



International Union of Pure and Applied Chemistry
Committee on Chemistry and Industry

Chair Dr. Bernard West

COCI Annual General Meeting and Project Work Group Meeting.

SINOPEC HQ, Beijing, China

September 12-13th, 2016

Minutes

Monday September 12th

Regional Workshop

08.30 - 17.00

The IUPAC Regional workshop with the theme “*Chemical Industry of Sustainable Development*” featured 12 technical presentations on development of green chemical technology, biomass energy and chemicals, and Responsible Care. Introductory remarks were presented by the workshop Chair Dr. Xie Zaiku, Professor Zhou Qifeng, Vice-President of IUPAC, and Dr. Bernard West, chairman of COCI. COCI will ask to post the presentations on the COCI website.

Tuesday September 13th: Participants for all or part of the meeting:

Zaiku Xie	China
Zhang Baoxing	China
Bernard West	Canada
Carolyn Ribes	USA
Kazuhiko Ishikiriyama	Japan
Paul Baekelmans	Belgium
Anna Makarova	Russia
Changhyun Choi	Korea
DRB Saha	India
Michel Houmard	Chairman of the Responsible Care Committee of the Association of Chemical Manufacturers in China (AICM)

1. 08.30 to 10.15 Company Associates Project

Carolyn Ribes reviewed the results from the CA survey (see .pdf file). The group updated the Company Associates program recommendations with several improvements. The document will be sent to COCI members for review with responses requested by Sept 30. The document will then be sent to some IUPAC leaders for comments in October and then submitted to the Executive for their meeting in November. The Bureau will then review the proposal at the April meeting. COCI would like to have the proposal on the Council agenda in July.

Anna will help create a visual tool, such as a roadmap, for communicating this program more easily to IUPAC.

Kazuhiko shared that the number of CA in Japan has been shrinking.

2. 10.15 to 11.15 SAICM Actions.

Anna Makarova shared the graphic she had created demonstrating the alignment of IUPAC projects with SAICM objectives (see .pdf file). She offered a proposal to combine education and green chemistry in a training course. The suggestion is to leverage a 5-day training course that has already been presented for Central/Eastern Europe to in Africa. The topics include environmental protection, safety, and security with best practices from the chemical industry IUPAC resources would be used to deliver the expertise and she would seek funding from OPCW/CEFIC. One option is to hold it in South Africa. The discussion concerned the objectives of the course and if follow-up activities were required. Finding a local host association to work with our make this more effective. The training needs to be relevant to the situation of the participants and the existing level of awareness will be different in each country. Michel offered to take the request to the RCLG (Responsible Care Leadership Group) if Anna will provide some additional input. To initiate

activities, an IUPAC project proposal should be created for COCI to approve. On the issue of labelling or certification, the discussion revealed that companies do like to be seen as leading (“Best Places to Work” and similar awards) and may appreciate recognition of activities related to Green Chemistry. Participants know there are some national awards in Green Chemistry but need to determine if there are any international awards for companies/teams in this field. Anna proposed an evaluation system similar to the one for green buildings described in the presentation. She also shared information on the 2017 International Green Chemistry Conference, Oct 2-7, Moscow. A COCI or Green Chemistry project team meeting could be held in conjunction with this event. COCI was reminded that IUPAC recently created an Interdivisional Committee on Green Chemistry and Sustainability. Another possible project on Chemistry, Sustainability, product stewardship, etc is to provide clarity of terminology. We think academics are more likely to talk about Green Chemistry; Sustainability is more the focus of industry and can be accomplished with or without Green Chemistry.

3. 11.15 to 12.00 STP Projects.

Regional Safety training program: Fabian Benzo, IUPAC Safety Training Fellow Univ. Montevideo, Uruguay, has funded project to create the program in South America. 5 people will come to the University for training over 15 days. COCI project approved along with some funding from UNITAR, COCI, and IUPAC. The proposal from India will be ready by the end of September. Dr Grover, Safety Training Fellow, working with Dr. Saha to define the project. Africa: discussed regional training options. Jonathan Babalola, Safety Training Fellow from Nigeria, is trying to get a core group together to create this. We don't know if this would be of interest to ICCA or other organizations.

Solvay will host the Safety Training Program; currently under development under leadership of Paul Baekelmans. The host company can control the content and share material they would use in-house for training their employees and use their resources as they see fit. IUPAC provides a list of applicants with preliminary vetting, then host company selects who they would like to train. Host company can ask what they may be specifically interested in or can keep the content more general. Host company covers local expenses (housing, transportation, meals, etc) Fellow provides a written report of what they will do when they return home. They are reimbursed for their international travel expenses at that point. Safety Training Fellows are invited to participate in IUPAC safety training workshop at biennial general assembly. They present the improvements they made at their home institution/country/region. Solvay is defining what they would like to do and when they could host trainees. They are considering offering this more than once. Improving global chemical safety, the positive image of the host company and visibility of their support is the reward for the company. Bernard is exploring getting funding from CRDF; they would support training from specific countries.

Responsible Care book: This was distributed to the speakers on RC during the IUPCA workshop on Sustainable Chemistry yesterday. Book contains 2 case studies that can be used in academic setting. An extension would be to develop more case studies.

Safety Resources: on-line training courses, websites, videos, training materials, etc. These could be collected together on a COCI-owned page on the IUPAC website. These could be resources for the regional training centres to use.

ANNUAL GENERAL MEETING OF COCI FOR 2016.

13.00 - 17:00

I. ORIENTATION.

1. Introductions [BW] Round table member introductions.

Welcome to invited visitors.

2. The membership, of COCI: 2016 - 2017

- Review current committee performance against the roles and responsibilities and use that as a basis for discussing how to develop the membership.
- Seek input for the next Election process in 2017.

For titular members: we have 8 total slots (includes Secretary and Chair) and should have good geographic distribution. Most titular members have been active, and some AM have joined meetings. One TM has not replied at all; some have not been able to attend specific meetings. We need to find people who would like to join the committee and do work: lead project, respond to email, provide connections, give advice, attend meetings, and other activities. **Terms are reviewed at two-year intervals and are 4 year terms, with maximum of 8 years as TM.** You can still be involved in COCI activities through projects (some have face to face meetings, some work remotely). Kazuhiko is already actively looking for someone to nominate from Japan.

Action items: Bernard would like the members to reply if they would like to continue to be on the committee and if they have suggestions for other potential committee members.

Action items: Michel will send Bernard a contact name from Brazil to contact for COCI membership.

Action: Bernard will send a copy of the letter to NAOs to the COCI members regarding election of members to Divisions, Committees, and office positions. There is also one to change the statutes or by-laws of the organization (needed by Dec 15 to Secretariat).

Action item: Bernard/Carolyn look at IUPAC2017.org website for industrial links to find a potential COCI member.

3. Review minutes of 2015 AGM in Busan and the TM Planning meeting in Montreal April 2016

These notes were reviewed and approved without objection.

4. Budget and Finances

Comments on the financial needs for 2016-2017 were reviewed. We have allocated Project funds; the expenses for this meeting will go against COCI Operating funds. We should start tracking in-kind support and sponsorship, including Regional Workshop and STP events. The key is to have activities that sponsors are interested in and then find the appropriate sponsors for the project.

Would there be interest in IUPAC in organizing an international year of sustainable development? Perhaps, after the 2019 centenary.

Action item: Chair/Secretary will start tracking sponsorship and support received.

II. REVIEW OF EXECUTIVE AND BUREAU ITEMS RELEVANT TO COCI

5. Review of report and Presentation to BUREAU and Verbal Report on current issues [BW]

COCI has been asked to identify a volunteer to work with the 2019 Centenary Committee to represent COCI and provide feedback, etc.

COCI has been asked to identify speakers for the WCLM which will relate to multidisciplinary research. Carolyn and Bernard have asked for more information about the WCLM proposal before we can recruit speakers to have clarity on the potential presentation topics.

A short report on COCI activities has been shared with the Bureau. The biggest issue that IUPAC is considering now is reshaping the process for setting dues that each country pays. There have been some significant changes in chemical productivity as well as changes in currency exchange rates, publication profits, and interest rates. For the next couple of years, a 5% increase was approved. NAO have been asked to suggest criteria and comment on this. This will have an impact on IUPAC budgets.

The Bureau agreed to create the Interdivisional Committee on Green Chemistry and Sustainability (need to confirm the exact name).

We have added more information to the COCI webpage about our primary activities this year. The website has been greatly improved and changes are still pending.

The virtual Bureau meeting will be April 8, 2017. An election announcement on website will be posted on Sept 1.

Eligibility for Divisions and Committees will be available Sept 15, 2016. Nominations for Chairs and members are due to Secretary General (Richard Hartshorn) by Oct 31, 2016. Electronic nomination forms posted Dec 1; deadline for NAO nominations is Feb 15, 2017. Election ballot information from Feb 20-May 12 for IUPAC officers and other positions. All agenda book items are due to IUPAC Secretariat by May 3, 2017.

Action items: Ribes will forward the call for nominations for Distinguished Women in Chemistry and Chemical Engineering to COCI members. The award committee would like to recognize women from more countries.

Action items: COCI members should consider if they would like to work with the 2019 Centenary Committee.

Action items: When Bernard/Carolyn have more information about the WCLM we will share it to identify potential industrial participants.

III. PLANS FOR COCI MEETINGS IN 2017 [BW, CR]

7. IUPAC ThalesNano Prize [BW]

Presentation tomorrow of the third annual prize to Professor Kessel of the University of Eindhoven for his work in Flow Chemistry. The presentation will take place at IMRET14 meeting in Beijing September 2016.

[<http://imret2016.com/IMRET/index.aspx>] Next prize will be awarded in 2018 (location unknown). That will be the 4th presentation of the award.

8. Regional Workshop Beijing.

The regional meeting on Sept 15 was extremely well organized and Sinopec has been an excellent host for the workshop and COCI meeting. This was one of the best organized regional workshop we have had, with the largest number of participants (~70 participants). The presentations on Development of Green Chemical Technology, Biomass Energy and Chemicals, and Responsible Care were very interesting and will be posted on the COCI website (once the mechanism is ready). The audience appreciated the presentations and learning about the developments in this region. The Responsible Care movement is going strong in China and India. The benefits of green chemistry were discussed and innovative progress in technology has been made as shared in the presentations. The speakers were very open about their technology and innovation. Very positive to see that more than 1 country is working in these areas. We observed great willingness to work on greener production and Responsible Care issues. We need to continue to get people from different countries

working together. Over time, there will be more costs to protect and mitigate. Attendees appreciated hearing the view of the speakers and their organizations. There was some discussion after the workshop but it was limited by time so there was limited exchange and discussion. We could consider ways to get more input from participants at the next workshop during the discussion, even if it is very brief. We'll have to have sufficient questions or ideas/discussion points 'seeded' or get people in a smaller group to answer specific questions. We should consider preparing a feedback survey to share with the participants to collect their feedback. The speakers were selected well and had good knowledge; they covered a range of topics. There was a good mix of deep scientific information that was balanced with systemic/programmatic/policy discussions.

We will post the presentations on our website with a link from our landing page. We will prepare a summary for Chemistry International that will encourage this. We will encourage all COCI members and Division representatives to review the presentations.

Action item: Bernard will draft the summary article for Chemistry International and ask Dr. Xie to co-author the article. They will ask Professor Zhou for a quotation about the workshop. Bernard will confirm with speakers that their presentation can be posted (no confidential information should be posted).

Action item: Bernard/Carolyn will work to get presentations posted and share the link with encouraging summary.

9. Discuss and agree on meeting times and places within resource available.

COCI discussed the Discuss next General Assembly including COCI Annual Meeting and Safety Training Program Workshop in Sao Paulo, Brazil in 2017. The website is www.IUPAC2017.org. COCI will meet as a committee on Sunday, July 9, and the Safety Training Program Workshop will be on Monday, July 10 (these are tentative dates). The Council will meet on Wed afternoon and all day on Thursday (COCI will provide a report). The WCLM may be on Wednesday morning. The World Chemistry Congress will overlap with all the governance activities.

Again a Project will be proposed for the STP Workshop, input will be asked for to update the agenda for the STP/Responsible Care activity. In the past, we had some guest speakers first (best practices) and then Safety Training Fellows who report on their activities and improvements they have made. Suggestions for speakers: Fabian Benzo and the regional workshop in Uruguay, an industrial speaker on environmental plus safety practices from their company with some specific practical examples (air quality, water quality, collaboration with communities, high-level view of chemical plants with equipment that ensures safety, environmental equipment: recycle, regeneration, co-products, etc.). Better to focus on speakers from South America (time & cost efficient). Asking the industrial contacts from the Fabian may be able to suggest speakers from his contacts, too. We will also ask past STP Fellows to speak. The most recent trainees: Ms. Christine Ashaolu (trained at National Silicates, Canada), Prof. Ahmed Youssef (Bayer, USA), trainee from Solvay (depending on timing), India Regional training program. After all the speakers, have an open discussion. Let's also invite the Young Observers to join (by communicating with them directly and the people who organize their activities).

10. Other business

2019 Centenary of IUPAC - potential project brainstorming:

Open houses for plant or research labs.

Do we want to do outreach/demonstrations/chemical magic shows?

Poster contest or theme: How has chemistry improved the world? Or anything related to the outputs of IUPAC: periodic table (1919 vs 2019?).

Elements/industry/products and what elements they contain;

10 most significant innovations in chemistry in the past 100 years - make this a contest (have to set some rules). Think of a contest that can be held at the school level (essay, poster contest, etc) on the benefits of chemistry. Ask for video/books to distribute to small children with the IUPAC logo and the 10 innovations and the scientists that invented them.

Another global experiment: had support from industry and very popular in schools. Pick a theme related to sustainability. Even repeating the same one is OK since this will be a different group of children (8 years later). Publication of periodic table: elements discovered by chemists with disabilities, women, or point out international origin of the discoverer.

November 24, Japan COCI CA will hold a session to honour the discoverer of element nihonium.

MEETING SUMMARY, ACTION PLAN and ASSIGMENTS

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2. Michel will send Bernard a contact name from Brazil to contact for COCI membership.
3. Bernard will send a copy of the letter to NAOs to the COCI members regarding election of members to Divisions, Committees, and office positions. There is also one to change the statutes or by-laws of the organization (needed by Dec 15 to Secretariat).
4. Bernard/Carolyn look at IUPAC2017.org website for industrial links to find a potential COCI member.
5. Chair/Secretary will start tracking sponsorship and support received.
6. COCI members should consider if they would like to work with the 2019 Centenary Committee.
7. When Bernard/Carolyn have more information about the WCLM we will share it to identify potential industrial participants.
8. Carolyn will forward the call for nominations for Distinguished Women in Chemistry and Chemical Engineering to COCI members. The award committee would like to recognize women from more countries.
9. Bernard will draft the summary article for Chemistry International and ask Dr. Xie to co-author the article. They will ask Professor Zhou for a quotation about the workshop. Bernard will confirm with speakers that their presentation can be posted (no confidential information should be posted).
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