

IUPAC Finance Committee Meeting

Monday, 5 February 2018, 09:00 – 17:00 Hours
Offices of Reber Rechtsanwälte, Utoquai 55
CH-8034 Zürich, Switzerland

Minutes

Members Present: Prof. John Corish (Chair), Prof. Urs T. Rugg, Dr. Nobuyuki Kawashima, Dr. Mark Cesa, Prof. Yiqin Gao, Mr. Colin Humphris (Treasurer), Dr. Lynn M. Soby (Executive Director)

Secretary: Dr. Lynn M. Soby

IUPAC President: Prof. Qi-Feng Zhou

1 INTRODUCTORY REMARKS & FINALIZATION OF AGENDA

Prof. Corish welcomed the Finance Committee and thanked them for serving on the committee. He was pleased with the full attendance at the meeting. He expressed thanks to Dr. Georg Wießmeier and Dr. Pat Confalone, who stood down due to their other commitments, for their service. He thanked Reber Rechtsanwälte for the excellent arrangements and facilities. He thanked Dr. Soby, Executive Director and the Treasurer for their diligent work in preparing the Detailed Agenda and Agenda Book for the meeting. All present joined in their appreciation of this work.

Prof. Corish made opening remarks for the committee that stressed the need for transparency for the FC and explained the role of the Treasurer and Executive Director in management of the operations. In his view, the Finance Committee's role was more as an Audit Committee and as advisors to the budget development. The formal executive function of the Finance Committee is for the management of the investment portfolio and he reminded members that although the portfolio management has now been delegated to BB&T/S&S, the Finance Committee remained responsible for it. He felt that the FC should also provide further advice on financial risks to the Union and play a more important role in risk management.

2 FINANCE COMMITTEE MEMBERSHIP

The terms of service of the current members are as follows:

Prof. John Corish (Chair)	2016-2019 (First Term)
Dr. Mark Cesa	2018-2021 (First Term)
Dr. Nobuyuki Kawashima	2016-2019 (Second Term)
Prof. Urs T. Rugg	2016-2019 (First Term)
Prof. Yiqin Gao	2018-2021 (First Term)

The Treasurer and the Executive Director of IUPAC are *ex officio* members of the Finance Committee (FC) without voting power. Dr. Mark Cesa and Prof. Gao Yiqin were appointed for a four year term by President Natalia Tarasova.

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3 OUTCOMES FROM MEETINGS RELEVANT TO THE FINANCE COMMITTEE

3.1 The draft minutes of the 2017 FC Meeting were discussed with the FC and suggestions made for producing a cleanly formatted version along with suggestions and some minor edits from the members. The members agreed that when all was completed, Prof. Corish has approval to sign the final version.

3.2 OUTCOMES FROM COUNCIL RELEVANT TO FINANCE COMMITTEE

Mr. Humphris discussed particular topics from Council that were relevant to the FC. Items related to auditors for 2017 and 2018 as well as the approval to change auditors for fiscal year 2019. The approved changes to the Company Associates and Affiliate Membership Programs and subsequent income streams were highlighted to the FC. The approval of the recommendations from the Finance Committee for the 2018-2019 budget, invoicing of National Subscriptions [NS] in USD and creation of an Endowment fund were particularly relevant to the FC which expressed its thanks to the Treasurer and Executive Director for managing these to successful conclusion.

***Action:** Reformat 2017 minutes and incorporate the agreed changes for signature by the Chairman [LMS].*

3.3 OUTCOMES FROM EC RELEVANT TO THE FINANCE COMMITTEE

The minutes of the most recent meeting of the 157th Executive Committee (London 18-19 November 2017) were not yet available. However, Mr. Humphris pointed out the items of direct relevance to the Finance Committee. Most important were changes to the National Subscription task force membership. The EC approved the change of two members who stood down - Mr. Pat Confalone, due to other priorities and Dr. Kee-Ho Lee who had been unable to participate regularly. The two new members are Dr. Neil Burford (Canada) and Prof. Ito Chou (China/Taipei). Secondly, he discussed the update to the NAO readmission approvals by the Executive Committee for Costa Rica and Pakistan along with a new ANAO approval for Kenya Chemical Society. These will proceed to Bureau in April 2018 and then Council in July 2019.

3.4 UN INTERNATIONAL YEAR OF THE PERIODIC TABLE

The International Year of the Periodic Table 2019 (IYPT) was approved by the United Nations General Assembly on 21st December 2017. The implications to IUPAC were reviewed in detail to the extent information was available. The International Year of Chemistry finances were provided for background and reference. The formal Project

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proposal for IYPT was unavailable at the time of this discussion, but was in process. The Finance Committee reviewed the minutes from 2017 and relevant sections related to financial discussions with President Natalia Tarasova, who assured the FC that there would be no net cost to IUPAC for IYPT. No additional budgetary item was therefore included in the 2018-2019 budget proposal. The committee recognized that the Prospectus for IYPT was prepared by a Secretariat in the Mendeleev University of Chemical Technology along with assistance from IUPAC Secretariat.

The Finance Committee noted:

- The Management Committee structure and Membership, activities, the International Secretariat, a website, other costs and commitments, in particular to UNESCO, remained unclear at the time of the FC meeting.
- Any costs would be extra-budgetary as this proposal emerged after the budget was formulated and approved by the IUPAC Council in 2017.
- Given the involvement of a number of International Unions (5) the coordination of IYPT is likely to be complex given the diverse interests and cultures of the respective science Unions.
- The experience of the International Year of Chemistry 2011 (IYC) was that there was considerable additional administrative load on the IUPAC Secretariat and depending on how IYPT is to be administered there is almost certainly a need for additional Secretariat support. IUPAC already faces significant challenges including the review of National Subscriptions.
- Activities for the centenary of IUPAC also in 2019 (IUPAC100) are advanced and some but not all relate to the Periodic Table of Elements.
- Discussions are at a very preliminary stage with the Chemical Industry for Sponsorship and Partnership in the Year. IYC was developed over a significantly longer period.
- International Years are normally launched at the UNESCO office in Paris. French industry, which had supported the Opening of the IYC2011 in its entirety, is already supporting the IUPAC Congress and General Assembly in July 2019 as well as the Chemistry Olympiad, which may indicate that it will be able to offer little to no support for the Opening Ceremony for IYPT.

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4 FINANCIAL AUDITS

4.1 2016 AUDIT

The Finance Committee supported the 2016 Audit, which was accepted by Council in July 2017. The Finance Committee noted that the 2016 showed a small net surplus \$32k against a planned deficit of (\$87k) which resulted largely from underspending on travel associated with projects. The Finance Committee discussed the timing of future even-year FC meetings (such as 2018) and agreed that these might be held at a time after the delivery of the Audit for the preceeding year to enable discussion and decisions regarding biennium budget proposals.

4.2 2017 AUDIT STATUS

The 2017 Audit status was reviewed by Dr. Soby. The 2017 Audit should be available for Bureau meeting in April given an expected delivery date of mid-March 2018. The timing of the audit delivery was enhanced by pre-audit work performed in December 2017 as well as the work performed by Mr. Lucido on providing schedules and information in a timely and professional manner.

***Action:** Send 2017 Audit and Financial Statement to Executive Committee and Finance Committee. Post on website as normal procedure.[LMS]*

4.3 AUDIT FIRM FOR 2019 APPROVAL

Council approved the FC recommendation to change auditors for the fiscal year 2019-2020 and to review alternatives at the 2018 Finance Committee meeting. An Auditor Request for Proposals (RFP), initiated following the 2017 Finance Committee meeting and approved by Council were reviewed by the Finance Committee. Four firms were identified as having the experience and qualifications necessary for IUPAC's non-profit needs. Following on-site interviews, external recommendations, credentials and financials, the results were discussed with the Treasurer in order to provide a recommendation to the Finance Committee. The Finance Committee was asked to approve the recommendation of McMillan, Pate & Company, LLP as Audit firm for 2019-2020 to be brought to Council for approval in 2019.

***Action:** The Finance Committee approved the recommendation to put forth the firm of McMillan, Pate & Company, LLP as the Audit firm for 2019-2020.*

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5 FINANCIAL PERFORMANCE FOR 2016-17 BIENNIUM AND 2017 REVIEW

5.1 THE PROFIT AND LOSS STATEMENT 2017 WITH VARIANCE FROM BUDGET

The detailed profit and loss statements for 2017, variance to budget and 2016 were reviewed by the Treasurer. The IUPAC estimated net income for 2017 shows a positive net income of \$147k relative to a budget expectation of a deficit (\$106k). The 2016 was a positive net income amount of \$32.5k relative to a budget expectation of a deficit (\$87k). The Treasurer reviewed the noteworthy items in both principal income and expenses. It was noted that the increase in the stated income mostly arose from the performance of the investment portfolio, and an increase relative to budget of the AMP. He confirmed that the estimated year end payment from DeGruyter of ~\$105k for PAC and \$300k *unrealized* gain are included in the figures. **Given the size of the unrealised gain, it is important to recognise that IUPAC is therefore running an operating deficit.**

5.2 PROFIT AND LOSS STATEMENT FOR BIENNIUM 2016-2017

The detailed profit and loss statements for 2017 (non-audited) and 2016 were reviewed and showed the power of the new accrual accounting system and the ability IUPAC now has to track all financial transactions. The Treasurer reviewed the noteworthy items in both principal income and expenses. It was noted that the increase in income mostly arose from the AMP, Royalties and the investment portfolio. He also noted that travel expenses were under budget for both years with difference in a GA year adding ~\$80k, yet still under budget. A discussion regarding this result centered around whether the implementation of a receipted-basis of reimbursement and rigorous reviews against policies or a more fundamental issue or both was responsible for lower than budgeted travel expenses. It was felt all were having an effect and should be borne in mind during 2020/21 budget preparation.

Prof. Corish asked that the current status of IUPAC Projects be discussed at the Finance Committee. This should enable the FC to understand the project completion rate, expenses, unused funds and total project financial liability. He requested that the latest Monthly Financial and Project report be included in the Finance Committee agenda book.

Action: *The Executive Director will include most recent Financial Project Report in future FC Agenda books [LMS].*

5.3 BALANCE SHEET FOR 2016 AND 2017

The Treasurer and Executive Director reviewed the Balance Sheet statements of Financial Position for 2016 and 2017. The committee discussed the key items reported on the Balance Sheet. The principal uses of funds were discussed in detail.

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The balance sheet showed net increases in Cash and Cash Equivalents, Accounts receivable and increase investment market value. Accounts receivable increased in 2017 compared to 2016, owing to unpaid NS. The Accounts payable also increase relative to 2016 owing to the serious cash flow situation September-December 2017 that limited payments. It was noted that outstanding payables were currently being processed from NS receivables for 2018.

Cash and Cash Equivalents were \$305k at the end of December 2017 but FC members were asked to note that of this \$204k was held as cash within the investment portfolio awaiting reinvestment (cash sweeps). The Union therefore held just \$100k in available cash versus accounts payable of \$174k. This cash flow problem was despite fully utilizing the line of credit (short term notes payable) to \$350k. Finally, the Treasurer encouraged the committee members to review the detailed information and to raise any questions with him after the meeting.

5.4 PUBLICATIONS AND SUBSCRIPTIONS

5.4.1 *PURE AND APPLIED CHEMISTRY (PAC) AND CHEMISTRY INTERNATIONAL (CI)*

A review of the 2017 financial results for *Pure and Applied Chemistry (PAC)* and *Chemistry International (CI)* was presented. The PAC financial statements were reviewed along with the 2017 forecast of net revenue. The Treasurer reviewed the history of the publication agreement and the financial impact on IUPAC. A review of the CI Net Cost to IUPAC indicates a significant reduction from the cost when IUPAC published CI (\$25k as opposed to \$170k). Historically, the two publications were evaluated as PAC Revenue less CI Cost and FC noted that this appears to be stabilized at approximately \$190k.

PAC net revenue for 2000-2017 shows the steady decrease of revenue between 2002-2010, with a rapid drop (~50% loss) observed in 2011. The original business plan for 2017 net revenue forecast was \$224,184 was reforecast in July 2017 downward to \$211,587 compared to an **estimated** Net Revenue Actual of \$215,706.

5.4.2 OTHER SUBSCRIPTION INCOME 2017

5.4.2.1 COMPANY ASSOCIATE PROGRAM (CA)

The Company Associate program was outlined for the Finance Committee by Mr. Humphris. The CA program invoice schedule for 2017, the progress of an active review of the program and the relative impact on income were discussed. In 2016-2017, the CA biennium budget (expected income) was \$13,400. IUPAC actually

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received \$9,500 CA income over the two years. The CA program during this biennium cost \$450.00/CA and IUPAC received just \$50.00/CA. As a result of the decline in membership and the low value to IUPAC a review was undertaken to enhance the engagement and benefits to companies and the ensure a more meaningful income stream to IUPAC. He noted that the objective for the new CA program was to ensure that it is more relevant to both companies and IUPAC, to significantly add to income and to remove unnecessary complexity and administrative burden. He pointed out that a significant increase in income was anticipated in the 2018 and 2019 proposed budgets dependent on the successful relaunch of the program. This is a risk to be monitored through the biennium.

The Finance committee members discussed the CA program, with particular focus on its objectives. There was a clear misunderstanding that the CA program was limited to COCI-related activities (including the Safety Training Program and Responsible Care). This was clarified. CA members should be fully aware and engaged in all IUPAC activities, not only those that are COCI-related. This will be particularly important to enhance industrial membership within IUPAC given the new CA program, the new strategic activities on “Big Data” and Sustainable Development, and potential to engage CAs throughout the Divisions and Committees. Dr. Kawashima was particularly interested in this discussion and reiterated that this should be clearly communicated to both COCI, CA Coordinators and the CAs themselves. Prof. Zhou agreed that this needed to be clarified within COCI as well as with our NAOs. The organization chart should be reviewed and updated following discussions with COCI.

***Action:** The Executive Director to review the marketing of the new CA program and its value to companies together with COCI [LMS].*

5.4.2.2 AFFILIATE MEMBERS PROGRAM (AMP)

The AMP program has continued to grow with increased interest from individual chemists around the world. 2017 income was up to \$30k (2017 Budget \$15k). The benefits, costs and subscriptions were reviewed, and proposals approved by Council with the objective of increasing engagement and income. Membership includes access to CI via the De Gruyter *CI* Digital platform with an option for a paper copy at a \$25 subscription premium. This was further discussed in the 2018/2019 Budget section.

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6 CASH FLOW REVIEW 2016-2017

6.1. CASH FLOW REPORTS FOR 2016 AND 2017

A review of inflows, outflows, net cumulative cash flow and major expenses for 2016 and 2017 was presented by Dr. Soby and Mr. Humphris. The critical situation regarding cash flow and operation of the Union was discussed. Cash flow remains a difficulty in the management of the union, given the uncertainty of payments, payment timing and unpredictable claims for expenses.

6.2. CUMULATIVE NET CASH FLOW 2017

The Treasurer discussed the cumulative net cash flow for 2017 and pointed out the significant challenges that had occurred within a GA year. This was despite increased borrowing through the Letter of Credit (LoC) to \$350k (\$100k was used to pay of the previous loan). The Finance Committee recognized the necessity of using this line of credit in order to manage the cash flow during 2017.

6.3. CASH FLOW ISSUE: NAO PAYMENTS

The receipt of the NAO subscription payment timing continued to create erratic and unpredictable cash flows in 2017. The cash flow situation in 2017, described above, was exacerbated by late payments of 2017 NS and the erratic nature of inflows and outflows. This led to three periods of materially negative cash flow during the year.

6.3.1. NAO Subscriptions 2016-2017

The Executive Director discussed the NAO status for 2015 and 2016 and the 3 NAOs in arrears for more than 24 months. Argentina, Kazakhstan and Pakistan have been notified of their loss of NAO status. The financial impact was an overall loss for 2016-2017 against budget for totaling \$24,298. Pakistan are in process for readmission and, should this be successful, \$8,580 of this would be recovered.

6.3.2. NAO Status of Payments

The Executive Director reviewed the status of the 2017 National Subscriptions. All NS had been received at the time of the Finance Committee meeting with the exception of Belgium, China/Beijing and Jordan. The total amount due was \$174,018.

Note: China/Beijing made partial payment of \$97,970 USD equivalent. (2 payments) 25 January 2018. Numbers were not adjusted at this late time.

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As of 31 December 2017, IUPAC had received \$741,512 (~79.6%) of the 2017 budgeted amount of \$931,802 with an outstanding Accounts Receivable amount of \$190,290. The estimated total receivables (Adjusted NS) for 2017 is \$915,576 with the difference due to loss of status of countries originally in the 2017 budget (\$12,731) and on exchange rates (\$5,543). The exchange rate loss in 2017 was comparable to 2016 at a similar time period and is significantly less than in the previous biennium.

6.3.3. Matters Relevant from EC Regarding NAOs

The Executive Director noted that the Executive Committee approved the recommendation of removal of Cuba as NAO of IUPAC; approved the readmission of Pakistan, subject to meeting IUPAC's conditions, and the admission of Costa Rica as *Provisional* NAO pending Council approval in 2019. The EC approved Kenya Chemical Society as Provisional ANAO status.

6.3.4. Cash Flow Challenges in a GA year 2017

The Treasurer and Executive Director discussed the overall financial and operational aspects of cash flow during the General Assembly year. As a result of outstanding and delayed NS payments it became necessary to solicit options for addressing cash flow problems with the investment firm BB&T/Scott&Stringfellow who manage our portfolio. All claim reimbursements were put on hold until a solution was in place. After thorough discussions with BB&T Bank, BB&T/Scott&Stringfellow and the Officers, increased credit (LoC) was put in place. The new IUPAC LoC was \$350,000 and was secured against our investment portfolio. The initial line of credit (\$100K) was paid off, as it was due to expire in November 2017. After payment of the initial LoC, \$250,000 was available for operations and reimbursements of claims. At the time of the FC meeting, the \$350K line of credit was fully utilized.

The FC discussed improving the management of cash flow going forward based on the 2016/17 experience. A major issue arose in December 2017 with NS non-payments at the time when the line of credit was fully utilized, so no further credit was available. The Finance Committee discussed the use of the investment portfolio to provide a "safety net" for cash flow problems. One idea was to cap the investment portfolio at ~4.0M and place any excess into an account to smooth cash flow when required. A second was to increase the proportion of more liquid investments that could be used in times of cash shortage and rebuilt when subscriptions are paid. It was decided overall that it would be best to discuss options for the management of cash flow with the investment management team during the upcoming 2017 year end investment call. The question was whether it is better borrow from the investment portfolio and forgo earned

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interest from the long term investments or to borrow from the bank, as in the Line of Credit, and pay interest albeit at an advantageous rate.

It was agreed that we should have the LoC paid off before 2019 to ensure maximum flexibility in a potentially expensive year.

Recommendation: Approach BB&T on the optimum way to use investment gains to pay down the \$350k debt by year end 2018.

Action: Discuss cash flow management options with BB&T/S&S during year end call.

7. INVESTMENT PORTFOLIO

7.1 PORTFOLIO PERFORMANCE

The Year End 2017 Investment Portfolio was reviewed by the FC. The historical investment market value of IUPAC's portfolio showed that the portfolio has steadily gained value and managed risk since we started working with BB&T. The overall investment market value was \$4.309 M and an overall return of 10.13% net of fees in 2017. The 2017 return of the Equities portion is 13.01% and Fixed portion yielded 3.23%. The Finance Committee felt the portfolio manager's performance was satisfactory. The Executive Director noted that in 2017 there was no withdrawal of any principal from the investment portfolio in order to preserve and build the overall market value of the portfolio. The interest and dividend income is currently transferred to a USD BB&T operating account monthly.

7.2 IUPAC INVESTMENT POLICY ANNUAL REVIEW

The IUPAC Investment policy was reviewed by the Finance Committee and no changes were recommended.

7.3 IUPAC FUND POLICY STATEMENT

The current IUPAC Fund Policy Statement was reviewed by the Finance Committee. The statement currently places a requirement to hold a certain amount of funds to operate for a biennium, which is estimated at \$2,821K. The General Assembly Special Fund asset at a maximum of \$250,000, was intended as a contingency fund for any particularly expensive GA. As this is no longer relevant in current General Assembly organizing, the Finance Committee recommended it be removed from the policy.

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Action: Finance Committee approved that the Fund Policy be updated and not include the \$250,000 General Assembly contingency.

7.4 THE PERCENTAGE INCREASE TO BE APPLIED TO EXISTING RESTRICTED ENDOWMENT FUNDS

Based upon the 2017 interest and dividend return of the IUPAC Investment Portfolio, the Finance Committee decided that a rate of 2.5% be applied to the 2018 special funds. No other changes were recommended at this time.

Action: FC Approved 2.50% to be applied to the IUPAC special funds for 2018.

7.5 REPORTING AND QUARTERLY REVIEW OF PORTFOLIO

The Executive Director discussed a proposed schedule of quarterly meetings of the FC members with the BB&T Investment team. In order to improve consistent oversight of the portfolio, these meetings are to be held with a majority of committee members present and done via a Go To Meeting virtual meeting. The Executive Director also agreed that monthly summary reports of the portfolio performance will be distributed to the FC. The 2017 Year End meeting was scheduled on 22nd February 2018 for the FC members to review the portfolio and other items arising from the FC meeting with the investment management team.

8 BUDGET FOR NEXT BIENNIUM (2018-2019)

The Treasurer discussed the 2018-2019 biennium budget that was approved by Council. The forecast for 2018/19 of a much smaller deficit (\$61k) and is an improvement of the original budget for 2016/17 that showed a deficit of \$214k. He noted that this is due in part to the improved performance in 2016 and expected 2017 and the greater understanding of the financial performance now available through the new accounting system and reporting. A key issue was the control of costs at the 2015 Busan General Assembly and the 2017 São Paulo General Assembly. The General Assembly in Paris 2019 could be a challenge as the costs of accommodations and subsistence are high.

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8.1 COMPANY ASSOCIATE PROGRAM (CA)

Council approved the revision of the the CA program and this was currently being implemented. The budget includes a significant CA income stream in 2018/19 that has to be delivered.

The Company Associate Pricing Structure implemented for 2018 includes an increase over time for the current (2017) CAs to the target amount of \$2,500 per CA. New CAs are charged \$2,500 starting in 2018.

In the development of the 2018-2019 budget for the CA program, a model of income was prepared. The Finance Committee noted that maintaining the existing CAs as well as adding new CAs now has a material effect on IUPACs income.

8.2 AFFILIATE MEMBERS PROGRAM (AMP)

The new model of AMP subscription that was developed for the 2018-2019 budgets was also discussed. Implementation of the new AMP program for 2018 includes a price increase for base membership plus CI Print surcharge to cover print, distribution and marketing costs.

The AMP actual income was well over budget for the biennium 2016/17 demonstrating the world wide interest in the scheme. The AMP benefit of receiving a print copy of CI as a default has been changed to receiving authenticated digital access at De Gruyter's site. Those that want a print copy of CI pay an additional \$25.00 to offset the costs. Many AMPs join through their NAO but we have also implemented an IUPAC "direct" payment for AMPs to provide easy application and payment of the AMP fee online with payment by credit card.

9 NATIONAL SUBSCRIPTION TASK FORCE (NSTF)

The Executive Director and Treasurer reviewed the current status of the task force and noted the membership changes approved by the Executive Committee. National Subscriptions account for approximately \$900k of IUPAC's \$1.3m income. It is therefore absolutely critical for the Union to have a formula for calculating National Subscriptions that is acceptable to Council members, is simple to understand and based on easily accessible data.

Following the 2016 Finance Committee meeting, the Taskforce has undertaken work to consult widely on new models based on the volume of intellectual property relevant to chemistry, publishing in terms of volume of publication or a national "H" factor, the overall size of the economy GDP, and the size of the chemical industry. One model was approved by Bureau for

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consideration by Council but through the feedback from NAOs we identified a flaw, the root cause of which lay in industry data as a proportion of GDP for one country, Puerto Rico.

Council approved the proposal invoicing in \$ USD and there was good acceptance of the principle of migrating subscriptions at controlled rates to the new calculated values (+/- 3% p.a.). Council asked the Taskforce to review and validate the data and the statistical analysis. Council approved the retention of 2017 subscriptions for 2018. The working assumption of the taskforce is that the IUPAC should not expect income greater than \$900k from the current group of member countries

A statistical review has been undertaken with volunteer help from Prof. Tom Fearn (University College, London). The model based on “H-index” factor, GDP and Chemical industry turnover gave a reasonable fit to 2018 subscriptions. The regression analysis resulted in the following equation for calculating national subscriptions:

$$\text{National Subscription} = -0.8554 + (4.5525 * \text{Publishing}) + (3.6838 * \text{Industrial Turnover}) + (0.9237 * \text{GDP})$$

Prof. Fearn (University College London) undertook a statistical review and his analysis resulted in suggestion for a simplified equation providing weighting of three factors that gave a reasonable fit with existing subscriptions rather than major changes:

$$\text{National Subscript} = (2 * \text{Publishing}) + (2 * \text{Turnover}) + \text{GDP}$$

The FC was content for the NSTF to take this forward. Further refinement of the model will be undertaken with a communication and consultation proposal made to Bureau. The timeline for seeking NAO agreement on a new formula is July 2018.

Action: NSTF to finalise a proposed formula together with a communications plan for Bureau [NSTF].

10 FUNDRAISING STRATEGIES FOR A SUSTAINABLE IUPAC FUTURE

The Treasurer led a discussion regarding fundraising strategies and other options to ensure a sustainable future of IUPAC. The current financial position of an operating deficit is simply not sustainable. A number of changes to improve income and reduce costs are in hand but these by themselves may not be sufficient. IUPAC needs to secure the income stream from national members as a priority, secure income from publishing and new derivative products, eliminate unnecessary costs, continue with rigorous and tight financial controls but also explore new income streams beyond the updated CA and AMP programs.

Council agreed that we should facilitate broader engagement with industry and funding agencies/bodies given the important and relevant new strategic priorities for IUPAC in relation

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to sustainable development and Big Data. Council also agreed that creation of an endowment fund(s) to create the opportunity for corporations to become strategic partners or corporate sponsors of IUPAC. Given the new accounting system and processes are in place and a partnership with investment managers and auditors, it was noted that IUPAC now has the capability to administer this type of approach.

The Finance Committee was asked for its thoughts on the establishment of an IUPAC Endowment fund. The timing of IUPAC100 and IYPT in 2019, as well as the fundraising efforts planned for supporting these activities, also provides a unique opportunity to set in place an Endowment fund. Discussion also included the need for a figure head and/or independent Board of directors as this effort is typically the primary responsibility of a board and Lead Director. Additional comments were the size of the fund; \$5.0M should be a starting target; and the ability of the fundraising for the endowment to include multiple means of donations (wills, gifts, matching funds, etc). The name of the fund should reflect a future focused fund. The development of an Endowment Policy and Operating Principles is a critically important first step.

***Action:** A management structure to include experienced external directors should be pursued for the Endowment development[LMS/CJH]*

Given the questions over the financial sustainability it was proposed and agreed by the FC that the Treasurer should set up a small working group to develop ideas for IUPAC to operate on a significantly lower cost structure. These ideas would be prepared for consideration by the FC in 2019.

***Action:** The Treasurer to establish a small working party to develop ideas for a lower cost IUPAC [CJH]*

11 INTERNATIONAL YEAR OF THE PERIODIC TABLE 2019

The meeting returned to the discussion of the upcoming UN International Year of the Periodic Table in 2019.

2019 is an important year for IUPAC given its centenary. Work in this regard is already underway with an agreed logo for IUPAC100, the development of IUPAC100 pages on the website, the events of the General Assembly and Congress in Paris in July 2019 and a number of activities that look both back at what has been achieved and the important challenges for the future. These activities are being developed through the IUPAC project system. Some but not all relate to the Periodic Table and the project team organizing IUPAC100 had made initial approaches to industry for sponsorship and partnership to encourage both engagement and a financial contribution. Dialogue started with the global industry body ICCA in October 2017 at the Global Chemistry Industry Summit in Vienna.

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The announcement of the UN International Year of the Periodic Table however complicates matters due the uncertainties raised in section 3.4. In addition to the activities already planned as IUPAC100, IYPT will need an opening in Paris and a closing ceremony. Given this is a multi - Union activity it presumably needs a stand-alone website and management coordination. A draft proposal that arose from an EC working party was included in the Agenda Book for information. It considers:

- IUPAC taking the lead, with other Unions contributing
- A Secretariat, its location and staffing
- Funding of the major events

The proposal is a draft but indicates a cost approaching \$500k which is relatively low in comparison with the recent International Year of Chemistry 2011. IYC had the advantage of much longer lead time for planning and nurturing potential sponsors.

By definition IYPT is extra budgetary and therefore a further potential draw on IUPAC resources at a time of deficit. IUPAC faces a number of uncertainties in delivering this deficit during the current biennium:

- Finalisation of the work of the NSTF and acceptance of its proposals to ensure 2019 income from NAOs
- Possible loss of member countries as a result of changes in NS formula.
- Actual yield from the new NS in light of the staged gradual movement to new subscription rates. These will need to be calculated over time as countries migrate to their target.
- Realisation of the estimated incomes from the new CA and AMP programs as stated in the budget and the need to launch these successfully. The CA target is probably more demanding than the AMP.
- Additional costs of IUPAC100 and IYPT
- Paying off of the LoC during this year
- Overruns on operational expenditures
- Maintaining the PAC sales income at current levels.

Given this the FC had a deep interest in the potential additional financial exposure at this time; the liabilities that IUPAC might be left with given the very short time available to secure sponsorship. The FC was therefore unwilling to make any recommendation without more information in relation to IYPT. It had a number of questions of the IYPT Project Team:

1. What is the overall IYPT management structure and its cost? Agreement is presumably needed between UNESCO, all the Unions and the major laboratories involved in the year.
2. Has an IYPT management committee met and what are the agreed objectives for the year and for its main events – the proposed activities, and their size/ format/

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location including the opening, and closing ceremonies. The IYC 2011 opening actually cost closer to \$450k but was completely funded by French industry and local authorities.

3. What are the other Unions formally committed to bringing, and what roles will they play? What are they looking for/expecting from IUPAC?
4. We noted in the UNESCO recommendation for IYPT that this is also extra budgetary for them. What resources have they agreed to provide?
5. What is the proposal for an IYPT website? Who will develop and maintain it, where will it be hosted, who will fund it?
6. Will there be any commitments to be made by IUPAC before we know if we can raise external funds (our exposure)? The FC was clear that all monies raised in IUPAC name should be banked and accounted through IUPAC. All legal agreements with sponsors must meet IUPAC procedures including approval and signature by the appropriate officer and Executive Director.

The FC agreed that it would need to understand the answers to these questions before it could make a financial recommendation to Bureau in April.

Actions: FC Chairman to first discuss the open questions with the Past President Tarasova and the Treasurer to prepare a request for this information from the IYPT Project Team.

12 DATE AND LOCATION OF NEXT MEETING

The Finance Committee meets historically in early February of each year. In 2019, the Finance Committee will be asked to review and approve the 2020-2021 budget and National Subscriptions. In the even years of the biennium, the committee may consider a later date to review the biennium results after the Audit is completed, which is expected by end of March 2020. In addition, the Finance Committee recommended that a lower cost hotel be identified for the 2019 meeting.

The date of the next meeting was set as 11 February 2019 at the offices of Reber Rechtsanwälte in Zürich, Switzerland.

The meeting was adjourned by Professor Corish, Chairman.

IUPAC Finance Committee Meeting 2018
Minutes

L. SOBY
MINUTES

J. CORISH
CHAIRMAN

DATED:

IUPAC Finance Committee Meeting 2018
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MINUTES

J. CORISH
CHAIRMAN



DATED:

15th February 2019