



WP 4b Agenda Item: 2.1.2

Person Responsible: Representative

from Austria

XXXIV SCAR Delegates Meeting Kuala Lumpur, Malaysia, 29-30 August 2016

Application of Austria for Associate Membership

Executive Summary

Title: Application of Austria for Associate Membership

Authors: Austrian authorities

Important Issues or Factors: From the SCAR Rules of Procedure:

Applications for Associate Membership:

- 1.3.1 are usually expected to precede application for full membership; and
- 1.3.2 shall be accompanied by a statement of what the applicant hopes to contribute to and/or gain from the Charity.

Recommendations/Actions and Justification: Delegates are requested to consider the Austrian application for Associate Membership of SCAR.

Budget Implications: \$5,000 annual membership fee for Associate Membership.



ANTON ZEILINGER PRESIDENT

Prof. Jeronimo Lopez-Martinez
President of the Scientific Committee on
Antarctic Research (SCAR)
Scott Polar Research Institute
Lensfield Road
Cambridge CB2 1ER
United Kingdom

Vienna, February 29th, 2016 AZ/bpl

Dear Prof. Lopez-Martinez,

As President of the Austrian Academy of Sciences I am glad to herewith apply on behalf of the Austrian Academy of Sciences to become an Associate Member of the Scientific Committee on Antarctic Research (SCAR). The Austrian Academy of Sciences (OeAW) is the Austrian member organisation affiliated with the International Council for Science (ICSU) and furthermore Member in several Scientific Unions and Interdisciplinary Bodies of ICSU.

Hence I would like to ask you to consider this application at the forthcoming XXXIV SCAR Delegates Meeting in Kuala Lumpur end of August 2016.

With reference to the very informative and helpful documents you provided earlier this month and with respect to the SCAR Rules of Procedure (Art. 1) please find enclosed a short Austrian Position Paper on Antarctic Research in Austria.

Additionally I should like to state that the Austrian Academy of Sciences fully agrees with the principles of protection of the environment in particular with respect to the specific situation on the Antarctic.

I am very much looking forward to develop a sustainable partnership between SACR and OeAW for the benefit of Antarctic research.

Sincerely yours



SCAR - Austrian Position Paper

SCAR (Scientific Committee on Antarctic Research) aims at focusing and supporting international and interdisciplinary research in the Antarctic. SCAR provides numerous possibilities for education and training of researchers in particular of young colleagues, mobility and staff exchange, and various funding schemes.

Austria signed the Antarctic Treaty in 1987 and hence fully supports and respects the principles of the Treaty such as the need to enhance the protection of the Antarctic environment and dependent and associated ecosystems, or the exclusive use of the Antarctic for peaceful purposes.

During the last decade the co-operation between Austrian researchers and SCAR continuously developed. One important backbone of this partnership is the delegation of Prof. Birgit Sattler by way of nomination by the Austrian Federal President, Dr. Heinz Fischer, as official Austrian representative to the Antarctic Treaty Consultative Meetings (ATCM).

Furthermore sustainable and supportive contacts have been developed with the SCAR officials Prof. Jernómio Lopéz-Martínez, Prof. Chuck Kennicut, Dr. Jenny Baeseman, and Dr. Mike Sparrow.

Austrian Polar Research

The Austrian Polar Research Institute (APRI)

www.polarresearch.at

In order to consolidate and to increase the visibility of Austrian Polar Research the Austrian Polar Research Institute (APRI) was founded in 2013. APRI is headed by Prof. Andreas Richter (University of Vienna) and Prof. Birgit Sattler (University of Innsbruck).

The Austrian Polar Research Institute is a research consortium that promotes and coordinates research and education in the area of polar sciences at the participating organisations. APRI involves about 50 scientists in 14 research groups in the research areas: Cryosphere & Climate, Polar Ecology, and Social and Cultural Systems.

The main goals of the institute are to:

- Facilitate cooperation and enhance synergies in polar research at the national level,
- Foster international cooperation in polar research and represent Austrian research in polar scientific organisations,
- Initiate, develop and support interdisciplinary research at the national and European level,



- Support early-career scientist in polar research,
- Increase the visibility of Austria in polar research and encourage dialogue of polar scientists with the public.

Though the Austrian Polar Research Institute acts as an inter-institutional umbrella organisation, APPRI initiatives strongly focus on regular meetings of its members.

One highlight was the first Central European Polar Meeting, an **International Conference in memorial to the Austrian polar explorer and scientist Julius Payer** organized by the APRI at the premises of the Austrian Academy of Sciences in Vienna in November 2015. Besides Austrian participants the conference also welcomed colleagues from the Czech Republic and from Poland.

Austrian Research in the Antarctic

The research groups given in Table 1 below are besides the high northern regions also specifically involved in research projects in the Antarctic.

Working Group	University / Institution	Institute	Research Area
Prof. Gerhard Herndl	Vienna	Department of Marine Biology	Marine Biology
Dr. Günter Köck	Austrian Academy of Sciences, Vienna	In co-operation with Institute of Zoology Uni Innsbruck	Aquatic Ecosystems
Dr. Helmut Rott	Innsbruck	Institute of Meteorology and Geophysics	Remote Sensing
Prof. Birgit Sattler	Innsbruck	Institute of Ecology	Polar Ecology
Prof. Elisabeth Schlosser	Innsbruck	Austrian Polar Research Institute	Glaciology
Prof. Roman Türk	Salzburg	Institute of Ecology, Biodiversity and Evolution of Plants	Cryptogams

The specific research topics can be are summarized as follows:

Polar Ecology

The Austrian Polar Research Institute aims at providing fundamental understanding of the (a) the evolutionary, genetic, and ecological adaptations of organisms and communities in



polar (marine, terrestrial, and ice/snow) environments and (b) of the role polar ecosystems play in global biogeochemical cycles and potential feedbacks to climate changes.

Cryosphere and Climate

The reaction of the polar cryosphere to climate change is a key focus in climate research. Major research topics of APRI on polar ice and climate are the response of grounded ice to the disintegration of northern Larsen Ice Shelf at the Antarctic Peninsula, paleo-temperature interpretation from ice cores in Antarctica with respect to meteorological influences on the relationship between stable water isotopes and air temperature.

The third focus **Social and Cultural Systems** only applies to the Northern Hemisphere.

Contribution and Gain of an Austrian Membership to SCAR

An indispensable prerequisite for scientific research in the Polar Regions and in particular in the Antarctic is a strong interlinkage of individual research groups with their international counterparts. Austria has no own research station in the Antarctic, therefore access to international research infrastructure on site, demands international co-operation.

An Austrian Membership in SCAR not only opens the important channel for pertinent Austrian research groups to the worldwide high level SCAR network, but also offers the possibilities to regular and active attendance in the various SCAR conferences and workshops, to participation in the SCAR education and training programmes; e.g. the *Science Winter School* (Davos, CH) or the *Antarctic Biology Course* at one of the Antarctic research stations.

Furthermore an Austrian Membership in SCAR offers Austrian researchers and in particular young researchers the possibility to participate in the SCAR Fellowships Programme and hence the unique chance to get directly involved in research projects or training workshops in the Antarctic.

Moreover SCAR serves also as an international platform for Geo-, Life, and Physical Sciences. This opens specifically to Early Career Scientists in this fields a challenging option for high-quality education and experience in field research.

Scientists who completed their PhD / doctoral degree within the last 5 years are eligible to receive "visiting professorships".

All mentioned options aim at strengthening and developing scientific exchange of Austrian colleagues with SCAR member states and hence form the basis for further international cooperation for the benefit of Antarctic research.

Austria's location in the Alps is a unique feature and a major scientific advantage. The University of Innsbruck – just as an example – implemented a research focus "Alpine Space".



This creates a series of synergies between Alpine and Polar research by drawing a bow from research at "high altitude" to "high latitude".

Furthermore Austria is eager to link its very successful and internationally well-established research clusters in Physics to the scientific community active in the Antarctic. Research groups in **Quantum Physics** (Vienna Center for Quantum Science and Technology – VCQ, Austrian Academy of Sciences, University of Vienna, Technical University of Vienna, University of Innsbruck), **Particle Physics** (Austrian Academy of Sciences, University of Vienna, Technical University of Vienna), and **Space Research and Atmospheric Physics** (Austrian Academy of Sciences, University of Vienna, University of Graz) do have grand potential for considerable contribution to international projects in the Antarctic.

With respect to Geo-Sciences the Austrian Academy of Sciences is the Austrian Member Organisation in the International Continental Scientific Drilling Program (ICDP) and the International Ocean Discovery Program (IODP). Researchers of the Universities of Vienna, Graz, Leoben, Innsbruck and Salzburg, the Austrian Academy of Sciences, and the Natural History Museum in Vienna are participating in research projects within these programmes; strong mutual research interest between the scientific communities are to be expected.

An Austrian Membership in SCAR undoubtedly means an important stimulus to Austrian Polar Research, and contributes to sustainable common research, co-operation, and education with partners worldwide.