Vice President's Column

Towards 2019 and the Future

by Christopher Brett

When I am asked, in a conversation, what I do, I tell them I am a chemist and, if they studied sciences in their final years at school, I may tell them about my activities in IUPAC. The reaction to the first ranges from highly favourable to sceptical, and to the second saying that what they have heard most about IUPAC is the Periodic Table of the Chemical Elements and nomenclature. This is symptomatic of the challenges that we all, as scientists working in the field of chemistry, face in order to demonstrate and disseminate the importance of chemical and related sciences. It is what made most of us start connecting with IUPAC, often through the contact from a colleague or through an IUPAC-endorsed workshop or conference.

The reason we connect and engage with IUPAC is first, to contribute towards communicating better within our different fields of expertise by generating a globally accepted common language and consensus on the topic, second to be able to communicate it in a clear way to colleagues in other branches of chemistry, thirdly to those in other sciences, technology, and engineering in general, and finally to be able to help communicate it to the public. It is not an accident that the last sentence says "communicate" three times. It is these objectives which lie behind the vision and mission of IUPAC at a global level, and which were behind the founding of IUPAC in 1919.

I have been impressed many times that when I have talked to first-year university chemistry students about the newer elements of the periodic table which have less direct relevance to them in their studies than most of the more common ones, they show a real fascination and interest in the fundamental science. It is equal to that which they show, maybe at a younger age, to colour changes or other visual demonstrations of scientific phenomena, for example when mixing chemical reagents. It is our task to harness this energy and innate interest. This is one of the reasons why our collaboration with the International Younger Chemists Network (IYCN) is so valuable.

One of the Vice President's main tasks is to make a critical assessment of the state of the Union. Although I have been associated with IUPAC in different ways over many years, examining the functioning of the many different IUPAC bodies and their complex interactions has been a pleasure, as well as enabling me to question why we do things in a certain way and not another. It is heartening to see how much work goes on in the divisions and standing committees. The diversity of membership and of IUPAC's thousands of volunteers is one of its great strengths, whether it be in a committee or in a project task group.

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The Evaluation Committee, which I currently chair, and with its new terms of reference, has a fundamental role in examining the function of the different IUPAC bodies in a constructive way; we are all on the same team. Thus, the emphasis should be on continuous renewal with continuity of action. Can we do more with the resources we have at present, do we need more to give well-informed responses to the new challenges that are arising at a world level or should we refocus? These sort of questions may have a particular answer at a specific point in time but will change with time, hopefully in an evolutionary way. IUPAC has to be ready to lead, to adapt and to respond to these changes, which affect not only the chemical community but also society at large. Almost daily, we read of the consequences of the non-sustainability of our present civilisation with its present practices. How IUPAC can contribute towards suggesting scientifically sound paths for achieving sustainable development and the circular economy, as well as the United Nations Sustainable Development Goals, needs to be uppermost in our minds.

The vision of IUPAC as an indispensable resource for chemistry, the mission statement, and the core strategy of IUPAC are well defined. What is important now is to concentrate on its implementation. We operate a project system, which has proved to be successful since its inception in 2001, and the procedures of which are being made more efficient and adapted to current needs. When conceiving a new project, is there an affirmative answer to the question "Why IUPAC?" This is important for all proposals and also for endorsed conferences. Regarding dissemination of project results to the wider community, there will always be room for improvement, but the requirement is that the results of the project, if not a technical report or recommendation published in *Pure and Applied Chemistry,* should be the subject of an article in *Chemistry International (CI).* Some examples can be seen in this issue of *CI.*

On the other hand, it is very important that the member countries (National Adhering Organizations, NAOs), which form the IUPAC Council and the backbone of the Union's current funding, accept the fairness of the amount of their financial contributions and how the funds are being spent. The National Subscription Task Force completed its work in July this year and made a proposal to Council for a new way to calculate the subscriptions which reflects the value of chemistry within a member country, comprising a knowledge index as well as a capital index. This was recently approved and will take effect in 2019; the move towards the new subscriptions will be evolutionary. Major changes have already been made in the Company Associates program and in the Affiliate Membership Program in 2018. It is too early to assess the success of these changes, which are designed to increase the involvement of chemical industry associates and affiliate members from member and non-member countries in IUPAC activities. Besides this, it is hoped that IUPAC will now be able to attract new member countries from different parts of the world, where we are under-represented, and, in this way, better reflect the fact that IUPAC is a global organization.

There is a general idea nowadays that people are more interested in getting fast responses, in search engines that enable the easy gathering or large amounts of (sometimes unverified) reference information which can be used and then quietly put to one side or forgotten. IUPAC's critical evaluation and endorsement of information is important and guarantees its quality. Digitalisation of publications is a priority for dissemination of our work including, of course, the prestigious colour books. The impact factor for *Pure and Applied Chemistry* has increased significantly in 2017 which augurs well for the future. With respect to education, the recently launched open access *Chemistry Teacher International* (first issue in July 2018) should give an excellent forum for educational outreach activities and reach the younger part of the community, through providing an international platform for chemistry teachers and bridging the gap between research and practice.

As we are almost at the beginning of the exciting year of the IUPAC Centenary and the International Year of the Periodic Table, both in 2019, we will remember the past, what we have achieved in the last hundred years, but above all have in our minds what we can and should do in the future to best serve the global chemistry community and society as a whole. In this way we will, all of us together, fully achieve IUPAC's vision.

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