



INTERNATIONAL UNION OF
PURE AND APPLIED CHEMISTRY

51st IUPAC COUNCIL MEETING
Virtual 05th, 13th through 15th August 2021
FINAL DETAILED AGENDA

Opening of the 51st Council Meeting – Thursday 5th August 2021 08:00 – 09:30 EDT (UTC-4)

1. [08:00] Introductory Remarks and Finalization of Agenda
[Prof. Brett]
[For Information]
2. [08:20] Approval of Minutes of 50th Council Meeting and Matters Arising
[Prof. Brett]
[For Information and Decision by Delegation]

The draft minutes of the 50th Council meeting are in the Agenda book for review.

Motion: *Minutes of 50th Council Meeting in Paris, France are approved.*

3. [08:30] Ratification of Decisions Taken by Bureau and Executive Committee since 50th General Assembly
[Prof. Brett]
[For Information and Decision by Delegation]

All decisions taken by the Bureau and Executive Committee through calendar year 2020, since those approved by the Council at Paris, France (Minute 3, 50th Meeting), are contained in the following Minutes, which were distributed to National Adhering Organizations on the dates shown:

104th Bureau (Virtual, 25th April 2020)
103rd Bureau (Paris, France, 9th and 12th July 2019)
159th Executive Committee (Virtual, 10th November 2020)
158th Executive Committee (Tokyo, Japan, 6th December 2019)

A summary of the decisions taken is in the Agenda Book with the minutes.

Motion: *Council ratifies all decisions taken by the Bureau and Executive Committee through calendar year 2020, since those approved by the Council at Paris, France (Minute 3, 50th Meeting).*

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4. [08:45] Announcement of Nominations for Union Officers and Bureau Members

[Prof. Hartshorn]
[For information]

According to Statute 5.401, Council must elect (1) Officers of the Union and (2) Elected Members of the Bureau at its upcoming meeting. 51st Virtual 2021.

According to Bylaw 2.221, nominations are due at least two months prior to the beginning of the Council at which the elections will take place.

The nominations for the various positions that fall vacant at the end of 2021 were received by the Secretary General at the IUPAC Secretariat by 15 May 2021.

Elected Members of Bureau: Four/Five Vacancies

The Bureau consists of the Officers, the eight Division Presidents, six Standing Committee Chairs and no less than ten other members elected by Council, who are known as “Elected Members”. Elected Members serve a four-year term. No National Adhering Organization shall have more than one Elected Member on the Bureau. The statute also states that: “the principle of fair geographical representation of Members shall be taken into account”.

At the conclusion of the 50th Council in Paris, there were ten Elected Members on the Bureau. At the 51st Council held Virtually, the Bureau will make recommendations to Council as to the number of Elected Members (ten or more) who should be on the Bureau for the succeeding two years. At least four Elected Members will be elected at the 51st Council, i.e., the minimum number of ten Elected Members less the six Elected Members who continue in office until 2021.

The nominees’ CV’s, Biographies, Photos and Vice President’s Statements may be found in the Agenda Book.

4.1 Candidates for Vice President

Prof. Mary Garson (Australia)
Prof. Ehud Keinan (Israel)
Dr. Ting-Kueh Soon (Malaysia)
Prof. Supawan Tantayanon (Thailand)

4.2 Candidates for Treasurer

Prof. Russell Boyd (Canada)
Dr. Wolfram Koch (Germany)

4.3 Candidates for Member of Bureau (continued on page 3)

Prof. Abeer Al Bawab (Jordan)
Prof. Hemda Garelick (United Kingdom)
Dr. Ting-Kueh Soon (Malaysia)
Dr. Patrick Maestro (France)

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Dr. Laura McConnell (United States)
Dr. Zoltan Mester (Canada)
Prof. Greg Russell (New Zealand)
Prof. Ken Sakai (Japan) 2nd Term
Prof. Zhigang Shuai (China/Beijing)
Prof. Supawan Tantayanon (Thailand)
Prof. Pietro Tundo (Italy)

Note: If any Elected Members of Bureau who are continuing, or any candidates for Bureau, are elected to a position as Officer, Division President, or Standing Committee Chair, they are not eligible to continue or to be elected to the Bureau at this election for the 2022-2023 biennium. Should that occur, there may be additional elected positions to be filled.

5. [09:00] Announcement of Time of Elections and Description of Procedure

[Prof. Hartshorn]
[For information]

The elections for Vice President and Treasurer and Elected Members of the Bureau will begin at **09:45** hours on 5th August 2021.

6. [09:15] Applications for National Adhering Organization Status (NAO)

[Prof. Hartshorn]
[For information and Decision by Delegations]

There is one application for National Adhering Organization status.

6.1 Kazakhstan: The Republican public association “B.A. Beremzhanov Kazakhstan Chemical Society (RPA “KChS”) has applied to become a National Adhering Organization of IUPAC. The application and supporting documents are in the Agenda Book for review. Bureau has reviewed the application material and recommended their application be put forth to Council. Their National Subscription has been calculated using the new model approved by Council in 2018. The 2022 subscription will be \$1,000 and if approved by Council, they will be entitled to cast 1 vote. Prof. Mukhambetkali Burkitbayev is the Chairman of the Board of the RPA”KChS”.

Motion: *Council approves the Kazakhstan: Republican public association “B.A. Beremzhanov Kazakhstan Chemical Society (RPA “KChS”) as a National Adhering Organization effective 1 January 2022.*

[09:30] Closing of the Opening Session

Voting opens (Vice President #1, Treasurer)

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Council Meeting Day 1 - Friday 13th August 2021

08:00 – 11:00 EDT (UTC-4)

7. [08:00] Statutory Report of President on State of the Union

[Prof. Brett]
[For information]

The report will give an overview of the challenges and accomplishments during the last biennium. It includes sections on IUPAC committees and their activities, on governance and virtual meetings of council, conferences, publications and digital standards, legacy activities of the centenary/IYPT and the forthcoming IYBSSD, international organisations, the Centenary Endowment Fund and new standing committees. Further details can be found in later agenda items, the reports from the other officers, from the divisions and from the standing committees. The detailed report is available in the Council Agenda Book.

8. [08:20] Vice President's Critical Assessment

[Prof. Garcia-Martinez]
[For information]

This Vice President's critical assessment examines IUPAC's activities, priorities, and opportunities in the context of changes experienced during the current biennium. It describes the rationale and convenience of the organizational changes proposed by Review Group, which were endorsed by the Executive Committee earlier this year. The need for a more agile decision-making process and clearer scientific priorities are discussed in the light of the surveys conducted by both the Evaluation Committee and the Review Group and of extensive conversations among the Bureau members. This critical assessment discusses the current and future plans to advance the IUPAC digital agenda and to make sure that IUPAC leads the digital space. Finally, it contains specific initiatives to improve our internal and external communication and to better serve our stakeholders and the chemistry community. The Vice President's Critical Assessment report is in the Agenda Book.

9. [08:40] Report of Secretary General

[Prof. Hartshorn]
[For information]

The Secretary General will report on the operation of the Secretariat and on initiatives taken to advance the work of the Union. The report to Council is presented in the Agenda Book.

10. [09:00] Financial Reports

[Mr. Humphris]
[For information]

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10.1. Biennial Report of Treasurer

The 2020/21 biennium is an extraordinary period for IUPAC. The Covid pandemic has meant that IUPAC has had to adjust to functioning virtually. In this regard the proposal to reduce operating budgets for this biennium at the Paris General Assembly to encourage virtual administrative activity, although unpopular, was timely. The organisation has had to learn to operate this way and exploit the advantages this can bring – more regular meetings, less time-consuming travel.

As you would expect travel and subsistence expenditure in 2020 was very low (just \$7,761 v Budget \$292,029) and we can expect to see a significant underspend in 2021 given the virtual Congress and General Assembly. This is not however without its downsides. Bureau has recognised the issues that also result from the lack of face-to-face contact. New project activity is very low and a concern, a point I will return to in the budget proposal.

Allowing for the gains booked for the investment portfolio, the 2020 showed an operating profit of \$222,796 (v budget -\$9003) and we expect 2021 to also show an operating profit given the continuing restrictions arising from the Covid pandemic. It has allowed us to pay off our borrowing. As you will see below the Union's Financial Portfolio has performed strongly (now returned to above \$5m) through the pandemic and current economic rebound.

It is very important however that Council understands however that the current financial performance completely masks the underlying problem that IUPAC has running structural deficits. The biennium 2018/19 showed an operating loss of \$431,047 net of portfolio gains/losses largely funded by borrowing. IUPAC owed \$336,784 on its line of credit in December 2019. The line of credit was designed to help smooth cash flow, not to fund operations and should zero at year end. Regular deficits are unsustainable in the medium to longer term. It is clear that we have to find ways to deliver science relevant to this digital age, in ways that reduce the costs of complexity in the organisation, to demonstrate efficient use of resources to be able to attract funding from new donors.

This is the importance of the current Organisational Review. It is not about organigrams. There is a need to refocus our work on data, nomenclature, and standards in ways that reflect the multidisciplinary nature of the problems facing the world and deliver this more effectively digitally to those who need to use it. It is an opportunity to rethink what we do and how we do it, who we work with and also how we gain value from it.

Council also has the opportunity to approve the proposals for an Endowment Board following approval of Bureau of the boards operational standing orders. A key step in enabling this has been a significant piece of work to correct IUPAC registered tax status in the US following discovery that this was incorrectly registered in the 1950s. Donations can now be tax deductible for those with a taxable presence in the US making it far more attractive to support IUPAC. Individuals can now donate easily through the Guidestar platform (must sign in due to financial disclosures in profiles) here: <https://www.nfggive.com/guidestar/98-6000903> and donations can be available from Amazon purchases (you shop, they donate) through the AmazonSmile program of matched giving in countries where IUPAC is listed as a potential beneficiary.

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It has been a privilege to serve IUPAC as Treasurer and before that as Acting Secretary General. I suspect I will still be around in some capacity remembering that IUPAC is like the Eagles “Hotel California” – you can check in but you can never leave!

10.2. Report of Finance Committee

During 2020/21 the Finance Committee met virtually each quarter and with no face-to-face meetings possible. Formal Annual Meetings were held on 9th March 2020 on 23rd March 2021. The minutes of the FC 2020 meeting are in the Agenda Book and posted on the FC website link: https://iupac.org/wp-content/uploads/2021/07/FC_Approved_Minutes_Signed_23March2021.pdf

During this period it has supported the change of banking arrangements in the USA to SunTrust whilst retaining the services of the Bray Harris Group/R James as preferred financial advisors.

Through its work it recommended a revised policy for Travel and Expenses subsequently approved by Bureau and developed the standing orders for the Endowment Board to ensure clarity for the complementary roles of the new board and the Finance Committee. It has maintained an active management discussion with the financial advisors agreeing adjustments to the portfolio that have enhanced portfolio growth.

The Finance Committee regularly reviewed the financial performance of the Union and received the audits for 2019 and 2020 from the new auditors McMillan Pate & Company. The new auditors have provided useful insights into the financial management of IUPAC whilst giving the annual accounts a clean bill of health. The Audited Financial Statement is in the Agenda Book and also posted in the Finance Committee page at the link: <https://iupac.org/wp-content/uploads/2021/07/2020-IUPAC-Financial-Statements.pdf>.

In March this year the Finance Committee recommended the proposed budget for approval of first Bureau and now to be presented to Council. The Finance Committee however continues to press for a balanced budget.

10.3. Accounts for 2019/2020

The full audited accounts for 2019/20 are included in the Agenda Book. Focusing on the surplus of \$222,796 (v budget -\$9003) in 2020, the Profit and Loss key variances were:

- NAO income below plan following the loss of Brazil and Pakistan offsetting the gain of Singapore.
- Growth in income from CA’s ahead of budget by \$6500 at \$31,500 – a significant turnaround with scope to improve through increased engagement with industry.
- AMP income from Chemical Societies (Coordinated) is under budget by \$10k and over budget by \$3,300 for direct IUPAC AMP. AMP interest has been slack

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during covid as a key benefit is a discount for IUPAC conferences most of which are being postponed or held virtually.

- Continued pressure on publishing income. With a lack of conference reports steps have been needed to enrich the content of Pure and Applied Chemistry
- Net Interest and Dividends from investments were low and under consideration by the Finance Committee. The Investment Portfolio itself recovered well from the financial downturn in early 2020 rising to \$5.0m for the first time in a number of years.
- Our Secretariat and Administrative costs were in budget overall. General and Administration includes non-secretarial expenses : IT investment for virtual working, project expenditure of \$15.5k, marketing and design costs of \$32k in support of 2019 Centenary legacy projects.
- For the Secretariat it was an exceptionally difficult year for office operations/home working.
- The operating profitability is solely driven however by the lack of Travel and Subsistence expenditure.

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IUPAC Income Statement - 2020 Summary					
	December 2019 Actual	December 2020 Actual	2020 Annual Budget	2020 Actual vs Budget Variance	
Income					
Program Income	\$ 970,729	\$ 1,088,284	\$ 1,137,691	(49,407)	
Direct Public Support	48,019	27,000	36,000	(9,000)	
Investments	829,310	723,598	91,000	632,598	
Sponsorship Revenue	46,262	(0)	0	(0)	
Merchandise Revenue - Pins	249	167	0	167	
Total Income	1,894,568	1,839,049	1,264,691	574,358	
Gross Profit	\$ 1,894,568	\$ 1,839,049	\$ 1,264,691	574,358	
Expense					
Awards, Grants & Contribution	46,566	21,955	0	(21,955)	
Fixed Costs - Salaries & Benefits	564,327	567,187	614,965	47,778	
Lease, Insurance & Bank Fees	93,004	83,780	92,200	8,420	
General & Administrative Expenses	135,313	97,818	83,615	(14,203)	
Contracted Services	89,854	126,035	98,950	(27,085)	
Depreciation Expense	53,010	53,064	52,120	(944)	
Other Expenses	29,501	28,479	29,815	1,336	
Travel & Meetings	572,870	7,761	292,029	284,268	
Miscellaneous Expense	3	(1,948)	0	1,948	
Total Expenses	\$ 1,584,448	\$ 984,132	\$ 1,263,694	279,562	
Net Ordinary Income / (Loss)	\$ 310,121	\$ 854,917	\$ 997	853,920	
Other Income & Expenses					
Other (Income)	(9,985)	(95,643)	0	95,643	
Other Expense	15,029	4,166	10,000	5,834	
Net Other Income / Expense	\$ 5,044	\$ (91,477)	\$ 10,000	101,477	
Nominal Income / (Loss) for the period	\$ 305,078	\$ 946,394	\$ (9,003)	955,397	

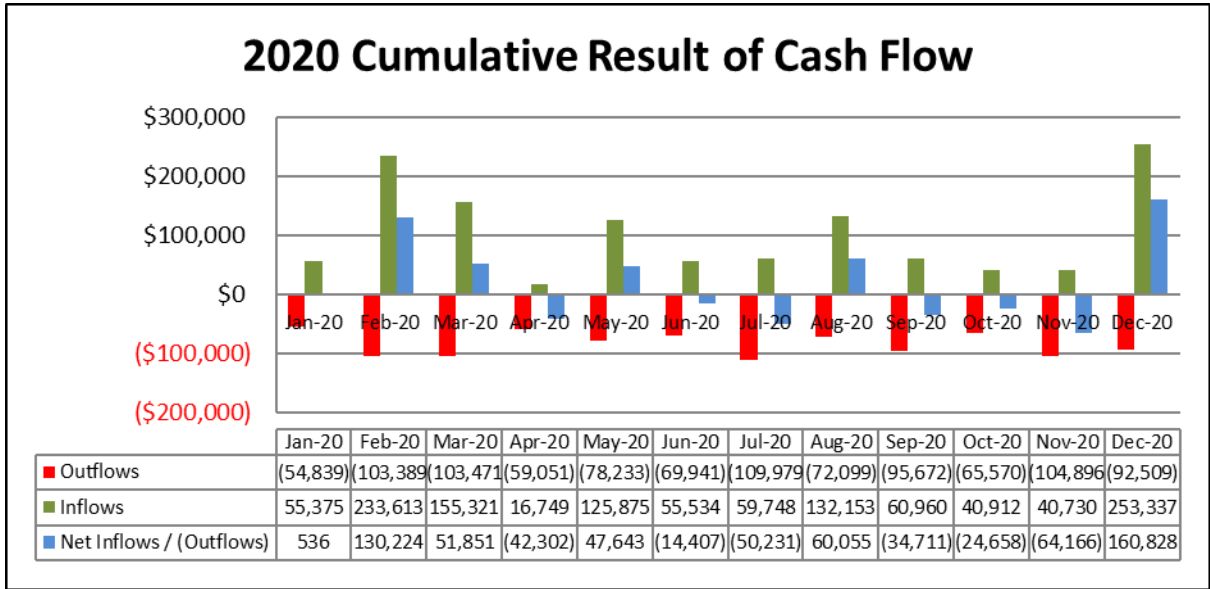
The Balance Sheet shows:

- Healthy end year cash position (\$301k)
- Low receivables compared to previous years.
- A Buoyant investment Portfolio
- The Line of Credit (borrowing) reduced, currently to \$241k. The Line of Credit was set up to help balance cash flows through the year. In recent years it has become permanent borrowing to fund our deficits – not a healthy state of affairs. We aimed to pay this

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borrowing down completely in 2021 and achieved this in May this year. This will maximize flexibility through the next biennium.

- Cash flow benefited from a USA Payroll Protection Loan (\$95,500) which converted to a grant given that we retained all our Secretariat staff.
- The Cash Flow showed the unpredictable nature of our cash inflows and outflows the primary reason for our line of credit:



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IUPAC Audited Balance Sheet			
As of 31 December 2020			
	Dec-19	Dec-20	2019 / 2020 Variance
ASSETS			
Current Assets			
Checking/Savings	314,912	405,672	90,760
Accounts Receivable	2,490	113,355	110,865
Other Current Assets			
Undeposited Funds	313	0	(313)
Sales Tax Receivable	2,588	961	(1,627)
Other Current Receivables	1	0	(1)
Prepaid Expenses			
Prepaid Insurance	1,612	1,704	91
Other Prepaid Expenses	3,960	9,574	5,614
Prepaid General Assembly Exp	0	0	0
Total Prepaid Expenses	5,572	11,278	5,706
Total Other Current Assets	8,475	12,240	3,765
Total Current Assets	325,877	531,267	205,390
Fixed Assets	129,102	87,784	(41,318)
Other Assets			
Security Deposits	3,565	3,565	0
Marketable Securities	4,238,761	4,991,959	753,198
Total Other Assets	4,242,327	4,995,524	753,198
TOTAL ASSETS	\$ 4,697,305	\$ 5,614,575	\$ 917,269
LIABILITIES & EQUITY			
Liabilities			
Current Liabilities			
Accounts Payable	46,863	48,778	1,915
Credit Cards	6,906	13,015	6,109
Other Current Liabilities			
Payroll Liabilities	47,818	54,953	7,135
Unearned Membership Income	65,371	79,406	14,035
Unearned Publication Inc	525	174	(351)
Deferred Rent	11,667	4,702	(6,965)
Short-term Notes Payable	336,784	0	(336,784)
Raymond James Margin Account Loan	0	240,762	240,762
Due to IYCN	5,051	2,490	(2,561)
Other Current Liabilities	22	30	8
Total Other Current Liabilities	467,238	382,517	(84,721)
Total Current Liabilities	521,006	444,310	(76,697)
Total Liabilities	521,006	444,310	(76,697)
Equity			
Net Asset w/ Donor Restriction	204,357	204,357	0
Net Asset w/o Donor Restriction	108,761	120,761	12,000
Unrestricted Net Assets	3,558,103	3,898,753	340,650
Nominal income / (loss) for the period	305,078	946,394	641,316
Total Equity	4,176,299	5,170,265	993,966
TOTAL LIABILITIES & EQUITY	\$ 4,697,305	\$ 5,614,575	\$ 917,269
2020 Audit Figures			

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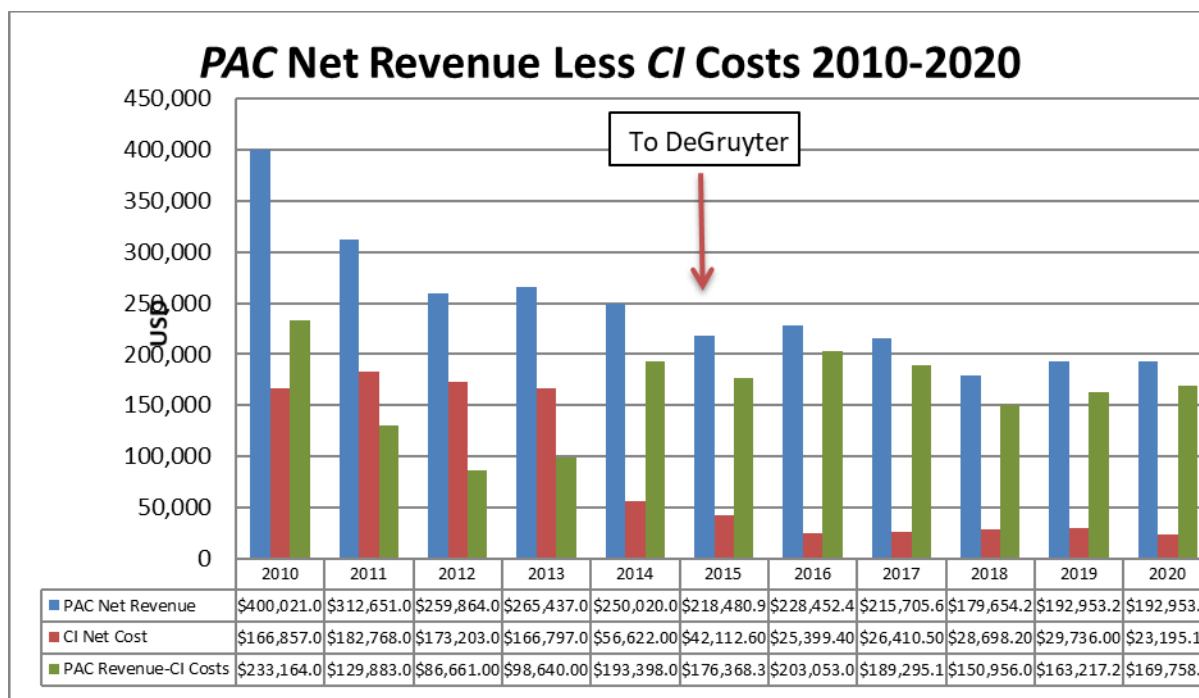
10.4. National Adhering Organizations in Arrears

Three National Adhering Organizations have not paid the 2020 National Subscriptions. Together with the Fee Charges to IUPAC, the outstanding amount (Loss) is \$15,225.82.

NAO Country 2020	2020 Paid (USD)	2020 Due (USD)	Loss from Fee Charges
Chile		\$8,229.00	
Jordan		\$1,000.00	
Turkey		\$6,415.00	
Total	\$824,537.82	\$839,612.00	-\$418.18
Budget v. Actual (Loss)		\$15,225.82	

10.5. Other Income

Publishing income remains stable but under pressure due to the journal market conditions. The lack of conferences has put pressure on Pure and Applied Chemistry content. From January 2022 Chemistry International will go solely online in a page turning format leaving only costs for design, layout and copy editing remaining. It will be freely available to attract the widest possible global readership. IUPAC is working with De Gruyter to develop CI Digital as a live streaming news magazine.



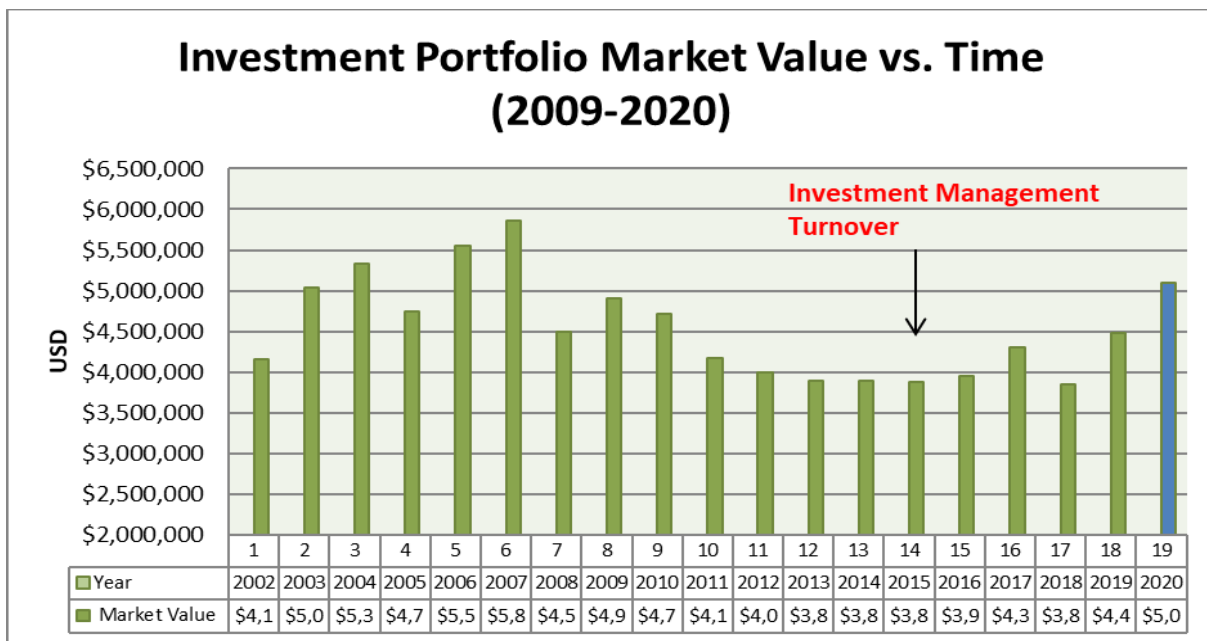
The Affiliate Members Program variance against plan was noted earlier. 2020 was a difficult year for Chemistry Societies promoting this given the key benefit of conference discounts was largely irrelevant in 2020. Membership directly through IUPAC has held up.

For Company Associates, all members now are paying a subscription of \$2500 so income well up from 2017 following the GA decision in Sao Paulo. There is still much work to do to keep members and gain new at a time when companies are focused on pandemic survival.

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10.6 Investment Portfolio

The investment portfolio has recovered and is approaching the historic levels back in 2007 as result of active investment management advice from our external advisors. At the end of June 2020, the total market value (MV) was \$5.6M net of fees.



11. [09:40] Budget Proposal

[Mr. Humphris]
[For Approval]

11.1. Proposed Budget for 2022-2023

The proposed budget supported by Bureau is shown in the Agenda Book. It shows a deficit of \$265,378 across the biennium based on the following assumptions:

- We emerge from 2021 in a strong cash position with material underspend of 2020/21 budgets.
- NAO subscription income is driven by the current formula with no further membership changes. Company Associate and AMP subscriptions reflect the recent experience.
- We build on the experience of virtual meetings and extend the reduction in operations costs applied to the Divisions 2020/21 and to the Standing Committees.
- We see a return to more ‘normal’ travel. This is probably an optimistic assumption as the outlook for international travel, future international travel costs and the willingness of the IUPAC community to travel remain highly uncertain.
- Continued pressure on publishing income and the move to CI online and away from print.

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- The organization is unchanged during this biennium by recommendations of the Organization Review. Changes come in the next biennium. Any new committees meet virtually.
- The Netherlands General Assembly 2023 is held face to face but at a more traditional level of cost (The Paris GA included the Centenary and IYPT celebrations).
- Allowance for a CHEMRAWN budget is restored.
- Allowance for a first meeting of the Centenary Endowment Board as it gets underway (the plan is for the board to be self-funding once underway).
- That there will be pressure for the new Bureau and the new Executive Committee to meet in 2022 as this was not possible in 2021.
- We need to budget for a smooth handover of Executive Director position in 2022 as Dr. Soby will be retiring in Q3 2022.
- As a result of the low project activity in 2020/2021 the project budget is spread into 2022. This effectively moves some of the benefit of an underspend in 2021 into 2022.

Motion: *Council approves the recommended 2022-2023 Budget*

11.2. National Subscriptions for 2022-2023 (already approved via NSTF 2018)

National subscriptions are shown in the Agenda Book calculated as approved via NSTF 2018. Singapore, approved by Council in 2019 is added to the National Subscription total.

12. [10:00] Establishment of the Centenary Endowment Fund

[Mr. Humphris]

[For Approval by Delegation]

The purpose of the fund will be to finance IUPAC projects and activities in support of:

- The establishment of IUPAC nomenclature and standards in the digital domain to enable advances in Big Data relevant to chemistry and chemistry related research and development,
- IUPAC's unique international role in the critical evaluation of chemical data and establishment of standards that will be necessary to underpin the achievement of Sustainable Development and the UN millennium goals,
- Chemistry Education and Capacity Building in less developed countries to promote their economic development whilst helping to ensure the safe and environmentally sensitive application of chemical technologies in these countries.

The Centenary Endowment Fund will provide a mechanism through which Fund Donors can support and engage in IUPAC's international work into its second century of existence.

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The initial objective of the Fund is to provide endowment investment earnings of at least \$100,000 per annum for IUPAC activities consistent with the Fund Mission, net of the operational costs of the fund. An objective is that the Fund will be self-financing.

The proposal is to create an external board with fund raising experience. The Centenary Endowment Board will be responsible for and will administer IUPAC's funds raising, the development of the Fund and recommending disbursement in accordance with the Fund Mission and, where relevant, specific designations by Donors. The Board will work with the Finance Committee and its advisors to ensure the optimum investment of donated funds.

The Terms of Reference for the Centenary Endowment Board and its modus operandi are attached in the Agenda Book. Council's approval will be sought after which recruitment of directors can commence.

Motion: *Council approves the future appointment of the Centenary Endowment Fund Board of Directors including external Directors by the Executive Committee. Council also gives approval to the Executive Committee to progress the formation of the fund and its guiding documents.*

13. [10:20] Bids for and Voting on Location and Dates of 54th General Assembly and 51st World Chemistry Congress (2027)

[Prof. Hartshorn]

[For Decision; vote by delegations; simple majority (Bylaw B 2.23)]

13.1 [10:30] Canada (Montreal)

13.2 [10:40] Czech Republic-Slovakia (Prague)

13.3 [10:50] Russian Federation (Moscow)

The bid receiving the majority of votes cast will be deemed selected to host the 2027 WCC/GA.

[11:00] Adjourn

11:30 Voting for Motions and 2027 Bid Proposals Opens

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Council Meeting Day 2 - Saturday 14th August 2021

17:00– 20:00 EDT (UTC-4)

14. [17:00] Organizational Changes in Existing IUPAC Bodies, Proposals for New and Reconstituted Bodies/Terms of Reference

[Prof. Hartshorn]

[For Decision; voting by Delegation]

14.1 Modification to Terms of Reference of ICGCSD

Proposed Composition and Terms of Office

- (i) There shall be a standing Interdivisional Committee on Green Chemistry for Sustainable Development, composed of a Chair, a Secretary, up to three Titular Members and up to three Associate Members as a “core” membership, up to eight National Representatives, and one Representative Member from each interested Division and Standing Committee.
- (ii) The President, in consultation with the Executive Committee, shall appoint the Chair, Secretary, Titular Members, Associate Members, and National Representatives. The ICGCSD, Division Presidents and Standing Committee Chairs may propose names of persons suitably qualified for appointment and should conduct elections according to the pattern for Divisions, in order to inform the advice that they give to the President.
- (iii) The period of service of Titular Members, Associate Members and National Representatives shall be two years, renewable for a further term of two years. The period of service of Representatives from the Divisions and Standing Committees shall be two years, subject to re-nomination and reappointment to a maximum period of service of eight years.

Motion: *Council approves the proposed modification to the ToR to allow up to 8 National Representatives to the membership of ICGCSD.*

15. [17:10] Composition and Terms of Reference of New Standing Committees

[Prof. Hartshorn]

[For Decision; voting by Delegation]

15.1. Centenary Endowment Board

The Proposed Composition and Terms of Reference of the Centenary Endowment Board, “CEB”, are in the Agenda Book.

Motion: *Council approves the Composition and Terms of Reference of the Centenary Endowment Board.*

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15.2. Committee on Ethics, Diversity, Equity and Inclusion

The Proposed Composition and Terms of Reference of the Committee on Ethics, Diversity, Equity and Inclusion are in the Agenda Book.

Motion: *Council approves the Composition and Terms of Reference of the Committee on Ethics, Diversity, Equity and Inclusion.*

16. [17:30] Proposals for Changes to the Statutes and By-Laws of the Union

[Prof. Hartshorn]

[For Decision; voting by Delegation]

There were no proposals for Changes to the Statutes and Bylaws received from National Adhering Organizations for changes to the Statutes and By-Laws of the Union.

17. [17:40] Organizational Structure Review Group Report and Actions Taken

[Prof. Brett]

[For Information]

Council approved a motion at the 2019 IUPAC General Assembly that a working group be established to undertake a complete review of the organizational structure of IUPAC. The Organizational Structure Review Group includes Dr. Mark C. Cesa (chair), Prof. Javier Garcia-Martinez (IUPAC Vice President), Prof. Ito Chao, Prof. Dr. Michael Droescher, Prof. Lori Ferrins, and Prof. Zhigang Shuai.

The main objectives were:

- Recommending directions for the scientific work of the union going forward, and how to structure the Union to achieve its scientific objectives.
- Recommending ways of working that would reduce costs and improve efficiency.

The Review Group carried out its extensive work during 2020, which included conducting a wide-ranging survey of stakeholders, of scientific and financial aspects and emerging trends and advances in the chemical sciences. It submitted its report, with 4 appendices, to the Executive Committee in November 2020, who discussed and approved it, and the final report, dated 9th December 2020, was circulated to Bureau in December 2020.

In January 2021, two on-line Bureau meetings were held, on 9th and 23rd January 2021, to discuss the recommendations made in the report and how they could be implemented, if that were the wish of Bureau and decision of Council. It was decided to concentrate on the proposed alterations to governance structure and whether these would lead to greater agility and be effective in adapting and reacting rapidly to change. The Elected Members of Bureau on the one hand, and the Division Presidents (DPs)/Standing Committee Chairs (SCCs) on the other, discussed their points of view between the Bureau Meetings. The proposed change in governance structure involves replacing Bureau with an Executive Board (EB) and a Science Board (SB).

It was necessary to decide in January whether changes to Statutes and Bylaws would be proposed to Council at its meeting in August 2021, since the deadline for receipt of proposals

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for such changes was mid-February 2021. It was concluded that, given the need for extensive internal discussion and consensus within Bureau, that no proposals from Bureau for changes to the Statutes and Bylaws (S&B) regarding governance structure could be made at that time.

The internal discussions, dividing the Bureau into three working Groups, each comprising Elected Members and DPs/SCCs. Following this, the coordinators of the three Working Groups prepared a briefing discussion document regarding alterations to the governance structure that was discussed with Bureau members in videoconferences in June 2021. The final version of the document, together with a cover letter outlining the opinion of the Executive Committee and crucial questions to be considered was sent to Council members in early July 2021. Three videoconference engagement sessions with NAOs have been arranged to take place during the Montreal General Assembly, on 9th, 10th and 11th August at different times of day/night, given the wide span of time zones of NAO delegates. The answers to the important questions on governance structure and composition of the EB and SB etc. and the resulting suggestions will enable a proposal for changes to the Statutes and Bylaws to be formulated and discussed, the final version being ready before the end of 2021.

This proposal for changes to the S&B to implement the new governance structure will then be the basis of a request from the Bureau Chair to the Secretary General to call a Special Council Meeting. Following this request, the President will call a special Council meeting in 2022 in order to vote on the necessary changes to the Statutes and Bylaws.

18. [18:00] Reports of Division Presidents (Written/video reports will be received and 5 minutes allowed for questions and discussion on each)

[Prof. Richard Hartshorn]

[For Information and Discussion]

- | | |
|--|--------------------------|
| 18.1. Division I – Physical and Biophysical Chemistry | Dr. Timothy Wallington |
| 18.2. Division II – Inorganic Chemistry | Prof. Lars Ohrstrom |
| 18.3. Division III – Organic and Biomolecular Chemistry | Prof. Nikolay Nifantiev |
| 18.4. Division IV – Polymer Division | Prof. Christine Luscombe |
| 18.5. Division V – Analytical Chemistry | Dr. Zoltan Mester |
| 18.6. Division VI – Chemistry and the Environment | Prof. Hemda Garelick |
| 18.7. Division VII – Chemistry and Human Health | Prof. Rita Cornelis |
| 18.8. Division VIII – Chemical Nomenclature and Structure Representation | Prof. Alan Hutton |

19. [18:40] Reports of Standing Committee Chairs (Written/video reports will be received and 5 minutes allowed for questions and discussion on each)

[Prof. Brett]

[For Information and Discussion]

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- 19.1. Committee on Chemistry Education (CCE) Prof. Jan Apotheker
19.2. CHEMRAWN Committee Prof. Francesca Kerton
19.3. Committee on Chemistry and Industry (COCI) Prof. Anna Makarova
19.4. Committee on Publications and Cheminformatics Data Standards
(CPCDS) Ms. Leah McEwen
19.5. Interdivisional Committee on Terminology, Nomenclature and Symbols
(ICTNS) Prof. Jurgen Stohner
19.6. Interdivisional Committee on Green Chemistry for Sustainable Development
(ICGCSD) Prof. Pietro Tundo
19.7. Project Committee (PC) Prof. Jan Reedijk
19.8. Evaluation Committee (EvC) Prof. Javier García-Martínez
20. [19:20] Adoption of Recommendations on Nomenclature and Symbols
[Prof. Hartshorn]
[For Information and Decision; by Delegation]

Motion: *Council formally adopts the Recommendations approved by the Interdivisional Committee on Terminology, Nomenclature and Symbols (ICTNS) and published, or scheduled to be published, in Pure and Applied Chemistry from August 2019 through August 2021.*

21. [19:25] Presentation of IUPAC service awards

[20:00 Adjourn Day 2]

Council Meeting Day 3 –Sunday 15th August 2021

08:00 – 11:00 EDT (UTC-4)

22. [08:00] Announcement of results of elections of Officers (Vice President and Treasurer) and Elected Members of Bureau
[Prof. Hartshorn]
23. [08:15] Plans for the 52nd General Assembly and 49th Congress in 2023 (The Hague, Netherlands)
[Prof. Floris Rutjes, Chair of the 2023 Organizing Committee]

Prof. Rutjes will provide an update to the Council on the status and plans for IUPAC2023.

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24. [08:30] IUPAC100 Legacy Activities

[Prof. Javier Garcia-Martinez]

Both the International Year of the Periodic Table and our Centenary IUPAC100 have provided us with a lot of visibility and have greatly contributed to improving our public image and global outreach. Four very specific online or hybrid initiatives that were launched during 2019 have been so successful that now are ongoing IUPAC activities prominently featured on our website. These are The Periodic Table Challenge, The Global Women Breakfast, The Top Ten Emerging Technologies in Chemistry, and ChemVoices. All of them help us reach different audiences and communicate what we do at IUPAC for the chemistry community in an effective and engaging manner.

25. [08:45] WCLM 2021 Program

[Prof. Christopher Ober]

WCLM Topic: “The Future of Chemistry in the World of Artificial Intelligence”

The impact of machine learning on chemistry is already enormous and is growing. IUPAC is influencing the growth of AI and other digital disciplines in chemistry through the work of its volunteers and this program will highlight new developments and opportunities in this chemical area for GA and WCC participants and the hybrid meeting being hosted from Montreal.

Other organizers of WCLM include Bonnie Lawlor, Jeremy Frey, Fabienne Meyers, Lynn Soby and Leah McEwen with the help of our Canadian hosts. Two weeks prior to the event a series of 6 short talks will be available to watch given by 6 panelists in different areas of AI impact on the chemical sciences.

We are carrying out an experiment to make this a truly global event over a 24 hour period in which the program begins Tuesday morning from Montreal (August 17) with a plenary talk by Yoshua Bengio (Montreal), is passed to a virtual panel discussion in Malaysia (next WCC/GA host), moves virtually to a follow-up panel discussion hosted by the Netherlands (future WCC/GA host) and returns to Montreal on Wednesday morning (August 18) for a panel discussion by the original speakers who represent industry, government and academia with a concluding talk by Jeremy Frey (Southampton) on the impact of AI on chemistry and the role of IUPAC in advancing the field.

At the time of this writing, the program is fixed, our speakers have committed to the event, and we are working on final details to make this a success.

We expect that the WCLM will be available in recorded form for future viewing and that it will also serve as a template for future global events IUPAC may consider organizing. In addition, there will be a report submitted to Chemistry International.

26. [09:00] Applications for Associated Organization Status

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[Prof. Hartshorn]
[For Information]

No applications for Associate Organization Status have been received.

26.1. Termination of Associated Organizations

All Associated Organizations are current and no terminations are required.

27. [09:10] Associate National Adhering Organizations (ANAO)

[Prof. Hartshorn]

The Associate National Adhering Organization program is currently under review. The Kenya Chemical Society has completed the four-year term as ANAO. No NAO application has been received.

28. [09:15] Proposals Formally Received from National Adhering Organizations

[Prof. Hartshorn]

No proposals were received from the National Adhering Organizations.

29. [09:20] Approval of Division Arrangements

[Prof. Hartshorn]
[For Information]

The Divisional rules were approved at the 50th Council meeting. No further additions/edits have been received by Bureau.

29.1. Approval of Elected Officers of Division Committees

[Prof. Hartshorn]
[For Decision; by Delegations, or by simple majority (Bylaws B 2.2.3 and B 3.15)]

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Position	Division I	Country	Term of Service
President	Prof. Pierangelo Metrangolo	Italy	2022-2023
Past-President	Dr. Tim Wallington	United States	2020-2021
Vice President	Prof. Frances Separovic	Australia	2022-2023
Position	Division II	Country	Term of Service
President	Prof. Lidia Armelao	Italy	2022-2025
Past-President	Prof. Lars R. Ohrström	Sweden	2022-2025
Secretary	Dr. Daniel Rabinovich	United States	2020-2023
Position	Division III	Country	Term of Service
President	Prof. Amelia Rauter	Portugal	2020-2023
Past-President	Prof. Nikolay E. Nifantiev	Russia	2020-2021
Vice President	Prof. Einar Uggerud	Norway	2022-2023
Secretary	Prof. Slawomir Jarosz	Poland	2020-2023
Position	Division IV	Country	Term of Service
President	Prof. Christine Luscombe	United States	2020-2023
Vice President	Dr. Igor Lacik	Slovakia	2020-2023
Secretary	Prof. Paul Topham	United Kingdom	2020-2023
Position	Division V	Country	Term of Service
President	Prof. David Shaw	United States	2022-2023
Past-President	Zoltan Mester	Canada	2018-2021
Vice President	Dr. Derek Craston	United Kingdom	2022-2023
Secretary	Prof. Luisa Torsi	Italy	2022-2023
Position	Division VI	Country	Term of Service
President	Prof. Roberto Terzano	Italy	2022-2023
Past-President	Prof. Hemda Garelick	United Kingdom	2022-2023
Vice President	Dr. Annemieke Forenhorst	Canada	2022-2023
Secretary	Prof. Fani Sakellariadou	Greece	2020-2023
Position	Division VII	Country	Term of Service
President	Dr. Helle Moller Johannessen	Denmark	2022-2023
Past-President	Prof. Rita Cornelis	Belgium	2022-2023
Vice President	Prof. Vladimir Gubala	United Kingdom	2022-2023
Secretary	Dr. Linda Johnston	Canada	2022-2025
Position	Division VIII	Country	Term of Service

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President	Dr. Michelle Rogers	United States	2022-2023
Past-President	Prof. Alan Hutton	South Africa	2022-2023
Secretary	Prof. Risto Laitinen	Finland	2016-2023

Motion 1: *Council approves the results from elections of Division Committee Officers.*

Elections for Divisional Titular Members have been completed. The proposed 2022-2023 Division Rosters are in the Agenda Book for reference.

Motion 2: *Council receives the results from elections of Titular Members of the Division Committees.*

29.2. Reauthorization of Commissions

[Prof. Hartshorn]
[For Decision; by Delegation]

Bylaw 3.32 requires that Council reapprove all existing Commissions at each General Assembly.

Motion: *Council reauthorizes the Commission on Physicochemical Symbols, Terminology and Units, the Commission on Isotopic Abundances and Atomic Weights, and the IUBMB-IUPAC Joint Commission on Biochemical Nomenclature (JCBN).*

30. [09:45] Motion for English Language as the official language of IUPAC

[Prof. Hartshorn]
[For Decision; by Delegation]

Statute 5.7.5 requires that Council determine every four years the one language in which the official records of the meetings of the Council, Bureau, and Executive Committee shall be kept and published. The last time that such a determination was made was at the General Assembly held in São Paulo, Brazil in the year 2017, four years ago.

Motion: *Council is asked to approve that the one language in which the official records of the meeting of the Council, Bureau and Executive Committee shall be kept and published will be English for the period of 2022-2025.*

31. [10:00] Important Matters Referred to Council by Bureau at 51st General Assembly, Not Covered by Items on Council Agenda

[Prof. Hartshorn]

32. [10:15] Any Other Business

[Prof. Brett]

[10:30] Closing Remarks, Acknowledgements, Adjournment

[Prof. Brett]

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[11:00] Adjournment of the 51st Council Meeting 2021