

2023 annual report

Swiss Federal Institute of Sport Magglingen SFISM

SFISM

Swiss Federal
Institute
of Sport
Magglingen



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Foreword

“The only constant in life is change.” The words of Greek philosopher Heraclitus also applied to the SFISM in 2023. The SFISM introduced a number of measures on the basis of a self-assessment report and in response to the conditions imposed following an external review undertaken as part of the institutional accreditation process. These have begun to bear fruit. We have gradually introduced tools, information and data into our quality system, which we keep updated. In our teaching activities we developed a new concept for the Bachelor’s degree programme, taking into account feedback from students and lecturers from the continuous course evaluation. Both students and lecturers were closely involved in developing the new concept. Overall, SFISM students, employees and other stakeholder groups were encouraged to become more closely involved. The Advisory Board, newly appointed in 2022, provided inputs for the SFISM’s strategy. We also listened to the needs of national sports federations in the area of research, development and innovation in competitive sport.

A major change came in 2023 when the SFISM moved into the new Lärchenplatz building. Since the merger in 2005 of the Institute of Sports Sciences and the Swiss Sports School Magglingen into the Swiss Federal Institute of Sport Magglingen, SFISM employees have worked in separate buildings in Magglingen. The newly constructed Lärchenplatz building gives them the opportunity to work together in one place for the first time. Besides providing a new workplace, the Lärchenplatz building has well-equipped laboratories for research and development and the provision of sports science services. These premises offer opportunities for new sports science activities for all disciplines, from physiotherapy and sports medicine to physiology and monitoring. As we no longer have to carry out these tasks in different FOSPO facilities, there are now new opportunities for synergies.

The new situation will have an impact not only on us at the SFISM, but also on our stakeholders. You can read in the annual report about the improvements that have already been made. We hope you enjoy reading this report.



Dr Urs Mäder
SFISM Rector



Dr Thomas Wyss
SFISM Assistant Rector



Dr Urs Mäder, Rector of SFISM

Dr Thomas Wyss, Assistant Rector of SFISM

The Swiss Swiss Federal Institute of Sport Magglingen SFISM continues to move forward

Following institutional accreditation, the SFISM pushed ahead with its organisational development. One expression of this was the founding of the SFISM student association. Furthermore, in mid-November SFISM employees packed up their offices and moved to the new Lärchenplatz building. Now all under one roof, they immersed themselves in a new working environment.



Full-time equivalents **109**

Employees **138**

The cycle of quality assurance turned rapidly in 2023. In 2023 work continued on developing the university of applied sciences. As part of the institutional accreditation process in 2022, the SFISM underwent a thorough organisational review. Based on the review findings and in response to the conditions imposed, the SFISM continued to work on its organisational development. A series of work packages was drawn up to meet the conditions put forward.



R+D projects published: 25

SFISM student association founded

One of a total of six work packages focused on promoting participation; this is well established among SFISM staff but is less well developed in the student community. A major step towards improving student participation took place on 22 November, when the founding meeting of the SFISM student association took place. The association has been set up to represent the interests of all SFISM students.

Move to the new Lärchenplatz building

The new Lärchenplatz building is a visible sign of the SFISM's development. Employees were able to move into the spacious three-storey timber building in mid-November. The departments of competitive sports, sports coach education, sports economics, teaching and sports education as well as the administrative and managerial staff are now all under one roof. In this modern, optimised working environment, sports medicine and sports physiotherapy now have new rehabilitation facilities, and performance diagnostics has a new diagnostics hall and state-of-the-art laboratory infrastructure.

With all units in one place, synergies can be exploited and communication improved. The SFISM's new building is a multifunctional office environment in which the employees of the same unit are grouped together on one floor. The sports physiotherapy and sports medicine units occupy their own floor, and the performance diagnostics unit and diagnostics hall are also on the same level. The three levels are connected to the outdoor sports facilities via a staircase in the courtyard. An open day will be held on 23 March 2024 to officially inaugurate the building.

New SFISM website

The SFISM has had a new online look since November 2023 (www.ehsm.admin.ch). As part of an overhaul of all federal websites, the SFISM website at FOSPO was the first to be migrated. The content and images were thoroughly reworked to create a more visual, user-friendly website.

Popular international exchanges

There was a marked increase in outgoing mobility: in the autumn of 2023, 17 students completed the semester abroad, 13 at a European partner university and four in Canada. In addition, three Bachelor's students and one Master's student completed an internship abroad.

Thirty students and two lecturers from the Deggendorf Institute of Technology spent a block week in Magglingen. The students focused on the topic of 'IT-supported training load monitoring and performance diagnostics', and were given the opportunity to try out different sports disciplines.



Lärchenplatz

- Longest beam in roof: 20m × 1.30m
- Indoor sprint tunnel: 90m
- 356 wooden facade slats, 10.65m long
- 5900 m³ of concrete > 14,750 tonnes > 730 truck trips
- 600 tonnes of steel

Laufband

- Treadmill
- Belt: 4.5 × 3m
- Weight: 11.5 tonnes
- Max. speed: 50km/hr
- Max. gradient: 25%



SFISM Social Media



Student mobility

Outgoing students: 18
(as part of the immersion semester)
Outgoing interns: 5
Incoming students: 1

Employee mobility

Outgoing: 2
Incoming: 5



Partner universities

International mobility
 · 21 in Europe
 · 3 worldwide

**Media library**

- Number of enrolled university members: 231
- Loans (from SFISM and via Swiss library courier): 900
- Digitisation orders: 120

Numerous university sports activities for SFISM students

The Bern University of Applied Sciences (BFH) traditional sports day, known as 'the games', took place on 17 May and was organised by the SFISM student organising committee at the facilities of the Federal Office of Sport (FOSPO).

The SFISM was represented in various disciplines at the Swiss University Games in Tenero, at which the men's team won bronze in football. Three Magglingen teams competed in beach volleyball, with the best SFISM team coming fifth out of 25. Ultimate frisbee, meanwhile, was new territory for the SFISM students. With the help of an experienced BFH student from Biel, they were able to improve their performance from game to game.

In July, ten SFISM students took part in the European Universities Futsal Championships in Split, their team finishing 16th out of 19. Top-scorer and SFISM student Aurelio Currenti scored an amazing 19 goals to take top honours at the EUC in Split and at the Swiss University Sports Awards in Lucerne.

The media library as a place to learn and meet

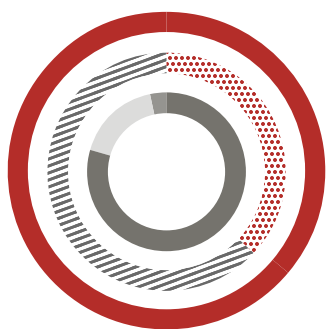
Since the 2023 autumn semester, students and staff have had unlimited access to the media library. This is developing into a place for students to meet and learn, even outside of opening hours. Media can be reserved or borrowed from the media library's collection at the self-checkout desk regardless of opening hours.



Christof Kunz, SFISM IT project manager

Education and training

In the light of institutional accreditation and certain savings targets, a number of developments in education and training were launched in the reporting year. The project to comprehensively overhaul the Bachelor's degree programme was successfully launched in order to offer students a modern, practice-oriented learning environment that equips them properly for their future careers. The Magglingen university weeks were held for a final time to make room for new academic continuing education programmes such as summer schools, CAS, DAS and MAS. In order to promote student participation at SFISM and diversity in the degree programmes, a new SFISM student association was founded and a concept for diversity in the degree programmes was developed.



■ Bachelor of Science	● Women*	47
127 students	▨ Men*	80
	■ German-speaking	101
	■ French-speaking	22
	■ Italian-speaking	4

*The data recorded shows the number of men and women. The SFISM is aware that diversity includes other categories.

Bachelor of Science in Sports

In an eventful year, 104 applicants – 77 men and 27 women – were assessed for suitability, and 30 were accepted on the degree programme. Furthermore, ten top athletes – eight women and two men – completed the new cohort.

Despite measures to cut costs, the quality of teaching was maintained thanks to the extraordinary efforts of the staff of Youth and Adult Sport, the Magglingen National Sports Centre and the SFISM.

The reform of the Bachelor's degree programme is a milestone, with the new programme running from 2025. The establishment of a new student association has strengthened student participation, and this illustrates the SFISM's commitment to a participatory university culture in which students make a significant contribution to how their study programme is organised and progressed.

Bachelor's students were able to benefit from numerous block weeks and from the Magglingen university weeks (MHW) – held for the final time in 2023. We would like to take this opportunity to thank all those involved for making this valuable experience possible for the students.

At the graduation ceremony, 39 students received their degree.



Patricia Steinmann, Research associate and lecturer, Sports education



Master of Science in Elite Sports
58 students

Women	19
Men	39
German-speaking	44
French-speaking	12
Italian-speaking	2

Master of Science in Sports with Specialisation in Elite Sports

The spring semester focused primarily on the specialisations sports management and coaching science. The students were highly committed and course attendance rate was high. Lively discussions and exciting group presentations gave the students a better understanding of the diverse topics of elite sport.

The block week in each of the specialisations was a highlight for all. The students specialising in sports management spent four days in Lausanne, where they gained an insight into various international sports federations. Those with a coaching science focus visited the training infrastructures at Swiss Tennis, EHC Biel-Bienne and BSC Young Boys and discussed ideas with experts on site. They also took part in a coaching event and gained an insight into various diagnostic technologies and data analyses in competitive sport.

In the autumn semester, the students focused on their internship and Master’s thesis.

Thirteen students received their degree on 31 October. At the graduation ceremony it was decided to award Olivier Wicki a special prize for his outstanding Master’s thesis in the field of sports management. It is gratifying to see that a number of graduates are already working in the field of elite sport.



Master of Science in Sports Sciences
77 students

Women	22
Men	55
German-speaking	34
French-speaking	43
Italian-speaking	0

Master of Science in Sports Science

In this Master’s degree programme, students deepen and expand their core knowledge and specialise in either teaching or health and research. Students specialising in teaching can complete their sports teacher studies at various universities of teacher education to obtain the qualification required to teach sport in baccalaureate schools and vocational schools.

The health and research option is aimed at those interested in promoting physical and sporting activities for prevention purposes. It is also open to those interested in scientific research in this field. Students receive a solid training as exercise specialists with scientific knowledge and in-depth practical experience.

Magglingen university weeks

Over 500 participants from nine different universities again took part in the Magglingen university weeks (MHW), involving a total of 23 week-long courses, which all ran smoothly. Around 100 experts ensured the high quality of the three MHW products, 'school sport', 'outdoor leadership' and 'sports discipline'. The participants expanded their sporting skills and also obtained Youth+Sport (Y+S) instructor certification for school sport.

In order to save costs, FOSPO is obliged to discontinue the MHW and will not renew current contracts with its university partners. This means that the SFISM organised the MHW Y+S school sport and sports discipline for the university partners and the teacher training colleges for the last time in summer 2023.

In future, the SFISM will offer a small number of sports programmes open to university students in summer schools.

Continuing education

The SFISM runs a wide range of continuing education courses in various areas of sports science for those interested in gaining a specialisation or additional qualification. These include CAS courses, one-day and multi-day courses, and conferences, some of which are organised jointly with SFISM partners.

The [continuing education](#) webpage has been reworked and has a new look.



Conferences held: 11

**Further education courses**

- Sports coordinator training programme

Sports coordination

The course in sports coordination was conducted in both German and French, simultaneously and in parallel. It comprises five modules of three days each. Students are required to draw up a concept or project with high practical relevance to their own local sports network to obtain the qualification. Twenty-two participants, 11 German-speaking and 11 French-speaking, successfully completed the course. Social events took place in a bilingual environment, which stimulated the exchange of topics between German-speaking and French-speaking Switzerland.

In addition, the CAS in Sports Coordination, which is worth 12 ECTS credits, was approved as an extension of the existing course. A sixth module in leadership has been added, which raises students' awareness of leadership issues in the political environment and prepares them for future leadership roles. A discussion group of internal and external FOSPO stakeholders was set up to develop the CAS syllabus and ensure broad support for the quality of the course. This group will continue to give its input. The CAS in Sports Coordination will be run for the first time in 2024.

Graduates of the sports coordinator course meet once a year for a continuing education event known as the 'networking day'. In 2023 the event in Magglingen looked at state-of-the-art sports hall construction, with a particular focus on the new training hall, from project to construction. Topics such as digitalisation in sports halls and modern climbing facilities were also discussed. The networking day attracted around 70 participants.

Abstracts of Bachelor's dissertations to receive a special award

Mathieu Hersperger – Die Veränderung der Einnahmen der besten Fussballvereine und -ligen während der Corona-Pandemie

Der Fussball verzaubert Menschen auf der ganzen Welt und ist zu einem internationalen Wettbewerb avanciert. Das Gesamtvolumen des europäischen Fussballmarktes beläuft sich auf 27,6 Mrd. Euro, was einen deutlichen Anstieg von 9,69 % gegenüber der vorherigen Saison 19/20 bedeutet (Zeppenfeld, 2022). Zahlreiche Fachleute bestätigen, dass der Fussball weiteres Wachstumspotenzial hat. Die kumulierten Einnahmen in den Fussballligen und -vereinen setzen sich aus drei Kategorien zusammen, wobei die Einnahmen aus dem Transfergeschäft nicht berücksichtigt werden: Medienrecht, kommerzielle Erlöse und Spieltagerlöse. Durch pandemiebedingte Spielbeschränkungen gingen die Einnahmen zurück und im Weltfussball kam es dadurch zu erheblichen Umstrukturierungen. Im Frühjahr 2020 wurden in fast allen europäischen Ligen die Meisterschaften, Pokalspiele und Grossveranstaltungen unterbrochen oder abgesagt. Die Meisterschaft der Schweizer Super League wurde am 23. Februar 2020 eingestellt (swissinfos.ch, 2020). Am 13. März 2020 kam der gesamte Europäische Fussball zum Stillstand. Die französische Liga brach die Saison sogar komplett ab. Im Sommer 2020 fanden die ersten Spiele wieder statt, allerdings mit strengen Einschränkungen. Das Ziel dieser Arbeit ist es, durch eine Literaturrecherche die Einnahmen der besten fünf Fussballligen zu analysieren und mit dem Schweizer Fussball zu vergleichen. Dabei werden die Gesamteinnahmen und die Einnahmeprofile der Ligen und Vereine aufgezeigt. Daraus ergaben sich zwei Fragestellungen: Wie hoch sind die Einnahmen (unterteilt in

Spieltagerlös, Medienrechte und kommerzielle Erlöse) vor der Corona-Pandemie in der Saison 2018/2019, während der Corona-Pandemie in der Saison 2019/2020 und 2020/2021 und nach der Pandemie in der Saison 2021/2022 für die Top-5-Ligen und die Schweizer Super League? Welche Auswirkungen hatten die pandemiebedingten Spielbeschränkungen? Die Untersuchungsgruppen bilden die drei besten Fussballvereine der fünf besten Ligen der Welt und die drei besten Clubs der Schweizer Super League. Dementsprechend werden 18 Vereine aus sechs Ligen näher untersucht. Die Haupteinnahmequelle der Ligen und Vereine sind die Medienerlöse, die vor allem während der zwei Corona Saisons noch mehr an Bedeutung gewannen. Die Super League ist von allen, in dieser Studie, untersuchten Ligen am stärksten von den Einnahmen aus Spieltagen abhängig. Besonders folgestark waren die Zuschauerbeschränkungen während der Meisterschaften. Für die meisten grossen Ligen und Vereine hatte die Pandemie keine langfristigen Auswirkungen. Keywords: Fussball, Einnahmen, Corona-Pandemie, pandemiebedingte Spielbeschränkungen

Eddy Yusof – Zusammenhang zwischen der Maximalkraft beim Krafthalteelement Kopfkreuz an den Ringen und zwei spezifischen vorbereitenden Krafttrainingsübungen

Kraftelemente an den Ringen sind im Kunstturnen von grosser Bedeutung, um sich mit den besten Athleten dieser Sportart messen zu können. Durch die Elemente «Felge mit gestreckten Armen in das Kopfkreuz» und «Stemme rückwärts in das Kopfkreuz» ist das Kopfkreuz seit dem Jahr 2022 für die Erhöhung des Schwierigkeitswertes der Wettkampfübung bedeutender geworden. Obwohl Schweizer Kaderathleten (Junioren und Elite) seit Beginn ihrer Karriere Krafttrainings absolvieren, ist die Lücke zur Weltspitze an den Ringen gross. Die Ziele dieser Arbeit sind die Untersuchung der Unterschiede des Maximalkraftniveaus zwischen Junioren- und Eliteathleten beim Krafthalteelement Kopfkreuz an den Ringen und bei zwei vorbereitenden Krafttrainingsübungen sowie die Berechnung der Zusammenhänge zwischen den vorbereitenden Kraftübungen und der Maximalkraft beim Kopfkreuz. Neun Eliteathleten (Alter: 20.97 ± 1.91 Jahre, Grösse: 169.94 ± 5.4 cm, Gewicht: 66.01 ± 5.03 kg) und zehn Juniorenathleten (Alter: 16.72 ± 0.55 Jahre, Grösse: 171 ± 7.42 cm, Gewicht: 61.10 ± 7.9 kg) führten einen Maximalkrafttests durch, welcher drei Kraftübungen beinhaltete («Kopfkreuz (Haltezeit fünf Sekunden)», «Ausstossen sitzend» und «Kopfkreuz mit Kurzhanteln»). Beim Test «Kopfkreuz (Haltezeit fünf Sekunden)» musste das Kopfkreuz an den Ringen genau fünf Sekunden gehalten werden, wobei Gegengewichte die Athleten unterstützten. Bei den Krafttests «Ausstossen sitzend» (mit Langhantel) und «Kopfkreuz mit Kurzhanteln» handelte es sich um dynamisch-konzentrische Krafttrainingsübungen, wobei das Einer-Wiederholungsmaximum (1-RM) bestimmt wurde. Die Mittelwerte der Resultate beider Gruppen wurden mittels T-Test verglichen und die Zusammenhänge zwischen der Maximalkraft beim Kopfkreuz und den beiden vorbereitenden Kraftübungen mittels der Pearson-Korrelation berechnet. Anhand der linearen Funktion ($y = ax + b$) wurden abschliessend die Zielwerte (in Prozent des Körpergewichts) berechnet, um das Kopfkreuz ohne Unterstützung halten zu können. Bei zwei Krafttests waren die Eliteathleten signifikant besser ($p < 0.05$) und dabei wurden starke Effekte festgestellt («Kopfkreuz (Haltezeit fünf Sekunden)»: $d = 2.41$; «Ausstossen sitzend»: $d = 1.81$). Beim «Kopfkreuz mit Kurzhanteln» war die Elite bei einem moderaten Effekt ($d = 0.74$) nicht signifikant ($p = 0.13$) besser. Zwischen der Maximalkraft beim Kopfkreuz und den beiden 1-RM-Tests wurden bei der Elite signifikante Zusammenhänge und starke Effekte festgestellt («Ausstossen sitzend»: $r = 0.70$; «Kopfkreuz mit Kurzhanteln»: $r = 0.71$). Bei den Juniorenathleten konnte ein kleiner, nicht signifikanter Zusammenhang zwischen der Maximalkraft beim Element Kopfkreuz und dem «Ausstossen sitzend» festgestellt werden ($r = 0.21$, $p = 0.57$). Zur Übung «Kopfkreuz mit Kurzhanteln» hingegen war der Zusammenhang signifikant und der Effekt stark ($r = 0.64$). Die berechneten Zielwerte des 1-RM, um das Kopfkreuz ohne Unterstützung halten zu können, lag beim «Ausstossen sitzend» bei 150 % und beim «Kopfkreuz mit Kurzhanteln» bei 33 % (pro Arm) des eigenen Körpergewichts. Die besseren Krafttestresultate der Elite können generell durch die schlechteren konditionellen Voraussetzungen und mangelnde Krafttrainingserfahrung der Juniorenathleten erklärt werden. «Kopfkreuz mit Kurz-

hanteln» ist die spezifischere der beiden Kraftübungen, jedoch können beide in Form einer Krafttrainingsintervention eingesetzt werden. Um weitere Fortschritte beim Kopfkreuz zu erzielen, sollten zusätzlich die technischen Aspekte des Kopfkreuzes in Kraftübungen integriert werden. Die in dieser Arbeit berechneten Zielwerte der beiden 1-RM-Tests können den Trainerinnen und Trainern helfen, das Maximalkrafttraining ihrer Athleten zu strukturieren und zu systematisieren.

Svenja König – Actionbound – Entwicklung, Durchführung und Evaluation einer Doppelлекtion Bewegung und Sport mittels digitaler Medien

In den letzten Jahren wurden digitale Medien immer präsenter. Eine Ursache dafür ist die fortschreitende Digitalisierung. Durch die Coronapandemie erhielt die Digitalisierung auch im Bildungssektor besonders viel Aufmerksamkeit (Huber, 2022). Einige Schulen schlossen oder stellten auf Fernunterricht in der digitalen Welt um. Diese Veränderung stellte Lehrpersonen vor neuartige Herausforderungen (Grogorick & Robra-Bissantz, 2021). Das TPACK Modell beschreibt die notwendigen Kompetenzen einer Lehrperson, um mithilfe der Technologie eine verbesserte Lernumgebung für Schülerinnen und Schüler zu schaffen. Ein mögliches Modell, um die Lehrkräfte langsam an die Digitalisierung heranzuführen, ist das SAMR-Modell. Das Ziel dieser Arbeit ist es, Möglichkeiten aufzuzeigen, wie digitale Medien sinnvoll in den Unterricht, insbesondere in den Sportunterricht, integriert werden können. Dazu wird mit der Applikation Actionbound eine praktische Möglichkeit für eine Doppelлекtion Bewegung und Sport realisiert. Darauf aufbauend entsteht die Fragestellung: Wie können digitale Medien, insbesondere die Applikation Actionbound, lernwirksam und sinnvoll unter der Berücksichtigung des Lehrplans 21 in eine Doppelлекtion Bewegung und Sport auf Sekundarstufe 1 eingesetzt werden? Diese Arbeit wurde als forschungsgestützte Entwicklungsarbeit verfasst. Dafür wurde ein Bound entwickelt, erprobt und anschliessend evaluiert. Die Entwicklung erfolgte unter der Berücksichtigung des Lehrplan 21 in einem erstellten Benutzerkonto von Actionbound. Für die Erprobung wurde die Testklasse (zwölf Schülerinnen der 3. Sekundarstufe Biel, Alter = $14 \text{ y} \pm 1 \text{ y}$) in vier Dreiergruppen aufgeteilt. Nach der Erprobung wurde die Evaluation durchgeführt. Dazu dienten drei unterschiedliche Fragebogen. Der erste evaluierte die Funktion des Bounds, der zweite erfragte die Ansicht der Schülerinnen, und der dritte repräsentierte die Ansicht der Lehrperson (männlich, Alter = 25 y) zum Bound und digitalen Medien im Schulunterricht. Der entstandene Bound trägt den Namen «Move and Learn Magglingen». Er beinhaltet Informationen über Magglingen, sieben zu findende Orte, fünf Challenges, zwei integrierte Videos, mehrere Schätzaufgaben und ein abschliessendes Wissensquiz mit sieben Fragen. Alle Gruppen spielten den Bound bis zum Ende durch und gaben an, dass alle Challenges funktioniert hatten. Die Schülerinnen äusseren sich mehrheitlich positiv zum Bound, besonders hervorgehoben wurde der Unterricht draussen an der frischen Luft. Die Lehrperson fand den Bound und die damit verbundene Bewegungszeit super und sah den Ansatz des Lehrplan 21. Sie war sehr positiv gegenüber digitalen Medien im Schulunterricht eingestellt und benutzte diese täglich im eigenen Unterricht.

Da die Resultate lediglich auf den Erfahrungen und Ansichten einer Testklasse und einer Lehrperson basieren, ist diese Auswertung nicht repräsentativ, sondern präsentiert das Abbild dieser. Mit dem entstandenen Bound wurde ein möglicher Ansatz entwickelt, wie die Applikation Actionbound im Unterricht für das Fach Bewegung und Sport eingesetzt werden kann. Um den Bound zu veröffentlichen, müsste eine Weiterentwicklung sowie eine repräsentative Evaluation erfolgen. Die Ergebnisse lassen darauf schliessen, dass Actionbound das Potenzial für den zukünftigen Einsatz an Schulen besitzt. Es wäre spannend zu untersuchen, wie sich die Coronapandemie auf die Einstellung der Lehrpersonen gegenüber digitalen Lehr-Lernmedien ausgewirkt hat.

Abstract of Master's thesis to receive a special award

Sports management specialisation

Olivier Wicki – Evolving towards a data-driven scouting and recruitment approach in football

Developing a model that assists football clubs in setting up a data-driven scouting and recruitment department using the qualitative Delphi method

Abstract

The Moneyball approach radically transformed how forward-thinking sports organisations scout and recruit potential new players. Instead of relying solely on human observation and expertise, these organisations use data analytics to improve their decision-making. While the first football clubs adopted a data-driven decision-making approach in scouting and recruitment, there still is a research gap in how football clubs can evolve towards this approach. Therefore, the objective of this Master's thesis is to develop a model that assists football clubs in setting up a data-driven scouting and recruitment department.

This thesis conducted an exploratory research design based on a two-round Delphi method to answer the research questions. As an iterative and multi-stage research procedure, Delphi round one included 16 expert interviews with experts in setting up data-driven departments from within and outside the football industry. All expert interviews were transcribed verbatim and analysed using a hybrid subject analysis. Delphi round two included two focus group discussions with a total of six Delphi round one expert to deepen the findings further.

The model that assists football clubs in setting up a data-driven scouting and recruitment department consists of eight dimensions: strategy, culture, process, leadership, people, structure, data, and technology. The dimension strategy was the model's heart as it aligns, guides, and connects the remaining seven dimensions. For each dimension, football-specific and general requirements were elaborated to provide an overview of key considerations. Additionally, the importance of each dimension and the resources required to implement each dimension when evolving towards a data-driven approach were identified. The combination of the two findings illustrated that focusing the initial investment on the dimensions of strategy, culture, and process will yield the most significant impact at the beginning of a data-driven scouting and recruitment transformation. Finally, the eight dimensions of the model were surrounded by a methodological data-driven transformation framework to guide the transformation effectively and efficiently.

This Master's thesis introduces one of the first data-driven scouting and recruitment models developed specifically for the football industry and its clubs. The findings of this thesis stand as a first guide for football clubs to strategically set up a data-driven scouting and recruitment department, allowing them to use data analytics to improve their decision-making in scouting and recruitment of new players.

Teaching and sports education

The department focused on the three established areas of sport in the Armed Forces, teaching quality in sports education, and ethics and diversity, as well as its overarching duties in the organisation, administration and quality assurance of teaching. The Fit on Duty project to develop a system for the early detection of physical fatigue in soldiers was driven forward. Research in the field of teaching quality included studies into the professional skills of coaches. And in the area of ethics and diversity, the Integration and Prevention Unit headed the education working group in the ethics project run by Swiss Olympic and the FOSPO.

Monitoring and evaluation

In 2023 research and development focused on two projects in the field of sport and prevention in the Armed Forces. The Fit on Duty project is developing a real-time monitoring and early warning system for serious physical and health incidents. In addition to two 15-week long-term data surveys during which recruits wore sensors day and night and answered questionnaires every day, the team's work included analysing data, clarifying ethical and moral aspects and reviewing the statutory basis. The unit continued to pursue its national and international cooperation.

The aim of the second project is to develop the evidence-based selection of special forces in the Armed Forces and police on the basis of test data and to support the highly trained candidates individually in their training. Data collection, initial data analyses and conference visits were the main activities here. Extensive validation studies were also carried out to check the quality of various field tests. As part of these projects, the unit supervised several Bachelor's dissertations and Master's theses.

The system to evaluate the university's degree programmes (EVAS) also delivered several results in the 2023 cycle and revealed the need for action. All results and measures taken are made available to all members of the SFISM on the Confluence platform. Findings from EVAS are published on academic platforms.



Dr. Fabian Studer, Research associate, Evaluation

Sports education

In the area of research and development, the members of the specialist group strengthened FOSPO's internal networking with Sports Coach Education Switzerland (TBS) and Youth+Sport (Y+S). The aim is to promote the quality of teaching in programmes for leaders and coaches through transdisciplinary research and cooperative development. Two questions are of particular interest:

- 1) What impact do the programmes run by Y+S and TBS have on the teaching skills of leaders and coaches and on the learning and performance effectiveness of their training programmes?
- 2) How can the programmes run by Y+S and TBS be improved with regard to the quality of leaders' and coaches' teaching skills and the learning and performance effectiveness of training programmes? An article on the evaluation of Y+S teaching quality has already been published (see abstract).

In teaching, the link between research and teaching was improved in the fields of educational professionalism in sport and teaching with digital media. Students took the opportunity to improve their sports teaching skills during the children's and youth sports week. Students on the Master's degree programme improved their digital media skills in sports education by setting up a wiki.

Integration and prevention

This year, the Integration and Prevention Unit once again focused on the topics of ethics and diversity in sport.

The Ethics in Swiss Sport project entered phase 2, with the unit involved in the sub-project for the coherent development of educational content on 'skills in ethics'. This involved close cooperation with Youth+Sport, Sports Coach Education Switzerland and Swiss Olympic.

In 2023 the unit further developed training materials on the topics of cultural diversity and sport and disability. The learning objectives for the 'Sport and disability' module topic were formulated to focus on skills in accordance with the new training concept for youth and adult sport. The module content helps sports leaders to organise and run joint activities for people with and without disabilities. In cooperation with mobilesport, the unit also launched a series of articles on various practical topics relating to cultural diversity in sport, e.g. [rituals and habits](#) and [joint activities](#). The series will be continued in the coming year.

2023 also saw the launch of a cooperative project with the FHNW University of Teacher Education, with whom the SFISM is developing a basic paper on the understanding of diversity and gender skills in the context of sport. The approaches were trialled this year in internal and external teaching assignments and are now being developed further.

Furthermore, the unit supported the SFISM in taking initial steps towards developing a diversity-sensitive higher education institution.

Herrmann, C., Seiler S., Siffert, A., Dapp L.C., Gashaj V, & Studer, F. (2023).

Entwicklung und Validierung eines Evaluationsinstruments zur Erfassung der Qualität des Lehrens und Lernens im Schweizer Kinder- und Jugendsport. Zusammenfassung Jugend und Sport.

In Forum Kind Jugend Sport, 10.

<https://doi.org/10.1007/s43594-023-00110-2>

Jugend+Sport (J+S) ist das grösste Schweizer Sportförderungssystem und vereint in einem staatlich subventionierten und inhaltlich regulierten Ausbildungssystem über 90 Sportarten. Um die Qualität der Sportaktivitäten zu gewährleisten, bedarf es einer ansprechenden und qualitativ hochwertigen Ausbildung von J+S-Leiterpersonen. Im J+S-Ausbildungsmodell werden im Handlungsbereich "Vermitteln" Ausbildungsinhalte zu qualitätsvollen J+S-Aktivitäten an die Leitenden weitergegeben, welche sich eng am aktuellen Forschungsstand der Unterrichtsqualitätsforschung orientieren. Zur systematischen Evaluation dieses Handlungsbereichs in der Praxis wurde das J+S-Evaluationsinstrument entwickelt. Damit sollen die an J+S-Aktivitäten teilnehmenden Kinder und Jugendlichen mittels Fragebogenitems zu vier Handlungsbereichen digital befragt werden. Aufbauend auf drei qualitativen Pilotstudien wurde eine schweizweite quantitative Validierungsstudie durchgeführt. Es wurden zwei Umfragen mit N= 1230 (53,7 % weiblich; M= 13,99 Jahren, SD= 2,36) und N= 851 (53,7 % weiblich; M= 13,96 Jahren, SD= 2,18) Kinder und Jugendlichen durchgeführt. Zur Prüfung der faktoriellen Validität und Reliabilität des entwickelten J + S-Evaluationsinstruments wurden konfirmatorische Faktoranalysen (CFA) berechnet. Die CFA ergaben nach systematischer Itemreduktion durchgehend eine gute Modellanpassung. Alle vier Handlungsbereiche mit ihren 17 Handlungsempfehlungen konnten mittels 51 Items valide und reliabel abgebildet werden, sodass das Evaluationsinstrument als valide und reliabel bewertet werden kann. Damit steht ein validiertes Evaluationsinstrument in deutscher, französischer und italienischer Sprache zur Verfügung, das zukünftig jährlich in der Schweiz in J+S-Aktivitäten eingesetzt werden kann.

Adler Zwahlen, J. (2023).

Soziale Integration von Kindern und Jugendlichen mit Migrationshintergrund im organisierten Sport – zwei Beispiele in der Schweiz.

In Gans, P.; Horn, M.; Zemann, C. (Hrsg.), *Sportgeographie. Ökologische, ökonomische und soziale Perspektive* (S.271-286). Berlin/Heidelberg: Springer.

<https://doi.org/10.1007/978-3-662-66634-0>

Der organisierte Sport ist ein Gesellschaftsbereich mit hohem sozial-integrativem Potenzial für Kinder und Jugendliche mit Migrationshintergrund. Die Teilhabechancen am organisierten Sport sind jedoch nicht per se für alle gleich, denn individuelle und organisationale Faktoren spielen bei Integrationsprozessen eine Rolle. Die Good-Practice-Beispiele aus der Schweiz «Miteinander Turnen» und «Midnightsports» verdeutlichen, dass sie mit zielführenden Massnahmen (z. B. niederschwellige Angebote, Vernetzung mit Schlüsselpersonen, ausgebildete Leitende, vielfältige Kommunikation) junge Migrantinnen und Migranten für ihre Bewegungsangebote erreichen und sie vielfältig integrieren. Die Ansätze der Good-Practice-Beispiele dürften auch für die gelingende soziale Integration von Kindern und Jugendlichen mit Beeinträchtigungen im organisierten Sport chancenreich sein.

Performance sport

In 2023 the focus was on setting up and preparing the laboratories and facilities in the new building on Lärchenplatz. We continued the research projects with the national sports federations and those funded by the Swiss National Science Foundation (SNSF). These projects also offer a framework for SFISM employees' continuing professional development, providing topics for dissertations and habilitations. The services we provide in the fields of performance development, health and athlete rehabilitation remain very popular with the sports federations; the competitive sports department consistently processes research findings and services data and so provides added value for the federations and athletes.



Medical consultations: 1,072

Sports medicine

In 2023 the sports medicine staff treated top and junior athletes on a daily basis for acute illnesses, injuries and overloading. Prevention in the form of sports medical examinations in over 20 types of sport was also a key area of activity. In 2023 more female athletes than male (52%) underwent a preventive examination, and there was a slight increase in the number of French- and Italian-speaking athletes examined, to just under 33% of the total.

Sports medicine continued to be more prominent in the training of medical students and in the sports science courses, and teaching activities in this field were expanded in the Swiss coach training programme. The department contributed its expertise to projects and issues relating to sport, both in competitive sport and sport in courses, teaching and the military.

It was also able to increase its research work, particularly on the topic of women and sport, and expanded the pluri-/interdisciplinary approach with new offers in sport-related gynaecology.



Sports psychology counselling: 360

Sports psychology

The two research projects funded by the Swiss National Science Foundation are running according to schedule. Besides the up-and-running research project 'Understanding and promoting mental health of competitive athletes – six empirical studies', we launched a further project entitled 'Advanced mental training for arousal-regulation using pupil-based neurofeedback and virtual reality'. The latter is being conducted in collaboration with ETH Zurich and looks at the use of a new innovative biofeedback system integrated into virtual reality glasses.

The sports psychology team once again ran two four-day training sessions at the Swiss Olympic talent meet in Tenero (3T) and organised an ethics symposium, this year on the topic of athletes' rights. Modules were also run on the SFISM Bachelor's and Master's programmes and on those of Sports Coach Education Switzerland. Some staff taught externally at the University of Applied Sciences and Arts Northwestern Switzerland and on courses at the University of Bern and Zurich University.



Hélène Maystre, Research associate, Sports physiology games sport



Number of athletes: 583

Number of tests: 1,179

of Applied Sciences. The department provided key services for athletes at the elite sports for recruits school, for Swiss Shooting, Swiss Handball, the Swiss Gymnastics Federation, the Swiss Judo & Jiu-Jitsu Association and the Swiss Football Association. Furthermore, for Youth+Sport it developed two learning modules, on basic psychological techniques and concentration.

Sports physiology (strength)

In 2023 the sports physiology (strength) team once again carried out a record number of tests in performance diagnostics and supervised athletes from 17 different sporting disciplines (national teams only). The most complex of the tests carried out – muscle performance diagnostics – is used in major Olympic sports (plus Swiss wrestling) to generate detailed training recommendations. In addition, we developed the specific strength training course for athletes at the elite sports for recruits school. The team also supported youth athletes at the Swiss Olympic talent meet in Tenero (3T) on two occasions.

Two original articles and two posters were published. Sports physiology (strength) staff were involved in courses worth a total of 31 ECTS credits and played a role in various CAS and coach education courses, Y+S courses and courses run by sports federations. They also supervised four Master's and two Bachelor's dissertations.

A lot of work went into developing new diagnostics systems for the new Lärchenplatz building. A new safety precaution system in muscle performance diagnostics was approved for the new strength laboratory. The complex synchronisation of diagnostics data from 3D force plates and video data was set up for the sprint tunnel.



Number of athletes: 838

Number of tests: 1,685

Sports physiology (endurance)

In 2023 the sports physiology (endurance) team provided support in the form of sports science services and applied research projects to the national squads of Swiss Ski (cross-country skiing, biathlon), Swiss Cycling (mountain biking, track cycling, road cycling), Swiss Triathlon and Swiss Athletics (middle-distance and marathon). Major projects included The Road to Paris 2024 (combined altitude and heat training in preparation for the 2024 Olympic Games in Paris; Swiss Cycling) and the Fuel 2.0 project (optimised nutrition for athletes; Swiss Ski). The team also published a peer-reviewed article (Scandinavian Journal Medicine and Science in Sport) and six abstracts at academic conferences (three at the Annual Congress of the European College of Sport Science, one at the Congress in Science & Cycling, one at the Annual Meeting of the American College of Sport Medicine and one at the Magglingen Coaching Conference). The highlight was winning the Swiss Olympic Science Award with a poster on determining VO₂ max in the field (VO₂max-Bestimmung im Feld: Die Validität des Engine Checks). Staff were also involved in teaching on the Bachelor's and Master's degree programmes and assessing Master's dissertations in elite sport, and the team carried out extensive work in preparation for moving into the new laboratories in the new building.



Number of athletes: 851

Number of tests: 5,423

Sports physiology (game sports)

The sports physiology (game sports) team carried out performance diagnostic tests primarily for national youth teams for the three biggest Swiss sports federations – football, ice hockey and handball – and gave every athlete tested a set of bespoke training recommendations. Findings and observations from these tests were then examined and discussed critically with coaches from the sports federations and in some cases from local clubs.

The team supported the women's national football team in their preparations for the World Cup in Australia and New Zealand, running performance tests and providing sports science advice on travelling and jet lag.

In the spring and autumn, the team carried out performance tests at the Swiss Olympic talent meet in Tenero (3T) for young athletes, and introduced them to sports science.

2023 also saw the completion of the four-year cross-disciplinary project Power to Win. The project provided numerous findings on training and the performance level of neuromuscular performance in junior game sports. It also resulted in five comprehensive digital learning coach education courses, which provide a basis for a long-term development model for the training of junior athletics in game sports.

There was second successful year to the three-year interdisciplinary research project on improving performance and injury prevention in women's youth football, which involves around 20 players.

The team published two posters, one of which made it to the final round of the Swiss Olympic Science Awards while the other was presented at an international congress. Staff also supervised a number of Bachelor's and Master's dissertations.

Staff from the games sport unit lecture on the Bachelor's and Master's degree programmes and taught students about scientific findings relating specifically to game sports in a range of courses in coach education.

Coaching science

The coaching science team had two principal remits: to identify, scout and promote talent, and to provide scientific support to sports federations. A great deal of headway was made in 2023, including providing sports federations and Swiss Olympic with scientifically validated tools to enable improved, more reliable selection of emerging talent. In addition, five employees are working in various sports federations (Swiss Ski, Swiss Aquatics, Swiss Athletics and the Swiss Football Association SFA) to implement applied research projects and provide specialist support to coaches in competitive sport. Much of the research work was published internationally in peer-reviewed journals.

In collaboration with the SFA and the technology and tactics group, the team ran three innovative and ground-breaking projects.

The first of these, entitled Player Labelling, provides coaches with additional information about players via video during selection matches. This leads to a more nuanced selection process, as additional information (e.g. on players' biological age) is factored into coaches' decisions.

A second project aimed to analyse and improve transitions in the talent development stages in football on the basis of the FTEM Switzerland framework for sport and athlete development. Possible measures range from making football more accessible to all kids and providing better support for children's football to improving the selection process and talent development. The aim is to offer all children equal access to the opportunities available, to use existing resources efficiently and to structure talent development successfully and sustainably. The third and final project, entitled Smart Competitions, aims to adapt the competition system in junior competitive sport to better support the development of athletes at their particular learning level. It is being implemented in nine sports federations in conjunction with Swiss Olympic.



Cooperation with sports associations

- Swiss Olympic
- Swiss Ski
- Swiss Ice Hockey Federation
- Swiss Athletics
- Swiss Cycling
- Swiss Aquatics
- Swiss Triathlon
- Swiss Shooting
- Swiss Football Association
- Swiss Handball Association
- Swiss Gymnastics Association

Technique and tactics

In the technique and tactics unit, activities in 2023 centred around the development of technical and tactical skills in youth elite sport. The services team was able to process the growing number of enquiries from sports federations on this topic, mostly in the form of consultations and workshops. A number of service projects for Swiss Olympic also progressed successfully, including one run in cooperation with the coaching science team on talent development and identification.

In the area of research and development, a concept for operationalising and assessing the game intelligence of footballers was drawn up in the externally funded Game Intelligence project. Initial tests in the field were run.

A PhD project looked at the gaze behaviour of young female footballers immediately before taking possession of the ball. In another innovative project, the technique and tactics team assisted Swiss Unihockey in optimising talent selection and designing perceptual-cognitive test procedures.

The department also helped Youth+Sport to develop a range of teaching materials, in particular a module on the basic principles of coaching technique and tactics.

The technique and tactics department is responsible for numerous courses at all levels at the SFISM and has been able to progress in combining practical and theoretical teaching content in particular. By supervising various scientific works, important findings were gained in the area of analysing technical and tactical performance parameters in training and competition in game sports.

Sports physiotherapy and sports massage

The sports physiotherapy staff looked after athletes following injury or overload and after operations on the musculoskeletal system. The number of patients from the Armed Forces continued to rise. They now account for a large proportion of the patients receiving physiotherapy services.

More athletes completed the whole of their rehabilitation programme in Magglingen in order to make the most of the excellent support and training opportunities available and so to be ideally prepared for their return to sport. Athletes now have state-of-the-art physiotherapy infrastructure at their disposal in the new Lärchenplatz premises. Even closer interdisciplinary cooperation is now possible between coaching staff, physiotherapists and all other specialist areas. Patients on rehabilitation programmes have more opportunities for regeneration, allowing them optimum recovery between training sessions.

Sports federations increasingly looked for support in the area of sports injuries prevention. There is an increasing need for examinations to identify physical deficits in the musculoskeletal system and incorporate them into individual training programmes.

With the new regeneration infrastructure, sports massage can now be offered more extensively; this is no longer restricted to medical massage but also includes regeneration options in water and in the therapy bath.

Teaching on degree programmes and in coaching courses continued as usual.



Physiotherapy treatments: 1,824

Massages: 2,113

Rüeger, E., Javet, M., Born, D. P., Heyer, L., & Romann, M. (2023).

Why age categories in youth sport should be eliminated: Insights from performance development of youth female long jumpers.

Frontiers in physiology 14:84.

Long-term sports participation and performance development are major issues in popular sports and talent development programs. This study aimed to provide longitudinal trends in youth female long jump performance development, participation, and relative age effects (RAEs), as longitudinal data for female athletes are missing. 51'894 season's best results of female long jump athletes ($n = 16'189$) were acquired from the Swiss Athletics online database and analyzed within a range of 6–22 years of age. To examine longitudinal performance development and RAEs, data from athletes who participated in at least three seasons were selected ($n = 41'253$) and analyzed. Performance development was analyzed using age groups (AGs) and exact chronological age (CA) at competition. Differences between performances of birth quarters were analyzed using 83% confidence intervals (CIs) and smallest worthwhile change. Odds ratios (ORs) with 95% CI were used to quantify RAEs. With the traditional classification into age groups (AG), performances of athletes born between January and March (Q1) were significantly better than those born between October and December (Q4) from U8 to U17. Using exact CA resulted in similar performances in Q1 and Q4 until the U20 age category. The peak of participation was reached in the U12 category, and then decreased until the U23 category with a substantial drop at U17. Significant RAEs were observed from U8 to U19 and at U22. RAEs continuously decreased from U8 (large effect) to U14 (small effect). The present results show that differences in performance arise from the comparison of athletes in AGs. Thus, going beyond AGs and using exact CA, Q4 athletes could benefit from a realistic performance comparison, which promotes fair performance evaluation, un-biased talent development, realistic feedback, and long-term participation.

Bucher, E., Millet, G. P., Wehrlin, J. P., & Steiner, T. (2023). Test-retest reliability of ski-specific aerobic, sprint, and neuromuscular performance tests in highly trained cross-country skiers.

Scand J Med Sci Sports. (12):2482–2498.

Purpose: Laboratory tests are commonly performed by cross-country (XC) skiers due to the challenges of obtaining reliable performance indicators on snow. However, only a few studies have reported reliability data for ski-specific test protocols. Therefore, this study examined the test–retest reliability of ski-specific aerobic, sprint, and neuromuscular performance tests.

Methods: Thirty-nine highly trained XC skiers (26 men and 13 women, age: 22 ± 4 years, $\text{VO}_{2\text{max}}$: 70.1 ± 4.5 and 58.8 ± 4.4 mL·kg⁻¹·min⁻¹, respectively) performed two test trials within 6 days of a diagonal $\text{VO}_{2\text{max}}$ test, $n = 27$; skating graded exercise test to assess the second lactate threshold (LT_2), $n = 27$; 24-min double poling time trial (24-min DP, $n = 25$), double poling sprint test (Sprint_{DP1}, $n = 27$), and 1-min self-paced skating sprint test (Sprint_{1-min}, $n = 26$) using roller skis on a treadmill, and an upper-body strength test (UB-ST, $n = 27$) to assess peak power (P_{peak}) with light, medium, and heavy loads. For each test, the coefficient of variation (CV), intraclass correlation coefficient (ICC), and minimal detectable change (MDC) were calculated.

Results: $\text{VO}_{2\text{max}}$ demonstrated good-to-excellent reliability (CV = 1.4%; ICC = 0.99; MDC = 112 mL·min⁻¹), whereas moderate-to-excellent reliability was found for LT_2 (CV = 3.1%; ICC = 0.95). Performance during 24-min DP, Sprint_{DP1}, and Sprint_{1-min} showed good-to-excellent reliability (CV = 1.0%–2.3%; ICC = 0.96–0.99). Absolute reliability for UB-ST P_{peak} was poor (CV = 4.9%–7.8%), while relative reliability was excellent (ICC = 0.93–0.97) across the loads.

Conclusion: In highly trained XC skiers, sport-specific aerobic and sprint performance tests demonstrated high test–retest reliability, while neuromuscular performance for the upper body was less reliable. Using the presented protocols, practitioners can assess within- and between-season changes in relevant performance indicators.

Sports economics

In 2023, the sports economics department focused on the launch of two new training courses: one in sports facilities and national sports systems management, the other in top athlete career management. The department also welcomed three new research assistants in 2023. It intensified its collaboration with the Swiss Armed Forces, Swiss Olympic and Swiss Sport Managers as well as with the sports management research network.

Sport systems unit

The sport systems unit focused its research and development activities primarily on the promotion of women and sporting competition between nations. At the 2023 Magglingen Coaching Conference it presented a research project in the field of 'new work', at the SFISM Ethics Symposium it discussed research findings on athletes' representation in sports organisations' decision-making bodies. The unit was also represented at the traditional EASM conference in Belfast, where SFISM staff gave a presentation.

In the services area, the unit implemented a project for the Swiss Armed Forces comparing the promotion of elite sport for athletes by armed forces and customs authorities in various countries. It also provided content-related and conceptual support to Swiss Olympic on the [Swiss Olympia Park project](#), which aims to equip Swiss sport for the future with sustainable, collaborative and innovative solutions. The unit also continued working with Swiss Olympic on a pilot project on the use of data visualisation supported by PowerBI software.



Larssyn Staley, Research associate, Sports economics



**Publication series relating to
the planning, construction and operation
of sports facilities**

- 25 (German/French)
- 3 (German/French/Italian)

Total: 28

The documents can be ordered as a printed version or downloaded as a free PDF from www.basposhop.ch

Sports facilities unit

In collaboration with the Institute for Environmental and Process Engineering (UMTEC) at the Eastern Switzerland University of Applied Sciences (OST), the sports facilities unit conducted practical assessments of seepage water from synthetic turf facilities as part of a project funded by the Federal Office for the Environment (FOEN). The aim is to deliver viable recommendations for good drainage planning and sustainable operation of synthetic turf sports facilities.

The annual sports facility visit organised by the unit welcomed over 100 representatives of communes, sports offices, professional associations and other interested parties to Magglingen National Sports Centre's new training hall. The latest developments in sports hall construction were viewed and discussed in a comparison with existing facilities.

Over 120 people attended the symposium on 'rethinking sports facilities and exercise areas' held in Magglingen. In addition to inspiring presentations given by experts from Denmark and Germany, others took examples from Switzerland and neighbouring countries to show what is possible with a new approach: versatile, multifunctional sports and exercise spaces that offer as many people as possible opportunities for exercise. In addition to the approximately 200 inputs on all sub-areas and planning phases of sports facilities and exercise areas, for the conference the sports facilities unit produced a poster for each project and made these documents available [for download](#) on its website.

Organisational development unit

In 2023 the unit's research activities focused primarily on governance in sport. Considering the issue of resource dependency, it looked in particular at the resources necessary to ensure good governance in sports organisations. It also focused closely on the role of sports clubs in developing and communicating positive values to young people. Head of unit Dr Michaël Mrkonjic had the privilege of being a guest researcher at the University of Ottawa in Canada. During his time there, he presented an article on governance in sport in Switzerland.

In the spring semester, the unit launched a new training product in the Master's degree programme in elite sport in collaboration with the Swiss Sport Managers association. The unit represented the SFISM in the development of a project headed by Bern University of Applied Sciences on entrepreneurial higher education institutions. The project seeks to review approaches and establish measures to better cater to the expectations of industry players.

The unit also organised the fourth Magglingen Thinkathlon in cooperation with Bern University of Applied Sciences and the Swiss sports goods company SensoPro, and the third sports management conference, which was attended by 150 people in Magglingen. Career management for top athletes was an area that developed particularly well, as the unit was able to identify the needs of this group and customise its services accordingly.

Zurmühle, C., Mrkonjic, M., & Weber, A. C. (2023).

The Evolution of gender representation in the decision-making positions of Sport Governing Bodies in Switzerland.

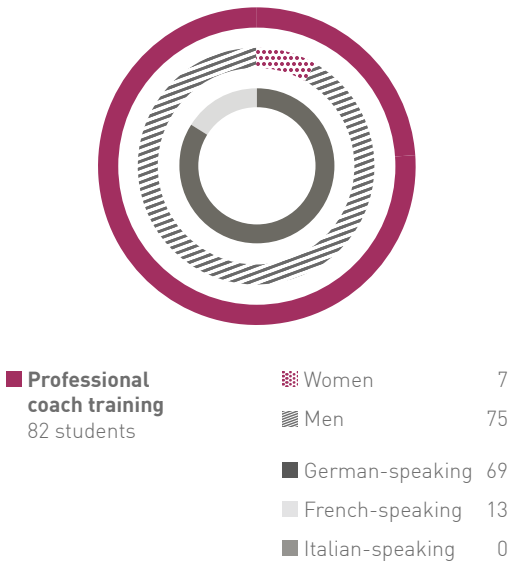
Sports Law, Policy & Diplomacy Journal, 1 (2),

<https://doi.org/10.30925/slpoj>

This contribution addresses the issue of women's underrepresentation in the decisionmaking positions of sports organisations with a quantitative descriptive analysis. Building on the results of national and international benchmark studies and a review on measures to improve gender representation, we (a) analyse the evolution of women's representation in decision-making positions of national sport governing bodies in Switzerland over a 10-year period (2012-2021) and (b) compare the observed evolution with the implementation of hard and soft measures. Our findings show a fluctuation of women's representation but no clear evidence of a positive and increasing evolution during the investigated period. We also observe that the level of women's representation compared to men remains low whereas measures have been implemented. We discuss our results with a potential 'anticipatory obedience' effect that is detected in the last years of investigation after the announcement of a legally binding target by the federal government and, building on literature, anticipate an increasing positive effect of the measure after its enforcement in 2024. To conclude, our study supports evidence in literature that the implementation of hard measures can contribute to a positive evolution in gender representation in the decision-making positions of sport organisations but still needs more current data to confirm evidence from other countries.

Sports Coach Education Switzerland

In addition to its core activities, the sports coach education department focused on five areas of development in 2023: the launch of a programme to improve sports coach education; course development, transfer effectiveness in teaching; the establishment of a new internal management philosophy; and the implementation of cross-sectional structures. In addition, around 300 trainers at the Magglingen Trainers' Conference 2023 dealt intensively with the topic of 'Energy – recharge, store, use'.



Improving the situation of coaches in Swiss (competitive) sport long term

In autumn 2023, Swiss Olympic launched a programme to improve sports coach education in close cooperation with Sports Coach Education Switzerland. The aim of the programme is to improve the working situation of sports coaches in Swiss (competitive) sport long term. The initiative also aims to position the sports coaching profession as an attractive career choice. The project committee has defined five areas of action: recruitment, support (including career planning), improved training and continuing education for trainers, improving the labour law and financial framework conditions for trainers as well as enhancing the status and appreciation of the trainer profession. A total of 19 measures have been drawn up, which are to be designed and implemented over the next four years by Swiss Olympic, FOSPO, swiss coach and the Swiss sports governing bodies.

Olympic Coach Programme 2024 and PAISAC: Course programme development

Sports Coach Education Switzerland continued to develop its range of courses in the reporting year, adding the Olympic Coach Programme 2023–24 (OCP) and PAISAC (International Support Programme for African and Caribbean Coaches). The Olympic Coach Programme provides support to coaches preparing for the Olympic Games in the form of individual sessions, networking and exchange. The programme of targeted measures prepares sports coaches for their assignment in Paris. It comprises an individually tailored mix of attendance blocks, case supervision, webinars, personal consultations/coaching sessions and optional professional training from existing courses at elite sport level.

Sports Coach Education Switzerland is now also supporting the Olympic Solidarité programme in the form of targeted training courses for African and Caribbean coaches.



Charles Pralong, Research associate, Coach education



Coach in Competitive Sports, Federal Diploma of Higher Education

Participants: 84 Passed: 60



Coaches counseling

- 48 without case supervision
- 241 with case supervision

Coach Developer

Participants: 21

Training courses

Participants: 1,088

Achieve greater effectiveness thanks to a 'transfer toolbox'

In 2022, Sports Coach Education Switzerland dealt intensively with the topics of social learning and transfer effectiveness. In the reporting year, the department's employees, with the support of external experts, developed a 'transfer toolbox' that provides coaches with practical tools for their lessons. These include establishing individual transfer steps, drawing up specific implementation measures during training, individual feedback on practical questions from course participants, transfer journals, transfer timeouts, action plans, transfer agreements and specific monitoring activities (call-a-friend, email checks, etc.). Also under the programme, coach supervisors and developers will provide greater support to their mentors in applying learning content in a practical context, a further measure to increase transfer effectiveness.

Mastering challenges with an intact energy balance

On 24 and 25 October, 300 coaches met in the Sport-Toto hall for the traditional Magglingen coaches' conference, this year on the theme of 'Energy – recharge, store, use'. How do coaches in Swiss competitive and elite sport handle their energy balance? What energy sources are tapped by sports personalities such as Olympic champion Nina Christen, FC St Gallen head coach Peter Zeidler or skiing legend Marco Büchel? And how does one deal with athletes' physical, cognitive and emotional energy resources? These and many other questions were discussed and answered at the 2023 Magglingen Coaches' Conference. In addition to exciting input from a range of speakers, the annual get-together of Swiss trainers and coaches provided, as always, an opportunity for discussion and networking.

Establishing the TBS ecosystem as a new internal management philosophy

Hierarchical systems are often no longer able to cope with the complexity of today's working world. For this reason, in 2023 Sports Coach Education Switzerland set itself the goal of implementing a more agile management structure that, like all complex systems in this world (nature, the brain, the global economy, etc.), works with a structure of distributed authority. The department staff have therefore agreed on the following principles: equality (everyone affected by a decision is included), consensus (only act once all objections have been considered in the decision), accountability (do what you have said you'll do), ongoing improvement (divide the task up into small steps and learn along the way), transparency (make information accessible to everyone), effectiveness (only do what contributes directly to achieving the goal), empiricism (check all assumptions again and again and adjust them if necessary) and courage (utilise opportunities and make courageous decisions). The principles of the TBS ecosystem are continuously assessed and adapted.

Utilising cross-cutting tasks as joint areas of development

Besides dealing with the diverse areas of responsibility in its education and continuing education programmes, in 2023 Sports Coach Education Switzerland defined six cross-cutting areas to tackle overarching challenges in smaller working teams. These are: research & development, communication, development of teaching materials, partner management, quality management and assurance (incl. assessments) and team development. The members of the individual work teams met regularly to discuss these issues and exchanged content and findings with the entire team on one of the five development days held. The individual work teams also recorded their progress on the SFISM's internal exchange platform Confluence.



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