

Hand-out and checklist for the sustainable provision of FIS World Championships

The environmental guidelines for the sustainable provision of FIS World Championships set out the targets and the framework for the bid, planning, execution and post-event processing. The following checklist complements this framework in a systematic way, with checkpoints for a comprehensive environmental plan.

The checkpoints can also be used in an appropriate form as basic stipulations for any FIS competition.

1. General Section

1.1 Objectives of the bid

No elaboration required in the hand-out.

1.2 Outline of the state of the environment - current environmental data

Insofar as these are not presented in the general report.

1.3 Legal principles

Legal principles	<p>Identification of and compliance with statutory provisions in the planning stage of the event</p> <ul style="list-style-type: none"> - Building, planning and environment legislation - Waste - Emission control - Nature conservation (conservation areas, conservation of species, biodiversity) - Soil protection - Water conservation (drinking water, waste water, control of water pollution) - Technical rules
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1.4 Conservation areas

Areas which are protected by law	<ul style="list-style-type: none"> - National parks, biosphere reserves, and other internationally and nationally relevant categories of conservation areas
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1.5 Nature and countryside

Statutory provisions	<ul style="list-style-type: none"> - Recognition of, and compliance with, all laws/rulings concerning protection of the environment and nature conservation - Initiation of a procedure for considering environmental criteria applicable to building/extension work
Land use	<ul style="list-style-type: none"> - Soil sealing should be minimised - Soil sealing and land consumption should be reduced by use of temporary buildings

Offsetting	- Producing and implementing an offsetting strategy in keeping with conservation laws (avoidance, minimisation, offsetting)
Environmental consultation	- Consultation with environmental expert during construction phase
Visitor management	- Visitor flows directed by route maps, clear signposting of catering and toilet facilities, compact network of paths, spectator stands and terraces which can be dismantled and removed
Careful planning of routes	- Routes to be planned with environment and nature in mind - Use of existing routes - Re-usability of routes to be considered, or routes to be dismantled
Avoid destruction of fauna	- Avoid staging events or building during mating, breeding or rearing seasons of wild animals
Monitoring of visitor management systems	- Implement a monitoring system to check and modify measures to manage visitor movement if necessary
Maintenance measures	- Damage to soil or vegetation to be professionally rectified - Implementation and review of measures for offsetting and compensation

1.6 Environmental management

Organise environmental protection	- Appoint a designated person from the organisers to be responsible for environmental affairs in the planning and application stages - Establish an environmental group in the Organising Committee of major events, which will have discretionary competence and its own budget - Start dialogue with environment and conservation groups, specialists and professional agencies
Draw up guidelines and objectives (bidding stage)	- First assessment of environmental effects of the event (especially major events) - Set out concrete environmental guidelines and objectives in collaboration with relevant parties - Development of an innovative environment plan
Substantiate the environment plan (preparation stage)	- Develop a detailed environment plan - Quantify probable effects on the environment of the event - Attract co-operation partners - Guarantee compliance with all statutory provisions - Investigate the introduction of a formal environment management system (e.g. EMAS, ISO 14001)
Create a team	- Appointment by the organisers of a person responsible for environmental affairs - Co-operation with environment and conservation groups and with professionals.

Learn from experience	<ul style="list-style-type: none"> - Even self-imposed environmental guidelines and objectives to be checked - Analyse strengths and weaknesses of the environment plan - Develop suggestions for improvement - Publish examples of best practice
Document successes	<ul style="list-style-type: none"> - Document experiences and successes in an environment report - The environment report to be geared towards the media

1.7 Acceptance

No elaboration required in the hand-out

1.8 Co-operation

Organise environmental protection	<ul style="list-style-type: none"> - Start dialogue with environment and conservation groups, specialists and professional agencies - Formation of an environment team, integrating relevant parties such as venue managers, sponsors and local government
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1.9 Information and involvement of the public

Information for the public	<ul style="list-style-type: none"> - Use targeted public relations and internet presence to inform the public about the environment plan - Develop environmental campaigns for schools and clubs - Attract popular sportsmen and women as ambassadors for the environment - Keep the media informed prior to, and during, the event about environmental measures implemented
Information for visitors	<ul style="list-style-type: none"> - Inform visitors in the run-up to the event about policy on rubbish and mobility
Information for personnel	<ul style="list-style-type: none"> - Provide all personnel with detailed information about the environment plan - Draw up specific instructions

2. Venues, infrastructure and environmental factors

2.1 Competition venues

Insofar as environmental sustainability has not already been considered in the general report.

Needs analysis	<ul style="list-style-type: none"> - Use existing venue for major sporting events (instead of building new one) - In the case of a new building/extension being required, check whether new/extended venue will remain viable after hosting the event - Erection of temporary facilities as necessary (e.g. stands)
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	- Develop a plan for re-use of facility
FIS involvement in planning process	- Early involvement of the homologating body thereby improving planning in the following areas: <ul style="list-style-type: none"> o sport o structural engineering o suitability for the media o ecology / sustainability
Choice of site (esp. in case of new building)	- Consider environmental aspects such as nature conservation, noise pollution, energy supply, regional transport links
Statutory provisions	- Recognition of, and compliance with, all laws/rulings concerning protection of the environment and nature conservation - Initiation of a procedure for considering environmental criteria applicable to building/extension work
Environmental criteria at the bidding stage	- Fix mandatory environmental targets for bids for building work
Renewable resources	- Renewable resources should be preferred for building/extension work
Recycled building materials	- Recycled building materials should be preferred
Non-polluting materials	- Avoid using materials which may cause health problems or are environmentally problematic - Comply with local government laws banning the use of certain materials

2.2 Accommodation and facilities for competitors and the media

Insofar as environmental sustainability has not already been considered in the general report.

2.3 Traffic (aspects pertaining to environmental sustainability)

Link to regional public transport	- Construction or expansion of public transport stops/stations (especially in the case of major international events) - Raise capacity of regional rail transport
Cycleways and footpaths	- Make venue accessible by cycleways and footpaths - Erect new and/or expand existing cycle shelters
Reinforce bond with the environment	- Establish/extend regional public transport network, increase frequency of services before and after the event - Deployment of special trains - Admission ticket to include entitlement to free local public transport (Combi-Ticket) - Attractive special offers on rail travel - Provide pleasant cycleways and footpaths to the venue

Management of private transport	<ul style="list-style-type: none"> - Match numbers of parking spaces to local public transport capacity - Create 'Park & Ride' parking with traffic control system - Provide parking for coaches in the near vicinity of the venue - Close residential areas near the venue to traffic if necessary
Provide ample information	<ul style="list-style-type: none"> - Prepare arrival and departure information specifically for public transport
Ecological management of vehicle pool	<ul style="list-style-type: none"> - Deploy economical and environmentally-friendly vehicles in a discrete motor pool
Traffic management	<ul style="list-style-type: none"> - Consistent (multilingual) traffic control system to guide public transport to and from venue
Passenger service	<ul style="list-style-type: none"> - Passenger service staff and volunteers at local and long-distance railway stations - (Multilingual) announcements at stations and in regional trains
Traffic control	<ul style="list-style-type: none"> - Establish a central base for traffic control (at major events) - Plan for a replacement service in addition to local transport in case of unexpectedly high demand or emergency situations

2.4 Energy

Heat	<ul style="list-style-type: none"> - Energy efficient heating systems - Use renewable energy sources - Regain heat with heat exchangers in HVAC systems - Maximum insulation in heated rooms - Forgo hot water taps for hand basins in sanitary areas - Install radiator thermostats - Passive solar protection and nocturnal cooling - Natural ventilation
Lighting	<ul style="list-style-type: none"> - Use energy-saving light bulbs - Install energy-saving floodlighting - Deploy motion and brightness sensors
Building control systems	<ul style="list-style-type: none"> - Central control of heating and energy consumption
Solar power	<ul style="list-style-type: none"> - Build solar power systems
Artificial snow and piste preparation	<ul style="list-style-type: none"> - Use of efficient snow-making technology - Efficient piste preparation (cf. SLF / Snow and Avalanche Research 2002)
Save electricity	<ul style="list-style-type: none"> - Use of energy-saving computer systems - Use electrical appliances with the highest energy efficiency ratings - Connect dishwashers directly to hot water supply - Use gas appliances for cooking instead of electric ones

Minimise stand-by waste	<ul style="list-style-type: none"> - Use switched power strips - Switch off unused appliances
Use electricity from renewable sources	<ul style="list-style-type: none"> - Cover electricity requirements at events using certified green electricity - Long-term: conversion of venues to green electricity
Generators	<ul style="list-style-type: none"> - Where possible supply power from electricity grid rather than generators - Investigate use of bio-diesel in generators - If generators must be used, these should be fitted with particle filters

Documentation	Record electricity use during period of event separately, as far as possible, also for periods prior to and after the event	kWh
	Consumption by diesel generators	Litres of diesel
	Provision / production of heat	kWh
	Gas consumption (not heating, e.g. for cooking)	kWh or m ³

2.5 Water

Alternatives to drinking water	<ul style="list-style-type: none"> - Use surface, well and rain water for toilets and urinals, and for watering green areas - Construct rain water cisterns
Infiltration and unsealing	<ul style="list-style-type: none"> - Build ditches for the systematic infiltration of rain water - Use water-permeable materials for paths and standing areas
Artificial snow and piste preparation	<ul style="list-style-type: none"> - Guarantee an ecologically adequate amount of water will remain after water has been taken from natural sources for snow-making - Efficient piste preparation (cf. SLF, 2002) - Use of chemical substances to harden snow on pistes (cf. BAFU / Federal Office for the Environment, 2007)
Supply of drinking water	<ul style="list-style-type: none"> - Connect to the mains water supply

Documentation	Total water consumption (artificial snow-making)	m ³
	Water use (drinking water) recorded separately, as far as possible, for the period of the event; also for periods prior to and after the event	m ³
	Use of ice-nucleating bacteria if necessary	kg
	Use of snow hardeners	kg

2.6 Waste water

Waste water	<ul style="list-style-type: none"> - Disposal via public waste water system wherever possible - Investigate possibility of connecting temporary facilities to public waste water system - Otherwise collect waste water in tanks and have them disposed of by specialist companies - Avoid use of chemical toilets
Environmentally friendly detergents	<ul style="list-style-type: none"> - Use environmentally friendly washing-up liquids and detergents - Avoid use of disinfectants - Phosphate- and chlorine-free detergents
Problematic substances	<ul style="list-style-type: none"> - Separate collection of problematic substances which may pollute water - Protect soil with impermeable tarpaulins and mats

Documentation	Waste water recorded separately, as far as possible, for the period of the event; also for periods prior to and after the event	m ³
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2.7 Waste

Re-usability	<ul style="list-style-type: none"> - Use of deposit-on-return re-usable cups - Use of re-usable dishes
Avoid creating rubbish in visitor areas	<ul style="list-style-type: none"> - Offer low-waste catering - Purchase goods in bulk containers or packaging-free - Avoid use of individual portion packaging - Avoid use of disposable paper towels
Avoid backstage litter	<ul style="list-style-type: none"> - Use of re-usable packaging for deliveries - Serve drinks from large containers - Use returnable bottles rather than disposable ones - Oblige suppliers to take packaging away with them
Avoid litter caused by communications	<ul style="list-style-type: none"> - Establish electronic media channels for journalists - Use recycled paper
Sort rubbish, involvement of young people	<ul style="list-style-type: none"> - Organise sorting of rubbish during the event - Recycling centres for sorting rubbish in visitors areas and in the vicinity of the venue - Rubbish-sorting in the backstage area - Collect problematic materials
Monitor proper disposal of rubbish	<ul style="list-style-type: none"> - Regularly check that all areas of the event are litter-free - Charge deposits to encourage traders to dispose of rubbish properly
Avoid rubbish	<ul style="list-style-type: none"> - Reduce quantity of advertising material - Make relevant agreements with sponsors and local authorities

Sorting of rubbish in backstage areas	- Regularly check sorting of rubbish in backstage areas
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Documentation	To be recorded separately as far as possible for different areas (e.g. spectator areas, temporary facilities, media, caterers, organisers) and differentiated according to the period of the event as well as the periods prior to and after it: <ul style="list-style-type: none"> - Residual waste - Plastics/packaging - Paper/cardboard - Glass - Compostable waste - Other types of waste 	Tonnes
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2.8 Noise

Active noise control	- Deploy loudspeakers so that noise intrusion is kept to a minimum
Passive noise control	- Protection of residents by structural devices such as noise barriers - Compliance with the statutory requirements of the country concerned
Reduce noise pollution	- Plan the timing and location of the event to cause the minimum amount of noise intrusion to residents - Use low-noise equipment - Avoid noise pollution, especially in the mornings, evenings and at night-time - Raise awareness of noise protection among spectators - Direct and adjust loudspeakers to be most efficient - Enclose or screen off any particularly loud appliances or equipment
Monitor noise pollution	- Observe statutory provisions regarding the protection of residents from noise - Regularly monitor noise levels - Immediately reduce excess levels

2.9 Innovation - special measures

Offsetting unavoidable emissions	- Offset unavoidable greenhouse gas emissions by investment in climate protection schemes. It is important that the CO2 certificates comes from credible projects and are certificated by approved institutions. If CO2-emissions should be compensated, the Gold Standard is absolutely to be chosen. Well suited organisations are listed under www.cdmgoldstandard.org .
Organic products	- Include organic products in the range of food and drinks for sale

Local produce	- Include regional products or ones which are directly marketed from the farmer
Fair Trade products	- Include 'fair trade' products in the range
Target suppliers	- Give preference to producers and suppliers who have an environmental management policy - Check producers' compliance with international social standards
Look out for eco-seal	- Use of souvenir merchandise with eco-seal - Look out for environmentally-friendly products
Avoid throwaway products	- Give preference to durable, quality merchandise - Look out for recycling potential of goods
Outstanding measures	- Creative ideas and offsetting ideas in the broadest sense - Giving prominence to the Championships

2.10 Sources

Federal Ministry for Environment, Conservation and Reactor Safety (BMU) and the German Olympic Sports Confederation (DOSB) **'Green Champions for Sports and the Environment - Guidelines for environmentally friendly sporting events'** (2007). Guidelines from a research project commissioned by the BMU, conducted by the Institute of Outdoor Sports and Environmental Science in Cologne and the Berlin Institute for Applied Ecology: <http://www.green-champions.de>

- Global Reporting Initiative GRI G3: www.globalreporting.org
- Swiss Olympic: www.ecosport.ch
- '2018 Candidature Acceptance Procedure' (2009), IOC
- 'Preparation and Maintenance of Pistes - a Handbook for Practitioners' (2002) Mathieu Fauve, Hansueli Rhyner, Martin Schneebeli, SLF, Davos
- 'Snow hardeners leaflet: Use of snow hardeners for operators of ski race courses and organisers of winter sports events' (2007): Federal Office for the Environment (BAFU), Bern
- Sustainable Sport and Event Toolkit (SSET): www.sset-platform.org