



## Annual Report 2020

Teresa Jorge, Polar Access Fund 2019 grantee, comments on this photo taken on her field trip in February 2020:

"An old neon orange AWI jacket, my most trusted companion during my stay in Svalbard, the moon-illuminated snow and surrounding mountains and a perfectly timed bright green aurora. This picture was taken in Ny-Ålesund, Svalbard – the most northern community (79°N) in the world that is inhabited all year round." Photo: © Raphael Köhler

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**FOREWORD**

This annual report gives an overview of the activities of the Swiss Polar Institute (SPI) in 2020. As with every year, it also reflects on the developments and achievements of the Institute during this time.

In our foreword to the 2019 annual report, Konrad Steffen, the SPI Scientific Director, and I highlighted the many positive trends underlying the activities of the SPI: the new dynamic in the research community, the growing demand for field-going activities, the additional institutional funder, and the increasing number of requests from foreign polar institutions to join strategic collaborations or enter into agreements.

Against all odds and in an environment that has dramatically changed, our analysis remains surprisingly applicable to 2020. In a trying year, the SPI was able to maintain its high level of activities, gain a new institutional member, and launch new international collaborations. The Swiss polar and high-altitude research community sustained its dynamism and remained a close-knit group. Inventive approaches for collaboration, flexible travel schedules and international sharing of data and samples enabled many research groups to maintain high standards and perform their work in spite of the global pandemic. We felt privileged to work in such a positive environment.

But then in early August, we received the shocking news that Konrad Steffen had passed away in a tragic field accident at his beloved Swiss Camp in Greenland. Even now, the news has not totally sunk in. The entire polar community extends its deepest sympathy to Koni's family. The SPI team is committed to carrying on Koni's legacy, and we have received overwhelming support from our partners and colleagues to carry Koni's legacy and ambitions further into the future.

A wonderful confirmation of Koni's ambition for the SPI came in early December when the State Secretariat for Education, Research and Innovation confirmed that we had been selected as a "research institution of national importance" (Article 15). We are thrilled by this opportunity to significantly step up our support to the Swiss research community, and help increase its international footprint and impact.

Once again, the SPI is indebted to all the external experts and panel members who invested their time to support SPI's reviews and processes. We would also like to thank the members of the SPI Board of Directors and the SPI Science and Technology Advisory Board for their continued engagement.

In this difficult year, we also want to particularly express our sincere gratitude to the Swiss Polar Foundation, to the BNP Paribas Swiss Foundation and to all our institutional funders for their continued trust and support as well as for their renewed partnership for the period 2021-2024.

Danièle Rod  
SPI Executive Director

## SPI ACTIVITIES AND HIGHLIGHTS - 2020

In 2020, the Swiss Polar Institute (SPI) was able to consolidate its portfolio of activities and international partnerships despite the COVID-19 situation and its repercussions for polar research. In the spirit of continuity, the SPI sought to keep the scientific community informed of possibilities and regulations in different regions, and to reassure its beneficiaries that their grants would be implemented.

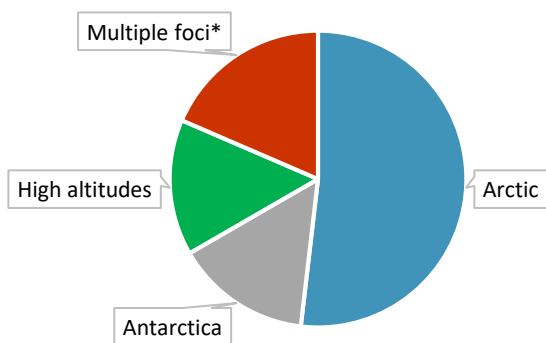
The health measures surrounding the **COVID-19 outbreak** had an important impact on the ability of scientists to conduct field work in 2020. The SPI showed **flexibility** in managing funding for its beneficiaries, by extending grants and helping grantees find alternative options where needed. Events were held online or in hybrid format in order to maintain a minimum level of dynamism and contact.

### A) Funding activities

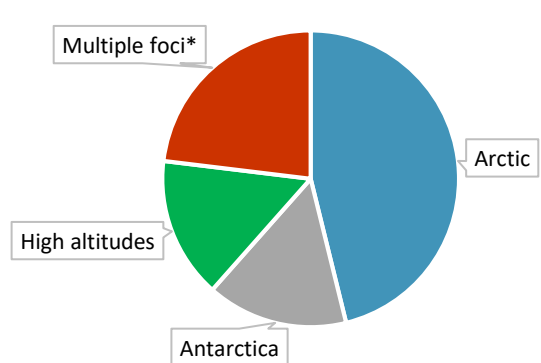
In 2020, the SPI issued its annual calls for proposals on the dates originally planned. In spite of the COVID-19 restrictions, each call received a comparable number of proposals to previous years, which resulted in a competitive selection process.

Particular focus was put on the launch of the PolARTS pilot programme, co-created and co-funded with Pro Helvetia, the Swiss Arts Council. The preparation of the future SPI Flagship Initiatives, a central pillar of the SPI strategy up to 2025 and beyond, also proved to be an important activity.

Submitted proposals in 2020 according to their geographic focus



Funded projects in 2020 according to their geographic focus



The charts display the proposals (left) and the funded projects (right) of the following calls for proposals: Polar Access Fund 2020, SPI Exploratory Grants 2020, SPI Technogrants 2020. In total, there were 29 proposals submitted and 14 projects funded.

\*Multiple foci means research projects related to at least two geographic foci (Arctic, Antarctica, remote high altitudes).

### 1) SPI Flagship Initiatives

During the Swiss Polar Day on 16 October, the SPI gave a sneak preview of its new programme, the SPI Flagship Initiatives. This funding programme aims at supporting Swiss-led multi-annual and multi-disciplinary field campaigns in polar or remote high-altitude regions, and will open new avenues for collaboration between Swiss research groups. The funding will be focused on logistics, data management, outreach, and programme coordination. The official launch is planned for February 2021. The call for proposals will follow a multi-stage process, with pre-proposals due in April 2021 and proposals due in October 2021. It will certainly be one of the biggest projects led by the SPI in 2021.

## 2) Polar Access Fund

The Polar Access Fund is a funding instrument that offers early-career scientists the opportunity to undertake field trips to polar regions or remote high-altitude areas. The objective is to give them a chance to experience field work, often for the first time, as part of a project linked to climate change.

Despite COVID-19 impacts on polar research, four Polar Access Fund 2020 grantees were able to conduct field work in polar and remote high-altitude areas: India (Himalayas), Greenland, Iceland, and Antarctica.

Jointly funded by the SPI and the BNP Paribas Swiss Foundation, the proposals are evaluated on the basis of the following criteria: scientific merit, added-value of the field trip for the research and the applicant, feasibility, and potential of the applicant.

### Calls for proposals

Call for proposals 2020	
20 November 2019	Call for proposals open
22 January 2020	Submission deadline (12 submissions)
27 February	Evaluation panel meeting in Bern (selection of 7 projects)
Beginning of March	Information to STAB and BNP Paribas Swiss Foundation
10 March	Approval by Board of Directors (written procedure)
End of March	Information to all applicants
End of April	Grant agreements signed
Call for proposals 2021	
23 November 2020	Call for proposals open

### List of 2020 grantees

Grantee	Institution	Field trip project	Region	Financial support (CHF)
<b>Suryanarayanan Balasubramanian</b>	University of Fribourg	Artificial Ice Reservoirs Measurement Campaign	<b>High-altitude</b> Leh, Ladakh, India	15,000
<b>Fien De Doncker</b>	University of Lausanne	Sediment samples and bathymetry to constrain erosion rates and their relationship with sliding velocities	<b>Arctic</b> Ilulissat, Greenland	16,000
<b>Dr. Cameron Hudson</b>	EAWAG	Exploring evolutionary and ecological solutions to DHA deficiency during colonization of freshwater by marine fish in South Greenland	<b>Arctic</b> Narsarsuaq / Quassarsuk, Greenland	15,000
<b>Dr. Julie Lattaud</b>	ETHZ	Arctic expedition on ice breaker Amundsen in the Beaufort Sea	<b>Arctic</b> Beaufort Sea	15,600
<b>Dr. Michael McCarthy</b>	WSL	Measuring sublimation in a high-altitude glacierised catchment of the dry Andes	<b>High-altitude</b> Norte Chico, Chile	7,600
<b>Armin Sigmund</b>	EPFL	Measuring snow sublimation, transport, and accumulation near Princess Elisabeth Station, Antarctica	<b>Antarctica</b> East-Antarctica	17,000
<b>Dr. Laurel Thomas Arrigo</b>	ETHZ	Coupled biogeochemical cycles of Fe and C during redox cycling in Fe-rich wetland soils of Iceland	<b>Arctic</b> Iceland	15,000





Experiences of Polar Access Fund 2020 grantees (left to right):

- Fien De Doncker conducted field experiments in Greenland. Photo: © Christoph Oeschger
- Collection of soil cores in an iron-rich streambed of an Icelandic peatland. Photo: © Laurel Thomas Arrigo
- Artificial Ice Reservoirs Measurement Campaign at Ladakh, India. Photo: © Suryanarayanan Balasubramanian

### 3) SPI Exploratory Grants

The SPI Exploratory Grants support Swiss-based scientists active in polar regions and remote high-altitude areas. The funding is allocated for logistics, field work and the launch of new collaborations. In 2020, the SPI presented the third edition of this funding instrument.

#### Call for proposals 2020

21 August 2020	Call for proposals open
19 October	Submission deadline (11 submissions)
16 November	Evaluation panel meeting online (selection of 5 projects)
25 November	Approval by Board of Directors (written procedure)

**List of 2020 grantees**

Grantee	Institution	Project	Region	Financial support (CHF)
<b>Dr. Daniel Baggenstos</b>	University of Bern	Seasonal cycle firn air monitoring at Concordia Station	Antarctica	37,100
<b>Dr. Lisa Bröder</b>	ETHZ	Mackenzie Delta Lake sediments – Records of recent permafrost thaw?	Northwest Territories, Canada, Arctic	27,080
<b>Dr. Konstantin Gavazov</b>	WSL	Arctic greening and its climate change feedback: cascading long-term effects of above- and belowground linkages	Sweden, Arctic	29,835
<b>Prof. Loïc Pellissier</b>	ETHZ	Mapping the exposure of Arctic marine fauna to microplastics	Arctic	20,000
<b>Dr. Christophe François Randin</b>	University of Lausanne	SUMITER: SURveying and Monitoring mounTain vEgetation in the aRctic. A resurvey of GLORIA sites in Zackenberg/Greenland.	Northeast Greenland, Arctic	36,000



Experiences of 2018 SPI grantees (left to right):

- Getting ready to board the plane after a summer field campaign in Antarctica. Photo: © Alexis Berne

- Jan Henneberger using a tethered balloon for aerosol measurements in Ny-Ålesund, Norway. Photo: © Matthias Buschmann

**4) SPI Technogrants**

The SPI Technogrants provide funds towards the development of technologies relevant for polar research led by Swiss-based scientists.

As part of the evaluation process to select the grantees, the following criteria are considered: technological novelty and potential, impact of the proposed technology on polar science, impact of the requested funding on the development process, feasibility of the project, and potential of the applicant(s)/consortium.

This funding scheme is financed through a donation from the Swiss Polar Foundation. The SPI is in charge of the evaluation process and the grant management.

### Call for proposals 2020

21 August 2019	Call for proposals open
19 October	Submission deadline (6 submissions)
16 November	Evaluation panel meeting online (selection of 2 projects)
25 November	Approval by Board of Directors (written procedure)

### List of 2020 grantees

Grantee	Institution	Project	Region	Financial support (CHF)
<b>Dr. Thomas Stastny</b>	ETHZ	Autonomous Deployment of GNSS Stations on Polar Outlet Glaciers Using a Long-Range, Tilt-Wing UAV	Switzerland, High-altitudes	50,000
<b>Dr. Gunter Stober</b>	University of Bern	Development of weatherproofed housing for temperature radiometer TEMPERA-C	Switzerland, High-altitudes	38,060

## 5) PolARTS

PolARTS is a joint pilot project of the SPI and Pro Helvetia, supporting exchange between researchers and artists by facilitating the formation of transdisciplinary tandems. The main objective of this programme is for the grantees to inspire each other across disciplinary boundaries and to promote mutual understanding by perceiving their own activity through the eyes of the partner.

The aim of the programme was to support three tandems but due to the high demand and the quality of the proposals, the SPI and Pro Helvetia decided to fund four artist-researcher tandems.

In 2020, one tandem made use of the possibility to request funding to organise a joint field trip. Fien De Doncker, from the University of Lausanne, and Gianna Molinari, writer and novelist, led their project at the end of summer in Greenland.

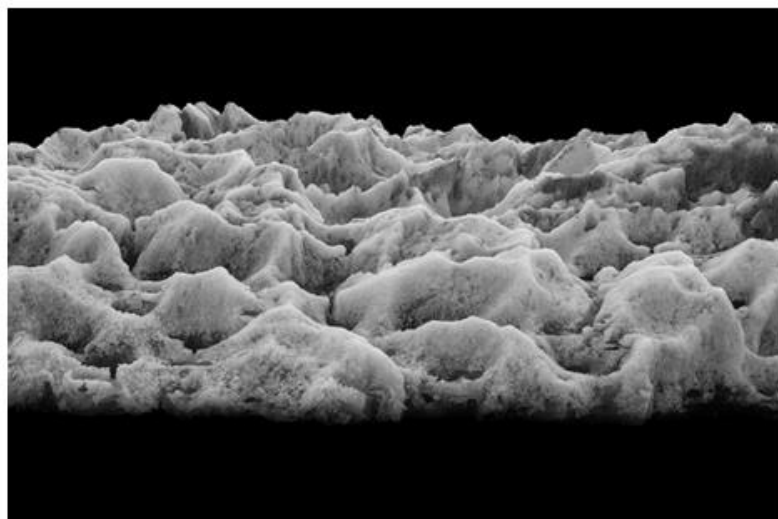
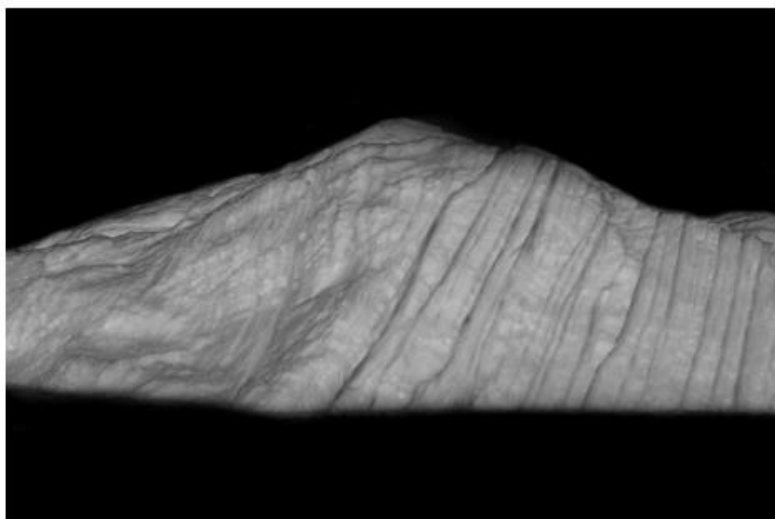
### Call for proposals 2020

1 October 2019	Call for proposals open
31 January 2020	Submission deadline (15 submissions)
16 March	Evaluation panel meeting online (selection of 4 projects)
16 April	Information to STAB
29 May	Approval by Board of Directors

### List of 2020 grantees

Artist tandem partner	Scientific tandem partner	Financial support (CHF)
Sabine Harbeke <i>Author</i>	Prof. Margit Schwikowski <i>Paul Scherrer Institute – Ice cores</i>	6,300
Gianna Molinari <i>Writer, Novelist</i> In collaboration with Christoph Oeschger	Fien De Doncker <i>University of Lausanne – Glacier dynamics, geomorphology</i>	6,300
Mario von Rickenbach <i>Interactive Media Art, Design</i>	Carolin Willibald <i>WSL – Snow physics</i>	6,300
Barbara Schibli <i>Author</i>	Prof. Gabriela Schaepman-Strub <i>University of Zurich – Tundra ecology, biodiversity</i>	6,200





Comment from the photographer, Christoph Oeschger:  
"These photographs were taken in Greenland, a landscape that has become so iconic that it is almost impossible to find new images. A landscape that is engraved in our heads but melting in reality."

## 6) MOSAiC

Coordinated by the Alfred Wegener Institute, the MOSAiC (Multidisciplinary drifting Observatory for the Study of Arctic Climate) expedition was one of the largest scientific expeditions ever organised in the Arctic. Its goal was to offer an in-depth study of the Arctic as the epicentre of global warming, in order to better understand global climate change.

Following in the footsteps of Fridtjof Nansen's ground-breaking expedition in 1893-1896, MOSAiC brought the research vessel Polarstern close to the North Pole for the first time in polar winter. The crew started its journey in October 2019 and ended it in October 2020.

The SPI co-funded two Swiss teams to take part in the MOSAiC expedition, for a total of CHF 140,000 (budget 2019). Prof. Julia Schmale (EPFL) and Dr. Martin Schneebeli (WSL) acted as the PIs for the two projects selected by MOSAiC: "Measurement-Based Understanding of the aeRosol budget in the high Arctic and its Climate Effects" (MBRACE) and "SnowMOSAIC", respectively. MBRACE aims to find out (a) which are the natural processes that produce

particles that influence clouds, e.g. phytoplankton blooms or sea ice movement, and (b) which are the human-made sources such as air pollution transported over long distances to the central Arctic Ocean. SnowMOSAIC studies the spatial thickness of the snow covering the sea ice and its changes over time, in order to investigate the interaction between ocean, ice, snow and atmosphere.

## 7) Field and summer schools

The SPI encourages students and early-career scientists to apply for field and summer schools in Switzerland and abroad. A list of recommended opportunities is available from the SPI. However, the list is not exhaustive, and the SPI also supports students who are selected in other programmes with a similar quality. Unfortunately, due to the COVID-19 outbreak, no students were able to benefit from such funding in 2020.

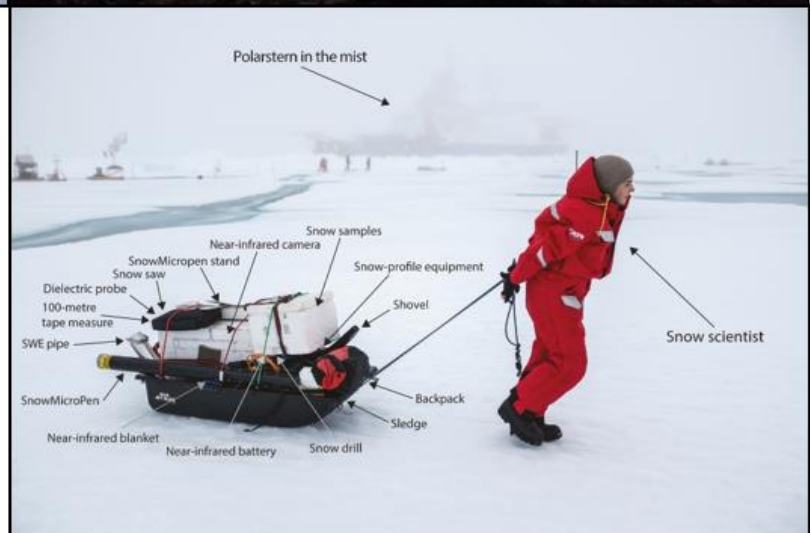


Top left: Helicopter transporting equipment from Met City, a part of the ice camp facilities. © Julia Schmale



Top right: Research vessel Polarstern illuminated in the polar night.  
© Alfred Wegener Institute/Esther Horvath

Bottom right: Details of the fully packed sledge dragged to conduct field work.  
© Mario Hoppmann



## B) Expeditions

### 1) Arctic Century 2020

Organised jointly by the SPI, the Arctic and Antarctic Research Institute (AARI, Russia) and Geomar (Germany), the Arctic Century expedition is a multidisciplinary undertaking to study rarely accessible areas and islands of the Russian Arctic. The scientific programme focuses on relevant aspects of the atmosphere, cryosphere, ocean and terrestrial environment in a rapidly changing Arctic climate. Research questions aim to improve our understanding of Arctic ecosystems through biological, chemical and isotopic tracing studies of the ocean, ice, freshwater, aerosol, soil and vegetation patterns.

The expedition will leave the port of Murmansk onboard the scientific ship Akademik Treshnikov. After crossing Barents Sea, it will navigate along the west coast of Novaya Zemlya and through the Santa-Anna

trough, reaching the Arctic ocean and proceeding along the east coast of Severnaya Zemlya archipelago. The expedition will navigate back through the Kara Sea and the Kara Gate, arriving back in Murmansk after four weeks.

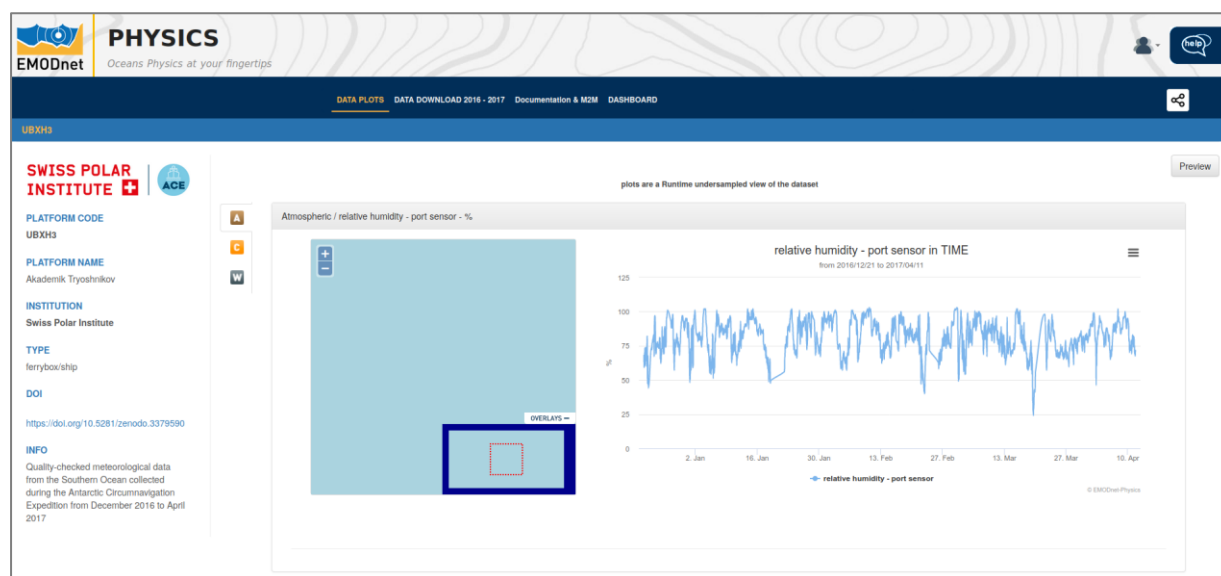
Foreseen to take place from 15 August to 15 September 2020, it was postponed by one year because of the COVID-19 outbreak. Work is currently ongoing in order to carry out this expedition during the same period in 2021.

## 2) Antarctic Circumnavigation Expedition (ACE) 2016-2017

The ACE expedition finished at the end of March 2017 but the SPI continues its work with Jen Thomas, the ACE data manager. During the year, she answered 20 requests for data from ACE that was still to be published or made openly available.

**ACE-DATA**, a collaboration between the SPI, the Swiss Data Science Centre and Paul Scherrer Institute came to an official end in September 2020, with work still ongoing to finalise a number of publications on sea-atmosphere interactions resulting from the project. This project brought together nine of the 22 ACE projects, successfully highlighting the interdisciplinarity of the expedition.

ACE projects published 26 journal articles during 2020, bringing the total to **46 articles published** since the expedition began. 43 datasets were published (plus 13 new versions of already published datasets), bringing the total to **91 datasets**, of which 69 (76%) are freely and openly available. **Six pieces of software** were also published during 2020. ACE data have been incorporated into international data repositories using community standards to ensure they are usable and widely discoverable in the future. An ongoing collaboration with EMODnet Physics is working to make all open access ACE data available through this data discovery platform, which in turn also makes the ACE data discoverable through the Southern Ocean Observing System (SOOS) data portal.



Screenshot of a subset of meteorology data from ACE in the EMODnet Physics data discovery portal.

It is also noteworthy that a **media gallery of visual material from ACE**, established in 2019, was used to create a documentary entitled "5 Degrees More" by Victor Jullien, shown on Ushuaïa TV and at the Pariscience Film Festival.

## C) SPI services to the Swiss polar community

The core of SPI's activities and services is focused on supporting the Swiss polar science community. The following section is dedicated to illustrating the different services offered by the SPI for research in and for polar regions and remote high-altitude areas.

### 1) Health & safety in the field

Since 2020, the SPI has **broadened its portfolio** of measures, with new opportunities for specialised high-level training, in collaboration with the Groupe d'Intervention Médicale en Montagne (GRIMM), Air Zermatt and Ifremmont.

Both courses organised in 2020 were fully booked but unfortunately had to be cancelled. The SPI has organised new courses for 2021, which will be taking place in April and December if the situation allows.

Since July 2020, a medical kit designed for emergencies in remote regions can be borrowed free of charge by research groups who have followed the required training and subscribe to telemedicine support from GRIMM. Priority is given to groups working in particularly remote regions and exposed terrain.

### 2) Data management

As part of its activities, the SPI values and promotes open science. It encourages data sharing, open data and good data management practice, which is the foundation of open science.

Considering that data management is a key skill for research and with a view to supporting early-career researchers, the SPI organised a workshop for Polar Access Fund grantees, dedicated to data management in the field. The SPI also created a field guide for data management, which is freely accessible online (<https://doi.org/10.5281/zenodo.4185227>).

### 3) Science containers

The SPI co-owns two research containers: the first one together with the Paul Scherrer Institute, and the second one with the EPFL and the ETHZ. Both can serve as mobile laboratories and be utilised for transportation of material in polar regions. They have so far been used for atmospheric sciences experiments.

In October 2019, one container was set up as a laboratory onboard the research vessel Polarstern. It remained there during the entire MOSAiC expedition, where it served the Swiss group leading the project "Measurement-Based Understanding of the aeRosol budget in the high Arctic and its Climate Effects (MBRACE)". The second container stayed in Svalbard until May and was then transported back to the ETHZ in Switzerland. It is expected to be moved to the EPFL campus in Sion at the beginning of 2021.



Photo: Katrianne Lehtipalo



## D) Outreach activities and pedagogical programme

### 1) Museums



Presentation by the SPI and Samuel Jaccard at the Night Polaire.

There were only very few activities during this difficult year for the cultural sector. In February, the SPI participated in the event “Night Polaire” organised by the Musée de la main in Lausanne. For the occasion, Danièle Rod and Prof. Samuel Jaccard presented SPI activities and the role of science in understanding climate change.

The SPI also advertised the exhibition “Greenland 1912” at the Landesmuseum of Zurich and the Network Arctic Collections Switzerland meeting in November, to raise awareness with the public about Swiss polar cultural and historical heritage.

### 2) Swiss Polar Class

In March, the SPI together with external experts officially launched the outreach programme “Swiss Polar Class” for students from 8 to 12 years and older.

The programme provides pedagogical content and tools related to polar topics in German and French, tailored to Swiss educational requirements. The programme contains modules on themes such as polar geography, ice, the climate and polar regions, and polar animals. It also features experiments to be carried out in class or at home.

The content is freely accessible on the online platform [www.polar-class.ch](http://www.polar-class.ch) and currently has close to 100 registrations by teachers, representing approximately 1,600 students and an average of 2,250 views per month. In order to develop the programme further and to carry out events in the German-speaking part of Switzerland, a new colleague joined the Swiss Polar Class team in autumn.

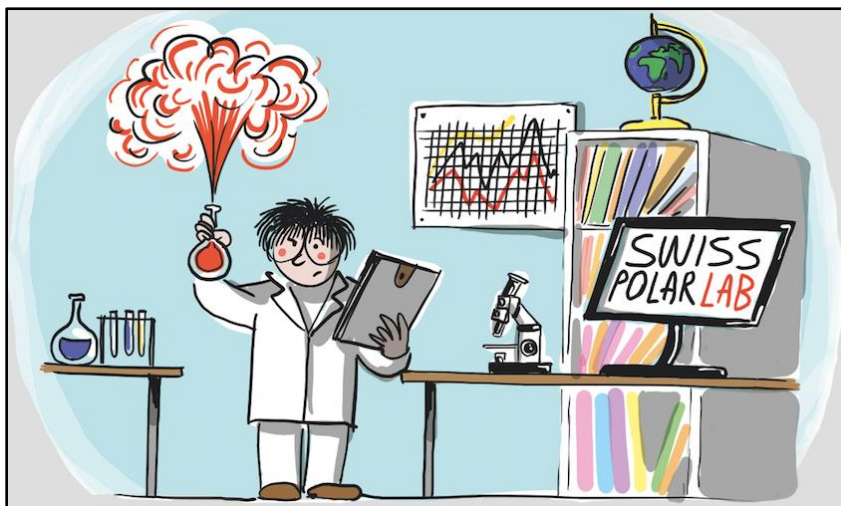


Image from the Swiss Polar Class materials. The Swiss Polar Lab is a selection of experiments to be reproduced in class or at home.

**Swiss Polar Class milestones in 2020**

Date	Milestone of the programme
23 March 2020	Official launch of the website
1 April	Drawing contest – 60 drawings received
9 June	Presentation for a class in Lutry (VD)
26 August	First meeting of the Swiss Polar Class Advisory Committee
October-November	18 presentations in 6 different classes (VD – GE)
5 November	Launch of the new theme about polar animals
End of November	Website reformatting
14-15 December	Event involving 6 classes in Bussigny (VD)



Photo taken during a presentation by Paul Ducommun, Swiss Polar Class Project Manager Romandie, in a class in Bussigny (VD).

**5) Events**

The events organised by the SPI, whether annually or one off, all have the objective of supporting the polar scientific community or raising awareness with the general public of the role of polar science.

The main gathering of the year organised by the SPI is the Swiss Polar Day. After cancelling the event in April due to the COVID-19 situation, the SPI team organised a hybrid version of the event in October.

It is also worth mentioning that the event dedicated to the polar social sciences and humanities (SSH) brought together a significant number of polar SSH players, with a broader range of scientific fields compared to the previous event of this type.

**Events organised by the SPI in 2020**

Date	Event	Location	Details
18 February 2020	Workshop “Polar Social Sciences & Humanities: Spotlight on Swiss Research” 27 participants	Bern	Workshop dedicated to the polar SSH community in Switzerland
5 October	Presentation of SPI activities 35 participants	Lausanne/Online	Presentation and promotion of SPI activities to UNIL researchers and students
8 October	Round-table on Swiss – French polar collaboration 15 participants	Lausanne/Online	Round table and exchange between EPFL/Swiss researchers and IPEV Director, Jérôme Chappellaz
18 October	Swiss Polar Day 100 participants	Zurich/Online	Annual conference dedicated to the Swiss polar community
11 November	Signing ceremony between SPI and the Australian Antarctic Division	Online	Official event and workshop celebrating the signature of an MoU between the two organisations
20 November	Workshop “Data management in the field” 15 participants	Online	Workshop for Polar Access Fund grantees to exchange best practices regarding data management in the field
17 December	Workshop “PolARTs lessons learnt” 15 participants	Online	Workshop dedicated to the PolARTS grantees, to allow the tandems to discuss their experiences and evaluate the programme



Top left: Workshop “Polar Social Sciences & Humanities: Spotlight on Swiss Research” at the Swiss Academy of Human and Social Sciences in February.

Top right: Swiss Polar Day, held in person and online at UZH in October.

Bottom left: Presentation of SPI activities in October at UNIL, new member of SPI since 1 January 2020.



**Attendance at external events and conferences in 2020**

Date	Event	Location	Details
13 February	Night Polaire	Lausanne	Event organised by the Musée de la main – presentation by the SPI and Samuel Jaccard about Swiss polar research
3 March	Standing Committee of Antarctic Data Management (SCADM) meeting	Online	SPI Swiss representative on SCAR's SCADM
4 March	EPFL Data Champions	Lausanne	SPI as a participant, preparation of research data management support FAQs
2 April	EPFL Data Champions	Online	SPI as a participant, knowledge sharing
27 April	SCADM meeting	Online	SPI Swiss representative
30 April	Swiss Commission on High Altitude and Polar Research (SKPH) meeting	Online	Presentation of SPI news
1 May	Swiss Polar Foundation board meeting	Online	Report on SPI news
25 May	SCADM meeting	Online	SPI Swiss representative
8 June	COMNAP seminar about COVID-19	Online	SPI as a participant
29 June	SCADM meeting	Online	SPI Swiss representative
30 June	Polar to Global Online Interoperability and Data Sharing Workshop/Hackathon	Online	SPI participated in polar data policy drafting
4 August	SCAR data workshop	Online	SPI as a participant
5 August	COMNAP AGM	Online	SPI invited as observer delegate
2 September	Polar to Global Online Interoperability and Data Sharing Workshop/Hackathon	Online	SPI participated in polar data policy drafting
22 September	COMNAP informative conference about COVID-19	Online	SPI as a participant
28 September	SCADM meeting	Online	SPI Swiss representative. Presentation of country report for Switzerland
27 October	Arctic Circle VIRTUAL Dialogue	Online	Arctic Circle meeting with leaders from the historic MOSAiC expedition
26 October	Kick-Off meeting of EU-PolarNet 2	Online	SPI as a partner of the consortium
26 October	SCADM meeting	Online	SPI Swiss representative
26 to 30 October	European Polar Science Week	Online	Specialised series of events organised by the European Commission, EU-PolarNet 2, the European Executive Agency for SMEs and the European Space Agency
5 November	SKPH meeting	Online	Presentation of SPI news
23 November	SCADM meeting	Online	SPI Swiss representative
24 November	COMNAP session about the gateway protocols in Cape Town, South Africa	Online	Update session organised by the Dronning Maud Land Regional Break-out Group – SPI as participant
27 November	Swiss Polar Foundation board meeting	Online	Report on SPI news
9 December	Conference "Are we on track to achieve the goals of the Paris Agreement?"	Online	Event organised by the Embassy of Switzerland in Moscow, with a Swiss-Russian panel
14 December	SCADM meeting	Online	SPI Swiss representative

Despite the complicated situation, the SPI participated in multiple events and conferences organised online throughout 2020. Many of them were dedicated to logistical issues linked to COVID-19 and helped SPI to relay the concerns and questions of the Swiss polar science community to international organisations and groups.



## E) Collaborations

In spite of the absence of physical travel, 2020 was an important year for the SPI to reinforce its partnerships and develop further new collaborations with international partners.

### 1) Collaborations in Switzerland

The SPI participates twice a year in the Swiss Committee on Polar and High Altitude Research (SKPH) as an ex-officio member. The SKPH is also represented in the SPI's governance. This allows for smooth communication about each organisation's activities.

The SPI also has informal exchanges with numerous other Swiss climate sciences and science policy organisations and groups.

In 2019, the SPI applied for the status of "research institution of national importance", a status granted by the Swiss Confederation to research institutions that have a high added-value and structuring effect on the Swiss research landscape.

On 21 December 2020, the SPI was thrilled to receive confirmation that its request had been granted for the funding period 2020-2024, hence enabling the SPI to further develop its activities and launch the SPI Flagship Initiatives in 2021.

### 2) International collaborations

Collaboration with international partner organisations is a crucial element of any work in polar and high-altitude regions. As far as multilateral organisations are concerned, the SPI continues to represent Switzerland within the Forum of Arctic Operators (FARO) and the Committee of Managers of National Antarctic Programmes (COMNAP) set up under the Antarctic Treaty. Additionally, the SPI Data Manager represents Switzerland on the Standing Committee of Antarctic Data Management (SCADM).

In 2020, the SPI also became a partner in the EU-PolarNet 2 consortium, an EU-funded project bringing together all the European polar organisations to develop joint activities and strategies as well as to provide support to EU science policy.

A Statement of Commitment between the SPI and the Australian Antarctic Division (AAD) was signed on 11 November 2020. Its objectives are to promote, strengthen and facilitate cooperation in Antarctic research, and to create synergies relating to wider fields of polar science, notably high-altitude and extreme-environment research.



The AAD and the SPI signed a new Statement of Commitment virtually. Photo: Dan Broun

### 3) Sponsorship

In 2020, the SPI renewed its partnership agreement with the BNP Paribas Swiss Foundation for a period of three years. Through the Polar Access Fund, this partnership is dedicated to funding early-career scientists working on climate change to undertake a field trip in a polar or high-altitude region.

The SPI was also fortunate to count on the close collaboration and support of the Swiss Polar Foundation, which notably finances the SPI Technogrants, the Swiss Polar Class and the Arctic Century Expedition.

In particular, in view of the current situation, the SPI is very thankful to its partners and donors for their renewed trust and excellent collaboration in 2020.

## F) Internal developments

### 1) Institutional communication

The new SPI website ([www.swisspolar.ch](http://www.swisspolar.ch)), created in 2019, was enriched with diverse content and the development of multiple new pages. All the members of the SPI team participated in this effort to ensure that the website provides an intuitive navigation and a dynamic up-to-date content.

The SPI contacts database (approx. 1,500 contacts) is regularly updated to ensure that general communication reaches as many people as possible and that the targeted mailings are addressed to the sub-lists of contacts interested in a particular area.

The ACE website (<https://spi-ace-expedition.ch/>) and Twitter account (@ACE\_Expedition) helped the SPI to stay in contact with these research groups and to advertise their publications and data sets.

During 2020, the SPI continued work on an internal online platform for organising its funding instruments. From application submission to grant management, it captures the selection processes of the proposals and management of the funded projects. Applications are entered, evaluations are registered and then, for the funded projects, all the information such as invoices, reports, media outreach, etc. are recorded. It is accessible to the SPI team and integrated with other systems like the website.

#### SPI communication tools - Summary

SPI Twitter account @Swisspolar	852 followers	Launched October 2017
ACE Twitter account @ACEexpedition	1,075 followers	Launched December 2016
SPI contacts database	Approx. 1,500 addresses	
General mailings in 2020	4	February, July, August and November
SPI website	Approx. 8,000 visitors and 32,660 page views in 2020	

### 2) SPI Secretariat

In the middle of the year, Anita Feierabend joined the SPI team as the Swiss Polar Class Project Manager Deutschschweiz. She mainly works on the development and expansion of the Swiss Polar Class programme in the German-speaking part of Switzerland.

**SPI staff (as at 31.12.2020)**

Paul Ducommun	Swiss Polar Class – Project Manager Romandie
Basil Fahrlander	Scientific Collaborator
Anita Feierabend	Swiss Polar Class – Project Manager Deutschschweiz
Christel Hassler	Scientific Collaborator
John Maxwell	Web and Communication
Laurence Mottaz	Administrative Assistant
Charmilie Nault	Scientific Collaborator
Carles Pina Estany	Systems Architecture
Danièle Rod	Executive Director
Nina Schuback	Scientific Collaborator
Jenny Thomas	Data Manager

**3) SPI Board of Directors**

The SPI Board of Directors is the decision-making body of the SPI organisation hierarchy. Its members, representatives of SPI's funding institutions, make the main strategic, financial and organisational decisions. In 2020, the Board of Directors met online twice, on 29 April and 9 November. In between these two meetings, the members were consulted in writing on various important issues related to SPI governance.

**SPI Board of Directors (as at 31.12.2020)**

Prof. Martin Vetterli – Chair	EPFL
Dr. Frederik Paulsen	Editions Paulsen
Prof. Detlef Günther	ETHZ
Prof. Christoph Hegg	WSL
Prof. Christian Leumann	University of Bern
Prof. François Bussy	University of Lausanne

The State Secretariat for Education, Research and Innovation, the Federal Department of Foreign Affairs, the Swiss Commission for Polar and High Altitude Research as well as the chair of the SPI Science and Technology Advisory Board and the SPI Directorate are present as guests at SPI Board meetings.

From 1 January 2021, the University of Zurich will join as a new SPI member. The Board of Directors will therefore include one more representative, Prof. Beatrice Beck Schimmer. She joined the 9 November meeting, where the decision was formalised.

**4) SPI Science and Technology Advisory Board (STAB)**

The STAB of the SPI is composed of experts active in various fields of polar and Earth sciences. It advises the SPI on scientific activities and gives guidance on the priorities of the Institute. The STAB met online on 13 February, 16 April, 30 June and 28 September 2020.

Following the end of their terms, Co-Chairs Karin Lochte and Thomas Stocker, as well as Gerald Haug stepped down in April 2020. The STAB therefore elected a new Chair and Vice Chair in spring 2020.

**SPI STAB members (as at 31.12.2020)**

Gabriela Schaepman-Strub (Chair)	University of Zurich, Switzerland
Björn Dahlbäck (Vice Chair)	Sweden
Jane Francis	British Antarctic Survey, United Kingdom
Frédéric Herman	University of Lausanne, Switzerland
Philippe Gillet	EPFL, Switzerland
Christian de Marliave	Editions Paulsen, France
Heini Wernli	ETHZ, Switzerland
Hubertus Fischer (SKPH delegate)	University of Bern, Switzerland
Patricia Holm (SKPH delegate)	University of Basel, Switzerland

Lausanne, 22 March 2021