# SCARbulletin

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### Report of the XXXV SCAR Delegates' Meeting

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#### SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH

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#### **XXXV SCAR Delegates Meeting Report**

#### In attendance:



**Executive Committee:** Steven Chown (President), Jerónimo López-Martinez (Past President), Jefferson Simões (Vice President), Karin Lochte (Vice President), Azizan Samah (Vice President), Terry Wilson (Vice President), Chandrika Nath (Executive Director).

Full Members: Rodolfo Sánchez (Argentina), Steven Chown (Australia), Gwen Fenton (Australia), Frank Pattyn (Belgium), Anton Van de Putte (Belgium), Jefferson Simões (Brazil), Eduardo Secchi (Brazil), Christo Pimpirev (Bulgaria), Ian Hogg (Canada), Thomas James (Canada), Marcelo Gonzalez (Chile), Huigen Yang (China), Yong Wang (China), Markku Poutanen (Finland), Jyri Näränen (Finland), Yan Ropert-Coudert (France), Catherine Ritz (France), Karin Lochte (Germany), Günther Heinemann (Germany), Madhavan Rajeevan (India), Muthalagu Ravichandran (India), Antonio Meloni (Italy), Silvano Onofri (Italy), Takuji Nakamura (Japan), Satoshi Imura (Japan), Yeadong Kim (Korea), Hyoung Chul Shin (Korea), Azizan Samah (Malaysia), Salleh Mohd Nor (Malaysia), Jacqueline Stefels (Netherlands), Dick van der Kroef (Netherlands), Gary Wilson (New Zealand), Fiona Shanhun (New Zealand), Ole Arve Misund (Norway), Wojciech Majewski (Poland), Robert Bialik (Poland), Alexander Makarov (Russia), Irina Repina (Russia), Ian Meiklejohn (South Africa), Bettine van Vuuren (South Africa), Jerónimo López-Martinez (Spain), Jesús Galindo-Zaldivar (Spain), Sara Moa (Sweden), Anna Wåhlin (Sweden), Konrad Steffen (Switzerland), Martin Schneebeli (Switzerland), Jane Francis (UK), Mike Bentley (UK), Terry Wilson (US), Deneb Karentz (US), Álvaro Soutullo (Uruguay), Ana Laura Machado (Uruguay).

**Union Members:** Anna Moore (IAU), Ian Meiklejohn (IGU), Andres Barbosa (IUBS), Ian Allison (IUGG), Carlo Alberto Ricci (IUGS), Giorgiana De Franceschi (URSI).

Associate Members: Birgit Sattler (Austria), Rafael Hurtado (Colombia), Milos Bartak (Czech Republic), René Forsberg (Denmark), Céline Le Bohec (Monaco), Ahmad Touqeer (Pakistan), Adelino Canário (Portugal), Daniele Bortoli (Portugal), Cristina Purcarea (Romania), Voranop Viyakarn (Thailand), Sabri Mutlu (Turkey), Evgen Dykyi (Ukraine).

**Secretariat:** Chandrika Nath (Executive Director), Eoghan Griffin (Executive Officer), Rosemary Nash (Admin Assistant), Mahlon (Chuck) Kennicutt II (Special Advisor to the President), Colin Summerhayes (Special Advisor).

SCAR Subsidiary Groups: Jesús Galindo-Zaldivar (Geosciences SG), Yan Ropert-Coudert (Life Sciences SG), David Bromwich (Physical Sciences SG), James Madsen (AAA), Jan Strugnell (AntEco), Huw Griffiths (AntEco), Tom Bracegirdle (AntClim21), Timothy Naish (PAIS), Pippa Whitehouse (SERCE), Anton Van de Putte (SCADM), Aleks Terauds (SCATS), Cornelia Luedecke (History EG), Daniela Liggett (HASSEG), Elizabeth Leane (HASSEG), Burcu Özsoy (SOOS).

Honorary Members: Mahlon (Chuck) Kennicutt, Jörn Thiede.

Observers: Huigen Yang (AFoPS), Gerlis Fugmann (APECS), Albert Lluberas (ATS), Birgit Njaastad (CEP), Jane Francis (COMNAP), Renuka Badhe (EPB), Allen Pope (IASC), Marie-Alexandrine Sicre (SCOR), Mike Sparrow (WCRP and WMO), Nerilie Abram (Australia), Rhonda Bartley (Australia - SCAR 2020), Aliaksei Haidashou (Belarus), Sergey Kakareka (Belarus), Victor Planas (Monaco), Matthias Braun (Germany), Suchana Chavanich (Thailand), Andrii Fedchuk (Ukraine), Laurie Geller (US), Rosemarie Keough ("Antarctica" Tome), Pat Keough ("Antarctica" Tome), Nicole Bransome (Pew Charitable Trusts).

**Explanatory Note:** several names appear more than once in the attendees list as some people represent more than one body.

SCAR Delegates Meeting papers (prefixed SDM) are available through the SCAR Library: <a href="https://www.scar.org/library/scar-meeting-papers/xxxv-scar-delegates-2018-davos-switzerland/">https://www.scar.org/library/scar-meeting-papers/xxxv-scar-delegates-2018-davos-switzerland/</a>

#### 1. Opening Business

### 1.1. Welcome and introduction of the new Executive Director and Special Consultants

The President opened the meeting. Delegates, Chief Officers and Observers were welcomed by the President.

The President especially welcomed observers Albert Lluberas, Executive Director of the Antarctic Treaty Secretariat; Birgit Njåstad, Chair of the Committee on Environmental Protection; Jane Francis, COMNAP; Renuka Badhe, European Polar Board; Mike Sparrow, CliC/WMO; Allen Pope, IASC; Marie-Alexandrine Sicre, SCOR; Nicole Bransome, Pew Charitable Trust.

Dr Chandrika Nath, the new SCAR Executive Director, was welcomed and provided a brief self-introduction.

Special Consultants Professor Emeritus Mahlon (Chuck) Kennicutt II and Dr. Colin Summerhayes were introduced to the Delegates.

#### 1.2. Acknowledgment of SCAR's 60th Anniversary

Delegates recalled the contributions of previous SCAR office bearers and members of the Secretariat, SCAR members, and SCAR-associated scientists. Delegates stood for a moment of silence to acknowledge those who had given their lives in the service of science in the Antarctic in the past two years.

There was special recognition of the passing of José Valencia, Chile, former SCAR Vice President, and Chris Elfring, Polar Research Board, USA.

60<sup>th</sup> Anniversary events were briefly described by the President.

Rosemary and Pat Keough, donors of the Antarctica Tome, were welcomed. The gift of the Antarctica Tome to all SCAR national committees was recognized.

**Action XXXV-1:** Notify by letter the Tome authors and donors, the Keoughs, of the appreciation of SCAR and its member nations for the gift of the Antarctica Tome (President assisted by the Secretariat; by end 2018).

#### 1.3. Adoption of the Agenda and Timetable (SDMs 01, 02, 03)

The Agenda and Timetable for the XXXV SCAR Delegates Meeting were introduced (details are provided in SDMs 01-03). Delegates suggested revisions and the agenda was accordingly revised.

A change to the German SCAR Delegation was announced and Agenda Items 3.1 and 12.1 were amended. Karin Lochte announced she had retired as Director of AWI and would be replaced as the German SCAR Delegate by the new Director, Prof Dr Antie Boetius.

ADDED Agenda Item 2.1.3 – A new agenda item was added, the Application of Ukraine for Full Membership (SDM 57).

ADDED Agenda Item 2.1.4 – A new agenda item was added, the Application of Portugal for Full Membership (SDM 58).

ADDED Agenda Item 4.2.3 – A new agenda item was added, the Proposed Scientific Research Programme Planning Group: Antarctic Ice Sheet Dynamics and Global Sea Level (AISSL) (SDM 14c).

Additions were provided on USB memory sticks and were available for download from the meeting papers web page.

In accordance with the SCAR Rules of Procedure, Delegates of Associate Members and Observers were asked to leave the meeting during closed Agenda Items 2 and 3.

#### 2. Membership (CLOSED to Observers and Associate Members)

#### 2.1. Applications for Associate and Full Membership

SCAR Vice President Terry Wilson reviewed the SCAR rules for membership application, and new applications were then considered.

#### 2.1.1. Application of Belarus for Associate Membership (SDM 04)

The application of Belarus was presented by Sergey Kakareka (details provided in SDM 04). The Belarus Observers then left the room before discussions. Several countries indicated their support of the application. Delegates considered and approved the application of Belarus for Associate Membership.

Action XXXV-2: Formal letter of recognition from SCAR of the Associate Membership of Belarus. (President assisted by the Secretariat; by end 2018).

The representatives of Belarus were invited to re-join the meeting and welcomed to the SCAR community, and were then asked to leave the meeting during the continuation of closed Agenda Items 2 and 3.

#### 2.1.2. Application of Luxembourg for Associate Membership

Postponement of the application of Luxembourg was noted and Delegates encouraged a future application at a time chosen by Luxembourg.

**Action XXXV-3:** Notify by letter the Luxembourg representatives of SCAR condolences on their loss and indicate the Delegates' encouragement of a future application. (President assisted by the Secretariat; by end 2018).

#### 2.1.3. Application of Ukraine for Full Membership (SDM 57)

Ukraine's application was presented by the Delegate, Evgen Dykyi (details provided in SDM 57). The representatives from Ukraine then left the room before discussions. Several countries indicated their support of the application. Delegates considered and approved the application of Ukraine for Full Membership.

**Action XXXV-4:** Ukraine to be formally recognized by letter as a Full Member of SCAR at the level of Initial-Stage Programme. (President assisted by the Secretariat; by end 2018).

The representatives of Ukraine were invited to re-join the meeting. Full Membership was confirmed and the delegation was seated.

#### 2.1.4. Application of Portugal for Full Membership (SDM 58)

Portugal's application was presented by the Delegate, Adelino Canario (details provided in SDM 58), who then left the room before discussions. Several countries

indicated their support of the application. Delegates considered and approved the application of Portugal for Full Membership.

**Action XXXV-4a:** Portugal to be formally recognized by letter as a Full Member of SCAR at the level of Initial-Stage Programme. (President assisted by the Secretariat; by end 2018).

The Portuguese Delegate was invited to re-join the meeting. Full Membership was confirmed and the delegation was seated.

#### 2.2. Honorary Membership (SDM 06)

Past-President Jerónimo López-Martínez was asked to leave the meeting for Agenda Item 2.2 (details provided in SDM 06).

Delegates considered the proposal to award Honorary Membership to the Past-President, several countries indicated their support, and the award was approved. Past-President Jerónimo López-Martínez was invited to return to the meeting and the bestowment of an Honorary Membership was announced.

**Action XXXV-5:** Past President Jerónimo López-Martínez to be formally recognized by letter as an Honorary Member of SCAR. (President assisted by the Secretariat; by end 2018).

#### 2.3. SCAR Membership (SDM 07)

Current membership and the rules about membership arrears were reviewed. Associate Members that have already consolidated Antarctic research activities are encouraged to become full members. Venezuela has been in arrears for more than two years and no correspondence has been received in two years. Contact with potential future members of SCAR will continue, including those previously contacted, and other potential interested countries. It was noted that new members, and members moving from Associate to Full Membership, or moving to more-developed status, would increase the resources available to SCAR. Details are provided in SDM 07.

Action XXXV-5a: The Secretariat will notify Venezuela that the arrears in membership fees will result in their suspension as a member of SCAR. Due to the lack of correspondence from Venezuela's SCAR representatives, Venezuela's Treaty and CEP Delegations will also be notified. (President assisted by the Secretariat; by end 2018).

#### 3. SCAR Officers (CLOSED to Observers)

#### 3.1. Notification of elections of Vice-Presidents

The President announced that two Vice-Presidents would complete their terms of office at the end of the XXXV SCAR Delegates Meeting. Therefore, two VPs would be elected to serve four-year terms.

Based on revisions under Agenda Item 1.3, VP Karin Lochte would finish her term early at the end of the XXXV SCAR Delegates Meeting. Therefore a third VP would be elected for a two-year term.

The President reviewed SCAR election procedures and a committee to conduct the elections was established:

Chair: Chandrika Nath, SCAR Executive Director

Members: Mahlon "Chuck" Kennicutt II, Special Advisor to the President, and Eoghan Griffin, Executive Officer

Administrative Support: Rosemary Nash and Colin Summerhayes

#### 3.2. Nomination of Standing Finance Committee Ad Hoc members

Delegates appointed the Finance Committee:

Chair: Jefferson Simoes, Vice President for Finance

Members: Mike Bentley, UK; Satoshi Imura, Japan; Günther Heinemann, Germany.

Assisted by Eoghan Griffin and Chandrika Nath, SCAR Secretariat.

Observers and Delegates of Associate Members were invited to re-join the meeting after completion of Agenda Item 3.

#### 4. Science

#### 4.1. SCAR Scientific Research Programs (SRPs)

#### 4.1.1. Antarctic Climate Change in the 21st Century (AntClim21) (SDM 08)

AntClim<sup>21</sup> Chief Officer, Tom Bracegirdle, presented progress and future plans, including finalization activities (details provided in SDM 08). A \$42,000 two-year budget was requested, with the 2020 request pro rata depending on the precise end date.

Delegates noted the report and the budget request, and approved continuation of the SRP for two more years, or a sooner end if agreed.

**Action XXXV-6:** Notification to AntClim21 leadership of continuation and budget allocation. (ED; by end July 2018).

#### 4.1.2. Past Antarctic Ice Sheet Dynamics (PAIS) (SDM 09)

PAIS Chief Officer, Tim Naish, presented progress and future plans, including finalization activities (details provided in SDM 09). A \$42,000 two-year budget was requested, including permission to use part of the funds allocated for 2019 during 2018 due to the timing of activities.

Delegates noted the report and the budget request and approved continuation of the SRP for two more years.

**Action XXXV-7:** Notification to PAIS leadership of continuation and budget allocation. (ED; by end July 2018).

### 4.1.3. Solid Earth Responses and Influences on Cryospheric Evolution (SERCE) (SDM 10)

SERCE Chief Officer, Pippa Whitehouse, presented progress and future plans, including finalization activities (details provided in SDM 10). A \$42,000 two-year budget was requested.

Delegates noted the report and the budget request, and approved continuation of the SRP for two more years. Several countries noted the importance of the programme. Clarification of the relation to ISMASS and IPICS was discussed.

**Action XXXV-8:** Notification to SERCE leadership of continuation and budget allocation. (ED; by end July 2018).

#### 4.1.4. State of the Antarctic Ecosystem (AntEco) (SDM 11)

AntEco Chief Officer, Huw Griffiths, presented progress and future plans, including finalization activities (details provided in SDM 11). The AntEco steering committee noted encouragement of the next generation of biological-themed SRPs. A \$40,000 two-year budget was requested.

Delegates noted the report and the budget request, and approved continuation of the SRP for two more years.

**Action XXXV-9:** Notification to AntEco leadership of continuation and budget allocation. (ED; by end July 2018).

#### 4.1.5. Astronomy and Astrophysics from Antarctica (AAA) (SDM 12)

AAA Chief Officer, Anna Moore, presented progress and future plans, including finalization activities (details provided in SDM 12). AAA ends in 2018.

Delegates considered a proposal to create a new Science Group (ASTRO) beginning in 2019. A two-year budget of \$60,000 was requested, if the ASTRO SG is approved. Delegates noted the report and the budget request.

An initial discussion took place on the proposal. Questions were asked on whether ASTRO should incorporate the space weather community and whether it should include collaborations in the Arctic. Several countries and unions considered integration under a single SG to be desirable. Some delegates questioned why the community's needs could not be met through the Physical Sciences group. The impact of a new SG on budgets and the need to recruit national representatives to any new SG was discussed.

Broad support for the Astronomy and Astrophysics community was expressed, and the need to retain a place for the community within SCAR's structure was recognized. It was agreed that more study was needed to better understand the ramifications of the creation of new SGs, and to review the current structure of SCAR subsidiary bodies to ensure that they were meeting SCAR's needs (see agenda item 4.3.4).

Delegates approved the creation of an Expert Group on Astronomy and Astrophysics (reporting directly to ExCom) and provision of bridge funding to this group until 2020, pending the outcome of this review.

Further details on the above discussions can be found under Agenda Item 4.3.4 (Proposal for a Scientific Group – Humanities and Social Sciences (HSSG))

**Action XXXV-10:** Notification to the proposers of the decision to create an Expert Group on Astronomy and Astrophysics and of the associated budget allocation. (ED; by end July 2018).

### 4.1.6. Antarctic Thresholds – Ecosystem Resilience and Adaptation (AnT-ERA) (SDM 13)

On behalf of the Ant-ERA Chief Officer, Yan Ropert-Coudert presented progress and future plans, including finalization activities (details provided in SDM 13). A \$42,000 two-year budget was requested. Delegates noted the report, the budget request and approved continuation of the SRP for two more years.

**Action XXXV-11:** Notification to AnT-ERA leadership of continuation and budget allocation. (ED; by end July 2018).

General Comment on SRP written reports: Delegates noted some inconsistency in the content of SRP reports and requested that in future all written reports should contain explicit discussion of the aims of the programme.

#### 4.2. New Scientific Research Programmes (SDM 14)

The President noted that the Rules of Procedure allow ExCom to approve Programme Planning Groups (PPGs). Therefore this Agenda Item is informational in nature. Details provided in SDM 14.

Delegates considered a proposal by the President to reduce the number of new SRPs and to focus on interdisciplinary themes that address timely Antarctic questions of global societal significance. The President noted that, with additional external support for such SRPs, SCAR national membership fees could be directed to other SRPs launched post-2020 as bottom-up, community-driven priorities arise.

## 4.2.1. Proposed Scientific Research Programme Planning Group: Integrated Conservation Planning for Antarctica and the Southern Ocean (Ant-ICON) (SDM 14a)

A proposal for a Programme Planning Group was presented by Aleks Terauds (details provided in SDM 14a). Delegates considered the Ant-ICON PPG proposal and noted the \$20,000 two-year budget request.

**Action XXXV-12:** Notification to Ant-ICON leadership of decision and budget allocation. (ED; by end July 2018).

# 4.2.2. Proposed Scientific Research Programme Planning Group: Near-term Variability and Prediction of the Antarctic Climate System (AntClim<sup>now</sup>) (SDM 14b)

A proposal for a Programme Planning Group was presented by Tom Bracegirdle (details provided in SDM 14b). Delegates considered the AntClimnow PPG proposal and noted the \$20,000 two-year budget request.

**Action XXXV-13:** Notification to AntClim<sup>now</sup> leadership of decision and budget allocation. (ED; by end July 2018).

### 4.2.3. Proposed Scientific Research Programme Planning Group: Antarctic Ice Sheet Dynamics and Global Sea Level (AISSL) (SDM 14c)

A proposal for a Programme Planning Group was presented by Tim Naish (details provided in SDM 14c). Delegates considered the AISSL PPG proposal and noted the \$35,000 three-year budget request.

**Action XXXV-13a:** Notification to AISSL leadership of decision and budget allocation. (ED; by end July 2018).

#### 4.3. Scientific Groups: Highlights, Progress and Plans

#### 4.3.1. Geosciences Group (GSG) (SDM 15)

The GSG Chief Officer, Jesús Galindo-Zaldivar, reported progress and plans (details provided in SDM 15). A new Action Group (AntArchitecture) shared with PSG, was proposed. Delegates considered the recommendations in the GSG report. A final budget request was presented. Delegates noted the report, approved recommendations in the report and noted the budget request.

**Action XXXV-14:** Notify GSG leadership of decisions and budget allocation. (ED; by end July 2018).

#### 4.3.2. Life Sciences Group (LSG) (SDM 16)

The LSG Chief Officer, Yan Ropert-Coudert, reported progress and plans (details provided in SDM 16). Three new action groups were proposed: Input Pathways of persistent organic pollutants to AntarCTica (ImPACT) (shared with PSG); Plastics in Polar Environments (Plastics-AG); and SCAR Krill Action Group (SKAG). Delegates considered the recommendations in the LSG report. A final budget request was presented. Delegates noted the report and the budget request, and approved LSG recommendations.

**Action XXXV-15:** Notify LSG leadership of decisions and budget allocation. (ED; by end July 2018).

#### 4.3.3. Physical Sciences Group (PSG) (SDM 17)

The PSG Chief Officer, David Bromwich, reported progress and plans (details provided in SDM 17). In addition to AntArchitecture (joint with GSG) and ImPACT (joint with LSG), two new Action Groups were proposed: ANtarctic Gravity Wave Instrument Network (ANGWIN) and Earth Observation Action Group (EOAG). Delegates considered recommendations in the PSG report. They noted the report and the budget request, and approved PSG recommendations.

**Action XXXV-16:** Notify PSG leadership of decisions and budget allocation. (ED; by end July 2018).

### **4.3.4. Proposal for a Scientific Group – Humanities and Social Sciences (HSSG) (SDM 18)**

Delegates considered the proposed formation of a Humanities and Social Sciences Group (HSSG) and the associated budget request (details provided in SDM 18). Agenda Items 4.4.1 (Humanities and Social Sciences Expert Group, HASSEG) and 4.4.2 (History Expert Group) were taken up as part of the SG proposal.

Delegates approved the undertaking of a review by ExCom (prior to 2020) of the current structure of SCAR subsidiary bodies, noting that current SRPs end in 2020.

Delegates deferred creation of an SG pending the outcome of this review, and approved the formation of a Standing Committee on Humanities and Social Sciences as an interim measure.

**Action XXXV-17:** Notify HSSG leadership of the decision to create a Standing Committee on Humanities and Social Sciences, and of the budget allocation. (ED; by end July 2018).

#### 4.4. Other Science Topics

Agenda Item 4.3.4 was combined with Agenda Items 4.4.1 and 4.4.2 as a single topic.

#### 4.4.1. Humanities and Social Sciences Expert Group (HASSEG) (SDM 19)

Elizabeth Leane and Daniela Liggett reported on progress and future plans for the Humanities and Social Sciences (details provided in SDM19). Delegates noted progress. A Humanities and Social Sciences SG was proposed (see Agenda item 4.3.4), and an SRP Planning Group was proposed (Agenda item 4.2, Ant-ICON) to include Humanities and Social Sciences.

**Action XXXV-18:** Notify HASSEG leadership of decisions and budget allocations. (ED; by end July 2018).

#### 4.4.2. History Expert Group (SDM 20)

Cornelia Lüdecke presented on progress and future plans for the History Expert Group (details provided in SDM 20). Delegates noted progress. A Humanities and Social Sciences SG was proposed (see Agenda item 4.3.4), and an SRP Planning Group was proposed (Agenda item 4.2, Ant-ICON) to include Humanities and Social Sciences.

**Action XXXV-19:** Notify History EG leadership of decisions and budget allocations. (ED; by end July 2018).

#### 4.4.3. Southern Ocean Observing System (SOOS) (SDM 21)

Burcu Ozsoy reported on SOOS progress and future plans (details provided in SDM 20). Support for SOOS was expressed by a number of member countries and Delegates approved SCAR's continued support for SOOS. An invitation from the SOOS leadership to the SCAR Executive Director to attend the 2019 meeting (hosted by KOPRI, Korea) was noted.

**Action XXXV-20:** Notify SOOS leadership of decisions and budget allocations. (ED/President; by end July 2018).

#### 4.4.4. Year of Polar Prediction (YOPP) (SDM 22)

David Bromwich reported on YOPP progress and future plans (details provided in SDM 22). The Delegates expressed support for the collection of additional surface and radiosonde observations during the Special Observing Period, and facilitating of their real-time transmission over the WMO Global Telecommunications System.

**Action XXXV-21:** Notify YOPP leadership of SCAR's continuing support for their efforts. (ED/President; by end 2018).

#### 4.4.5. Southern Ocean Acidification Report (SDM 23)

The President reported on progress of the Southern Ocean Acidification Report and the timeline for its completion (details provided in SDM 23). Delegates considered progress on the report.

#### 4.4.6. ICSU-ISSC Merger (SDM 24)

The President reported on the merger of ICSU and ISSC (details provided in SDM 24). Delegates noted the merger, which would result in the formation of the International Science Council (ISC) at the inaugural General Assembly in early July.

### 4.4.7. Integrating Climate and Ecosystem Dynamics in the Southern Ocean (ICED) (SDM 25)

Progress and future plans were presented in the ICED report prepared by the leadership (details provided in SDM 25). Delegates noted opportunities for strengthening interactions and collaboration, including SCAR participation in ICED activities.

**Action XXXV-23:** Notify ICED leadership of SCAR's continuing support for their efforts. (ED/President; by end 2018).

#### 4.4.8. The future of ISMASS (Ice Sheet Mass Balance and Sea Level) (SDM 26)

Progress and future plans were presented by Frank Pattyn, SCAR Liaison on ISMASS (details provided in SDM 26). Delegates noted progress and recognized the importance of this partnership with IASC and CliC.

Actions XXXV-24 a & b: a) Notify ISMASS leadership of SCAR's continuing support of their efforts and budget allocation. b) Notify IASC and CliC of SCAR's continuing support of ISMASS activities. (ED/President; by end July 2018).

#### 5. Data and Information: Highlights, Progress and Plans

### 5.1. Standing Committee on Antarctic Data Management (SCADM) (SDM 27)

The SCADM Chief Officer, Anton Van de Putte, reported on progress and future plans for SCADM (details provided in SDM 27). Delegates noted the updated SCADM terms of reference and budget request.

**Action XXXV-25:** Notify SCADM leadership of Delegates' decisions and budget allocation. (ED; by end July 2018).

### 5.2. Standing Committee on Antarctic Geographic Information (SCAGI) (SDM 28)

The President reported on progress and future plans for SCAGI (details provided in SDM 28). Delegates agreed to: 1) ensure familiarity with the work of SCAGI and encourage their National Representatives to become involved with and contribute all new data to SCAGI products; 2) to replace retiring national representatives and notify SCAGI co-Chairs of any changes; and 3) endorse a strategic view of web-interfaces to ensure that products work together effectively and coherently, and to minimize duplication and cross-cutting between products. SCAGI is an extremely active and effective Standing Committee, producing and managing important SCAR products.

**Action XXXV-26:** Notify SCAGI leadership of Delegates' decisions and budget allocation. (ED; by end July 2018).

#### 5.3. SCAR Products over 60 years (SDM 29)

Delegates noted the recent developments and updates on SCAR products (details provided in SDM 29), and agreed to remind relevant national entities to contribute data for SCAR products. Groups play an active part in producing these products, in which there is considerable interest. All are available via the SCAR website, and the efforts of individual nations in managing these on SCAR's behalf is much appreciated.

#### 6. Partnerships: Highlights, Progress and Plans

#### 6.1. SCAR Partnerships, MoUs and other agreements (SDM 30)

The Delegates considered the effectiveness of MoUs/LoAs expiring in 2018/2019 (details provided in SDM 30), and the need to determine if their renewal is desirable and/or warranted. Delegates acknowledged the reports provided by partner organizations, including any recommendations therein.

Actions XXXV-27 a & b: a) the SCAR Secretariat to develop a plan and timeline for renewal or cessation of MoUs/LoAs through 2020. b) Secretariat to thank partner organizations that provided reports. (Secretariat).

#### 6.2. WMO-SCAR Fellowship (SDM 31)

Delegates recognized the creation of the WMO-SCAR fellowship (details provided in SDM 31) and applauded this partnership.

**Action XXXV-28:** The Secretariat to send a letter expressing the Delegates appreciation to WMO, noting the joint fellowship to be established. (Secretariat; by end August 2018).

#### 6.3. Horizon Scan and ARC – proposed way forward

Delegates recognized that the 1<sup>st</sup> SCAR Horizon Scan and the COMNAP/SCAR Antarctic Roadmap Challenges outcomes are still guiding research in, from and about the region. It was acknowledged that a five-year repeat timeline may have been too optimistic, given the current situation, and that any renewed process should be planned for 2024, resulting in a decadal re-assessment. However, Delegates did suggest a mid-term update to include emerging issues (e.g. microplastics).

#### 7. SCAR and Policy Advice

#### 7.1. Antarctic Treaty Secretariat Report (SDM 32)

The Executive Secretary of the Antarctic Treaty System, Albert Lluberas, reported on ATS activities (details provided in SDM32). The Delegates agreed to the recommendations that SCAR: participate in the ATCM forum on the drafting of the Prague Declaration; present an update to its report contained in WP002 Biological Prospecting in the Antarctic (presented at ATCM XXXIII in 2010) at ATCM XLII in 2019; and give another lecture on scientific issues relevant to ATCM XLII. The Prague meeting in 2019 (1-11 July) will reflect the 60th anniversary of the signing of

the Treaty in 1959. Finland and France will be the hosts in the following two years. Delegates noted their gratitude in being able, through the SCAR lectures, to bring science to the attention of the Parties. Past lectures are available through the SCAR website (https://www.scar.org/antarctic-treaty/atcm-presentations/).

**Action XXXV-29:** Letter to thank the ATS for its report, agree to participation in drafting the Prague Declaration, agree to an update on bioprospecting (timing to be determined by SCATS) and accept the invitation for a SCAR Lecture at ATCM XLII. (ED/President; by end 2018).

#### 7.2. Standing Committee on the Antarctic Treaty System (SDM 33)

The SCATS Chief Officer, Aleks Terauds, reported on progress and plans for SCATS (details provided in SDM 33). Delegates recognized the progress and major outcomes of SCATS, the active involvement of SCAR in the ATCM, CEP and CCAMLR, and associated meetings. They noted the high regard in which SCAR, and the advice that it provides, is held by the Antarctic Treaty Consultative Parties. The Chair of the CEP, Birgit Njåstad, agreed that SCAR made a tremendous contribution to the ATCM and CEP, and that it is important that the best science is able to support the work of the CEP.

Delegates noted that the term of the current SCATS CO ends in 2020. The President expressed appreciation of the difficult role SCATS has in feeding science from SCAR's groups into the policy advice given to the Treaty System and other policy bodies.

**Action XXXV-30:** Notify SCATS leadership of Delegates appreciation of the committee's ongoing efforts to advance scientific–based policy making, decisions and budget allocation. (ED; by end July 2018).

#### 7.3. Antarctic Environments Portal (SDM 34)

Aleks Terauds reported on progress and future plans for the Antarctic Environments Portal (details provided in SDM 34). Delegates approved the further development of the Portal and agreed that the SCAR Secretariat continue to work with New Zealand colleagues on the transfer of the operation of the Portal to SCAR over the next two years. There have been offers from some Treaty members to contribute towards funding the ongoing work of the Portal.

**Action XXXV-31:** Notify AEP/SCATS leadership of the Delegates decision to continue to support transfer of AEP to SCAR. (ED; by end August 2018).

#### 7.4. Advice to other bodies (SDM 35)

Delegates noted that advice to other bodies expands SCAR's influence beyond the ATCMs and encourages continued efforts in these areas. Details provided in SDM 35.

#### 8. Capacity Building, Education and Training: Progress and Plans

#### 8.1. SCAR Fellowship Programme (SDM 36)

Eoghan Griffin presented progress and future plans for the Fellowship Programme (details provided in SDM 36), and Delegates noted progress and the budget request. Delegates agreed to consider their country making voluntary contributions to the Fellowship Scheme, and to widely advertise the scheme nationally and internationally.

**Action XXXV-32:** Secretariat to issue request for voluntary contributions to support the Fellowship Programme and encourage Delegates to widely advertise the programme within their national communities. (Secretariat, with VP for CBET).

#### 8.2. Visiting Professor Scheme (SDM 37)

Eoghan Griffin presented progress and future plans for the Visiting Professor Scheme (details provided in SDM 37), and Delegates noted progress and the budget request. Delegates agreed to consider whether their country would be willing to contribute to the programme with additional visiting professorships.

**Action XXXV-33:** Secretariat to issue request for voluntary contributions to support the Visiting Professor Scheme and encourage Delegates to widely advertise the programme within their national communities. (Secretariat, with VP for CBET).

#### 8.3. The Tinker-Muse Prize (SDM 38)

The President reported on the current status of the Tinker-Muse Prize (details provided in SDM 38). Delegates supported the proposed announcement of the Prize's end, proposals for final use of funds, and ideas for the future.

Action XXXV-34: The President to continue to negotiate the plan for ending the Tinker-Muse Prize and advance plans for the use of residual funds to greatest effect. The Secretariat to draft an official letter of thanks to the Tinker Foundation. (Secretariat/President).

China indicated the possibility of a source of funding from within China for a future Antarctic science prize.

#### 8.4. Capacity Building, Education and Training (SDM 39)

Karin Lochte presented progress and future plans for CBET (details provided in SDM 39). Delegates noted the establishment of a review of the Visiting Professor scheme, in part to address the low number of female applicants and the high number of applications failing to address the objectives of the scheme. A further round of requests for additional contributions from members to support a greater number of awards within the SCAR CBET activities was noted, as was the budget request. There was a request to make the Fellowship programme more inclusive for less well-developed programmes.

**Action XXXV-35:** Secretariat, in conjunction with the Chair of the CBET, to issue requests to the Delegates for voluntary contributions in support of CBET activities and encourage wide advertisement and promotion of these activities within their national communities. (Secretariat, with VP for CBET; by end September 2018).

The President recapped actions arising and decisions from Day 1 of the XXXV SCAR Delegates Meeting. The meeting was adjourned.

#### 9. Communications: Progress and Plans

#### 9.1. SCAR Communication Activities (SDM 40)

Delegates reviewed communication activities and future plans (details provided in SDM 40), and agreed to provide suggestions and advice to the Secretariat. SCAR group officers and chairs are asked to submit meeting reports to the Secretariat for the SCAR Reports series. Delegates noted the new online newsletter and a request to send content ideas to the Secretariat. A new website was launched in 2017 and groups will be given access to manage their own pages. The Newsletter will be continued. A "What is SCAR?" video is being produced.

Actions XXXV-36 a, b & c: a) Secretariat to take on board suggestions from the Delegates regarding communications; b) Secretariat to issue a reminder to SCAR officers and chairs to submit meeting reports for the SCAR Report Series; and c) Secretariat to remind Delegates to send content ideas for the online newsletter. (Secretariat).

#### 9.2. SCAR Member Reports and their future (SDM 41)

Delegates agreed to discontinue National Reports in their current form (details provided in SDM 41), but wanted to be able to highlight national projects and achievements, perhaps through links to the national programmes' websites. National annual reporting is a requirement of SCAR membership and the executive will look into options for simplifying how members can report.

### 9.3. Highlighting the role and activities of SCAR Groups, Union Members and National Committees (SDM 42)

Delegates noted the range of activities highlighted at POLAR 2018 (details provided in SDM 42), and agreed to communicate this and other opportunities for participation to their national communities. There is now a "History of SCAR" video that will be made available on the website. Posters submitted for the POLAR 2018 expo can be sent to the Secretariat for posting on the website.

**Action XXXV-37:** Delegates to increase communication of opportunities to participate in SCAR to their national communities on an ongoing basis.

#### 10. Major Meetings

#### 10.1. Overview of OSC in Davos

Switzerland reported on the success of POLAR 2018. Delegates thanked the hosts, the ISOC and the LOC for their work, and recognised the contributions of the POLAR 2018 financial sponsors.

**Action XXXV-38:** The Secretariat to thank LOC, ISOC, and Switzerland for organizing and hosting POLAR 2018. (ED/Secretariat).

#### 10.2. Plans for XXXVI SCAR Meeting in Hobart

Delegates noted plans for XXXVI SCAR in Hobart, Tasmania, and thanked Australia for hosting the next SCAR biennial meetings in 2020.

#### 10.3. Proposals for SCAR OSC 2022 Meetings

Delegates considered and approved the bid by India to host the SCAR biennial meetings in 2022.

Action XXXV-39: Secretariat to issue a formal letter to India accepting the offer to host the SCAR biennial meetings in 2022. (ED; by end September 2018).

#### 10.4. SCAR Biology Symposium, Belgium, 2017 - Summary

The Delegates congratulated Belgium on the success of the 2017 SCAR Biology Symposium and expressed appreciation to Belgium for hosting the symposium.

**Action XXXV-40:** Secretariat to write expressing the appreciation of Delegates and recognizing Belgium for hosting the 2017 SCAR Biology Symposium. (ED; by end September 2018).

#### 10.5. Plans for 2019 ISAES, Korea

Delegates noted progress in preparing for ISAES (International Symposium on Antarctic Earth Sciences) in 2019 and expressed appreciation to Korea for hosting the meeting.

#### 10.6. Other Major Meetings

Argentina noted that the next Humanities and Social Sciences conference will be held in Punta Arenas, Argentina in 2019, and that the 10<sup>th</sup> Latin American Congress of Antarctic Science will be held in Buenos Aires in October/November 2019. The XXX IAU General Assembly will take place in Vienna, Austria in August 2018.

Switzerland made an intervention to say it would be willing to host another Three Poles meeting with SCAR and IASC in six years' time, if agreed.

In accordance with the SCAR Rules of Procedure, Observers were asked to leave during closed Agenda Items 11, 12 and 13.

#### 11. SCAR Business (CLOSED to Observers)

#### 11.1. Executive Committee Report (SDM 44)

The Delegates noted progress and actions summarized in the Executive Committee Report (details provided in SDM 44). Thanks were extended to Eoghan Griffin and Rosemary Nash for covering during the gap between Executive Directors. Thanks were expressed to Jenny Baeseman for the archival project and website upgrade. A part-time (0.5 FTE) position has been added to the Secretariat to enable the ED to resume a strategic and fundraising role as intended. The value of the arrangement with the Scott Polar Research Institute for hosting the Secretariat was noted.

#### 11.2. Secretariat Report (SDM 45)

Eoghan Griffin presented the Secretariat report (details provided in SDM 45). Delegates noted the accomplishments of the Secretariat staff in difficult circumstances. Delegates noted the changes to Secretariat salary scales and staffing levels, and that the SCAR Archives Project has made significant progress. The impact of revised Secretariat salary scales, timing of recruitment and related staffing levels are detailed in the Finance Report (SDM 49) and financial statements and budgets (SDMs 50-54). A Staff Handbook is in the process of being finalized for Secretariat staff.

### 11.3. Amendments to election procedure for President (Rules of Procedure) (SDM 46/46a)

Delegates considered and approved new language for the Rules of Procedure for Presidential elections (details provided in the joint document SDM 46/46a). Delegates reviewed the updated Articles of Association, Rules of Procedure, and Rules of Procedure for Subsidiary Bodies, and accepted the updated versions. The President thanked the VP for Administration, Terry Wilson, for the work she had done in drafting the amendments.

**Action XXXV-41:** All SCAR documents and the website be updated with the latest versions of Rules of Procedure for Presidential elections, the Articles of Association, the Rules of Procedure, and the Rules of Procedure for Subsidiary Bodies. (ED; by end September 2018).

### 11.4. International Council for Science and Changes to SCAR Documentation (SDM 47)

Delegates noted and approved changes in SCAR documentation to reflect the name change to the International Science Council, following the merger of ICSU and ISSC (details provided in SDM 47).

#### 11.5. SCAR Logo Change (SDM 48)

Delegates noted and approved the new SCAR logo to reflect the name change to the International Science Council (details provided in SDM 48).

#### 12. SCAR Officers (CLOSED to Observers)

#### 12.1. Election of Vice-Presidents

Only Full Members and Union Members are eligible to vote, with a single vote per Member. The Committee appointed under Agenda Item 3.1 conducted the voting in accordance with the Rules of Procedure. The following were elected:

Two 4-year Vice President terms: Gary Wilson (New Zealand) and M Ravichandran (India)

One 2-year Vice President Term – Catherine Ritz (France)

**Action XXXV-42:** Update the SCAR website to reflect the new SCAR Officers. (Secretariat; by end July 2018).

#### 13. Finance (CLOSED to Observers)

#### 13.1. Finance Report (SDM 49)

The VP for Finance, Jefferson Simões, reported on changes implemented since 2016: 1) an ethical investment portfolio of USD\$ 300,000 has been established with Rathbone Greenbank to reduce SCAR's exchange rate exposure; 2) to give a more accurate view of the percentage of funds allocated to science, carried-forward funds have been separated from the annual funds, but the carry forward for science is still too high; and 3) Secretariat salaries have been increased to bring them in line with similar organisations based in the same city.

Delegates noted the financial statements and future budgets, the new simplified national contribution levels and new Secretariat remuneration policy (details provided in SDM 49).

#### 13.2. Financial Statements for 2016 and 2017 (SDMs 50 and 51)

The Delegates approved financial statements for 2016 and 2017 (details provided in SDMs 50 and 51).

#### 13.3. Revised Budget for 2018 (SDM 52)

The Delegates approved a revised Budget for 2018 (details provided in SDM 52).

#### 13.4. Revised Budget for 2019 (SDM 53)

The Delegates approved a revised Budget for 2019 (details provided in SDM 53).

### 13.5. Draft Budget for 2020, including applications for major meeting funds (SDM 54)

The Delegates approved a draft Budget for 2020 (details provided in SDM 54).

#### 13.6. The SCAR Development Council

The report from the Development Council was considered (details provided in SDM 55). Delegates considered if and how a more active role could be taken in identifying "real value" capacity-building contributions that the programme could make to newer and less established programmes.

A proposal to suspend the Development Council was discussed and approved. Delegates expressed their thanks to those that had served.

**Action XXXV-45:** Letter to be sent to Development Council members in appreciation of the work they have done. (ED; by end 2018).

#### 13.7. Any other Finance Matters

There were no other finance matters raised.

In accordance with the SCAR Rules of Procedure, Observers were asked to re-join the meeting.

#### 14. Other Business

#### 14.1. Any other business

No items were raised under any other business.

The President summarized the actions arising from the XXXV Delegates meeting.

The President thanked the Delegates for a productive meeting and for their continuing support of SCAR. He thanked those SCAR Officers whose terms were ending, and welcomed the newly elected Officers. He recognized the excellent support of the Secretariat and the Special Advisors to the President that were essential to the success and efficiency of the meetings.

The President thanked the host country, Switzerland, and recognized the provision of excellent facilities and the setting for the meetings. He wished all safe travels home.

The meeting was adjourned.

The newly constituted Executive Committee met, minutes and actions recorded elsewhere.

#### **Appendix: List of Acronyms**

AAA Astronomy and Astrophysics from Antarctica

AEP Antarctic Environments Portal AFoPS Asian Forum for Polar Sciences

AG Action Group

AISSL Antarctic Ice Sheet Dynamics and Global Sea Level

AntArchitecture Action Group on the internal architecture of Antarctica's ice

AntClim<sup>21</sup> Antarctic Climate Change in the 21st Century

AntClim<sup>now</sup> Near-term Variability and Prediction of the Antarctic Climate System

AntEco State of the Antarctic Ecosystem

Antarctic Thresholds - Ecosystem Resilience and Adaptation
Ant-ICON Integrated Science to Support Antarctic and Southern Ocean

Conservation (originally named Integrated Conservation Planning for

Antarctica and the Southern Ocean)

APECS Association of Polar Early Career Scientists
ARC Antarctic Roadmap Challenges project
ATCM Antarctic Treaty Consultative Meeting

ATS Antarctic Treaty System / Antarctic Treaty Secretariat

AWI Alfred Wegener Institute, Germany

CBET Capacity Building, Education and Training

CCAMLR Commission for the Conservation of Antarctic Marine Living

Resources

CEP Committee for Environmental Protection (Antarctic Treaty)
CliC Climate and Cryosphere Project (a project of the WCRP)

CO Chief Officer

COMNAP Council of Managers of National Antarctic Programs

ED Executive Director
EG Expert Group

EOAG Earth Observation Action Group

EPB European Polar Board FTE Full time equivalent

GS Geosciences

GSG Geosciences Group

HASSEG Humanities and Social Sciences Expert Group

HSSG Humanities and Social Sciences

IASC International Arctic Science Committee

IAU International Astronomical Union

ICED Integrating Climate and Ecosytem Dynamics

ICSU International Council for Science IGU International Geographical Union

ImPACT Input Pathways of persistent organic pollutants to AntarCTica

IPICS International Partnership in Ice Core Sciences

ISAES International Symposium on Antarctic Earth Sciences

ISC International Science Council

ISMASS Ice Sheet Mass Balance and Sea Level
ISOC International Scientific Organising Committee

ISSC International Social Science Council

**IUBS** International Union of Biological Sciences **IUGG** International Union of Geodesy and Geophysics

**IUGS** International Union of Geological Sciences

KOPRI Korea Polar Research Institute

LoA Letter of Agreement

LOC **Local Organising Committee** 

LS Life Sciences

LSG Life Sciences Group

MoU Memorandum of Understanding OSC **Open Science Conference** 

**PAIS** Past Antarctic Ice Sheet dynamics Plastics in Polar Environments Plastics-AG

POLAR2018 Joint SCAR-IASC Open Science Conference in 2018

PPG Programme Planning Group

PS **Physical Sciences** 

**PSG** Physical Sciences Group

SCADM Standing Committee on Antarctic Data Management Standing Committee on Antarctic Geographic Information SCAGI

Scientific Committee on Antarctic Research SCAR

**SCATS** Standing Committee on the Antarctic Treaty System

SC-Finance Standing Committee on Finance

SC-HASS Standing Committee on Humanities and Social Sciences

**SCOR** Scientific Committee on Oceanic Research

SDM **SCAR Delegates Meeting** 

**SERCE** Solid Earth Response and influence on Cryosphere Evolution

SG Science Group

**SKAG** SCAR Krill Action Group

SOOS Southern Ocean Observing System SRP Scientific Research Programme

Union Radio Scientifique International **URSI** 

US / USA United States of America

VP Vice President

WMO World Meteorological Organisation

YOPP Year of Polar Prediction