ANNUAL REPORT AND FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022

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EXECUTIVE COMMITTEE'S REPORT FOR THE YEAR ENDED 31 DECEMBER 2022

Executive Committee Members

President: Dr H A Dabkowska

Vice President Professor S Garcia-Granda

General Secretary and Treasurer: Professor B B Iverson

Immediate Past President: Professor S Lidin

Ordinary Members: Dr A Altomare

Professor G C Diaz de Delgado

Dr T Proffen Dr M Weiss

Professor J L Martin Professor M Takata

Chief Executive Officer: Dr A Stanley

The above executive committee was elected in August 2021 at the General Assembly.

Statement of the Executive Committee's Responsibilities

The Statutes and By-laws of the Union require the Treasurer to exhibit a general statement of the pecuniary affairs of the Union with detailed accounts of the income and expenditure. In preparing these non-statutory financial statements, the Executive Committee is required to:

- i) select suitable accounting policies and then apply them consistently;
- ii) make judgements and estimates that are reasonable and prudent;
- iii) state whether applicable accounting standards have been followed; and
- iv) prepare the non-statutory financial statements on the going concern basis unless it is inappropriate to presume the Union will continue in business.

These financial statements are to be audited by a professional auditor appointed by the Executive Committee.

The Executive Committee is responsible for keeping adequate accounting records which disclose with reasonable accuracy at any time the financial position of the Union and to ensure that the non-statutory financial statements comply with the Constitution of the Union. They are also responsible for safeguarding the assets of the Union and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Each of the persons who is a member of the Executive Committee at the date of approval of this report confirms that:

- i) so far as the member is aware, there is no relevant audit information of which the Union's auditor is unaware; and
- the member has taken all the steps that they ought to have taken as a member in order to make themselves aware of any relevant audit information and to establish that the Union's auditor is aware of that information.

EXECUTIVE COMMITTEE'S REPORT FOR THE YEAR ENDED 31 DECEMBER 2022

By Order of the Executive Committee

Bo Brummerstedt Iversen Hanna Dabkowska

Professor B B Iverson Dr H A Dabkowska Dr A Stanley
General Secretary and Treasurer President Chief Executive Officer

alex Stanley

Date: 14/06/2023

INDEPENDENT AUDITOR'S REPORT

TO THE MEMBERS OF INTERNATIONAL UNION OF CRYSTALLOGRAPHY

Opinion

We have audited the non-statutory financial statements of the International Union of Crystallography for the year ended 31 December 2022 which comprise the income and expenditure account, the balance sheet, the cash flow statement and the related notes 1 to 10. These non-statutory financial statements have been prepared under the accounting policies set out therein.

In our opinion, the non-statutory financial statements:

- give a true and fair view, of the state of the Union's affairs as at 31 December 2022 and of its surplus of income over expenditure for the year then ended; and
- have been properly prepared in accordance with the accounting policies stated in note 1 to the non-statutory financial statements.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs(UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the non-statutory financial statements section of our report. We are independent of the Union in accordance with the ethical requirements that are relevant to our audit of the non-statutory financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with those requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you were:

- the Executive Committee's use of the going concern basis of accounting in the preparation of the non-statutory financial statements is not appropriate; or
- the Executive Committee has not disclosed in the non-statutory financial statements any identified material uncertainties that may cast significant doubt about the Union's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the non-statutory financial statements are authorised for issue.

Respective responsibilities of the Executive Committee

As explained more fully in the Statement of the Executive Committee's Responsibilities, the Executive Committee is responsible for the preparation of the non-statutory financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Executive Committee determines necessary to enable the preparation of the non-statutory financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the non-statutory financial statements, the Executive Committee is responsible for assessing the Union's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Executive Committee either intends to liquidate the Union or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the non-statutory financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Extent to which the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

INDEPENDENT AUDITOR'S REPORT (CONTINUED)

TO THE MEMBERS OF INTERNATIONAL UNION OF CRYSTALLOGRAPHY

We identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and then design and perform audit procedures responsive to those risks, including obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion.

Identifying and assessing potential risks related to irregularities

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, we have considered the following:

- the nature of the industry and sector, control environment and business performance including the design of the Union's remuneration policies and key drivers for Executive Committees' remuneration;
- results of our enquiries of management about their own identification and assessment of the risks of irregularities;
- any matters we identified having obtained and reviewed the Union's documentation of their policies and procedures relating to:
 - identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance;
 - detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud;
 - the internal controls established to mitigate risks of fraud or non-compliance with laws and regulations;
 - the matters discussed among the audit engagement team including significant component audit teams and involving relevant specialists regarding how and where fraud might occur in the financial statements and any potential indicators of fraud.

As a result of these procedures, we considered the opportunities and incentives that may exist within the organisation for fraud and identified the greatest potential for fraud in the following areas: timing of recognition of commercial income and posting of unusual journals and complex transactions. In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override.

We also obtained an understanding of the legal and regulatory frameworks that the Union operates in, focusing on provisions of those laws and regulations that had a direct effect on the determination of material amounts and disclosures in the financial statements. The key laws and regulations we considered in this context included employment law, health and safety, pensions legislation and tax legislation.

Audit response to risks identified

Our procedures to respond to risks identified included the following:

- reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the financial statements:
- enquiring of management concerning actual and potential litigation and claims;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;
- reading minutes of meetings of those charged with governance; and
- in addressing the identified risks of fraud through management override of controls, testing the appropriateness of journal entries and other adjustments; assessing whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

INDEPENDENT AUDITOR'S REPORT (CONTINUED) TO THE MEMBERS OF INTERNATIONAL UNION OF CRYSTALLOGRAPHY

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations (irregularities) is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it. In addition, as with any audit, there remained a higher risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. We are not responsible for preventing non-compliance and cannot be expected to detect non-compliance with all laws and regulations.

A further description of our responsibilities is available on the Financial Reporting Council's website at: https://www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Use of our report

This report is made solely for the exclusive use of the Union's members, as a body, in accordance with Section 11.1 of the Statutes of the Union for the purpose of showing the results of management's stewardship of the resources entrusted to it. Our report is not to be used for any other purpose, recited or referred to in any document, copied or made available (in whole or in part) to any other person without prior written express consent. We accept no duty, responsibility or liability to any other party in connection with the report or this engagement.

Pmam Solutions for Business Lif.

for and on behalf of PM+M Solutions for Business LLP Chartered Accountants Blackburn, United Kingdom 15/06/2023

DETAILED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31 DECEMBER 2022

		2022		2021
		\$		\$
Income				
Membership income		168,197		194,232
Journals, back numbers and single issues	1,762,898		2,362,331	
Open access income	1,172,325		1,005,119	
Books	67,043		155,661	
Donations received	1,684			
		3,003,950		3,523,111
Income from investments	28,393		21,633	
Bank interest	2,116		102	
		30,509		21,735
Royalties and copyright fees	35,050		33,029	
Advertising income	16,363		16,406	
Checking services	34,740		13,492	
Associates programme	25,535		16,142	
		111,688		79,069
Total income		3,314,344		3,818,147
Journals Publication costs Editorial expenses Technical editing Subscription administration Journal development costs Checking services	(690,320) (55,684) (1,153,341) (63,099) (472,416) (35,861)		(731,435) (128,855) (1,247,469) (40,500) (599,149) (58,665)	
		(2,470,721)		(2,806,073)
Books				
Editorial expenses	(5,801)		(6,375)	
Technical editing	(61,500) ———		(102,326)	
		(67,301)		(108,701)
Outreach and education				
Outreach	(95,976)		(147,367)	
Young scientists' support	(120,656)		(10,763)	
Visiting professorship programme	(2,503)		(337)	
		(219,135)		(158,467)
General Assembly costs		-		(5,534)
Promotion, advertising and marketing costs		(62,187)		(56,812)
		(6,646)		(7,421)

DETAILED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31 DECEMBER 2022

		2022 \$		2021 \$
Administrative expenses				
Committee meetings and expenses	(97,531)		(4,084)	
Subscriptions	(4,478)		(4,845)	
Audit and accountancy fees	(20,763)		(22,567)	
Legal and professional fees	(11,878)		(18,984)	
Bank charges	(22,368)		(34,416)	
Travel expenses	(12,242)		-	
Executive office salaries	(166,293)		(143,799)	
		(335,553)		(228,695)
Chester office expenses				
Office costs	(307,738)		(248,182)	
Staff overheads	(56,383)		(43,098)	
		(364,121)		(291,280)
Depreciation		(15,836)		(18,758)
Total expenditure		(3,541,500)		(3,681,741)
Surplus of income over expenditure		(227,156)		136,406
Other gains and losses Movement in the market value of investments Exchange movements on trading activities	(389,125) (86,108)		162,783 (124,479)	
Exchange differences on investment activities	(201,284)		(10,996)	
		(676,517)		27,308
Total recognised gains in the year		(903,673)		163,714

BALANCE SHEET

AS AT 31 DECEMBER 2022

		20:	22	202	21
	Notes	\$	\$	\$	\$
Fixed assets					
Tangible assets	5		37,617		41,584
Investments	6		2,605,311		3,745,279
			2,642,928		3,786,863
Current assets					
Stocks		8,488		35,095	
Debtors	7	438,560		374,918	
Cash at bank and in hand		2,004,167		1,863,996	
		2,451,215		2,274,009	
Creditors: amounts falling due within		// /aaa /aaa			
one year	8	(1,136,438)		(1,199,494)	
Net current assets			1,314,777		1,074,515
Total assets being total funds			3,957,705		4,861,378

The financial statements were approved by the Executive committee on

Hanna Dabkowska alex Stanley Bo Brummerstedt Iversen Dr A Stanley Professor B B Iverson Professor H A Dabkowska General Secretary and Treasurer President Chief Executive Officer Date: 14/06/2023

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 2022

	Notes	202 \$	22	20 \$	21 \$
Cash flows from operating activities Cash (absorbed by)/generated from operations	9		(428,028)		235,289
Investing activities Purchase of tangible fixed assets Purchase of fixed asset investments Proceeds from sale of investments Interest received		(11,869) - 577,952 2,116		(20,607) (1,442,585) 375,220 102	
Net cash generated from/(used in) invest activities	ing		568,199		(1,087,870)
Net increase/(decrease) in cash and cash equivalents	1		140,171		(852,581)
Cash and cash equivalents at beginning of	year		1,863,996		2,716,577
Cash and cash equivalents at end of yea	r		2,004,167		1,863,996

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022

1. ACCOUNTING POLICIES

The principal accounting policies adopted are summarised below. They have all been applied consistently throughout the year and preceding year.

Basis of accounting

The non-statutory financial statements have been prepared under the historical cost convention, with the exception of investments which are stated at market value, and in accordance with applicable law and United Kingdom accounting standards.

Going concern

The Union has considerable financial resources in terms of investments held and cash deposits. As a consequence, the members of the Executive Committee believe that the Union is well placed to manage its business risks successfully despite the current uncertain economic outlook and the impact this has on the market valuation of the investments.

After making enquiries, the members have a reasonable expectation that the Union has adequate resources to continue in operational existence for the foreseeable future. Thus, they continue to adopt the going concern basis of accounting in preparing the annual non-statutory financial statements.

Rates of exchange

Transactions denominated in foreign currencies are translated into US Dollars at the rates ruling at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are retranslated at the rates ruling at that date. All profits and losses arising from exchange rate fluctuations are taken through the income and expenditure account.

Publication costs

Publication, editorial and administrative expenses of publications are charged in the appropriate income and expenditure account on an accruals basis.

Stocks

Stocks of International Tables are included at the lower of cost and net realisable value. Stocks of all other publications, including back issues of journals, are not valued for accounts purposes as sales are uncertain.

Expenditure on premises

Expenditure on maintenance of leasehold premises is charged against the appropriate income and expenditure accounts in the year on an accruals basis.

Depreciation

- (i) Office equipment is depreciated on the straight line basis at a rate of 20% per annum.
- (ii) Computer equipment is depreciated on a straight line basis at a rate of 33 1/3% per annum.
- (iii) Leasehold property improvements are depreciated over the term of the lease.

Investment income

Notional dividend income re-invested in accumulation investment funds is treated as income when declared and added to the accumulated cost of investments.

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED) FOR THE YEAR ENDED 31 DECEMBER 2022

Investments

Investments are stated at market value. Changes in market value are taken through the income and expenditure account.

Income recognition

Income is recognised on publications when the risks and rewards of ownership are transferred to the buyer. Subscription income is recognised over the period to which the subscription relates. Investment and other income is recognised on an accruals basis.

Lease costs

Operating lease costs are charged to the income and expenditure account on a straight line basis over the term of the lease. Where reduced rents are payable on property in the earlier years of the lease, the total cost for the period to the first rent review date are spread on a straight line basis, and the appropriate creditor balance is maintained.

Pension costs

The Union operates a defined contribution pension scheme for its employees. The assets of the scheme are held separately from those of the Union. The amount charged to income and expenditure in the year in respect of pensions represents employer's contributions payable in the year. Differences between contributions payable in the year and contributions actually paid are shown in either accruals or prepayments in the balance sheet.

Sponsorship

The IUCr sponsors symposia and workshops on topics relevant to crystallography. IUCr sponsorship can only be given to meetings that are international in character and open to participants from all countries. National meetings are only supported if held in developing countries. Sponsorship payments are accounted for once the Union has made an unconditional commitment to pay the grant and this is communicated to the beneficiary or the grant has been paid, whichever is earlier. Where sponsorship is conditional and compliance is within the control of the Union, sponsorship is not recognised until the conditions are met. Where sponsorship is conditional and outside the control of the Union, the grant is recognised and accounted for in the same way as an unconditional grant.

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED) FOR THE YEAR ENDED 31 DECEMBER 2022

2 Employees

The average monthly number of persons (including directors) employed by the Union during the year was:

Employees 25	25
Their aggregate remuneration comprised: 2022	
\$	\$
	,594,174
Social security costs 153,726 Pension costs 552,585	150,753 304,040
2,038,630 2	2,048,967
3 Interest receivable and similar income	
2022 \$	2021 \$
Income from fixed asset investments	
Corbiere Discretionary Fund 4,883	4,773
Praemium Struchkov Prize Fund 88	99
Praemium (Portfolio Management) 23,422	16,761
28,393 	21,633
4 Gain/(Loss) on Disposal of Investments	
2022 \$	2021 \$
Proceeds 577,953	375,220
	(375,220)
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NOTES TO THE FINANCIAL STATEMENTS (CONTINUED) FOR THE YEAR ENDED 31 DECEMBER 2022

5	Tangible fixed assets			
	•	Leasehold improvements	Computers	Total
		\$	\$	\$
	Cost			
	At 1 January 2022	103,922	311,483	415,405
	Additions	-	11,869	11,869
	At 31 December 2022	103,922	323,352	427,274
	Depreciation and impairment			
	At 1 January 2022	103,922	269,899	373,821
	Depreciation charged in the year	-	15,836	15,836
	At 31 December 2022	103,922	285,735	389,657
	Carrying amount			
	At 31 December 2022	-	37,617	37,617
	At 31 December 2021		41,584	41,584

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED) FOR THE YEAR ENDED 31 DECEMBER 2022

6	Fixed asset investments								
								2022	2021
								\$	\$
	Investments							2,605,311	3,745,279
	Movements in fixed asset investments								
		Held by	Held by	Held by	Held by	Held by		Cash held	Total
			Genworth	Aviva	Athene	Voya	Transamerica	in USA	
		Synergy \$	\$	\$	Choice \$	\$	\$	\$	\$
	Valuation	Ą	Ψ	Ф	Ψ	Ψ	Φ	φ	Ф
	At 1 January 2022	2,583,797	320,686	296,203	295,934	245,396	776	2,487	3,745,279
	Additions	28,393	-			- 10,000	-	_,	28,393
	Valuation changes	(392,806)	-	-	-	3,681	-	-	(389,125)
	Exchange fluctuations	(201,284)	-	-	-	-	-	-	(201,284)
	Disposals	(8,189)	(320,686)	-	-	(249,077)	-	-	(577,952)
	At 31 December 2022	2,009,911	-	296,203	295,934		776	2,487	2,605,311
	Carrying amount								
	At 31 December 2022	2,009,911	-	296,203	295,934	-	776	2,487	2,605,311
	At 31 December 2021	2,583,797	320,686	296,203	295,934	245,396	776	2,487	3,745,279

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED) FOR THE YEAR ENDED 31 DECEMBER 2022

	Debtors		2022	2021
	Amounts falling due within one year:		\$	\$
	Trade debtors		160,682	140,853
	Other debtors		150,533	113,508
	Prepayments and accrued income		127,345	120,557
			438,560	374,918
8	Creditors: amounts falling due within one year			
			2022 \$	2021 \$
	Creditors, accruals, deferred income		962,928	1,001,509
	Taxation and social security		173,510 ————	197,985
			1,136,438	1,199,494
9	Cash (absorbed by)/generated from operations			
			2022 \$	2021 \$
	Profit for the year		(903,673)	163,714
	Adjustments for:			
	Investment income		(28,393)	(21,633)
	Bank Interest received		(2,116)	(102)
	Depreciation and impairment of tangible fixed assets		15,836	18,758
	Foreign exchange losses on fixed asset investments Movements in investments and unrealised gains and losses		201,284 389,125	8,398 (162,783)
	•		·	,
	Movements in working capital: Decrease in stocks		26,607	8,495
	(Increase)/decrease in debtors		(63,642)	179,102
	(Decrease)/increase in creditors		(63,056)	41,340
	Cash (absorbed by)/generated from operations		(428,028)	235,289
10	Analysis of changes in net funds			
		1 January 2022	Cash flows	31 December 2022
		\$	\$	\$