Item 11.6: Report to Council - Evaluation Committee (EvC)

The Evaluation Committee (EvC) was set in by the IUPAC President in March 1999. The Terms of Reference (IUPAC Handbook 2000-2001, p. 276) were:

(i.) To determine the appropriate criteria for retrospective evaluation of each project.(ii) To evaluate all projects for conformance to plan.
(ii.) To evaluate the impact of projects on the relevant chemical community.
(iii.) To report to the Bureau, in writing, annually on the results of the evaluations done.
(iv.) To inform, after discussion in the Bureau, the National Adhering Organizations of the completed evaluations.

At present the Evaluation Committee has the following membership (IUPAC Handbook 2000-2001, p. 23): Prof. John Corish, Prof. Edward Grzywa, Prof. Oleg M. Nefedov, Prof. Upendra K. Pandit, Prof. George S. Wilson (as successor of Prof. Camille-Georges Wermuth who retired in July 2000), Dr. John W. Jost (as Secretary), and Prof. Gerhard M. Schneider (as Chairman).

There have been *four* Committee Meetings. The *fifth* EvC Meeting will be held on 5 July 2001 during the General Assembly in Brisbane, Australia.

The *first* EvC Meeting was held during the General Assembly in Berlin, Germany, on 10 August 1999. The discussion focused on how to accomplish the tasks given to the EvC.

The *second* EvC Meeting was held in Frankfurt/Main, Germany, on 18-19 March 2000. A compilation of the material submitted by the Division Presidents and the Chairman of IDCNS on request of the EvC was discussed. In addition, a list prepared by the IUPAC Secretariat of those projects that were completed or abandoned during the biennium 1998/1999 was reviewed. The discussion focused on which projects to evaluate in detail and what criteria to use.

The *third* EvC Meeting was held after the General Assembly at Guildford, U.K., on 24 September 2000. The most important result was the selection of 18 projects for a more detailed test evaluation. They were taken from the projects submitted by the Division Presidents and the Chairman of IDCNS and from a completed and annotated list of all projects that had been completed during the biennium 1998/1999. The projects selected for a more detailed test evaluation were: 025/48/96; 120/17/97; 141/3/89; 150/19/93; 230/23/89; 240/6/93; 302/(2+3)/96; 310/4/81; 401/1/93; 428/6/97; 523/3/89; 550/52/91; 583/42/95; 620/21/95; 640/29/91; 7/1/99; 770/1/97; and CHEMRAWN IX. Each Committee Member was asked to pre-evaluate three of these. The final evaluation would then be made by the whole EvC at their fourth meeting. The Secretariat offered to make available all additional information and material that might be necessary. These were collected on a special EvC website by the Secretariat.

At the *fourth* EvC Meeting (10-11 February 2001, Research Triangle Park, NC, USA) the Committee had a detailed discussion of each of the 18 projects mentioned above. As a result, it was decided that only general criteria and summarizing statements as well as some comments and recommendations should be published. These would be intended to help the EvC, the Divisions, the Standing Committees, the Project Committee (PC) and eventually others, in their future work.

The extensive and detailed discussion of the projects selected and of their pre-evaluations by the EvC members demonstrated that topics, quality, and impact differed very much, among the best being the projects 141/3/89 and 770/1/97.

It was agreed upon that in the future the fundamental criteria for all evaluations should be:

1) Why is this project important for the advancement of science?
2) Why should IUPAC do this?

3) Does the project have a product? Has the project been completed successfully and what is its quality?
4) How was the conformance to plan (including timing) and the use of the budget?
5) Is there evidence of impact on the relevant scientific community? Does the project increase the visibility of IUPAC?
6) How was the dissemination of the results organized and how successful was it?

It was proposed that future EvC evaluations should include:

A) an individual written evaluation of each completed project considering the fundamental criteria given above, the information according to items B) and C) (see below) and – if applicable – the reviews of external experts,

B) a form concerning the technical details of each project (so-called "Information Sheet") with respect to

- standard measures (such as: duration, result (e.g. as an article in *PAC*, a book, copublication); mile stones; number of citations; book sales; hits on a website; number of people involved; geographic diversity; impacted community; name and address of coordinator; existence of a report after completion; financial support by IUPAC and others) combined with some statistics and the
- acceptance by the scientific community (such as: Was there co-publication? Are the evaluated data developed by this project incorporated in commercial databanks? Have the recommendations of this project been adopted by journals, textbook authors, other organizations? Have there been articles in the scientific press on this project? Have the standard methods proposed by this project been adopted by industrial or governmental organizations? Does this data form the basis for standard models used in the field? Does this project have, or could it have after suitable modifications industrial applications? Have the results been presented and discussed at important scientific meetings?, and

C) to collect in a separate list additional general comments, remarks, recommendations, hints etc. that might be useful for the future work of the EvC, the Divisions, the Standing Committees, the Project Committee, and others.

At the EvC meetings many general points were discussed in considerable detail, some of them being summarized in the following:

- For the work of the EvC it is most important to get status reports by the coordinator (or the respective Division President) at the latest six months after completion (in order to check for conformance to plan) followed by an additional report about two years after publication of the results (in order to check for the success of dissemination plan and the impact on the scientific community). It is important that on the Division level at least one person continues to be informed about the current status of a project even years after completion. Alternatively files and/or a databank must exist that must be maintained and updated. Such a service could, e.g., be organized by the IUPAC Secretariat.
- Additional criteria have to be found to evaluate quality and impact. Here, external reviewers might often be necessary.

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- Normally IUPAC documents are published in *PAC* and announced in *CI*. The EvC discussed alternative methods for dissemination of the results of completed IUPAC projects.
  - Dissemination should be considered during the work on the project.
  - Full text of *PAC* must be on the website as soon as possible.
  - Reprint from *PAC* in relevant specialty journals is highly desirable.
  - If there is publication in *PAC* only, links to *PAC* should be given in the relevant specialty journals and/or on their websites. If there is publication in relevant specialty journals only, links should be presented in *PAC* and *CI* and additionally on the IUPAC website.
- The EvC noticed in their discussions that often even small amounts of seed money from IUPAC can be very useful, especially in the initial stage of the project, to find additional funds outside IUPAC. It was, however, well understood that the EvC should not make recommendations for continuing or stopping the funding of a project.