

Item 13: Report from Governance Structure Committee

Governance Structure Committee *Final Report and Recommendations*

Long-standing discussions of the optimum structure for high-level governance of IUPAC were brought into focus in September 2001 by a proposal from the Nordic Countries to restructure the Bureau and Executive Committee. Meanwhile, many National Adhering Organizations have repeatedly expressed a desire to participate more closely in many aspects of the Union's activities – a view reinforced by discussions during the Vice-President's recent visits to a number of NAOs. In September 2002, the Bureau authorized the formation of the Governance Structure Committee [GSC] to analyze the current governance structure and operations and to propose alternative structures. An Interim Report, revised slightly following discussion by the Executive Committee, was circulated to all NAOs and officers of IUPAC bodies. The report has been sharpened and refined as a result of input from several NAOs and Division Presidents.¹ The conclusions and recommendations of the GSC are presented here in summary form, with much of the detail from the Interim Report relegated to a set of Appendices. A number of suggestions for alternatives to the GSC recommendations, as discussed by the GSC or raised in comments on the Interim Report, are included in the final section of the report itself.

The GSC proposals are intended to:

- simplify the governance structure
- provide more timely decision-making
- permit continuous personal interactions with all NAOs
- focus the efforts by Division Presidents and Chairmen of Operational Committees on the quality of the Union's scientific output
- lead to more productive Council meetings

In developing the specific recommendations, the GSC balanced the desire for a small efficient decision-making body with the need to maintain and enhance direct *personal* interactions among the various individuals and groups involved in the governance of the Union.

Contents

Governance and Operations: Structure and Function	2
Recommendations	3
Implementation	6
Alternative Proposals	7
Appendix 1: Bureau and Executive Committee: History and Current Structure	9
Appendix 2: Nature of Business Considered by the Bureau and Executive Committee	13
Appendix 3: Proposal from Nordic NAOs	18
Appendix 4: The Governance Structure Committee	20

¹ Comments were received from Canada, Kuwait, Netherlands, Norway, Sweden, UK, and the Presidents of the Inorganic and Analytical Chemistry Divisions.

Item 13: Report from Governance Structure Committee

Governance and Operations: Structure and Function

The 44 *National Adhering Organizations* [NAOs] are the formal Members of the Union and represent the ultimate source of power and of most financial resources. Each NAO selects Delegates to the biennial meeting of the *Council*, which is clearly the supreme authority in governance. The agenda for the 1½-day meeting of Council is highly structured. It permits the presentation of reports by IUPAC Officers, Division Presidents and Standing Committee Chairmen, which are viewed as essential to inform the Delegates of current matters and to highlight important issues. The Council executes its important responsibility for electing new Officers and Members of the Bureau; it decides the budget; and it normally discusses and makes decisions on a small number of matters that can be decided only by Council. However, very little time is available for the Council to be proactive in raising and discussing broad issues of current or potential importance in IUPAC. Except for one short reception, there is little opportunity for Delegates from different NAOs to mingle informally and to become better acquainted personally.

Between General Assemblies, the participation by NAOs in IUPAC programs varies considerably. A great deal of information on current activities is sent to NAOs by the Secretariat, and occasionally an NAO contacts the IUPAC administration about a particular matter. However, requests by IUPAC officials for NAO input on specific matters often elicit little response. The frequent lack of timely replies is understandable, because the officers and staff of national committees for chemistry are usually not set up to obtain thoughtful replies between meetings, and often there is no *personal* contact. Those NAOs with Officers or Elected Members of the Bureau may fare somewhat better, but at any given time no more than 25-30 percent of the NAOs can be so represented.

The *scientific programs and other operations of the Union* are largely decentralized to eight Divisions, three Operational Committees, and five Advisory Committees. The structure of the Divisions and the operations of all these bodies have been substantially modified since 1999, when the project system was introduced and the more static commission structure phased out. The new system appears to be functioning well in many ways, with a number of new projects initiated after careful review, and a greater sense of urgency applied to their timely completion. However, this system has been in complete operation for less than two years. Most Divisions have set up mechanisms to promote and manage projects, but some Divisions are still learning how best to handle the new approach and are concerned about future ideas for projects and a continuing influx of volunteers to carry out projects and provide experienced management. The IUPAC Officers and higher levels of governance in the Union must continue to nurture the new system, and the GSC recognized that maintaining and improving close and responsive communications between these levels and the operational bodies is an essential requirement.

Between the Council and the operational components are two governance bodies. The *Bureau* has the responsibility, according to the Statutes, “to act for the Union during intervals between meetings of the Council ...” As indicated in Appendix 1, in the early years of the Union, the Bureau was the collection of Officers, but it has had approximately the same structure and size for the last 40 years. Inclusion of all Division Presidents and Chairmen of the three Operational Committees is intended to ensure direct

Item 13: Report from Governance Structure Committee

contact with the leaders of most of the Union's programs. Inclusion of at least ten members elected by Council on the principle of fair geographic representation is intended to promote geographic diversity, but there is no direct involvement by the vast majority of NAOs at any given time. Altogether the Bureau is rather large – currently 26 members. In principle, this structure permits broad input, but the size is not conducive to in-depth discussion of issues. Occasionally, the size also appears to be an obstacle for members with a native language different from English.

The Bureau has long been viewed as somewhat unwieldy, and the *Executive Committee* [EC] has in practice been given the responsibility, according to the Statutes, “to act for it [the Bureau] in ensuring an orderly discharge of the functions of the Union.” An analysis of actions taken by the Bureau and the EC in recent years [Appendix 2], indicates that the practical functions of the Bureau and EC are not clearly distinguishable.

There have been repeated comments and documents complaining about duplication of effort between the EC and the Bureau. The latest proposal for reorganization of the Bureau and Executive Committee was put forth by the Nordic NAOs [Appendix 3]. Following discussion of this proposal by the Bureau, the GSC was formed with two IUPAC Officers, two Division Presidents and two Elected Members of the Bureau [one a former Division President]. The membership and charge to the GSC are given in Appendix 4.

Recommendations

The GSC analyzed in some detail the structures and functions of the Bureau, Executive Committee and Council, and it took into account the continuing interactions with NAOs. A number of alternative structures were considered, as described in a later section. The deliberations of the GSC were aided significantly by input from NAOs, both in written comments on the Interim Report and in personal discussions during the last year with the Vice President. In the end, *the GSC concluded that the current Bureau governance structure is not meeting the needs of the Union and should be substantially altered.* The noble goal of “fair geographic representation” actually leaves most NAOs unrepresented on the Bureau. The inclusion of all Division Presidents and Operational Committee Chairmen serves a critical need of direct communication but does so at the expense of a large, unwieldy structure that is often bypassed by the smaller Executive Committee.

The GSC recommends that the Council adopt a new governance structure and modify operations of some existing bodies, as follows:

- *Abolish the Bureau and Executive Committee*
- *Establish an Executive Board [EB], consisting of the five IUPAC Officers plus four other members, all elected by Council, that would assume all the responsibilities and authorities now given to both the Bureau and Executive Committee*
- *Establish a Union Policy Committee [UPC], with one member appointed by each NAO, to work closely with the Executive Board and to advise the EB on matters of IUPAC policy*

Item 13: Report from Governance Structure Committee

- *Provide for an annual meeting between the EB and the Division Presidents plus the Chairmen of the Operational Committees*
- *Extend the length of the Council meeting by one-half day to permit time for more meaningful discussion of issues by Delegates*

Executive Board. The Executive Board [EB] is intended to assume the mantle now given to the Bureau in the Statutes – “to act for the Union during intervals between meetings of the Council.” It would have the statutory authorities currently given to the Bureau and to the Executive Committee. The EB would implement the decisions of Council, execute the program of the Union, and assure the good conduct of the Union’s affairs. It would have overall responsibility for the scientific performance of the Union. It would provide advice and consultation to the President in making appointments. Its relatively small size should facilitate discussion and decision-making.

In addition to the IUPAC Officers, the EB would have four “at large” members, each elected by Council to a four-year term. The EB would normally meet twice per year, including one meeting at the General Assembly. In order to provide reasonable turnover of membership in the EB, the GSC recommends that EB members *not* be eligible for reelection. A four-year term, with eight meetings of the EB and interim participation by e-mail, should provide adequate opportunity for each member to become familiar with issues and to make a substantial contribution. Initially two members should be elected to two-year terms to phase in staggered terms.

Each elected member of the EB is expected to assume responsibilities for specific tasks or areas of responsibility as needed to augment and complement the work of the Officers. Members would be nominated by individual NAOs [or by several NAOs acting in concert if desired] *on the basis of their perceived ability to contribute to the management of the Union’s activities, not to “represent” specific NAOs.* All members of the EB should be chosen for their ability to initiate and evaluate new ideas and to render unbiased judgment on important issues, including allocation of resources. Overall, the EB would be expected to conform to the principle of fair geographic representation by including members from various parts of the world. However, the GSC recommends that – initially at least – no restrictions be placed on EB membership, and that the good judgment of the Council be relied upon to elect an EB with high quality membership and adequate geographic diversity.

Union Policy Committee. This new body is designed to improve the communications with and direct involvement of *all* NAOs. All members of the UPC would be kept informed by e-mail of significant matters being considered by the EB and would be expected to provide suggestions and advice as requested by the EB or at the initiative of individual UPC members. From time to time, some members of the UPC might be asked to serve on a working party to delve into certain issues [such as, the working party in 2002 on national subscriptions]. The UPC would meet with the EB at the General Assembly immediately before the Council meeting but otherwise would function largely by e-mail.

The GSC believes that this biennial meeting is important to help develop personal interactions. This would be a large group, not well suited to transact business, but probably not too large to permit exchange of ideas on a reasonable number of important

Item 13: Report from Governance Structure Committee

topics, particularly if the members are acquainted with issues through their e-mail participation over the previous biennium. It should also be emphasized that active members of the UPC will gain exposure and probably will be attractive candidates to become IUPAC officers in due course.

The UPC has the potential to make a major improvement in establishing closer relations between IUPAC management and the NAOs. It is critical that each NAO name to the UPC a senior scientist who is able and willing to respond in a timely way to requests from the EB, to provide sound advice to the EB, and to communicate when needed to and from the NAO and its appropriate committees and staff. The UPC member would normally be expected to serve as a delegate to the next Council meeting, as well as to participate in the meeting of the UPC at the General Assembly. The GSC recommends that this meeting be held immediately before the meeting of the Council. Since travel of one delegate is now supported from central IUPAC funds, it is hoped that all UPC members will be able to attend this biennial meeting.

Meeting with Division Presidents. Currently all Division Presidents and the Chairmen of Operational Committees are members of the Bureau. As pointed out in a previous section, this structure of the Bureau has a number of disadvantages, but it does provide for important personal contacts between the leaders of the Union and its operating components. An annual meeting of Division Presidents is mandated in the current Bylaws, so suitable arrangement of schedules would permit a joint meeting with the EB without additional costs. The GSC recommends that an annual meeting of the EB with Division Presidents and Operational Committee Chairmen be stipulated but that the EB have the flexibility to adjust its agenda to incorporate the joint meeting for as large a portion of its meeting as desirable.

Council Meeting. Many NAOs and Council Delegates have expressed regret at the limited time available during the Council meeting to raise issues for detailed discussion and for informal interactions with Delegates from other countries. The GSC recommends a one-half day extension of the Council meeting to permit time for more meaningful discussion of issues in plenary or group sessions and to encourage interactions that will permit Delegates from various NAOs to become better acquainted. A possible schedule might be:

- Day 1 – Morning: Meeting of the UPC and EB, followed by lunch for this group
- Day 1 – Afternoon: Meeting of Council, primarily to hear reports by IUPAC, Division and Committee Officers, preferably sharply focused, with adequate time for in-depth questioning and discussion
- Day 2 – Morning and afternoon: Meeting of Council to transact formal business, including setting the budget, and for opportunities for consideration of matters initiated by Delegates or referred by the UPC for detailed discussion, not formal action. Appropriate matters might be referred to the EB for further analysis and action. Part of the time might be spent in concurrent group discussions, rather than entirely in plenary sessions.
- Day 2 – Evening: Reception for Council Delegates

Item 13: Report from Governance Structure Committee

- Day 3 – Morning: Elections; discussion and selection of venues for future Congresses and General Assemblies; other business

Implementation

If the Council favors the plan recommended by the GSC, some aspects could be introduced almost immediately, whereas others can be implemented only after amendments to the current Statutes and Bylaws.

Union Policy Committee. The UPC, as described here, could be established by the Council in Ottawa as a Standing Committee and could function in an advisory capacity to the current Executive Committee. It could meet with the EC in Beijing.

Extended Council Meeting. The agenda for each Council meeting is set by the Officers on the basis of the known wishes of the NAOs. If the Council in Ottawa favors an extended Council meeting or alterations in the agenda, those changes can be built into the plans for the Council meeting in Beijing.

Executive Board. Establishment of an Executive Board to replace the Bureau and Executive Committee requires adoption of a number of changes to the Statutes and Bylaws. Specific wording must be developed for presentation to NAOs at least four months before the Council meeting in Beijing and can be acted on in Beijing. If approved, the amendments would be effective immediately thereafter.

Bureau. Members will be elected or reelected to the Bureau in Ottawa for four-year terms, while other current Elected Members have terms that expire in 2005. A plan should be developed by the Executive Committee for phasing in the new Executive Board in Beijing by electing two members for two-year terms and two for four-year terms. Consideration could be given to selecting the members for two-year terms from among those Bureau members whose terms would conclude in 2007.

Changes in Statutes and Bylaws. The basic structures and authorities of the Bureau and the Executive Committee are given in Statutes 7 and 8, respectively. These could be rewritten rather easily to create an Executive Board as proposed here. References to the Bureau and EC are given in several other Statutes and in many Bylaws. The necessary minimum changes could easily be made as conforming amendments.

However, the Council may wish to take this opportunity for a more extensive revision of the Statutes and Bylaws to recognize important continuing activities that are not now included [*e.g.*, Associate NAOs, Affiliate Member Program, the project system, and the Union Policy Committee] and to simplify a number of items that are of less relevance now than in former years. The last significant revision of Statutes and Bylaws was put into effect in 1975. *The GSC recommends that the Statutes and Bylaws now be revised.* The President should appoint a small working party, probably under the chairmanship of the Secretary General, to define issues and eventually to draft new Statutes and Bylaws. The Union Policy Committee would be ideally suited to provide in-depth advice during the next two years as the text is developed.

Item 13: Report from Governance Structure Committee

Alternative Proposals

Comments received on the interim report of the GSC unanimously favored the major proposals given here for new structures and functions of governance bodies. A number of suggestions were made for modifications in specific aspects of the GSC proposals. Many of these have been incorporated into this report. However, others proposed options that had been previously considered and rejected by the GSC during its deliberations. These alternatives, *which are not recommended by the GSC*, are summarized below.

Division Representation on the EB. One NAO suggested the addition of a Division President or Standing Committee Chairman to the EB. Options for such representation by 1-3 DPs/Committee Chairmen were considered at length by the GSC, but the consensus was that such representation would be counter-productive. The opinion of Division Presidents and former DPs at the GSC meeting and in subsequent submissions was uniformly against this option. It was noted that Divisions have different problems, and that any DP, regardless of attempts to eliminate bias, finds it difficult to avoid the perspective of his/her own Division. Several NAOs felt strongly that DPs should not be on the EB. One DP said that “simply putting one or two Division Presidents as representatives on the new EB will not address the underlying concern and might raise other problems. One cannot run a large research laboratory by having management meet only with selected division heads nor by division heads meeting only with selected group leaders. Everyone must be involved and have a clear chain of communication. The same is true for IUPAC.”

EB/UPC Membership. One NAO suggested that, in order to reduce the size of the UPC, an NAO with a member on the EB should not have representation on the UPC. This suggestion runs counter to the GSC recommendation that the IUPAC Officers and other members of the EB should *not* be regarded as representing a particular NAO. Although every NAO undoubtedly aspires to have one of its members become President of IUPAC, the Officers invariably suppress their national concerns to the good of IUPAC overall, and the other members of the EB should also take a broad, international view of their responsibilities. The UPC members should likewise be chosen for their dedication to IUPAC, but each is specifically to represent his/her NAO.

The original proposal from the Nordic NAOs [Appendix 3] proposed six elected members to the EB (plus the five Officers), with specific limitations to ensure representation of three large NAOs. With the concepts recommended by the GSC for a Union Policy Committee that represents *all* NAOs and an EB with no loyalty to specific NAOs, the GSC saw no reason for an EB of eleven members. The recommended size of nine is only slightly larger than the current Executive Committee but would have at least two vacancies each biennium.

Other suggestions, raised by an NAO and by members of the GSC during its deliberations, involved possible restrictions on past or present associations of EB members, UPC members, and Council delegates. For example, should a current or recent Division President be eligible for election to the EB? Should a member of the EB or a Division President or Standing Committee Chairman be eligible for membership on the UPC or appointment as a Council delegate? Should an NAO be excluded from voting for

Item 13: Report from Governance Structure Committee

a candidate from its country? Should each of the four members of the EB be resident in a particular geographic “region”? The GSC concluded that the ideas behind each of these questions has merit, but that it is not desirable or feasible to put such restrictions into Bylaws or other regulations. “Common sense” and the good judgment of the Council will almost certainly settle these issues in a satisfactory manner. If persistent problems arise over time, regulations or Bylaws can be adopted to solve or mitigate the problems.

Governance Structure of Other Unions. The GSC did not carry out a detailed study of the governance structure of other Scientific Unions, but it noted that several closely related Unions had small governing bodies similar to that proposed in the Executive Board. For example, the International Union of Biochemistry and Molecular Biology has an Executive Committee consisting of four officers and five other members, each responsible for a particular area, such as publications, congresses, interest groups, etc. The International Union of Pure and Applied Physics has an Executive Council consisting of five general officers and three vice-presidents apparently elected by NAOs and four vice-presidents elected from commission chairmen. The International Union of Pure and Applied Biophysics has a Council consisting of five officers and eleven other members. ICSU, the International Council for Science, restructured several years ago by abolishing its General Committee with a membership of about fifty and forming an Executive Board that consists of six officers and eight other members, four elected by its 69 National Members [NAOs] and four by its 28 member Scientific Unions.

Alternative Names for the Union Policy Committee. The name for this Committee resulted in more debate than the concept. Both the GSC and the Executive Committee considered at length a number of names, and one NAO offered a suggestion. Since the Committee is clearly intended to be advisory to the EB and to Council, several names were suggested that included “Advisory.” The GSC [and later the EC] concluded that this adjective need not be included in the title; a number of Standing Committees exist primarily “to advise the President ...”, but “advisory” is not included in the title. The term “Council Policy Committee” was suggested because of the close relation to Council delegations, but the term seemed too restrictive, since the Committee is to be continuing whereas a specific Council terminates with its adjournment. The two critical points seemed to be that this Committee is to deal with IUPAC-wide matters and that these matters are expected to be major *policy* issues, not operational matters. The term “Union” is intended to distinguish this Committee from other committees with more limited scope.

Other Suggestions. One NAO suggested that the Union Policy Committee might include not only a representative from each of the 44 NAOs, but also an observer from each of the 20 Associate NAOs. The GSC felt that an advisory committee of 44 is already rather large and that little would be gained by adding 20 more representatives. One NAO suggested that the UPC should meet annually. It would be expensive – probably about USD 75,000 – to convene an additional meeting independent of the General Assembly, and it is not yet clear that such a meeting would be valuable. One Division President suggested that NAOs should appoint their Council delegations two years in advance so the individual delegates could become familiar with issues before participating in a Council meeting. The GSC recognized that it is often not feasible to name complete Council delegations far in advance, but that the UPC would furnish a mechanism to brief NAOs and Council delegates on important matters.

Item 13: Report from Governance Structure Committee

Appendix 1

Bureau and Executive Committee: History and Current Structure

The *History of IUPAC* provides some interesting information on the Bureau and EC. Initially the “Bureau” was the collective officers of the Union – the President, four Vice-Presidents (increased to six in 1923), and the Secretary General. By 1928 the Bureau had expanded to include eight VPs and three Past Presidents. The VPs were apparently from different countries and were, in effect, the “Elected Members” of today. Following World War II, a Treasurer was added to the Bureau, the number of VPs was decreased to six, but six Elected Members were added, and two Past Presidents were included for a total of 17. In 1947 an Executive Committee was established – the President, one VP, one Elected Member, the Secretary General and the Treasurer. The EC immediately began carrying out much of the business; in fact, for financial reasons the full Bureau did not meet for several years except at the General Assembly.

Sections [later renamed Divisions] were created in 1949, and by 1951 six Section Presidents were added to the Bureau, but the number of VPs was reduced to three. The number of Elected Members increased from six to twelve in 1963, apparently to achieve President Noyes’s goal of making the Bureau more global. At that time the President’s term was shortened to two years, and there was only one VP, who was President-elect. In the last forty years the structure of the Bureau has been virtually unchanged, with the Officers, 10-12 Elected Members, the Division Presidents, and from time to time, one or more Standing Committee chairmen added as non-voting members.

The current composition of the Bureau seems to be designed to provide a broad forum for discussion and to try to have representation from all interested constituencies in IUPAC. All eight Divisions are represented, and as are now the three Standing Committees designated as Operational Committees. At Council meetings the NAOs elect the Officers as well as at least ten Elected Members. Only about 25 percent of the NAOs can be represented at any one time, and even with the Principle of Fair Geographic Representation many NAOs are rarely if ever represented by an Elected Member. Nevertheless, over time the Elected Members come from a number of countries and have provided several IUPAC Officers, as indicated in Table 1. This geographic breadth and the opportunity for a significant number of people to become “visible” in governance are strong arguments for a large Bureau.

Discussions at the Bureau serve to bring out points that may be overlooked in smaller, more focused groups, such as the EC or the Division Presidents group. Some Elected Members contribute to the discussions, but many do not participate very actively in spite of the Presidents’ efforts to consult the full body. The size of the Bureau makes it difficult for everyone to speak on most issues. During the last few years all Elected Members have been members of various committees, which familiarizes them with specific issues and provides tasks between meetings of the Bureau. However, in some instances their interests are primarily limited to their individual committees. Many Division Presidents have complained about the nature of the Bureau meeting, since most issues about which they are concerned have been settled prior to the Bureau meeting in meetings or communications with IUPAC Officers or in the annual meeting of the DPs.

Item 13: Report from Governance Structure Committee

Nevertheless, most DPs want to maintain direct contact with any decision-making body. Many members of the Executive Committee see Bureau discussions as largely a reprise of what has already been carefully considered by the EC. In some instances the EC deliberately defers decisions that it has the authority to make in order to ensure wider consultation and not to appear to be usurping the Bureau's prerogative. This matter is discussed in detail in a later section.

The Executive Committee

References in the Bylaws and elsewhere to both the Bureau and EC often cause confusion as to the roles of these two bodies, which often sound as though they are coordinate entities. Three years ago the organization chart in the *IUPAC Handbook* was revised to clarify the relationships among the NAOs, Council, Bureau and Officers and to show the EC as one of several committees of the Bureau [albeit with broader delegated authority than the other committees]. However, as indicated later, there is no clear distinction between the issues that are subject to final decision by each body.

In practice, the EC usually functions rather smoothly, largely because of its relatively small size. Meetings can be rather informal, and all members usually participate in most discussions. A number of matters that do not seem to require personal discussion are handled quickly by e-mail. Some of these are quite routine, but others may elicit a number of messages, which are easily managed because of the limited number of correspondents.

Relationship between the Bureau and Executive Committee

Statute 8.1 says:

The Bureau shall establish an Executive Committee to act for it in ensuring an orderly discharge of the functions of the Union. The Executive Committee may formulate standing orders to facilitate its discharge of the foregoing functions.

In general, the EC has not hesitated to act when issues are presented that require a decision. On important matters where an immediate decision is not required, the EC has usually deferred to the Bureau for final action. In many instances, particularly where items are to be presented to Council, the timing of the EC and Bureau meetings necessitates action by the EC in April to prepare material for the Council agenda. Often this becomes almost a *de facto* decision by the EC, even though the final formal recommendation to Council comes from the Bureau.

The Secretary General reviewed the minutes of Bureau and EC meetings during the last five years to identify the types of actions taken by each body. His analysis is given in Appendix 2. The Committee noted that many routine items are handled by whichever body is meeting at a particular time but that discussion and action on several important policy matters can be traced through a series of meetings of both bodies. Of these "important matters," four – restructuring from a Commission-based to a project-driven system; the IUPAC Prize; support of conferences in developing countries; and education

Item 13: Report from Governance Structure Committee

policy – were decided by the Bureau, usually but not always on the basis of recommendations by the EC. Two other important matters – reorganization of nomenclature activities, and change in publication policy -- were decided by the EC, with the Bureau playing only a supporting role.

The broad grant of authority to the EC and other statements in the Statutes and Bylaws make the Bureau and the EC appear to be almost coordinate bodies for many purposes. For example, Statute 8.3 authorizes Council to establish Standing Committees “to advise the President and the Executive Committee” [not the Bureau]. In practice, the EC has treated such Committees as reporting to the Bureau, even though they are governed by Standing Orders from the EC. The Bureau appears to have sole responsibility to make recommendations for formation and dissolution of Divisions and Commissions and to make supplementary nominations for Officers and Elected Members, but the proposal for a Nomenclature Division was really developed by the EC with only Bureau concurrence.

Item 13: Report from Governance Structure Committee

TABLE 1. BUREAU: GEOGRAPHICAL DISTRIBUTION - 1980-2003 [12 Biennia]^a

<u>Country</u>	<u>Officers</u>	<u>DivPres</u>	<u>Ex Officio</u>	<u>Elected</u>	<u>Total</u>
Argentina				4	4
Australia		3		6	9
Austria		3			3
Belgium	1				1
Canada	3	1	3	8	15
China (Beijing)				9	9
Croatia		1			1
Czech Rep./Slovakia				4	4
Denmark	4			3	7
Finland		2			2
France	5	6	1	6	18
Germany	3	9		10	22
Hungary				4	4
India	3	1		7	11
Ireland		2			2
Israel	3			4	7
Italy		3		4	7
Japan	3	8		8	19
Netherlands	2	3		3	8
New Zealand				4	4
Norway	1			4	5
Poland		2		7	9
Russia	5	3		7	15
South Africa	2	2	1	2	7
Spain				2	2
Sweden		4		4	8
Switzerland	7		3		10
UK	11	13	6	6	36
US	7	22	3	12	44
Totals	60	88	17	128	293

^a One unit represents one person for one biennium.

Comments: Over this 24-year period, 29 countries have been represented, while 15 have not had any representation on the Bureau. Most of these 29 NAOs have also had IUPAC Officers, Division Presidents, or *ex officio* non-voting members. Thus only six NAOs have been represented solely by Elected Members. Division Presidents have come primarily from the larger and scientifically most active countries. The Officers have come from 15 countries. Nine of the last 15 Presidents have previously been Elected Members.

Item 13: Report from Governance Structure Committee

Appendix 2

Nature of Business Considered by the Bureau and Executive Committee

I have reviewed the minutes of Bureau and EC meetings for the last five years to try to identify the nature of items discussed by the two bodies and to look for any features that might be generalized in terms of approvals for specific items given by the two bodies. I have found very few real differences between the items handled by the Bureau and the EC, but a few occasions have involved some important matters.

Ted Becker

“Routine” Matters

There are a large number of reports and requests for approval or ratification of decisions made by the Secretariat or the Secretary General that appear in virtually every agenda of the EC and the Bureau. Even though most items are not controversial and approval is given routinely, it is important that they be brought to the attention of a responsible body for several reasons:

- Often the specific items being discussed trigger a broader discussion that identifies problems or provides good ideas for future development.
- The responsible Officer, committee chairman or Secretariat staff is forced to prepare a short report and receives immediate feedback indicating that the activity is progressing well or that changes should be made. A semiannual timeframe is reasonable; it does not require too much work, and things can usually not go too far astray in six months.
- Since the minutes of the meetings are distributed widely and are on the IUPAC web site, the Union’s various constituencies are kept informed of activities.

Although the agenda item titles may be similar for an EC meeting and the subsequent Bureau meeting, the content in each case represents the current status. In general, items of this sort are given consideration, formal approval when required, or tacit approval and encouragement by either the EC or Bureau at each meeting. Matters of this type considered by the EC are rarely deferred for further discussion by the Bureau in order to reach a decision. Following are examples of such items taken from recent Bureau and EC agendas.

Status Reports:

- Finance Committee report
- Statement of accounts
- National Subscriptions
- Budgets
- Allocations to IUPAC bodies
- Plans for General Assemblies and Congresses
- World Chemistry Leadership Meeting
- Strategic Plan and Biennial Report
- Update on projects
- Membership Development Committee

Item 13: Report from Governance Structure Committee

Fellows and Affiliate Member Programs
IUPAC web site and publicity
Secretariat activities
Chemistry International
Pure and Applied Chemistry
New books and book sales
IUPAC Prize
New elements
Special projects, such as the Chemical Weapons Workshop
IUPAC-UNESCO interactions
Other current items of news or information

Routine approvals:

Ratification of sponsorship for symposia
Ratification of members approved by correspondence

Important Matters

At the other extreme are matters that have been discussed successively at EC and Bureau meetings, where each time there has been “value added,” in terms of a decision to move forward on a plan to achieve an ultimate goal, a decision on one aspect and deferral of other aspects, or clarification of issues and a plan of action. Several examples follow.

Restructuring from a Commission-based system to a project-driven system

- EC, 1998: Following extensive discussion, the EC unanimously approved the recommendations of the SDIC, discharged the SDIC, and made it a responsibility of the EC to obtain implementation of the proposals. Appointed an *ad hoc* committee (CPEC) to develop a detailed project-based system. Agreed that the Secretary General should consult individually with Division Presidents on ways to implement the changes. Asked the Finance Committee to analyze the budgetary implications of the proposed changes. Notified NAOs of the proposals and asked for their input.
- Bureau, 1998: After lengthy discussion of the details of the proposal from the EC, incorporation of recommendations from CPEC, and further modifications as proposed by Bureau members, the Bureau approved the integrated program to implement, effective January 1, 1999, a project based system for the Union’s scientific work under the direct management of Division Committees. Agreed to recommend to Council the discontinuation of all existing Commissions, effective January 1, 2001.
- EC, 1999: The EC approved plans from Divisions for nomination and election of Division Committees, decided on budget allocations under the new system on the basis of alternatives proposed by the Finance Committee, discussed modifications to the Strategic Plan to be presented to Council, agreed to solicit support from NAOs regarding the restructuring plan, approved the wording of a recommendation to Council to change Bylaw 4.307 to eliminate the entitlement of

Item 13: Report from Governance Structure Committee

Titular Members of Commissions to receive travel expenses, and approved the wording of a resolution to discontinue existing Commissions.

- Bureau, 1999: The Bureau endorsed the operation thus far of the project system, including the Project Committee and the Evaluation Committee; developed a policy statement regarding the role of National Representatives following the termination of Commissions; endorsed flexible arrangements for subcommittees and advisory groups within Divisions; authorized the creation of an *ad hoc* committee to establish future strategy for handling chemical nomenclature; approved a policy statement to make it clear that implementation of the project-based system would not discontinue or interrupt long-term activities in nomenclature and critical assessment of chemical data; and reiterated endorsement of the termination of existing Commissions in January 2001.
- Council, 1999: After extensive debate, the final elements of the restructuring program were approved.

IUPAC Prize

- Bureau, 1998: The idea was proposed of awarding a prize each year for the best Ph.D. theses in the chemical sciences. The Bureau endorsed the concept and asked the Secretary General to prepare a detailed proposal.
- EC, 1999: The SG presented a detailed plan, which was critiqued and recommended to the Bureau.
- Bureau, 1999: After discussion, the Bureau agreed with the proposed program and recommended that Council approve.
- Council, 1999: After discussion, Council approved the program to run for four years and then be evaluated for extension.

Support of Conferences in Developing and Disadvantaged Countries

- EC, 1999: A proposal was made to provide support each year for up to three conferences at \$10,000 each in developing and economically disadvantaged countries. The EC discussed details of eligibility and asked that a detailed proposal be presented to the Bureau.
- Bureau, 1999: A detailed proposal was presented, discussed and modified by the Bureau. The modified proposal was recommended to Council for approval.
- Council, 1999: The modified proposal – up to two conferences each year at a maximum of \$10,000 each, limited to NAOs – was approved for four years.
- EC, 2000: Details for submission of applications were discussed and decided, and a selection committee was appointed.
- EC, 2001: Additional flexibility in utilizing funds was requested and approved. Concern was expressed by the EC about the definition of “developing country.”

Item 13: Report from Governance Structure Committee

- Bureau, 2001: The Bureau discussed further the criteria for “developing country” as well as the nature of conferences that should be supported. The use of the UNESCO/OECD list of developing countries was approved.
- Bureau, 2002: A number of concerns were expressed on the number and nature of the conferences supported under this program. The Bureau agreed to fold this program into a revised program of support for innovative conferences undertaken at the initiative of Divisions or Operational Committees.

Education

- Bureau, 1999: The Bureau held a general discussion on IUPAC’s future role in chemistry education. Two decisions: An *ad hoc* committee was authorized to investigate future strategy in this area, and the chairman of the Committee on Teaching of Chemistry was appointed a non-voting member of the Bureau.
- EC, 2000: An informal progress report from the Education Strategy Development Committee was discussed, and several suggestions were made by EC members for ESDC actions.
- Bureau, 2000: The report from the ESDC was considered in detail, with discussion of the roles that IUPAC could and should play. The Bureau agreed that the 21 recommendations were all sound in principle but ranged from several that would be easy to implement to some that required further investigation. The Bureau established a small Working Party on Education Proposals to carry out this study and report to the Bureau in 2001.
- EC, 2001: The WPEP reported on the views that it had obtained from national chemical societies and NAOs on the ESDC report. Based on those responses and an analysis of the feasibility of implementing recommendations, the WPEP was prepared to recommend a specific course of action. Discussion by the EC served to clarify several points, but no action was required.
- Bureau, 2001: The report from WPEP was discussed in detail, and action taken to change the name of CTC, approve new terms of reference and approve other recommendations by the ESDC, as modified by WPEP, on future directions for the education activities of the Union.
- Council, 2001: The subject of education activities was discussed at length by Council in relation to the reports by ESDC and WPEP. Actions by the Bureau were reported, but no action was required or requested of Council.

Nomenclature

- Bureau, 1999: As part of the discussion of restructuring of Divisions, the Bureau authorized the formation of an *ad hoc* committee to investigate IUPAC’s future approach to systematic chemical nomenclature.
- EC, 2000: The Secretary General reported that he had decided to hold a Roundtable Discussion that brought together on a one-time basis leaders in classical and computer-based nomenclature and “customers” for nomenclature.

Item 13: Report from Governance Structure Committee

Many ideas had emerged, including a proposed *ad hoc* Committee on Chemical Identity and Nomenclature Systems that would immediately undertake projects and would report in one year its advice on which body(ies) should be responsible for future nomenclature activities. The EC approved the formation and membership of the CCINS and provided funds to start an important project – the “IUPAC Chemical Identifier.”

- Bureau, 2000: The status and progress of CCINS were reviewed, and the Bureau expressed approval of the arrangements that had been made.
- EC, 2001: The report from CCINS, supported by the Secretary General, recommended formation of a new Division of Chemical Nomenclature and Structure Representation. After discussion, the EC approved the recommendation to be presented to the Bureau and Council for action.
- Bureau, 2001: Agreed that the recommendation for a new Division should be forwarded to Council.
- Council, 2001: Approved formation of the Division.

Publication policy

- Bureau, 1998: Approved the recommendation from the Committee on Printed and Electronic Publications to reopen the publication contract to bids, with one option being for the Union to become its own publisher. The Secretariat, with approval of the Secretary General, had already begun to use “desktop publishing” for the news magazine *Chemistry International* in order to provide more timely news.
- EC, 1999: Responses to bids were not especially attractive. The EC approved the recommendation by the Executive Director to change the decades-long policy of having an “official publisher” and move to self-publishing of *Pure and Applied Chemistry*.
- Bureau, 2000: Report provided to Bureau on actions that had been taken.

Many other actions could be traced out, but these examples probably provide sufficient background.

Item 13: Report from Governance Structure Committee

Appendix 3: Proposal from Nordic NAOs

01-09-28

Dr. Alan Hayes
President
IUPAC Secretariat POB 13757
Research Triangle Park North Carolina 27709-3757 USA

Proposal to reorganize the structure of the IUPAC

The operative structure of the IUPAC has been successfully modernized and we believe that the decentralization of the responsibilities that has been achieved based on the project-oriented structure will lead to an improved output.

We believe that the changes of the operative mode in the Divisions should be followed by a review and revision of the organization of the administrative functions of the IUPAC. In essence, we propose that the Bureau is dissolved and the responsibilities of the Bureau transferred to the Executive Committee (EC) and the Council, as appropriate.

Proposed structure

Presently the EC handles all the day-to-day work of the Union and prepares the agenda for the Bureau and the Council and initiates and manages all changes in the Union. Quite naturally it is the EC that has the real power in the Union and thus directs its operations. In contrast, most of the Bureau members, Division Presidents excluded, are not very active in the Union between the Bureau meetings and have small possibilities to contribute or influence the work of the Union significantly. The Bureau therefore is more of a transport unit for the proposals of the EC. We question if the Bureau in its present form and function is able to take the responsibility of decisions that in reality have already been thoroughly discussed by the EC.

There may have been significant and important political reasons for a structure between the EC and the Council ex. a geographical and political distribution. Many of the considerations that had to be taken in the 20^t century are no longer of the same importance.

It was also a means to incorporate more people on a regular basis in the work of IUPAC. With the new structure that allows each Division Committee to incorporate up to six National representatives, i.e.. 48 persons from other countries than those represented in the Division Committee this argument is no longer valid.

We are also concerned that the budget of the present Bureau approaches that of some of the Divisions.

Therefore, we propose that the Bureau is terminated and dissolved and a new EC is set up consisting of the President, vice President, past President, the Treasurer, the Secretary General and the Executive Director

Item 13: Report from Governance Structure Committee

as core members. We suggest that there should be six elected Members at Large, three of whom should come from the five largest members of the Union. Each Member at Large should be assigned a special task within the Union according to his/her competence and interest. The new EC should carry out most of its work by mail but meet at least twice a year or when appropriate for a thorough review of the progress of activities of the Union. The EC should call on the Division Presidents to participate in its meetings and report once a year or when appropriate.

With the project driven system in place it would most likely be an advantage to go from a biennial to a triennial period of operation.

A reorganisation of this magnitude will necessitate a review and appropriate changes of the Statutes and Bylaws. A thorough revision of the Statutes and Bylaws may very well result in other benefits like a simplified and streamlined organisation.

There are immediate advantages that could be identified:

- The President will have a dedicated and well informed group that can take all the final decisions except those that belong to the Council by definition, e.g.. election of officers, determination of Congress and GA sites.
- Decision paths will be shortened and more transparent.
- The organisation can request more activity and dedication of the new EC than of the present Bureau members and thus work more efficiently.
- A direct link would be established between the EC and the Divisions allowing an improved insight and influence of the Divisions and ultimately of the people working in the Union.
- A direct link would be established between the EC and the Council and NAOs
- The duration of the GA can be shortened by eliminating the meeting of the Bureau and reviewing the agenda of the Council meeting. The GA might be disconnected from the IUPAC Congress.
- The Council meeting could be retained in its present form or simplified.

The changes implied in our proposition are of such a magnitude that it is justified to establish a group to clarify the pros and cons of a change and draw up an action plan dealing with limitations and ramifications of the proposal, financing, and a time schedule.

On behalf of the Nordic NAOs

Anders Kallner
Dept Clinical Chemistry
Karolinska Hospital
SF 171 76 Stockholm

Item 13: Report from Governance Structure Committee

Appendix 4: The Governance Structure Committee

With the concurrence of the Executive Committee, President Steyn appointed the Governance Structure Committee [GSC] with the following membership:

Prof. Leiv K. Sydnes, Vice President (Chairman)	Norway
Prof. Chunli Bai, Elected Member of the Bureau	China
Dr. Edwin D. Becker, Secretary General	USA
Prof. John Ralston, President, Division I	Australia
Prof. Gus Somsen, Elected Member of the Bureau	Netherlands
Prof. Thomas T. Tidwell, President, Division III	Canada

The charge to the committee follows:

1. Analyze the strengths and weaknesses of the current structure and operation of the Bureau, including its Executive Committee.
2. Develop proposals for alternative structures [including the Nordic proposal] and analyze their potential strengths and weaknesses. Consider any impact on the functioning of other IUPAC bodies, including the Council, and any financial impact. Consult widely within IUPAC to obtain additional suggestions, also on improving communication between the Bureau and the Divisions and Committees of IUPAC.
3. Provide a preliminary report to the Executive Committee and to all National Adhering Organizations by April 2003. Request comments and additional suggestions for structural changes that can be considered for inclusion in the final report. Provide options and recommendations to the Bureau and Council in August 2003.

The GSC conducted most of its business by e-mail, with the circulation of draft proposals and several iterations of comments and further proposals. Meanwhile, in connection with the preparation of his Vice-President's Critical Assessment, Prof. Sydnes had visited a number of NAOs and had an opportunity to discuss this matter and obtain further input that was provided to the Committee. The Committee held a one-day meeting in London on February 22, 2003 to debate the principal issues and to arrive at a consensus proposal.