



## **MINUTES OF COCI MEETING, Warsaw 10<sup>th</sup> & 11<sup>th</sup> April 2011**

### **Present:**

Michel Droescher	Chairman	Germany
Colin Humphris	Secretary	United Kingdom
David Evans	Titular Member	United Kingdom
Khalida Al-Dalama	Titular Member	Kuwait
Alex Pokrovsky	Titular Member	Russia
Hideyuki Ishida	Titular Member	Japan
Bernard West	Associate Member	Canada
Esmat Toprak	Associate Member	Turkey
Jarek Kijenske	Associate Member	Poland
Janos Fischer	Associate Member	Hungary
Barbara Pohl	National Representative	Germany
Peter Mahaffy (10 <sup>th</sup> only)	Ex-officio Member	Canada
Nicole Moreau (10 <sup>th</sup> only)	IUPAC President	France
Kazuyuki Tatsumi (10 <sup>th</sup> only)	IUPAC Vice President	Japan
Jung Il Jin (10 <sup>th</sup> only)	IUPAC Past President	Korea
Fabienne Meyers	IUPAC Secretariat	USA
Iwona Maciejowska	EuCheMS	Poland

Apologies were received from Aldo Alles.

### **10<sup>th</sup> April 2011**

#### **1. Introduction**

The meeting was opened with a round table of introductions.

#### **2. Minutes from Kuwait**

There were no matters arising from the Kuwait meeting that were not covered by the agenda.

#### **3. Report from the Bureau Meeting 9<sup>th</sup> April 2011**

A number of points were noted:

- The web-pages and information on the IYC website will be maintained beyond 2011.
- The new IUPAC website will be unveiled at the General Assembly and Congress in San Juan before going public. It is hoped that the new site will be more appealing to younger users.

- The momentum of IYC will be continued through a review of the strategy of the Union building on the links developed to UN, UNESCO and to industry through the Year. In this regard it was felt that it will be important to review IYC critically and objectively. Representatives of COCI were keen to be involved in this highly worthwhile endeavour **Action: COCI members to engage**. It was felt important to reflect on the lessons learned ahead of the preparations of the celebrations of IUPAC's centenary in 2019.

In response to a question about the limited sponsorship of IYC, Nicole Moreau pointed out that funding for specific events/ activities had proved relatively easy. The main difficulty related to global sponsorship but this reflected the current hard financial environment. Dow was the only significant global sponsor.

#### **4. Polish Chemical Industry Jarek Kijenski (presentation with Michael)**

Jarek Kijenski provided an overview of the Polish chemical industry and the work of the industry research institute. Its pioneering work included reductive processes for coke for the steel industry and in support of fertilizer production for the substantial Polish agricultural sector (larger than France).

Today natural gas provides about one third of national needs but Poland remains dependant on coal, so there is interest in clean coal technologies.

Overall the Polish chemical industry comprises 20,000 + enterprises but Poland remains a net importer of chemicals. It is mainly a producer on many basic chemicals (500,000 tonnes Ethylene, N and P fertilizers, Paraxylene for terephthalic acid and polyesters). Speciality and fine chemicals are mainly imported.

The challenges the industry faces in Poland relate to the sub-competitive size of key manufacturing plants, a lack on developments of new processes or products, and the absence of a plan to capitalise fully on the strength of Polish chemical science. An obvious area for Poland could be in bio-fuels and the products of bio-refineries notwithstanding possible competition between food and feedstocks.

In answer to questions, Jarek agreed that a key issue facing the introduction of agricultural feedstocks remains cost competition with cheaper oil/gas. He noted that the numbers of graduate chemical engineers are falling as the professional opportunities in Poland are limited.

#### **5. Symposium on Chemists employability - Iwona Maciejowska Vice Chair DivCED EuCheMS**

Iwona invited COCI members to take part in the Congress symposium IAC500 "Chemists Employability and Professional Development" in San Juan. This will build on three aspects:

- work by CEFIC on EU employability for those with bachelors degrees.
- European programmes such as ESTABLISH (European Science and Technology in Action Building Links with Industry, Schools and Home), CITIES (Chemistry and Industry for Teachers in European Schools) and Employability of university graduates in chemistry" (ECTN4) which seek to identify ways for industry and

other stakeholders to engage in chemistry education to ensure the relevance to their needs.

- Work by the Italian Chemistry society on professional development.

There was agreement that it would be important for the symposium to make recommendations to enable industry to be involved in setting chemistry curricula. Industry is looking for people who have the ability to research in teams and with other specialisms, for instance with biologists. Russian experience was quoted where less and less science was taught in schools as a compulsory exam topic. The result is a worrying decline in science publications. The key challenges will be to convince employers that chemists are good to employ and engaging industry in chemistry education. Iwona noted her experience that it was noticeably more difficult to engage companies in Eastern and Southern Europe.

This was a debate of interest to COCI members and something to be continued in Puerto Rico.

## 6. WCLM



WCLM 2011.ppt

Colin Humphris reviewed the status of the WCLM. The objective is to consider ways to increase the impact of chemists and chemistry in pursuit of sustainable development. The intention is to focus discussion onto a number of core questions as they relate to energy, water, food and nutrition, health and green chemistry:

- What factors restrict the contribution of chemists to the global challenges for today?
- What new roles could the international chemistry community play in collaboration with other international organisations to increase the impact of chemistry?
- What new roles might IUPAC take on in support of the response to the global challenges? Sub-questions would relate to future priorities for IUPAC in education and capacity building. Practically what should IUPAC do in relation to the Rio+20 World Summit on Sustainable Development in 2012?

The meeting faced a number of challenges given the difficulty of attracting preferred plenary speakers partly due to the location and partly a number of conflicting meetings relating to sustainable development.

Alex Pokrovsky recommended that approaches be made to the local regional offices of the UN Agencies. Jung-II Jin also felt that the UN Commission for Sustainable Development was crying out for a sound science input. Peter Mahaffy noted that a co-chair of the World Summit process John Ashe was from Antigua and originally trained as a scientist. **Action: Colin Humphris to follow up.**

## 7. The Global Water Experiment

Colin Humphris reviewed the organisation, status and launch of the global water experiment in Cape Town on World Water Day 22<sup>nd</sup> March. The launch was simply

uplifting and video of this can be viewed at [water.chemistry2011.com](http://water.chemistry2011.com). The website provides the central coordination for the experiment(s) including the experimental protocols in the six main UN languages. The Experiment has been developed in cooperation with World Water Monitoring Day, the International Water Association and with possible support from ICSU.

The main organisational issues were resolved including the agreement and approval of the contract with European SchoolNet the website provide and for the supply of micro-science kits from RADMASTE South Africa. The experiments are designed to be undertaken using equipment and reagents commonly found in a school laboratory in the developed world or private schools in the developing world. Kits will be available for those who wish to purchase them and free to a small number of schools in developing countries. IUPAC and UNESCO have only limited funds available. The distribution of these kits will be coordinated through UNESCO National Commissions.

Alex Pokrovsky offered the following advice:

- The RADMASTE micro-science kits are very good.
- There is a need to ensure the various ministries of Education include the experiments in their curricula.
- Many developing countries should not need micro-science kits as these have already been provided. The National Commissions should know where these are.

Alex undertook to work with a number of countries to promote the water project and to liaise with the project team. **Action: Alex Pokrovski.**

## 8. CCE Liaison

Peter Mahaffy recommended that a joint session of CCE, CHEMRAWN and COCI in San Juan should consider the lessons learned so far from IYC and the extent to which these relate to Public Understanding and Appreciation of Chemistry. **Action: Peter Mahaffy to coordinate with Michael Droescher.**

## 9. Public Appreciation of Chemistry



COCI Warsaw PAC  
final.ppt

David Evans explained that Public Appreciation of Science (PAC) was essentially a CCE project but that COCI has a focus on helping industrial scientists. 85% of scientists feel the need to improve their communication and to reach the various publics more effectively. If “Chemistry” is keyed into a web search engine, IUPAC only comes up if you also search for Nomenclature.

There have been a number of successful PAC initiatives but these have been mainly national. IUPAC should focus on those issues that transcend national boundaries or that can be supported internationally. So what was or what should be the IUPAC strategy for reaching the global “public”, was a visible public face a strategic priority for IUPAC?

A difficulty in the past was this “public” was many very different audiences with differing interests, knowledge beliefs and cultures. Today, the tools of the world wide web provide a huge amplification factor but IUPAC has no press office and no managed social networking as yet.

Two recommendations were made and supported by COCI.

The first related to Wikipedia and in particular a closed or refereed area. The meeting agreed that projects related to this concept should be supported and the Bureau should be encouraged to consider this and the resource implications positively. It is important to start a project to build momentum. **Action: Michael Droescher and Colin Humphris as Bureau members.** Apparently Wikipedia have approached IUPAC in the past and expressed interest in INCHE and the Gold Book. Division IV (Macromolecular) have a Wikipedia project proposal awaiting approval.

The second related to NGOs and NGO status. It was agreed that IUPAC does need to reconsider its strategic priorities to identify where it needs most influence on behalf of global chemistry. Most UN agencies have strict procedures for NGO recognition and IUPAC has limited NGO status. It was also important to recognise that the most NGOs are responsible and well targeted and possible alliance partners. Not all NGOs fit the caricature of irresponsible, campaigning zealots.

Kazuyuki Tatsumi felt that the question of the role of IUPAC as an NGO should be considered carefully. IUPAC has the advantages being truly international with mature and well tested processes to reach scientific consensus objectively and independently.

## **11<sup>th</sup> April 2011**

### **10. Japan Earthquake and Tsunami**

Hideyuki Ishida explained that although much of Japan was affected by the earthquake and tsunami, the Chemical industry was relatively undamaged. There was a shortage of electricity in Tokyo area which will affect energy intensive industry but the major concern related to nuclear materials at the Fukushima plant.

Probably the key lessons related to the benefits of Japanese disaster preparedness.

### **11. WCLM Follow up**

Colin Humphris led a short debate that led on from the WCLM discussion the day before. It was agreed that COCI should take a lead in the afternoon breakout sessions with the following proposals:

- Michael Droescher – Energy
- David Evans – Agriculture and Food production
- Mark Cesa – Water
- Janos Fischer – Health
- Bernard West – Green Chemistry.

**Action: Colin Humphris to organise and seek support for the WCLM Organising Committee.**

## **12. COCI Processes – sharing large files**

It was noted that the IUPAC Intranet is a good system for sharing information and large files. **Action: Colin Humphris to clarify opportunities with the Secretariat.**

## **13. CA Programme**

The CA programme continues to run well in Japan and is developing in Russia and Kuwait. It remains a matter of concern globally to COCI however. Primarily the objective is to involve industry in IUPAC activities and a key issue is the flow of information between IUPAC and industry through CAs. It is less about money but many times discussions aimed at improving the dialogue have become mired in discussions about processes, accountability and who gains from subscriptions. It was agreed that this should be discussed as an agenda item in San Juan. **Action: All COCI members to bring forward recommendations for improving the CA programme.**

It was agreed that CAs should be notified about WCLM. **Action: Colin Humphris.**

It was agreed that proposals for the next CA regional workshop should also be brought forward in San Juan and members were requested to detail their proposals for the COCI discussion. Alex Pokrovsky for instance recommended Kazan, the capital of the republic of Tatarstan for a regional meeting **Action: All COCI members to consider their recommendations for the next CA Regional Conference for decision in San Juan.**

## **14. COCI Industrial Prize**

A proposal from Janos Fisher for a prize in Flow Chemistry sponsored generously by ThalesNano was strongly supported by the meeting. It was seen as a highly relevant area of importance to improving process chemistry which could build on the experience with the Richter Prize. There was some discussion of a possible jury and recommendations to involve Professor Steven Ley (Cambridge University) and Division III were made. It was agreed that the practical details should be explored with the Secretary General and Secretariat. **Action: Michael Droescher and Janos Fischer.**

## **15. CHEMRAWN Meeting on Biofuels/ Life Cycle Analysis**

This workshop was originally proposed by COCI to CHEMRAWN given the need for scientific rigour in an emerging but controversial area of “green” technology. It was hoped that the output could have been a profound assessment of the status of the technology and its life cycle impact. The meeting is scheduled for 27 – 29 September 2011 in Kuala Lumpur with some excellent speakers possible. Concerns remained however over the continued absence of a final programme and funding. It was agreed that these are matters for the CHEMRAWN organising committee.

It led to a broader discussion of Life Cycle analysis and the project proposal being developed by Bernard West. This was supported by the meeting given the importance and absence of objective and comparative measures of the environmental footprint of

environmental technologies. It was felt this could be a suitable discussion topic for the Green Chemistry breakout group at WCLM. **Action: Bernard West.**

## **16. Safety Training Programme (STP)**

Mark Cesa reviewed status and growth opportunities for the STP. Several potential trainees were approved or in process. The STP continues to attract interest for people associated with chemistry and chemical safety training. The rate limiting step continues to be finding company hosts.

The 2009 Congress Workshop was written up and in San Juan there will be a full day programme with 3 to 4 external speakers on chemical security, safety in university laboratories, safety in the Pharmaceutical industry (local speaker) and possibly Responsible Care in Latin America. 5 STP fellows will speak.

For the future a number of ideas and proposals were under consideration:

- Training of multiple trainees at the same time
- Possibilities through the Syngenta sponsored Pan- African network
- Regular pieces from STP fellows in CI
- Web based discussion forums to share experience
- A SAICM “Quickstart” proposal for standardisation of training topics, web based courses and regional training centres
- Incorporation of Responsible Care into the training
- A new version of ACS “prudent practices” but with a global perspective
- Related US National Academies documents redesigned for a global audience.

COCI Members were invited to bring forward proposals for extending and for funding the STP. For example, Khalida Al-Dalama and Esma Toprak noted a proposal they are developing to organise 3 day workshop focused on petroleum and petrochemicals in Istanbul. **Action: All COCI Members.**

## **17. Responsible Care (RC)**

A proposal for a second COCI RC case study (approximate cost \$5000) will be circulated to COCI members prior to the San Juan Meeting. **Action: Bernard West.**

## **18. COCI Membership and Elections**

To bring COCI into line with the other Standing Committees and Divisions elections will be held for Titular members and proposals made for Associate membership prior to San Juan. **Action Michael Droescher.** All current COCI members were encouraged to take part in the process.

## **19. Next Meeting San Juan**

Michael Droescher and Colin Humphris will attend the Divisional meetings and present the work of COCI. All COCI members were encouraged to attend the General Assembly and especially the COCI meeting and WCLM.

**Signed: .....**  
**Michael Droecher, Chairman COCI**

**Date: .....**