



**Mid-Term Vision and
Strategic Action Plan**
for the
**International Union of
Geological Sciences IUGS**

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for the

International Union of Geological Sciences IUGS



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Foreword

In 2001, the International Union of Geological Sciences (IUGS) celebrated its 40th anniversary. During the past four decades there have been revolutions in the Earth Sciences in many of which the Union has played a key role. Apart from looking back this anniversary provides a good time to look forward. This is particularly true for the past three years when the Union has worked hard to address the many recommendations to improve its professional performance following the report of a Strategic Planning Committee (SPC). That report 'International Earth Science in the 21st Century; Science and Organisational Strategies for the International Union of Geological Sciences' was published in 2000 and was adopted for implementation by the Council of IUGS in their meeting in August 2000 in Rio de Janeiro.

The present document can be seen both as a response to the SPC Report and as its further development into a mid-term Plan. The wisdom expressed by the first SPC recommendation ('the IUGS is of great value to the geoscience community; it must be maintained and strengthened') served as a solid steppingstone to look ahead towards the Union's 50th anniversary in 2011.

As the world's population continues to expand and the impact of humankind on the Earth increases exponentially, the relevance of our science is becoming increasingly clear. It is our responsibility to make society conscious of this. However, IUGS cannot do this alone. We need to build bridges to all the other unions in the International Council for Science (ICSU) dealing with the Earth. Together we can generate a much better public and political profile for the Earth Sciences and enlighten society about the benefits of our science.

The Union's mid-term goals and the Road Map to reach them are given in the first pages of this document. The Strategic Action Plan in the second part describes the implementation of the SPC recommendations. Now that almost all of these have been addressed the Union can face the future with confidence.



Eduardo F.J. de Mulder
President of the International Union of Geological Sciences

Introduction

In its 2000 report '*International Earth Science in the 21st Century*', an IUGS' Strategic Planning Committee (SPC) developed a **mission**, proposing the International Union of Geological Sciences unite the global geological community in:

- Promoting the development of the geosciences through the support of broad-based scientific studies relevant to the entire Earth system; and in
- Applying the results of these and other studies to preserve the Earth's natural environment, using all natural resources wisely, and to improve the prosperity of nations and the quality of all human life.

The Strategic Planning Committee also formulated **goals**. The Union should:

- Serve as an impartial, international scientific union addressing global and regional issues that involve the geosciences.
- Contribute to the advancement of geoscientific research throughout the world, including both fundamental geoscience aimed at understanding the global Earth system and applied geoscience that uses our understanding of the Earth system to address problems of particular relevance to the welfare of the human population and the Earth.
- Represent the geological sciences in governmental and non-governmental forums to inform, advise and influence public policy and decision-makers.
- Encourage, in cooperation with other organisations, greater interdisciplinary interaction within the broad spectrum of the geosciences, in order to develop solutions to global problems and issues.
- Foster collaboration between developed and developing countries in geoscientific research, capacity building and applications.
- Contribute to geoscience education and the advancement of public awareness of the geosciences and their significance in understanding and solving many of society's problems.
- Encourage the career development of young geoscientists.
- Enhance the visibility of the geosciences and demonstrate their profound influence in planning and in public affairs.

New directions for the development of science have been identified for IUGS, suggesting high-priority geoscience activities of demonstrable relevance to society, including, but not limited to:

- Reducing the vulnerability of communities to natural hazards.
- Mitigating the effects of waste and pollution.

- Understanding global environmental change.
- Understanding biodiversity.
- Managing resources and sustaining the environment.
- Understanding the relationship between geology and health (page 10).

A mid-term vision is required as IUGS approaches its 50th anniversary to give direction to the Union's longer term ambitions involving changes extending beyond one Executive Committee's term. A vision, together with a road-map for its implementation, has therefore been developed to serve successive Executive Committees to work towards the Union's future goals.

Mid-Term Vision

This document aims to provide a vision for the Union as a non-governmental, non-political, not-profit making, international scientific organisation; an organisation that is part of the global economy and alert to developments in society and science. The mid-term vision is towards the year 2011, the year that the Union will celebrate its 50th anniversary and is as follows:

The International Union of Geological Sciences is widely acknowledged as the most prestigious international geoscientific organisation, uniting the world's geoscientists and supporting the development of the geosciences for the sustainable development and management of all parts of Planet Earth.

Two key questions are addressed here:

- Where should IUGS be positioned by 2011?
- How can that best be achieved (road-map)?

Where should IUGS be positioned by 2011?

Global Position

With the passage of time, the distinction between geology and geophysics has become blurred; one is incomplete without knowledge of the other. The time is ripe to bring together all geological, geophysical and oceanographic-related communities in the International Council for Science (ICSU) family. To that end it is proposed that a consortium of independent unions be created in ICSU in which IUGS plays a prominent role. The position of the largest union in ICSU should be maintained. Other bodies in the consortium should ideally comprise the International Union of Geodesy and Geophysics (IUGG), the International Geographical Union (IGU), and the International Union of Soil Sciences (IUSS). Apart from the Unions, the ICSU Scientific Committee of the Lithosphere (SCL-ILP) is also seen as a natural partner in such a consortium. International scientific organisations affiliated to IUGS might be given the opportunity to link with the consortium. By establishing such a consortium, the position of the geosciences in ICSU would be greatly strengthened and would provide a powerful voice to the public and policy makers about Earth Science issues. This consortium would rank as the only international geoscientific consortium of independent,

non-profit making bodies focusing on international cooperation and serving to benefit the geosciences and the global community. Effort would be made to unite other geoscientific discipline-oriented international organisations and to address important issues of regional and global scope.

Science

As the world's population continues to grow, and urbanisation concentrates people within smaller parts at the Planet's surface, more applied and fundamental scientific knowledge is needed to ensure sustainable use of the Earth's resources, its underground space and to avoid serious geohazards. Knowing that the processes that drive the Earth and their interaction with human activities are complex, IUGS aims to concentrate on a limited number of major geoscientific issues as it moves towards 2011. These comprise the six 'new directions' given on page 4 and three more issues which IUGS believes to be extremely important for our science in its relation to society:

- **Groundwater:** The hydrosphere and geosphere are inter-connected and part of the same Earth system. The availability of and access to fresh water should be addressed by increased scientific focus on groundwater. By 2011 hydrogeology should be a major component in the Union's and the consortium's science programme.
- **Cities:** Increasing urban populations greatly impact on the natural balance between society and the Earth processes. The subsurface may be the last option for urban space making it essential to understand the geological conditions of the subsurface of cities. Much is known already of the composition and structure of the subsurface but many of the underground processes are still poorly understood. IUGS considers a better understanding of such processes as a priority, as a way of providing urban planners with information for stable and safe urban development. By 2011 the Union should be deeply involved with the geoscientific research centres on the sustainable use of the urban subsurface.
- **Oceans:** Humankind will depend more and more on the oceans. Despite great progress in oceanographic sciences over the past few decades, much more needs to be known of the oceans as a basis for their sustainable development. IUGS and other consortium partners have a critical role to play in promoting further fundamental research of the oceans and in the transfer of this knowledge. By 2011 IUGS should be a significant player in geoscientific research into the sustainable use of the oceans and ocean floors.

Outreach

The world needs further geoscientific research to secure a more prosperous, safer and healthier society. However, society can profit from the exciting results of the geosciences only when these are communicated well. To achieve this is a major challenge to geoscientists. In its Strategic Action Plan, IUGS considers outreach and visibility as priority issues. However, substantial impact can be achieved only by international cooperation. IUGS is ready to contribute to this through:

- **Events:** The Union aims to develop an International Year of Planet Earth to be announced by the United Nations in 2004 and to be proclaimed for 2006. This IUGS Initiative is meant to communicate the great achievements of the Earth sciences to the public and politicians and simultaneously give an impetus to major new science issues. It is envisaged that other major international events will follow-up this Year(s) as the commemoration of the International Geophysical Year (IGY+50) and the International Polar Year (IPY), both planned for 2007/2008.
- **Congresses:** Together with the consortium partners, IUGS plans to take a leading role in the co-ordination of international geo-scientific events, such as congresses. In line with the proposed merger of IGC and IUGS, it is foreseen that IUGS will have a Congress Committee. Co-operation will be sought with other major organisers of international and regional geoscientific congresses to provide a broader spectrum of knowledge in terms of themes and geographically. By 2011 the consortium may act as an international broker/coordinator for geoscientific congresses.
- **Publications:** Towards 2011 the emphasis of the Unions' publications will shift more into electronic publishing. Significantly earlier, the Union's house journal EPISODES will be available electronically and should have reached a Scientific Citation Impact (SCI) factor of 1.20 (in 2002: 0.941, page 32). IUGS' scientific publications and many of those by its joint programmes as IGCP will be published through a professional publishing house. The website of the Union will be the main portal and a virtual meeting place for Earth scientists.

Organisation

The Union has three main administrative mid-term policy targets:

- **Focus on developing countries:** IUGS aims to give more attention to the geoscientific needs of developing countries, preferably in cooperation with the consortium partners.

- **Closer ties with more Affiliated organisations:** The present 38 organisations affiliated to IUGS provide a platform of about 240,000 geoscientists represented by the Union in ICSU and in other supra-national bodies. Further to actions in the framework of the Strategic Action Plan, the Union aims to continually increase the number and the level of interaction with its Affiliated organisations.
- **More income:** The Union needs more income to support its international geoscientific initiatives. By 2011 the Union's annual income should be 50% higher than in 2003.

Road Map to 2011

Global position

In 2002 the first step identified by ICSU leaders was to designate four members of the ICSU Executive Board to focus on groups of unions. One of them was charged with IUGG, IGU, IUSS and IUGS affairs. This development provides these unions with one voice in the ICSU Executive Board. In 2003 and 2004 the issue of a consortium will be discussed with IUGG, IGU and SCL-ILP. A meeting on closer cooperation between IUGS and IUGG, IGU and IUSS is scheduled for February 2004. A joint working group is foreseen to report on the results of a feasibility study by mid 2004 and their findings will be discussed with the IUGS Council. By then, the global position of the Union should have been substantially strengthened through the anticipated merger with the International Geological Congress (IGC) into one joint Council.

Science

In pursuit of the International Year of Planet Earth it is anticipated that several major science issues will be maintained until 2011 and even beyond. It is hoped that the Year(s) will attract adequate political attention and hence result in more financial input into the Earth Sciences. By the end of 2003 or early 2004, the IUGS Grant Programme will get started. Every year new recommendations are solicited from the IUGS Committee for Research Directions, established in 2001. In 2003, the Union re-activated its position in the Scientific Committee on Problems of the Environment (SCOPE). In 2004, the International Geoscience Programme (IGCP, former International Geological Correlation Programme), a joint IUGS-UNESCO activity, will be expanded with a fifth group focusing on hydrogeology with substantial additional funding from UNESCO's Water Division. In the same year it is foreseen that the Union will enter the International

Geosphere – Biosphere Programme (IGBP). For 2005, a major project for the ICSU Grant Programme will be submitted by the Union. Most of the extra income to be generated for the Union will be spent on scientific topics. There will be fewer IUGS Commissions but with each receiving higher levels of funding.



Outreach

It is foreseen that the International Year of Planet Earth will generate a substantial and broad public outreach for the geosciences, at least until 2011. This will be stimulated by IUGS' partnership in the commemoration of the International Geophysical Year and in the International Polar Year. Furthermore, it is hoped that the level of activities in the Years will be cumulative and will be supported by many more activities at the national and regional scale. To ensure a lasting impact of the International Year, major emphasis will be placed on education, involving the affiliated International Geoscience Education Organisation (IGEO). The professional scientific level of EPISODES will be improved further step by step and IUGS aims for continuation of EPISODES' production in China. By 2004, it is intended that the Council of the International Geological Congress will be integrated with that of IUGS. By using its Congress Committee the Union with its partners in the consortium will be well placed to become an international geoscience congress broker.

Organisation

IUGS will give a strong impetus to the geoscientific needs of the developing countries by:

1. supporting, encouraging and sponsoring geoscientific events in the developing world.
2. involving developing countries in the major science issues in the framework of the International Year of Planet Earth.
3. focusing outreach and education activities within the Year(s) on developing countries.
4. exploring ways to provide better access to positions on the Executive Committee for persons from all (active) member countries.

Further to the IUGS Strategic Action Plan, the Union hopes to host the administrative centres of some of its Affiliated organisations into the IUGS Permanent Secretariat, beginning in 2004. Apart from cost-saving aspects and increased professionalism, this would further enhance dialogue between the Union and its Affiliated organisations.

The Union's income is anticipated to grow primarily through its participation in major events, such as the International Year and IGC. In addition, more income should be generated from a rising number of active member countries. To that end categories of membership fees will be reviewed. Finally, some additional income is expected from royalties on publications.

Strategic Action Plan

Rationale and Procedure

At the request of the International Union of Geological Sciences (IUGS) an ad-hoc Strategic Planning Committee (SPC) met in Prague, Czech Republic, in September 1999. The Committee made 32 recommendations to improve the scientific status and operational aspects of the Union based on the results of an enquiry involving IUGS National Committees, Commissions and Committees, and Affiliated and Partner organisations. The recommendations were discussed by the IUGS Executive Committee (EC) at its meeting in Cairo, January 2000, and subsequently published in March 2000. In August 2000, the IUGS Council approved the recommendations and requested the new Executive Committee of the Union to proceed with implementation.

A Task Group comprising members of the EC reviewed the options for implementation at a meeting in December, 2002 in Catania, Italy and prepared a Draft Strategic Action Plan. This draft Plan was discussed and further developed by the EC at its meeting in Hyderabad, February 2001 and the Draft Plan was sent to the members of the IUGS Council for comment ahead of an extraordinary meeting of the IUGS EC in China, September 2001. The final Strategic Action Plan was agreed at the EC meeting in Lower Hutt, New Zealand, February 2002.

The present document describes the implementation of the recommendations by the SPC in response to their Report '*International Earth Science in the 21st Century*' (2000).

Implementation

A detailed description of the recommendations with explanatory notes is given in the SPC Report (2000). The present document presents these recommendations together with the actions for implementation. These actions centre on the strategic issues: science, organisation & operations (including funding), IUGS partners and communication & publications.

Towards the Strategic Action Plan Task Groups were created on all major issues. All members of the EC participated in such Task Groups to which, in some cases, external experts were co-opted. The Task Groups developed a series of actions to implement the respective recommendations. In some cases, improved solutions

were identified by the EC as outlined in the draft Strategic Action Plan sent to the members of the IUGS Council for comment by mid 2001. Almost all Council comments were in favour of the proposed directions for implementation by the EC.

Science

Recommendations

The primary target for the Union as an international scientific organisation should be a scientific status of excellence in all its activities. Currently, both fundamental and applied scientific activities are conducted mainly through the IUGS Commissions and Joint Programmes. In its Report (2000) the Strategic Planning Committee formulated six recommendations directly or indirectly related to science:

4. The IUGS should embark on new, high-priority Earth-science activities of demonstrable relevance to society, including, but not limited to:
 - Reducing vulnerability of communities to natural hazards
 - Mitigating the effects of waste and pollution
 - Understanding global environmental change
 - Contributing to the understanding of biodiversity
 - Managing resources and sustaining the environment.
5. The Advisory Board for Research Development (ABRD) should play a key role in identifying fruitful new scientific directions and research topics, evaluating submitted proposals seeking IUGS funding and other support, and recommending to the Executive Committee those proposals that are deemed most promising and relevant to the mission and goals of the Union.
6. Recognizing that the Earth constitutes a system of interrelated physical, chemical, and biological processes and interactions, the IUGS programs should include an appropriate balanced mixture of both basic and applied Earth science, as well as interdisciplinary and multi-disciplinary studies.
7. The IUGS should promptly enter in negotiations with other Unions, other ICSU entities, and other organizations to ascertain their willingness to participate as fully recognized team members in high-quality multi-disciplinary projects of obvious benefit to science or society and in which the expertise of the communities represented by these other Unions is needed.
8. Standardization programs and projects continue to be an important part of the IUGS portfolio of activities.
9. Technology-transfer and geological education focusing on developing countries should continue to be key-activities of the IUGS.

Apart from these some other recommendations (e.g. numbers 10, 11, 16, 17, 22 and 24, see next chapter) also have some implications to scientific issues.

These recommendations centre on the following themes:

- New science directions
- IUGS Grant Programme
- New joint science programmes
- Education and technology transfer
- Standardisation in Earth-Sciences.

Implementation

New science directions

The EC reviewed the new directions for science as given by the SPC and added a 6th statement: 'Understanding the relationship between geology and health'. As the EC considered identification of new science directions supported by the Union very important for its current and future role as an international scientific union, it was deemed necessary to develop a separate and permanent Committee dedicated to this topic. Instead of adding tasks to ad-hoc Advisory Boards for Research Development (see recommendation 5) the EC agreed to launch a Committee for Research Directions (CRD). A Task Group (# 1) developed a draft set of Terms of Reference for the CRD. An internationally highly acknowledged geoscientist was invited to chair this Committee and the other 10 members were identified among the chair persons of the four IGCP Working Groups, experts provided by Affiliated organisations (see recommendation 26) and ex-officio members of the EC. The CRD met first in Paris on February 8, 2002, followed by a second meeting on February 7, 2003. The CRD developed valuable recommendations for new research directions which were communicated to the EC. Implementation of these directions is anticipated to be through the new IUGS Grant Programme (see below), so that this process could begin only after completion of the procedures for the Programme in 2003. The experience gained over the first years of operation made some modifications in the CRD Terms of Reference necessary.

IUGS Grant Programme

Based on one of the SPC recommendations (# 5), a Task Group (# 2) developed criteria and guidelines for a new IUGS Grant Programme. A draft report by this Group was approved by the EC in February 2002 and the final Programme was

disseminated by September 2003. The EC allocated 50,000 US dollars on an annual basis to this Programme, open to both top-down (e.g. recommended by the CRD) and bottom-up (all other) project proposals. A Review Team, composed of members of the EC and the CRD would evaluate first Expressions of Interest and later full research proposals. All members of the IUGS family (Commissions, Task Groups, Initiatives, Committees, Affiliated Organisations, etc.) are invited to submit proposals. Keywords for successful proposals are scientific excellence, social relevance and enhanced visibility of IUGS. The first project of this Programme is envisaged to begin by the end of 2003 or early 2004.

New joint science programmes

The Strategic Planning Committee concluded that not all opportunities for new and existing science programmes had been explored by IUGS. Following their recommendation (# 7) a Task group (# 3) was formed to identify current science programmes appropriate for IUGS participation and partners for cooperation in new programmes. The Task Group's findings were reported to and adopted by the EC, in February 2002. The EC considered this as a top-priority and appointed one of its members as coordinator. Since, a new science programme focusing on groundwater in IGCP had been agreed with UNESCO's Water Division (see recommendation 24). Outlines for a major joint science project to be submitted to the ICSU Grant Programme will be developed for 2005. In 2003 the Union re-activated its position in the Scientific Committee on Problems of the Environment (SCOPE). Entree in the International Geosphere - Biosphere Programme (IGBP) is foreseen in 2004. It is anticipated that the planned International Year of Planet Earth (2005-2007) will serve as a valuable vehicle for new and joint science programmes. Consequently, the Science Programme Committee of the International Year of Planet Earth has developed a set of potentially large (geo)science themes with external funding.

Education and technology transfer

IUGS believes that it should play a more prominent role in technology transfer and geological education, particularly for colleagues in developing countries. The Union supports the valuable work of the Association of Geoscientists for International Development (AGID), and the Centre International pour la Formation et les Echanges Géologique (CIFEG), both affiliated to IUGS. Moreover, activities through the Mineral Resources Sustainability Programme (MRSP, formerly Deposit Modelling Program), the Geological Application of Remote Sensing (GARS), and IGCP with special projects for young scientists were and still are strongly geared

to education and technology transfer. Spurred by the Council' decision to develop a new IUGS Commission on Education (COGEOED) a Task Group (# 4) commenced work in 2001 and produced outlines for such a Commission. These were discussed with the newly affiliated International Geoscience Education Organisation (IGEO). It was concluded that the Union will primarily develop its own Commission on Education and Training to be operational by early 2004. The Outreach Programme of the International Year of Planet Earth includes a strong educational component dedicated to schools all over the world. One of the main conditions for successful science programmes in the Year(s) is the active involvement of developing countries (see recommendation 12).

Standards in Earth sciences

Geological standards are vital for scientific development as well as for data storage and data analysis. The Union has always paid attention to standardisation of geodata, particularly in the International Commission on Stratigraphy, the Commission on Systematics in Petrology, and in the Commission on the Management and Application of Geoscience Information (former COGEOINFO, presently CGI). Moreover, our Affiliated organisation CIFEG developed databases in Africa and Southeast Asia. In pursuit of recommendation 8, the EC concluded that IUGS should become a source of information on international standards for the Earth sciences, based on the findings of its own Commissions and those of other learned bodies. Affiliated organisations are invited to copy standards in their fields to the IUGS-website.

Conclusion

The science issues in the Strategic Action Plan were taken up by four Task Groups. Their reports were all approved by the EC and are posted on the IUGS website. New science directions are now being identified by the Committee on Research Directions. Selected directions will be advertised for further development into project proposals. These will compete with bottom-up proposals in the new IUGS Grant Programme for which 50,000 US dollars are allocated annually. In the past three years IUGS' attempts to enter existing and to embark on new international science programmes have been rather successful. IGCP has been expanded by an externally funded hydrogeological Group and the Union took the initiative in developing the International Year of Planet Earth. The Year(s) science programme should provide great opportunities to develop new and externally funded research programmes. Education and technology transfer, of particular interest to colleagues in developing countries, will be addressed through a new IUGS

Commission supported by the professional International Geoscience Education Organisation (IGEO) and other organisations.

Organisation and operation

Recommendations

In its Report (2000) the Strategic Planning Committee (SPC) expressed concern about the mode of operation in the Union, its organisational structure, its decision-making process, its Commissions, its low visibility, the operation of advisory boards and its funding. The SPC formulated 14 recommendations directly or indirectly related to the Union's organisation and operation:

10. All IUGS-funded scientific activities should be reviewed regularly to ensure that the pace of progress toward established goals is acceptable, that productivity is commensurate with the funding provided, and that an international perspective is maintained. The ABRD should review the work of IUGS bodies; Joint Programs should be reviewed by outside panels selected by the IUGS and the partner organization.
11. The results of IUGS supported scientific activities should be made public using appropriate formats and venues. These include, for example, mainstream scientific journals, book-length monographs, scientific meetings, thematic seminars and specialist conferences, and press conferences.
12. More effort should be made to involve scientists from under-represented groups, such as young scientists, women, and scientists from developing countries, in the work of the Union.
13. The decision-making process of the IUGS is far too slow, and is a major impediment to the effectiveness of the Union; it should be changed to allow necessary decisions by the Council to be made and put into effect between the Council meetings.
14. The continued existence of a Permanent Secretariat is vital to the future of the IUGS; it should be maintained and, if possible, strengthened.
15. The full range of functions performed by the Advisory Board of Publications is critical to the future of the IUGS. It should be redefined as a Publication Committee, its remit broadened, and it should be provided with additional resources as justified and required.
16. The ABRD should take a rigorous approach to reviewing and recommending proposals for new programs, to request for their extension, and to the evaluation of existing programs.

17. The mandate of the ABRD should be broadened to transform it also into an ad-hoc 'Strategic Planning Committee'.
18. An Advisory Board for Finance should be formally re-established with a clear remit to seek for external funds
20. Scientific work within the IUGS should continue to be carried out primarily by Commissions and Working Groups. However, the number of such enterprises should be strictly limited by the funding available to provide adequate support to enable these bodies to achieve significant results within the time frames specified for their respective endeavors, and their duration staged so as to create regular opportunities to redirect funds to new Earth-science enterprises.
21. Commissions should be established (or continued) for important scientific undertakings, the nature of which clearly requires long-term (8 - 12 years?) attention and funding. Working Groups should be project-oriented enterprises of shorter duration, typically funded for no more than 4 years. All funded entities annually shall transmit to the EC a report summarizing their activities and accomplishments.
28. The IUGS should seek greater visibility and better financial returns from its program of publications. Regardless of the publisher, all publications stemming from IUGS-sponsored scientific work should carry the IUGS logo and be clearly identified in all respects as IUGS-sponsored publications.
31. Through the Advisory Board of Finances, the IUGS should seek to significantly increase its level of funding by developing new sources. These should include recruiting more Associate Members and giving consideration to establishing a category of Individual Members.
32. The IUGS should increase its membership fees by a total of 10% over the next few years, and, based upon a relevant, standard measure of monetary inflation, then keep them at realistic levels from then on.

One of the SPC recommendations (# 19) dedicated to the structure and composition of the Executive Committee was addressed by a Council decision in 2000 and the successive election of a new Executive Committee. This recommendation was fully addressed by March 2003, by the EC composed of a President, a Secretary General, a Treasurer, a Past-President, two Vice-Presidents and four Councillors.

Recommendations on organisation and operation centre on the following themes:

- Visibility
- Finances

- Commissions
- Advisory Boards
- Decision-making process, Secretariat and under-represented groups.



IUGS promotion items

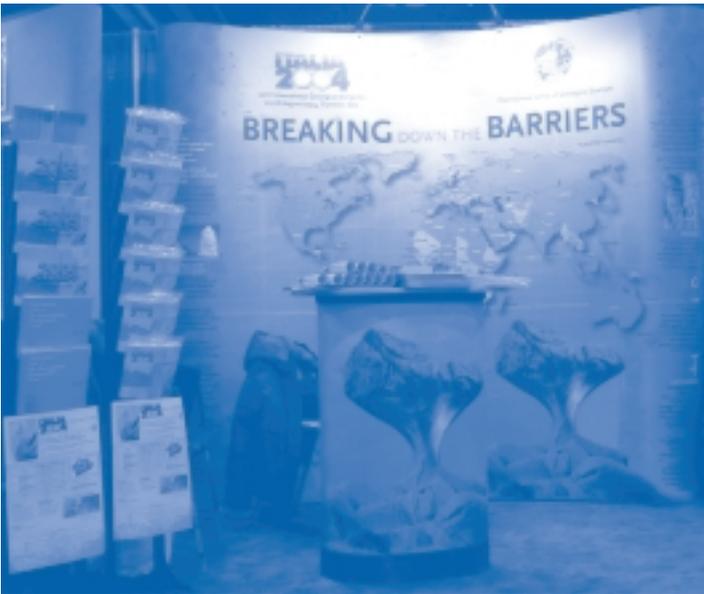
Implementation

Visibility

In its evaluation of the SPC recommendations the EC concluded that increasing the visibility of the Union and its (scientific) products is one of the top-priorities for the short term. A Task Group (# 5) of 13 members (mainly non-EC experts) was created and produced a report which was accepted by the EC in February 2002. This report contains a list of 22 general and top-priority recommendations, many of which also deal with other strategic issues as identified by the Strategic Planning Committee.

Implementation of these recommendations began soon after the EC started its term. In October 2002 the first electronic bulletin was extended to all IUGS bodies, including Adhering and Affiliated organisations. This e-mail bulletin periodically updates the IUGS family on relevant developments affecting the Union. A second bulletin was disseminated in January 2003 and the third in May of that year. In November 2002, a newly designed professional IUGS booth advertising the Union and the IGC together was opened in the GSA Congress

in Denver, together with a new flyer of the Union. In February 2003, the Union's first Annual Report was published. On January 23, 2003 the EC approved a new logo for the Union reflecting its new mandate and its mission for the 21st century. The new logo inspired the Chinese Ministry of Land & Resources to produce free neckties with this new IUGS logo for the Union. In Japan, the new logo was printed on small compasses intended as promotional marketing items. Leather card holders with the new logo were also produced in Canada and the IGC acknowledged the Union as the scientific sponsor of the Congress and advertised the Union widely in their publications (see SPC recommendation 25). Many documents are now available via the website, updated almost daily by IUGS' webmaster.



Joint IGC & IUGS booth in GSA Congress Denver, 2002

The preparation of the International Year of Planet Earth represents a significant development in terms of visibility and image for IUGS. A feasibility study was completed and the EC approved its report by February 2002, giving the go ahead for the next (Preparatory) phase. In all of the documentation for this event the Union is advertised as the Initiator. As the International Year contains a major outreach component implementation should contribute substantially to the Union's visibility. An international Workshop 'Earth Sciences and the Public' was co-sponsored by the Union and held in Utrecht, the Netherlands in June 2003.

More activities are foreseen, in order to increase the visibility of the Union. These range from active involvement of the Union in international (geo)scientific activities, expanding the number of Affiliated organisations, improved relations with the National Committees (page 28), publications, position in IGCP and other Joint Programmes, in other ICSU unions and in the production of professional marketing materials. The EC has allocated a budget for activities dealing with visibility and image and one of the Vice-Presidents has specific responsibility for visibility. By June 2003 fourteen out of the 22 recommendations by the Task Group on visibility had been implemented and for 6 others the first steps towards implementation have been taken.

Finances

Many attempts to improve the financial status of the Union have been made in the past. Based on SPC recommendations (18, 31 and 32) this EC asked a Task Group (# 7) to discuss strategies for fund raising. The Task Group met in July 2002 in Washington DC. Apart from reshuffling the IUGS membership fee system and royalty collection from IUGS publications, particularly IUGS science programmes and commissions were seen to be likely to profit from the activities proposed in the International Year. The EC concluded that the best option for a significant expansion of the Union's financial position would probably be through initiating or actively supporting such major events. A fine example of this is the 23 Euro pro person contribution the Union will receive from registration fees collected in the 32nd IGC (see SPC recommendation 25). Moreover, positive developments in IUGS' financial position are considered to be related to improved visibility; to the availability of merchandisable and other products, as an attractive IUGS Grant Programme, the inclusion of hydrogeology into the IGCP, a printed Annual Report, posters, an exhibition booth and other promotion material. These conclusions made the creation of a permanent Advisory Board of Finances, as recommended by the SPC, unnecessary. With the meeting in Washington and their report the work of the Task Group was considered complete.

Commissions

Commissions remain the main IUGS bodies for scientific development. Together with Joint Programmes as IGCP, IUGS Commissions have contributed much to the progress of the Earth Sciences during the past four decades. After a promising start, however, the performance of Commissions has sometimes declined. Reasons for this may be found in changes (or lack of changes) in leadership, in communication, in funding or in developments in the respective fields of science.

With regard to the Commissions, the SPC developed two lines of recommendations. One (# 20 and 21) deals with available budgets, and with life-times which are proposed to be between 8 and 12 years. Another recommendation (# 10) dealt with reviewing IUGS funded bodies including Commissions. A Task Group (# 8) elaborated the SPC recommendations and redefined some bodies (i.e. Working Groups and Task Groups). The Task Group developed guidelines on operational affairs for Commissions, Subcommissions, Task Groups, Initiatives, and Projects, apart from the existing statements concerning such bodies in the Statutes and Bye-Laws. Among other issues these guidelines determined the duration of Commissions and the terms for officers as a maximum of 8 years.

With respect to reviewing the scientific activities of IUGS bodies, including Commissions, Task Group 1 developed Terms of Reference for Ad-hoc Review Committees (ARC's), which are temporary bodies dedicated to specific reviews of specific IUGS bodies. ARC's will consist of a maximum of 5 persons, including up to two members of the EC and external experts, preferably from Affiliated organisations. Any ARC will meet with the IUGS body and report to the EC, after the body has been given the opportunity to comment on the ARC findings. In April 2002, the Commission on Tectonics (COMTEC) was the first Commission reviewed. The ARC proposed to close down COMTEC and to create a new Commission on this topic. This was approved by the EC and by June 2003 the outlines for a new group had been presented. In July 2003, INHIGEO was reviewed. The new guidelines were approved by the EC and the work of the Task Group is complete.

Advisory Boards

By 2000 Advisory Boards on Publications, Research & Development and Finance existed. The SPC recommended strengthening, expanding and re-vitalizing these Boards. In its evaluation of the SPC recommendations the EC decided a different approach for the Advisory Board's activities.

With regards to the Advisory Board for Publications, the EC created a new Publication Committee (PC) and reconsidered outsourcing non-serial publications (# 15). This PC thus has a different mandate to the former Advisory Board for Publications page xx).

Another task foreseen by the SPC for the Advisory Board for Research Development (ABRD) was to review the IUGS' scientific programmes and proposals. The EC,

however, considered that this task should be performed differently: the former ABRD was replaced by the new Committee for Research Directions (CRD, page xx). Additionally, new and fit-for-purpose Ad-hoc Review Committees (ARC, page xx) were created, taking over the task of the former ABRD to review the IUGS funded bodies. The SPC also recommended the ABRD broaden its mandate and develop into a Strategic Planning Committee. In its evaluation the Executive Committee concluded, however, that the EC should be held responsible developing strategies on the future position of the Union. A first action in this direction was developing a mid-term vision and a road map for implementation (pages 5 – 10).

Revitalization of the Advisory Board for Finance was recommended by the SPC (# 18). This was based on the perceived need for more outside funding. In its evaluation the EC concluded that all earlier attempts had failed mainly because the Union was unable to provide attractive products to potential sponsors. To attract substantial outside funding a different approach was considered necessary. The Union should develop products or activities attractive to potential sponsors (i.e. the industry, governmental and non-governmental bodies). Proclamation by the United Nations and IUGS of the International Year of Planet Earth with challenging science and outreach programmes was considered to be a potential more successful avenue to (directly or indirectly) achieve this (page 9). This new approach involved abolition of the Advisory Board for Finance.

Decision-making, Secretariat, under-represented groups

The Union's decision-making process was considered too slow, thereby hampering its operations. As one of its first actions the EC proposed a change in the Statutes to make electronic voting possible. This was approved by Council through a non-electronic vote. The IUGS Council has since been approached regularly for voting. Electronic voting and commenting has become a normal procedure within the EC. This mode of operation spread activities of the EC more evenly over the year rather than focusing decision-making on annual meetings.

The Union greatly acknowledges the support provided by the Norwegian National Committee and by the Norwegian Geological Survey to the Permanent Secretariat in Trondheim. The Union profited enormously and at no costs from this facility for many years. The Permanent Secretariat is a great asset to the Union and has proven to be essential for professional operation. The EC was happy to endorse the SPC recommendation on the Secretariat (# 14). The external level of support to the Secretariat has increased since. Apart from the 'normal' secretarial support

the Permanent Secretariat developed a joint booth (with IGC), a flyer, a poster, and produced the new IUGS Annual Report.

Three types of under-represented groups were specifically identified by the SPC: scientists from developing countries, women, and young scientists. The EC believes other groups, for example from industry, are also poorly represented in the Union. Since its beginning the present EC has continued the policy to increase the potential for colleagues from developing countries to become more actively involved in the Union. To some extent this is hampered by the growing number of developing countries with an inactive status in the Union. Apart from special attention given to developing countries in the travel programmes of Bureau members, the EC agreed on two actions particularly focusing on such countries. First, active involvement of colleagues from developing countries has been declared as a boundary condition for selecting big science issues for the International Year of Planet Earth. This will ensure a dedicated scientific contribution for a three year period and possibly longer as education and technology transfer will be important components of the science programme. Secondly, the EC is working to open Bureau positions to representatives from developing countries. In principal, such positions are open to representatives from any active member country, but in reality the necessary financial support from the parent organisations, including travel expenses and office costs for the three Bureau members, prevent access to such positions, not only for representatives from developing countries.



IUGS Permanent Secretariat

In its attempts to involve more women in the Union's activities the Association of Women Geoscientists will be invited to participate in a new informal Task Group on women and youth. Since 2000 five female experts have been appointed as members of the Scientific Board of IGCP.

With regard to young scientists the Union has increasingly involved younger colleagues in the IUGS, such as in the leadership of IUGS Commissions (e.g. the new Commission on the Management and Application of Geoscience Information CGI and in the successor of COMTEC). Moreover, the Union has developed a special Symposium for young scientists in the 32nd IGC and a virtual platform for younger geoscientists in IUGS. Also in the IGCP, there will be special projects dedicated to young scientists.

Conclusion

The organisation and operational issues identified by the Strategic Planning Committee were addressed by three Task Groups. All work has been completed and all reports have been adopted by the Executive Committee. Implementation is complete or in progress. As one of its top priorities the Union has put much emphasis on increasing visibility and improving its image. These efforts have resulted in such products as Annual Reports, electronic bulletins, flyers, posters, a new logo, website, publications, merchandise, visits by EC members, major projects and programmes, including the initiative to launch the International year of Planet Earth. Nevertheless, these are only the first steps putting the Union more clearly on the map and much more needs to be done. As the Union's financial position is most probably connected to its level of performance and to the products that can be delivered the EC concluded that potential funding organisations should be approached only with specific products. Again, the International Year of Planet Earth may help to achieve this. For Commissions and other IUGS bodies new guidelines and a system for regular reviewing was developed. The present EC believes that developing strategies for the future and several other tasks previously given to Advisory Boards, belong to the core business of the EC. Consequently, the ABRD and the Advisory Board for Finance were not re-installed and the Advisory Board for Publications was redesigned into a Publication Committee. Introduction of an electronic voting system accelerated the decision-making process in the EC and Council. Operation and image of the Union was further enhanced by expansion of the Permanent Secretariat. In its endeavours to be more attractive to so far under-represented groups the EC has undertaken several actions from which positive results are expected over the next few years.

Partner organisations

Recommendations

The Strategic Planning Committee (SPC) expressed concern about the profile of the Union in and the level of communication between the Union and its Partner organisations. IUGS Partner organisations include ICSU, UNESCO, IGC and Affiliated organisations. Adhering organisations are also discussed under this chapter. The SPC formulated 6 recommendations directly or indirectly related to Partner organisations.

22. Effective working partnerships should be forged with other ICSU Unions and greater emphasis placed on multi-disciplinary, society relevant studies; together these will enhance the image of the Earth sciences within the International Council of Science (ICSU) and improve the IUGS's prospects for significant ICSU funding.
23. The International Geological Correlation Program (IGCP) has been an outstanding success; IUGS support and involvement should continue as it is critical to the future success of the IGCP. However, a rigorous external review is now desirable as a basis for setting future aims, directions and emphases. Such external review should also consider ways and means to ensure that the IUGS receives a fair share of recognition of its support of the IGCP and its significant, long-term contributions to the success of the Program.
24. The IUGS should explore cooperation with other UNESCO entities besides the Division of Earth Sciences, and also other UN agencies.
25. The IUGS should receive more recognition for its role as scientific sponsor of the quadrennial International Geological Congress (IGC); it should also receive a significant financial return for its role through the imposition of an IUGS levy on the proceeds of all future IGC's.
26. Current arrangements between the IUGS and its Affiliated Organizations are thoroughly unsatisfactory and should be drastically revamped. The present arrangements confer little benefit on the IUGS and even less on the Affiliates. New and financially more realistic arrangements are required, for example, to involve the Affiliated organizations (albeit on a gradual rotational basis as funding permits) in joint scientific endeavours with the Union. Other avenues of involvement of the Affiliates should also be investigated.
30. The IUGS Bureau, Secretariat and EC should seek to improve the timeliness and frequency of communications with the IUGS National Committees, and the National Committees should reciprocate. The National Committees constitute an under-used and mostly under-appreciated resource that should be more directly engaged to interact with the IUGS and support its activities.

These recommendations centre on the following partners:

- ICSU and UNESCO
- IGC
- Affiliated organisations
- Adhering organisations.

Implementation

ICSU and UNESCO

With its 113 member countries and 36 Affiliated organisations, and a combined membership of some 220.000 earth scientists, the Union was the largest scientific body in the International Council for Science (ICSU) in 2000. As one of its 26 international scientific unions, however, IUGS played a modest role in this organisation. This position changed in 1999 when the past-President was elected a member of the ICSU Executive Board. With three other unions (IUGG, IGU and IUSS) IUGS now serves the geosector in ICSU.

The EC followed recommendation 22 by expanding its relationships with the other ICSU bodies. Frequent and personal contacts have been developed particularly with the IUGG and IGU leaderships. Representatives of both Unions participate in each others Executive Committee meetings. In June 2003, a joint Bureau meeting with IGU was held in Rome. Both IGU and IUGG responded positively to our invitation to become full partners in the International Year of Planet Earth. Both unions participated in the Scientific Programme Committee of the Year(s). In 2002, the IUGS past-President was re-elected to his position of Union member in ICSU's Executive Board with a dedicated mandate on communication with the unions in ICSU's geosector. Strengthening relationship between ICSU unions is a first step towards a consortium, as a longer term objective of IUGS (page 5).

In 2002, for the first time in history the Union was successful in its application for a major ICSU Grant from the Medical Geology Initiative in 2002 (see recommendation 22). In 2003, another two more major ICSU Grants were given to project proposals through IUGS.

Since 2000, the long-standing relationship with UNESCO's Earth Science Division has further improved. The success story of 30 years of the IGCP was prolonged. In line with recommendation 24, the EC approached UNESCO's Water Division for cooperation. This resulted in the development of a fifth scientific field in IGCP,

based on hydrogeology involving a significant expansion of IGCP both in terms of projects, budget and scientific coverage. All additional costs will be covered by UNESCO's Water Division. This expansion is not only important to the Union but also to UNESCO where IGCP's position was reinforced in the organisation. Through active involvement in and visits of EC officers to IGCP Projects IUGS' recognition in IGCP improved. As IGCP's operation was fully satisfactory to the Union and a review by UNESCO was planned for 2003, the EC was not in favour of a separate review of IGCP, as recommended by the SPC (# 23). The Geological Application of Remote Sensing (GARS) Programme, an early offshoot of IGCP, developed well and started cooperation with the UNESCO supported IGOS Programme in which all space agencies are involved. The Deposit Modelling Program (DMP) was transformed into the Mineral Resources Sustainability Programme to adapt to new developments in this field and to increase its level of societal relevance. Finally, UNESCO's Earth Science Division was the first to join IUGS' initiative on the road to an International Year of Planet Earth.

International Geological Congress

The International Geological Congress (IGC) is the world's oldest and most prestigious geological congress. IGC was created in 1878 and normally holds its congresses every 4 years. The 32nd Congress will be held in 2004 in Florence, Italy. IGC has its own Council and Statutes, but no status in the intermediate period between two Congresses. IUGS has a much shorter history (since 1961), is an ICSU union, has its own Council (mainly composed of the same persons as the IGC Council), is a professional and permanent organisation, but lacks its own Congress. As its main scientific sponsor IUGS uses the IGC as its Congress.

The SPC enquiry demonstrated that many of the Adhering and other bodies in the IUGS family judged the present situation with separate Councils for the IUGS and IGC as highly confusing and undesirable. This view was adopted by the present EC which created a Task Group (# 9) to propose an alternative, transparent and more professional relationship between IUGS and IGC. This Task Group developed a model for a merger of the two organisations, including their Councils. This model was discussed in a meeting of the IGC Steering Committee in October 2002. Except for three items (merger versus integration, status of Congress Committee, and position of external advisors in that Committee) the Steering Committee unanimously approved this model. IUGS Council members have been informed about this important item for the next Council meeting. The IUGS Statutes Commission, for this occasion expanded with members

of the IGC Steering Committee and the EC, discussed a new set of Statutes for the merged organisation in July 2003. Full implementation of the merger of both Councils is anticipated for August 2004. The EC is convinced that this will contribute to transparency and improved services to the Earth science community. The work by the Task Group will be complete with the decision of both Councils to merge.

Affiliated organisations

The SPC recommended that the relationship with the Union's Affiliated organisations needed to be strongly improved (# 26). The EC considered this recommendation as high priority and created a Task Group (# 10). In the spirit of the helpful suggestions offered by these organisations at a meeting held in Rio de Janeiro, in August 2000, this Task Group approached several of the Affiliated organisations again. This action resulted in many more recommendations for improvement. Several of these, such as involvement of Affiliated organisations in the CRD, attendance in more of their meetings, involvement of Affiliated bodies in IGCP's Scientific Board, publication of information on Affiliated organisations in the Annual Report, and provision of free publicity in EPISODES, were put into practice directly. These actions were well received by the Affiliated bodies.

The renewed appreciation of Affiliated organisations of the Union was expressed by their steadily increasing number: From 2000 to June 2003, three new organisations entered the IUGS family (the International Geoscience Education Organisation (IGEO), The Geologische Vereinigung and the International Consortium on Landslides (ICL). Due to termination of its activities the International Association of Structural and Tectonic Geologists (IASTG) left IUGS. In order to further improve the Union's performance for its Affiliated organisations one Vice-President is charged with looking after these bodies.

Adhering Organisations

Based on recommendation 30 the EC concluded that IUGS should continue to demonstrate its relevance and to persuade National Committees to become more involved into IUGS activities. Again, a Task Group (# 11) was formed to explore the needs of Adhering organisations (often National Committees). This was achieved by evaluating the returned enquiry forms distributed for the Report of the Strategic Planning Committee. These resulted in proposals to make IUGS more attractive to National Committees. In addition, strategy documents were produced pointing to the benefits to countries to be active members and on

the preferred operational mode for National Committees. Furthermore, optimizing information flows between the EC and the National Committees through e-bulletins, a new Annual Report, a flyer, a booth, a poster, and electronic voting procedures were developed. The EC strongly believes in personal contacts between members of the National Committees and its officers. In the period 2000 – June 2003 EC officers met with representatives of at least 75 National Committees in person. In the same period the number of member countries increased from 113 to 117.

Conclusion

Improved cooperation with the IUGS partners was addressed by three Task Groups. Two of them completed work and reports have been adopted by the Executive Committee. Implementation often began immediately and many follow-up actions are in progress. Relationships with reliable scientific partners are essential to IUGS. Being the largest scientific union the relationship with ICSU, and even more importantly with its (geo)scientific unions, is crucial. These relations are developing well and are foreseen to improve even further in the coming years. The same is true for UNESCO where the Water Division became a partner in IGCP besides the Earth Science Division. The latter Division was the first to actively support the initiative for the International Year.

The Union strongly and continuously supports the International Geological Congress (IGC). As the concurrent existence of two independent international councils causes much confusion, the EC and IGC have worked out a procedure to integrate both councils at the 32nd IGC in Florence in August 2004.

The relationship between the Union and its Affiliated organisations has since 2000 been considerably improved as demonstrated by the growing interest of such organisations in joining the IUGS. The EC made a great effort to further improve the very important relationship with the members of the National Committees, who are the members of the Union's highest authoritative body, the IUGS Council.

Publication

Recommendations

The Strategic Planning Committee (SPC) dedicated much attention to the publications issue for the Union. Although the present EC is convinced that scientific publications and other forms of exposure of the Union's products

are very important this EC puts less emphasis on the publication issue than the SPC did. The SPC formulated four recommendations directly or indirectly related to IUGS publications. One of these (# 15) has been discussed above when dealing with Advisory Boards (page 21).

15. The full range of functions performed by the Advisory Board of Publications is critical to the future of the IUGS. It should be redefined as a Publication Committee, its remit broadened, and it should be provided with additional resources as justified and required
27. Episodes, the IUGS quarterly journal, is critical to the Union's communications and should be retained. Future emphasis should be placed on high-quality review articles, information about the IUGS's activities and programs, and the calendar of future international scientific events.
28. The IUGS should seek greater visibility and better financial returns from its programme of publications. Regardless of the publisher, all publications stemming from IUGS-sponsored scientific work should carry the IUGS logo and be clearly identified in all respects as IUGS-sponsored publications.
29. The IUGS website must be adequately supported and encouraged to continue its admirable growth in breath and usefulness. It should become the electronic 'hub' of the Union, and, as such, will contribute enormously to improving communications within the Union; disseminating data, information, reports, and policy positions; and reaching out to the general public and the education community world-wide to promote understanding of Earth science matters, especially those of societal relevance.

IUGS publications includes three aspects:

- Non-serial publications
- EPISODES, the Union's 'house' journal
- Website.

Implementation

In evaluating the SPC recommendations the EC concluded that publication of scientific results achieved by IUGS bodies remains important but that the managerial, promotional and technical aspects of publication should be left to other parties. A Task Group on publications (# 6) proposed the launch of a new Publication Committee, as suggested by the SPC (# 15). This process was postponed due to resignation of several members of the proposed Committee

in early October 2001. A new Publication Committee with a new chairman commenced work early 2002. All three aspects of publication were addressed by this Committee.

Non-serial publications

Over the past five years approximately 70 monographs or books were published on the work of the IUGS Commissions and IGCP. However, only one of these was listed in the existing IUGS publication series. In the past, IUGS ran into problems of printing, promotion, distribution, sales and warehousing of its non-serial publications: it had neither the resources nor the expertise to continue to do this. Moreover, the Union intends to raise the profile and dissemination of its scientific work. For these reasons, the EC decided to search for an external publishing house through which future material for publication in book form would be channeled. Formulating conditions for outsourcing and identifying a professional publishing house became the major task for the PC and was completed early 2003. In April 2003, a contract was signed with the successful applicant, the Geological Society of London (GSL). Based on completed forms by authors of manuscripts the GSL decides whether or not to recommend free publication through GSL. It is anticipated that about 15 to 20 % of all manuscripts offered will be published through GSL. Such publications will clearly display the Union's logo, copyrights will be shared and selected persons may obtain these books for a reduced price. Moreover, some royalties from the books sold may be returned to the Union.



Signing contract with GSL

With this arrangement two important targets have been achieved: firstly, the professional level of non-serial IUGS publications greatly increases while at the same time IUGS receives proper recognition for the Union's work both in terms of visibility and in royalties. Secondly, the Union has discharged a massive and increasing work load not belonging to its core business.

EPISODES, the Union's 'house' journal

For decades EPISODES has been the Union's main printed communication platform both within the IUGS family and with outside contacts. EPISODES was considered as a scientific journal with some added IUGS news. In 1997, publication of the journal was transferred to Beijing. In the period 1992 - 2002 the scientific level of the journal, expressed by the SCI impact factor, rose almost five times, from 0.194 to 0.941 (Figure 1). This achievement is greatly welcomed by the EC.

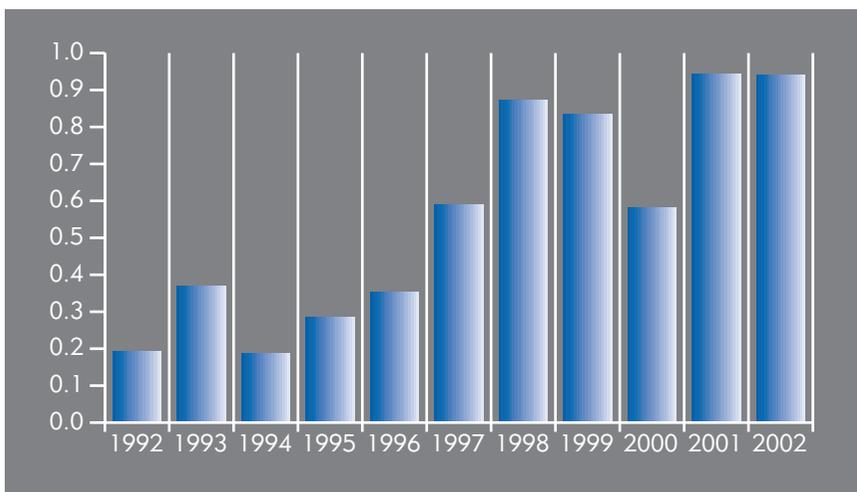


Figure 1. Development of Scientific Citation Index (SCI) values for EPISODES over the period 1992 - 2002

Further to SPC recommendation 27, the EC agreed that EPISODES should gradually move into the direction of high quality review articles and IUGS news. In addition, the composition of the Editorial Board should be reviewed and ways found to rejuvenate the Editorial Team. First, the Editorial Board was modified. This process was completed by the end of 2002. Simultaneously, the EPISODES text-processing and printing facilities were upgraded and more review articles were solicited and published. The EC is confident that EPISODES is on the right track and that the quality will improve further while complying with the new IUGS publication policy for the journal.

Conclusion

One Task Group addressed the issue of publication followed by the establishment of a Publication Committee. This Executive Committee favoured outsourcing and a contract was signed with the Geological Society of London as a professional publication house for the non-serial publications. A new policy line was developed for the IUGS journal EPISODES which implementation is in progress. EPISODES and the website are both in good shape and the EC will continue to support them.

Planning & Finances

It is anticipated that, before the end of its term by August 2004, this Executive Committee will have addressed and implemented all SPC recommendations. Some of the recommendations, however, will need further attention in the next term(s) as well. Increasing visibility or a stronger involvement in international programmes is, almost by definition, never complete.

By June 2003, ten out of eleven Task Groups had completed their tasks and reported back to the EC. Only the Task Group on the IUGS-IGC merger (# 9) continues its work until August 2004 when both Councils will meet. Figure 2 shows progress in implementation of the actions in 2001 until June 2003. The column to the right refers to some selected tasks such as standards, statutes change for electronic voting and website not addressed through the eleven task groups. Most other actions have been addressed.

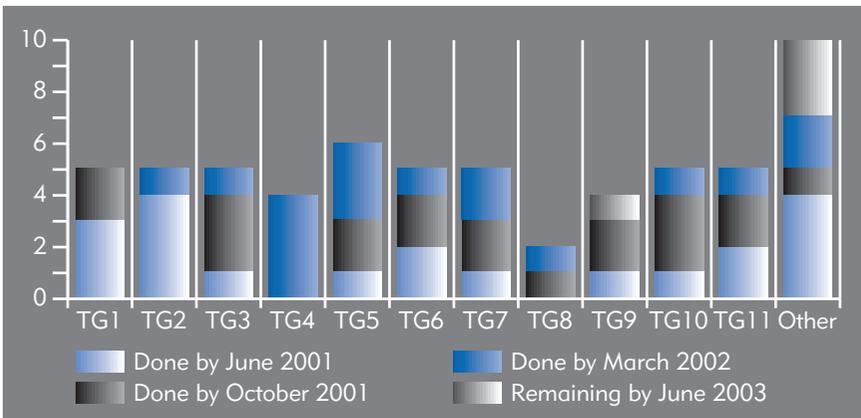


Figure 2. Progress in the implementation of the actions for the Strategic Action Plan in the period June 2001 - June 2003

Execution of the Strategic Action Plan has financial implications to the Union. The estimated costs are given in Table 1 in US\$. These costs were put in the annual budgets for the Union. However, in reality much less money was spent for implementation than anticipated. For example, the costs for improving visibility and image were estimated at 24,000 US\$ for the period 2000-2003. In reality only about 10,000 US\$ was spent on this activity. This was partly due to delays in implementation of some recommendations and partly because some external parties offered their services free.

It is now envisaged that by the end of the term of the present EC a total amount of less than 50,000 US\$ will be spent to realise the ambitious Strategic Action Plan, instead of the planned 69,000 US\$. The Executive Committee is, however, convinced that the (also financial) profits to the Union will far exceed the costs.

Table 1. Budget planned for implementation of the IUGS Strategic Action Plan 2000 – 2004 (in US\$)

SPC recommendation	Issue	Initial costs for 2001 + 2002	Annual costs for 2003 + 2004	Total cost until mid 2004
1, 10, 16, 17	CRD and ARC	3,000	3,000	9,000
6	IUGS Grant Programme			
7, 22, 24	Joint programmes			
8	Standardisation			
9	Education and Training			
11	Visibility & image	14,000	10,000	35,000
12	Under-rep groups			
13	Decision-making			
14	Permanent Secretariat			
15, 27, 28	Publication Committee & EPISODES	5,000	5,000	15,000
18	Fund raising	6,000		6,000
20, 21	Commissions			
25	IGC			
26	Affiliated organisations			
29	Website	2,000	1,000	4,000
30	National Committees			
Expected total costs		30,000	19,000	69,000

Acronyms

ABRD	Advisory Board for Research Development
AGID	Association of Geoscientists for International Development
ARC	Ad-hoc Review Committee
CIFEG	Centre International pour la Formation et les Echanges Géologique
CGI	Commission for the management and application of Geoscience Information (formerly COGEOINFO)
COMTEC	(former) IUGS Commission on Tectonics
CRD	Committee on Research Directions
EC	Executive Committee (of IUGS)
GARS	Geological Application of Remote Sensing
GSA	Geological Society of America
GSL	Geological Society of London
IASTG	International Association of Structural and Tectonic Geologists
ICL	International Consortium on Landslides
ICSU	International Council for Science
IGBP	International Geosphere-Biosphere Programme
IGC	International Geological Congress
IGCP	International Geoscience Programme IGCP
INHIGEO	International Commission on the History of Geological sciences
IGEO	International Geological Education Organisation
IGU	International Geographical Union
IGY	International Geophysical Year (1957-1958)
IPY	International Polar Year
IUGG	International Union of Geodesy and Geophysics
IUGS	International Union of Geological Sciences
IUSS	International Union of Soil Sciences
MRSP	Mineral Resources Sustainability Program (formerly DMP)
PC	Publication Committee
SCI	Scientific Citation Index
SCL-ILP	Scientific Committee on the Lithosphere / International Lithosphere Programme
SCOPE	Scientific Committee on Problems of the Environment
SPC	Strategic Planning Committee
UNESCO	United Nations Educational, Scientific and Cultural Organization