

# SUSTAINABILITY

V02 - 2021/02/22





















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"ENVIRONMENT AND SUSTAINABILITY"

FIS NORDIC WORLD SKI CHAMPIONSHIPS 2021

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# RESPONSIBILITY FOR NORDIC SPORTS, NATURE AND PEOPLE

### FIS Nordic World Ski Championships 2021 Oberstdorf / Allgäu

After 1987 and 2005, Oberstdorf has once again become a central focus in winter sports.

FIS Nordic World Ski Championships are not only a big event for athletes and millions of international fans, but also a challenge as well as an opportunity for the concept of sustainability. The World Championships, along with the necessary facilities, require sufficient space and resources, they emit greenhouse gases and influence eco-systems as well as natural habitats and the economic region.

For the organizers of the FIS Nordic World Ski Championships 2021 and the market town of Oberstdorf this means: Acting today to ensure that future (sporting) generations are not compromised in their development. The aim is to create sociocultural and economic equity while at the same time respecting ecological boundaries for the use of natural resources.

The Bavarian sustainability strategy and the objectives for sustainable development of winter sports of the German Ski Association DSV, form the guiding



13 CLIMATE ACTION































framework and a concrete contribution or the implementation of global sustainability objectives in the UN Agenda 2030 (Sustainable Development Goals – SDGs).

In the market town of Oberstdorf, the sustainable development of Nordic winter sports is of elementary importance for the way of life and the future of the natural habitat. Nowhere else can the diverse sociopolitical duties we are currently faced with be so comprehensively fulfilled:





### Guideline 1:

"Clear facts, participation and transparence create trust and identification"



#### Guideline 2:

"Development of modern winter sports facilities for the future"



#### Guideline 3:

"Convincing environmental, climate and resource protection"



Guideline 4: "environmentally friendly traffic – the world championships of short barrier-free paths"



#### Guideline 5: -

"For a healthy and active Oberstdorf"



#### Guideline 6: -

"Development of the Nordic Center Oberstdorf/Allgäu for all"



#### Guideline 7:

"Commitment to and implementation of the actions"

Wintersports is pro-active inclusion, contributes greatly to the quality of life, provides joy in life as well as fun and promotes values such as performance, tolerance, fairness and team spirit. This leads to regional added value, creates employment opportunities and promotion of the rural area.

For winter sports, the German Ski Association, the Allgäu region and the market town of Oberstdorf this is a challenge and an opportunity at the same time.

### THE SUSTAINABILITY STRATEGY

### Six actions for sustainable World Championships.

"Sustainability" of the Nordic World Ski Championships is a "team project". Stakeholders, organizations, institutions and politics have to join forces and look for ways to develop the FIS Nordic World Ski Championships 2021 and its facilities to make it sustainable for future generations, despite partly diverging points of view and interests.

Therefore, the following questions have to be addressed: How do we preserve natural basic needs and spaces for winter sports for future generations in Oberstdorf/Allgäu? What has to be done to ensure that especially large numbers of young people (locals and guests), are motivated to continue practicing winter sports in a natural mountainous environment? How do we solve the challenges arising between the demands of the organizers and the objectives for the protection of the climate and the environment? And how can the high-performance sport in Oberstdorf be an incentive for a sustainable society?

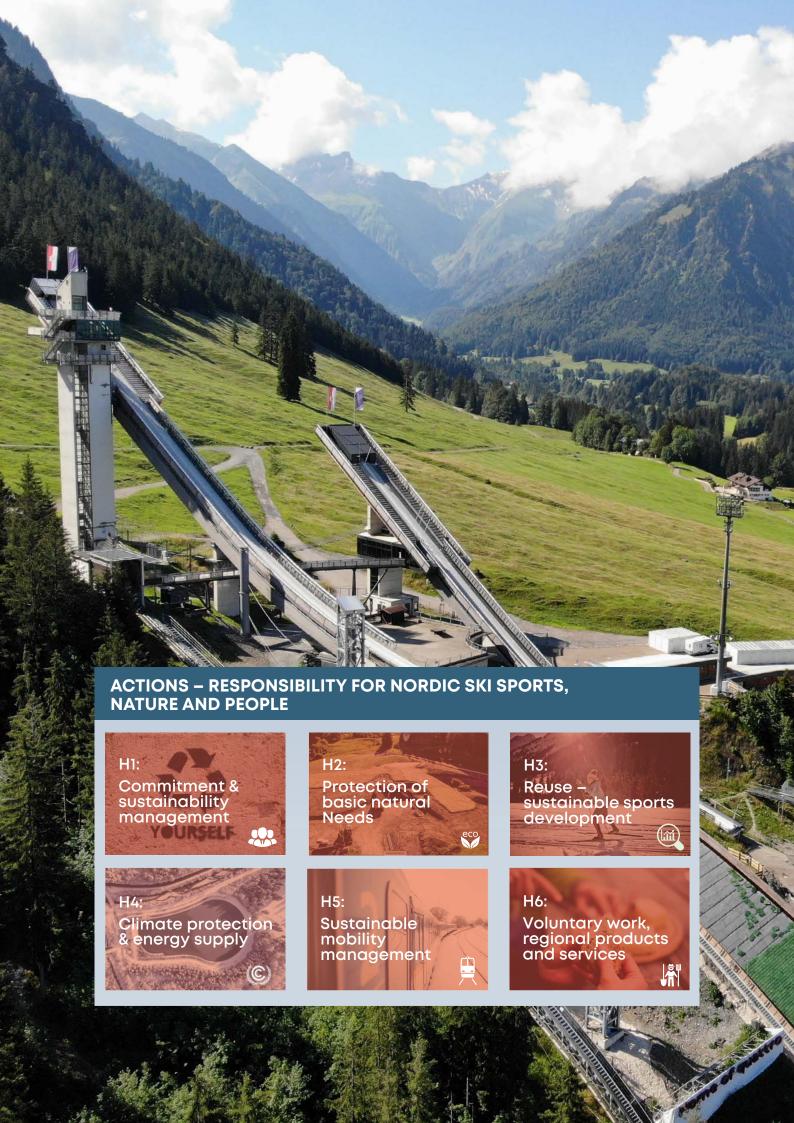
By means of the sustainability strategy and its implementation, we want to provide a positive legacy for the FIS Nordic World Ski Championships 2021 and create a new benchmark for the sustainable execution of international winter sporting events.

It is a continuous process of negotiating development paths in order to assess and coordinate diverse ecological, sociocultural and economic interests amongst each other and to harmoniously settle conflicts of objectives on the basis of consensus.

To begin with, the most important actions were identified by the organizers and the relevant stakeholders. They discussed which topics are currently most relevant and which ones will become more important in future.

As a result, they decided on six significant actions for sustainability, with which the organizers want to ensure that the FIS Nordic World Ski Championships 2021 Oberstdorf/Allgäu are able to enable the most positive effect possible:





## H1: COMMITMENT & SUSTAINABILITY MANAGEMENT

Sustainability objectives and their guaranteed implementation are two sides of a medal in World Championships. During all the discussions in the public sector it became very clear: The common basis for collaboration for all stakeholders is a commitment to sustainability, a high level of personal commitment and complete transparency.

Clear guidelines, responsibilities and decision-making structures ensure that the inclusion of sustainability aspects, in all decision-making processes, can be guaranteed. The committee for "Environment and Sustainability" is an independent panel of experts and is responsible for managing and supporting the development process of the sustainability strategy and for verifying its implementation until after the World Championships are completed. The negotiation and operational implementation of concrete sustainability measures is anchored in the management level of the organizing committee: Decision-making is based on cost-benefit efficiency and compliance with general ecological and social guidelines.

The Management of the FIS Nordic World Ski Championships ongoingly reports to the committee and the shareholders on the degree to which the sustainability objectives have been achieved.

The results are recorded by means of a monitoring process and are handed over in a corresponding sustainability report after the World Championships are completed.

### Members of the "Environment and Sustainability" panel

Frank Armbruster, Expert SIS/DSV

**Dr. Volker Audorff**, Bavarian Ski Association, Bayreuth University **Anika Bichlmeier**, DSV, Consultant Area Development & Sustainability

Tim-Felix Heinze, Chairman DAV Oberstdorf

Ulli Leiner, B'90/Grüne, farmer

Richard Math, Verein der ehemaligen Rechtler

**Prof. Dr. Ralf Roth**, (Head of Sustainability Strategy Organizing Committee), German Sports University Cologne & SIS/DSV

Michael Rydzek, Oberstdorf Ski Club

Anton Weiler, municipal council of the market community (Chairman)

Regular guests / external expert consultants

Matthias Kiechle, landscape architect

Reinhard Reitzner, CEO Nordische Skisport GmbH & Co. KG, district of Oberallgäu

**Siegmund Rohrmoser**, environmental construction supervision, municipal council

**Johannes Rydzek**, athlete, FIS Nordic World Ski Championships 2021

Florian Speigl, Sportstätten Oberstdorf, Project Manager Construction Schedule

**Florian Stern**, CEO FIS Nordic World Ski Championships 2021 GmbH

### Facts Sustainbability Management

- Environmental and sustainability management in the organizational committee and executive management
- Committee for "Environment and Sustainability" staffed with local stakeholders and external experts
- Adoption of a binding sustainability strategy commitment
- Monitoring and publication of objectives reached.
   Incentives/transfer for other winter sporting events
- · Environmental communication

Performance indicators:

public construction diary, commitment, expert documentation, sustainability report according to NWM



# H2: PROCTECTION OF BASIC NATURAL NEEDS

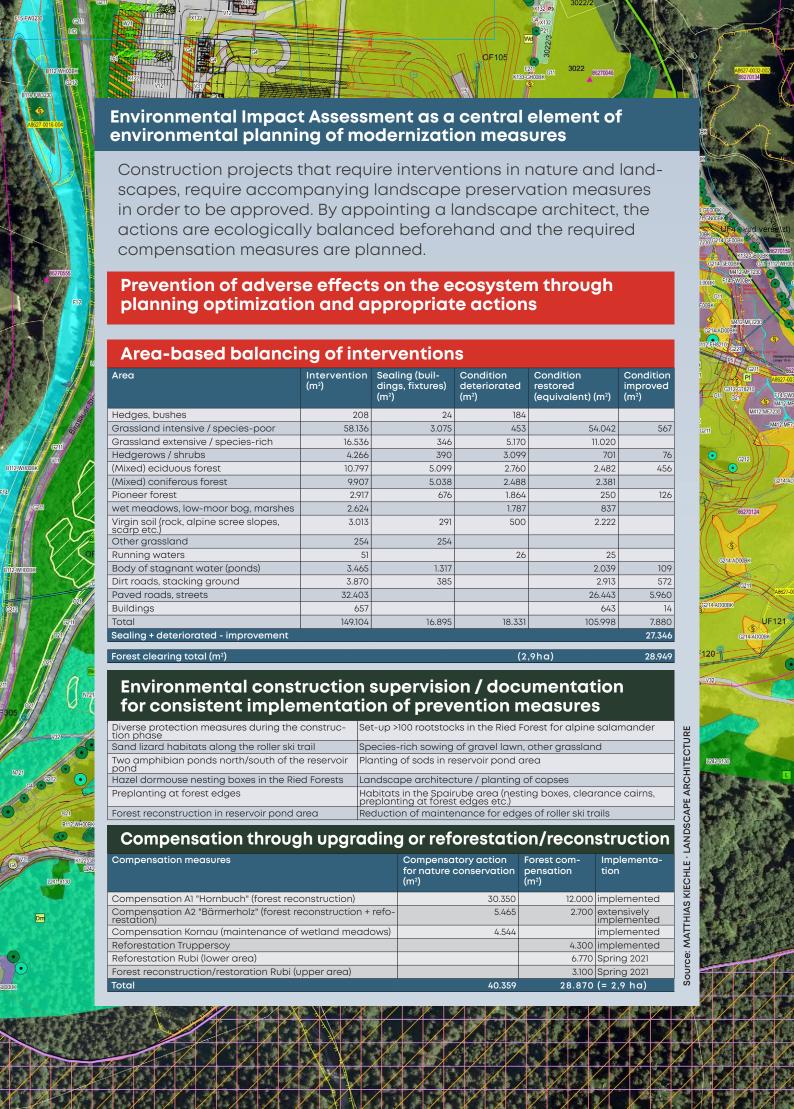
The Nordic Center Oberstdorf/Allgäu in the Ried area and the ski jump facilities at Schattenberg are situated in the midst of sensitive and unique natural surroundings. The conservation and qualitative development of this natural and cultural landscape serve to safeguard it as an environment for people to live in as well as an area for economic, recreational and sporting activities. In the sustainability strategy of the FIS Nordic World Ski Championships 2021, guidelines and objectives to guarantee the protection of these natural basic resources were already defined early on.

The FIS Nordic World Ski Championships 2021 sets the highest ecological demands. Nature conservation areas, protected mountain forests and crucial biotope areas remain untouched. The few unavoidable intruded areas are subsequently renewed. Near-natural greening of all areas can take place and compensation areas will be reforested by 2021. Temporarily used spaces will once again be ready for agricultural purposes after the World Championships are over.

In order for the World Championships to take place, buildings, sporting facilities as well as sections of cross-country ski trails had to be newly constructed. The foundations for an ecologically viable large-scale sporting event and optimized subsequent use are already laid during planning of the facilities. Lasting values are created. Modernization and optimization of existing sporting venues as well as environmentally and resource friendly approaches are forward-looking investments for a sustainable future.



In the "Ried" area, approx. 100 rootstocks have been laid out to provide a habitat for the alpine salamander and other amphibians. In the area of the new reservoir, evidence has been found of the strictly protected hazel dormouse or at least a spread of this species could not be excluded. Therefore, clearing and grubbing was initiated as early as Autumn 2018. Additionally, ten dreys were hung up, which were partly already inhabited during the construction phase in 2019.



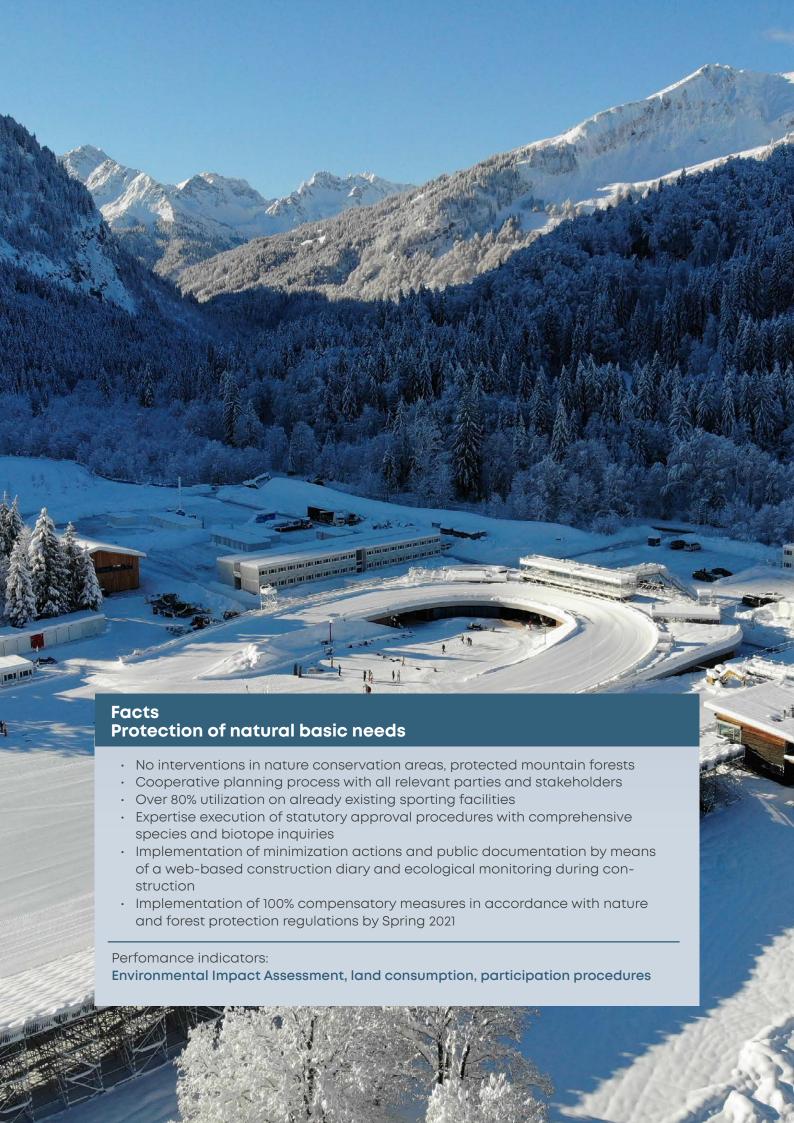
Ecologically coordinated planning and expertise sporting knowledge have ensured that adverse effects on nature and landscapes have been minimized. Non-preventable interventions have largely already been extensively compensated. Thus, highly functional training and competition sites could be created, which are excellently integrated into the alpine landscape through modern, open architectural design, selective use of regional materials and through eco-friendly construction methods.



In the north and the south respectively, in the direct surrounding of the newly erected reservoir pond, two new shallow water zones as spawning waters for amphibians have been created with adjoining wet meadows, sedges and tall herbaceous vegetation. Here the water is warmer than in the reservoir pond and therefore ideal for spawning and the development of new amphibians.



The strips of sod, such as here for the artificial snow technology systems at Burgstall, are carefully removed, stored sideways and then replaced. Sowing takes place with indigenous, species-rich seed mixtures (nutrient-poor grass, species-rich extensive meadows, etc.). The seeds are covered by indigenous hay mulch and is therefore able to develop nicely under moist and protected conditions. Furthermore, this kind of rapid regreening also ensures that grazing may take place.



# H3: REUSE - SUSTAINABLE SPORTS DEVELOPMENT

Sports sites and sporting facilities are the central element of World Championships.

In terms of sustainability this firstly entails needs-based planning, especially with a view to long-term utilization. Thus, the World Championships provide incentives for a modern and continuous development of the infrastructure as a requirement for high performance sports, junior competitive sports, sports in clubs and schools and sports tourism.

The guiding principle
is an open,
multi- functional sporting facility
with a spatial
and temporal utilization
concept for all
target groups
for this sport,

### The goal is a long-term re-use of the winter sports facilities

- · More than 100 leading athletes in 8 disciplines
- · 350 children and pupils who receive regular winter sports training
- approx. 120,000 training kilometres per season on the roller ski trails
- approx. 160,000 training kilometres per season on the cross-country trails
- · approx. 25,500 summer and winter jumps on the ski-jumping hills
- annually approx. 450,000 overnight guests in Oberstdorf (total of 2.5 mill. overnight stays)

for guests and local inhabitants, for people of all ages – with or without disabilities. A Nordic training center of the German Ski Association and the German Ski Instructor Association will be integrated. Additionally, courses on sustainable development will be provided for school classes and clubs.

The modernization of the facilities is aimed at ensuring the permanent attractiveness of the Oberstdorf/Allgäu venue for Nordic ski sports and to ensure its utilization all year round. The requirement for this was a critical analysis about the sporting needs and an ecological and economically balanced concept for the entire lifetime of the infrastructure. Synergies between sports and tourism were intentionally deduced for this purpose.

The FIS Nordic World Ski Championships 2021 creates and upgrades open spaces and increases the overall quality of the sport and the recreational value. Therefore, jobs and added value is generated in the sports & tourism sector.





- core service providers
- Development of a year-round "open sports facility" and extracurricular learning venue
- · Collaborative development process in a project group with the market town of Oberstdorf (tourism, sporting sites) and the "Skisport- und Veranstaltungs GmbH" under the leadership of the German Sports University
- · Unrestricted access to sports for all
- · Service platform for ski and mountain schools in Oberstdorf
- · Dedication for Nordic high-performance sports, junior competitive sports, popular sports and recreation
- · Nordic Café and Service Station

#### Performance indicators:

Sustainable operators' concept "Nordic Center Oberstdorf/Allgäu"; number of athletes, tourist products and services, monitoring requests

### Technical snowmaking: A challenge for resource efficiency and environmental protection

#### Integration into the landscape

During the detailed planning of the reservoir pond, utmost care was taken to include it in a way that is most appropriate for the surrounding landscape. The reservoir pond was created with the concept of a natural mountain lake in mind and serves as a recreation area for local inhabitants and tourists.

#### **Restricted water extraction**

Water extraction takes place through the Stillach with a residual water quantity at the point of extraction of 1,100 l/s. Not more than 65 l/s may be extracted. Filling of the reservoir pond takes place primarily in Spring when the snow melts. Annual water demands amount to 55,000 m<sup>3</sup>.

### Climate-friendly operation

The snowmaking facility runs 100% on energy generated through hydroelectric climate-neutral power. Additionally, en ergy-efficient and noise reduced snow cannons are used.

## H4: CLIMATE PROTECTION & ENERGY SUPPLY

Climate protection and a necessary adaptation to climate change belong to the major social, economic and technological challenges in our society. For winter sports, with its reliance on tourism and high performance sports, climate change is inextricably linked to the changing parameters and uncertainties. The FIS Nordic World Ski Championships 2021 must likewise provide a corresponding contribution in this regard.

Without a doubt – Nordic Ski World Championships require energy for their sporting venues, other temporary buildings and facilities as well as for technical snowmaking. Green energy as the primary energy source and its rational usage is an essential element of climate protection in the sustainability strategy. The market town has ensured that not only during the World Championships, but also from 2021 onwards, all other sporting venues will be 100% powered by regionally generated energy from Allgäu hydroelectric plants as well as PV, biogas and wind turbines. The World Championships have triggered a significant contribution to emissions reductions – with positive effects above and beyond the Championships!

During modernization of the facilities, additional emphasis was placed on energy efficiency. Important areas are heating, insulation of building shells, lighting and technical snowmaking. Furthermore, energy controlling/ management plays an important role in order to prevent unnecessary energy consumption and in efficiently managing use of resources. In addition to the energy efficiency of the technical equipment, sustainable year-round operation of the facilities plays a significant and central role.





The generation of electricity from own regenerative sources has a long tradition in Oberstdorf. Just over 100 years ago, hydroelectric plants were already being run at the Trettach River. The FIS Nordic World Ski Championships 2021 and all sporting venues will be run with climate-neutral energy from 2021 onwards. The new power plant of the Energieversorgung Oberstdorf GmbH "Illerursprung" generates 6.3 mill. kWh.

With the spirit of sports in mind, future users will be provided with a modern sporting venues with minimized energy demands.





# H5: SUSTAINABLE MOBILITY MANAGEMENT

Mobility with its various facets, plays a central role in the life of each individual person and reflects our personal needs for movement and travel in sports, leisure, daily life and work.

At the same time, traffic places a considerable strain on the environment and has a negative impact on human health. Traffic consumes resources, space and energy, generates noise and air pollutants and affects natural habitats as well as economic and recreational areas.

Sustainable mobility is an important component of climate protection for major sporting events.

The reduction of resource consumption in mobility presents a central challenge. It means promoting environmentally friendly modes of transport such as walking or encouraging public transport, to enhance the interfaces between different modes of transport and to make the entire traffic system more efficient.

They should become the World Championships of short paths. The goal of the market town is to reduce private transport in Oberstdorf for the long term and, in particular, to minimize it during the events. This requires shifting large proportions of the traffic on the road onto rail and public transport.

Over 55% of the spectators should arrive with public transport. For this purpose, the existing transportation concept was enhanced, with a preference for trains and buses and the creation of a corresponding "Kombi-Ticket". Furthermore, a tailor-made traffic concept with large-scale bus shuttle systems, which is consistently controlled across a large geographical area via a traffic management system, will provide transport to and from the event area

The trains are the backbone for the arrival and departure of spectators of the World Championships to Oberstdorf. The ski-jumping hills and the cross-country stadium are easily accessible from the Oberstdorf train station with shuttle buses, supplemented by the Deutsche Bahn (German train service).



### Facts <u>Sustainable mobility management</u>

- · Avoidance of private transport in Oberstdorf
- Shift2rail: Preference for environmentally friendly traffic to the Ski World Championships
- · Introduction of a Kombi-Ticket
- Communication campaign for trains, buses and car sharing for the reduction of CO<sub>2</sub>
- Target: More than 55% of the spectators travel with public transport
- Electric charging station for vehicle fleet (a part of it will remain in Oberstdorf after the World Championships)

#### Performance indicators:

Proportion of total arrival traffic that uses public transport, quantification of achievements to increase use of public transport

### Introduction of a Kombi-Ticket for the World Championships

Free of charge arrival with regional rail and public transport is possible within a 60 km radius for all ticket owners and accredited individuals. A significant contribution to reducing the carbon footprint.



# H6: VOLUNTARY WORK, REGIONAL PRODUCTS AND SERVICES

The shift towards a sustainable future is largely shaped locally and on site.

Voluntary work and commitment make up the core of a pro-active civil society. Numerous volunteers provide support in the planning and preparation of sports and competitions for organized sporting activities.

This is also especially valid for the large-scale sporting events in Oberstdorf. Successful planning and execution of the World Championships depends primarily on the support of local and foreign volunteers. Here the recognition and appreciation of voluntary work is still a tradition. The motives of those involved are



- · 1496 World Championship volunteers
- · A total of 862 from Allgäu
- · 79 under 20 years of age

not a regular income or other material rewards – but rather emotions for and a willingness to support Nordic sports.

Good local food for the World Championships. By providing athletes, spectators and volunteers with local food and beverages, awareness is raised about the food in the region. Catering for the athletes as well as the volunteers should consist of a range of environmentally produced food with the highest possible proportion of local produce. Vegetarian dishes and fair trade products form a further integral part of this approach. All-in-all, important requirements are created for healthy nutrition and the typical cultural Allgäu landscape is communicated through the enjoyment of local agricultural products. In addition, environmentally friendly products made of wood are used in a large number of points at the World Championships.

Some of the indirect impacts of the World Championships include the sales and added value which are created through advance services and





investments in the second stage of value creation. Modernization of the sports facilities and the implementation of the World Championships generate a high degree of value creation on a regional and a national level as well as in the private sector and leads to greater tax revenues. It also strengthens the regional economic cycle, creates and secures jobs, thereby also ensuring a more sustainable future.

### Demand for goods / services in the run-up to the World Championship (construction program)



- 137 assignments
- · 78 companies from Allgäu
- · 125 companies from Germany

### Facts Regional products and other sustainability services

- · Use of reusable dishes for catering for volunteers
- · Use of biodegradable reusable dishes, where possible
- Deposit for PET bottles
- · Regional caterers (Oberstdorf, Waltenhofen, Blaichach, Wolfertsschwenden)
- · Regional food supplier (Feneberg)
- · Delivery of baked goods from Allgäu baker
- Thermal mug as free gift for volunteers -> minimization of use of disposable cups
- · Cooperation with Foodsharing for volunteers and media representatives
- · Large USV instead of Twinpack; savings of approx. 25,000 litres of diesel
- Waste concept; waste separation through ZAK (100 x 240l tons; of these 35 for plastic, 35 for residual waste, 10 for paper, 20 for organic waste);
- Use of existing infrastructure instead of mobile structures (example Test Station in the skating center and Volunteer Center in the Oybele Hall)

Performance indicators:

Regional gross value added, number of employees, volunteers, products, service providers

## ON TRACK: INTERIM CONCLUSION AND OUTLOOK

The sustainability strategy was developed in such a way that it maps out clearly defined actions, backed up by appropriate indicators while allocating measures in a transparent manner. For this purpose, a monitoring process was set up, in order to check the implementation of the measures against their effectiveness.

The Sustainability Report for the World Championships is to instruct the participants and the public about the status of the implementation. Furthermore, a conclusive overall assessment of the World Championships is to take place.

### Interim conclusion "Environment and Sustainability" FIS Nordic World Ski Championships 2021 Oberstdorf / Allgäu

- The legal regulations for nature and environmental protection have been complied with to 100%.
- Open and binding communication with the involvement of all stakeholder groups has been established.
- · Use of existing facilities and trails (> 80%).
- · No new developments in the nature conservation area "Allgäuer Hochalpen".
- Issues regarding nature and agriculture and the dimensions of sustainable construction have been considered.
- 100% regenerative energy for the World Championships and operation of the sporting sites in Oberstdorf from 2021 onwards.
- · Follow-up use of the sports facilities secured.
- Environmentally friendly execution of the World Championships ensured in all sectors.







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