “green Olympics”, the Lillehammer region still has a great focus on sustainable principles. To start this project off, we talked with Inge Aarhus who was responsible for the work that was done prior to and during the games in his capacity as Chief Environmental Officer in the municipality of Lillehammer. One week after Lillehammer was assigned the games he had his first meeting with the Ministry of Environment, presenting a draft environmental strategy for the Olympics. During this meeting, the first outline of the strategy was proposed. The strategy presented perspectives on local, regional, national, and international levels. In 1987 Gro Harlem Brundtland presented *Our Common Future* which also had implications on the strategy. In total, the Ministry allocated about 45 million NOK (6,5 million dollars in 1994).

Most important was the State Guarantee (1998) which established environmental aspects as a principle in all planning and building aspects, as well as for after-use.

As you may know, the Lillehammer 1994 games are said to be the first green games. When the planning process started, it was an expectation from the politically engaged youth politicians that the games had to be environmentally friendly. After discussions with the International Olympic Committee the environment dimension was added as the third pillar, in addition to sport and culture. President Samaranch named it “White-Green Games”.

More than 100 different environmental projects, mainly funded by the ministry of Environment, was carried out by the five municipalities, two counties, the two County governors, the Ministry of Environment, the NGO project Environment Friendly Games and The Lillehammer Olympic Organizing Committee. We can highlight three examples of how the sustainability focus made an impact:

- The location for the Vikingskip, the indoor speed skating venue, was actually moved from its original location with respect for the Birds Sanctuary.
- In order to deliver green and environmental friendly games, it was a key to get the sponsors involved and engaged. Lillehammer 1994 and the IOC really succeeded with

this, and one example is that Coca Cola and McDonald's invented new recyclable products for serving their food and drink.

- New technology and solutions were developed at the venues. See more in the movie [here](#):

After the Winter Olympics in Lillehammer, this environmental focus became a new standard for future hosts. The competence from the games in 94' was in demand and shared with the coming Olympic hosts with support from the IOC.

Two funds for after-use were established; one to ensure regional development, the other to ensure the daily operation of the Olympic venues, but it was also allocated to take care of the environmental legacy. For example, all the venues in the Lillehammer Olympic Park were certified according to the Eco-Lighthouse environmental standard after the games.

Another example is the "Foundation Lillehammer environment", which was established after the games with the aim of sharing experiences and best practices with Norwegian businesses. For some years the foundation operated a major environmental network.

Olympiaparken AS

Before the games in 1994 Lillehammer municipality established the Lillehammer Olympic Facility. The year was 1984 and they also established a committee to work on the after-usage of the arenas which in 1999 changed its name to Olympiaparken AS. They were established to ensure that there would be activity in the arenas. By ensuring the daily operation and upkeep of facilities, Olympiaparken AS can contribute to the overall well-being of the community while minimizing the environmental impact. Additionally, organizing various sports events not only brings economic benefits but also encourages social engagement through volunteerism in present times.

One crucial aspect of sustainable facility management is the continuous maintenance of existing facilities. By keeping the facilities in daily operation, Olympiaparken ensures the facilities' optimal functionality and longevity. This proactive approach minimizes the need for costly renovations or construction of new facilities, ultimately reducing resource consumption and waste generation.

Through the organization of diverse sports events, Olympiaparken promotes social, economic, and environmental sustainability. As mentioned, these events provide opportunities for

community engagement and volunteer participation, fostering social connections and a sense of belonging. Furthermore, the income generated from these events contributes to the local economy. By utilizing existing facilities instead of constructing new ones, they avoid additional environmental burdens, such as land use and material extraction.

As part of Olympiaparken's commitment to sustainability, they have initiated energy-saving measures within their facilities. An example of this is the replacement of traditional light bulbs with LED bulbs in Håkons Hall. LED bulbs are known for their energy efficiency, consuming significantly less energy compared to conventional bulbs. By adopting this technology, they reduce energy consumption and decrease greenhouse gas emissions, contributing to a cleaner and healthier environment.

Looking forward Olympiaparken still has great plans to keep working on their sustainable effort. In the future, they would like to install solar panels on the roof of Håkons Hall. In addition to this, they plan to start using snow groomers fueled on biodegradable gas made from waste from the Lillehammer community. This will contribute to the environmental as well as economic effects of sustainability.

By maintaining existing facilities, organizing sports events, and implementing energy-saving measures, Olympiaparken AS can achieve a more sustainable future with the basis of resources from back in 1994. It is essential for organizations and communities to embrace sustainable practices to ensure a harmonious balance between human activities and the environment. Through these efforts, they can contribute to the preservation of scarce resources, enhance community engagement, and create a greener and more prosperous future for all.

Hafjell Kvitfjell Aplin AS

"Hafjell- Kvitfjell Alpin AS" work on sustainability is impressive. The information they provided shows that they have put great effort into sustainable practices implemented during events, highlighting initiatives focused on environmental conservation, social sustainability, and overall sustainability in event organization and management. By adopting these practices, they have demonstrated its commitment to minimizing environmental impact, supporting social causes, and promoting sustainable event management.

To promote sustainable food choices, “Hafjell-Kvitfjell Alpin AS” has increased the offering of vegetarian food and correspondingly reduced serving resource-intensive foods such as red meat to event staff and volunteers. Additionally, the implementation of the “Funksjonærkoppen” translated to “officials cup” which is a reusable stainless-steel cup. An initiative that yearly has replaced 10,000 disposable paper cups with one reusable thermo cup. These measures have effectively reduced waste generation and helped improve the environmental part of sustainability during events.

Hafjell-Kvitfjell Alpin AS has placed a strong emphasis on waste management and making waste sorting visible and available for visitors and others involved. In 2022, new recycling labels were introduced, which clearly, marked where waste stations were set up. Staff members receive sorting guidelines to ensure proper waste disposal, to set a positive example. As a result of these efforts, the company achieved a significant 32% reduction in waste, saving 700 kg of waste in 2022 compared to 2020.

To reduce reliance on fossil fuels and minimize carbon emissions, the organization has increased the use of electric vehicles for transportation purposes. Additionally, the organization has had a close collaboration with SJ Norge AS to invite the public to take the train which now stops at the train station in Kvitfjell, conveniently located a few minutes from the World Cup event. This shift toward sustainable transportation contributes to a cleaner and more environmentally friendly event operation.

Kvitfjell strives to minimize energy consumption while ensuring guest comfort. During events, tents are heated using electric generators, instead of diesel generators to the extent possible, considering the cold climate. This approach reduces reliance on traditional heating methods and supports energy conservation.

Sustainability has three dimensions. Thus far we see what great focus the organization has on the environmental part. In addition, they also work with measures on the social dimension. Hafjell-Kvitfjell Alpin AS has partnered with organizations such as Mental Health Youth and the Childhood Cancer Association to enhance the social sustainability of events. These collaborations support important causes, raise awareness, and contribute to the overall well-being of attendees and the local community. They also have a great focus on social sustainability through the Rubic program where they focus on recruiting and training volunteers for event-related tasks. This initiative promotes community engagement, offers valuable learning opportunities, and strengthens the social aspects of events.

Events held in Hafjell and Kvitfjell have positive economic effects, with increased revenue in the region during the event week. They actively support local suppliers and promote locally sourced food. Additionally, Kvitfjell takes a selective approach to partnerships, ensuring alignment with their sustainability profile. In addition to this, they contribute to sustainable event practices by renting out equipment to other event organizers. This initiative reduces the need for excessive equipment purchases and promotes resource optimization within the event industry. It also shows how organizations can cooperate to save money, time, and resources.

In conclusion, Hafjell-Kvitfjell Alpin AS' commitment to sustainability in event management is evident through its comprehensive range of sustainable practices. By prioritizing waste reduction, eco-friendly transportation, social collaboration, and responsible procurement, Kvitfjell sets a commendable example for sustainable event management. These efforts contribute to a greener, more socially conscious, and economically beneficial event environment, showcasing the potential for sustainable practices in the broader events industry.

Hamar Olympic Facility

Hamar Olympic facility consist of Nordlyshallen and the worldwide famously known Vikingskipet. This part discusses the sustainable efforts undertaken at the venue, focusing on energy efficiency and environmental responsibility. By implementing various initiatives, the organization has successfully reduced energy consumption, improved waste management, and supported local sports clubs, promoting social sustainability and environmental conservation.

In 2020, the venue replaced the 30-year-old cooling system at the Olympic amphitheater. This upgrade resulted in an annual energy savings of 250,000 kWh. The replacement of the outdated machine demonstrates the organization's commitment to sustainable practices and resource optimization. The OL-Amfi like Olympiaparken AS in Håkons hall also replaced old light bulbs with energy-efficient LED lighting. This switch has not only reduced energy consumption but also contributed to overall energy savings, showcasing the venue's dedication to sustainable lighting solutions.

The roofing at Vikingskipet has been replaced, leading to enhanced insulation within the building. This improvement enables better temperature control, reducing energy usage in maintaining optimal conditions. The venue continuously strives to minimize energy consumption. This includes adjusting temperature settings and reducing lighting levels to the

necessary minimum. These proactive measures demonstrate the organization's commitment to achieving energy efficiency and reducing its environmental footprint. Hamar Olympic Venue has sought state support to replace all general lighting within Vikingskipet with LED bulbs. If approved, this initiative has the potential to save approximately 200,000 kWh per year.

Good waste management is a repeating initiative amongst the actors in the report. Hamar Olympic facilities are no exception. The venue pays a waste management company to ensure proper sorting of their waste, following the waste management system established in Hamar. This collaboration emphasizes responsible waste disposal and supports the local waste management infrastructure.

The organization ensures that the ice used in the venue contains no harmful chemicals or substances. Consequently, when the ice is removed and disposed of in designated areas, it poses no harm to the environment. This commitment to eco-friendly ice management aligns with the venue's overarching sustainability goals.

The organization involves local sports clubs in volunteer activities, offering them an opportunity to contribute to event operations. By engaging these clubs, the organization not only supports them financially but also fosters social sustainability within the community. In addition, Hamar Olympic Venue tries to always have activity in the hall. By doing so they ensure the economic sustainability which will lead to a greater focus on environmental sustainability.

Through the implementation of sustainable practices focused on energy efficiency, waste management, and community engagement, the venue showcases its dedication to sustainability. The replacement of outdated equipment, adoption of LED lighting, improved insulation, responsible waste disposal, and active involvement of local sports clubs all contribute to an environmentally conscious and socially responsible approach. These efforts demonstrate the venue's commitment to creating a sustainable event space while inspiring others in the industry to adopt similar practices for a greener future.

World Para Snow Sports Championships Lillehammer 2021

Lastly, we are going to present the work that is done by the World Para Snow Sports Championships Lillehammer 2021 - a partner that had a strong sustainable commitment. In 2022, the Para Snow Sports World Championships were held, with a one-year delay due to the

Covid-19 pandemic. We seek to incorporate them into our project because they utilized the Olympic venues in the region. In January 2022, the event achieved "Miljøfyrtårn" environmental certification, becoming the largest sports event with such recognition. The pandemic-induced delay provided the organizing committee with an opportunity to further enhance sustainability measures.

Early in the planning process, they enlisted Olympiaparken and Kvitfjell-Hafjell as technical organizers and initiated a collaboration with Greener Events, a consultancy specializing in making events as environmentally friendly as possible. Their website documents a feasibility study with stakeholder analysis and site visits in Lillehammer. Based on this assessment, they developed an environmental strategy for the Para Snow Sports World Championships, including measures and limitations to reduce environmental impact and to engage other stakeholders.

One initiative launched during the planning phase involved monthly meetings with workshops on various sustainability topics. These meetings led to the development of an e-learning course that all participants, including volunteers, coaches, and partners, were required to complete. This ensured active participation in advancing the environmental strategy and sharing knowledge. A procurement plan was also developed to ensure sustainable choices and good purchasing practices.

As mentioned, sustainability has three dimensions, and the Para Snow Sports World Championships addressed all of them. SWIX provided fluorine-free ski wax during the event. Environmentally friendly paint was used in the alpine slopes. Additionally, their collaboration with GLØR led to the use of biogas in buses, a CO₂-neutral and environmentally friendly fuel made from local food waste, reducing transportation emissions. Furthermore, free transportation was provided for all 850 volunteers during the event, utilizing electric buses in the region. This not only benefited the climate dimension but also contributed to the social sustainability of the volunteers.

What remains after such an event is more than just sports achievements and gold medals. The certification set a standard for the efforts invested, and many of the initiatives have had positive long-term effects. In the past, diesel generators were used to heat the athlete's tent. Thanks to the Para Snow Sports World Championships, an electric generator was installed as a permanent solution at the arena. Another noteworthy initiative is the creation of a dedicated "VM- skog" (World Championship Forest). To reduce CO₂ emissions from transportation and

plastic waste from medal packaging, athletes received a sapling instead of flowers during the medal ceremony, for different reasons this has yet not been planted. However, they are set to be planted during the spring of 2024. In total, this amounted to 384 trees that will stand as a legacy of the event.