INTERNATIONAL POLAR FOUNDATION

ANNUAL REPORT 2020

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FOREWORD

2020 was a difficult year. The International Polar Foundation (IPF) faced its share of challenges in 2020, many of which were brought about as a result of the pandemic.

On 4 April, IPF lost Philippe Bodson, a longtime friend and unwavering supporter of the Foundation, to complications brought on by COVID-19. Member of the IPF Board since 2011, his experience and advice have been vital for achieving our projects. On 8 August, world-renowned glaciologist Prof Konrad "Koni" Steffen, a longtime friend and Honorary Member of the Foundation, passed away in a fatal accident in Greenland, where he was conducting field research at Swiss Camp, a meteorological research station he established in the '90s with my help.

The Baillet Latour Antarctica Fellowship call for applications, which had been scheduled to launch in the spring of 2020, had to be postponed until further notice.

The pandemic also complicated the logistics of activities we were able to carry out in 2020. Very strict logistical planning was necessary for the 2020-2021 Belgian Antarctic Research Expedition (BELARE) in order to keep every team member who went to the Princess Elisabeth Antarctica research station safe from the COVID-19 virus. And the eleventh edition of our annual Arctic Futures Symposium, a now well-known and internationally recognized conference IPF and its Arctic stakeholder partners hold in Brussels focused on Arctic issues, was forced to move to an entirely online format.

However, these challenges did not daunt us; rather, we rose to meet them and emerged stronger than ever, thanks to an unparalleled dedication and sense of teamwork. Being forced to move online allowed the Arctic Futures Symposium to reach hundreds more people than it normally would have as an in-person event held in Brussels. And the BELARE team working at the Princess Elisabeth Antarctica grew even closer. Their unmatched commitment allowed them to fulfil their mission to provide essential logistical support to scientists, and to complete a number of key construction projects to not only upgrade the station but also to increase its renewable energy production capacity. Even in these challenging times, the IPF has reinforced the unique position of the Princess Elisabeth Antarctica as the only Zero Emissions research station in Antarctica.

The world has changed, and yet IPF remains committed in its mission to lead by example in the quest to respond to the challenges that climate change presents while fostering dialogue between a wide variety of stakeholders. These include the polar and climate science community, decision-makers, the general public, and especially young people, as they will play a key role in implementing solutions to climate change challenges.

It is together with all these stakeholders that the IPF team will continue to build the future. And we have started 2021 in good spirits: in January this year all the allegations against me were completely and definitively dismissed. Though we were confident about the outcome, we are nevertheless happy to close a chapter that has hampered the full execution of several of our projects.

2021 is the year we prepare the IPF to enter the next chapter of its existence, renewed and even more motivated than ever to be a leader in the green transition.

As an organization founded on entrepreneurial spirit, we intend IPF to continue to lead by example for years to come, as the new

generation of experts begins to contribute to making the world a more sustainable and healthier place for future generations.

We look forward to our future projects with great enthusiasm!

Alain Hubert
Founder and Chairman of the Board
International Polar Foundation

THE INTERNATIONAL POLAR FOUNDATION: CONNECTING SCIENCE AND SOCIETY

The International Polar Foundation supports polar scientific research for the advancement of knowledge, the promotion of informed action on climate change, and the development of a sustainable society.

Founded by Belgian polar explorer Alain Hubert, Prof. Hugo Decleir, and Prof. André Berger in 2002, the Brussels-based International Polar Foundation provides a novel interface between science and society, and was recognized by Belgian Royal Statute as a foundation for the public good in 2002. HM King Philippe is the International Polar Foundation's honorary president.

The Foundation seeks to bring about a keener appreciation of the role of science, particularly research in the Polar Regions, through a re-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 initiated several high-profile projects, including supporting polar science through the creation and operation of the wind-and-solar-powered zero emission Princess Elisabeth Antarctica station, logistical support of scientists working in Antarctica, fellowship awards for Antarctic researchers, an annual symposium on Arctic issues, and science and education websites, which offer classroom activities and resources available on dedicated websites.

INTERNATIONAL POLAR FOUNDATION STRUCTURE 2020

HONORARY PRESIDENT:

HM King Philippe of Belgium

FOUNDERS:

Alain Hubert, Civil Engineer, Polar Explorer, Mountain Guide,
André Berger, Climatologist, Emeritus Professor at UCL (Belgium), Honorary President of the European Geosciences Union
Hugo Decleir, Glaciologist, Emeritus Professor at VUB (Belgium)

HONORARY MEMBERS:

Roger Barry, National Snow and Ice Data Centre (NSIDC), USA
Paul Crutzen, Max Planck Institute, Mainz, Germany
Ivan Frolov, Arctic and Antarctic Research Institute (AARI), Russia
Claude Lorius, Laboratoire de Glaciologie et Géophysique de l'Environnement (LGGE), France
Lawrence Mysak, McGill University, Canada
Olav Orheim, Norwegian Research Council, Norway
Dahe Qin, China Meteorological Administration (CMA), China
Chris G. Rapley, University College London (UCL), UK
Susan Solomon, Massachusetts Institute of Technology (MIT), USA
Konrad Steffen, Cooperative Institute for Research in Environmental Sciences, University of Colorado
Jorn Thiede, St Petersburg State University, Russia
Svein Tveitdal, GRID Arendal, UNEP, Norway
Okitsugu Watanabe, National Institute of Polar Research (NIPR), Japan

EXECUTIVE COMMITTEE:

Alain Hubert: President, International Polar Foundation
Nighat Amin: Head of Environmental and International Affairs, International Polar Foundation
Quentin Debacker: Legal and Administrative Affairs

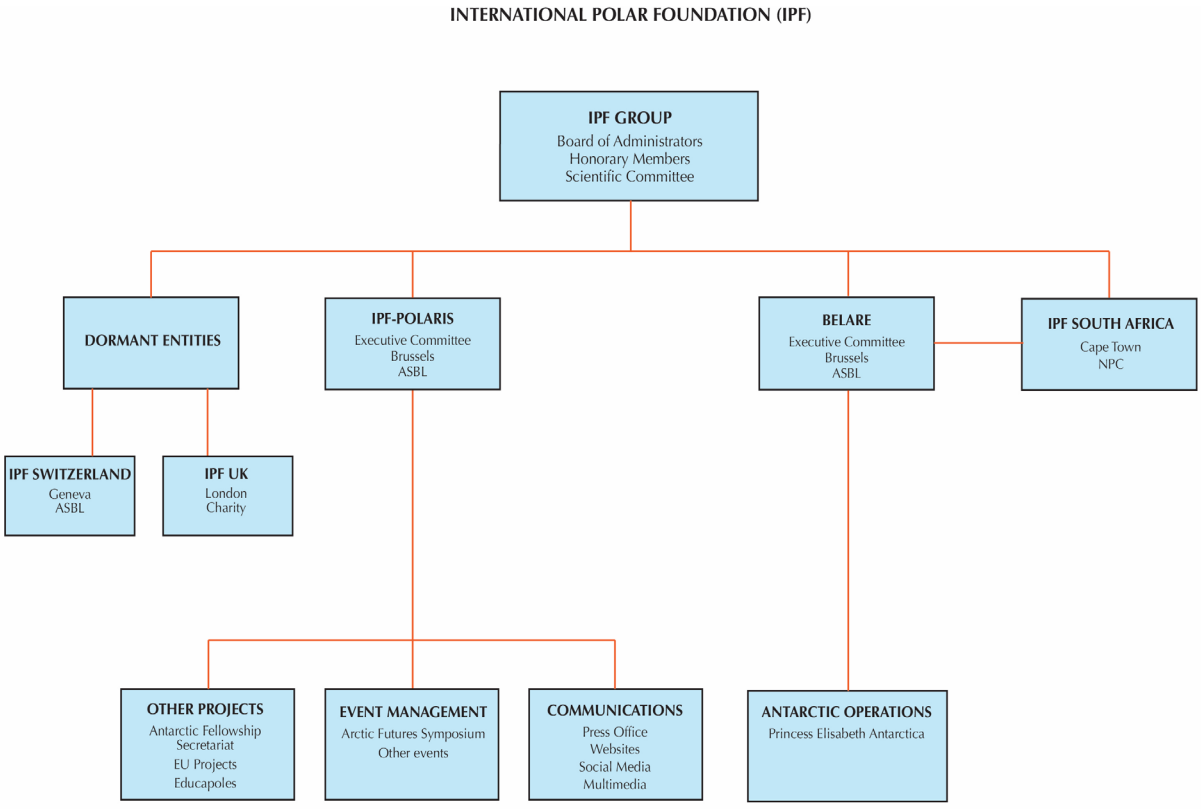
FINANCIAL:

Luc Corluy: Chief Financial Officer
Arnaud de Viron: IPF Finance and Accounting

BOARD OF DIRECTORS:

Louis Greindl, Chairman of the Board (mandate: September 2019 - September 2024)
Alain Hubert, Founder President (mandate: December 2018 - December 2023)
André Berger, Founder (mandate: December 2018 - December 2024)
Nighat Amin, Director (mandate: September 2019 - September 2024)
Piet Steel, Chairman of the Board of POLARIS asbl, Member the Belgian Polar Secretariat (mandate: December 2018 - December 2023)
Marc Speeckaert, Member of the Belgian Polar Secretariat (mandate: December 2018 - December 2023)
Alain Dewaele, Independent Director (mandate: September 2019 - September 2024)
Olivier Perier, Independent Director (mandate: September 2019 - September 2024)
Eric Goens, Chairman of the Board of BELARE (mandate: September 2019 - September 2024)
Jacques de Mevius, Independent Director (mandate: September 2019 - September 2024)

ORGANIZATION CHART



CONTACT INFORMATION

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www.arcticfutures.org
www.educapoles.org
www.antarcticstation.org
www.sciencepoles.org
www.explorapoles.org

INTERNATIONAL POLAR FOUNDATION GLOBAL OFFICES

The International Polar Foundation headquarters are located at the heart of Europe, in Brussels, Belgium. We also have regional offices in South Africa,

IPF SOUTH AFRICA

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ACTIVITIES OF THE IPF

ANTARCTIC OPERATIONS

The International Polar Foundation works with the Belgian Polar Secretariat as the Belgian officially appointed Antarctic operator and manager of the revolutionary Zero Emissions Princess Elisabeth Antarctica research station. Antarctic operations are managed through the Belgian Antarctic Research Expedition - BELARE asbl - a subsidiary of the IPF.

BELARE 2019-2020

Lasting from November 2019 until the end of February 2020, the 2019-2020 BELARE expedition season was a very active one, with scientists using the Princess Elisabeth Antarctica (PEA) as a base of operations to work on several research projects focusing on areas of research including glaciology, atmospheric sciences, macrobiology, microbiology, and geology.

The expert BELARE team provided support and guidance for the more than dozen research projects that took place at PEA during the 2019-2020 season:

- **BioFe in Glacial Systems**

  Dr. Kate Winter from Northumbria University in the UK returned to Antarctica for the second of two seasons to finish work on the BioFe in Glacial Systems project, which seeks to better understand how bio-available iron makes its way from the interior of Antarctica to the coast, where it serves as a nutrient to primary producers such as phytoplankton. She took additional ice-radar transects to examine the topography of the glacier-bedrock interface to supplement the radar images she took during the previous season. Dr. Winter also collected data from the Raspberry Shake seismographs she and IPF staff had set up the previous year to see how much seismic activity caused by falling debris was registered over one year. Finally, she took drone images of the same rocky outcrops she surveyed last year to determine how much debris had fallen over the previous year.

- **CHASE**

  Stefania Gili and Preben Van Overmeiren from the CHASE project continued to work on building a unique database of organic and inorganic particles in the atmosphere and on the surface of the snow in the region around the Princess Elisabeth Antarctica. Their goal was to learn more about atmospheric circulation in the Southern Hemisphere, and to what extent anthropogenic emissions from lower latitudes end up in Antarctica's atmosphere. The field missions to collect samples from atmospheric particle samplers were a success.

- **MASS2ANT**

  In their mission to better understand ice mass balance in East Antarctica over the last few centuries, MASS2ANT scientists travelled to the coast to take certain snow and ice parameter measurements at the ice rise where they had drilled ice cores during the last two field seasons. The ice cores were analysed at the Université Libre de Bruxelles (ULB, Belgium) to determine variation in mass ice balance in the region over time.

- **BELAM**

  Researchers from the Vrije Universiteit Brussel (VUB, Belgium) and the Université Libre de Bruxelles (ULB, Belgium) led yet another search for micrometeorites in Antarctica, as they can offer clues about the formation of the solar system. The blue ice fields not far from PEA preserve micrometeorites very well and

make them easy to detect. During their stay in Antarctica, the meteorite specialists camped on the Nansen Ice Field for three weeks to collect samples. In Belgium, the micrometeorites will be analysed and some will be added to the existing collection of micrometeorites at the Royal Belgian Institute of Natural Sciences.

- ## MICROBIAN

  Researchers from Ghent University and the University of Liège installed monitoring equipment and used drones to map microbial life living in the ice-free areas of the Sør Rondane Mountains near the Princess Elisabeth Antarctica. They spent four weeks taking samples around the station. The samples were brought back to Belgium at the end of the season for analysis in the universities' labs.

- ## POPE

  The POPE project aims to determine where and how precipitation in Antarctica forms and how much of this precipitation, once deposited on top of the Antarctic Ice Sheet, eventually gets transformed over time into ice. The POPE team installed additional equipment, including a large dish that detects the movement and quantity of snowfall. IPF engineers Guus Luppens and Johan De Muylder constructed mobile solar-powered units that allowed the POPE scientists working in the field to run radar equipment on 100% renewable solar energy.

- ## RINALP and LOSUMEA

  Led by the CRYOS lab at the Polytechnic School of Lausanne (EPFL) in Switzerland, the LOSUMEA project investigated the relationship between snow deposition and surface mass balance of the Antarctic Ice Sheet. The researchers involved at the station sought to clarify the relationship between precipitation, drifting and blowing snow, and ice formation. In addition to this, the associated RINALP project sought to understand the evolution of the surface mass balance in the Queen Maud Land region of East Antarctica within the context of anthropogenic climate change.

- ## AEROCLOUD

  The AEROCLOUD project is building up an extensive database on cloud, precipitation, and aerosol properties in Antarctica based on measurements the research teams from the Royal Meteorological Institute of Belgium (RMI / IRM / KMI), KULeuven, and the Royal Belgian Institute for Space Aeronomy (BIRA-IASB) have been taking at the Princess Elisabeth Antarctica. The goal is to evaluate and improve regional climate models for the Queen Maud Land in East Antarctica, as well as to improve our understanding of the relation between atmospheric aerosols, surface energy balance, and cloud formation in East Antarctica.

- ACME

  The International Polar Foundation, the Royal Meteorological Institute of Belgium (RMI / IRM / KMI), and the Swiss Federal Institute for Forest, Snow and Landscape Research (WSL) continued their collaboration on the ACME project during the 2019-2020 season. Every season, Benoît Verdin and other IPF staff launch weather balloons with radio sounding equipment every second day from the Princess Elisabeth Antarctica over the four months the station is occupied. As the weather balloons ascend into the atmosphere, the radio sounding equipment takes measurements of meteorological data including air temperature, humidity, air pressure, and other atmospheric data. The data collected is freely available to any interested person or institution via the World Meteorological Organization (WMO) Global Telecommunication System (GTS). The data collected from the weather balloon is also contributing to the Year of Polar Prediction (YOPP).

- ADWA

  Led by the Space Physics Division of the Royal Belgian Institute of Space Aeronomy (BIRA-IASB) with help from Eötvös Loránd University (ELTE) in Hungary, the ADWA project has been monitoring whistler waves (a particular type of electromagnetic waves that propagate from one hemisphere to another in Earth's protective magnetosphere). A VLF (Very Low Frequency) magnetic antenna augmented with data processing equipment that researchers set up at the Princess Elisabeth Antarctica in 2016 contributes to a network of similar antennae across the globe. The collected data helps researchers better understand the state of the inner part of Earth's magnetosphere called the plasmasphere (which contains low-energy plasma) and model its behaviour.

- NIPR-Aurora

  The Princess Elisabeth Antarctica hosted scientists from the Japanese National Institute for Polar Research (NIPR) taking part in the Japanese Antarctic Research Expedition (JARE). One of the projects involves building an aurora observation network along the coast of the Dronning Maud Land in East Antarctica. The team installed a Fluxgate Magnetometer on Utsteinen Ridge and an aurora camera and a Global Navigation Satellite System (GNSS) antenna on the roof of PEA.

- NIPR-Biology

  The second project JARE scientists undertook during the season involved studying the origin and transition between different biological ecosystems in Antarctica. The team made preparations for a future expedition in the region that will compare current ecosystems in Enderby Land near the coast of the Queen

Maud Land and the Sør Rondane Mountains. They also seek to reconstruct ecosystems from these two regions' recent past to see if there have been any significant changes in ecosystem boundaries. They will take samples from ice-free areas in these two areas.

- ### GLACIOCLIM

  IPF President and BELARE Team Leader Alain Hubert continued his decade-long commitment to the the Glaciology Laboratory at the University of Grenoble Alpes in France to take snow depth measurements along a transect between Crown Bay at the coast and Vesthaugen Nunatak. Glaciologist Jean Rasson from the Royal Meteorological Institute of Belgium (RMI /KMI / IRM) accompanied Alain on the 180 km trek.

- ### GIANT

  For nearly a decade, the GIANT project managed by the University of Luxembourg has been making continuous gravity and Global Navigation Satellite System (GNSS) observations. The objective is to use geodetic techniques to provide information on the ice mass balance of the Antarctic Ice sheet in the vicinity of the Princess Elisabeth Antarctica. While no researchers were present at the station during the 2019-2020 season, IPF technicians ensured the proper upkeep of the instruments.

- ### GEOMAG

  The GEOMAG project aims to conduct long-term observations of Earth's geomagnetic field in the vicinity of PEA. In order to describe and understand the current and future evolution of the planet's geomagnetic field, it is important to observe how the field moves and changes over time. Geomagnetic field observations are particularly important to make in the Polar Regions, where good geomagnetic observatories are few and unevenly spaced. They are crucial for Solid Earth modelling and studying space weather. Since 2015, instruments housed in a small observatory not far from PEA have been taking automatic

measurements. Data from the observatory are transferred in real time to the Geophysical Center in Dourbes, Belgium and contribute to the European Space Agency's SWARM satellite programme, a constellation of satellites that observes the Earth's geomagnetic field from space.

- ### SEISMO

  Seismometers that researchers from the Royal Observatory of Belgium installed at the Princess Elisabeth Antarctica in 2010 have been collecting continuous seismic data for the SEISMO project. The goal is to gain more insight into Earth's lithosphere and seismic activity in East Antarctica. While no researchers from the project were present in Antarctica during the 2019-2020 season, technicians at the station continued to take care of upkeep and maintenance of the seismometers.

CONSTRUCTION PROJECTS

The hard-working BELARE team undertook many construction and maintenance projects during the 2019-2020 Antarctica austral summer research season to expand the station's energy production capacity and make improvements to its facilities.

Perseus Airstrip welcomes inaugural flight

Built during the 2018-2019 season, the new Perseus Airstrip, located just 60 km north of the Princess Elisabeth Antarctica station, welcomed its first intercontinental flight on 22

November 2019. An Ilyushin 76 plane carrying the first scientists of the season directly from Cape Town touched down just after 18:00 UTC. Located only a few hours' drive from the Princess Elisabeth, the new airstrip cuts logistical costs of scientists conducting research at the station, as it removes the need for an intermediate stopover flight at another station with a large enough airstrip to support large cargo planes.

Under an agreement with ALCI (Antarctic Logistics Center International), the South Africa-based logistics service provider under DROMLAN, the new airstrip is partly maintained by the BELARE (Belgian Antarctic Research Expedition) team members.

A new garage for the station

With the station's new south annex completed during the previous season, the BELARE team set their sights on remaking the garage, or north annex, during the 2019-2020 season.

Over the more than ten years it had been in service, the base of the garage had started to drift and subside as the glacier underneath it moved and receded. Around the time that the station was constructed, the IPF team decided a to monitor the glacier's movement over ten years to determine the average pace of the glacier's movement each year. They chose to reconstruct the garage on hinges that allow the structure to be raised and adjusted in response to the changes in the glacier underneath it.

More renewable energy for scientists

The station's team of engineers, Guus Luppens and Johan De Muylder, worked on increasing PEA's energy production and storage capacity. To help scientists reduce their carbon footprint while in the field, they also designed and built mobile solar power units fitted on sledges that scientists can take with them when they conduct field research. The mobile solar power units are able to produce up to 25 kWh per day and can easily be transported into the field by sledge and set up practically anywhere.

The engineers also placed solar panels on all sides of a mobile container living unit, and installed inverters and several battery storage units inside it. Now scientists won't have to rely on polluting diesel generators to power their scientific instruments when they do fieldwork!

Improvements to regional communication

Communications in the vicinity of the Princess Elisabeth Antarctica are of vital importance for smooth operations and the safety of all BELARE team members and scientists. This is why members of the IPF technical team installed a wireless relay atop Vesthaugen Nunatak located halfway between PEA and the new Perseus Airstrip.

The new fully autonomous communications relay - the first long-range wireless network in Antarctica - makes it easy to have clear communications with the remote airstrip via Internet from the Princess Elisabeth Antarctica.

BAILLET LATOUR ANTARCTICA FELLOWSHIP

BACKGROUND

The biannual €150,000 Baillet Latour Antarctica Fellowship award - a joint initiative of the Baillet Latour Fund and the International Polar Foundation - promotes scientific excellence in Antarctica and underscores the crucial role polar science plays in furthering our understanding of the Earth and how it functions.

Since it was first awarded in 2008, the Fellowship has provided early career polar scientists with the opportunity to conduct research in East Antarctica while basing their operations out of the Princess Elisabeth Antarctica (located in Dronning Maud Land in East Antarctica at 71.57°S 23.20°E).

As of 2020, the Fellowship is open to doctoral researchers or post-doctoral researchers based at Belgian universities who have completed their PhD within the last 10 years. Projects from four fields of research are eligible under the Fellowship: (1) atmospheric sciences (2) geology (3) glaciology and (4) microbiology (excluding marine microbiology).

http://www.polarfoundation.org/projects/detail/baillet_latour_fellowship

2ND FIELD SEASON FOR 2018 FELLOW

Dr. Kate Winter from the Northumbria University in the UK, the 2018- 2020 Fellowship Laureate for the BioFe in Glacial Systems project, spent her second season in Antarctica under the Fellowship continuing to investigate how biologically available iron is transported via glacial flow from the interior of Antarctica to the Southern Ocean. Iron compounds serve as key nutrients for primary producers (such as phytoplankton) in the ocean food chain. As they absorb carbon dioxide (CO_2) from the atmosphere when they grow and multiply, it is important to understand how the iron nutrient cycle in Antarctica influences the rate at which this absorption happen.

Shedding light on the iron nutrient cycle in Antarctica had not been studied in great detail until she devised her research project. BioFe in Glacial Systems has acted as a proof of concept to determine which methods are best for tracking the iron nutrient cycle in Antarctica.

During the 2019-2020 season, Dr. Winter focused on revisiting the areas she had sampled during the previous season. More specifically, she:

- Re-scanned the mountains that she had scanned the previous year using a laser scanner mounted on a drone. Comparing visual images from last year to those taken this year allowed her to compare movements in the mountains that had taken place over the course of a year, including falling rocks and debris;
- Collected sediment samples from additional locations to test how much bioavailable iron was in them.

- Used a new ice-penetrating radar system to look deeper in the ice than she had during the previous season. The radar was able to scan down nearly 2,000 metres to look at sediments near the base of the ice.

- Retrieved the data collected by the Raspberry Shake seismometers she had placed in a number of locations to detect seismic activity such as falling rocks and debris.

IPF's team of professional field guides and engineers assisted her with her research tasks.

With the second season of her project completed, Dr. Winter hopes to be able to replicate the work she has done during the BioFe project on a larger scale in different parts of Antarctica to be able to compare how bioavailable iron is transported in different parts of the continent with different geologies.

Dr. Winter virtually presented her preliminary findings from her two field seasons in Antarctica at the online European Geosciences Union (EGU) General Assembly in May 2020. The audience greatly appreciated how interdisciplinary her research was. While discussing with scientists at the assembly working on similar topics, she came to realize to how much her research was filling important scientific and geographical gaps in knowledge about biogeochemical processes. The contacts she made at the assembly will allow her to develop future research projects.

She has also continued to be a strong advocate for STEM outreach, talking to schools about the her research, encouraging young women to get into the sciences, sitting for interviews, and writing about her research and the Baillet Latour Antarctica Fellowship in various publications.

PAUSE IN FELLOWSHIP

Due to the COVID-19 pandemic, it was decided to put the 2020-2022 Antarctica Fellowship on hold until the pandemic situation improves. As a consequence, there was no new laureate chosen in the autumn of 2020 and no awards ceremony.

The Baillet Latour Fund hopes to be able to re-open this fellowship again in the near future once the pandemic is over.

ARCTIC FUTURES SYMPOSIUM 2020

Due to the ongoing COVID-19 pandemic and the many travel and safety protocols that were implemented in many parts of the world, the International Polar Foundation and its Arctic stakeholder partners decided to hold the annual Arctic Futures Symposium online. The 11th edition of the popular symposium took place between Monday 30 November and Wednesday 2 December 2020. Several hundred participants from around the world took part in the virtual conference over the three days of the symposium.

Held for the benefit of the EU institutions and other Arctic stakeholders in the Brussels Capital Region and Western Europe, the Arctic Futures Symposium is an annual event that allows those who live and work in the Arctic to openly discuss topics they believe are important to address in Brussels' international setting. Speakers and attendees always include prominent international policymakers from the EU, Arctic Council member and observer states, Arctic indigenous organizations, scientists, academics, entrepreneurs, and representatives from industry.

THEMES OF THE SYMPOSIUM

Organized in conjunction with stakeholders such as representatives of Arctic state embassies, missions and embassies to the European Union and Nordic regional offices in Brussels, and with input from the Arctic Council Indigenous Peoples Secretariat, the 2020 symposium concentrated on three primary themes:

- Building resilience in Arctic communities;
- The Arctic strategies of the EU, Arctic states, and Arctic indigenous peoples;
- The EU's role in the Arctic.

Over the three days of the symposium, these themes were addressed in ten webinar panels, which featured a wide variety

of Arctic stakeholders and experts.

Following a welcome address from IPF Board Member Piet Steel and European Commissioner for Environment, Oceans, and Fisheries Virginijus Sinkevičius on the opening day of the symposium, Director of the Wilson Center Polar Institute Mike Sfraga opened the symposium with a high-level panel discussion featuring Commissioner Sinkevičius as well as Canada's Special Envoy to the EU Stéphane Dion, Norwegian Foreign Minister Ine Marie Eriksen Søreide, and U.S Coordinator for the Arctic Region James DeHart. The panel discussion focused on international cooperation, ocean governance, and security in the Arctic.

Expert researcher on the EU's Arctic policy from the Arctic Centre at the University of Lapland Adam Stępień then spent the remainder of the first day discussing the Arctic policies of states and indigenous organizations with Senior Arctic Officials from Arctic states, representatives from Arctic indigenous organizations, and the EU's Special Envoy for the Arctic Michael Mann.

The second day of the symposium focused on resilience, sustainability, and gender issues in Arctic communities, with panel discussions led by Editor-in-Chief of High North News Arne Holm, Director of ArcticNet from Université Laval in Canada Pierre Archambault, and Director of the Icelandic Arctic Cooperation Network Embla Eir Oddsdóttir.

On the final day of the symposium, Umeå University researcher Doris Carson led a discussion about Arctic entrepreneurship culture, while former EU Arctic Ambassador Marie-Anne Coninsx moderated two panel discussions about the EU's engagement in the Arctic with several high-level speakers, including the Chair of the Senior Arctic Officials during Iceland's Presidency Einar Gunnarsson, several key EU officials, representatives from Arctic indigenous organisations, representatives from local Arctic communities, and members of the business sector.

All ten sessions of the 2020 symposium can be viewed on IPF's YouTube channel under the playlist "#ArcticFutures Symposium 2020".

https://www.youtube.com/user/Polarfoundation

The pandemic situation unfortunately made it impossible to hold the very popular side event to the symposium, the Arctic Shorts film evening, at BOZAR Centre for Fine Arts in the city centre of Brussels. Arctic Shorts hopes to return in 2021 with great films from Arctic filmmakers!

SYMPOSIUM PARTNERS

The 2020 symposium was made possible thanks to the contributions of the following organizations:

- The Wilson Center Polar Institute
- The Mission of Canada to the European Union
- The Mission of Norway to the European Union
- The North Norway European Office

- The Permanent Representation of Finland to the European Union
- The East and North Finland European Office
- The North Sweden European Office
- The Representation of Greenland to the European Union
- The Mission of the Faroes to the European Union
- Arctic Consensus
- The Québec Government Office in Brussels
- The Mission of Iceland to the European Union
- The Horizon 2020 Blue Action Project
- The European Climate Research Alliance

The full programme, speaker bios, and symposium summary for the 2020 edition of the symposium can be found on the Arctic Futures website under https://www.arcticfutures.org/past-editions.

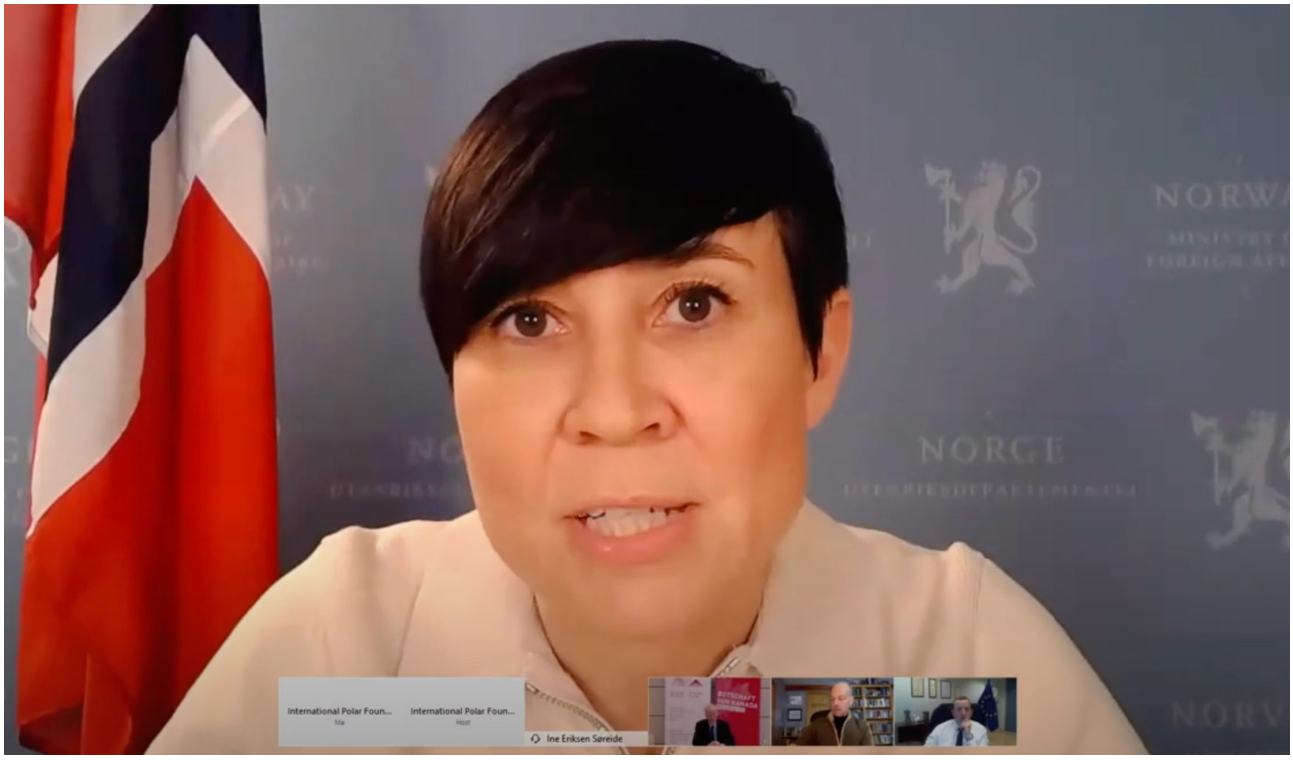
EDUCATION AND OUTREACH

Climate change poses the biggest threat to future generations. Therefore young people must be prepared to overcome the impacts of climate change as they will have to face its consequences.

The International Polar Foundation has made this challenge a priority by developing awareness-raising campaigns and increasing its educational outreach. The International Polar Foundation's educational materials are available upon request to schools, associations, and individuals. Educational content and activities are available for download from the Educapoles (www.educapoles.org) and Sciencepoles (www.sciencepoles.org) websites.

Thhe foundation also provides speakers to animate conferences, seminars, or workshops for associations and schools.

Through its educational projects and materials,



the International Polar Foundation aims to foster young people's interest in polar research, polar expeditions, environmental issues, climate change, sustainability, and STEM subjects (Science, Technology, Engineering, Mathematics).

ONLINE CLASSES

During the 2019-2020 season, Science Liaison Officer and Deputy Station Manager Henri Robert held dozens of online classes for students in Belgium and around the world via satellite link from the Princess Elisabeth Antarctica. More and more schools are asking IPF to hold online classes during the time the station in Antarctica is occupied.

In addition to discussing interesting research scientists are conducting in Antarctica and explaining how the planet's climate system works Henri also talks about daily life at the station. Seeing how polar resaerchers live and the beautiful landscapes where they work makes polar science much more exciting to youngsters.

TV AND RADIO

In January 2020, Croatian IPF IT specialist Damir Simpović and Princess Elisabeth Antarctica Deputy Station Manager and Science Liaison Officer Henri Robert were guests on the Croatian TV show "Dobro jutro, Hrvatska (Good Morning, Croatia)". Damir was interviewed live in the studio while Henri joined from the Princess Elisabeth Antarctica via live satellite link.

A live studio audience listened intently to the two as the show's hosts interviewed them about the unique design that PEA uses to run on renewable energy and its zero-emission philosophy. They also explained that the station goes the extra mile to reduce the environmental footprint of scientific research activities and that it can be controlled remotely even when it is not occupied from anywhere in the world via satellite link. This makes it possible to run and monitor the station's systems, especially energy production and use during the unoccupied austral winter months.

In February 2020 GLZ Israeli Radio interviewed Henri Robert about taking part in a research expedition at the Princess Elisabeth Antarctica and its "zero emission" concept. During his interview, which was aimed primarily at a teenage audience, Henri answered a series of questions about the visible effects of global warming in the Polar Regions, the consequences of these effects on local wildlife, and the actions that all persons can take to reduce their environmental footprint.

Henri also explained the interesting scientific activities being carried out at PEA and encouraged young people to consider polar and climate research as a career option.

ONLINE OUTREACH

WEB PRESENCE

During 2020, the International Polar Foundation's three active websites, polarfoundation.org antarcticstation.org, and arcticfutures.org, produced new content on a regular basis.

Three other websites of the foundation - educapoles.org, sciencepoles.org, and explorapoles.org - also drew a significant number of visitors over the course of the year.

The Foundation's websites received a total of 123, 959 unique visitors from around the globe in 2020.

ACTIVE WEBSITES

POLARFOUNDATION.ORG is the International Polar Foundation'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. A total of 14 news items (along with relevant photos) and one press release were published on this website in 2020.

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 features a programme, a list of speakers, a list of sponsors, registration, directions, and summaries of every Arctic Futures Symposium since the first one took place in 2010.

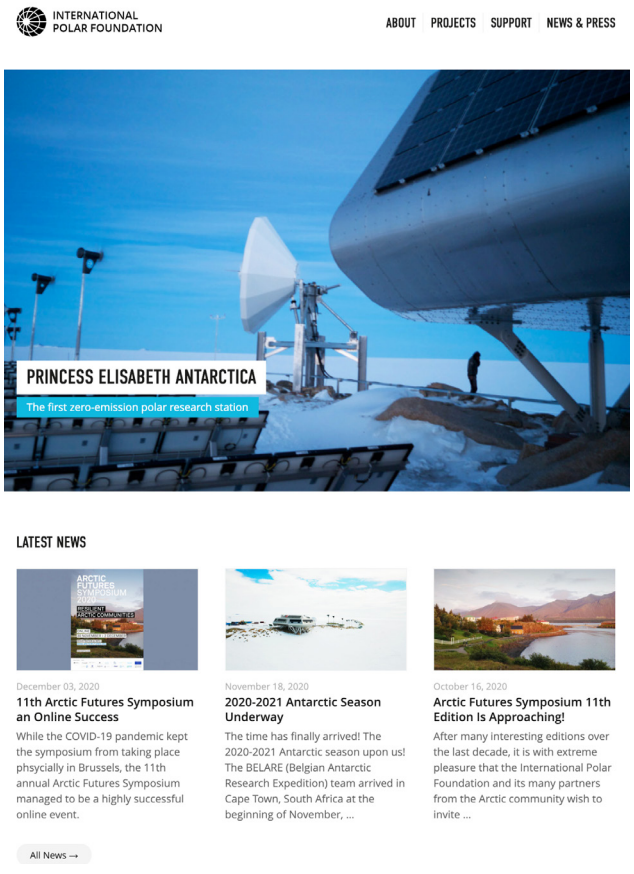
The programme for the 2020 symposium (which took place between Monday 30 November and Wednesday 2 December) was published on this website along with the 2020 symposium poster, speaker bio booklet, and summary report (which includes links to each webinar panel discussion on the IPF YouTube channel).

ANTARCTICSTATION.ORG provides information about International Polar Foundation'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.

ARCHIVED WEBSITES

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 mobilizes 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 ready-



made content such as quizzes, scientific experiments, and classroom activities.

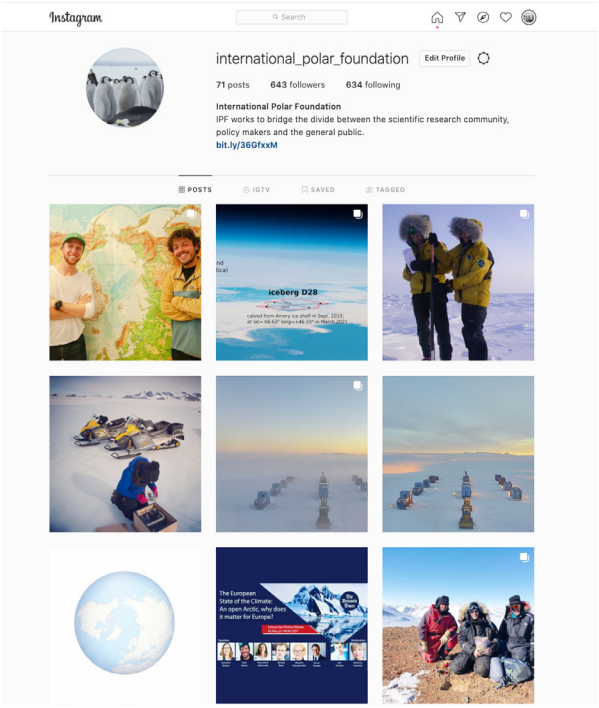
SCIENCEPOLES.ORG is an archive of polar science articles and interviews with top polar scientists. By clearly explaining and demystifying complex scientific issues, the website contributes significantly to the Foundation's mission to connect science and society, catering to both policymakers and the general public.

EXPLORAPOLES.ORG archives information dedicated to Arctic and Antarctic expeditions. The website followed polar expeditions in the Arctic and the Antarctic with the goal of using adventure to raise awareness about the poles!

SOCIAL MEDIA

Throughout 2020, the International Polar Foundation actively posted on its three social media platforms: Facebook (@intpolarfoundation) Twitter (@PolarFoundation), and Instagram (@international_polar_foundation).

The Foundation's social media platforms keep our online followers informed about the activities 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 IPF began to use Instagram during the summer of 2020 and noticed a strong following emerged as it posted all of the astounding pictures IPF staff were taking during polar expeditions

All three social media platforms saw a comfortable increase in followers, especially the new Instagram account. At the end of 2020, the International Polar Foundation enjoyed 2708 likes on its Facebook page, and the number of followers of its Twitter account totalled 6859. This represents an increase in "likes" of 12.7 % on Facebook (2402 likes at the start of 2020), and a 8.5% increase in Twitter followers (up from 6324 at the start of 2020) followers over the course of the year. In its inaugural six months, the Foundation's Instagram account attracted 456 followers with new followers continuing to join each day.

As the number of people who get their daily news summary from social media continues to increase, social media has become an increasingly essential way to keep our followers informed about issues that are important to them. We plan to increase a strong social media presence in the coming years!

IPF IN THE NEWS

Over the course of 2020, the media in both Belgium and many other countries around the world covered the International Polar Foundation and its activities. Below is a selection of many of the articles published in 2020.

NATIONAL GEOGRPAHIC INDONESIA

8 January 2020

Kate Winter

Kisah Para Peneliti di Antartika Terapkan Gaya Hidup Nol Emisi

https://nationalgeographic.grid.id/read/131980088/kisah-para-peneliti-di-antartika-terapkan-gaya-hidup-nol-emisi?page=all

HEIDI.NEWS

15 January 2020

Olivier Dessibourg

Andromeda: une nouvelle station «zero émission» en Antarctique, sous égide scientifique suisse

https://www.heidi.news/sciences/une-nouvelle-station-zero-emission-en-antarctique-sous-l-egide-scientifique-d-un-glaciologue-suisse

THE ARCTIC INSTITUTE

14 January 2020

Romain Chuffart, Andreas Raspotnik

The EU and its Arctic Spirit: Solving Arctic Climate Change from Home?

https://www.thearcticinstitute.org/eu-arctic-spirit-solving-arctic-climate-change-home/

HEIDI.NEWS

16 January 2020

Olivier Dessibourg

Ce médecin urgentiste valaisan, éloigné de tout en Antarctique, nous raconte son quotidien

https://www.heidi.news/sante/jacques-richon-medecin-urgentiste-valaisan-en-antarctique-seul-et-eloigne-de-tout-on-peut-subir-une-immense-pression

HEIDI.NEWS

17 January 2020

Olivier Dessibourg

L'architecture, un levier pour faire des stations antarctiques des «ambassades sur glace»

https://www.heidi.news/sciences/l-architecture-pour-faire-des-stations-antarctiques-des-ambassades-sur-glace

DOBRO JUTRO, HVRATSKA

29 January 2020

Ekskluzivno s Južnog pola za HRT

https://magazin.hrt.hr/zabava/ekskluzivno-s-juznog-pola-za-hrt-881377

L'ECHO

10 February 2020

Nouveau depart pour la station polaire Princesse Elizabeth

https://www.lecho.be/economie-politique/belgique/federal/nouveau-depart-pour-la-station-polaire-princesse-elizabeth/10207056.html

ARCH DAILY

February 2020

Niall Patrick Walsh

In Antarctica, Architecture is Heating Up

https://www.archdaily.com/934590/in-antarctica-architecture-is-heating-up

REALNOE VREMYA

13 February 2020

Russian scientists working on carbon-free Arctic station

https://realnoevremya.com/articles/4223-russian-scientists-working-on-carbon-free-arctic-station

GLZ RADIO
20 February 2020

אנטרטיקה בטמפרטורה הגבוהה בתולדותיה: בקרוב הפינגווינים ייחשבולהיסטוריה?

https://glz.co.il/

MORVESTI.RU
20 February 2020

Судно «Василий Головнин» доставило полярников и грузы на индийскую станцию в Антарктиде

http://www.morvesti.ru/news/1679/82405/

ARCHDAILY
8 March 2020

Na Antártica, a arquitetura está esquentando

https://www.archdaily.com.br/br/934901/na-antartica-a-arquitetura-esta-esquentando

RINNOVABILI.IT
9 March 2020

Princess Elisabeth Antarctica, la stazione polare a zero emission

https://www.rinnovabili.it/cultura/princess-elisabeth-antarctica-la-stazione-polare-a-zero-emissioni655/\

FIRE SAFETY
16 March 2020

FirePro Replace Water Mist System on Princess Elisabeth Antarctica

https://www.firesafetysearch.com/firepro-replace-water-mist-system-on-princess-elisabeth-antarctica/

PHOTOVOLTAIK
6 April 2020

Solar statt Diesel in der Antarktis

https://www.photovoltaik.eu/strom-waerme/solar-statt-diesel-der-antarktis?utm_source=dlvr.it&utm_medium=twitter

SOLAR SERVER
6 April 2020

Antarktis: Photovoltaik zum Heizen

https://www.solarserver.de/2020/04/06/antarktis-photovoltaik-zum-heizen/?utm_source=dlvr.it&utm_medium=twitter

RIVIERA
20 April 2020

Covid-19 claims life of long-time chairman of Exmar board

https://www.rivieramm.com/news-content-hub/news-content-hub/philippe-bodson-exmar-board-chairman-dies-at-75-59013

SOLAR MAGAZINE
28 April 2020

Antarctica as a Solar Hub: Possible or Pipe Dream?

https://solarmagazine.com/antarctica-solar-hub-possible-or-pipe-dream/

ENGINEER LIVE
Louise Smyth
14 May 2020

Solar power deployed in the Antarctic

https://www.engineerlive.com/content/solar-power-deployed-antarctic

NANDRIN.BLOGS.SUDINFO.BE

31 July 2020

Dans l'histoire à Nandrin !!! article archives du Blog!!! C'était en 2014!!! Un Nandrinois entretient la station Princesse Elisabeth

https://nandrin.blogs.sudinfo.be/archive/2020/07/19/dans-l-histoire-a-nandrin-article-archives-du-blog-c-etait-e-306483.html

HEIDI.NEWS

11 August 2020

Konrad Steffen, prophète du réchauffement climatique porté disparu dans son paradis blanc du Groenland

https://www.heidi.news/sciences/konrad-steffen-prophete-du-rechauffement-climatique-porte-disparu-dans-son-paradis-blanc-du-groenland

HINDUSTANTIMES

27 Septembre 2020

Could you survive in Antarctica Today?

https://www.hindustantimes.com/art-and-culture/could-you-survive-in-antarctica-today/story-qzuGdVzXUKMwbblgExOAGP.html

HLN

8 October 2020

Poolreiziger Alain Hubert ondanks corona klaar voor nieuw verblijf op Antarctica: "Ons kleine landje is het grote voorbeeld op de Zuidpool

https://www.hln.be/binnenland/poolreiziger-alain-hubert-ondanks-corona-klaar-voor-nieuw-verblijf-op-antarctica-ons-kleine-landje-is-het-grote-voorbeeld-op-de-zuidpool~aafa6317/?fbclid=IwAR2UYUmdlG2sRBk1jTPSrb_h0OpzsaRfUo61wlMDK089IEb0K2sQB1Oxngl

ENVIRONMENTAL EXPERT

19 October 2020

Wastewater treatment in Antarctica

https://www.environmental-expert.com/news/wastewater-treatment-in-antarctica-1002155

NEWS.AT

29 October 2020

Prinzessin Elisabeth von Belgien: Zwischen Palast und Militär

https://www.news.at/a/prinzessin-elisabeth-belgien

LA LIBRE

26 November 2020

La banquise arctique, bouclier climatique, inquiète: des chercheurs belges lancent un avertissement

https://www.lalibre.be/planete/environnement/la-banquise-arctique-bouclier-climatique-inquiete-des-chercheurs-belges-lancent-un-avertissement-5fbea55cd8ad587d42d6f363

NORTH NORWAY EUROPEAN OFFICE

7 December 2020

Arktis blir et travlere sted i årene som kommer

http://www.northnorway.org/aktuelt/arktis-blir-et-travlere-sted-i-arene-som-kommer.1035229.aspx

ENTREPRENDRE ET VIVRE

9 December 2020

Alain Hubert – Entrepreneur de l'extreme

https://www.youtube.com/watch?fbclid=IwAR3aqcHqN7TlFvAuJESBYdv2Z0KXbeNnCqgZvivJnkwqDdJrXZYIBK5-jB8&v=AoiGxcqiFTE&feature=youtu.be

EUROPEAN MARINE INFORMATION

10 December 2020

Biodiversité, Conscience et Science en Antarctique

https://www.facebook.com/euromarine.information/photos/a.1713393905641587/2699266977054270/

REVOLUTION ENERGETIQUE

11 December 2020

Cette station polaire isolée est alimentée exclusivement par les énergies renouvelables

https://www.revolution-energetique.com/cette-station-post

FINANCIALS 2020

INCOME STATEMENT	2018	2019	2020
	EUROS	EUROS	EUROS
Revenue	4 004 000	3 736 000	3 718 000
Expenses	3 868 000	3 444 000	3 444 000
Excess (Deficit) of the Period	136 000	-490 000	274 000

BALANCE SHEET

Non-Current Assets	0	0	4000
Current Assets	2 367 000	1 909 000	1 210 000
Total Assets	2 367 000	1 909 000	1 214 000
Equity	1 182 000	692 000	966 000
Accruals	253 000	0	0
Accounts Payable and Deferred Income	932 000	1 217 000	248 000
Total Liabilities	2 367 000	1 909 000	1 214 000