



Carbon Management Plan of the International Biathlon Union („IBU“)

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1. Introduction

Reducing greenhouse gas emissions is the best way of combatting climate change and as such, a priority for sport organizations. Many of them, including the IBU, are severely impacted by climate change yet are also significant contributors of emissions through their own activities and events.

Following its *Target 26* strategic plan, the IBU has taken initial steps on its climate / carbon journey, such as the “establishment of sustainability initiatives targeted to decrease the footprint of IBU events” and joining the United Nations Sport for Climate (UNFCCC S4C) Action Framework in June 2020.

The IBU renewed its commitment to the UNFCCC S4C framework by joining the Race to Zero campaign in November 2021. The Race to Zero pledge aligns with the IBU’s strategic climate goal for 2030 which entails a reduction of 50% of the sport’s emissions and being climate neutral by 2030, but also includes the commitment to become net zero by 2040.

This IBU Carbon Management Plan 3.0 (2022) represents yet another step forward, reviewing and refining the concrete actions to be undertaken by the IBU in 2023. It forms a core part of the implementation of the IBU’s Sustainability Strategy 2020-2030. It commits the IBU to several measures that will help biathlon realize its strategic climate objectives, i.e., reducing emissions in accordance with its UNFCCC S4C commitment and becoming climate neutral as a sport by 2030. Notably, it represents an expanded scope, moving beyond ‘the IBU as an organization’ to the ‘IBU events’ that will be fully included over the next few competition seasons.

Given that the 2021/2022 season was still severely impacted by the global Covid-19 pandemic, the full IBU transition plan charting the road to the 2030 commitment will only be available in full for the v4.0 edition of this plan.



2. IBU Emissions 2020 vs 2021 vs 2022

Greenhouse gas emissions are typically measured in kilograms or tons of “carbon dioxide equivalent” (CO₂e). As a starting point, an initial baseline level of CO₂e emissions was established for the ‘IBU as an organization’, i.e. Level 1, using data from the 2019/20 competition season. The 2022 calculations are informed by the original 2020 and improved 2021 figures and already represent a qualitatively higher and expanded dataset for Level 1.

The 2022 figures for Level 2, ‘IBU Events’ reflect a season that was still impacted by COVID-19 in terms of restrictions on spectator attendance, however they are complete in terms of all IBU events reporting their carbon footprint.

3. Level 1: IBU as an Organization

The Level 1 or ‘IBU as an Organization’ includes the IBU headquarters in Anif bei Salzburg, Austria as a facility.

In terms of travel, the following groups of individuals were included in Level 1:

- IBU Executive Board
- IBU staff (including contractors)
- Biathlon Integrity Unit (BIU) staff and BIU Board
- IBU Technical and Athletes Committee members
- IBU Technical officials (IBU appointed)
- IBU media team (contractors)
- IBU accreditation (Plaras), timing & data (SIWI), and anti-doping teams (contractors)

The L1 2022 carbon footprint calculation included the following sources of emissions:

3.1 Scope 1: Direct emissions

- IBU HQ: Heating/Cooling (gas)

3.2 Scope 2: Indirect emissions from purchased electricity

- IBU HQ: Power (renewable)

3.3 Scope 3: Indirect emissions

- Business travel in leased, rental or employee cars, trains, ferries, buses or airplanes
- Employee commuting, such as light rail, train, buses, employee private cars and bike/foot



- Accommodation and board for staff during travel or IBU's own events
- Outsourced shipping & courier services
- Office waste
- Estimates on production of materials and resources, such as furniture, paper, IT
- IBU's own events including the Congress 2022, OC Meeting 2022, IBU Technical Committee meetings, annual EB meetings and other internal meetings including related overnight stays
- HQ Catering
- Printing services (HQ printing and print products for distribution)
- Gifts / Give-aways
- Supply chain embedded carbon for the IBU's material distribution program
- IBU staff uniforms (annual value of multi-year contract)
- Digital eco-system

3.4 Exclusions

- Other supply chain embedded carbon

The estimated carbon footprint of the 'IBU as organization' Level 1 covers the twelve months from 1 October 2021 until 30 September 2022 (IBU Reporting Period):

IBU as Organization	Season 2022	Season 2021	Season 2020	Change from 2020
IBU Office	94	73'210	41'359	+129%
IBU Material Support	297	269'044	308	-3,5%
IBU Own Events	607	157'900	489'900	+24%
IBU Officials Travel	717	303'381	542'838	+32%
Total CO2e kg		799'215	1'074'097	+24%
Total CO2e tons	1715	804	1'074	+24%
Per employee	49	33	81	-39,5%

Scope division - 2021	Scope 1	Scope 2	Scope 3
IBU as Organization			
Total CO2e tons	31	1	771

Scope division - 2022	Scope 1	Scope 2	Scope 3
IBU as Organization			
Total CO2e tons	39	2	1675



This calculation still covers a period impacted by the COVID-19 pandemic. Also, this being the third time that the IBU calculated its organizational carbon footprint, data quality continues to improve, meanwhile some data are still not available which has led to informed estimates and proxies being used in some cases. Notably, the IBU material support program, initially included in 2021, continues to be calculated based on € value of the goods.

4. Level 2 IBU Events

For Level 2, it should be noted that the IBU competition season 2021/2022 comprised several events without spectators. The IBU season also did not feature any overseas competitions (the Olympic Winter Games 2022 in Beijing are covered by the footprint of the IOC and the OCOG of the OWG 2022). The data are based on calculations by 100% of the events using the special IBU CO2 foot printing tool developed by Quantis International.

The estimated carbon footprint of Level 2 covers the IBU competition season from 1 November 2021 - 30 September 2022:

CO2e kg	Scope 1	Scope 2	Scope 3
IBU World Cups, WCH / SBWCH	525	359	9'529
IBU Cup, EOCH	87	320	1'372
Junior Cup, YJWCH	31	56	638
Total CO2e ton	643	735	11'539
GRAND TOTAL CO2e ton			12'907



5. Carbon Management Plan

Within the IBU Sustainability Strategy 2020-2030, the strategic objective for the Climate Focus Area is as follows:

Reduce the carbon footprint of biathlon as a sport according to science-based targets (4.5% p.a.) to become climate neutral by 2030, and climate positive latest by 2034.

The corresponding high-level targets for the Climate Focus Area per sustainability stakeholder level are as follows:

5.1 Level 1 - IBU as Organization

By 2030, IBU achieves climate neutrality from 2019/2020 emissions baseline for Scopes 1-3 through reduction activities according to science-based targets (4.5% p.a.), primarily in travel and energy use-based greenhouse gases, and through offsets for any residual emissions.

5.2 Level 2 - IBU as Event Owner

100% of WCH from 2027 and 100% of World Cups from 2026 commit to a carbon management program (reduction/offsetting, as for L1) and achieve climate neutrality by 2030 concerning their event's GHG emissions (Scope 1-3) compared with the baseline of season 2019/2020 (adjusted to account for calendar fluctuations within a four-year period)

5.3 Level 3 - IBU as Leader of Biathlon Family

By 2030, 50% of NFs join UN Sports for Climate Action Framework and/or commit to a carbon management program with individual goals.

By 2030, 100% of IBU partners have express commitments for carbon management and climate action.

Achieving these goals will require that the IBU is able to ensure a sustainable delivery of all its business and event operations and has a range of policies and actions in place which limit the negative impact on climate and the environment. In particular, the IBU plans to use and promote the use of renewable energy and implement sustainable mobility measures. It will also work to raise awareness and encourage active participation in the realization of the carbon management plan among all IBU stakeholders.

Considering the difference between seasons in terms of the number of competitions outside of Europe and the global COVID-19 pandemic, the final IBU Event Series carbon footprint baseline will be set to reflect a four-year average (Olympic period 2018-2022), however noting the impact of the pandemic, and reflecting as much as possible the pre-pandemic level in 2019. This four-year average baseline will then be used to determine the



carbon reduction milestones going forward. The specific milestones for the Level 2 'IBU Events' will be defined in cooperation with the organizing committees to set targets that are relevant and realistic on the way to 2030. The milestones will generally be based on an annual target of 5% for reduction based on the 2019 figures.

The IBU will seek to offset its residual emissions remaining after the carbon reduction measures have been implemented, and then ensure that both Level 1 and Level 2 are climate neutral as soon as possible, latest in 2030. Innovative plans will be required to reduce and eventually offset for the impact on climate caused by spectator travel.



6. Carbon Reduction Plan

At Level 1, the 'IBU as Organization' will reduce its carbon emissions by 5% annually from the 2019-20 baseline level until 2030. To achieve this target, we will:

- Implement a prioritized list of carbon emissions reduction projects as detailed below.
- Increase stakeholder (IBU/BIU staff and board, committee member, technical official, contractor, service provider and partner) awareness of the importance of reducing energy and fossil fuel consumption so that this principle can be incorporated into their everyday lives.
- Implement policy and procedure changes that will help reduce emissions across the IBU's internal operations.

The activities in the carbon reduction plan will be updated regularly, at least annually, as the program progresses.

Level 1: IBU as Organization						
Scope	Project	Lead	Resources	By when	Status End 2022	Actions 2023
Travel	Transition IBU corporate cars (BMW lease) from diesel to increasingly electric cars	Admin (Margit)	Admin (Carola)	50% electric or hybrid fleet for two seasons 2022/23 & 2023/24 from Sept. 2022	3 of 12 fleet cars are hybrid and 3 of 12 are electric cars (total 6/12 = 50%)	- Retain 50% hybrid or electric cars in - Increase to 75% hybrid or electric cars in fleet with a majority of those electric by 2024
Travel	Increase number of IBU-owned	Admin (Margit)	Admin (Carola)	By September 2024	Currently four charging stations	- With new fleet in 2024, increase number of



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	recharging station for staff and visitors					charging stations accordingly (min 5)
Travel	Issue new sustainable travel policies for staff, contractors & officials	Admin (Margit)	Central (Riikka)	Congress 2022	New Travel policy for IBU Officials approved by EB in September 2022	Monitor impact of new policy on travel emissions annually, goal -5% a year from 2019 baseline
	Inform all relevant groups	Admin (Margit)	All depts	Complete		
	Brief the new travel agencies on new policy and track their performance against on reduction goals		Sport & Events (Tina/ Sarah)	Ongoing		
Travel	Ensure that each department delivers a minimum of 5% annual reduction in	Central (Max)	All depts	Ongoing	Achieved for Central, Communication, Sport & Event.	Keep minimum of 5% annual reduction from 2019/2020 baseline



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	team travel emissions per person				BIU, Development and Administration had an increase of team travels due to higher number of employees and the launch of the IBU Academy.	
Travel	Develop concept for a company bicycle program (government supported)	Admin (Margit)	Admin (Carola)	Complete	One bike delivered in Q2/22	No further bikes planned so far
Own events	Implement policy that a minimum 20% of EB meetings are held virtually	Central (Max)		Ongoing	New EB annual cycle formalized four annual meetings: February, June, September, November	Promote hybrid meetings to ensure no more than four in-person meetings
Own events	Develop an IBU Own Events Sustainability Checklist, v1.0 and apply to all upcoming events	Sport & Events (Tina/ Sarah)	Central / Development (Theresa / Riikka)	Completed by January 2021 Include a sustainable event requirements list in the Congress 2024 host questionnaire - FAILED	Impact measurements to be done for all internal events	Create a revised Checklist v3.0 with priorities and fulfil for every event



IBU

Own Events	Increase IBU Own Events scope and data collection to cover all IBU organized events, including IBU/IOC camps and any activities by the new IBU Academy	Development (Theresa)	Development (Dagmara)	From January 2021	Data collection successful for all IBU organized events incl. all Academy activities. Nevertheless, data provided was partly incomplete.	Quality of data collection to be improved
Office - waste	Enhance waste management implementation and add recycling categories Obtain exact category weights	Admin (Margit)	Development (Theresa)	By October 2020 From 2023	Recycling categories have been implemented also within campus waste disposal (Paper, Glass, Plastics, Residual Waste, Biodegradable) Added "How to recycle" instructions in every kitchen; hired IBU own cleaning staff who will take care about the correct disposal of waste (recycling)	Goal achieved, do regular controls of cleaning staff regarding correct waste disposals; educate IBU Staff on recycling habits Cleaning staff will measure weight of waste from 2023



IBU

Office - energy	Obtain precise power and heating/cooling measurements via own meters	Admin (Margit)	Development (Theresa)	Complete for power - in operation from Q2/2023	IBU own electricity meters to be implemented Q2 2023	<ul style="list-style-type: none"> - Set clear reduction goals once precise data for HQ is available, educate staff about ways to reduce electricity in HQ - Conduct HQ energy efficiency measurement with Viessmann
Office - energy	Assess potential of implementing solar panels on the IBU office roof	Admin (Margit)	Central (Max)	Delayed by campus management	Discover own possibilities to implement solar panels on the roof, no actions from campus management	Confirm timing and measures to replace gas heating
Office - uniforms	Donate all available old IBU uniforms and sport equipment to those in need	Development (Dagmara)	Sport & Events / Development (Theresa / Tina)	Ongoing	Old equipment distributed during IBU-IOC Camps 2022 or donated to people in need. IBU Staff had the possibility to give back their old equipment to	<ul style="list-style-type: none"> - New Alpine Pro clothing to be distributed among staff; Old Alpine Pro collection to be used for IBU Academy purpose - Continue discussions with Alpine Pro to limit equipment delivery to



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					be donated to people in need.	once per 4 years instead of once per 2 years to reduce amount of clothing - For future uniform partner include sustainability measures as part of contract
Office - print	Transition from Print to Digital Publications	Comms (Christian)	Comms (Jaka, Mariya)	Reduce print production in kg by 50% until end of season 2021/2022 on 2019/2020 baseline	67% reduction by end of 2022 in comparison to 2019/2020	75% reduction by end of 2023 + 20% reduction HQ printing
Office - procurement / supply chain	Develop new procurement instruction	Admin (Margit)	Central (Riikka)	Document completed in 2022, implementation in progress	Delayed, new deadline March 2022	Implement new rules, establish a tracking procedure
Office - Wildflower Meadow	Keep a part of the Campus lawn for wildflowers	Development (Theresa)	Admin (Margit / Carola)	By June 2023	In progress, contacted other companies on the Campus	To be discussed during campus meeting February 2023



Level 2: IBU as Event Owner						
Scope	Project	Lead	Resource (s)	By when	Status End 2022	Actions 2023
Carbon footprint	Create a simplified carbon footprint measurement tool for IBU events with an initial focus on IBU World Cups and IBU World Championships	Central (Riikka)	Sport & Event (Daniel, Martin), Development (Theresa)	11/2022	Moved excel tool online (Position Green) to ease tracking of annual improvement.	Ensure tool use and better data collection.
	Collect baseline measurements from IBU events, with an initial focus on IBU World Cups and IBU World Championships	Central (Riikka)	OCs	2020/2021 season	CO2 measurement completed by all OCs during the 2021/2022 season. Offered expert sessions to all OCs	Confirm 2019 baseline (in progress) Agree reduction plans with min of 50% of World Cups



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Energy	Conduct a detailed assessment of energy use for events, especially for TV broadcasting	Central (Riikka) / EBU (Franck)	Etanomics	5/2022	Completed	Provide common solutions for OCs where feasible, e.g. Broadcasting temporary power, temporary heating, HVO etc
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Level 3: IBU as Leader of Biathlon Family						
Scope	Project	Lead	Resources	By when	Status End 2022	Actions 2023
NFs	Support 10 NFs in developing sustainability strategies and carbon management plans	Central (Riikka)	Development (Dagmara)	End of 2022	Separated sustainability support funding from general development support funding => two NFs applied	Have 10 NFs with sustainability strategies including carbon management
Supplying partners	Include IBU sustainability annex and code of conduct in all supplying partner contracts for 2022-2026	Sport & Event (Daniel)	Central (Riikka)	Q2/2022	Introduced new annexes to supplying partners in October 2021	Included in all supplier contracts from 2022-2026



7. Partnerships

The IBU has established relationships with selected organizations to promote climate advocacy and action.

Protect Our Winters (POW) Europe has been represented in the IBU Sustainability Expert Reference Group (ERG) and served as a key partner for the IBU in providing training and tools for the inaugural group of the IBU's Sustainability Ambassadors who were appointed in June 2021.

In April-May 2021, the IBU ran the so-called Biathlon Climate Challenge together with Active Giving using their application platform that converts physical exercise into trees. The campaign resulted in the planting of 100'000 trees through Active Giving's partner charity Eden Reforestation Projects. The second edition of the Challenge was conducted in August 2022 together with the IBU's long-term sponsor and now Climate Partner Viessmann.

In addition, the IBU has also partnered with Viessmann to conduct an industry grade energy efficiency measurement at select venues, beginning with a leading World Cup organizer and to assess options for low or no-carbon temporary power solutions at IBU events.



8. Annex

8.1 IBU as Organization: Travel Emission Comparison 2022 vs. 2021 vs. 2020

The following table shows the department level comparison of IBU's travel emissions for 2022 vs 2020.

After the global pandemic, the number of in-person meetings and events returned to "normal" and travel increased from 2020/2021. Consequently, there was an over 100% increase in emissions from travel in comparison to the previous reporting period.

In comparison to the 2019/2020 season, there was a 30% increase due to the higher number of employees and the catch-up of meetings postponed from the pandemic years.

The increase in travel and corresponding emissions in the three departments where this is the case, the change can be explained by additional staff members joining the team during 2021 and 2022 as well as the launch of the IBU Academy in 2022 (Development department) including in-person coach education courses.

	2019/2020			2020/2021			2021/2022			Reduction from 19/20
	Bus. Travel (7M)	12M	Total	Commuting	Bus. Travels	Total	Commuting	Bus. Travels	Total	
Central	88174,57	151156,40	151156,40	3727,00	145565,18	149292,18	0,00	89100,00	89100,00	59%
BIU	13397,64	22967,38	22967,38	3459,32	2714,73	6174,05	3270,00	33220,00	36490,00	159%
Communication	37833,97	64858,24	64858,24	3708,54	10752,95	14461,50	2600,00	33810,00	36410,00	56%
Development	1479,37	2536,06	2536,06	5577,42	3519,06	9096,48	2920,00	96500,00	99420,00	3920%
Sport & Event	147019,45	252033,35	252033,35	17073,00	50220,48	67293,48	8220,00	198720,00	206940,00	82%
Administration	1430,81	2452,82	2452,82	5934,30	13,31	5947,61	2690,00	380,00	3070,00	125%
Plaras	8325,03	14271,49	14271,49	0,00	6582,88	6582,88	0,00	14190,00	14190,00	99%
Siwidata	14769,09	25318,44	25318,44	0,00	7814,29	7814,29	0,00	25300,00	25300,00	100%
IBU Pool Cars	4225,84	7244,30	7244,30	0,00	4425,19	4425,19	0,00	2170,00	2170,00	30%
Hotel nights	-	-	-	0,00	32293,00	32293,00	0,00	204200,00	204200,00	n/a
		kg CO2e	542838,46		kg CO2e	303380,66		kg CO2e	717290,00	
		t CO2e	542,84		t CO2e	303,38		t CO2e	717,29	

	Number employees		
	2019/2020	2020/2021	2021/2022
BIU	2	4	9
Communication	3	4	6
Development	0	3	6
Sport & Event	8	8	8
Administration	4	5	6