

**A N N U A L
R E P O R T
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LETTER FROM THE CHAIRMAN

According to the World Meteorological Organisation, 2023 was the hottest year on record. Several temperature records all over the world were shattered. Sea levels are rising and Antarctic sea ice has been at a record low. Extreme heat and weather events caused billions and billions of dollars in damage.

As the effects of climate change impact our daily lives more and more, it is impossible to deny that climate change is something that we all must urgently address. It is impossible not to think about future generations who will have to live with the effects of this climate change.

As an entrepreneur, I have never shied away from challenges and I have always focused on solutions, with a view to the future and the next generation. This is the philosophy that drives the International Polar Foundation. We take action. This is why we took the initiative to build the world's first (and to date only) zero-emission polar research station, to provide a platform for scientists to conduct research in Antarctica that contributes to a better understanding of how climate change is affecting us all and allows scientists to do their important research with a reduced environmental footprint.

During the 2023-24 Belgian Antarctic Research Expedition (BELARE), the International Polar Foundation team finished upgrading the water treatment system at the Princess Elisabeth Antarctica. Initially designed to accommodate 20 occupants when the station was first completed in 2009, and already going above and beyond the requirements of the Madrid Protocol to the Antarctic Treaty for environmental stewardship in Antarctica, demand from scientists from around the world to do research at the zero-emission station had increased.

The new water treatment system now makes it possible to accommodate 50 people at the station. It goes to show what we can accomplish when we apply ourselves! We can be proud of our accomplishments.

And while we will continue to support the important research of scientists at the Princess Elisabeth Antarctica station, in the coming years the International Polar Foundation always looks to the future to support future generations of scientific researchers. In the coming



years we will start work on a new zero-emission research station in East Antarctica with even more advanced renewable energy technologies: the Andromeda Earth Observatory.

As we plan to partner with several universities around the world, the new Andromeda station will be the first international station in Antarctica, and it will host the first Antarctic university. It will have a research and development department, as well as an environmental research department.

We aim to attract the best researchers from around the world, who will have the benefit of being able to do research at a station that reduces the environmental footprint of their important work.

This new zero-emission research station will strengthen Belgium's leadership position in the world in environmental stewardship and development of renewable energies. But it will also lay the foundations for the future in Antarctica. It will inspire young people to dream big.

The International Polar Foundation continues to inspire the next generation through our education and outreach activities, whether through in-person classroom visits or online webinars directly from the Princess Elisabeth Antarctica!

This past year we contributed to an exhibition at MAS on the history of Belgium's polar exploration and research in Antarctica from the Belgica research expedition in 1897-99 led by Adrien de Gerlache to the Princess Elisabeth Antarctica, an exhibition that is sure to inspire young people!

We also focus on inspiring young people in the Arctic, through the Laurence Trân Arctic Futures Award. Handed out every year at the annual Arctic Futures Symposium, which discusses topics of importance to Arctic stakeholders and includes a very strong youth component, this award provides financial assistance to young entrepreneurs living in the Arctic looking for sustainable solutions for their communities. The 2023 laureate, Gobmi, is a sustainable clothing firm founded by two young sisters from the indigenous Saami community.

The International Polar Foundation will continue to look forward and seek ways to inspire, because inspiring the next generation is the only way to guarantee continued forward movement towards a more sustainable future and addressing the challenge of climate change.

THE INTERNATIONAL POLAR FOUNDATION

CONNECTING SCIENCE TO SOCIETY

The International Polar Foundation supports polar scientific research for the advancement of knowledge, evidence-based decision making on climate change, and the development of a sustainable society. Founded by Belgian polar explorer Alain Hubert, Prof. Hugo Declair, and Prof. André Berger in 2002, the Brussels-based International Polar Foundation provides a novel interface between science and society.

It was recognized by Executive Order as a private foundation with a public service mandate in 2002. HM King Philippe is the International Polar Foundation's Honorary President since 2002.



MISSION AND VISION

The Foundation seeks to bring about a keener appreciation of the role of science in evidence-based decision making. In particular, research in the Polar Regions, allows a thorough examination of the planet's interconnections, its fragility, the impact of human actions on the environment, and the evolution of millennial climate cycles.

To achieve its aims, the Foundation has initiated several high-profile projects, including supporting polar science through the creation and operation of the Zero Emissions Princess Elisabeth Antarctica station, which runs entirely on renewable energy. In this, the IPF partners with the Belgian State through the Belgian Polar Secretariat.

The IPF also supports scientists working in Antarctica, directly in field research and development of technical support actions, and indirectly through initiatives such as the fellowship awards for Antarctic researchers, an annual symposium on Arctic issues, organisation of seminars, exhibitions and installations, and development of science and education websites, offering classroom activities and multi-media resources for bolstering STEM learning.

SUPPORT polar science & policy making

Logistic support to Scientists*

2002-2022: Alain Hubert: measurements in the field for scientists

2007: International Polar Year: construction of Princess Elisabeth Antarctica
 2009: Inauguration of Princess Elisabeth Antarctica research station
 2010: IPF official Antarctic Operator for Princess Elisabeth Antarctica

 Data capturing
(manual & automated)

 Carpentry,
Custom demands

 Mobile Field Units

 Logistic Field Support

 Safety & Safety Training

 Data storage & transfer:
- near realtime
- daily
- yearly

*This list is non-exhaustive

Structural support to Scientists & Policy Makers

ARCTIC FUTURES Conference



- Since 2010: Yearly conference in Brussels
- Since 2018: Arctic Shorts Film Evening @BOZAR

<https://www.arcticfutures.org>

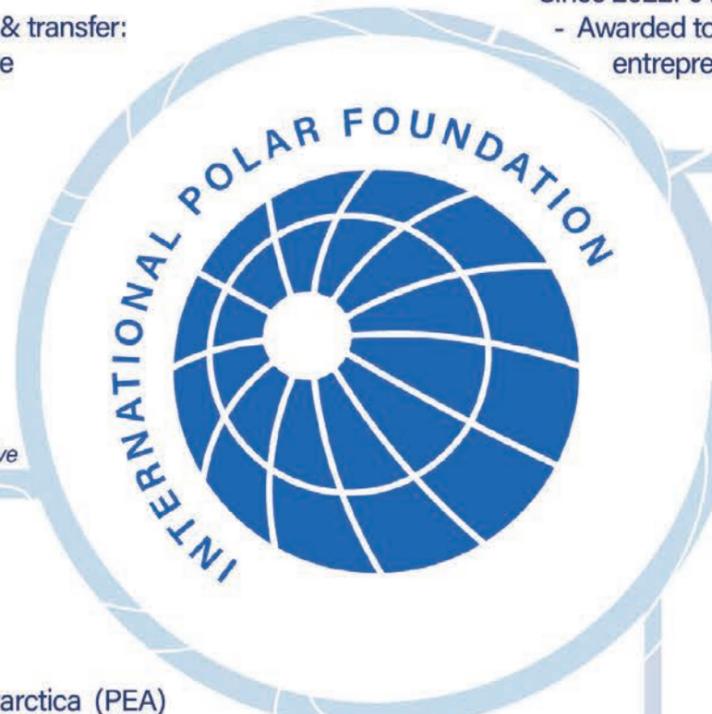
LAURENCE TRAN Prize

- Since 2022: € 7,500 Award
- Awarded to young Arctic entrepreneurs or startups.

INBEV-BAILLET LATOUR Antarctica Fellowship



- 2008-2018
- € 150,000 Fellowship Award
- Supports two field seasons at Princess Elisabeth Antarctica
- Open to PhD students & young post-docs



EDUCATE and inspire the public at large

Projects 2002-2021

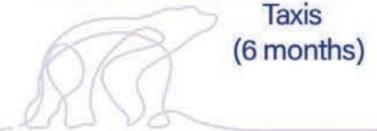
Educapoles
website for educators (2005-2015)
www.educapoles.org

Class Zero Emission
permanent school visitor center in Brussels



2 Polar Quest Teacher Contests
class contest with winning teacher going to PEA.

3 Exhibitions
'Damocles': travelling expo
'XieXie Shangai' world expo
'Inside the Station': Tour & Taxis (6 months)



Projects 2022-2024

In-school & online workshops

- Primary, secondary & higher education, private organisations, e.o.
- Topics: the polar regions, climate change, antarctic research & logistics

Participation in events

- Teachers conferences
- Day of Science, Ekoli Questival, Nerdland Festival, e.o.

Live online class talks from PEA

- Engineers @PEA presenting directly from Antarctica.

1 Exhibition content development

- 'Naar Antarctica': MAS Antwerp (4,5 months)

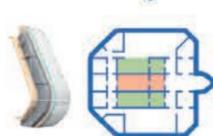
Development of new materials, projects, website ongoing



DEMONSTRATE through sustainable innovation

The IPF has built and operates the Princess Elisabeth Antarctica (PEA) research station. Out of the more than 80 stations in Antarctica, PEA was the first, and is still the only zero-emission research base on the continent.

Passive design



Renewable energy production



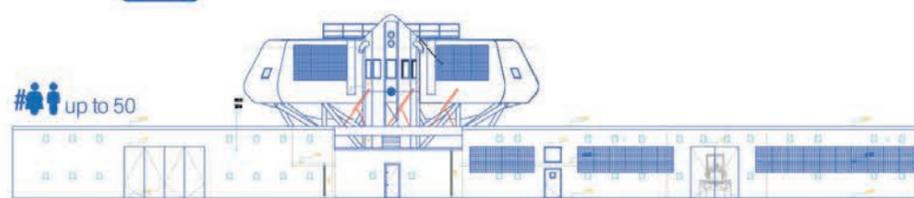
Smart Grid regulating production & demand



Water recycling



up to 50



In 2022, PEA welcomed the world's first electrical tracked vehicle, the *Venturi Antarctica*, to operate in Antarctica. This is another milestone in the progress towards more sustainable scientific activities in Antarctica.



THE BELGIAN POLAR SECRETARIAT

The Belgian Polar Secretariat is a public-private partnership, which is comprised of six representatives of Belgian Ministries (cabinet level) and six representatives of the private sector nominated by the IPF.

Every year, the IPF and the Polar Secretariat sign an agreement setting out the terms and conditions of the partnership, in line with the original Protocol signed in 2010. This includes operations (logistics, station maintenance and science support) and representation of the Belgian State at certain international coordination meetings, such as the DROMLAN (the Dronning Maud Land Air Network), and the COMNAP (Committee of Managers of National Antarctic Programs).

The IPF also works closely with the different Ministries involved in Antarctic matters, in particular the SPF Environment, which is responsible for permitting the activity in Antarctica in line with the Madrid Protocol and its enabling legislation. The IPF submits a permit request to the Belgian competent authorities in collaboration with the Belgian Polar Secretariat every year, and provides an end of Mission Environmental Impact and Mitigation Report in line with the conditions of the Environmental Permit.



BELGIAN POLAR SECRETARIAT

ACTIVITIES OF THE IPF

ANTARCTIC OPERATIONS

The International Polar Foundation is the privileged partner of the Belgian State under the agreements signed between the parties in 2007 and 2009.

The Foundation is mandated to manage the Princess Elisabeth Antarctic Research Station by the Belgian Polar Secretariat. Antarctic operations are managed through the Belgian Antarctic Research Expedition - BELARE asbl, a subsidiary of the IPF.



Princess Elisabeth Antarctica



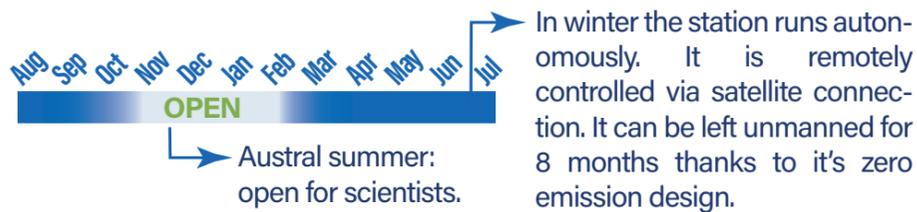
What?

1st and **ONLY** zero emission research station in Antarctica demonstrating how today's energy challenges can be tackled in order to secure a sustainable future.

A base where scientists can conduct world-class research in fields like Climate & Weather, Glaciology, Geology, Geodesy, Biology, Space & High Atmospheric Sciences, etc., while minimizing their carbon footprint.



2007-2008 → 2008-2009 →  15 Feb 2009



Utsteinen Ridge - North of Sor Rondane Mountains, Dronning Maud Land, Antarctica.

71°57'S
23°20'E



Equipment & Facilities



Satellite dish allowing efficient communication & high-speed data-transfer from the field.



Observatories and Science Shelters in the vicinity of Princess Elisabeth Antarctica, hosting permanent & temporary scientific instruments.



Operational machines, snow tractors and vehicle park (Prinoth, skidoo, container side loaders, etc.)



Technical Workshops (building, electronic & vehicle maintenance)



Mobile solar-powered energy field units producing up to 25 kWh per day that scientists can use while on extended research missions in the field

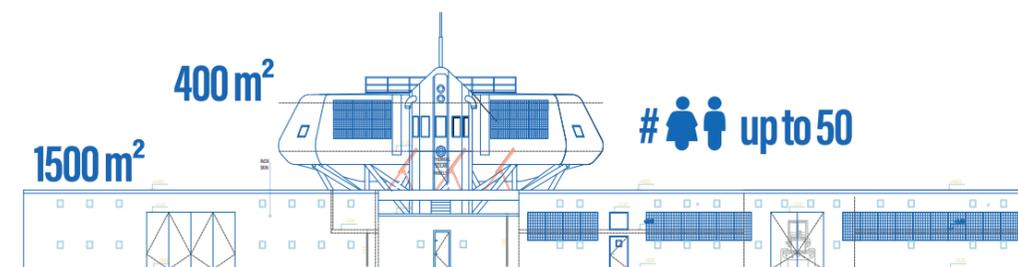


Automated Weather Stations measuring meteorological parameters at different locations.



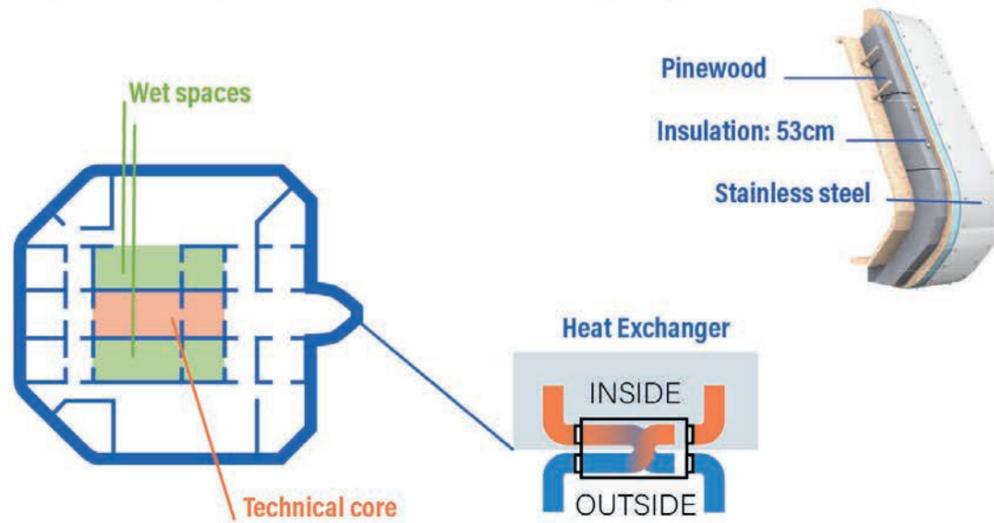
2022 NEW!

The world's first electrical vehicle capable of running & supporting scientists in the harsh environment of Antarctica.



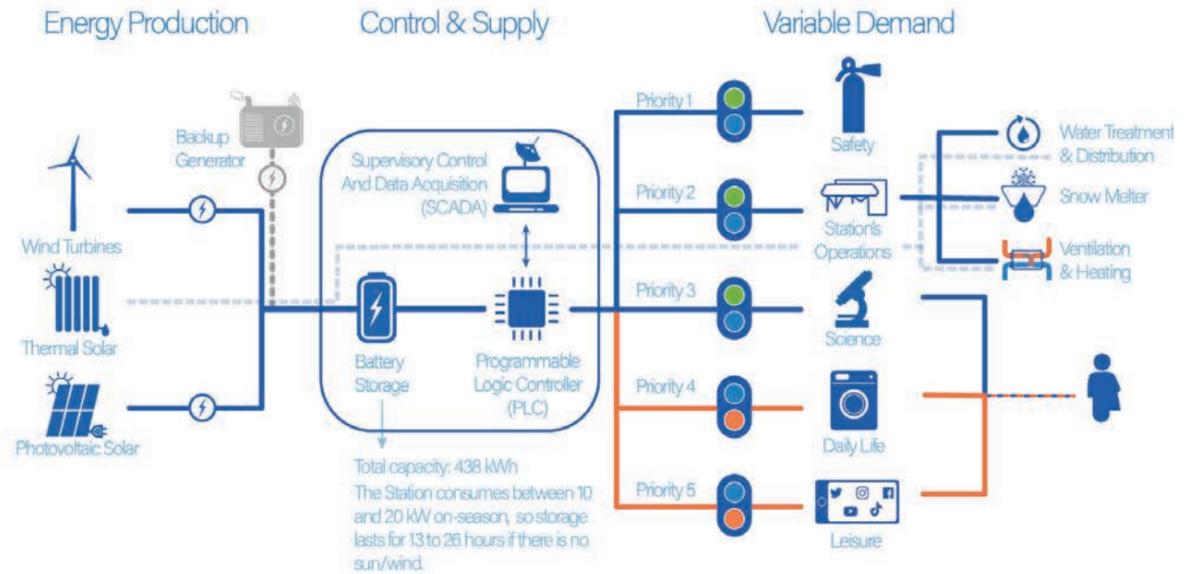
Unique Design

The station's shape, orientation, skin, insulation, and window disposition allow a comfortable ambient temperature to be maintained inside the building with little energy input. The station's operation systems are located at the core of the building, with the outer rooms serving as an extra layer of insulation to avoid freezing during winter.



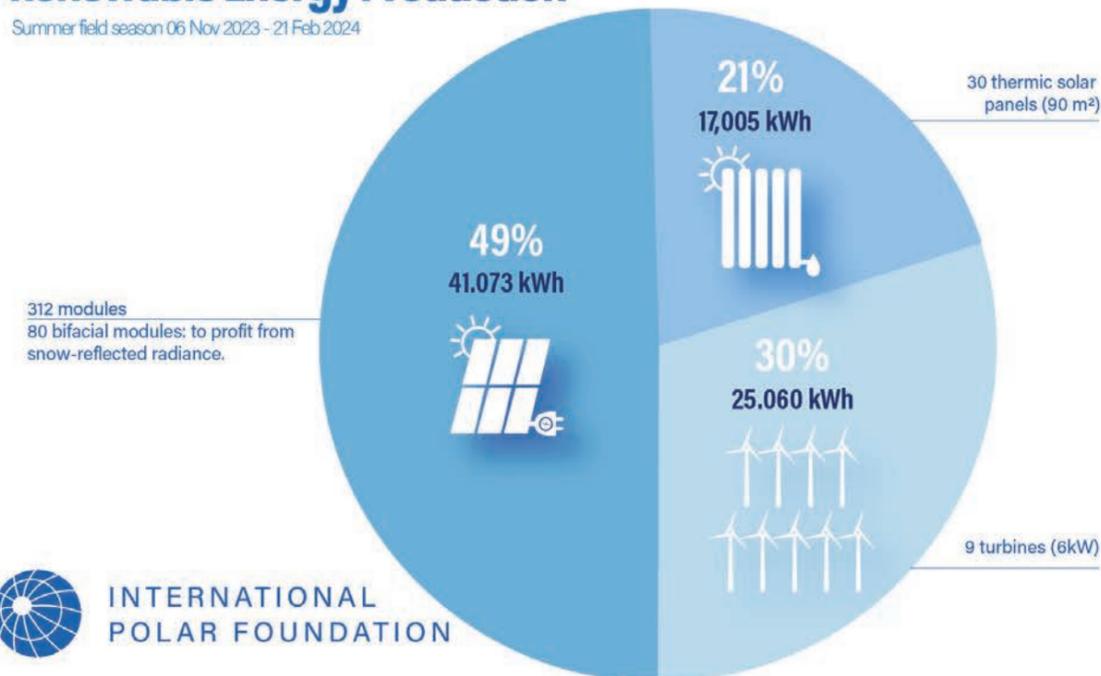
Intelligent Systems

The renewable energy production is variable, hence, an intelligent system balances available energy and energy demand through a system of dynamic prioritisation.



Renewable Energy Production

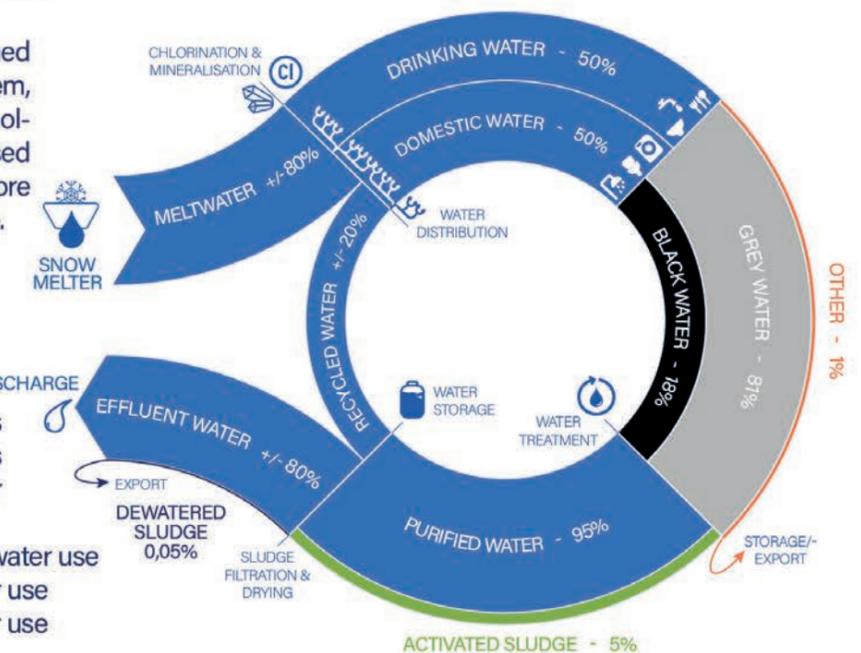
Summer field season 06 Nov 2023 - 21 Feb 2024



Water Treatment

A uniquely designed water treatment system, inspired by space technology, allows 95% of used water to be treated before discharge and/or reuse.

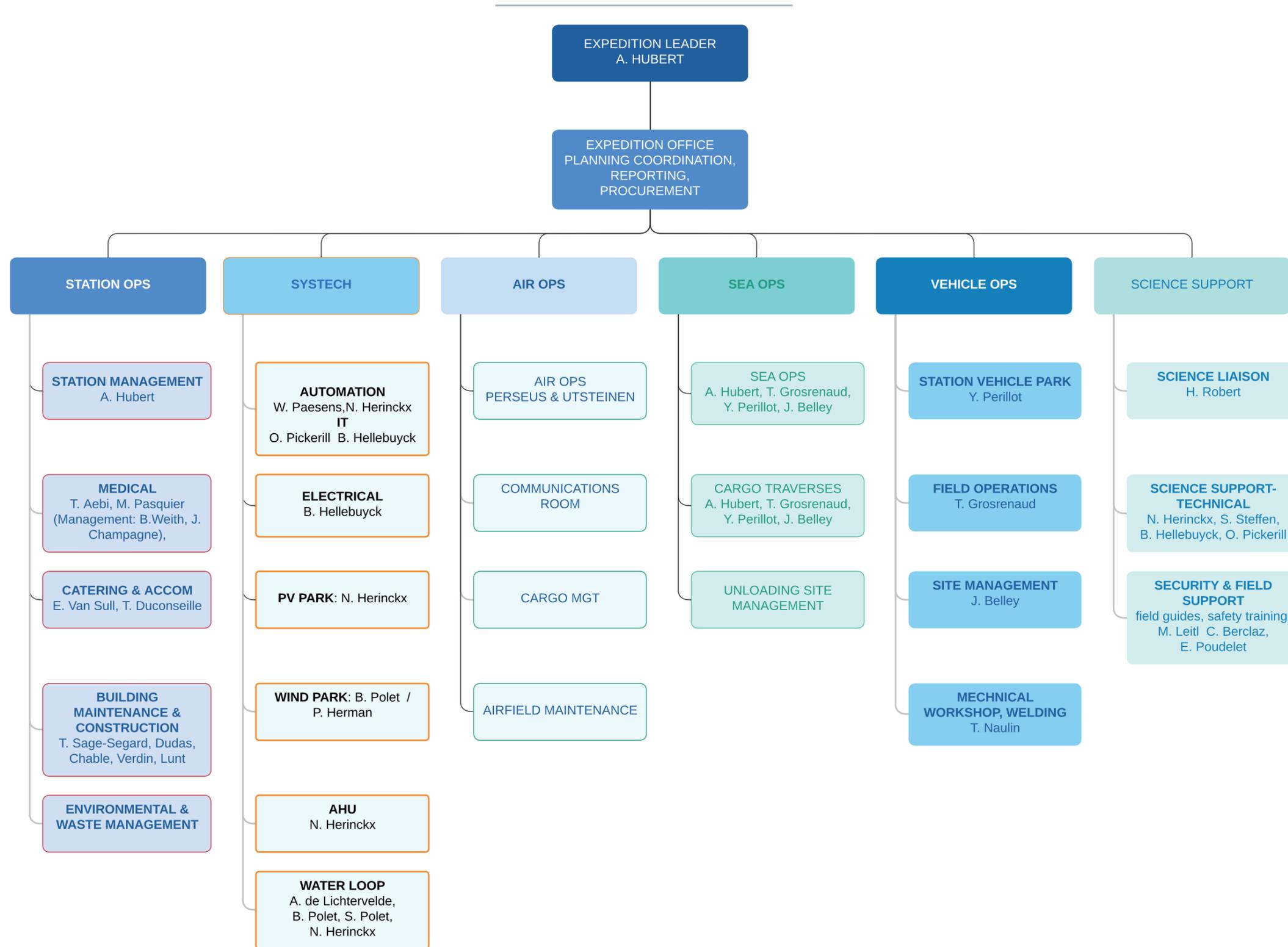
Water use at Princess Elisabeth Antarctica is about 35-45 liter per person, per day, = 1/2 average Belgian water use = 1/3 average EU water use = 1/5 average US water use



Note: the water treatment unit was renewed during the season 2023-2024, making it capable to recycle 40% of the used water. It will be operational during field season 2024-2025.



PRINCESS ELISABETH OPERATIONS 2023-2024





BELGIAN ANTARCTIC RESEARCH EXPEDITION

BELARE 2023-2024

The 2023-2024 season at the Princess Elisabeth Antarctica saw the completion and inauguration of the station's new water treatment system, which now allows the station to accommodate up to 50 people comfortably, and allows the station to go even further beyond the requirements of the 1991 Madrid Protocol to the Antarctic Treaty.

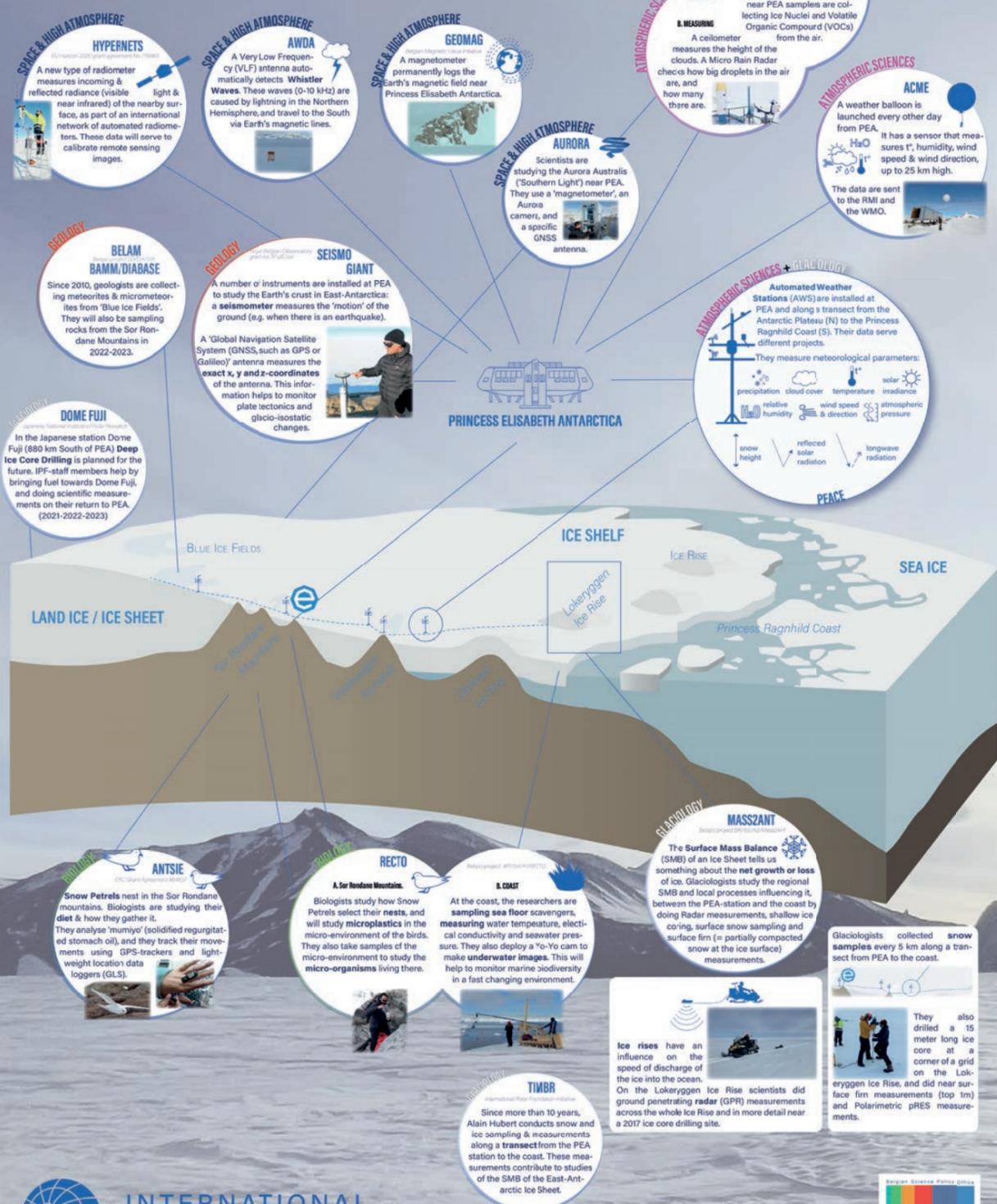
It also saw the BELARE team welcome a number of international scientists, both expected and unexpected. Teams from the Alfred Wegener Institute in Germany and the Chinese Polar Research Institute both used the Princess Elisabeth Antarctica as a base from which to conduct aerial surveys of ice shelves at the coast of Antarctica for the international RINGS project. And a few weeks into the season, bad weather forced a team of transiting Indian scientists to stay at the station for several days. The Indian team was warmly welcomed by the BELARE team for the extra days they had to stay, a gesture that was greatly appreciated by the Indian Antarctic Programme.

The 2023-2024 season also saw a lot of outreach to schools and universities, with the highlight of the season being the "Live from Antarctica" event on January 31st, 2024 hosted at the Princess Elisabeth Antarctica station, which saw hundreds of online participants learn about the zero-emission functioning of the station and many of the research projects taking place there. It was so successful that the team at the station plans to repeat this kind of event in future seasons.



SCIENCE @ PRINCESS ELISABETH ANTARCTICA

Field seasons 2021-2022-2023 PEA = Princess Elisabeth Antarctica



SCIENCE AT PEA

Since its inauguration in 2009, the Princess Elisabeth Antarctica (PEA) research station has helped scientists from all over the world perform their research on the Earth's southernmost polar continent. The station is operational year-round and remotely accessible for scientific data acquisition. PEA regularly hosts international research teams on a yearly basis from November to February. Fields of investigation are as diverse as glaciology (the study of the ancient composition of our atmosphere, mass balance, glacier movements and their implications for ocean level rise and fertilisation), atmospheric sciences with a large spectra of research topics (atmospheric properties and composition, formation of clouds, precipitation, long-range transit of particles, etc.), geology, seismology, gravimetry, astronomy, biology, ecology, biogeography, microbiology and human health in extreme environments to name a few. The arts and social sciences have not been left out as photographers, film makers, playwrights, and educators have also visited PEA for various projects.

AWDA

BIRA/IASB, ELTE

Science Support PEA/IPF

Funded by BELSPO

Led by the Space Physics Division of the Royal Belgian Institute of Space Aeronomy (BIRA-IASB) and Eötvös Loránd University (ELTE) in Hungary, the BELPSO-funded AWDA project has been monitoring whistler waves for several seasons. Whistler waves are a particular type of electromagnetic wave that propagates from one hemisphere to another in Earth's protective magnetosphere. Studying these waves helps researchers to better understand the state of the part of Earth's magnetosphere referred to as the plasmasphere (containing low-energy plasma) and to model its behaviour.

A VLF (Very Low Frequency) magnetic antenna connected to data processing equipment was built at the Princess Elisabeth Antarctica in 2016 as part of a global network of similar antennas designed to monitor these waves. During the 2023-24 season the IPF team performed annual maintenance on the antenna and downloaded data on a hard disk, which was then brought to scientists in Europe. This year included maintenance of the equipment to support continuity of the research.

The antenna was relocated 20 meters closer to the northern scientific shelter during the 2023-24 season to avoid damage due to the glacier's movement on which the antenna is installed



PEACE - ACME

PEACE - ACME

Science support PEA/IPF

Co-funded by the IRM/KMI and the IPF

The ACME project (or Air Column Moisture Evaluation) is part of the Princess Elisabeth Antarctica Climate Experiments (PEACE) projects, which started in 2012 in collaboration with the late Director of the Swiss Federal Institute for Forest, Snow and Landscape Research (WSL), Konrad Steffen.

Currently, in partnership with the Royal Meteorological Institute of Belgium (IRM/KMI), every two days each season IPF launches a weather balloon equipped with radio sounding instruments to take an atmospheric profile. As the balloon rises 25 to 30 km into the atmosphere, it collects data profiles of temperature, wind speed, humidity, precipitation, and air pressure. The purpose of this exercise is to obtain a long time series of weather data for climate models and GPS data.

Professor Koni Steffen provided the first ground station for the project. Today the IPF has acquired a modern GRAW ground station to support this activity. The WMO-harmonised data that is collected is then sent to the international weather and climate modelling community so it can contribute to regional weather and climate forecasts, within the framework of the WMO's Year of Polar Prediction (YOPP).

Professor Steffen also set up the first Automatic Weather Stations during the 2012-2013 campaign that have now been in operation for 12 years. The first AWS stations were installed by the Princess Elisabeth Antarctica airport roughly one kilometre from the base. The other station installed that season was set up close to the plateau on the Gunnerstadt glacier at nearly 2,450 metres elevation.

The AWS transect has grown over the years and now includes 6 AWS stations spread over a nearly 250 kilometre transect. During the 2021-2022 campaign the two outermost stations were installed. One station is close to the coast on the L0 ice rise, while the other was installed at 2,500 metres elevation on the Antarctic plateau.

All the stations are now equipped with an iridium communication system that allows for the data to be sent and collected via satellites and makes the data accessible throughout the year.

There are plans to expand the network even further, primarily with equipment that made up the old Greenland Climate Network. The exact locations for future stations are still being discussed, in collaboration with Dr. Eric Rignot (University of California, Irvine) who has made some suggestions for potentially interesting sights, where an additional AWS could shine a light on some of the processes that are still not well understood or captured by climate models and scientists alike.





EXOSOILS

UGent, ULiège, RBINS
Science Support PEA/IPF
Funded by BELSPO

The EXOSOILS project is studying the effects of increased temperature and snow cover on the biodiversity and genetic functional potential of microbial communities.

During the 2023-24 season, Valentina Savaglia (University of Liege), Björn Tytgat (UGent) and Quentin Vanhellefont (Royal Belgian institute for Natural Sciences) took samples from existing open-top chambers and snow fences in the vicinity of the station, collected data from data loggers, installed time-lapse cameras, and re-installed the HYPSTAR radiometer (which had previously been developed for and used by the EU-financed HYPERNET project) to monitor solar radiation reflectance as well as to measure the effect of experimentally induced environmental change



CLIMB

CLIMB IRM/KMI/ IASB/KUL/ - Science support PEA/IPF - Funded by BELSPO

The water droplets that make up clouds form around tiny particles in the atmosphere, and the precipitation that forms and falls to the surface of the Antarctic Ice Sheet influences its mass balance (how much ice mass is gained or lost over time).

The BELSPO-funded CLIMB project, led by the Royal Meteorological Institute of Belgium, KULeuven, the Royal Belgian Institute for Space Aeronomy (BIRA-IASB) and the University of Ghent, is investigating the role of ice nuclei particles and organic compounds in the atmosphere and their influence on cloud formation and precipitation in Antarctica.

A total of 13 instruments collect meteorological data, as well as aerosol, cloud, and precipitation data at cloud level in two locations: at PEA, and at the edge of the Antarctic Plateau 60 km south of the station, at the edge of the plateau, at an altitude of 2800 metres.

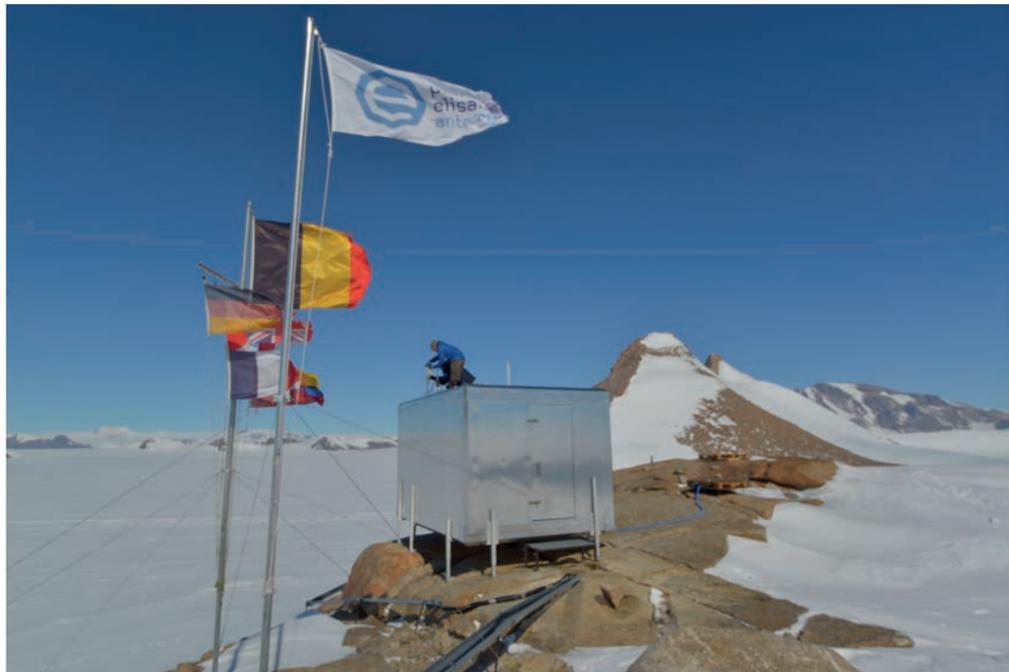
IPF engineers performed necessary maintenance on the 13 instruments collecting data for the project during the 2023-24 season.

SEISMO

Royal Observatory of Belgium
 Science support PEA/IPF
 Funded by BELSPO

One of the longest-running research projects at PEA, this project of the Royal Observatory in Brussels not only studies micro quakes created by the movement of glaciers in the vicinity of PEA, but also measures seismic activity further afield. IPF engineers assist researchers from the Royal Observatory with the maintenance of seismometers at the Princess Elisabeth Antarctica every season.

The SEISMO (originally called LISSA) project gathers unique information about Earth's lithosphere and microseismic activity in East Antarctica as a proxy measure of glacier movement. A surface seismometer sits on Utsteinen Ridge in the Northern Science Platform (GEOS) near the Princess Elisabeth Antarctica station.



AURORA

NIPR
 Science support PEA/IPF
 Funded by NIPR

Led by the Japanese National Institute of Polar Research (NIPR), the AURORA project aims to observe the spatial and temporal evolution of aurora by building an aurora observation network along the coast of the Queen Maud Land in East Antarctica. This includes studying the onset mechanisms of auroral substorms (which produce mild aurora), the temporal and spatial variation of auroral phenomena, the wave-particle interaction process during an auroral substorm, and a full on auroral storm (which produce vivid auroras).

PEA has been part of this aurora observation network since January 2020, when NIPR researchers installed at PEA an auroral observation system (Unmanned Aurora Observatory; UAO-2), which is composed of a Fluxgate Magnetometer, an aurora camera and a Global Navigation Satellite System (GNSS) antenna.

The magnetometer is installed on Utsteinen Ridge next to the station, while the camera and GNSS antenna are installed on the roof of the station. During the 2023-24 season, IPF engineers performed maintenance to ensure data on aurora continued to be sent to scientists.



GIANT

University of Luxembourg
 Science support PEA/IPF
 Funded by the University of Luxembourg

The Geodesy for Ice in Antarctica (GIANT) project led by the University of Luxembourg has been operating in the vicinity of the Princess Elisabeth Antarctica for more than a decade collecting GPS, gravimetry and seismology data. These data are analysed to track the horizontal and vertical deformation of Earth's surface. The isostatic rebound measured is also a proxy for mass changes in the Antarctic Ice Sheet.

IPF staff maintain the equipment (GNSS station with receiver and antenna) installed at the GEOS north scientific shelter at PEA and near the former Japanese Asuka station located 50 km northeast from PEA. During the 2023-24 season, PEA crew undertook maintenance and modernisation work on the research equipment.



GEOMAG

IRM/KMI
 Science support PEA/IPF
 Funded by BELSPO

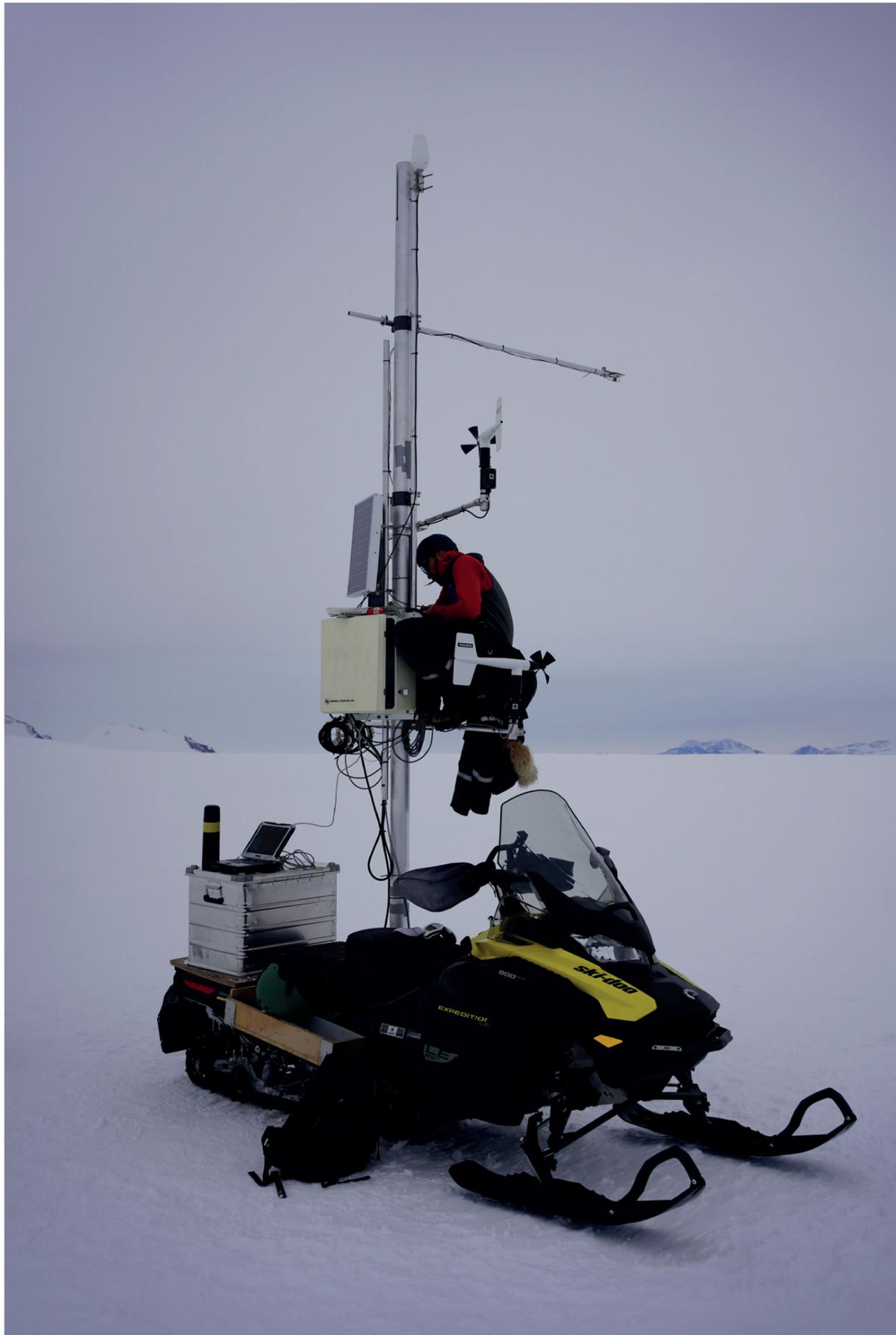
Every year since 2014 this project, led by the Royal Meteorological Institute of Belgium (IRM/KMI), has collected data on Earth's magnetic field.

The project uses a theodolite as well as a proton overhauser magnetometer and a triaxial variometer.

The instruments developed by Prof. Jean Rasson are housed in a dome made of materials which are not sensitive to magnetic forces at the foot of Utsteinen Nunatak, 800 metres away from the Princess Elisabeth Station. A non-magnetic theodolite known as an "Autodif" can take automated absolute measurements of Earth's geomagnetic field and create a time series of the geomagnetic field's position in three dimensions.

Every season the IPF BELARE team carries out maintenance on the instruments to keep them functioning properly throughout the austral winter. The team sets up a large controlled access perimeter around the radome to prevent any magnetic disturbance.







EPFL-CRYOS

EPFL

Science support PEA/IPF

Funded by EPFL & Swiss Polar Institute

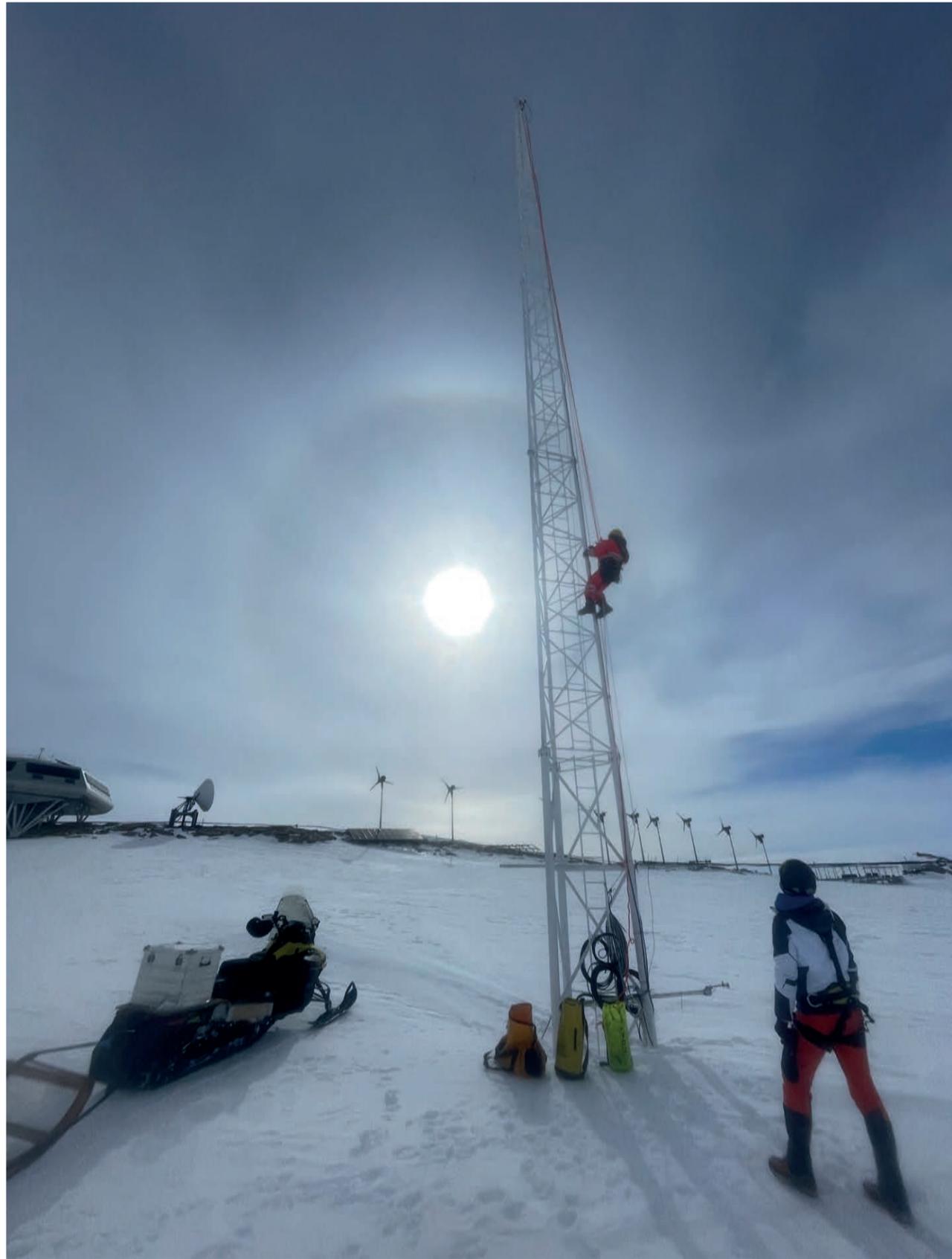
The Antarctic Ice Sheet gains surface ice mass through snowfall and loses it through ablation and wind erosion.

The overall balance of ice gained versus ice lost on its surface is the ice sheet's surface mass balance. Determining how snow-atmosphere interactions affect the ice sheet's surface mass balance is the goal of the CRYOS project led by the Swiss Federal Institute of Technology in Lausanne (EPFL).

Since 2016, the project has been operating two automatic weather stations (AWS) near PEA. Measurements the AWS take improve the representation of snow transport and sublimation in surface mass balance models of the Antarctic Ice Sheet.

The EPFL runs numerical model simulations for the entire Antarctic Ice Sheet to identify all processes that add to or remove ice from its surface.

During the 2023-24 season, work was mostly focused on maintaining and upgrading the automated weather stations and retrieving the collected data as well as installing meteorological instruments on the PEA mast to measure





4SAT

Belgian Military, UGent
Science support PEA/IPF
Funded by BELSPO

Two members of the Belgian military along with Maarten Baes from UGent looked for suitable locations for a possible Space Situational Awareness telescope, which would observe objects in space to ensure the safety of space for all users. The team looked at weather and astronomical conditions at different possible sites near Princess Elisabeth Antarctica.

The initial stage of the project carried out during the 2023-24 season was very successful for the three members of the 4SAT team. With support from IPF field guide Manu Poudelet, they were able to conduct several site surveys using a high-tech drone that produces high resolution 3-D maps of the local topography of potential sites where they would like to install a satellite monitoring low earth orbiting objects (LEO) in a follow-up campaign.

There were a number of suitable sites, including on the granite ridge to which the Princess Elisabeth Antarctica is anchored as well as on a neighbouring nunatak called Teltet, roughly 7 kilometres from the station.

TIMBR

LGGE, IPF

Science support PEA/IPF

Funded by IPF

TIMBR (Transect for the Investigation of Mass Balance Reduction in East Antarctica) is another project of the Princess Elisabeth Antarctica Climate Experiments (PEACE) series. A transect of 180 km from Vesthaugen to the Queen Maud Land Coast was established for the GLACIOCLIM project started by the LGGE (Glaciology and Environmental Geophysics Laboratory of Grenoble).

The project aims to gather long-term data sets to better understand snow accumulation and the contribution to mass balance in East Antarctica in an area where little ground truth data exists for validating satellite data.

Every year since 2009, the BELARE Expedition Leader Alain Hubert has carried out standardised measurements on snow density and accumulation (by taking shallow snow cores), as well as wind direction and intensity along a series of 60 stakes marking the transect (placed at intervals of 3 km). During the 2023-24 season, IPF conducted the measurements along the transect as scheduled.



PASPARTOUT

ULB, UGent, KUL, RMI
Science support PEA/IPF
Funded by BELSPO

The PASPARTOUT project's aim is to better understand the links between atmospheric circulation patterns, weather regimes, volatile organic compounds (VOCs), particles, and moisture in Antarctica, as the current state of knowledge of these remains low.

At the same time the project's aim is to determine the sources and origins of these particles and investigate implications in changing global climate.

In practice, this project includes installing scientific instruments at the Princess Elisabeth Antarctica research station as well as at the Dronning Maud land coast and collecting atmospheric and snow samples to analyse dust particles.

Sibylle Boxho (ULB) and Paula Lamprea Pineda (UGent) spent time in the field during the 2023-24 season collecting snow samples from the coast and installing automatic samplers specifically designed for this project to collect samples over the coming year.

Back in Belgium these samples from snow and air will be analysed to determine origins and sources of the particles to better understand changes in the atmospheric circulation.

RINGS

International research programme

Science support PEA/IPF

Internationally funded

Consisting of collaboration with Alfred Wegener institute (AWI), CHINARE (Polar Research institute of China), and many other countries, the RINGS project's primary objective is to develop a comprehensive reference bed topography dataset around the entire Antarctic coast.

The secondary objective is to characterise the boundary conditions and processes responsible for varying mass balance around the Antarctic coast.

The research undertaken during the 2023-24 season was done by AWI's Polar 6 aircraft in December 2023, and then by a specially outfitted Snow Eagle DC-3 aircraft by the Chinese crew in January and February 2024.

These aircraft have state-of-the-art instruments to measure all things related to ice thickness and mass, including a highly accurate and sensitive gravity-metre. This instrument allows scientists to track changes to ice mass along the ice edges by flying the same route on separate campaigns.

After combining data from different years, scientists can accurately see changes taking place in the ice shelves.





SCIENTIFIC PUBLICATIONS FROM RESEARCH AT PEA

Over several years of the BELARE expeditions around the Princess Elisabeth Station, data were collected by scientists from all over the world leading to the publication of nearly 120 peer reviewed publications, reports, notes in journals or conference communications.

During the year 2023/2024, several papers were published in fields as diverse as remote sensing energy production, meteorite research, microbiology, geology, biology and biogeography.

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THE PERSEUS INTERNATIONAL AIRFIELD



Perseus International Airfield has been serving as one of two entry points to Antarctica from Cape Town for BELARE teams heading to the Princess Elisabeth Antarctica (PEA).

Located just 60 km from the first zero-emission station, teams arriving at Perseus International Airfield reach PEA within a few hours using Toyota Hiluxes or Prinoth tractors, which can haul heavy cargo.

The runway's close proximity to PEA reduces the carbon footprint of teams travelling from Cape Town to PEA, cutting out the need for a 435 km connecting flight from the next closest major intercontinental runway in Antarctica.

During the 2023-24 season, additional amenities were added to the hangar at the airfield, including the installation of solar panels, heating, and plumbing, as the hangar acts as both an office and sleeping quarters for travellers who need to overnight on their way to the Princess Elisabeth station or who are waiting to take a flight back to Cape Town.



NEW DEVELOPMENTS AT PEA

HIGH CAPACITY WATER TREATMENT SYSTEM INSTALLED AT PEA

The Princess Elisabeth Antarctica was designed to meet the intentions of the Madrid Protocol to the Antarctic Treaty. With this vision in mind, the station was built with a water treatment unit inspired by the International Space Station but one which allows the treatment of black and grey waters onsite and recycles a part of the purified water for uses other than for drinking water uses (showers, washing machines, toilets, etc.).

As the station's occupancy has increased in recent years, additional water treatment capacity has become necessary. Furthermore, after years of operation, experience was gained and it became clear that the initial design could be improved in several ways to increase performance, reliability and energy efficiency, and better meet the specific constraints of Antarctica.

After a few seasons during which IPF process engineer Aymar de Lichtervelde closely collaborated with the designer of the original system installed in 2008, Dries Demey (Redwire Space), optimising the system and making improvements, IPF decided it was time to build a new system that will solve several capacity issues while sustaining PEA's leadership in environmental technology.

During 2023-2024, Aymar worked with IPF engineer Nicolas Henrickx to develop a new water treatment system (WTS) for Princess Elisabeth Antarctica. More than just a resizing, the new system integrates a blend of the latest innovations on the market, and was fully redesigned based on the know-how gained from 10+ years of off-grid water treatment operations in the Antarctic.

Over the previous two seasons (2021-22 and 2022-23), IPF's team of engineers and water distribution professionals performed the necessary preparation work to install the new system in the station's south annex. Having an upgraded water treatment system has allowed additional toilets and facilities to be installed in the station's annexes, where many of the station's personnel and guests sleep, especially when the station is close to maximum capacity (50 persons).

When it went online in January 2024, everyone who worked on the water treatment system, including engineers Aymar de Lichtervelde and Nicolas Herincx, along with the expert father and son team of plumbers, Bernard and Simon Polet, were very proud of this significant accomplishment.



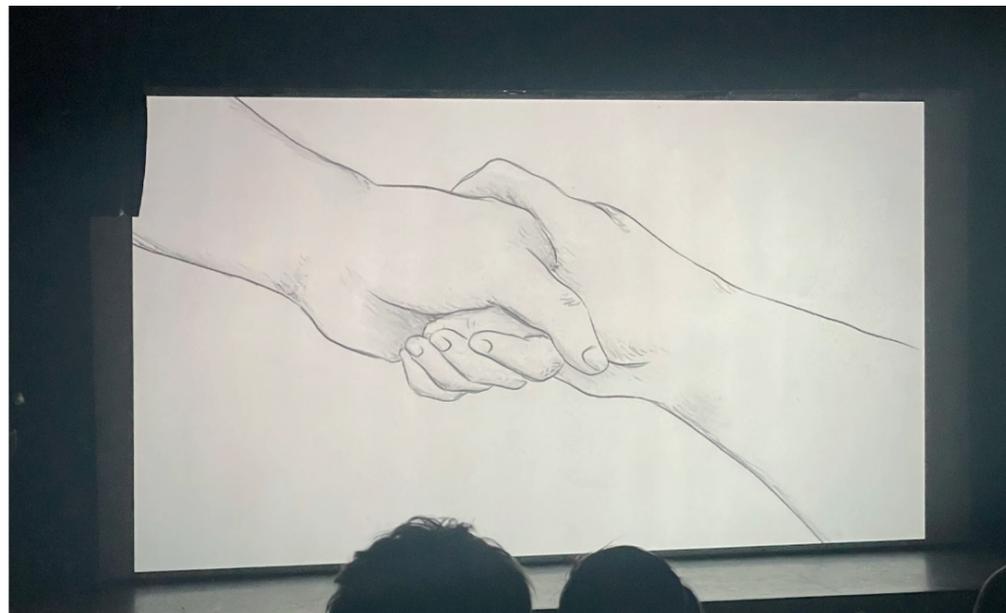


EVENTS & EXHIBITIONS

AFS 2023 / SIDE EVENTS

The 5th edition of the Arctic Shorts was organised in BOZAR Centre for Fine Arts in Brussels on Monday, November 27th 2023, thanks to financial support from the Government of Canada. Following introductory speeches by Gizem Eras (Agriculture, Fisheries and Environment Counsellor, Mission of Canada to the EU) and Clara Ganslandt (EU Special Envoy for Arctic Matters), more than 300 attendees were treated to nine short films made by filmmakers from across the Arctic including:

- *Shaman's Apprentice* (Zacharias Nunuk, Canada)
- *Faroese short film, Andrias Høgenni* (Faroe Islands)
- *How to Skin a Polar Bear* (Nastja Säde Rönkkö, Finland)
- *Naja* (Marc Fussing Rosbach, Greenland)
- *Chasing Birds* (Una Lorenzen, Iceland)
- *Mermaid* (Eilif Bremer Landsend, Norway)
- *A Day After Work* (Lars Vega, Sweden)
- *Mobiliser* (Caroline Monnet, Québec)
- *Connected* (Cale Green, Alaska)



Nastja Säde Rönkkö's *How to Skin a Polar Bear* (2019, in featured image)

Bozar
Salle M

19h30-21h30

#ArcticShorts

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Arctic Shorts
27/11/2023

A night of short films from across the Arctic

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Canada Bozar INTERNATIONAL POLAR FOUNDATION ARCTIC FUTURES SYMPOSIUM

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Copyright: Still from *Angakavajjooq - The Shaman's Apprentice* by Zacharias Nunuk. Copyright: *Tapput Productions, Kigullit Productions.*

CONFERENCES

Arctic Futures Symposium 2023

The 14th edition of the Arctic Futures Symposium was held in Townhall Europe in Brussels' European Quarter on Tuesday, November 28th and Wednesday, November 29th. Close to 200 people attended in-person.

Organised by IPF and its many Arctic stakeholder partners, the 2023 symposium focused on wide range of important and timely topics such as:

- Managing the Challenges of a Changing Arctic
- Avenues for Arctic Cooperation
- A Safe and Secure Arctic
- Cultivating Arctic Communities
- Arctic Youth: Meeting Challenges and Creating Opportunities
- Implementing a Just Green Transition in the Arctic

Over the two days of the symposium these topics were addressed in seven panel discussions, each featuring a selection of Arctic experts and stakeholders.

The event was opened by Nicolas Van Hoecke, Managing director of IPF, and the participants were greeted by Alain Hubert, President and Founder of IPF, with a video recording from Antarctica.

The first day then featured keynote speeches by Maria Varterassian (State Secretary of Norway), Helena Köning (Deputy Secretary General for Economic and Global Issues, European External Action Service), Charlina Vitcheva (Director-General, DG MARE) and Hjalmar Dahl (President, ICC Greenland). These insightful speeches addressed the complex and challenging reality the Arctic is currently facing and set the stage for following panel discussions.

The panel discussions of the first day focused on challenges in the changing Arctic and explored the avenues for cooperation in this challenging environment. The last panel of the day addressed the changing security situation in the Arctic. The first day was then followed by an "Arctic Evening" cocktail and networking event hosted by the Mission

The second day of the symposium was opened with a keynote speech by Dag Rune Olsen (Rector, UiT the Arctic University of Norway), and focused on the cultivation of Arctic communities and the perspectives of the youth in the region, together with discussions on the implications of the green transition and critical raw material extraction in the Arctic.

The second day of discussions was followed by a cocktail hosted by the Embassy of Monaco to Belgium and the EU, accompanied by a presentation of the results of the EU-financed JUSTNORTH Horizon project.

A summary of the event is available on the Arctic Futures Symposium website and all the sessions can be viewed on IPF's youtube channel.





28/11-29/11
Town Hall Europe
Sq. de Meeûs 5
1000 Bruxelles



#ArcticFutures



Arctic Futures

/2023

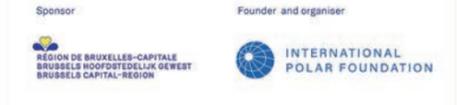
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LAURENCE TRÂN ARCTIC FUTURES AWARD

The second edition of Laurence Trân Arctic Futures Award, which gives 7,500 Euros to a startup or young entrepreneur based in the Arctic, was granted to Gobmi, a sustainable Saami clothing company founded by two sisters Hanna Moen Reinsnes and Live Moen Johannessen.

The award was presented by IPF Managing Director Nicolas Van Hoecke, Brigitte Trân-Loustau from the Trân family, and Director of the Arctic Economic Council Mads Frederiksen. Anja Márjá Nystø Keskitalo from the Saami Council, who was present at the symposium, accepted the award on behalf of the two founders, who were not able to take part in the symposium.

Gobmi was selected as the winner out of 18 candidates who applied from Alaska, northern Canada, Greenland, northern Norway, northern Sweden, and northern Finland by a committee of experts with years of experience working with startups in the North American and European Arctic.

“We are deeply honoured and humbled to receive this prestigious award,” stated Hanna Moen Reinsnes, CEO and co-founder of Gobmi. “It acknowledges our dedication to marrying Saami traditions with modern style, and empowers us to further our journey in sustainable and culturally rich fashion.”



ARCTIC CIRCLE ASSEMBLY 2023

The International Polar Foundation had a very strong presence at the 10th edition of the annual Arctic Circle Assembly in Reykjavik, Iceland. Representatives from IPF had an exhibition booth and participated in a number of panel discussions during the three days of the popular annual conference.

Featured speakers at breakout sessions

IPF Managing Director Nicolas Van Hoecke and IPF Systems Engineer Aymar de Lichtervelde, along with IPF Board Member, Former EU Arctic Ambassador, and Egmont Institute Senior Fellow Marie-Anne Coninx took part in breakout sessions at the assembly.

On Thursday, October 19th, Marie-Anne Coninx led a panel discussion entitled, “Non-Arctic States: Assets for the Region” in which representatives from several Arctic Council observer states and states with interests in the Arctic gave their views on how they can contribute to the work of the Arctic Council and improving the quality of life of Arctic residents.

Then on Friday, October 20th, Marie-Anne Coninx and Nicolas Van Hoecke participated in a panel discussion entitled “The Like-Minded, the Willing the Capable...the Belgians.” This panel discussed Belgium’s significant contributions to polar research since the 19th century, the Princess Elisabeth Antarctica (the world’s first zero-emission polar research station), the new Belgian polar research vessel, the Belgica, and Belgium’s Arctic policy currently under development.

Also on Friday, October 20th, Aymar de Lichtervelde spoke about deploying and operating renewable energy and water treatment technologies at the Princess Elisabeth Antarctica during a breakout session organised by US polar logistics firm Batelleand Icelandic vehicle firm Arctic Trucks.

During the entire conference, IPF also had a booth next to the entrance of the main auditorium at Harpa (where the Arctic Circle Assembly is held every year), exhibiting the green technologies used at the Princess Elisabeth Antarctica polar research station.

The booth highlighted the station’s new water treatment system (which recycles and reuses all wastewater at the station), as well as how renewable wind and solar energy sources are used to power the station. It also featured a scale model of PEA on Utsteinen Ridge in East Antarctica and a 3D-printed replica of PEA’s new water treatment system.

The booth also featured a few Belgian icons thanks to Jan Bayart, the Belgian Ambassador to Norway and Iceland: three Smurfs in the colours of the Belgian flag!

Many assembly participants visited the booth over the three days of the conference. Everyone was impressed with the solutions used at the station to significantly cut its environmental footprint.

Visitors included entrepreneurs, investors, and most importantly residents of remote Arctic communities that need to ship in fuel, food, and even water on a regular basis at great cost.

Having solutions such as a circular water treatment system and a smart grid that manages renewable wind and solar energy production could be very beneficial to remote Arctic communities.



IPF AT ARCTIC CIRCLE BERLIN

Two members of the International Polar Foundation team took part in the Arctic Circle Forum in Berlin on May 7th and 8th, 2024.

On the first day, IPF Board Member and Senior Fellow at the Egmont Institute Marie-Anne Coninx participated in the panel discussion entitled, “International Research in the Arctic Amidst Global Tensions,” which discussed the current state of cooperation between scientists working to monitor the Arctic following the start of the war in Ukraine.

On Wednesday May 8th IPF Education and Outreach Coordinator Mieke Sterken spoke on the panel organised by Karen van Loon from the Egmont Institute, “Voices for the Future - The Next Generation’s Role in Shaping the Arctic”, which focused on educating young people about the Arctic.

Ms Coninx also moderated the panel “Non-Arctic European Countries: an Asset for the Arctic?” as part of the plenary session Wednesday, May 8th, during which the contributions of non-Arctic states to the work of the Arctic Council and beyond were discussed.



BELGICA PRIZE

Alain Hubert, Founder and President of the International Polar Foundation, received the prestigious Belgica Prize alongside French glaciologist Professor Jérôme Chappellaz at a ceremony held at the Royal Academy of Sciences of Belgium.

The prestigious Belgica Prize is awarded every five years to persons who have made exceptional contributions to polar science during their careers.

The ceremony took place in front of a full room in the auditorium at the Royal Academy. Both laureates were introduced by members of the Royal Academy.

After receiving their medals, both laureates gave presentations about their work: Professor Chappellaz spoke about his decades-long research tracking methane (one of the most powerful greenhouse gases) in Earth's atmosphere, while Alain Hubert recounted how his polar expeditions inspired him to establish the International Polar Foundation and to build the world's first zero-emission polar research station, the Princess Elisabeth Antarctica.

The ceremony ended with a 15-minute film that highlighted all of the research projects that have taken place at the Princess Elisabeth Antarctica over the first 17 years it has been operating.

Alain Hubert was awarded the prize in recognition of his record-breaking expeditions to the poles, realising the world's first zero-emission polar research station, the Princess Elisabeth Antarctica, and helping to establish important scientific research programmes at this groundbreaking station.

The construction of the Princess Elisabeth Antarctica breathed new life into Belgian polar research. The zero-emission station not only significantly reduces the environmental footprint of conducting scientific research in Antarctica, but it also regularly attracts world-class scientists from both Belgium and around the world, working in close collaboration to better understand our planet and its climate in fields such as glaciology, atmospheric sciences, biology, and the geosciences.

The ceremony in June 2024 was the twelfth time the Belgica Prize has been awarded. It was established in 1904 by royal statute to commemorate the first overwintering expedition to Antarctica aboard the Belgica research vessel, led by Belgian Navy Lieutenant Adrien de Gerlache de Gomery in 1897-99, which was also the first international research expedition to Antarctica. The first recipients of the prize were members of the Belgica expedition crew and the diverse team of scientists who contributed to the quantity of scientific information collected during that voyage and during the year the ship spent in the sea ice in Antarctica.

Since 1963 the prize has been awarded every five years in recognition of the work of polar scientists active in Antarctica. A variety of researchers from Belgium and other countries have received the prestigious award.



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© Alberto Fernandez Muñoz – Royal Academy of Belgium

EUROPEAN SUSTAINABLE ENERGY WEEK

IPF Founder and President Alain Hubert was invited to participate in the “Debate with Ambassadors” panel at European Sustainable Energy Week 2024 (EUSEW24) on Tuesday, June 11th, at the European Commission.

A “dynamic exchange between EUSEW Digital Ambassadors from different sectors,” participants on the panel exchanged views on topics related to the EU’s clean energy transition, increasing the implementation of technologies with net-zero impact, improving opportunities to develop renewables and energy efficiency, and the need to cooperate globally to enact meaningful climate action.

Alain Hubert’s experience as an engineer, polar explorer, and initiator of the Princess Elisabeth Antarctica, the world’s first (and to date only) zero-emission polar research station, helped bring insightful perspective to the discussions.

Ditte Juul Jørgensen, Director-General for Energy in the European Commission, moderated the panel, which also featured two other highly accomplished experts in their respective fields: Claire Roumet (Secretary General of Energy Cities - a network of local authorities, city officials and technical experts from over 30 countries who are leading the energy transition), and Tuomas Hooli (Chief Executive Officer of Winda Energy - an SME renewable energy project developer in Finland with a particular focus on local engagement in developing renewable energy projects).

The panel of experts fielded questions from attendees both in-person and online during the hour-long discussion.

Alain, Claire, and Tuomas proposed several solutions to consider during the panel discussion, including:

- + Developing and implementing ideas to reduce energy consumption and increase energy efficiency on a local level, as this is where changes can happen more easily and a real difference can be made (for example, Working with local experts such as engineers to find ways to address energy needs on a local level).

- + Diversifying energy solutions.

- + Organising more citizen assemblies to involve the general public in creating solutions and educating them about how they can take action themselves.

- + Investing more in research and development.

- + Investing in making cities more resilient to the effects of climate change as they become more intense.

- + Investing in infrastructure (buildings, heating solutions, transport, etc.) to make them more energy-efficient, as well as infrastructure for electric vehicles (charging stations, service points, etc.) and other ancillary services.

- + Securing the raw material supply chains to develop the technologies needed for the Green Transition.

- + Implementing policies on the EU, national, and local level that help fund startups and entrepreneurs working on finding solutions to our energy issues, including using market design to help new startups gain a foothold.

- + Making the best use of the EU Single Market to increase European competitiveness.

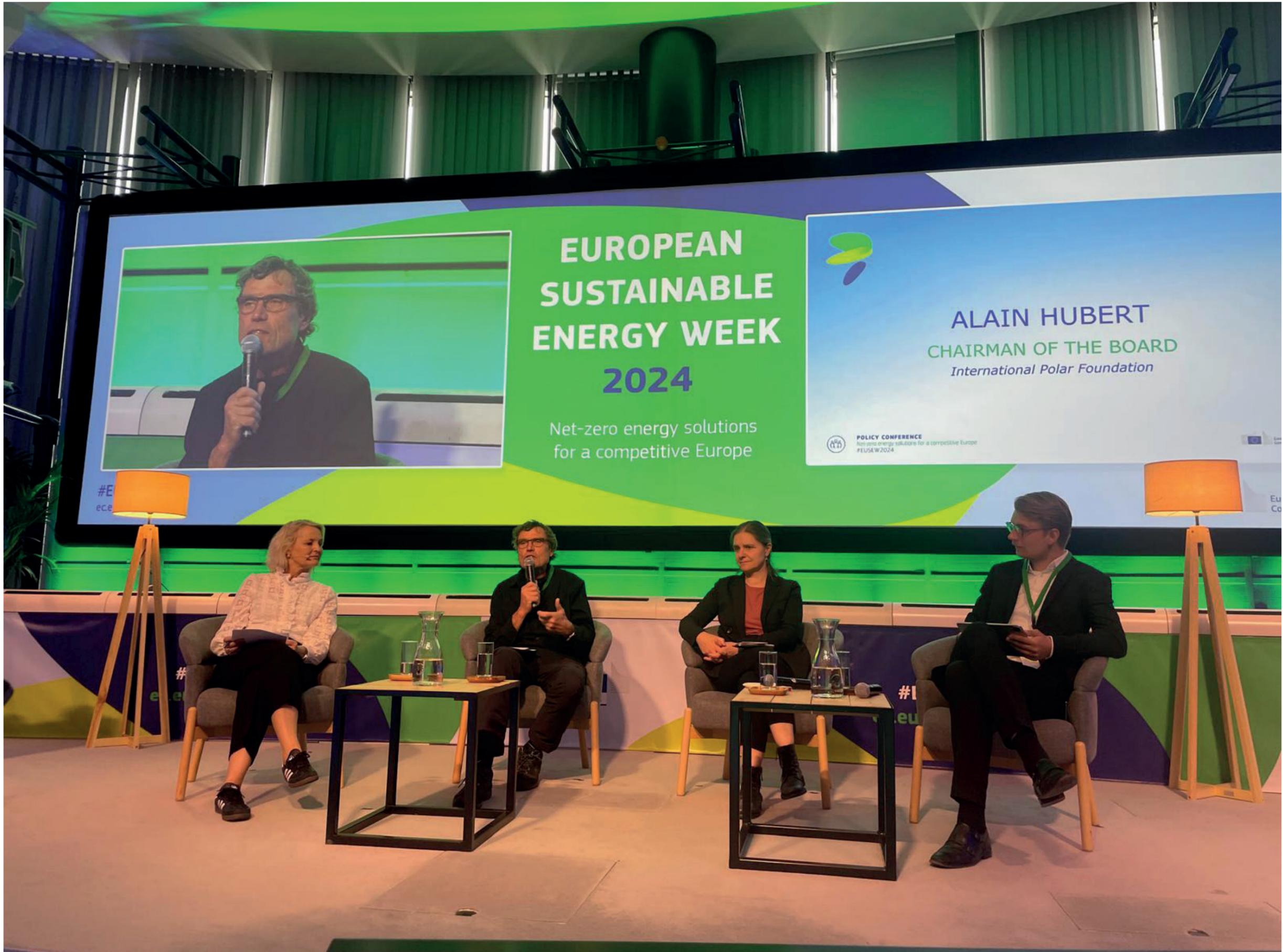
- + Implementing existing technologies and solutions more effectively.

- + Optimising existing funding schemes.

- + Creating programmes for those with fewer means to participate in the upscaling needed to realise the green transition to make sure they stay on board for further steps that may need to be taken to meet the EU’s net zero by 2050 goals.

- + Investing more in scientific research to inform policymakers about what needs to be done.

The International Polar Foundation would like to thank the European Climate, Infrastructure and Environment Executive Agency (CINEA) and the Directorate-General for Energy at the European Commission for the invitation to contribute to such a highly important discussion.



EUROPEAN SUSTAINABLE ENERGY WEEK 2024

Net-zero energy solutions
for a competitive Europe



ALAIN HUBERT
CHAIRMAN OF THE BOARD
International Polar Foundation

POLICY CONFERENCE
Net-zero energy solutions for a competitive Europe
#EUSEW2024



EDUCATION & OUTREACH

EDUCATIONAL ACTIVITIES

Since its founding, the IPF has aimed to support polar scientific research for the advancement of knowledge, the promotion of informed action on climate change, and the development of a sustainable society.

This is why educating future generations is of great importance to the foundation. In 2023 the IPF continued live and online interventions in primary and secondary schools, at universities, teachers associations and other associations and events. A summary of these interventions is listed in these tables.

Meanwhile, student workers have helped the Education team in classifying old resources and linking content with present-day educational goals & terms.

Online presentations from Antarctica

As in previous years, during the austral summer research season, IPF staff continued to give online classes to students in Belgium and around the world directly from the Princess Elisabeth Antarctica (PEA).

Teachers and professors at primary and secondary schools, high schools, and even university level students have enthusiastically welcomed IPF's educational STEM (science, technology, engineering, mathematics) activities. Focus of the talks was on the zero-emission aspect of the Princess Elisabeth Antarctica, life in and around the station, science conducted in Antarctica, and the link with climate and environmental change.

The public continues to absolutely love the live interaction and getting the chance to "look through the window" to the Antarctic reality.

Quotes/feedback from a teacher:

"The exchange was very interesting and the kids were absorbed by your presentation. This should be taught in all schools as it is very enriching thanks to the live images and your story. This would earn a year-long project, as to be more aware of this impact climate change has."

1 janvier 2023 / 30 juin 2023	TOTAL	PRIMARY SCHOOLS	SECONDARY SCHOOLS	UNIVERSITY	TEACHERS AND EDUCATORS	PUBLIC AT LARGE / ADULTS
Online presentations from PEA	7	6	1			
Live or online school presentations	3		2	1	1	
3D puzzle workshops	4	2			1	1
Other guest talks / presence	8					
	22	8	3	1	2	1

1 juillet 2023 / 30 juin 2024	TOTAL	PRIMARY SCHOOLS	SECONDARY SCHOOLS	UNIVERSITY	TEACHERS AND EDUCATORS	PUBLIC AT LARGE / ADULTS
Online presentations from PEA	10	3	1	2		3
Live or online school presentations	4		1			
3D puzzle workshops	4	2			1	
Other guest talks / presence	3	1	1		1	3
	21	6	3	2	2	6

Live or online school presentations from Belgium

The IPF gives regular lectures, ad hoc and on demand, in schools or organisations, adapted to the needs and education level of each specific group. The content of the presentations ranged from the Antarctic to the Arctic, the link with climate change, the Princess Elisabeth Antarctica station and life and science in/near the station. When the distance to the respective school or organisation was too big for a live presentation, an online Zoom-presentation was given.

IPF's expertise in Outreach has also been a topic of conversation in two occasions: an invited lecture at KULeuven university to talk about the use of social media for science communication purposes, and an invited talk at a gathering organised by APECS-Belgium (the Association of Polar Early Career Scientists) on the works and perks of science communication.

Quotes/feedback from some teachers:

" I have two students in my class who tend to sit together and chitchat during my lessons, all teachers pull them apart because otherwise they don't pay attention. This time they did sit together yet they were really silent and attentive during your online presentation. The powerpoint presentation was marvellous: it was informative and visually beautiful, yet also radiating some form of tranquillity. Your story and images were complementary, they supported one another."

(name of the teacher known at IPF, Level-X high school, Hasselt, 5th year, secondary school – online presentation about the Arctic by Mieke on 19-02-2023).

3D-puzzle workshops

After having tried out the one-meter diameter 3D-puzzles of the Arctic and Antarctic regions in previous years (2021-2022), the IPF continued giving workshops in schools or at science festivals or teacher trainings. The puzzles continue to be immensely popular and from feedback from teachers we learned they continuously keep their educational value, regardless of the educational level of the target public.



LIVE FROM ANTARCTICA: DISCUSSION WITH SCIENTISTS AND ENGINEERS AT THE PRINCESS ELISABETH ANTARCTICA

On January 31st, 2024, IPF station crew and scientists at the station organised a webinar, "Live from Antarctica: Discussion with Scientists and Engineers at the Princess Elisabeth Antarctica".

The event took place on Zoom and was organised in partnership with several organisations affiliated with the University of Colorado Boulder (including the Center for Social and Environmental Futures (C-SEF), the Media and Climate Change Observatory (MeCCO), the University of Colorado Boulder Faculty Assembly Climate Science and Education Committee, and CIRES Education and Outreach), along with the National University of Singapore. The webinar included presentations from engineers and scientists working at the Princess Elisabeth Antarctica, including:

- *Nighat Amin (Head of Environmental and International Affairs, IPF).*
- *Nicolas Herinckx (Engineer, IPF)*
- *Aymar De Lichtervelde (Process Engineer, IPF)*
- *Simon Steffen (Researcher and Field Assistant, IPF)*
- *Dr. Paula Lamprea Pineda (Postdoctoral Researcher at Ghent University)*
- *Quinten Vanhellemont (Researcher, Royal Belgium Institute of Natural Sciences)*
- *Dr. Valentina Savaglia (Postdoctoral Researcher, University of Sevilla)*
- *Brandon Van Schaik (Doctoral Researcher, Swiss Federal Institute of Technology Lausanne)*

Over two hours, IPF's staff and engineers had a chance to showcase the zero-emission aspects of the Princess Elisabeth Antarctica, including how it produces, stores, and manages renewable energy use. The scientists were able to showcase the research projects taking place at the station during the 2023-24 season. After the presentations, the online room was opened for Q&A.



“TO THE ANTARCTIC”

MAS MUSEUM

On Thursday, June 20th, the exhibition “To the Antarctic: Belgica’s Polar Pioneers” at Antwerp’s MAS Museum officially opened its doors to the general public.

The long-awaited exhibition presents the origins of Belgium’s long history of polar exploration and research in Antarctica.

The day began with an exclusive tour of the entire exhibition for journalists led by exhibition curator Waander Devillé. The intimate tour of the exhibition allowed journalists to get a first glimpse of the artefacts before the general public flooded into the exhibit.

Later in the evening, Lies Buyse, Director of the MAS Museum, Nabilla Aït Daoud, Alderwoman for Culture for the City of Antwerp, and Waander Devillé officially opened the exhibition with a keynote speech from each of them.

At 9:00 pm, the exhibition officially opened to the general public. Hundreds of people enjoyed drinks served in the foyer just outside the exhibition while DJs created a festive atmosphere.

The unique exhibition opens by recounting Adrien de Gerlache’s historic overwintering expedition of 1897-99, the first ever scientific research expedition that allowed scientists to conduct experiments and collect samples and data during the austral winter.

Several original artefacts from that legendary voyage are on display in the exhibition, including the Belgica’s original steering wheel, the vessel’s crow’s nest, the polar gear the crew wore, the saws the crew used to free the vessel from the sea ice, and the crank organ that played Belgium’s national anthem, the Brabançonne, which lifted the spirits of the crew during the long polar night of 1898.

The exhibition then shifts its focus to the modern era of Belgian involvement in Antarctica, featuring videos and materials from BELgian Antarctic Research Expeditions (BELARE) in the 1950s and 60s, during which Belgium’s first Antarctic research station, the King Baudoin, was built.

The next part of the exhibition focuses on research taking place in Antarctica today at the first (and to date only) zero-emission polar research station, Belgium’s very own Princess Elisabeth Antarctica (PEA). Put together by IPF Education and Outreach Coordinator Mieke Sterke, this part of the exhibition features information about the wide variety of scientific research projects taking place at PEA, videos of breathtaking landscapes in Antarctica, and interactive screens visitors can use to learn more about what scientists are learning from their research.

The exhibition ends with an installation from Dutch artist Esther Kokmeijer called Terra Nullis. Her work calls attention to Antarctica’s unique protected geopolitical status under the Antarctic Treaty System.



LEGO MODEL OF PEA

LEGO enthusiast and City of Antwerp resident Daneil Vermeir was so excited to learn about the “To the Antarctic” exhibition at the MAS Museum in Antwerp.

After discussing with the manager of MASshop, the gift shop at the museum, Mr Vermeir decided to build a scale replica of the Princess Elisabeth Antarctica using LEGO bricks.

The 1/43 replica of the zero-emission polar research station was constructed on a LEGO plate 75 cm x 75 cm using more than 6,000 bricks. Mr Vermeir spent more than 70 hours building the replica, paying attention to small details such as 320 solar panels on and around the station.

Mr Vermeir is known for building many LEGO scale replicas, including one of the Het Steen mediaeval fortress in Antwerp, Belgium.

After the exhibition is over in November, Mr Vermeir plans to display the replica of the Princess Elisabeth Antarctica at other locations, including some LEGO festivals.

He may also expand the replica to include the inside of the station.

Who knows? Thanks to Daniel Vermeir’s initiative, perhaps LEGO might one day decide to make an official Princess Elisabeth Antarctica set!



WORKSHOPS FOR EDUCATORS

Special events or activities

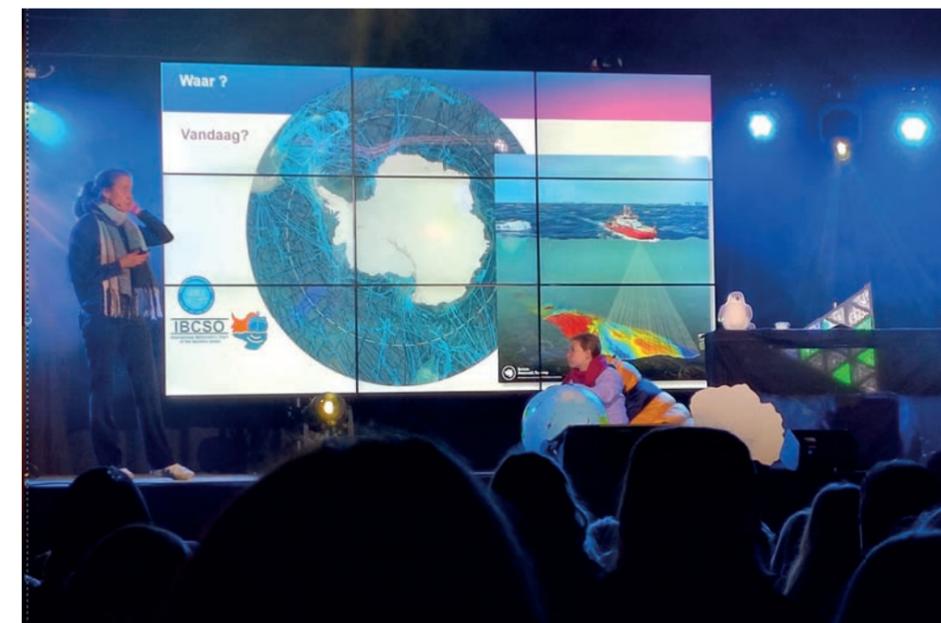
The IPF has worked with, and participated in, a television show for kids named “Stel je voor”. The series was broadcasted on the Flemish television channel ‘Ketnet’ and will stay available online (VRTMax) until 05/05/2025. In the television series, four kids are invited to survive for 24 hours in a ‘special world’. One of these ‘special worlds’ is ‘A world without land’, referring to the issue of climate change and sea level rise. The IPF comes in to explain about melting ice caps and sea level changes.

The IPF has participated in the well-known and immensely popular science festival “Nerland Festival” in May 2024. The festival hosts 10,000 visitors per day during 2,5 days. IPF has given a presentation for 700 kids in the Kids Tent of the festival, talking about the Antarctic overwintering of the Belgica and present-day scientific particularities of the white continent.

In 2023, the IPF has been commissioned to help developing the content for part of a temporary exhibition running in the MAS (Museum aan de Stroom) museum in Antwerp. The exhibition tells the story of the first overwintering of the Belgica ship and its crew, now 125-127 years ago. About 1/3-1/4 of the exhibition talks about current-day scientific research in Antarctica, the Antarctic environment, and its link with global climate change. The IPF developed the content for this section of the exhibition, and provided advice and support in the development of the rest of the exhibition as well as communications and public relations. The exhibition opened on June 20th, 2024 and remains open till early November 2024.

Other presentations or guest appearances

The IPF has regularly been invited to give a talk or be present in schools, scouts groups, podcasts or radio stations, or at special occasions, for instance to act as a jury member for school assignments, to be interviewed or to give a talk or witness about life in the Antarctic, most of these presentations or guest appearances were done by Alain Hubert or colleagues who have participated in BELARE.



THE GORGONEION COLLECTIVE

Progress with Concepts and Prototyping for Gear Hacks

Description

The Gorgoneion Collective is a group of stakeholders who wish to improve the conditions for women researchers in the polar and alpine regions, through the re-designing of clothing and accessories for extreme environments. The Introductory presentation was made at the EGU 2024

Short Summary

In 2023 a stakeholder poll and market survey were carried out to ascertain which were the main issues confronted by women working in the field, with regard to physiology and biology. On the basis of the results presented last year, it was decided to proceed with a restricted number of concepts, and to build prototypes for testing in the Antarctic field season 2024-25.

After this season, the results will be presented at the EOS session.

The prototyping will be carried out by a company which is run entirely by women. Sourcing of materials has taken into account not only sustainable textiles and local sourcing, but also industrial techniques designed to reduce environmental impact from the treatment of natural fibres and products, such as down for warm clothing.



A screenshot of a presentation slide titled "WOMEN IN ANTARCTICA". The slide contains text about the history of women in Antarctica and a quote from Meredith Nash et al. (2019). The slide is displayed on a screen with a video conference interface at the top showing participants like Jan van Beve... and Ida Haven. The time 06:05 is shown in the top right corner. The International Polar Foundation logo is visible at the bottom left of the slide content.



IPF ON THE WEB

Websites

POLARFOUNDATION.ORG is the IPF's principal website. Content pertaining to the Foundation's initiatives, projects, and events, as part of the Foundation's mission to connect science and society, are communicated on this website by way of news items, photos and press releases.

ARCTICFUTURES.ORG provides information about the annual Arctic Futures Symposium - a multinational and multidisciplinary event at which Arctic stakeholders from Brussels and around the globe gather to discuss topics of great interest within an EU context. The website also features the Arctic Shorts Film Evening.

ANTARCTICSTATION.ORG provides information about the IPF's flagship project, the Princess Elisabeth Antarctica - the world's first zero emission polar research base. The website is an archive of operations at the station, science projects, and the renewable energy systems and smart grid used at the station.

EDUCAPOLES.ORG hosts the International Polar Foundation's multimedia educational materials. The site provides these materials to the teaching community in three languages: English, Dutch, and French. The site also raises awareness of the Polar Regions as an early warning system for climate change and a unique place to conduct research, and also mobilises citizens to take informed actions against climate change. Aimed at teachers, teachers in training, and all other educators, EducaPoles.org offers pedagogical dossiers, animations, videos, picture galleries, tailored stories, and readymade content such as quizzes, scientific experiments, and classroom activities.

IPF-EDUCATION.ORG is a temporary tri-lingual (English, Dutch, French) website that hosts more recent educational materials and posts news about the most recent activities of the Education team. It is also a website where teachers and educators can book an in-person workshop or online webinar for young people from elementary school until university.

SCIENCEPOLES.ORG is a collection of polar science articles and interviews with top polar scientists. By clearly explaining and demystifying complex scientific issues, the

website contributes significantly to the Foundation's mission to connect science and society, catering to both policymakers and the general public.

[HTTP://WWW.POLARFOUNDATION.ORG](http://www.polarfoundation.org)

[HTTPS://WWW.ARCTICFUTURES.ORG](https://www.arcticfutures.org)

[HTTP://WWW.ANTARCTICSTATION.ORG](http://www.antarcticstation.org)

[HTTP://WWW.EDUCAPOLES.ORG](http://www.educapoles.org)

[HTTP://WWW.IPF-EDUCATION.ORG.](http://www.ipf-education.org)

[HTTP://WWW.SCIENCEPOLES.ORG](http://www.sciencepoles.org)





SOCIAL MEDIA

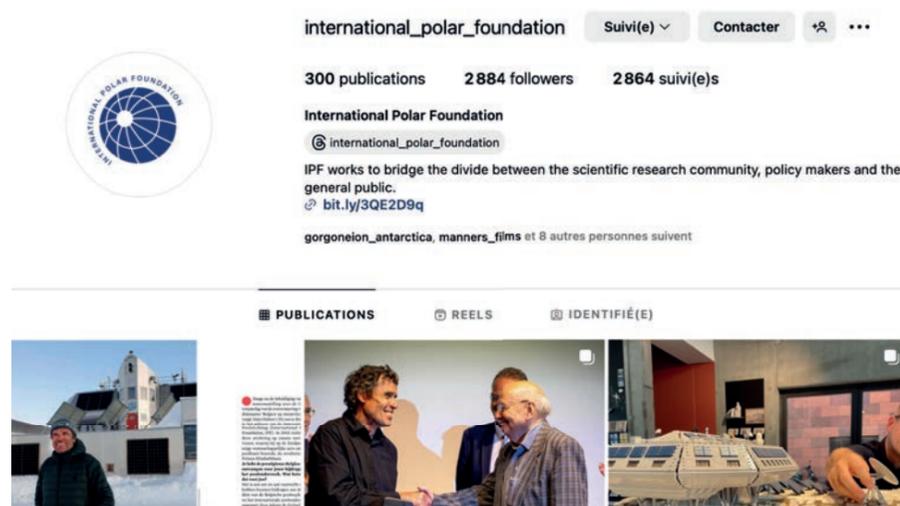
IPF is present on multiple social media platforms which keep its online followers informed about the activities and events of the Foundation while also providing information about important developments in polar and climate science, renewable energy, environmental and sustainability issues, and newsworthy events in the Polar Regions.

The International Polar Foundation was mainly active on three social media platforms: Facebook (@intpolarfoundation) Twitter (@PolarFoundation), and Instagram (@international_polar_foundation).

In the autumn IPF began to use the TikTok video-sharing app (@int.polarfoundation) featuring primarily content from the Princess Elisabeth Antarctica research station.

As the number of people using social media as their primary source of information continues to rise, and as different platforms are aimed at different audiences, communication on a variety of platforms is essential for IPF to reach a broad cross section of the general public.

The IPF INSTAGRAM account, which was activated in the summer of 2020. Efforts will continue to increase reach, in 2023. Most of the photos shared on Instagram are related to activities of scientists and the IPF team at PEA station, or events organised by IPF such as Arctic Futures Symposium. The “Stories” feature of Instagram was used to draw attention to new posts, post short videos from the IPF team at PEA, or share photos and videos from live events in real time.



IPF's TWITTER account has been active since 2012. The account has added 1063 followers organically since the start of 2023, reaching 8111 by the end of the period covered in this annual report (June 30th, 2024), representing a 15.1 % increase in followers. In addition to sharing photos related to PEA and other IPF activities, “live tweets” were done from conferences and events IPF members hosted or took part in.

IPF's FACEBOOK page was used similarly to Instagram and Twitter to share news related to PEA and IPF activities, events hosted and attended by IPF staff, and sometimes news from relevant sources related to polar research, climate change, renewable energy, sustainable development, and Arctic events and politics. The account had received 3100 likes and 3300 followers by June 30th, 2024 had reached thousands more through its posts.

The IPF LINKEDIN account targets professional contacts and organisations relevant to IPF's core areas of expertise of sustainability, renewable energy, polar research, and polar affairs. Since the beginning of 2023 the IPF LinkedIn page has gained 421 followers since the beginning of 2023 to reach 1099 followers (39.4% increase).

The IPF TIKTOK account (@int.polarfoundation) debuted in November 2021 and has grown ever since, thanks to many viral videos.

At the start of January 2023 the account hosted 18 videos, with a total of 71,341 views, 1,582 likes and 367 followers. By June 30th 2024, the account had 25 videos and had grown to an impressive 6.2 million views and 17,000 followers giving more than 953,000 likes.

As the creation of social media videos can be time-consuming, the choice was made to focus on slightly longer (1-minute) videos with educational content suitable for classroom broadcasting. Five new videos were created during the six months between January 2023 and June 2024, generating an additional c. 5000 views, 300 likes and 50 followers. With the Education and Outreach efforts focussing on content development of the MAS-project in 2023, the Tiktok account was temporarily placed in the back seat, with only three new videos posted between June 2023 and June 2024. The most popular video, which shows a cute penguin approaching the Princess Elisabeth Antarctica station, has been viewed more than 6.1 million times!



IN MEMORIAM: ALAIN DE WAELE

Alain De Waele, Member of the Board of the International Polar Foundation, and long-time supporter of the activities of the Foundation and the Princess Elisabeth Antarctica research station, passed away in August 2023.

Born in Antwerp in 1949, Alain De Waele began his career in the late 1970s at Interbrew (later InBev and then AB InBev) in Leuven, Belgium.

During his career at the company, he worked in various commercial positions, rising up the ranks until he became Vice-President of External Relations in the 1990s.

In 1999 Alain De Waele was selected by InBev (as the company was known at the time) to become Secretary General of the InBev Baillet Latour Fund (later known simply as Les Fonds Baillet Latour).

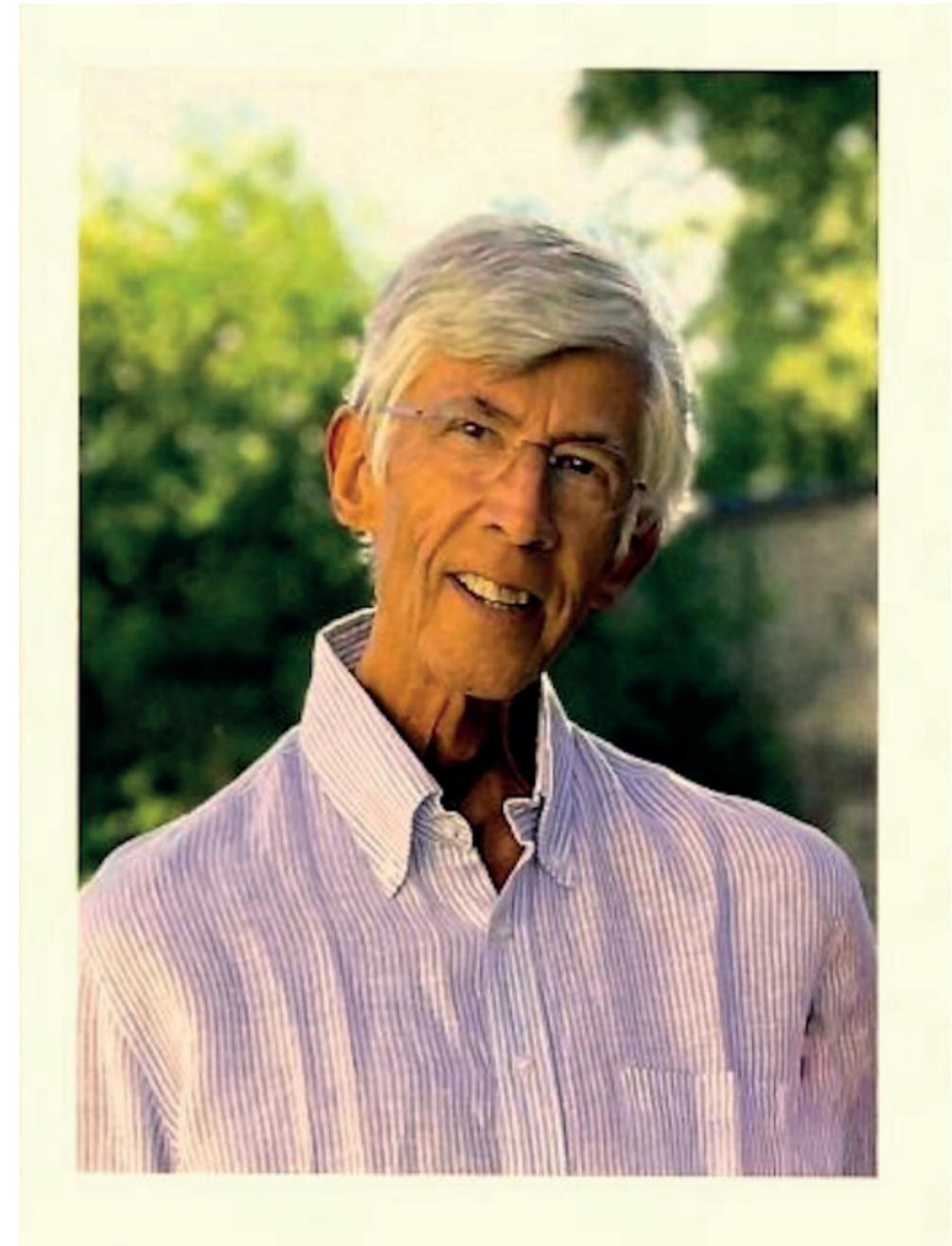
He was ideal for this position due to his friendly and outgoing nature, his extensive network of contacts, and most importantly his passion for philanthropy. In this capacity at the Baillet Latour Fund, he dedicated his life to charitable work, supporting medical research, the arts and culture, and, with the Princess Elisabeth Antarctica, polar research.

Alain de Waele became interested in the work of Alain Hubert and the International Polar Foundation when he met Alain Hubert in 1999 at a conference in Deauville, France.

When the Princess Elisabeth Project was launched in 2004, Alain De Waele immediately stepped in to help.

The Baillet Latour Fund financed all the scientific research equipment needed to equip the station on the advice of researchers consulted. He always felt that the Princess Elisabeth Station was an exceptional advertisement for Team Belgium, and was always ready to promote the exceptional qualities of Belgian research.

Alain De Waele had the initiative to set up the Baillet Latour Antarctica Fellowship, along the lines of other awards made by the Baillet Latour Funds, with the first award being made in 2008.



The Baillet Latour Antarctic Fellowship was a bi-annual Fellowship of 150,000 Euros managed by the International Polar Foundation to support the research of early career polar scientists interested in conducting scientific research at, or in the vicinity of the Princess Elisabeth Antarctica.

During the 12 years the Fellowship was in place, the award was able to assist several promising young researchers from Belgium and other countries in the fields of glaciology, microbiology, and Earth sciences.

In 2009, he was present at the inauguration of the Princess Elisabeth Antarctica, and he remained very implicated in future plans, agreeing to find ways of financing the research and development initiatives that the Foundation wanted to put in place to support the development of new technologies at the PEA Station and further afield.

In 2012, Alain De Waele helped to organise the Gala event celebrating the 10th Anniversary of the creation of the IPF, and he remained always present and supportive in the next ten years.

He remained Vice-President of External Relations at InBev until 2007, after which he became Secretary-General of the Baillet Latour Fund full-time as the Funds activities expanded. The Funds work became more well-known thanks to his extensive outreach efforts and active engagement with stakeholders.

Due to declining health, he was unfortunately forced to step down from his position as Secretary General of the Baillet Latour Fund in 2019. He remained a Member of the Board (Administrator) of the Fund under the Presidency of Thomas Leysen.



IN MEMORIAM: STEPHEN COX

The International Polar Foundation is very sad to have lost Stephen Cox CVO, former Executive Director of the Royal Society in London and Trustee of the International Polar Foundation's UK arm (IPF UK).

Stephen came from Blackburn, England, where he was an outstanding student as a child.

Following voluntary service overseas in Bolivia, he pursued an undergraduate degree in geography and a master's degree in education. On completion of his studies, he joined the British Council, where he was stationed in Warsaw, Ghana, Washington DC, and London. In 1984 he became Assistant Secretary at the Royal Society to lead the society's international programmes, where he established links with scientists in Europe, the US and across the British Commonwealth.

He later became the Society's Executive Director. In the 1990s, he was elected Director-General of the Commonwealth Institute and worked as Chief Executive of the Westminster Foundation for Democracy, helping support emerging democracies in eastern Europe and sub-Saharan Africa. He was appointed a Commander in the Royal Victorian Order (CVO) in 1997.

Stephen also found time in his busy schedule to volunteer for the British Science Association, the Council for Assisting Refugee Academics (now the Council for At-Risk Academics) and the Royal Geographical Society, where he was elected a fellow.

It is in this spirit of giving back that Stephen also volunteered to become a trustee of the International Polar Foundation's UK branch, thanks to an invitation by another IPF UK Trustee, the Australian historian, author, and Antarctic expert Meredith Hooper.

IPF is very grateful to Stephen for his encouragement and support when we first launched IPF UK. IPF was always welcome at the Royal Society when IPF-UK meetings were held there."

Drawing on his vast experience in education, he provided helpful insight to IPF UK Executive Secretary Dr Liz Pasteur as she developed pedagogical content for Class Zero Emission UK, an educational initiative the International Polar Foundation created to teach young people about topics such as polar science, climate change, energy, biodiversity,

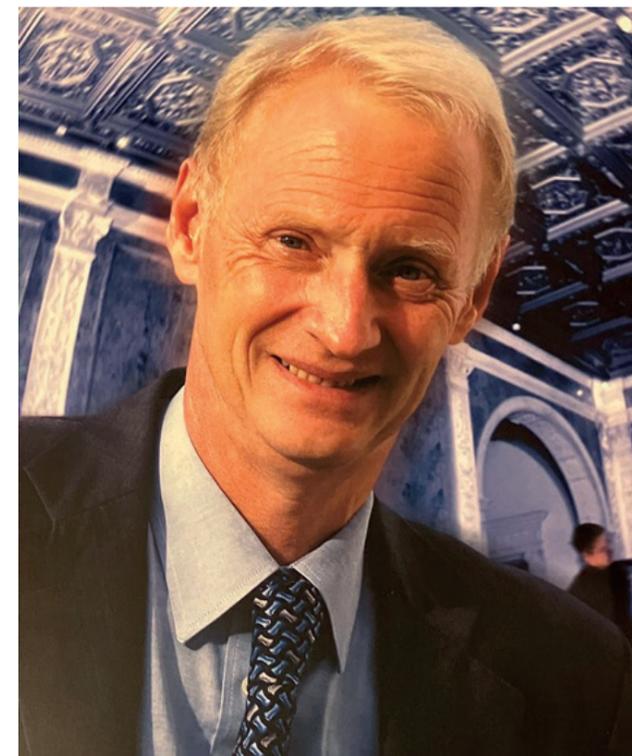
and how to have a more sustainable livelihood.

He was an excellent trustee, was witty and personable, and always offered good suggestions and encouragement. His perceptive comments helped significantly during the development of the Class Zero Emissions workshops in the UK. He had a broad depth of experience to draw on and was very generous with his time.

After retiring from the Royal Academy in 2011, he chaired the council of Royal Holloway University of London as well as the governing body of Atlantic College. He was also a trustee of the Frederick Soddy Trust.

Stephen remained a trustee of IPF UK until his passing.

Stephen was also an avid cricketer and published author. His works include The Commonwealth Institute: A Tale of Two Buildings, and The Royal Society in Cold War Europe.



IN MEMORIAM: HUGO DECLEIR

Professor Hugo Decler had a distinguished career in glaciology, and participated in several expeditions to Antarctica with the Belgian, Dutch, South African and Japanese Antarctic Expeditions. He was also active in Greenland.

He published prolifically, focusing on topics ranging from the mass balance of the Antarctic and Greenland ice sheets, mountain glaciers, paleoclimatology, the contribution of melting glaciers to sea level rise, remote sensing to monitor environmental change, and the cryosphere's role in the Earth's climate system.

Passionate about raising awareness and educating the public about the effects of climate change on the polar regions, he would often document his research expeditions in photo and film.

He also had a keen interest in the history of Belgian polar exploration and polar research. He co-authored a number of books, including *The Belgica Expedition Centennial: Perspectives on Antarctic Science and History* on the centennial of the first scientific research expedition to Antarctica aboard the Belgica in 1897-99, and *Roald Amundsen's Belgica Diary*, which related the famous Norwegian explorer's perspective on the Belgian expedition of 1897-1898, where he served as an officer of the vessel's crew.

His passion for raising awareness about the importance of polar research compelled him to found the International Polar Foundation in 2002, with Alain Hubert and Professor André Berger.

It was on a trip to the North Pole with Alain Hubert, Professor André Berger and Nighat Amin in 2003 that Hugo first brought up the question of re-building a station in Antarctica for the Belgian research community. He felt that it was time to return to the Antarctic as the Belgian researchers were very competent but relied heavily on the hospitality of other nations.

By building a new station, Belgian research would be greatly encouraged and could offer to other nations the possibility to access areas that were very little researched.

This inspired the construction of the Princess Elisabeth Antarctica, the world's first zero emissions polar research station. Hugo proudly took part in the inauguration of the station in February 2009 and was very moved to see the realisation of his wish.

He also served on the jury of the Baillet Latour Antarctica Fellowship, which provided a 150,000 Euro prize to young polar scientists conducting research in the vicinity of the Princess Elisabeth Antarctica. He was always a source of inspiration and encouragement to the younger generation of scientists and he will be fondly remembered by many.



IN MEMORIAM: ROLAND SOUCHEZ

The International Polar Foundation (IPF) is deeply saddened to learn of the passing of glaciologist Professor Roland Souchez on July 30th.

A Full Member of the Science Class of the Royal Academy of Belgium, and Professor Emeritus and former Dean of the Faculty of Sciences at the Université libre de Bruxelles (ULB), Professor Souchez made important contributions to the fields of glaciology and climate science during his decades-long career.

Roland Souchez was born in the borough of Uccle in Brussels in 1938.

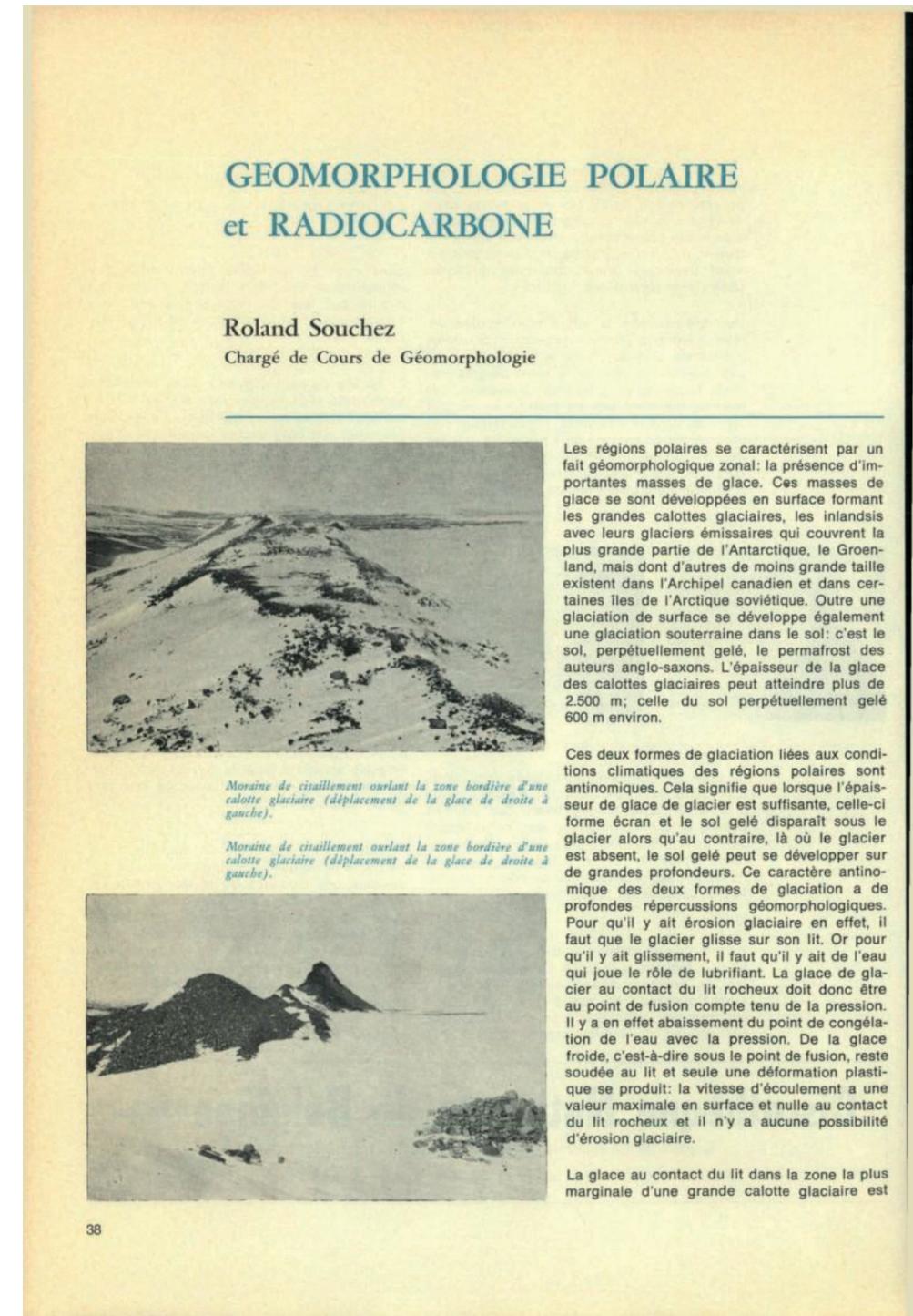
He earned his Doctorate of Science at the ULB in 1963. His area of expertise was isotopic glaciology, which studies the isotopes of oxygen and hydrogen in an ice core sample to reconstruct temperatures of the polar regions in past climates, contribute to determine its age and decipher potential phase changes. Roland Souchez also looked at gas trapped in ice cores (content, composition and their isotopic ratios) to decipher past atmospheric conditions and post-deposition alterations. He was particularly interested in studying basal ice, which is created from the interaction between ice sheets and bedrock below it.

From an early stage, he became deeply involved in the development of Antarctic glaciological research, participating in dozens of research expeditions to both poles and alpine regions.

His first foray into Antarctica was as a member of the 1964-65 Belgo-Dutch Antarctic expedition to study ice-cored moraines in the Sør Rondane Mountains, not far from the present-day Princess Elisabeth Antarctica station.

From there he participated in a number of international research expeditions, including with the United States Antarctic Research Program (1965-1966 and 1966-1967), the Italian National Antarctic Research Program in Antarctica (PNRA).

He took part in expeditions with the Geological Survey of Canada, the University of Aberdeen (UK), and the University of Edinburgh (UK) to Greenland and the Canadian Arctic to study basal ice outcrops.





Due to his extensive expertise, he was asked to lead research efforts on basal ice sequences retrieved from most of the international deep ice core drilling efforts, both in Greenland (GRIP, North GRIP, NEEM) and in Antarctica (EPICA Dome C, EPICA DML, Vostok). He also studied basal outcrops in glaciers in the Swiss Alps with the University of Cambridge (UK) and the Laboratoire de Glaciologie et Géophysique de l'Environnement (LGGE) in Grenoble (France).

Over the six decades of his career, Professor Souchez created an impressive body of work co-authoring 96 publications and held earned many distinctions and achievements, including becoming the Dean of the Faculty of Sciences at the ULB between 1981 and 1984.

He also spent several years abroad as a Visiting Professor at other institutions, including at the University of Maryland in 1970 and the University of Ottawa in 1971. He was Associate Professor at the University of Paris between 1984 and 1985.

Professor Souchez also served as a Visiting Professor at the Université Catholique de Louvain (UCLouvain) for two years between 1998 and 2000, where he held the Franqui Chair during his second academic year there. The Franqui programme facilitates academic exchanges from different Belgian and international academic institutions.

He was elected correspondent of the Class of Sciences at the Royal Academy of Belgium in 1999 and became a Member of the Academy five years later in 2004. He also served as Director of his Class in 2007.

Professor Souchez nominated by Alain Hubert for the 2024 Belgica Prize and handed the award to him at a ceremony at the Royal Academy of Sciences of Belgium on June 10th, 2024.

Professor Souchez also received the Antarctic Medal from the United States Government, and the U.S. Board on Geographic Names officially named Souchez Glacier after him in West Antarctica.







STRUCTURE & GOVERNANCE 2023/2024

INTERNATIONAL POLAR FOUNDATION

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- HM King Philippe of Belgium

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- Ivan Frolov, Arctic and Antarctic Research Institute (AARI), Russia +
- Claude Lorius, Laboratoire de Glaciologie et Géophysique de l'Environnement (LGGE), France +
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- Alain Hubert, President, International Polar Foundation
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- Nicolas Van Hoecke, Managing Director, International Polar Foundation

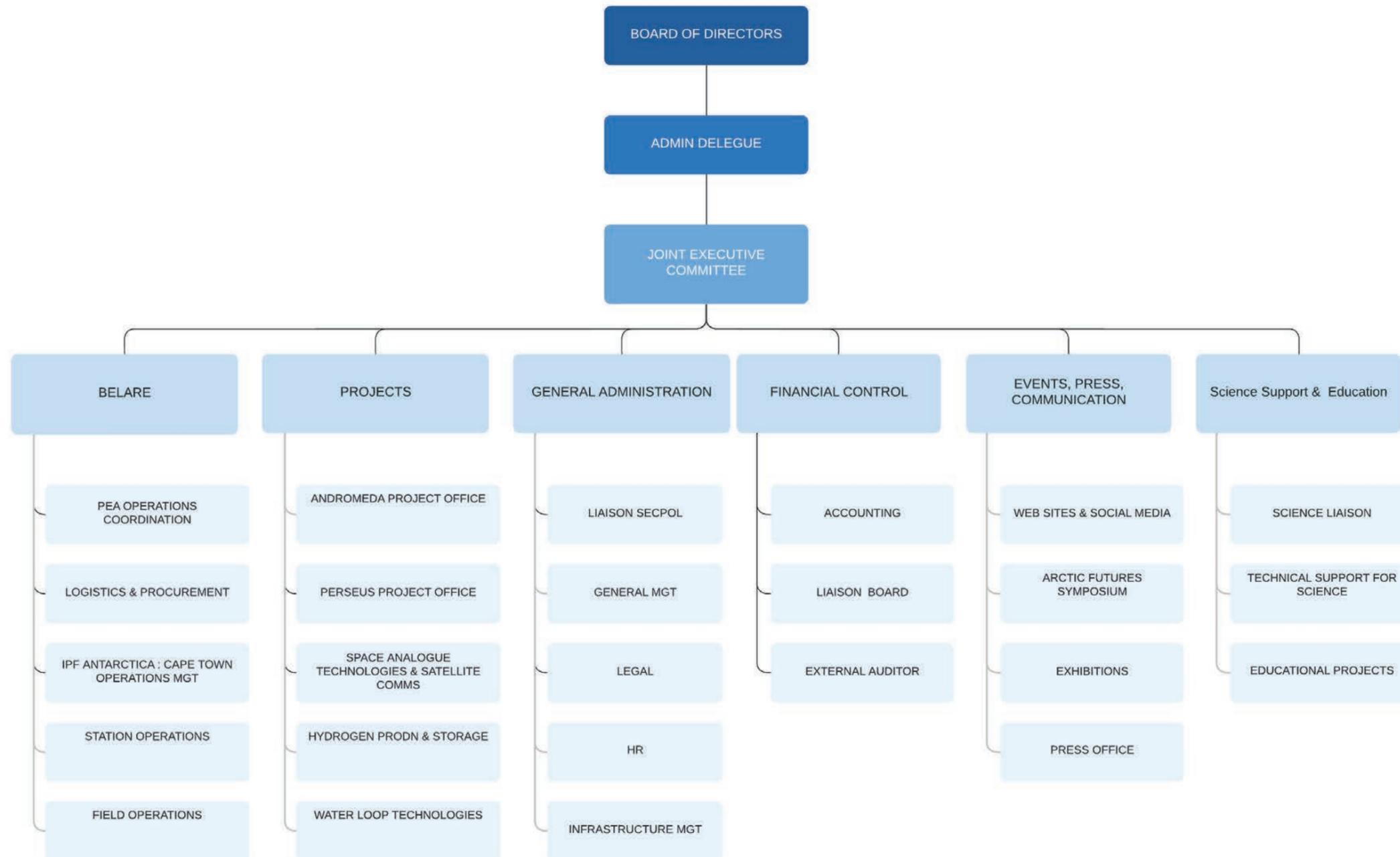
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- Jacques de Mevius, Non Excecutive Director (mandate: September 2019 - September 2024)

IPF ORGANIGRAMME 2023-24



FINANCIAL REPORTING

ACCOUNTS

OPERATING YEAR	2019	2020	2021	2022	2023-2024*
REVENUE & EXPENDITURE	EUROS	EUROS	EUROS	EUROS	EUROS
Revenue	3 736 000	3 718 000	4 022 000	3 579 000	5 632 000
Belgian Polar Secretariat			3 068 000	3 247 000	4 764 000
Science Support			211 000	39 000	433 000
Technical Project support			325 000		
Donation & bequests			231 000	75 000	151 000
Other			187 000	218 000	284 000
Expenditure	4 226 000	3 444 000	3 744 000	3 674 000	6 108 000
Antarctic Operations			3 323 000	2 926 000	4 675 000
Other Projects			421 000	748 000	1 433 000
Profit/(Loss) for the Period	- 490 000	274 000	278 000	- 95 000	- 476 000
BALANCE SHEET					
Non-Current Assets**	-	4 000	16 000	285 000	779 000
Current Assets	1 909 000	1 210 000	2 091 000	1 144 000	2 730 000
Total Assets	1 909 000	1 214 000	2 107 000	1 429 000	3 509 000
Reserves	692 000	966 000	1 242 000	1 146 000	706 000
Accounts Payable	1 217 000	248 000	865 000	283 000	2 803 000
Total Liabilities	1 909 000	1 214 000	2 107 000	1 429 000	3 509 000

* Exceptional accounting period of 18 months from 1 January 2023 to 30 June 2024 due to alignment with BELARE asbl

** In line with the valuation rules, all tangible fixed assets (equipment and infrastructure) belonging to the Foundation and linked to the Princess Elisabeth Antarctica activities are transferred from BELARE to IPF at fully depreciated values.

FINANCIAL STATEMENT

The period was characterized by the harmonisation and restructuring of the financial accounts to ensure transparency and clarity to IPF's stakeholders. To this end, the accounting period from 1 January 2023 to 30 June 2024, represents an exceptional 18-month reporting period. This adjustment was made to align the financial closures of the International Polar Foundation (IPF) and BELGIAN ANTARCTIC RESEARCH EXPEDITION asbl (BELARE), ensuring that both entities close their accounts on 30 June 2024. The objective is to provide greater clarity and transparency in understanding the accounts, particularly in relation to Antarctic activities. Although the extended duration makes it challenging to directly compare figures with previous years, this necessary alignment will enhance the clarity of the accounts for the future.

The total balance sheet for 2023-2024 stands at €3.508.928, a significant increase compared to €1.429.671 in 2022, representing a growth of €2.079.257. This increase is largely attributable to the receipt of the first instalment of €2.189.923 from the budget allocated to the BELARE 2024-2025 campaign.

The net book value of tangible assets also saw a notable rise, reaching €776.952 compared to €281.775 in the prior accounting period. This change is primarily driven by the acquisition of rolling stock, including a fire truck to enhance safety on the Perseus runway in Antarctica, and the construction of installations to make the runway operational, totalling €366.714. Among these developments, an advanced water treatment system stands out as a key investment. Additionally, the Foundation initiated the development of a new website during this period, amounting to €64.400.

The gross margin, however, declined to -€101.777, compared to €87.688 in 2022. This downturn is attributed to increased rental costs and the financial coverage of BELARE's losses for portions of the 2022-2023 and 2023-2024 campaigns. These expenses stemmed from the extended 18-month reporting period, resulting from a change in the accounting closing date. Furthermore, an increase in overhead costs linked to the Foundation's growing projects also contributed to this result.

The prolonged accounting period in combination with substantial investments in infrastructure and project development, explain the loss of €476.000 for the period. The IPF remains committed to financial sustainability and resource optimization, with a focus on securing new funding sources to ensure operational continuity and cover overhead costs through a comprehensive funding strategy that is being developed to support both short-term needs and long-term growth.

IPF MANAGEMENT REPORT SUMMARY ON ACTIVITIES

The BELARE 2023-24 expedition marked a significant milestone with the modernization of the water treatment system at the Princess Elisabeth Antarctica Station. Initially designed in 2009 to support 20 occupants, the system – updated through the years – has now been upgraded to accommodate up to 50 people, ensuring continuous compliance with the environmental management standards outlined by the Foundation.

In parallel, substantial investments have been directed towards installations at Perseus, focusing on energy management and water treatment systems. Perseus, envisioned as an independent intercontinental airport and crucial hub for future scientific activities in the region, aims to operate entirely on renewable energy, reflecting the environmental ethos of the Princess Elisabeth Station.

Building on these advancements, the IPF is also launching the Andromeda Earth Observatory project, which seeks to establish Antarctica's first zero-emission international research station and R&D facility. This ambitious initiative includes the creation of an international university research centre, addressing the global urgency of climate change and fostering collaboration among leading researchers worldwide.

On the educational front, the IPF has partnered with the MAS Museum in Antwerp to create an exhibition highlighting the history of polar exploration and Belgian research in Antarctica. Through exhibitions and year-round educational workshops, the IPF has continued its mission of inspiring future generations and promoting awareness about polar regions.

The Foundation hosted the 14th edition of the Arctic Futures Symposium in Brussels in November 2023. The international, multidisciplinary, and multi-stakeholder conference is a recognized forum dedicated to addressing critical Arctic issues. Over the past two years, the scope of this initiative has expanded with the introduction of the "Laurence Trân Arctic Futures Award." This annual award provides financial support to young Arctic entrepreneurs while tackling key challenges faced by regional stakeholders, further emphasizing the Foundation's commitment to sustainable development and youth empowerment in polar regions.

IMPORTANT EVENTS SINCE THE END OF THE FINANCIAL YEAR

After the closure of the accounts for the 2023-2024 Antarctic season, the Polar Secretariat has approved the budget for the 2024-2025 BELARE campaign, in accordance with the Arrêté royal fixant les règles de la gestion du service de l'Etat à gestion séparée « Secrétariat polaire » / Koninklijk besluit tot vaststelling van de regels voor het beheer van de Staatsdienst met afzonderlijk beheer "Poolsecretariaat" defining the privileged partnership between the Belgian State and the IPF.



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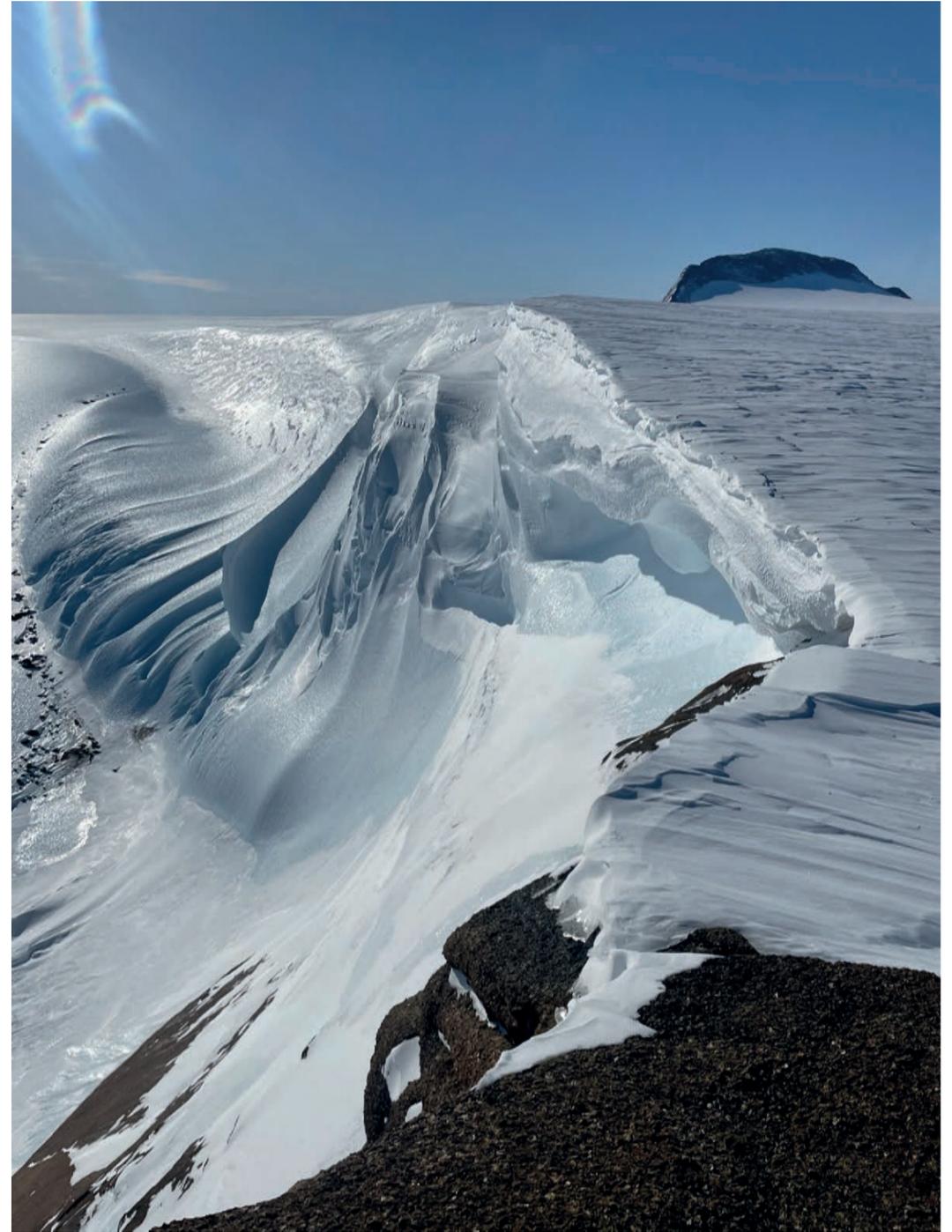
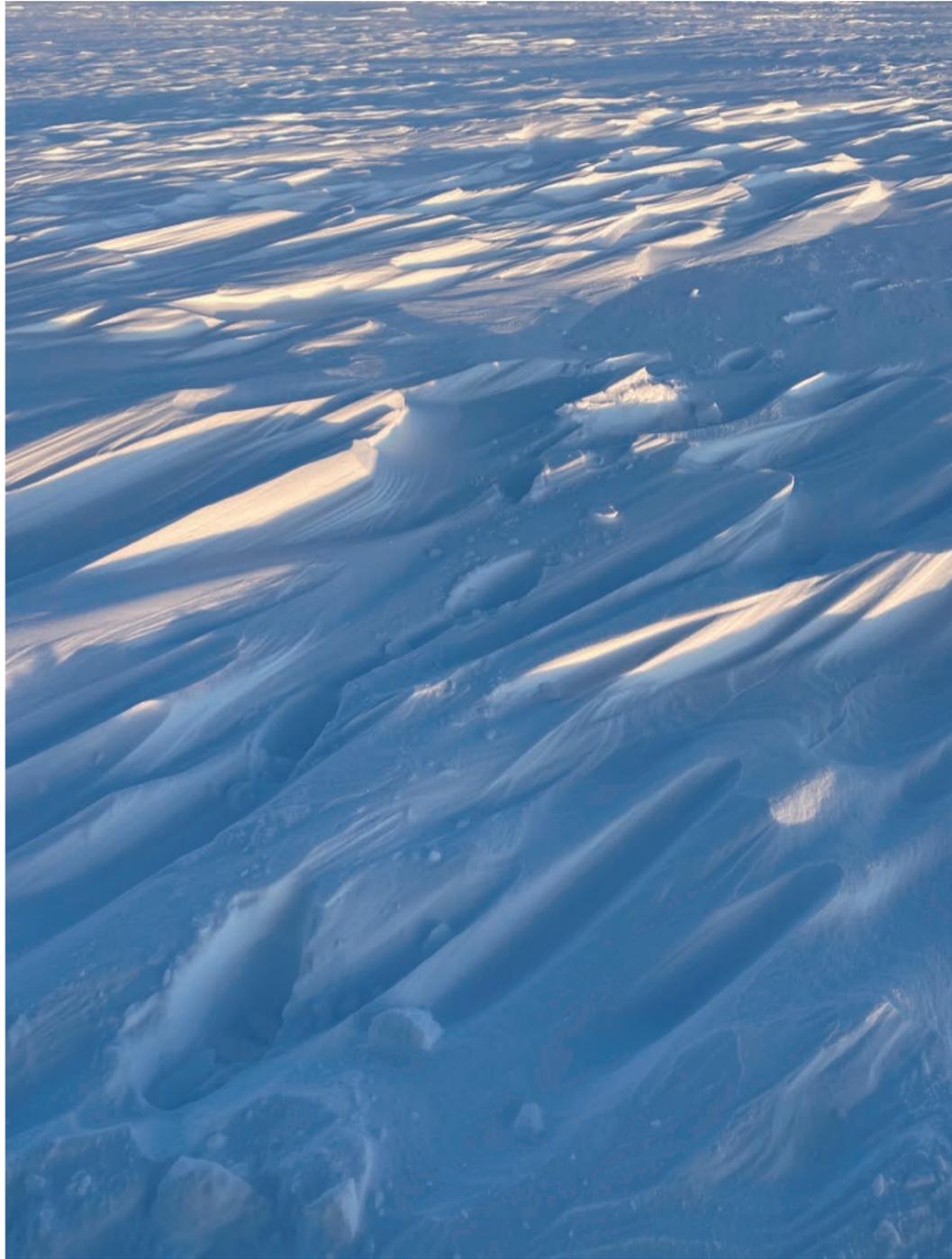
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