

Report on the General State of the Union

Introduction

According to the Union's statutes (S6.23) the "President shall submit to each regular meeting of the Council a report on the general state of the Union." The accurate meaning of the words "general state" is not evident, but it is natural that this report takes into account the contents of two related reports presented at this meeting, *viz.* the Secretary General's report which focuses on the administrative aspects of the Union (agenda item 7), and the Vice President's Critical Assessment (VPCA), which this time contains a most thorough review, assessment, and analysis of our project system (agenda item 11). The "general state" of the Union should therefore be assessed with the Union's stakeholders in mind.

IUPAC's stakeholders constitute an extremely complex group of people, nations, regions, governmental institutions, professional societies as well as national, regional and international organizations. Within this group there are significant differences in the understanding of chemistry and the awareness of the needs for and the purpose of chemical products, secure handling of chemicals, and chemical management. As a result the Union has to be sensitive and responsive to

- formal requests and expectations from its members,
- professional expectations from the scientific community,
- adequate requests and questions from practicing chemists,
- regulations and legal aspects in societies at different levels of development,
- curious as well as biased questions from lay people and the general public,
- unarticulated needs caused by natural processes, accidents, and disasters involving chemicals.

Thus, the general state of the Union should be judged on the basis of the organization's ability

- to maintain an active, fruitful and democratic interaction between its leadership (at all levels) and its membership,
- to disseminate the results of the scientific and educational activities as well as conclusions reached in discussions related to science policy,
- to address and get engaged in important global issues, which involve application of chemistry in the service of Mankind.

Interaction with the members

The abilities summarized above are certainly interdependent; our contributions in solving global issues require efficient dissemination of the results of our activities, which again rests on transparent and efficient communication within the organization. But in this context, at the Council meeting, it makes sense to focus on the two first items, where the NAOs play an important role.

The interaction and communication within the Union were of significant concern at the General Assembly (GA) in Ottawa in August 2003, but in spite of the ideas and proposals put forward in the discussion there, the improvements in the internal interaction have been minor in the current biennium. It is still true that the written correspondence with the National Adhering Organizations (NAOs), which is an important part of the formal structure of the

Union, is characterized by a low reply percentage. It is still true that when all NAOs are contacted by mail regarding a matter of importance to the Union, it is rare to receive more than five replies. It is also true that when all the NAOs are asked and encouraged to nominate national representatives to various groups, the feedback is usually not much better. Therefore, it is still true that although IUPAC's officers are consulting the Union's members for advice, very few people are in fact involved in the decision-making process.

This democratic deficit is of course regrettable in itself, but it also hampers the scientific work of the Union. Experience shows that chemists are more likely to engage in IUPAC activities and projects when they feel included and are well informed about what is going on in the Union. Consequently, IUPAC will only be able to fulfil its objectives and live up to global expectations if the relationship with all NAOs is characterized by active involvement and creative interaction. In my honest opinion that is far from the case yet, so in this perspective the general state of the Union leaves quite a lot to be desired.

Two concrete matters support this conclusion. At the GA in Ottawa two measures were proposed and gained support, *viz.* a national contact from each member country to each of the eight divisions should be appointed, and a new body, named the Union Advisory Committee (UAC), should be formed with one member chosen by each NAO. The idea with the national contacts was that they will be informed by mail about the work being done in the Division to which they belong, and have the right to give feedback to the relevant Division Committee. This interaction should improve the quality of the work carried out in the divisions, and help to disseminate the results of IUPAC's scientific work. In addition this arrangement should give chemists from all member countries IUPAC experience that may, eventually, lead to an elected position in the organization.

As for the UAC, the idea was and still is that UAC will give each member country a direct role to play in the governance of the Union. Without the UAC the NAOs have limited opportunity to influence Union policy since the Council meets only every two years. Furthermore, the Council delegates are often new to IUPAC and unfamiliar with the issues before the Council meeting. The existence of the UAC gives an opportunity for greater continuity because its members would become familiar with the issues facing IUPAC since they would see all the material provided to the proposed Executive Board and would be asked to advise and provide comments on policy aspects of issues being considered.

Appointment of UAC members was solicited from all the NAOs, and by January 1st 2005, almost all member countries had appointed their members. The members have been kept informed by e-mail of selected matters being considered by the Executive Committee, and several significant issues have been referred for comments, assessment, and feedback. To say that the response from the committee members has been good, would be an exaggeration, although the reply frequency has been more than twice of that achieved regularly when comments are solicited from the NAOs and is increasing. The UAC has therefore not yet become the instrument within the organization that the committee could and should have, but when it has, I am sure the general state of the Union will have improved.

On several occasions representatives from various NAOs have said to me that they would like to discuss bigger issues at the Council meeting. I agree, that could be both interesting and very useful, but at the same time I believe that the format of the Council meeting and the size of the audience make such discussions too difficult to manage. That was in fact an important reason for establishing the UAC. I therefore urge the NAOs to raise such issues either through their UAC representative, or via the President, or through the IUPAC Secretariat, so that

important challenges recognized by the NAOs can become part of the IUPAC agenda. Such interactions will absolutely improve the general state of our Union.

Dissemination

Within IUPAC the importance of interaction and communication with the global chemical community has been recognized for some time, and it has been realized that extensive internal exchange of ideas and opinions is required if the Union is going to reach its goals. But that does not imply that the Union has experienced such a situation; in fact, in my critical assessment (presented in Ottawa in August 2003) it was pointed that we have challenges and a long way to go before we can be satisfied.

Some improvements have been made during the current biennium. It has been encouraging to see that *Chemistry International* (CI) continues to develop in the right direction and has become increasingly interesting (partly due to talented use of colors). The range and diversity of topics have grown, and this development has contributed to increase the impact of *CI*. There is no doubt that the chemical community, also outside IUPAC, views the magazine as more informative and more useful than before. However, there is room for improvements; for instance, more information about on-going projects will definitely attract readers if the presentations are of good quality.

Furthermore, the frequency of the *e-News* has increased and so has the quality. Many of the news pieces are such that they can be used more or less directly in national news magazines. This news service is therefore a considerable resource for the NAOs, but so far it is fairly little utilized. I therefore urge the NAOs to follow the *e-News* and extract material for use in the national magazines for the benefit of the national chemical community.

Finally, the brochures, which a few years ago suffered from a somewhat dubious reputation, have partly been overhauled. Rewriting and design brush-up have made the appearance more attractive and the contents far more relevant. This, combined with the fact that the material has been more broadly distributed, at conferences and meetings and to the chemical industry, seems to have contributed to improve the profile of IUPAC.

Conferences

The biennial IUPAC Congress and a large number of IUPAC symposia and conferences are well established as an important and authoritative means of communication with the global chemical community. However, with the exception of the former, the IUPAC profile has traditionally been rather low at most of the other meetings. With the improved brochures and posters being developed by the IUPAC staff (in interaction with the appropriate people), the Union has become better prepared to inform about its activities and results. This should be utilized to promote IUPAC better and increase the organization's visibility at all IUPAC meetings. Perhaps it should be considered compulsory to include an IUPAC presentation, with focus on the scientific activities, in the program at all IUPAC-supported conferences; for instance could there be a session during the meeting, dedicated to discuss the need for standardization or critical assessment of quantitative data within the conference theme, or to explore if new, exciting scientific topics related to the conference theme and beyond, are about to emerge. I know some of the Divisions have tried this and been satisfied.

In a very short time the IUPAC Prize for Young Chemists has become an important award in chemistry. An important reason for this success is the solid reputation and the high standing IUPAC has globally. In order to further promote IUPAC and chemistry, the IUPAC Poster Prize was established. The prize consists of a diploma, which is given to the best posters (up to three) at one national meeting in each member country. The scheme is administered by the

NAOs, but so far very few NAOs have taken advantage of this opportunity. All NAOs are therefore urged to include the IUPAC Poster Prize in their national activity plan. That will indeed increase the profile of IUPAC and the standing of the Union and thus, the general state of IUPAC.

Public appreciation

Our societies are heavily influenced by media, and rating, standing and reputation have become important issues that have to be taken into consideration. In doing so we realize that the chemical enterprise suffers from a dubious public image; chemicals are associated with bad things happening to people and in the environment. The positive contributions from chemistry and chemical engineering on a daily basis, to society and every one of us, are barely publicized, in spite of the fact that these sciences are instrumental in feeding us, clothing us, housing us, and healing us.

This situation is an enormous challenge that industrial and chemical organizations and enterprises have made efforts to meet in the past and continue to meet today. IUPAC has also been involved, the idea being that IUPAC, with a global reputation of providing authoritative and unbiased information in the field of chemistry, would have added value and be regarded as more trustworthy than facts and figures furnished by others. In the current biennium a feasibility study entitled "Chemistry's Contributions to Humanity" was carried out. A task group with a wide membership was engaged, and the group interacted with all the NAOs and the UAC. Unfortunately, the conclusion was that IUPAC at this point in time is unable to carry through such a project at a reasonable cost. This is a situation I strongly regret, and in this perspective it is reasonable to conclude that the state of Union leaves a lot to be desired. But we are not going to give up, and we have to continue to work, with the "Subcommittee on Public Understanding of Chemistry" as the driving force.

Conclusion

If we are critical, this report shows that the general state of the Union can be improved to a considerable extent. More involvement from many NAOs is requested, but also more imagination from the leadership. Let us use this Council meeting to start the work that has to be done.

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