

International Union of Geological Sciences
International Geological Congress
Fourth Ordinary Session of the IUGS-IGC Council

1. OPENING AND WELCOME (Opening Remarks by 35th IGC President Richard VILJOEN and IUGS President Roland OBERHAENSLI)

Richard Viljoen, President of the 35th IGC, opened the meeting by welcoming all the participants in the IUGS-IGC Council Meeting.

Roland Oberhaensli, President of the IUGS (2012-2016), extended a welcoming statement.

Proposed by Roland Oberhaensli, all the meeting participants paid tribute to Zhang Hongren, former IUGS President, who passed away in Beijing on July 16, 2016 at the age of 82.

2. APPROVAL OF AGENDA (Chair: Roland OBERHAENSLI)

Three amendments were made to the Agenda as follows:

1) Item 16

16.a REPORT on RFG2018, VANCOUVER, CANADA J. Thompson 10'

2) Item 19

Handover IGCC Chair (South Africa to India)

3) Voting for the 37th bidders be postponed to the afternoon of September 1.

Motion to approve Agenda

Passed unanimously

3. ADMINISTRATIVE MATTERS

a) Order of Business (Roland OBERHAENSLI)

The President reviewed the order of business and explained that the IGC followed the Roberts Rules for Fair and Orderly Meetings & Conventions (RRO), a summary of which was provided to every participant in attendance.

The President noted that 50 Council members eligible to vote were present at the Council Meeting and Council decisions shall be made by simple majority of the total votes, except with amendments to the IUGS Statutes and Bylaws where two thirds of the total votes are required.

Motion to approve Order of Business

Passed unanimously

Motion to appoint Wolfgang Eder and Eduardo de Mulder as scrutineers of the IUGS-IGC Council Meeting

Passed unanimously

b) Approval of Minutes of the 3rd Ordinary Session of the IUGS-IGC Council, August 5-9, 2012, Brisbane (Roland Oberhaensli)

- Election of Vice President

With the misspelled name “Ashok Singhv” corrected to “Ashok Singhvi”

Motion to approve the Minutes

Approved

4. PRESIDENT’S REPORT ((Roland OBERHAENSLI)

The President R. Oberhaensli reported that his intention during the four-year tenure was to guide IUGS from the era of System Earth studies towards the era of Future Earth studies focusing on pertinent topics including energy & resources, resilience of ecosystems, waste management, hazards & climatic changes, and geo-governance. But not all these goals had been achieved over the past four years, leaving space for continuing adaptation, modernisation and restructuring of IUGS under the new IUGS EC.

IUGS was handed over to the present Executive Committee (EC) in well set organizational as well as financial conditions with a valuable report from the former Strategic Committee. However, the EC also faced several major challenges, such as relocation of the IUGS Secretariat and the Treasury to China, resignation of the Past President, replacement of the Secretary General, downgrading of geosciences in UNESCO, *Episodes* and international networking.

The President extended thanks to the Ministry of Land and Resources of China and the Chinese Academy of Geological Sciences for hosting the IUGS Secretariat and the staff members of the IUGS Secretariat headed by Mr. Wang Wei for their efficient work. He

thanked a number of individuals for their support, including Anne Liinamaa-Dehls from the former IUGS Secretariat based in Oslo, outgoing IUGS Secretary General Peter Bobrowsky, Nancy Zeigler and Rich Calnan from the former IUGS Secretariat based in the U.S. Geological Survey, former IUGS Treasurer William Cavazza, former IUGS Secretary General Ian Lambert, Nomination Committee Chair Jacques Charvet for the swift replacement of Secretary General, and all the other EC Members: Secretary General Jose Pedro Calvo-Sorando, Treasurer Dong Shuwen, Vice Presidents Yildirim Dilek and Marko Komac, Councillors Wesley Hill, Hassina Mouri, Amel Barich, Sampat Tandon, Yujiro Ogawa and Stephen Johnston.

IUGS Organization

The EC took up the advice of the former Strategic Committee and created the New Activities Strategic Implementation Committee (NASIC). NASIC started with a new IUGS Initiative “Resourcing Future Generations” (RFG) based on the background from Ian Lambert and a group of colleagues working on the IYPE legacy, including Edmund Nickless, John Ludden, Pat Leahy and Jack Hess.

Councillor Ogawa-San and Vice President Yildirim Dilek jointly with the IUGS Bureau started working on the risk and hazard topic. IUGS actively participated in G-EVER focusing on the tsunami disaster in Sendai by launching the Sendai Agreement. A special issue of *Episodes* on the risk and hazard theme was produced. IUGS also participated in the Third UN World Conference on Disaster Risk Reduction held in Sendai, Japan in March 2015. A proposal on the establishment of a new Task Group on Risk and Hazard will be submitted to this Council for approval.

The Commission on Geoscience for Environmental Management (GEM) will end with the 35th IGC in Cape Town, with no follow up activities regarding environmental and anthropogenic issues. However, the high social relevance of human activities on the planet Earth should be kept in IUGS focus and the task will be handed over to the next IUGS EC.

The two new Affiliated Groups focusing on geoethics - the International Association for Geoethics (IAGETH) and the International Association for Promoting Geoethics (IAPG) were accepted and put under the auspices of the IUGS Task Group on Global Geoscience Professionalism (TGGGP). Two new Affiliated Members - Earth Science Matters (ESM) and Geological Association of Canada (CAG) joined IUGS. The IUGS EC proposed to merge two efficient Task Groups - Heritage Stone Task Group (HSTG) and Task Group on Geoheritage (TGG) to form a new Commission, and the proposal will be submitted to this Council for ratification. The establishment of this new Commission was important to continue and enforce cooperation with UNESCO in geoparks and to set standards – one of the Union’s highest tasks.

Ad hoc Review Committees’ (ARCs) reviews were held on International Geoscience

Program (IGCP), Geological Applications of Remote Sensing (GARS) and *Episodes* all led by Vice President Yildirim Dilek and on Forensic Geology led by Vice President Marko Komac. The EC also endorsed joining the “OneGeology” consortium.

IUGS Membership & Outreach

Political as well as financial torments such as wars and falling prices for energy and resources brought IUGS in a difficult situation. Many IUGS members throughout the world were not able or willing to maintain their membership in IUGS. On the other hand, IUGS was not efficient enough to clarify the advantages of IUGS membership.

The EC adopted a series of measures to deal with the decreasing IUGS membership. The EC members were assigned regions where they should actively lobby to maintain as many members as possible within IUGS. The EC involved younger geologists for outreach tasks. Wang Meng from Young Earth Scientist (YES) Network installed a Facebook website for IUGS, now run by IUGS Councillor Amel Barich. IUGS E-bulletin was modernized by Amaury Pourteau and Amel Barich. A new IUGS brochure was produced and IUGS Annual Reports were published. IUGS button for corporate identity was designed. The IUGS stratigraphic chart was used as mural on request by Shell in the Netherlands, the income of which was used to produce and distribute free stratigraphic charts. A new IUGS flyer was produced to show all the standards that were set by IUGS Commissions, Task Groups and Initiatives. The IUGS Secretariat developed apps for Androids and Apple. A new IUGS web design was about to be finalized.

EPISODES

Episodes was run swiftly but at a low ISI ranking. The newly implemented IUGS Publications Committee (PC) chaired by Brian Marker put high efforts into making the journal more attractive and raised its visibility by issuing Special Volumes and having DOI numbers for the journal. Thanks to the above endeavours, the ISI factor of *Episodes* was now above 3.2. The ARC review of *Episodes* identified the problems for its development, some of which were yet to be solved. *Episodes* still did not dispose of an on-line submission and editorial system, which was one of the most problematic topics for a quarterly journal. The MoU between IUGS and the Geological Society of India concerning *Episodes* will expire with the 35th IGC. A new MoU between IUGS and South Korea concerning the publishing of *Episodes* with on-line services and distribution was signed before the Council Meeting during the 35th IGC in Cape Town.

NASIC & RFG

NASIC chaired by Edmund Nickless started the Resourcing Future Generations (RFG) initiative. Ian Lambert presented the RFG idea in *Episodes* in 2013. NASIC produced an 8-page brochure that was distributed at several events where RFG was presented. RFG symposia were held at GSA Pardee Conference in Denver 2013, at China Mining in

Tianjin 2014 and at EGU in Vienna 2014. Talks were given at GSAF in Addis Ababa 2013, M&M in Astana 2014, Kurultay in Ankara 2014, Geoheritage meeting Toulouse 2015, Conference on Future of Earth Space Science and Education (Future ESSE) in Trieste 2015 and GFZ Potsdam 2015. A consultation paper was written by the NASIC team and distributed for comments to all the IUGS members as well as other potentially interested people in 2014. The response by the IUGS community was relatively insignificant and remained below NASIC's expectations. Additional to the IUGS support to RFG, the initiative was supported by UNESCO and granted by ICSU with 30,000 Euros based on an application submitted by the IUGS President. A RFG Workshop was held in Namibia, which united geoscientists from academia, government and industry as well as sociologists and economists. Further outcomes of this Workshop were a one-page document for politicians attending the 2015 Paris Climate Conference and a Nature paper submitted in 2016. The First Open Call for RFG proposals got 11 applications, 6 of which were granted with seeding fund similar to IGCP. The Second Open Call for RFG proposals was now available. An application to ACATECH Germany was submitted. More efforts on new sponsorships were still needed for RFG's future development.

UNESCO; GeoParks & World Heritage

In 2012, geosciences within UNESCO were down rated and thus the IGCP program was endangered. During the 67th IUGS EC Meeting held in Goa, India in 2013, an umbrella structure for IGCP & Geoparks was proposed, and the scientific role of IUGS within IGCP and Geoparks was endorsed. Joint efforts with UNESCO colleagues Patrick McKeever, Han Qunli (Director) and Mrs Flavia Schlegel (Assistant Director General) led to the new International Geoscience and Geoparks Program (IGGP), with a new organizational structure as well as Statutes and Bylaws. The new structure of geosciences at UNESCO included the Risk and Hazard group. IUGS was actively and perfectly involved in the whole process of the establishment of IGGP. In autumn 2015, the IUGS President was invited to plead for this new program in the UNESCO Science Plenum and the program was endorsed without any objection. IGGP was the first new science program accepted by the UNESCO General Assembly during the past 40 years.

As an equal partner of UNESCO in the IGCP science program, IUGS provided the scientific board and the reviewers of the proposals coming from the international geoscience community. IUGS also provided lists of experts for all geology-related aspects of UNESCO Geoparks and also for the evaluation of World Heritage sites by IUCN. The task of providing high rank experts on very diverse geoscientific topics for IGCP, Geoparks and World Heritage was a major achievement and in a sense could set standards. It was very important to assure that this task was fulfilled at its best under the new IUGS Commission merged from the two task groups on heritage aspects.

ICSU and Other Unions

Representation of IUGS on the world stage was crucial but difficult. Support from IUGS

Adhering and Affiliated Members were urgently needed. To live into organisations such as International Council of Scientific Unions (ICSU) or COSPAR or GEO/GEOSS strongly depended on the specialization of the IUGS officers and the mismatch in event periodicity of the organisations. IUGS was a part of the GeoUnions of ICSU. Despite GeoUnions lobbying in ICSU, active shaping of future science plans remained vague. The published science plan of ICSU Future Earth initiative was written without input of “geoscience aspects”. A consortium of colleagues from IUGS and other unions and organisations took the effort to signalize where geosciences could add significant input. This document was distributed to ICSU as well as Future Earth authorities without any significant feedback or acknowledgment. Such situations were mainly due to lack of liaison and/or personal connections. ICSU attempted to change voting modes, which would put scientific unions in a disadvantageous position. This went along with the change of the ICSU logo and the name of the organisation to International Council of Science (ICS), dropping the letter U.

Positive and close contacts were established and maintained with the sister organization International Union of Geodesy and Geophysics (IUGG). IUGS and IUGG jointly supported the International Lithosphere Program (ILP) and the International Continental Drilling Program (ICDP). In order to live up to scientific reality where modern geologic sciences interact with geophysics as much as with geochemistry, the IUGS EC decided to contact and propose to join the international congresses of the two unions under the IGC. The contact with IUGG in this regard was positive. But due to Statutes and Bylaws of IUGG, an answer on whether IUGS and IUGG can proceed with the idea of a joint IGC could only be given by IUGG in 2019.

IUGS had a MoU with the International Consortium on Landslides and signed the ISDR-ICL Sendai Partnerships 2015-2025. IUGS had to present a paper in a Special Volume planned for the forthcoming Landslide Symposium in Ljubljana, Slovenia 2017, and provide symposium chair and a representative for high-level panel discussion. IUGS also signed a MoU with the UNESCO Category II Centre on Global-Scale Geochemistry in Langfang, China to set standards in geochemical baselines.

As for other organisations and unions, IUGS must put efforts to liaison with these organisations. This was only efficiently feasible with the support of the IUGS members and bodies providing and delegating experts.

Issues concerning the relationship with ICSU, the establishment of an IUGS liaison office system, implementation of the IUGS strategic plan, and joint Congress with IUGG were discussed after the President's report.

Motion to accept the President's Report

Accepted as presented

5. SECRETARY GENERAL'S REPORT ON THE ADMINISTRATION OF THE

UNION (J.P. CALVO)

REPORT OF THE IUGS SECRETARY GENERAL REGARDING THE ADMINISTRATION OF THE INTERNATIONAL UNION OF GEOLOGICAL SCIENCES FOR THE PERIOD 2012 (AUGUST) TO 2016 (AUGUST)

EXECUTIVE SUMMARY

The IUGS Secretary General J. P. Calvo delivered an executive summary. IUGS was one of the largest scientific unions under the umbrella of the International Council for Science (ICSU). IUGS currently supports 120 Adhering Organizations (73 of which are Active members) as well as 55 Affiliated Organizations. Since the 3rd Joint IUGS-IGC Council held in Brisbane, 4 organizations were granted status of IUGS Affiliated Organization. The IUGS Executive Committee met once per year since the 34th IGC in 2012 at the partial expense of Union. Additionally, the Bureau met another 7 times during the past 4 years at minimal expense to the Union. Five types of official committees were active during the past term: Nominating Committee, Publications Committee, Finance Committee, Strategic Planning Committee and the New Activities Strategic Implementation Committee, and several Ad hoc Review Committees. Publications and other communication options increased markedly since 2012. Ten IUGS related new books (published by the Geological Society of London), 48 additional electronic E-Bulletins, 3 Annual Reports, 4 volumes of *Episodes* and new Union focused flyers/brochures were published. The SCI Impact factor for *Episodes* was relatively steady in 2012 and 2013, rising to 2.0 in 2014 and reaching up to 3.263 in 2015. The version of the website installed in a previous period was operational during 2012 - 2016. Six productive Commissions (ICS, INHIGEO, TECTASK, CGI, COGE, GEM) remained, although one - GEM - will finish in 2016. Four Task Groups were active and remained operational and two new high profile Initiatives were started. Participation within ICSU and the relationship with that organization remained stable. IUGS participated in both the General and Union assemblies of ICSU. The GeoUnions consortium still comprises 9 ICSU Unions and informal cooperation amongst the group members is on the increase. Integration in Future Earth studies was intended by focusing on pertinent topics such as energy & resources, resilience of ecosystems, waste management, hazards & climatic changes and geo-governance. IUGS relationship with UNESCO was affected by the downgrading of geosciences in that organization. IUGS continued to support the International Geopark and Geoscience Program (IGCP) and served as scientific expert for Geoparks, assisting in geosciences evaluations and proposals. IUGS funding for IGCP was set at \$70,000 USD per year. Other joint initiatives included the International Lithosphere Program (ILP) with IUGG as well as the Isotopes and Geochronology group with IUPAC. The IUGS was the main scientific sponsor of the 35th International Geological Congress in Cape Town, South Africa, in 2016.

EXECUTIVE COMMITTEE

During the Council Meeting in August 2012, Brisbane, Australia, the following individuals were elected by Council as IUGS Executive Committee officers:

President – Roland Oberhänsli (Germany)
Past President – Alberto Riccardi (Argentina)
Secretary General – Ian Lambert (Australia)
Treasurer – Dong Shuwen (China)
Vice President – Marko Komac (Slovenia)
Vice President – Yildirim Dilek (USA)
Councillor (August 2010 – August 2014) – Sampat Tandon (India)
Councillor (August 2010 – August 2014) – Wesley Hill (USA)
Councillor (August 2012 – August 2016) – Hassina Mouri (South Africa)
Councillor (August 2012 – August 2016) – Yujiro Ogawa (Japan)
Councillor (August 2014 – August 2018) – Stephen Johnston (Canada)
Councillor (August 2014 – August 2018) – Amel Barich (Morocco)

Following the election of the new Executive Committee, seven administrative meetings were held during the term:

65th EC meeting (11 August 2012) Brisbane, Australia
66th EC meeting (19-22 February 2013) Paris, France
67th EC meeting (8-10 February 2014) Goa, India
68th EC meeting (27-29 February 2015) Vancouver, Canada
69th EC meeting (18-19 January 2016) Kunming, China

The Executive Committee meetings were generally “open” to observers. Representatives from various National Committees, local “host” government organizations, sister ‘GeoUnions’, IGC Committee members, UNESCO, and many others were invited to and were often present at these meetings. Decisions and discussions regarding budgets and other sensitive Union issues were held in-camera for elected EC members and representatives of the Permanent Secretariat.

The Executive Committee of IUGS met annually at the expense of the Union, except for the positions within the Bureau whose employers or sponsoring agencies covered all travel costs. These meeting costs were often eased by the National Committees who hosted the EC meetings and often arranged for local agencies and authorities to cover the costs of accommodation, local transport and meals. Travel expenses of the President of IUGS were paid for by the German Science Foundation whereas travelling of the Secretary General was covered by the International Association of Sedimentologists. Expense for travelling of the IUGS Treasurer was paid for by the Chinese Academy of Geological Sciences. This practice has been financially advantageous to the Union because in total Bureau travel expenses can be quite high.

The composition of Executive Committee underwent several changes after Brisbane. The

President from the previous term usually serves as Past-President; however, Alberto Riccardi stepped down on January 2013, for personal reasons. This was also the case for Secretary General Ian Lambert, who resigned in January 2014 after 18 months of intense and fruitful activity. The Nominating Committee and Council then acted swiftly to find a replacement and a new Secretary General Jose P. Calvo was elected in August 2014.

BUREAU

The day-to-day management of the Union was handled by the IUGS Bureau (President, Treasurer and Secretary General) who are also part of the EC, as defined in the current Statutes and Bylaws. To this end, the members of the Bureau met occasionally outside of the Annual Meeting during their tenure to adjudicate over pressing matters. Seven IUGS Bureau meetings were held from August 2012 to August 2016, often in spring and in the fall. One additional meeting of the President with the new Secretary General and the Chair of the Publications Committee was held in Madrid on November 2014. As per the existing Statutes and Bylaws, each Vice President was requested to participate, at the expense of IUGS, in one Bureau meeting per year.

The following Bureau meetings were held during this term of office:

26 October 2013 (Denver, USA)

20-21 August 2014 (Potsdam, Germany)

27-28 October 2014 (Beijing, China)

25-26 May 2015 (Cape Town, South Africa)

22-23 October 2015 (Jixian, China)

17-18 May 2016 (Madrid-Toledo, Spain)

25 August 2016 (Cape Town, South Africa)

PERMANENT SECRETARIAT

After an interim period at the US Geological Survey (USGS) in Reston, Virginia, where the Secretariat was managed by Richard Calnan and Nancy Zeigler, the IUGS Permanent Secretariat was established in Beijing, China, under the auspices of the Chinese Academy of Geological Sciences (CAGS). Li Zhijian served as Director of the Secretariat during the transition of the Secretariat from the interim solution of USGS to CAGS. With this work completed, Li Zhijian stepped down at the end of 2013. The current Permanent Secretariat was led by Wang Wei (Director). Staff members included: Xu Yaqi, Gu Yanfei, Li Wei, Chen Zhu and Anne Liinamaa-Dehls. Wen Jun served as the Assistant to the IUGS Treasurer.

MEMBERSHIP

Membership in the Union is through an Adhering Organization. These are typically national/regional organizations such as geological surveys, national academies of

sciences and geological societies.

By the end of IUGS-IGC Joint Council in 2012 there were 120 Adhering Organizations recognized within the Union as members. The IUGS supports the largest number of member countries or regions of all Unions currently within ICSU. IUGS recognizes Active members as those Adhering Organizations whose dues are paid in full in contrast to Inactive members whose dues have been outstanding for three or more years. The number of Active Members was down significantly to 73 compared to 89 in 2012.

IUGS acknowledges the following countries that changed their status from “Inactive” to “Active”: Greece, Philippines, Kazakhstan, Zambia and Tanzania. Likewise, Peru, Austria and Gambia changed their status from “Pending” to “Active”. China increased its membership category from 7 to 8.

AFFILIATED ORGANIZATIONS

An Affiliated Organization is an international, non-governmental, scientific, autonomous organization that has obtained affiliation within the Union for the representation of scientific interests and, through the Union in the International Council for Science, for collaboration in arranging scientific meetings, and for planning and undertaking geosciences activities. The IUGS is in the enviable position to be affiliated with a significant number of specialized organizations, societies and groups that serve a large number of Earth scientists and/or focus on important niches and subjects within the discipline. Such organizations apply formally to the Union for official recognition as Affiliated Organizations. As with Adhering Organizations, the status of Affiliated Organizations requires the official ratification by the Council. The current Statutes and Bylaws allow for electronic Council ratification of various issues, hence, several ratifications were facilitated during the inter-congress period. Four new groups became Affiliated Organizations this term. However, two Affiliated Organizations were declared “defunct” by the Executive Committee meeting in Kunming in 2016, due to lack of website, publications and response to any communication from the IUGS Secretariat. As a consequence, the total number of Affiliated Organizations now stood at 55.

The Affiliated Organizations declared as “defunct” this term were:

Association of European Geological Societies (AEGS)
Balkan Geophysical Society (BGS)

The Union welcomes the following new IUGS Affiliates since 2012:

International Association for Geoethics (IAGETH)
International Association for Promoting Geoethics (IAPG)
Geological Association of Canada (GAC)
Earth Science Matters (ESM)

COMMITTEES

The following official IUGS Committees were active in the past 4 years:

- Nominating Committee (NC)
- Finances Committee (FC)
- Publications Committee (PC)
- Ad hoc Review Committees (ARC)
- Strategic Planning Committee (SPC) and
- New Activities Strategic Implementation Committee (NASIC).

The Nominating Committee (NC) reports directly to Council and not the Executive Committee. During this term, the Nominating Committee was chaired by Jacques Charvet (France). The remaining members of the NC included Peter Bobrowsky (Canada), Harsh Gupta (India), Ricardo Olea (USA), Lopo Vasconcelos (Mozambique), and Niichi Nishiwaki (Japan). The latter replaced Edmund Nickless (UK) in 2014. As mandated by the current Statutes and Bylaws, this committee requested nominations from all eligible bodies and organizations for the positions of IUGS EC members to be appointed in 2016. The Committee evaluated all nominations and tabled recommendations to the Council for their final decision. A copy of the full report from the Nominating Committee was posted on the website and was available from the Secretariat.

The Finances Committee (FC) formed in early 2010. It was currently formed by the Chair William Cavazza (Italy), Maria Glicia da Nobrega Coutinho (Brazil) and Danie Barnardo (South Africa). This committee began active examination of the financial affairs and needs of the Union including making recommendations regarding new sources of income, managing existing funds more effectively and assessing the state of financial need into the future.

A new Publications Committee (PC), chaired by Brian Marker, held its first meeting during the 66th EC in Paris, February 2013. The remaining committee members include: Amel Barich (Morocco), Peter Bobrowsky (Canada), Fareeduddin Fareeduddin (India), Dolores Pereira (Spain) and Yang Zhenyu (China). The committee met several times during the past four years and management was also conducted through email and skype contact. The PC addressed issues dealing with the *Episodes* journal and other internal products as well as external (through the Geological Society of London) publications. (For details on the PC and related output see comments under Section on Publications/Communications). The Editorship and publication management for *Episodes* remained in Bangalore, India (under the auspices of the Geological Society of India). A new Editor in Chief was appointed (Fareeduddin from Bangalore).

Several Ad hoc Review Committees (ARCs) were appointed during the past four years to provide timely and critical evaluation of IUGS funded activities. Following the completion

of a review, an evaluation report is completed by the Committee Chair, submitted to the IUGS EC for approval and is subsequently published in *Episodes*. In 2012, ARC evaluations were conducted for the joint IUGS-UNESCO programs, International Geoscience Program (IGCP) and Geoscience Applications of Remote Sensing (GARS). These involved Vice Presidents Yildirim Dilek (Chair) and Marko Komac, as well as Past Secretary General Peter Bobrowsky. Reports from these ARCs were presented in January 2013. The reviews resulted in the termination of IUGS involvement in GARS and discussion of updating IGCP. In 2015 there was an Ad Hoc Review Committee active dealing with the *Episodes* journal. The ARC met in Bangalore and was chaired by Vice President Yildirim Dilek. In April 2016, the ARC formed to evaluate the IUGS Initiative on Forensic Geology (IFG) met in Manchester, UK. Components of the ARC for the IFG were Jose P. Calvo (Chair), Colin Hope (Secretary) and Marco Komac. The IFG was represented by Laurance Donnelly (Chair of IFG) and Alastair Ruffell (Queens University, Belfast).

The New Activities Strategic Implementation Committee (NASIC) was created in February 2013 in response to the recommendations of the last strategic plan. Since its creation, NASIC has been chaired by Edmund Nickless (UK) and is composed of eminent geoscientists from around the world: Ian Lambert (Australia), John Ludden (UK), Neil Williams (Australia), John Thompson (Canada), Roland Oberhänsli (Germany), Marcio Godoy (Brazil), Pat Leahy (USA) and Wang Anjian (China), Mxolisi Kota (South Africa) and Ray Durrheim (South Africa). The task of this committee was to establish an initiative aimed at examining the issue of the long term and rapidly increasing societal demand for natural resources in a prospective for the next 10-20 years. The activity of NASIC resulted in the proposal of the Initiative entitled Resourcing Future Generations.

INTERNATIONAL GEOLOGICAL CONGRESS COMMITTEE

Members of the IUGS Bureau and the IGCC attended the 125th Anniversary of the Geological Society of America in Denver. The IGCC members met there on October 26, 2013. The IGCC discussed reports from South Africa and India, the organizers of the 35th and 36th IGC, respectively, and made a number of practical suggestions. It was agreed that the IUGS President and SG would visit the New Delhi venue after the 67th EC meeting.

The IGCC met in Cape Town on 25-26 May, 2015. A significant part of the meeting was devoted to organizational aspects of the 35th IGC as well as to assess the procedures for requesting invitations for bids to the 37th IGC in 2024. Bids from four National Committees arrived before deadline on 31 May 2016. Venues in Berlin, Busan, Istanbul, Saint Petersburg will be considered at the 4th Joint IUGS-IGC Council.

INTERIM RFG2018 CONGRESS

The Inter-IGC Meeting (Resources for Future Generations) to be held in Vancouver, 2018,

will be narrower in scope than an IGC, and other ICSU GeoUnions will be invited to develop symposia. The RFG2018 conference is an outgrowth of collaboration between the IUGS and a number of organizations representing Canada's geoscience and geo-engineering communities. The 68th EC Meeting was held in Vancouver, January 2015, coincident with the Mineral Exploration Roundup. This presented an opportunity for the IUGS Bureau members to join organizers of the RFG2018. John Thompson is chairing the Local Organizing Committee of the conference that will take place on June 17-21, 2018 (Website: <http://rfg2018.org/en.aspx>).

PUBLICATIONS/COMMUNICATIONS

A Memorandum of Understanding (MOU) exists between the IUGS and the Geological Society of London (GSL) to publish geoscience books of mutual interest. All IUGS funded activities (including Commissions, IGCP Projects, etc.) are expected to consider the GSL for publication of their work. From 2012 to 2015, 10 volumes were published under the agreement through GSL. Three new books are expected to be published during 2016.

The journal *Episodes* was ably managed and published through India under the editorship of Fareeduddin Fareeduddin and his team of associate editors. An MOU between IUGS and the Geological Society of India is in place and expires on the occasion of the 35th IGC. In 2016, volume 39 will be released. After a few years stable, the SCI Impact Factor for *Episodes* rose to 2.0 in 2014 and reached 3.263 in 2015, the increase probably due to publication of the thematic issues of the journal.

The IUGS flyer was translated into several languages that are available for download from the IUGS website www.iugs.org. A new flyer focusing on the IUGS Geostandards is in preparation to be distributed during the 35th IGC.

The IUGS 2012 Annual Report was released by the EC following the tradition established at the 32nd IGC in Italy but there was a gap in the publication of the IUGS Annual Report in 2013. To solve this problem a 2013-2014 IUGS Report was compiled under a new format and published by the beginning of 2015. The new format has also been used for the IUGS 2015 Annual Report. All reports are available in digital format on the IUGS website and printing of hard copies will be drastically reduced except for those published on the occasion of the IGC.

The Union website was active during the past 4 years being effectively managed by Peter Bobrowsky as webmaster. IUGS E-Bulletins have been regularly posted on the website. Amaury Pourteau, in Potsdam, and the Councilor Amel Barich were managing the bulletins month by month.

COMMISSIONS, TASK GROUPS AND INITIATIVES

Activities and individuals represented by these bodies reflect the scientific arm of the

Union. The aim of all such groups is to address key and relevant topics that have a global relevance for the earth sciences, deal with topics not presently addressed by other bodies, involve the expertise of leading scientists from around the world and do so in a timely manner. Since all of these activities are directly funded by IUGS, regular Ad hoc reviews are undertaken, the results of which determine whether support for the program should be continued.

During the past four years the following IUGS Commissions were recognized:

Commission on Environmental Management (GEM)
International Commission on Stratigraphy (ICS)
Commission on the History of Geological Sciences (INHIGEO)
Commission on Geoscience Education, Training and Technology Transfer (COGE)
Commission on Management and Application of Geoscience Information (CGI)
Commission of Tectonics and Structure Geology (TECTASK)

Five of these Commissions remain active but GEM will terminate its activities at the 35th IGC. The commissions maintain their own operative strategies and their informative communication strategy. For specific details on each Commission please visit the individual Commission websites:

GEM (<http://www.iugs-gem.org/>)

ICS (<http://www.stratigraphy.org/>)

INHIGEO (<http://www.imhigeo.org/>)

COGE (<http://www.iugscoge.com/>)

CGI (<http://www.cgi-iugs.org/>)

TECTASK (<http://www.tectask.org/>)

Each commission obtains varying levels of financial support that are decided by the EC upon annual reports of their activities. Annual budgets for supporting IUGS Commissions ranged from 70,000 to 90,000 USD in the last 4-year period.

The Commissions are scheduled to elect new officers in Cape Town in 2016.

The Union also supported a number of formal Task Groups, several informal “task groups” and approved two new Initiatives. The formal Task Groups represent activities that do not match “Commission” expectations, whereas the latter represent activities that have exceeded the capacity of Commissions and require focused attention on their own. Initiatives are viewed as medium term efforts that are in transition to independence such as a new society.

During the past four year term the following formal Task Groups and Initiatives were in effect:

Task Group on Global Geochemical Baselines (TGGGB)

Task Group on GeoHeritage (TGG)
Task Group on Global Geoheritage Stone (HSTG)
Task Group on Global Geoscience Professionalism (TGGGP)
Resourcing Future Generations Initiative (RFG)
Forensic Geology Initiative (FGI)

The former Task Group on Isotope Geology and Geochemistry shifted to a Joint Programme with the International Union of Pure and Applied Chemistry to address topics such as updating geochronological decay constants and standardizing the use of SI units, etc.

The Task Group on Global Geochemical Baselines (TGGGB) has been a long term contributor to basic geoscience data collection. The IUGS Task Group on Global Geochemical Baselines was an active participant in preparing the successful proposal originally submitted to UNESCO in 2009. As a result, UNESCO launched a Tier 2 cooperative venture with China to establish an Institute of Geochemistry. In 2016, the UNESCO International Centre on Global-Scale Geochemistry opened in Langfang, China.

The Task Group on GeoHeritage aims to consolidate the many activities related to geological heritage including GeoParks, IUCN reviews, and others. It has been very active in pushing ahead these topics. Likewise, the Heritage Stone Task Group, proposed and approved in 2012, was very dynamic in promoting technical and scientific meetings and publications. In 2015, the EC suggested merging the two task groups into a new IUGS Commission, which requires ratification by the Council in Cape Town.

The Task Group on Global Geoscience Professionalism continued activities under the leadership of the American Geosciences Institute. This group addresses the importance of evaluating the access to trained professionals in all work force sectors.

A new task group focused on Geohazards was proposed during the EC meeting in Vancouver, 2015. This was a consequence of previous work by Councillor Ogawa-San and Vice President Yildirim Dilek jointly with the Bureau, who started working on the Risk and Hazard topic by active participation at G-EVER focusing on the Tsunami disaster in Sendai. Launching of the Sendai Agreement resulted from the workshop held in that locality in October 2013. Further activities on the Risk and Hazard topic were the production of a special Issue of *Episodes*. Progress in the definition of terms of reference and leadership were discussed and will be presented to the next EC.

The IUGS Initiative on Forensic Geology created in 2011 was extremely active during the period 2012-2016. The ARC was quite satisfied with the achievements of the group and proposes continuance of the initiative. A relevant result of the ARC was the decision to prolong the activity of the FGI through the period 2016-2020.

The IUGS Initiative Resourcing Future Generations set up by NASIC at the beginning of

2013 organized several meetings, some of them coincident with major scientific events such as the GSA Pardee Conference in Denver 2013, the China Mining in Tianjin 2014 and the EGU in Vienna 2014. Talks were given at GSAf in Addis Ababa 2013, M&M in Astana 2014, Kurultay in Ankara 2014, Geoheritage meeting Toulouse 2015, Conference on Future of Earth –Space Science and Education (Future ESSE) in Trieste 2015 and GFZ Potsdam 2015. An 8-page brochure written by NASIC was distributed at those events. A consultation paper was written by the NASIC team and distributed for comments to all NC council of IUGS as well as other potentially interested people in 2014.

COOPERATION WITH UNESCO – International Geopark and Geoscience Program

The IUGS maintains a long history of positive and mutual cooperation with UNESCO. Previously this relationship was managed with the Earth Sciences Division of UNESCO but following the dissolution of that department the responsibility shifted to the newly amalgamated Division of Ecological and Earth Sciences.

Initiated jointly in 1972, the International Geoscience Programme (IGCP) formerly called the International Geological Correlation Programme remains a primary focus of attention for both organizations as the key geoscientific activity for the global community.

During the past 4 years much of the collaboration was with Patrick McKeever who took over as Chief of the Global Earth Observation Section in May 2012, and Secretariat for IGCP. The Geopark initiative was viewed as key for the survival of geosciences in UNESCO. The 67th EC in Goa endorsed the IUGS President proposal of an umbrella structure for IGCP and Geoparks, with a clear scientific role for IUGS within both IGCP and Geoparks. The proposal was discussed in several informal meetings with Patrick McKeever in Paris and in Switzerland and finally with Mr Qulin Han (Director) and Mrs Flavia Schlegel (Assistant General Director) in Paris. Finally UNESCO presented documents providing the structure with statutes and bylaws for the new International Geopark and Geoscience Program (IGGP). In autumn 2015 the IUGS President was invited to speak on this new program in the UNESCO Science Plenum and the program was endorsed without any objection. It has been over 40 years since the first new science program was accepted by the UNESCO council.

IUGS is an equal partner with UNESCO in the IGCP science program and provides the names of individuals for the scientific board and for the reviewers of the proposals submitted from the geological community. In addition, IUGS provides lists of experts for all geosciences related items in UNESCO Geoparks proposals, as well as to IUCN for the evaluation of World Heritage sites. The task of providing high rank experts on very diverse geoscientific topics for IGCP, Geoparks and World Heritage is a major achievement. To ensure that this task is optimally fulfilled, the executive Committee proposed amalgamation of the two task groups focused on heritage topics to form a single IUGS commission.

Annual contribution of IUGS supporting the IGCP is now around \$70,000 USD. Through the joint agreement between IUGS and UNESCO, IGCP continues to annually fund no more than about 30 active projects. For details about IGCP: <http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/international-geoscience-programme/igcp-projects/>

INTERNATIONAL COUNCIL FOR SCIENCE (ICSU)

The IUGS remains a paid member under the ICSU umbrella, with the EC responding when appropriate to calls for action issued by ICSU during the year.

The IUGS President participated actively in the 31th General Assembly of ICSU held in Auckland, New Zealand from 30 August to 3 September 2014. In the assembly, the ICSU Future Earth Programme was broadly discussed. In the published science plan, geoscientific contents are not clearly represented. A consortium of colleagues from IUGS and other unions and organizations took the effort to signal where geosciences could add significant input. The document was distributed to ICSU as well as Future Earth authorities without any significant feedback or acknowledgment. The pressure for including geosciences concepts in the ICSU activities has been maintained in other events organized by that council. The next IUGS EC will represent the Union in the 32nd General Assembly scheduled for Taipei, Taiwan, in 2017.

ICSU organized an all-Union meeting in Paris, France, 2016, to better focus on issues unique to Unions in contrast to member state issues. Two Executive Committee members participated in this event. The informal “GeoUnions” consortium, now consisting of 9 unions (IUGS, IUGG, IGU, ICA, INQUA, IAU, ISPRS, IUSS and URSI) met in La Maison de la Géologie before the ICSU meeting to discuss some issues within ICSU. In particular, the new voting system for representation of scientific unions and countries was critically discussed. Collectively the GeoUnions represent a “cluster” as defined by ICSU and therefore nominate and elect a single representative to the ICSU Executive Board (which consists of 4 cluster representatives).

Some IUGS representatives participated in the Conference on Future of Earth –Space Science and Education (Future ESSE) held in Trieste, November 2015. A GeoUnions meeting was organized coincident with the conference. The IUGS President attended the IUGG Congress organized in Prague on July 2015.

ICSU initiated a new Grants Programme in 2016 trying to involve several unions in applications. Furthermore, all applications must be co-sponsored by other Unions. In this regard, IUGS has benefited of some ICSU grants during the past four years. In 2015 IUGS obtained an ICSU grant supporting the Resourcing Future Generations.

The IUGS-IUGG initiative International Lithosphere Programme (ILP/SCL), established in ICSU in 1980, continued its activity through the past 4-year period. The ILP has become

extremely successful in its activities and fund raising, and is therefore less dependent on the two Unions. For more details see: <http://sclilp.gfz-potsdam.de/>

During the past term one or more of the Executive Committee members met the GeoUnions in Trieste (October 2015) and Paris (April 2016).

OTHER

The IUGS is officially recognized as a Participating Organization of GEO (Group on Earth Observations), which is coordinating international efforts to build a Global Observation System of Systems (GEOSS). The Union continued to actively promote and support OneGeology. Vice President Marko Komac was charged for OneGeology matters and attended periodical meetings of the consortium.

IUGS participated in some workshops and meetings organized by EuroGeoSurveys in Brussels. The IUGS Secretary General gave talks in the director's workshops held in 2015 and 2016.

IUGS maintained close collaboration with the Commission for the Geological Map of the World (CGMW). IUGS and CGMW shared exhibition booth at the European Geological Union (EGU) meetings in Vienna. IUGS attended the biennial meetings of CGMW.

The Secretary General sincerely thanked Ian Lambert, Peter Bobrowsky, the IUGS Secretariat and all the other EC members for their support.

Motion to accept the Secretary General's Report

Accepted as presented

6. VICE PRESIDENTS' AND COUNCILOR'S REPORTS (Y. Dilek, M. Komac, Councilors)

No reports were given due to time limitation.

7. TREASURER'S REPORT (DONG Shuwen)

The IUGS Treasurer Dong Shuwen reported that in November 2012, the Treasurer's Office was established at the headquarters of the Chinese Academy of Geological Sciences (CAGS) based in Beijing. At the same time, the IUGS bank account (with a total fund of USD 172,943.53) was relocated from Italy to Beijing.

During the past four years, the Treasurer's Office collaborated closely with the IUGS Secretariat in keeping communications with the IUGS members, issuing membership invoices and updating the status of the IUGS members. The IUGS financial accounts

passed the auditing by an independent audit office based in Beijing.

Total Balance

USD	2012	2013	2014	2015	30-June-16
Total Balance (Reserve+Current)	1,148,532	1,354,002	1,238,832	1,262,177	1,301,521

Note: During the quadriennium 2012-2016 the overall IUGS financial situation has improved by 13.32% (from 1,148,532 to 1,301,521 USD)

Income and Expense

	2012	2013	2014	2015	30-Jun-16
Investment	894,858	1,027,004	930,219	860,918	774,653
Income	514,605	522,378	416,140	519,655	401,027
Expense	553,011	449,053	433,809	424,780	277,519

Returns on Investment

Investment	2012	2013	2014	2015	30-June-16
In EUR					
i) Ass. Generali –Trieste Contract n° 6152337	416,738.76	449,407.22	462,369.20	475,174.17	481,660.51
ii) Ass. Generali– Trieste Contract n° 6488094	122,369.27	133,210.14	137,082.67	140,899.99	141,899.81
iii) nvestment–Contract n° 30366011	160,000.00	162,877.09	169,324.55	173,758.53	74,325.59
In total	699,108.03	745,494.45	768,776.42	789,832.69	697,885.91
<i>Exchange Rate</i>	<i>1.28</i>	<i>1.38</i>	<i>1.21</i>	<i>1.09</i>	<i>1.11</i>
In USD					
i) Ass. Generali –Trieste Contract n° 6152337	533,425.61	619,109.74	559,466.73	517,939.85	534,643.17
ii) Ass. Generali– Trieste Contract n°6488094	156,632.67	183,512.17	165,870.03	153,580.99	157,508.79
iii) Investment–Contract n°30366011	204,800.00	224,381.78	204,882.71	189,396.80	82,501.40
In total	894,858.28	1,027,003.70	930,219.47	860,917.63	774,653.36

Note: In 2016, approved by the EC, EUR100,000.00 (USD112,367.04) was withdrawn from the investment in Italy. The stable interests contributed to the increased EUR value of the three investments every year.

Detailed Income

	2012	2013	2014	2015	30-Jun-16
Membership Fees	301,169.38	435,935.40	365,594.14	448,321.68	277,184.27
Contribution from UNESCO	61,410.00	55,895.00	41,796.00	64,919.00	6,967.00
Other Income	152,025.46	30,547.31	8,750.24	6,414.76	116,876.07
Total Income	514,604.84	522,377.71	416,140.38	519,655.44	401,027.34

Detailed Expenditure

	2012	2013	2014	2015	30-Jun-16
Scientific expense	320,370.00	348,435.79	349,231.58	374,949.15	203,147.65
Management expense	232,641.36	100,616.96	82,907.90	49,830.86	74,371.12
Total Expenditure	553,011.36	449,052.76	433,809.48	424,780.01	277,518.77

The Treasurer commented that during the past 4 years, the global economic development had been slowing down and many IUGS members had been struggling with financial difficulties. In this background, IUGS financial condition was overall fair and kept balance with total revenues being increased by 13.32%, which supported the normal operation of IUGS and its scientific activities. IUGS actively supported “Resourcing Future Generations” (RFG) Initiative with more than USD 100,000 since 2014, which helped launch and run the activities of RFG.

8. REPORTS OF COMMITTEES

a) FINANCE COMMITTEE (William CAVAZZA)

William Cavazza, Chair of the Finance Committee, reported that the objectives of the Finance Committee were to arrange for the conduct of an independent external audit of IUGS finances, prepare a general report verifying the allocation of funds in relation to the strategic priorities and missions adopted by the EC, and outline possibilities for increased funding for IUGS. The current Finance Committee includes Chair William CAVAZZA (University of Bologna) and two members Danie BARNARDO (Council for Geosciences, South Africa) and Maria-Glicia da NOBREGA COUTINHO (CPRM, Rio de Janeiro).

The Finance Committee reviewed the following documents: Treasurer's Reports 2012-2015, Treasurer's mini-report 2016, Financial Committee Report (2012), Strategic Planning Committee Report (2012), Mid-term Vision and Strategic Action Plan (2004), International Earth Sciences in the 21st Century (2000) and Executive Committee meetings minutes. An independent audit was performed for years 2012-2016 in Beijing.

Financial recommendations included: (i) financial investments could be improved; (ii) viable avenues for improving IUGS finances: publications, foundation, IGC; (iii) new EC should be made familiar with previous documents on financial matters; (iv) new EC should consider appointing the new Finance Committee right away with clear goals. Recommendation for re-establishment of the Advisory Board for Finance early on was also put forward in order to consider all the specific financial tasks in the future.

Motion to accept the Audit Report, the Treasurer's Report and the Finance Committee Report

Accepted as presented

b) AD HOC REVIEW COMMITTEE (J.P. CALVO)

J.P. Calvo reported that several Ad hoc Review Committees (ARCs) were appointed during the past four years to provide timely and critical evaluation of IUGS funded activities. Following the completion of a review, an evaluation report was completed by the Committee Chair, submitted to the IUGS EC for approval and was subsequently published in *Episodes*.

In 2012, ARC evaluations were conducted for the joint IUGS-UNESCO programs, International Geoscience Program (IGCP) and Geoscience Applications of Remote Sensing (GARS). These involved Vice Presidents Yildirim Dilek (Chair) and Marko Komac, as well as Past Secretary General Peter Bobrowsky. Reports from these ARCs were presented in January 2013. The reviews resulted in the termination of IUGS involvement in GARS and discussion of updating IGCP.

In 2015 there was an Ad Hoc Review Committee active dealing with the *Episodes* journal. The ARC met in Bangalore and was chaired by Vice President Yildirim Dilek. The evaluation report was to be published soon.

In April 2016, the ARC formed to evaluate the IUGS Initiative on Forensic Geology (IFG) met in Manchester, UK. Components of the ARC for the IFG were Jose P. Calvo (Chair), Colin Hope (Secretary) and Marco Komac. The IFG was represented by Laurance Donnelly (Chair of IFG) and Alastair Ruffell (Queens University, Belfast). The evaluation report was to be published soon.

Motion to accept the ARC Committee Report

Accepted as presented

c) PUBLICATION COMMITTEE (Lola PEREIRA)

Lola Pereira reported major achievements of the Publication Committee (PC) from 2012 to 2016.

Episodes

In 2015, *Episodes* achieved the highest recorded impact factor 3.26, compared with 0.95 in 2012, and improvement in the number of submissions with now 60% rejection rate and improved quality, which reflected the efforts of the Chief Editor and his editorial team. PC revised guidance for authors, Editorial Board, guest editors of thematic/special issues and advertisers. PC developed a publication policy and ethics statement. The Editorial Board

of *Episodes* reinvigorated with now 20 members. But about 10 more members were needed for optimum geographical and subject spread and gender balance. Modern editorial management system is needed to improve efficiency and audit trail and allow editor time to proactively seek content. All the published papers now had DOI numbers. Updated *Episodes* website gave access to all the papers from Volume 1 Number 1. Publication MOU for 2017-2020 had been signed with Geological Society of South Korea.

Books

11 books were published from 2012 to 2016, with 3 more expected by the end of 2016. Online-first publication of 2 more commenced and high quality proposals were needed. IUGS could get one off payment of £1250 for each book published. MoU with the Geological Society London (GSL) required sets of 15 or more associated papers should be first offered to the GSL. PC aimed for good range of proposals from sessions at the IGC. It was also worth considering whether the special IGC issue of *Episodes* should be handled as a book in the future.

Outreach

A newly designed IUGS website constructed by the IUGS Secretariat would be ready soon.

Recommendations for Action

The Publications Committee urges IUGS Council and EC to: (1) Implement online-first and online-only publication of *Episodes* as a matter of urgency; (2) Secure an online submission, review and approval system for *Episodes* at the earliest opportunity; (3) Update the *Episodes* website to allow for print-on-demand sales; (4) Consider and, subject to any amendments, approve the Publications Policy and Ethics statement for *Episodes*; (5) Consider securing DOI numbers for all *Episodes* papers prior to December 2015; (6) Seek higher levels of submissions of reports and papers from IUGS and joint funded activities; (7) Consider whether, from 2020 onwards, the IGC issues of *Episodes* should be special issues additional to the normal 4 issues per year or be dealt with as books, wholly funded from the IGC; (8) Make a concerted effort to ensure that more book proposals should go to the GSL for first refusal.

Motion to accept the Publication Committee Report

Accepted as presented

d) NASIC (Edmund NICKLESS)

Edmund Nickless reported that NASIC was outgrowth of the new strategic plan agreed by the IUGS-IGC Council in 2012 and established in February 2013 to develop Resourcing

Future Generations (RFG) initiative. The initial scope of RFG was to include minerals, energy and water, all with implications on land-use. Following consultation with industry, the focus was on metals and minerals. RFG initiative was announced in *Episodes* in 2013 and an 8-page brochure was produced and distributed. RFG symposia were held at GSA Pardee Conference in Denver 2013, at China Mining in Tianjin 2014 and at EGU in Vienna 2014. RFG was promoted on the IUGS and other organizations' websites. The RFG White Paper was launched at China Mining in October 2014. A RFG Workshop was held in Namibia in July 2015 and an 80-page report was published. Invited bids were put up for top-up research grant funds.

RFG raised awareness among some external publics, linked to IUGG and other geo-unions, attracted financial support from ICSU and UNESCO, reached out to the social sciences and engineers, made links to the UNEP International Resources Panel and Horizon 2020 Forum project, sought to open a dialogue with policy makers in Germany and the UK. The first open call for research grant proposals was issued in April 2016 and closed in May 2016. 11 applications were received and 6 were funded. The second open call for project proposals was issued on 1 October 2016 and would end on 31 December 2016. The second open call for project proposals was also distributed during the 35th IGC.

NASIC planned to further promote RFG at EGU (Vienna, April 2017), Mines and Money (London, November 2017), RFG 2018 (Vancouver, June 2018). NASIC needed to attract more funding for the future development of RFG. Total funding for RFG included the following:

2013/14 \$30k from IUGS

2014/15 \$55k (\$15k from IUGS, \$30k from ICSU & \$10k from UNESCO)

2015/16 \$25k (\$15k from IUGS & \$10k from UNESCO)

Motion to accept the NASIC Report

Accepted as presented

9. IUGS SECRETARIAT (WANG Wei)

Wang Wei, Director of the IUGS Secretariat, reported on the activities carried out by the IUGS Secretariat from December 2012 to August 2016. The Ministry of Land and Resources of China and IUGS signed the MOU on hosting the IUGS Permanent Secretariat in, Beijing, China for a period of eight years in Brisbane, Australia during the 34th IGC on 6th August, 2012. In the MOU, the Chinese government was committed to providing budgets for the settling and operation of the Secretariat, including staffing, office space, travel, equipment and facilities, internet and communications. The Secretariat was hosted at the Chinese Academy of Geological Sciences.

During the 4 year period, the IUGS Secretariat was responsible for planning, coordinating

and participating in the following activities:

- (1) IUGS Executive Committee Meetings
 - 66th EC Meeting (Paris, France Feb. 19-22, 2013)
 - 67th EC Meeting (Goa, India on Feb. 6-11, 2014)
 - 68th EC Meeting (Vancouver, Canada on Jan. 27-30, 2015)
 - 69th EC Meeting (Kunming, China on Jan. 18-22, 2016)
 - 70th EC Meeting (Cape Town, SA on Aug. 26-27, 2016)
- (2) IUGS Bureau Meetings
 - Bureau Meeting and IUGS booth exhibition at GSA's 125th Anniversary Annual Meeting & Exposition (Denver, USA Oct. 27-30, 2013)
 - Bureau Meeting (Potsdam, Germany Aug. 18-19, 2014)
 - Bureau Meeting (Beijing, China Oct. 20, 2014)
 - Bureau Meeting (Cape Town, South Africa May 25-29, 2015)
 - Bureau Meeting in Jixian, Tianjin, China and a geological field trip to Jixian Meso- and Neoproterozoic section (Oct. 22-25, 2015)
 - Bureau Meeting (Madrid, Spain May 16-19, 2016)
 - Bureau Meeting (Cape Town, South Africa Aug. 25, 2016)
- (3) Involved in the organization of "Ensuring the Supply of Raw Materials for the Next Generation" Forum held during the China Mining (Tianjin, China on Oct. 20-23, 2014)
- (4) Took part in the following Exhibitions
 - GSA's 125th Anniversary Annual Meeting & Exposition (Denver, USA, Oct. 27-30, 2013)
 - China Mining Congress & Expo 2014 (Tianjin, China Oct. 20-23, 2014)
 - The Exhibition of GSA 2015 Annual Meeting (Baltimore, USA, Oct. 31- Nov. 4, 2015)

Major work related to the 35th IGC included:

- (1) The 4th Ordinary Session of IUGS-IGC Council
 - Sent a call for proposals on revision of the Statutes and Bylaws of IUGS and IGC
 - Prepared documents to be provided at the Joint IUGS-IGC Council Meeting
 - Designed and printed ballots for voting of EC members and venue of hosting the 37th IGC in 2024
 - Designed and produced IUGS gifts for all the Council participants
- (2) IUGS Awards
 - Collected overviews and guidelines for the five IUGS Awards to be granted at the Awards Ceremony during the 35th IGC
 - Prepared the IUGS medals for the five IUGS Awards to be granted during the 35th IGC
 - Prepared certificates for the IUGS awards
- (3) IUGS Booth
 - Booked exhibition spaces FF04 and FF05 for IUGS stand with a total area of 72m²; the largest booth that IUGS ever had in its history
 - Designed the layout of the IUGS booth

- Designed 32 posters of different sizes
- Produced IUGS gifts for distribution at the booth

Besides the above work, the IUGS Secretariat designed a new IUGS webpage, produced a new IUGS APP, improved the Contact Database and strengthened links with the IUGS bodies, developed and put in use the IUGS Information Management System, assisted in membership maintenance, distributed IUGS E-bulletins, designed and produced IUGS promotional items, sent requests for ratification by the IUGS Council on several items, including a new GSSP, new Affiliated Organizations, and new leaders of IUGS Commission, effectively administered the election of the new Secretary General and new IUGS Nominating Committee member.

Acknowledgements were extended to the Ministry of Land and Resources and the China Geological Survey, which greatly supported the IUGS Secretariat during the past four years and provided 1.8 million Yuan RMB each year for operation of the Secretariat. Almost all the promotional items produced were covered by this contribution. Mr. Wang Wei also expressed sincere gratitude to all the IUGS EC Members, Rich Calnan and Nancy Zeigler of the former Secretariat, the former Director of the IUGS Secretariat Mr. Li Zhijian, the Secretariat Executive Secretary Ms. Anne Liinamaa-Dehls, and all the other Secretariat staff members for their great support.

Motion to accept the IUGS Secretariat Report

Accepted as presented

10. REPORTS OF COMMISSIONS, INITIATIVES AND TASK GROUPS

- COMMISSIONS

a) History of Geological Sciences (INHIGEO) (Barry COOPER)

Barry Cooper reported that the primary INHIGEO objective was the promotion of studies on the history of geological disciplines in an international context. INHIGEO also worked to foster the publication of individual or collective works that illuminate the history of the geological sciences and maintain an information-rich website. In August, 2016, INHIGEO had 297 members from 58 countries.

INHIGEO strategies included: (1) Meet annually and every four years with the International Geological Congress (IGC), to conduct a major symposium on the history of geology. This typically includes a multi-day field component and publications of abstract volumes and excursion or other guidebooks; (2) Promote the publication of symposia proceedings and a variety of contributions relevant to the history of geological sciences; (3) Publish the INHIGEO Annual Record that incorporates information from the Officers and Members, country reports, book reviews, conference reports, interviews, obituaries, short

historical research papers, and a variety of news items and illustrations; (4) Provide information by Quarterly Circulars to the INHIGEO membership dealing with issues of immediate relevance to the Commission and to the study of the history of the geological sciences; (5) Develop and maintain an internet website that provides up-to-date information on the Commission's activities as well as other information that will be of interest to INHIGEO members and the wider public; (6) Liaise with IUGS to enhance the recognition of outstanding geologists via its "Scientific Awards of Excellence", and specifically with the "Vladimir V. Tikhomirov History of Geology Award"; (7) Contribute to Episodes on historical matters, for example, by recording the history of past IGC meetings and, by promoting knowledge of classic works in geology.

Motion to accept the INHIGEO Report

Accepted as presented

b) International Commission on Stratigraphy (ICS) (Stan FINNEY)

Stan Finney, the ICS Chair, reported that ICS was the largest and oldest constituent scientific body of the IUGS. Its primary objective was to precisely define global units (systems, series, and stages) of the International Chronostratigraphic Chart that, in turn, were the basis for the units (periods, epochs, and age) of the International Geologic Time Scale, thus setting global standards for the fundamental scale for expressing the history of the Earth. There was a wide international participation in ICS, with 16 Subcommissions and 67 GSSPs located in 19 countries.

ICS sponsored STRATI 2015 – 2nd International Congress on Stratigraphy in Graz, Austria with 361 participants from 47 nations. Joint ICS-NSF-CAS Workshop "Archiving the Stratigraphic Record" was organized in Graz, Austria on 24-25 July 2015. ICS obtained \$75,000 Grant Award from US National Science Foundation. The International Chronostratigraphic Chart was translated into a number of languages and the latest version was available on the ICS website. ICS International Chronostratigraphic Chart reproduced as a five-story mural in the building that houses the geological staff of Shell Exploration International in The Hague, Netherlands, which generated a 10,000 Euro donation to ICS.

New Subcommissions on Ediacaran and Cryogenian replaced Neoproterozoic. The Precambrian Subcommission was dissolved and rejuvenated. ICS organized a diversity of Subcommission field meetings, workshops, symposia, publications, special sessions at larger meetings. ICS collaborated with CGMW and with various national stratigraphic committees.

Motion to accept the ICS Report

Accepted as presented

c) Commission on Tectonics, and Structural Geology (TecTask) (Allison ORD)

No report was presented due to absence of TecTask colleagues.

d) Education, Training and Technology Transfer (COGE) (Amel BARICH)

Amel Barich reported that the main objectives of COGE were to identify gaps, develop strategies for the coordination and/or development of new programmes in geoscience education, organize meetings, generate teaching materials and provide training courses.

During the past 4 years, COGE pushed forward “the Geoscience Education Roadmap for Africa Project (GEO-ERA)” and relevant workshops on GEO-ERA were organized. A survey on the Geoscience Education in Africa was launched in the framework of the GEO-ERA. COGE had actively interacted with many IUGS Affiliated Organizations, Commissions and Task Groups, including GSAf, ESM, YES (African Group), IUGG, IAGETH, IGEO, EFG, and AGID. COGE and IAGD jointly organized a combined booth for several times at GSA Annual Meetings. A workshop on geo-education promoted by the COGE and the GSAf was held at the 25th Colloquium of African Geology (CAG25) held in Dar es Salaam, Tanzania. In cooperation with IGEO, the development of a recommended syllabus for geoscience education in schools was completed. In cooperation with the European Federation of Geologists (EFG), COGE participated in the international project on raw materials (INTRAW) coordinated by EFG.

Motion to accept the COGE Report

Accepted as presented

e) Management and Application of Geoscience Information (CGI) (Kristine ASCH)

Kristine Asch, CGI Secretary General, reported that the aims of the CGI were to provide the means for transferring knowledge on geoscience information and systems, stimulate international dissemination of best practice in Geoscience Information, develop geoscience information standards, and play a position in the international geoscience information community and represent IUGS on geoscience information matters. CGS currently had 291 members located in 68 countries. CGI’s thematic working groups included GeoSciML, EarthResource ML and Geoscience Terminology Working group.

CGI’s main achievements included: (1) Making GeoSciML an international data exchange standard for geosciences; (2) An MoU being signed between IUGS-CGI and OGC (Open Geospatial Consortium) to jointly develop GeoSciML v4 as an OGC standard; (3) Adoption of the CGI standards (GeoSciML, vocabularies) by the global OneGeology project; (4) Adoption of GeoscienceML and EarthResourceML for the European INSPIRE Directive: a

legal obligation for more than 28 countries in Europe; (5) Excellence award of IUGS for Steve Richard, from the former Concept Definition Working Group of CGI; (6) Continued coordination of the Geoscience Information in Africa Network (GIRAF).

Motion to accept CGI Report

Accepted as presented

f) Geoscience in Environmental Management (GEM) (Benjamin MAPANI)

Benjamin Mapani, GEM Chairman, reported that the missions of the GEM were to encourage greater application of the geosciences in sustainable use of land, mineral, energy and water resources; generate geosciences information for policy development, and communicate that information broadly; grow multidisciplinary initiatives to create new knowledge and tools to solve environmental problems; strengthen the interest of the geosciences community in environmental management and sustainable development; make the essential contributions of geosciences to environmental development and environmental management known to planners and decision makers; and to engage the key stakeholders involved in specific environmental management and sustainable development issues.

GEM had 8 Working Groups, namely Climate Change Adaptation, Communicating Environmental Geoscience (closed 2012), Drinking Water, Geological Hazards and Territorial Sustainability, Gold and Mercury, Land Subsidence and Groundwater, Man-made Strata and Geo-pollution, and Mineral Dust. Overall achievements of GEM from 2012 to 2016 included: (1) 5 books were published; (2) GEM organized or contributed to 75 events, focusing on capacity building courses in developing countries, conference sessions etc. (3) GEM activities gave rise to numerous papers in conference proceedings and journals. (4) Some Committee members were called upon to advise Government bodies (Climate Change Adaptation in Germany and Finland; Geological Hazards in Argentina); (5) the Gold and Mercury Group had close ties with UNEP; and (6) the Man-Made Strata and Geopollution Group was closely associated with radiation monitoring following the Fukushima disaster of 2011.

GEM was to be closed with the 35th IGC and the final report was to be submitted. A new IUGS Commission dealing with environmental geology was being discussed and the proposal would be submitted to the new IUGS EC for consideration.

Motion to accept the GEM Report

Accepted as presented

- INITIATIVES

Forensic Geology (Laurance DONNELLY)

Laurance Donnelly, Chair of the Initiative on Forensic Geology (IFG), reported that the major objectives of the initiative were to collate and disseminate data and information on forensic geology applied to policing and law enforcement, criminal, environmental and civil investigations; promote international meetings, seminars, conferences and training; develop a 'Committee' to act as principal advisers, collaborators and active participants; develop an international network whereby each 'member' will act as a principal contact in their respective country for the collation and dissemination of information on forensic geology; collate, make available and where appropriate review any existing documentation and publications in forensic geology; and produce a document endorsed by the Committee to be called *A Guide to Forensic Geology*.

Altogether 161 geological events in relation to forensic geology were held. Over 30 countries were represented in Geoforensic International Network (GIN), bringing together forensic geologists, geoscientists and police/law enforcement officers from around the world to develop and promote forensic geology. IUGS-IFG was active in outreach, knowledge exchange, capacity building and training. An IUGS Ad Hoc Review was conducted to IFG.

Motion to accept the IFG Report

Accepted as presented

- TASK GROUPS

Global Geochemical Baselines (TGGGB) (WANG Xueqiu)

Wang Xueqiu, TGGGB Co-Chair, reported that the IUGS/IAGC Task Group on Global Geochemical Baselines was established in 1998 and expanded to 69 countries with 160 active scientists in 2015. TGGGB coordinated projects conducted in 35 countries, covering 32 million km², occupying about 22% of world's land surface since 1998. 80% of the work was completed from 2012 to 2016. TGGGB organized 30 (16 in the year 2012-2016) training courses or workshops, 2 (1 in the year 2015-2016) Laboratory training courses, and 24 (10 in the year 2012-2016) business meetings. TGGGB members published 7 continental-scale geochemical atlases (Australia 1, China 2, Europe 3, USA 1), 190 scientific papers in English, excluding papers in other languages, and over 200 oral and poster presentations. 2 Arthur G. Darnley memorial DVDs were produced.

TGGGB prepared for Sampling Manuals for World's diverse terrains, including (a) Karstic Geochemical Sampling, finalized; (b) Desert Geochemical Sampling, under review; (c) Tundra Geochemical Sampling, not finalized; (d) Arctic Geochemical Sampling, not finalized; (e) Tropical Geochemical Sampling, not finalized. TGGGB also developed criteria for Global Baselines Database, produced international geochemical standard

materials and organized three international symposia at the 33rd, 34th and 35th IGCs. TGGGB included “Africa Global-scale Geochemical Baselines for mineral resource and environmental management: Capacity-building phase” as activity CA-25 in the 2016 programme of Group on Earth Observations, and actively participated in the IUGS Workshop on “Resourcing Future Generations” (RFG), Windhoek, Namibia (24-30 July 2015).

The UNESCO International Centre on Global-scale Geochemistry (ICGG) was established in Langfang, China in May 2016 with the opening ceremony and inaugural meetings of the Governing Board and Scientific Committee, and initiative of the project of “*Mapping the Chemical Earth*” and a Workshop of geochemical Mapping. The proposal to upgrade the Task Group to a new IUGS Commission on Global Geochemical Baselines had been submitted for ratification of this Council.

Motion to accept TGGGB Report

Accepted as presented

Geoheritage (GTG) (Patrick DE WEVER)

Patrick De Wever, Chair of GTG, reported that the overall objectives of the GTG were to facilitate the development of national and international awareness and understanding of the underlying concepts, and help understand and recognize the various types of geosites (educative, recreational, protective...). GTG was outgrown from IUGS’ Global Geosites Working Group.

The database for regulations on geoheritage was set up, with more than 60 countries involved (<http://geoheritage-iugs.mnhn.fr/index.php?catid=2&blogid=1>). The database with few hundreds of geosites with their descriptions for 71 countries was available (<http://geoheritage-iugs.mnhn.fr/index.php?catid=19&blogid=1>). Database for inventory was set up with references to countries with an available national inventory through a website and 19 countries were represented. GTG also reported the GSSP sites (<http://geoheritageiugs.mnhn.fr/index.php?catid=8&blogid=1>). The GTG Web site (<http://geoheritage-iugs.mnhn.fr/>) was managed and populated.

Motion to accept the GTG Report

Accepted as presented

Heritage Stone (HSTG) (Björn SCHOUENBORG)

B. Schouenborg, HSTG President, reported that the objectives of the HSTG were to research and publish information about stone types, including quarries, geology, technical properties, historic and present use etc, that have major international importance;

safeguard selected stone types for future restoration purposes; highlight the importance of natural stone throughout history; offer a means to formalize selected characteristics of natural stone material, for professional purposes; highlight the positive attributes of natural stone in terms of sustainability and regional economic development and to provide recommendations for stone use on request.

The GHSR nomination Portland Stone (UK) published in “Episodes” resulted in formal approval in April 2016. Heritage Stone Sessions were held during Conferences in Vienna 2013, 2014, 2015, 2016, Kalamazoo (Michigan) 2013, Lincoln (Nebraska) 2014, Turin 2014, Antalya (Turkey) 2014, Madison (Wisconsin) 2015, Baltimore (Maryland, USA) 2015, as well as Cape Town for the 35th International Geological Congress. HSTG published its first book “*Global Heritage Stone*”, two *Episodes* special issues and a dedicated book “*Stone Heritage of East and Southeast Asia*”. HSTG participated in IGCP 637 Project “Heritage Stone Designation”.

Motion to accept the HSTG Report

Accepted as presented

Global Geoscience Professionalism (TGGGP) (Ruth ALLINGTON)

Ruth Allington, TGGGP Chair, reported that TGGGP committed to the following objectives: to facilitate collaboration between geoscientists operating in all areas of geoscience; encourage rapid conversion of research findings to applied geoscience; encourage greater relevancy in applied geoscience at the university level; increase education in professional skills, including ethics, at the university level; provide recommendation on priority research project design and fund allocation through greater appreciation of societal needs; and to provide greater clarity concerning pathways and assessment criteria for geoscience graduates seeking to attain professional qualifications. TGGGP targeted at the global geoscience community including applied geoscience professionals, learnt geoscience societies, geoscience researchers, geoscience educators, early-stage geoscience graduates, geoscience students and those considering geoscience studies, governments, NGOs, academic institutions, and members of the public interested in Earth Science.

TGGGP members included European Federation of Geologists (EFG), Geoscientists Canada, American Institute of Professional Geologists (AIPG), Australian Institute of Geoscientists (AIG), Colegio de Geólogos de Bolivia (CGB), Geological Society of South Africa (GSSA), South African Council for the Natural Scientific Profession (SACNASP), Masyarakat Geologi Ekonomi Indonesia (MGEI), and Colegio de Geólogos de Chile.

Motion to accept the TGGGP Report

Accepted as presented

11. DISCUSSION ON NEW IUGS COMMISSIONS, INITIATIVES AND TASK GROUPS (José P. CALVO)

José P. Calvo reported the status of the IUGS Commissions, Initiatives and Task Groups:

IUGS Commissions:

- Commission on Geoscience, Training & Technology Transfer (COGE):
Report 2012-2016 was submitted.

- Commission on History of Geological Sciences (INHIGEO)
Report 2012 – 2016 was submitted and Terms of Reference was revised.

- Commission on Management and Application of Geoscience Information (CGI)
Report 2012 – 2016 was submitted.

- International Commission on Stratigraphy (ICS)
Report 2012 – 2016 was submitted.

- Commission on Tectonics and Structural Geology (TECTASK)
No report was submitted.

- Commission on Geoscience for Environmental Management (GEM)
Report 2012 – 2016 was submitted and the GEM Commission ended its activities in Cape Town.

IUGS Task Groups:

- Task Group on Global Geochemical Baselines (TGGGB):
Proposed to be upgraded to an IUGS Commission

- Task Group on GeoHeritage (TGG)
- Heritage Stone Task Group (HSTG)
Proposed to merge and be upgraded to an IUGS Commission

- Task Group on Global Geoscience Professionalism (TGGGP)

IUGS Initiatives:

- Forensic Geology (FGI)
ARC in Manchester, UK, April 2016

- Resourcing Future Generations (RFG) – Several activities

New IUGS Commission - IUGS Commission on Global Geochemical Baselines

José P. Calvo introduced that the IUGS Commission on Global Geochemical Baselines built on the previous work of the IUGS Task Group on Global Geochemical Baselines (TGGGB) (1997-2016). The objectives of the proposed new Commission will be to promote and facilitate the implementation of harmonized sampling, sample preparation, quality control, and analytical protocols in geochemical mapping programmes. The new Commission will collaborate closely with the UNESCO International Centre on Global-Scale Geochemistry. The Commission will be led by a Steering Committee consisting of:

Co-Leaders:

Dr. David B. Smith, U.S. Geological Survey, Denver, CO, USA

Prof. Wang Xueqiu, Institute of Geophysical and Geochemical Exploration, Langfang, China

Scientific Secretary:

Dr. Patrice de Caritat, Geoscience Australia, Canberra, Australia

Treasurer:

Alecos Demetriades, EurGeol., Athens, Greece

The Terms of Reference of the new Commission was presented to the IUGS-IGC Council for ratification. Issues in relation to data access, coordination with the UNESCO Category II Center etc. were discussed.

Motion to ratify the new IUGS Commission on Global Geochemical Baselines and its Officers

Accepted as a new IUGS Commission

New IUGS Commission - IUGS International Commission on GeoHeritage (ICG)

J. P. Calvo introduced that Task Group on GeoHeritage (TGG) and Heritage Stone Task Group (HSTG) had been working intensively and fruitfully over the last years. The establishment of an IUGS International Commission on GeoHeritage by merging the two Task Groups would enable the Union to take a true leadership role in raising the quality of public understanding of heritage stones and geosites around the world. The objectives of the ICG will involve the promotion of research, development and maintenance of inventories and the development of geological standards with specific reference to heritage stone and geoheritage in general.

The new Commission shall consist of two Subcommissions:

Heritage Stone Resource Subcommittee
Heritage Sites and Collections Subcommittee

The President and Secretary General of each Subcommittee will form the Board of the ICG, and alternated as Commission President and Secretary General for a 2 year period. The Commission plans to publish a joint Annual Report and funding from IUGS will tend to be divided equally between them. The Terms of Reference of the new Commission was presented to the IUGS-IGC Council for ratification. A preliminary list of Officers was ready and new Officers had to be added into the Board in the coming few months.

Motion to ratify that the two Task Groups merge into a new IUGS Commission and its Officers

Accepted as a new IUGS Commission

New IUGS Task Group - IUGS GeoHazard Task Group

José P. Calvo introduced that the IUGS Executive Committee discussed, during its 68th EC Meeting in Vancouver (Canada), an immediate need for establishing a Task Group on Geohazards to address all the scientific, educational and societal issues related to natural hazards associated with geological processes. The objective of the new Commission is to integrate the efforts of the geosciences, engineering and social sciences communities towards a more interdisciplinary and all-inclusive approach to address geohazards related problems and issues.

The Task Group will consist of the following Subgroups: Global Network of GeoHazard Information, Global GeoHazard Map Archive Project, and GeoHazard Capacity Building Consortium. The Steering Committee will include:

Chair

Dr. Yasukuni Okubo, Science Council of Japan

Vice-Chairs (3 persons):

Prof. Yildirim Dilek, Miami University, OH, USA

Prof. Marko Komac, Slovenia

Prof. Hiroshi Kitazato, JAMSTEC and Tokyo University of Marine Science and Technology

Secretary General

Prof. Kazuhisa Goto, IRIDeS, Tohoku University, Japan

Treasurer

Dr. Kyosuke Onishi. Akita University

The Terms of Reference of the new Task Group was presented to the IUGS-IGC Council for ratification.

Motion to ratify the new IUGS Geohazard Task Group

Accepted as a new IUGS Task Group

12. STATUS OF IUGS MEMBERSHIP AND RATIFICATION OF NEW MEMBERS

a) Adhering Organizations (DONG Shuwen)

Dong Shuwen reported that in the year of 2016, the total number of IUGS Members stood at 120, with 73 Active Members and 47 Inactive Members. From 2012 to 2016, 18 members changed from active status to inactive status (including Albania, Argentina, Bulgaria, Cameroon, Cote D'Ivoire, Egypt, Ghana, Guyana, Indonesia, Kenya, North Korea, Malawi, Mexico, Nigeria, Sri Lanka, Sudan, Syria and Uganda), 5 members reinstated to active (including Cuba, Philippines, Tunisia, Zambia and Latvia), 1 member rejoined (the Netherlands) and 1 withdrew (Algeria). The total number of Inactive members increased from 34 in the year 2012 to 47 in the year 2016. China upgraded its membership from category 7 to category 8 in 2013. About 70% membership fees came from members with categories 7 and 8. The members with high categories were stable and very active so as to ensure a steady income.

It was the time for IUGS to consider its membership strategies. It was suggested that IUGS place its focus on developing stable relationships with Active Members and encourage members with a pending status to become active so that a stable membership momentum could be kept. It was also suggested that measures be taken to encourage low-category members to upgrade their membership categories so as to increase the income of IUGS.

Issues in relation to IUGS membership benefits and in-depth analysis for the decrease of Active Members were discussed.

b) Affiliated Organizations (Stephen JOHNSTON)

S. Johnston reported that through electronic Council ratification, 4 new groups became IUGS Affiliated Organizations this term:

International Association for Geoethics (IAGETH)
International Association for Promoting Geoethics (IAPG)
Geological Association of Canada (GAC)
Earth Science Matters (ESM)

And 2 Affiliated Organizations were declared "defunct" by the Executive Committee

Meeting in Kunming in 2016, due to lack of website, publications and response to any communication from the IUGS Secretariat:

Association of European Geological Societies (AEGS)
Balkan Geophysical Society (BGS)

The total number of Affiliated Organizations now stood at 55.

Motion to ratify the report on IUGS Affiliated Organizations

Accepted as presented

13. INTERNATIONAL COUNCIL FOR SCIENCE (ICSU) (Roland OBERHAENSLI)

Cooperation with ICSU had been reported in detail in Item 4 President's Report and no other details were added here.

14. UNESCO

a) International Geoscience Programme (IGCP) (Roland OBERHAENSLI)

R. Oberhaensli reported that an open call was put up to select Members of the new IGCP Council and altogether 79 candidates were received. The new list of the IGCP Council Members jointly selected by IUGS and UNESCO had been discussed within IGCP. The list had been endorsed by the IUGS President and was to be endorsed by the UNESCO Director General. The IGCP Council would be reinstated after the endorsement. UNESCO Director General and IUGS Secretary General or their representatives would serve as ex officio members of the Council without the right to vote. IGCP was in the process of refilling its structure, which would guarantee the scientific quality of IGCP programmes.

b) Global Geoparks Network (GGN) (Marko KOMAC)

Marko Komac, IUGS Vice President, reported that IUGS had a long history of involvement in various geoh heritage related activities. IUGS & UNESCO Program IGCP was considered as a "cradle" of European Geoparks Network (EGN). In 2004, a Global Geoparks Network (GGN) was established. IUGS provided geoscientific support to GGN & UNESCO Global Geoparks (UGG), and coordinated and managed "geological section" desktop reviews of Geopark applications and Geopark extension applications. IUGS had seats in GGN & in EGN Advisory Committees and also had an ex-officio seat in UGG Council.

Marko Komac was appointed as an IUGS representative in Advisory Committee & Coordination Committee at EGN and later IUGS representative in GGN Bureau, and participated in 7 meetings. He was also responsible for the coordination of the desktop evaluations of new UGG applications in 2015 and 2016, with altogether 36 evaluations by

64 geoscientists. He was appointed by the UNESCO Secretary General as an IUGS representative in the UGG Council for the period of 2016-2020. UGG Council held the first teleconference on 11 August 2016 and would meet in Torquay, UK on 24–26 September 2016.

Issues to be addressed in the future included that recommending more desktop reviewers, encouraging stronger engagement of African, North & South American, and Oceania geoscience experts, providing feedback of the applications results to reviewers, and inclusion of desktop reviewers in the field inspections of Global Geoparks applications.

15. INTERNATIONAL UNION OF GEODESICS AND GEOPHYSICS (IUGG) AND IUGS

International Lithosphere Programme (ILP) (Magdalena SCHECK-WENDEROTH)

Magdalena Scheck-Wenderoth, ILP Secretary General, reported that the objectives of the ILP were to: (1) Elucidate the nature, dynamics, origin and evolution of the lithosphere through international multidisciplinary research projects and coordinating committees; (2) Promote multidisciplinary research projects of interest to geological (IUGS) and geophysical (IUGG) communities; (3) Achieve a fine balance between: “addressing societal needs” –understanding solid earth processes, providing information for improved hazard assessment, sustainable resource exploration, geomedicine, and “satisfying scientific curiosity”; and (4) Promote young scientists. ILP received annual contributions from IUGG & IUGS and several supporting countries.

35 years of ILP - “Celebrating Excellence in Solid Earth Sciences” was held in Potsdam, Germany on September 21-23, 2015. The Task Forces (TF) and Coordinating Committees (CC) recommended by the ILP Bureau for 2015-2020 included: (1) TF I: The seismic cycle at continental transforms from seismological observation and forward simulation; (2) TF II: Structural and rheological constraints on magma migration, accumulation and eruption through the lithosphere; (3) TF III: Lithosphere dynamics: interplays between models and data; (4) TF IV: Fate of the subducted continental lithosphere: insight through analytical mineralogy and microstructures; (5) TF V: Subduction across scales (SAS); (6) TF VI: Sedimentary Basins; (7) CC TOPO-EUROPE: 4D Topography Evolution in Europe: Uplift, Subsidence and Sea Level Rise; (8) CC MEDYNA: Maghreb-EU integrated research on geodynamics, geohazards, and applied geology in North West Africa.

Motion to accept the ILP Report

Accepted as presented

16. RESOURCING FUTURE GENERATIONS

a) Resourcing Future Generations: an IUGS Strategic Initiative (Edmund NICKLESS)

Edmund Nickless, RFG Chair, introduced the global demand and supply background for establishing the IUGS strategic initiative – Resourcing Future Generations. New Activities Strategic Implementation Committee was established by IUGS in 2013, comprising members from industry, government and academia (geoscience and the social sciences). As originally envisaged RFG was to include raw materials, energy and water but currently focused on raw materials. NASIC had consulted industry, published papers, organized a Symposium at China Mining in Tianjin on October 2014 and convened a workshop of specialists in Windhoek, Namibia in July 2015.

Three key themes requiring a globally coordinated approach were identified to meet the resource needs of future generations: (1) Theme 1: Balancing resource supply and demand in the 21st century; (2) Theme 2: The challenge of mineral supply: Accessing new resources from the Earth; (3) Theme 3: Building additional capacity to facilitate responsible development in less developed nations.

The following recommendations were put forward: (1) To develop international guidelines for planetary mineral consumption; (2) Raise awareness of the impacts of mineral consumption from source to product. Individuals and nations need to be accountable for their resource use; (3) Support industry investment and research into new mineral exploration and extraction technologies; and (4) Develop global best practice for responsible mineral resource development.

In order to press ahead with RFG, efforts shall be made to use International Council for Science and similar bodies to encourage dialogue across academic disciplines, involve other groups - UNEP/IRP, ICMM, World Bank, European Union, African Union and so on, and advise legislators, policy advisers and opinion formers.

For the policy statement and full report from the RFG workshop in Namibia and other background, please refer to www.iugs.org/index.php?page=resourcing-the-future-initiative or www.geolsoc.org.uk/RFG.

b) Report on RFG 2018 (John THOMPSON)

John Thompson, Chair of RFG 2018 Steering Committee, reported that RFG 2018 developed from the Canadian bid for the 36th IGC in 2020, IUGS support for an inter-IGC conference, the IUGS initiative Resourcing Future Generations and the interest from Canadian earth science and resource-focused organizations. The objectives of the RFG 2018 were to: (1) Create a world-class conference focused on finding and delivering resources in an environmentally sound manner for future generations consistent with the IUGS initiative “Resourcing Future Generations”; (2) Bring industry, academia and governments together to tackle increasing future demand for resources and our ability to

deliver these resources with the highest environmental standards consistent with global sustainability goals. Conference main themes included: (1) The Earth, (2) Energy, (3) Minerals and (4) Water. The Call for Sessions was open and accepting session submissions.

Four Canadian organizations partnering to deliver RFG 2018: Canadian Institute of Mining and Metallurgy (CIM) providing technical leadership and organizational and significant financial support; Geological Association of Canada (GAC) and Mineralogical Association of Canada (MAC) - the annual GAC-MAC conference to be held as part of RFG; Canadian Federation of Earth Sciences (CFES) - the umbrella organization for earth science in Canada. RFG2018 had many technical partners, including Geological Survey of Canada (GSC), British Columbia Geological Survey (BCGS), U.S. Geological Survey (USGS) and others. The Steering Committee and Programme Committee were formed, and monthly meetings were held. Formation of the International Advisory Committee was in progress.

The event would last 4 full days in addition to pre- and post short courses, with estimated attendees of 3,500 - 5,000 and abstracts of 2,250 - 3,500.

17. AMENDMENTS TO IUGS STATUTES AND BYLAWS (José P. CALVO)

José P. Calvo reported that the proposed amendments to the IUGS Statutes and Bylaws were made during the 69th EC Meeting in Kunming, China in 2016, then posted on the IUGS website and circulated to the Council Members three months in advance.

Amendment I to the IUGS Statutes:

Text of the current articles	Text of the current articles with changes marked in red	Text of the new articles
<p>16. Active international scientific organisations may apply for affiliated status, if they are willing to support the aims and objectives of the Union. Approval of an application by the Executive Committee is subject to ratification by the Council.</p> <p>17. As appropriate, Affiliated Organisations shall be supported by the Union in matters of international and interdisciplinary cooperation. The Union may</p>	<p>16. International scientific organisations may apply for affiliated status, if they are actively involved with IUGS activities. Approval of an application by the Executive Committee is subject to ratification by the Council.</p> <p>Affiliated status is maintained for the life of the joint project, or for a maximum of 5 years. If they are actively involved with IUGS related activities, organizations can apply for</p>	<p>16. International scientific organisations may apply for affiliated status, if they are involved with IUGS activities. Approval of an application by the Executive Committee is subject to ratification by the Council.</p> <p>Affiliated status is maintained for the life of the joint project, or for a maximum of 5 years. If they are actively involved with IUGS related activities, organizations can apply for</p>

<p>give, within the limits set by a fair distribution of its resources, financial support to the activities of Affiliated Organisations.</p> <p>18. The Council, on recommendation of the Executive Committee, may dissolve the affiliation of an Organisation which has been inactive as an IUGS member.</p>	<p>renewal of their affiliated status.</p> <p>17. As appropriate, Affiliated Organisations shall be supported by the Union in matters of international and interdisciplinary cooperation. The Union may give, within the limits set by a fair distribution of its resources, financial support to the activities of Affiliated Organisations.</p>	<p>renewal of their affiliated status.</p> <p>17. As appropriate, Affiliated Organisations shall be supported by the Union in matters of international and interdisciplinary cooperation. The Union may give, within the limits set by a fair distribution of its resources, financial support to the activities of Affiliated Organisations.</p>
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Rationale for the proposed amendment: Affiliated Organizations (AOs) should be actively involved in IUGS life. There were many cases of AOs that were not in touch to the Union or years, resulting in absence of annual reports or any information; even some Affiliated Organizations disappeared without any communication to IUGS. The amendment tried to ensure closer relationships between the AOs and IUGS.

It was suggested that criteria for “being actively involved with IUGS activities” be clarified and clearly stated.

Motion to further update the wording of the amendments in discussion based on the suggestions specifically proposed by Australia, Association of African Women Geoscientists and Austria before vote on the proposed amendments by the Council.

Approved

Amendment II to the IUGS Statutes:

Text of the current article	Text of the current article with marked changes in red	Text of the new article
<p>42. The role of the Nominating Committee is to prepare lists of potential candidates to serve on the next Executive Committee. At each ordinary session, the Council appoints a Nominating Committee consisting of six members nominated by the previous</p>	<p>42. The role of the Nominating Committee is to prepare lists of potential candidates to serve on the next Executive Committee. At each ordinary session, the Council appoints a Nominating Committee consisting of six</p>	<p>42. The role of the Nominating Committee is to prepare lists of potential candidates to serve on the next Executive Committee. At each ordinary session, the Council appoints a Nominating Committee consisting of six members nominated by the previous</p>

<p>Nominating committee, members of which are precluded from serving on the new Nominating Committee. The Nominating Committee in sending forward a list of candidates for election identifies all nominations received, both eligible and ineligible and stating the grounds on which any nominations have been deemed ineligible.</p>	<p>members nominated by the previous Nominating Committee, members of which are precluded from serving on the new Nominating Committee. The composition of the Nominating Committee should be balanced in terms of gender and geographic distribution of its members. The Nominating Committee in sending forward a list of candidates for election identifies all nominations received, both eligible and ineligible and stating the grounds on which any nominations have been deemed ineligible.</p>	<p>Nominating Committee, members of which are precluded from serving on the new Nominating Committee. The composition of the Nominating Committee should be balanced in terms of gender and geographic distribution of its members. The Nominating Committee in sending forward a list of candidates for election identifies all nominations received, both eligible and ineligible and stating the grounds on which any nominations have been deemed ineligible.</p>
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Rationale for the proposed amendment: Similar to other IUGS bodies, the Nominating Committee should reflect as much as possible equilibrium in gender and likewise be representative of the different countries and/or regions. The amendment placed emphasis on this aspect that lacked in the present articulate.

Besides the above proposed revisions, additional revisions concerning “a Nominating Committee consisting of six members nominated by the previous Nominating Committee” were raised from the floor. Several Council members insisted that the wording should be changed during the Council meeting instead of waiting for the next EC to follow up this amendment.

Motion to change the language concerning the Nominating Committee in the article 42 now at this Council Meeting

Approved

The newly proposed amendments to Article 42 from the floor:

Text of the current article	Text of the current article with marked changes in red	Text of the new article
42. The role of the	42. The role of the	42. The role of the

<p>Nominating Committee is to prepare lists of potential candidates to serve on the next Executive Committee. At each ordinary session, the Council appoints a Nominating Committee consisting of six members nominated by the previous Nominating committee, members of which are precluded from serving on the new Nominating Committee. The Nominating Committee in sending forward a list of candidates for election identifies all nominations received, both eligible and ineligible and stating the grounds on which any nominations have been deemed ineligible.</p>	<p>Nominating Committee is to prepare lists of potential candidates to serve on the next Executive Committee. At each ordinary session, the Council elects a Nominating Committee consisting of six members from a broader list of nominees proposed by Council Members and the Nominating Committee. Members of any previous Nominating Committee are precluded from being elected to future Nominating Committee. The composition of the Nominating Committee should be gender and geographically balanced. The Nominating Committee in sending forward a list of candidates for election identifies all nominations received, both eligible and ineligible and stating the grounds on which any nominations have been deemed ineligible.</p>	<p>Nominating Committee is to prepare lists of potential candidates to serve on the next Executive Committee. At each ordinary session, the Council elects a Nominating Committee consisting of six members from a broader list of nominees proposed by Council Members and the Nominating Committee. Members of any previous Nominating Committee are precluded from being elected to future Nominating Committee. The composition of the Nominating Committee should be gender and geographically balanced. The Nominating Committee in sending forward a list of candidates for election identifies all nominations received, both eligible and ineligible and stating the grounds on which any nominations have been deemed ineligible.</p>
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Total votes of Article 42 (newly amended from the floor): 36

Result: New Article 42 approved

18. REVISED IGC STATUTES (Greg BOTHA)

Greg Botha, Secretary General of the IGC Committee (IGCC), reported that the current IGC Statutes was revised from the Statutes adopted at the 32nd IGC in Florence, August 20, 2004 by an IUGS-IGC Statutes and Bylaws Committee and was ratified by Council at the 34th IGC in Brisbane, August 9, 2012. No amendments were proposed to the current IGC Statutes.

Motion to give the task to the next EC by the Council to reflect on how to pragmatically handle IGC related matters between the two bodies – IGCC and IUGS

Approved

19. INTERNATIONAL GEOLOGICAL CONGRESS (IGC)

a) Report from the Chairman of the IGC Committee (Richard VILJOEN)

Richard Viljoen, Co-Chair of the IGC Committee, presented an outline of the 35th IGC and proposed that the experiences recorded from the organization of the conference should be passed on to the 36th IGC to be held in India in 2020. It was important to have a strong Local Organizing Committee (LOC) to ensure the success of the IGCs. The LOC of the 35th IGC had two Co-Presidents and Secretary General, who worked closely and diligently together. A proper system should be set up to formulate the Scientific Programme. Theme Champions of the 35th IGC played important roles in putting a large number of abstracts into an orderly sequence. Over 4,000 delegates from 117 countries and regions attended the 35th IGC. Over 5,000 abstracts were submitted for oral and poster presentations. Over 700 delegates attended 39 IGC field trips, which covered a number of African countries. The 35th IGC supported the GeoHost Programme, providing financial support to selected young Earth scientists and geoscientists who lived and worked in low income countries. For the legacy programme, two books were published under the umbrella of the 35th IGC, namely “The Great Mineral Fields of Africa” (a Special Issue of *Episodes*) and “Africa’s Top Geological Sites”.

b) GeoHost (Greg BOTHA)

Greg Botha, Secretary General of the IGC Committee, reported that in accordance with the MoU with IUGS, the 35th IGC was committed to supporting the GeoHost Programme, providing financial support to selected young Earth scientists and geoscientists who lived and worked in low income countries. The initial goal was to support 100 delegates. Altogether 58 delegates, out of 750 applications, were supported by the 35th IGC due to financial difficulties. GeoHost Programme Chairs actively approached a number of sponsors for more support to the Programme. Thanks to additional support of the sponsors including research institutions, geological societies and mining enterprises, altogether 151 delegates were financially supported by the GeoHost Programme in the end, well exceeding the original target of 100.

c) Report from the President of the 36th IGC (Shailesh NAYAK)

S. Nayak, President of the 36th IGC, reported that the theme of the 36th IGC was “Geosciences – the basic science for a sustainable future”. The 36th IGC was supported by the Ministry of Mines & Ministry of Earth Sciences, the Government of India, the Geological Survey of India, the Indian National Science Academy, the Bangladesh

Academy of Sciences, the Pakistan Academy of Sciences, the Nepal Academy of Science & Technology, and the National Academy of Sciences Sri Lanka. Appropriate Authority comprised Secretary, Ministry of Mines in Chair and two Co-chairs, the Secretary, Ministry of Earth Sciences and President of Indian National Science Academy. '36th International Geological Congress' - a not-for-profit society for organizing the event has been established. A nine member Governing Body was chaired by Secretary, Ministry of Mines, Government of India and a five member Executive Committee of the Society has been constituted for overseeing the implementation of the preparatory activities.

Dr. Shailesh Nayak, distinguished Scientist and Former Secretary, Ministry of Earth Sciences, GOI and Mr. M. Raju, Director General (Ex-Officio), Geological Survey of India were nominated as President and Co-President respectively. Dr. Niranjana K. Singh, Joint Secretary, Ministry of Mines was appointed as Secretary General for the 36th IGC. The Secretariat comprised three senior geoscientists. The Scientific Programming Committee was chaired by Prof. A. K. Singhvi. Government of India assured budgetary support for organization of 36th IGC. The salient themes of the 36th IGC include:

- Planetary Explorations - Geo + Planetary Sciences
- The Earth's Dark Age
- Life and Earth - Origins, Symbiosis and Sustainability
- Tracking the mineralised systems - Proximal and Distal Footprints
- Understanding the Deep & Concealed Deposits
- 4D Geodynamic and metallogenic Evolution of the continents
- Strategic Minerals : Exploration, extraction and Budgeting
- Geophysics in Mineral Exploration
- Proterozoic Sedimentary Provinces and their Economic Potential
- Energy for all – Nuclear, Coal, Hydrocarbon and Nonconventional
- The Three Poles and its Climatic Implications
- Climate: Causes, Amplitudes and Timescales
- Extreme Events, Modelling and Prediction
- Tectonics, Topography and the Monsoon
- The Critical Zone in the Tropics
- Geology and Geophysics of the first kilometer
- Dynamics of fluid transport through the crust
- Molecular Paleontology
- Nanogeosciences
- Earth Surface Processes - Large Scale Connection

41 field trips in India along with trip coordinators and members were identified and other co-host countries were developing their field trips (Bangladesh - 4 traverses, Myanmar - 5 traverses, Nepal - 5 traverses, Sri Lanka - 1 traverse). The 36th IGC would offer 1,000 free Registrations, 1,000 Hospitality and 1,000 Travel supports, the Youth Geo-host Program would support 121 Graduate students as full delegates, and the Youth Volunteer INSPIRE Program would have 500 volunteers at Graduate level.

d) Handover of the chairmanship of the IGCC

Roland Oberhaensli noted that the IGCC was chaired by representatives from the Organizing Committees of the outgoing and coming IGCs. On behalf of Neil Williams, the Head of the Australian delegation officially handed over the chairmanship of the IGCC to Richard Viljoen.

e) Selection of Host for the 37th IGC

i. Strengths and weaknesses of each bid (Richard VILJOEN)

Richard Viljoen, Co-Chair of the IGCC, noted that the important criteria for hosting IGCs as prescribed in the IGC Statutes include the venue, scientific programme, excursion programme, GeoHost programme, legacy programme etc. The 4 bidding countries for consideration were Germany, South Korea, Russia and Turkey. All the bidding documents were prepared in advance and put on the IUGS website. South Korea and Russia invited IGCC members to visit the potential IGC venues in advance. The bidding 4 countries made their bidding presentations at the IGCC meeting held during the 35th IGC. All the 4 bids were judged by the IGCC to meet key criteria. The IGCC recommended the Council to consider all the 4 bids and did not make a specific recommendation.

ii. Presentation of Bids

Germany gave the bid presentation within the time allocated.

South Korea gave the bid presentation within the time allocated.

Russia gave the bid presentation within the time allocated.

Turkey gave the bid presentation within the time allocated.

Comments/Questions: None was taken.

iii. Vote

The votes were submitted and these were counted by the scrutineers Wolfgang Eder and Eduardo de Mulder.

Total Votes: 180 Germany: 42 South Korea: 90 Russia: 32 Turkey: 16

Result: South Korea will host the 37th IGC.

20. ELECTION OF IUGS OFFICERS AND APPOINTMENTS (Roland OBERHAENSLI)

a) Nominating Committee Report (Jacques CHARVET)

Jacques Charvet, Chair of the Nominating Committee (NC), reported that the NC worked on several intermediate elections by e-mail, including election of the new NC Chair in 2013, replacement of the Secretary General in 2014 and election of the 6th Member of the Nominating Committee in 2014-2015. The Nominating Committee Meeting was held in Paris, France on April 21-22, 2016. For the nomination of the Executive Committee, altogether 21 nominations were received, among which 19 were deemed eligible. The NC finally recommended 18 candidates in the slate.

Slate for the Next Executive Committee

President:

CHENG Qiuming	Canada	Nominated by IAMG
ERRAMI Ezzoura	Morocco	Nominated by AAWG

Secretary General:

FINNEY Stanley	USA	Nominated by ICS/Nominating Committee
HE Qingcheng	China	Nominated by China

Treasurer:

KITAZATO Hiroshi	Japan	Nominated by Japan
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Vice-Presidents:

ASCH Kristine	Germany	Nominated by CGI
BANERJEE Dhiraj	India	Nominated by India
BOZKURT Erdin	Turkey	Nominated by Turkey
CAVAZZA William	Italy	Nominated by Italy
MARTINEZ-FRIAS Jesús	Spain	Nominated by Portugal

Councilors:

2016-2020

CHEONG Daekyo	South Korea	Nominated by South Korea
MAPANI Benjamin	Zambia	Nominated by GEM
MOCANU Victor	Romania	Nominated by Romania
SATKUNAS Jonas	Lithuania	Nominated by Lithuania

2018-2022

MULDER Thierry	France	Nominated by France
PENG Shanchi	China	Nominated by ICS
PEPPOLONI Silvia	Italy	Nominated by IAPG
TCHAMENI Rigobert	Cameroon	Nominated by CIFEG

b) Alternative Proposals (for President, Vice President and Councilor)

Edmund Nickless was nominated by the Geological Society of London for the IUGS Councilor (2016-2020) and supported by India, Poland, Australia, United States and Canada.

c) Election of New Officers of the Executive Committee

The votes were counted by the scrutineers Wolfgang Eder and Eduardo de Mulder.

● Election of President

- o Candidates addressed the Council

Ezzoura Errami was the first to address the Council followed by Cheng Qiuming

- o Ballot for President

Proceed to submit the votes for the President, IUGS 2012-2016

Total Votes: 50 Ezzoura Errami: 23 Cheng Qiuming: 27

Result: Cheng Qiuming was elected as the IUGS President for the term 2016-2020.

● Election of Secretary General

- o Candidates addressed the Council

Stanley Finney was the first to address the Council followed by He Qingcheng

- o Ballot for Secretary General

Proceed to submit the votes for the Secretary General, IUGS 2012-2016

Total Votes: 50 Stanley Finney: 32 He Qingcheng: 17 Abstain: 1

Result: Stanley Finney was elected as the IUGS Secretary General for the term 2016-2020.

● Election of Treasurer

Hiroshi Kitazato presented to the Council as the only candidate for

Treasurer.

Result: Hiroshi Kitazato was endorsed by acclamation to the position of Treasurer.

- **Election of Vice Presidents**

- Candidates addressed the Council

There were five candidates and Kristine Asch was the first to address the Council followed by Dhiraj Mohan Banerjee, Erdin Bozkurt, William Cavazza and Jesús Martínez-Frías (Jose Carlos Ribeiro Kullberg addressed the Council on behalf of Jesús Martínez-Frías).

- Ballot for Vice Presidents

A call for votes for two of the five candidates and ballot submissions were made.

Total Votes: 97 Kristine Asch: 36 Dhiraj Mohan Banerjee: 13 Erdin Bozkurt: 13
William Cavazza: 24 Jesús Martínez-Frías: 11

Result: Kristine Asch and William Cavazza were elected as the IUGS Vice Presidents for the term 2016-2020.

- **Election of Councilors**

- Candidates (for the term 2016-2020) addressed the Council

There were five candidates and Daekyo Cheong was the first to address the Council followed by Benjamin Mapani, Victor Mocanu, Edmund Nickless and Jonas Satkunas.

- Ballot for Councilors (for the term 2016-2020)

A call for votes for two of the five candidates and ballot submissions were made.

Total Votes: 86 Daekyo Cheong: 16 Benjamin Mapani: 27 Victor Mocanu: 14
Edmund Nickless: 17 Jonas Satkunas: 12

Result: Benjamin Mapani and Edmund Nickless were elected as the IUGS Councilors for the term 2016-2020.

- Candidates (for the term 2018 – 2022) addressed the Council

There were four candidates and Thierry Mulder (a colleague from the Geological Society of France addressed on behalf of the candidate) was the first to address the Council followed by Peng Shanchi, Silvia Peppoloni and Rigobert Tchameni.

- o Ballot for Councilors (for the term 2018-2022)

A call for votes for two of the four candidates and ballot submissions were made.

Total Votes: 87 Thierry Mulder: 25 Peng Shanchi: 17 Silvia Peppoloni: 32
Rigobert Tchameni: 13

Result: Thierry Mulder and Silvia Peppoloni were elected as the IUGS Councilors for the term 2018-2022.

d) Appointment of the New Nominating Committee

The NC nominated 10 candidates for the new NC and 6 members should be elected by the Council.

Slate for the Next Nominating Committee

ALLINGTON Ruth	UK
CHAVES Hernani A. F.	Brazil
DONG Shuwen,	China
FEDONKIN Mikhail A.	Russia
GHASSEMI Mohammad Reza	Iran
KOMAC Marko	Slovenia
MAPEO Read Brown M.	Botswana
OKAY Aral I.	Turkey
O'REILLY Suzanne Y.	Australia
SINGHVI Ashok Kumar	India

A call for votes for six of the ten candidates and ballot submissions were made.

Total Votes: 257 Ruth Allington: 35 Hernani A.F. Chaves: 33 Dong Shuwen: 21
Mikhail A. Fedonkin: 21 Mohammad Reza Ghassemi: 16
Marko Komac: 32 Read Brown M. Mapeo: 28 Aral I. Okay: 16
Suzanne Y. O'Reilly: 35 Ashok Kumar Singhvi: 20

Given the equal number of votes of Dong Shuwen and Fedonkin Mikhail A., a second call for votes and ballot submissions were made.

Total Votes: 29 Dong Shuwen: 15 Fedonkin Mikhail A.: 14

Roland Oberhaensli as the Past President was endorsed by the Council to be the ex-officio EC Member and Chair of the new Nominating Committee.

Result: The new Nominating Committee – Roland Oberhaensli (Chair), Ruth Allington, Hernani A.F. Chaves, Dong Shuwen, Marko Komac, Read Brown M. Mapeo and Suzanne Y. O'Reilly.

e) Ratification of Elections of Officers of Commissions

No ratification was made at this time.

21. OTHER BUSINESS

Nothing discussed at this time.

22. PLACE, DATE OF NEXT ORDINARY SESSION OF COUNCIL

To be determined.

23. CLOSING OF THE MEETING

Roland Oberhaensli officially closed the Session and thanked everyone for dedication and participation.