

THE NEEDHAM RESEARCH INSTITUTE  
FINANCIAL STATEMENTS  
FOR THE YEAR ENDED 30<sup>TH</sup> SEPTEMBER 2022

NEEDHAM RESEARCH INSTITUTE

FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

CHARITY INFORMATION

Charity Registration Number	311459
Trustees:	Professor Martin Jones (Chairman) Lord Broers ScD, FRS, FEng Dr Christopher Hughes Professor Liu Dun Mr Stephen Perry Professor Roel Sterckx Mr Michael Womack Ms Elizabeth Wright Dr Mary Augusta Brazelton Dr Imre Galambos Dr Charles Harpum Ms Katie Lee
Members of the Finance Committee:	Professor Martin Jones (Chairman) Dr Christopher Hughes Mr Michael Womack Ms Elizabeth Wright Professor Roel Sterckx Director and Bursar in attendance
Members of the Management Committee:	Professor Jianjun Mei (Chairman) Ms Susan Bennett Mr John Moffett Dr Christopher Jagger
Members of the Publications Board:	Professor Jianjun Mei (Chairman) Ms Susan Bennett Mr John Moffett Dr Christopher Jagger
Principal Officers:	
Director:	Professor Jianjun Mei
Bursar:	Dr Christopher Jagger
Librarian:	Mr John Moffett
Administrative Manager:	Ms Susan Bennett
Principal Office Address:	8 Sylvester Road Cambridge CB3 9AF
Auditors:	Prentis & Co LLP Chartered Accountants & Statutory Auditors 115C Milton Road Cambridge CB4 1XE
Bankers and Deposit Holders:	National Westminster Bank plc 23 Market Street Cambridge CB2 3PA  Quilter Cheviot Limited Senator House 85 Queen Victoria Street London EC4V 4AB
Solicitors:	King & Co St. Andrews House St. Andrews Street Cambridge CB2 3DD

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## TRUSTEES REPORT

The Trustees present their report and financial statements for the year ended 30<sup>th</sup> September 2022.

The financial statements comply with the Charities Act 2011 and Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1<sup>st</sup> January 2019).

## REFERENCE AND ADMINISTRATIVE DETAILS

The Needham Research Institute, formerly titled “The East Asian History of Science Trust” is situated at 8, Sylvester Road, Cambridge CB3 9AF. Charity Registration No. 311459.

The names of the Trustees serving during the financial year 1<sup>st</sup> October 2021 to 30<sup>th</sup> September 2022 and serving on the date which this report was approved are given on the contents page.

Professor Jianjun Mei is the Director of the Institute and responsible for its day-to-day management. The names of the Institute’s staff are given on the contents page.

## OBJECTIVES AND ACTIVITIES

*PURPOSES OF THE TRUST AS SET OUT IN THE GOVERNING DOCUMENT*

Building on the foundation laid by the work of the late Dr Joseph Needham, the Institute seeks to facilitate, promote and develop academic research, publication and teaching of the highest possible standard in the fields of the history of science, technology and medicine in East Asia.

Beyond the purely academic sphere, it also seeks to raise public awareness of those aspects of its work that are of wider significance for human progress. Through the pursuit of those goals it aims to exploit and further develop its role as the world’s leading international centre for research in its field. It seeks closer and mutually beneficial cooperation with Cambridge University whilst maintaining its present autonomy as an independent charitable Foundation.

*MAIN ACTIVITIES UNDERTAKEN IN RELATION TO THOSE PURPOSES*

The restrictions imposed as a result of the Corona Virus Pandemic have continued to affect much of the Institute’s activities since the start of the first “lockdown” in March 2020. The Institute aims to ensure the successful completion of the “Science and Civilisation in China” project. Twenty-five volumes have been published and work is proceeding on a further three volumes in the series; in addition, seventeen volumes have been published in the Monograph Series and work is continuing on a number of others. The Institute also publishes a less formal ‘Working Papers’ Series.

The Institute has an active programme of Research Fellowships and Studentships which is largely funded by grants from several outside Foundations and which enables scholars from East Asia and elsewhere to study at the Institute. It also organises workshops and conferences with major academic organisations in and outside the UK. It runs regular academic seminars during the University term.

The Institute also hosts scholars and academics during the year, allowing them access to its diverse library and catalogue of works and publications in the fields of the history of science, technology and medicine in East Asia.

*TRUSTEES REGARD TO THE CHARITY COMMISSION’S GUIDANCE ON PUBLIC BENEFIT*

The Institute and its Library offers scholars facilities for research and writing unrivalled by any other academic institution in its field. In addition to its collection of monographs, the Library subscribes to a wide selection of journals, many of which are Chinese publications rarely available elsewhere in Europe. The Library also houses the archives of the late Dr Needham relating to his research in the field he established. A 3-year project (2019–2022) funded by the Wellcome Trust is currently being carried out on these archives to make them more accessible to researchers. Digitised research materials are freely available on the Cambridge University Digital Library.

All this material is described and catalogued electronically, and may be searched online for no fee. Any person with a serious interest in the subjects covered by the Institute is welcome to use its facilities without charge. In cases where scholars are sufficiently well funded, the Institute will accept a contribution to its overheads, but this is not an absolute condition for use of its facilities.

In addition to maintaining the Institute’s facilities and facilitating access to them, the Trustees encourage the Director to play an active role in making a wider public aware of the area with which it deals. The Director has delivered public lectures Overseas. The Director has been appointed ‘Director of Research’ by The McDonald Institute for Archaeological Research in University of Cambridge.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## TRUSTEES REPORT

## ACHIEVEMENTS AND PERFORMANCE

*SUMMARY OF THE MAIN ACHIEVEMENTS OF THE TRUST*

Due to the COVID-19 pandemic, two fellowship programmes, namely Xingzhi Discovering China and Sino-British Fellowship Trust, were suspended during the period of October 2021-September 2022. Other programmes, such as Independent School Foundation (ISF) Fellowship, Lloyd-Dan David (LDD) Fellowship, Li Foundation Fellowship, Ho Peng Yoke (HPY) Fellowships, Jing Brand Fellowships, and Soon-Young Kim (SYK) awards, were still in operation.

The Independent Schools Foundation (ISF) Fellowship was established in October 2013, for an initial period of three years, which was renewed in 2016 for a period of three years and again in 2019 for a further period of five years. Dr Huiyi Wu, the ISF Fellow, formally resigned from her ISF fellowship position with the Institute at the end of January 2021. In February 2021, Dr Jenny Jingyi Zhao took this fellowship position on a three-year contract and has been working as a Research Fellow at the Institute since then. She also holds a Joseph Needham Visiting Fellowship at Clare Hall.

In March 2021, the Institute decided to award the LDD fellowship to Mr. Arthur Harris, a PhD student at the Department of History and Philosophy of Science (HPS), University of Cambridge. In October 2021, Mr. Harris received his PhD degree and took his LDD fellowship. The tenure of this fellowship is for three years, until September 2024.

The Li Foundation Fellow (2020-2021), Dr. Xu Dingyi, Lecturer at Nanjing Agricultural University, completed her research visit to the Institute during May-October 2022.

The HPY Fellow (2021-2022), Dr. Avital Rom, of the FAMES, University of Cambridge, completed her visit to the Institute during June-September 2022.

Dr. WANG Yijun of New York University, a Jing Brand Fellow for the year of 2020-21, completed her visit to the Institute during May-August 2022.

The two SYK Fellows (2021-2022), Professor Hyungsub Choi of Seoul National University of Science and Technology and Mr. Bernhard Leitner, PhD candidate at the University of Vienna, completed their research visits to the Institute in August and September 2022.

The Institute also hosted visits for a few months from the following scholars:

- Dr. Yumi Suzuki, University of Bern, October 2021-March 2022;
- Ms. Anna Strob, University of Tübingen, October-December 2021;
- Dr. YUE Liyuan, University of Science and Technology Beijing, November 2021-April 2022;
- Professor BU Fengxian, Shaanxi Normal University, December 2021-May 2022;
- Dr. Bill Mak, The Independent School Foundation, Hong Kong, August-September 2022.

On 8–9 October 2021, the Needham Research Institute, the Ancient India and Iran Trust, and the Faculty of Asian and Middle Eastern Studies, University of Cambridge, jointly organised a workshop on ‘China, India, and Iran: Scientific exchange and cultural contact through the first millennium CE’.

On 10th November 2021, the Institute organized a seminar and a lunch reception to celebrate the publication of Professor Sir Geoffrey Lloyd’s book, *Expanding Horizons in the History of Science* (Cambridge University Press, 2021).

The third workshop on “Science in the Forest, Science in the past” organized by Professor Geoffrey Lloyd and his colleagues was held at the Institute 9-11 June 2022. About thirty scholars from all over the world attended this workshop.

On 16th September 2022, a hybrid workshop entitled ‘Reflections on the Life and Career of Dr. Dorothy Moyle Needham’ was held at the Institute, attracting an audience of more than 70 from Cambridge and beyond.

On 17th September 2022, two lecture sessions (morning and afternoon) on Dr. Dorothy Moyle Needham were organized at the Institute as part of Open Cambridge, attracting an audience of about 50.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## TRUSTEES REPORT

In recognition of Dr. H.T. Huang's long association with the Institute and his remarkable contribution to the SCC project, the Institute decided to name H. T. Huang's former office "The H. T. Huang Room". On 10th November 2021, the Institute organized a small ceremony to mark the event.

The Institute organised fourteen in-person and one virtual seminars during the University Michaelmas, Lent and Easter terms from October 2021 to June 2022.

In the period of November 2021 - July 2022, the Director presented 7 virtual lectures at the invitation of several universities or institutions. A lecture list is given here: 1) 20th November 2021, 'Three Views on Metal Objects Unearthed in Shanxi Province', Tsinghua University; 2) 3rd December 2021, 'The origins of Chinese metallurgy and connections with the Eurasian steppes', Northwestern Polytechnical University; 3) 16th February 2022, 'First Emperor's bronze birds: evidence of connections with distant cultures?', The Royal Asiatic Society Beijing; 4) 31st March 2022, 'Second Look at Joseph Needham—The Significance of Needham's Intellectual Heritage', Peking University; 5) 20th April 2022, 'The First Qin Emperor's Water Birds: Manufacturing Techniques and Cultural Implications', Stanford University; 6) 27th April 2022, 'Re-examining Needham's Intellectual Heritage', Zhejiang University; 7) 9th June 2022, 'The First Qin Emperor's Water Birds: Manufacturing Techniques and Cultural Connections', Central China Normal University.

On 16th April 2022, at the invitation of Professor Qian Wei of the University of Science and Technology Beijing, the Director participated in the forum on 'The History of Science and Technology for Cultural Communication' and also presented a paper on 'The Purpose and Significance of Mutual Learning among Civilizations'.

On 28th June 2022, the Director attended the Third Forum on Ancient Chinese Bronze and presented virtually a paper entitled 'The Discovery of Arsenic-Bearing Bronze Bells of the Western Zhou Dynasty and Related Problems'. The forum was organized by the National Museum of China.

The Director participated in the conference on the History and Practice of Archaeology in the Chinese Cultural Sphere in 22nd -24th August 2022, which was organised by the School of Archaeology, University of Oxford.

The Director presented an in-person talk entitled 'Some Challenges in the Studies of Metallurgy in Bronze Age China' to the workshop on Issues in Archaeological Science and Archaeology during 8th -9th September 2022, which was organised by School of Archaeology, University of Oxford.

*REVIEW OF THE FINANCIAL POSITION AT THE END OF THE YEAR*

Funds are invested to provide income to meet the day-to-day running of the Institute. They are split between the Endowment Funds, Restricted Funds (related to grants to expend for the purpose specified, these are shown in note 15 on page 20) and Unrestricted Funds. As at 30<sup>th</sup> September 2022 funds invested amounted to £14,399,017, (2021: £16,158,541).

The Principal funding sources of the Institute are its income from the investment portfolio, donations and grants from outside foundations, royalties, interest on deposit accounts and rent of No. 2 Sylvester Road. No. 2 Sylvester Road has been leased to Robinson College for fifteen years from 3<sup>rd</sup> May 2018.

A review of investment performance and the Institute's investment policy are detailed on page 4.

The Institute has a potential liability relating to the employees who are in the 'Universities Superannuation Scheme'. Note 14 and 20 to the accounts set out the basis of a provision that has been made of £35,162 (2021: £38,442).

## STRUCTURE, GOVERNANCE AND MANAGEMENT

*RESERVES POLICY*

The Trustees have considered that the most appropriate policy is to maintain all surplus funds split between investments held with Quilter Cheviot and also a level of balances held as cash at bank sufficient to maintain the day to day costs of running and servicing the Institute.

This policy is kept under review, having regard to the level of funds available.

The Trustees' investment powers are governed by the Trust Deed which permits The Needham Research Institute to invest the monies of the Institute not immediately required for its purposes in such ways as the Institute shall in its absolute discretion think fit.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## TRUSTEES REPORT

*NATURE OF THE GOVERNING DOCUMENT*

The Institute is an educational charity registered in England and subject to the provisions of the 1968 Trust Deed, as amended by Schemes of the Charity Commissioners dated 29<sup>th</sup> March 1988, 17<sup>th</sup> March 1992 and 27<sup>th</sup> November 2000.

*THE BOARD OF TRUSTEES*

The Trustees provide an appropriate mix of skills, diversity and experience; each is appointed for a term of five years by a resolution of the Trustees passed at a meeting and may be re-appointed for further terms in the same way.

The Trustees meet three times a year to receive reports from the Director, the Bursar through the Finance Committee and the Librarian. The Chairman and the Director are in close touch. All major decisions are referred to the Trustees.

The Trustees have given consideration to the major risks to which the Charity is exposed and have satisfied themselves that systems or procedures have been established in order to manage those risks.

The Institute has been moving towards a turnover of Trustees more consistent with Charity Commission guidelines.

*RECRUITMENT OF NEW TRUSTEES*

Newly appointed Trustees are given a full briefing and tour of the Institute soon after their appointment. All Trustees have been provided with the Charity Commission Investment Guidelines. The Chair of Trustees is elected annually at a formal meeting of the Trustees.

*MANAGEMENT PERSONNEL REMUNERATION*

The ultimate responsibility for the management of the Institute rests with the Trustees of the Needham Research Institute, and the day-to-day running of the Institute is overseen by a full-time salaried Director. He is supported by a full-time Librarian, a full-time Administrative Manager and a part-time Bursar, who together with the Director comprise the Management Committee of the Institute.

All Trustees give their time freely and no Trustee received any remuneration in the year. Details of Trustees' expenses are disclosed in note 8 to the financial statements.

The key officers of the Institute detailed above receive remuneration in line with those in similar positions within the University of Cambridge, and are accordingly remunerated in line with the University of Cambridge's pay scale. Officers receive the small "cost of living" salary increases awarded by the University of Cambridge.

*PRINCIPAL RISKS AND UNCERTAINTIES*

Internal controls over all forms of income, assets, commitment and expenditure continue to be refined to improve efficiency and effectiveness. Performance is monitored and appropriate management information is prepared and reviewed regularly by the management team and Trustees.

The Institute currently produces an annual budget and reports at Trustees meetings against that budget. The Trustees have delegated authority from the Board to ensure that an active risk management process is in place and forms part of The Needham Research Institute's ongoing organisation activity.

*INVESTMENT POLICY AND PERFORMANCE*

The Investment Portfolio continues to be managed by Quilter Cheviot Limited (now part of Old Mutual).

In the year to 30 September 2022, a total return of -8.1% was incurred. [18.3% in 2021]

## PLANS FOR FUTURE PERIODS

The Institute will seek to maximise its contribution to research, teaching and international relations, in its field, focusing principally on China but in the broader context of East Asia, and will take every opportunity to develop fruitful cooperation with the University of Cambridge in those areas, as well as with other institutions of research and higher learning world-wide.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## TRUSTEES REPORT

Work will continue on the *Science and Civilisation in China* series and other publications including a planned *Science and Civilisation in Korea* series. Fundraising efforts will continue to increase the Institute's endowment, and to support fellowship programmes.

The annual "Needham Memorial Lecture", in collaboration with other institutions in Cambridge, has been established and will continue.

The NRI Friendship Association was established in Beijing on 9<sup>th</sup> June 2018. It has raised funds to be added to the Ho Peng Yoke Fellowship and will continue to do so.

## TRUSTEES' RESPONSIBILITIES IN RELATION TO THE FINANCIAL STATEMENTS

The Trustees are responsible for preparing a Trustees' Report and financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

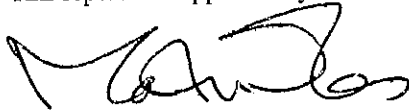
The law applicable to charities in England and Wales requires the Trustees to prepare financial statements for each year which give a true and fair view of the state of affairs of the charity and of the incoming resources and application of resources, of the charity for that period. In preparing the financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the applicable Charities SORP;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable accounting standards have been followed, subject to any material departures that must be disclosed and explained in the financial statements;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue in business.

The Trustees are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the charity and to enable them to ensure that the financial statements comply with the Charities Act 2011, the applicable Charities (Accounts and Reports) Regulations, and the provisions of the Trust deed. They are also responsible for safeguarding the assets of the charity and taking reasonable steps for the prevention and detection of fraud and other irregularities.

## APPROVAL

This report was approved by the Board of Trustees and signed on its behalf, on 24 March 2023



PROFESSOR MARTIN JONES  
CHAIRMAN OF TRUSTEES

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## INDEPENDENT AUDITOR'S REPORT TO THE TRUSTEES OF THE NEEDHAM RESEARCH INSTITUTE

## OPINION

We have audited the financial statements of The Needham Research Institute for the year ended 30<sup>th</sup> September 2022 which comprise the Statement of Financial Activities, the Balance Sheet, the Statement of Cash Flows and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the charity's affairs as at 30<sup>th</sup> September 2022, and of its incoming resources and application of resources, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Charities Act 2011.

## BASIS OF 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 financial statements section of our report. We are independent of the charity in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and the provisions available for small entities, in the circumstances set out in note 9 to the financial statements, and we have fulfilled our other ethical responsibilities in accordance with these 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

In auditing the financial statements, we have concluded that the Trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the charity's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the Trustees with respect to going concern are described in the relevant sections of this report.

## OTHER INFORMATION

The other information comprises the information included in the Trustees' Report, other than the financial statements and our auditor's report thereon. The Trustees are responsible for the Trustees' Report.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the Trustees' Report and, in doing so, consider whether the Trustees' Report is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## INDEPENDENT AUDITOR'S REPORT TO THE TRUSTEES OF THE NEEDHAM RESEARCH INSTITUTE

## MATTERS ON WHICH WE ARE REQUIRED TO REPORT BY EXCEPTION

We have nothing to report in respect of the following matters in relation to which the Charities (Accounts and Reports) Regulations 2008 require us to report to you if, in our opinion:

- the information given in the financial statements is inconsistent in any material respect with the Trustees' Report; or
- sufficient accounting records have not been kept; or
- the financial statements are not in agreement with the accounting records and returns; or
- we have not received all the information and explanations we require for our audit.

## RESPONSIBILITIES OF TRUSTEES

As explained more fully in the Trustees' responsibilities statement set out on page 5, the Trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Trustees are responsible for assessing the charity'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 Trustees either intend to liquidate the charity or to cease operations, or have no realistic alternative but to do so.

## AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE 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 a Report of the Auditors that includes our opinion. Reasonable assurance is a high level of assurance, but it 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.

## THE EXTENT TO WHICH OUR PROCEDURES ARE 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:

The objectives of our audit in respect of fraud, are to identify and assess the risks of material misstatement due to fraud, through designing and implementing appropriate responses to those assessed risks and to respond to fraud or suspected fraud identified during the audit. However, the primary responsibility for the prevention and detection of fraud rests with both the management and those charged with governance of the charity. Our procedures include the following:

- We have considered the nature of the industry and sector, control environment, laws and regulations and business performance, of the charity, including charity remuneration policies. We considered that the most significant laws and regulations are Charities Act 2011 and FRS102.
- We have enquired with management in regards to their own assessment of the risks of irregularities, including fraud. We also enquired of management and those charged with governance as to any known instances of non-compliance or suspected non-compliance with laws and regulations.
- We have obtained relevant documentation and representations in order to form an opinion on potential irregularities, including fraud.
- We considered the opportunities and incentives that may exist within the organisation for fraud.
- Based on this understanding, we designed specific audit procedures to identify instances of non-compliance with laws and regulations listed above, including obtaining additional corroborative evidence as required.

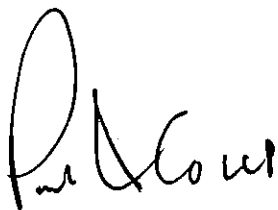
There are inherent limitations in the audit procedures described above, not least as sampling is used under International Auditing Standards, therefore not all transactions are reviewed. Therefore there is a risk we will not detect all irregularities including those leading to a material misstatement in the financial statements or non-compliance with regulations. The risk of not detecting a material misstatement due to fraud is also higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery, collusion, omission or intentional misrepresentation.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at [www.frc.org.uk/auditorsresponsibilities](http://www.frc.org.uk/auditorsresponsibilities). This description forms part of our auditor's report.

FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

INDEPENDENT AUDITOR'S REPORT TO THE TRUSTEES OF THE NEEDHAM RESEARCH INSTITUTE

This report is made solely to the Trustees, as a body, in accordance with the Charities Act 2011. Our audit work has been undertaken so that we might state to the charity's Trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charity and the charity's Trustees as a body, for our audit work, for this report, or for the opinions we have formed.



PRENTIS & CO LLP  
CHARTERED ACCOUNTANTS  
& STATUTORY AUDITORS  
115c Milton Road  
Cambridge  
CB4 1XE

11<sup>th</sup> May 2023.

Prentis & Co LLP is eligible to act as an auditor in terms of section 1212 of the Companies Act 2006.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## STATEMENT OF FINANCIAL ACTIVITIES

Notes	2022			2021				
	Unrestricted Funds	Restricted Funds	Endowment Funds	Total Funds	Unrestricted Funds	Restricted Funds	Endowment Funds	Total Funds
	£	£	£	£	£	£	£	£
<b>INCOME FROM:</b>								
2 Donations and legacies	150	33,347	-	33,497	229,893	7,953	-	237,846
3 Charitable activities	11,160	94,850	-	106,010	-	190,327	-	190,327
4 Investments	47,109	60,642	291,326	399,077	74,153	55,053	234,817	364,023
5 Other income	12,267	-	-	12,267	8,682	43	-	8,725
<b>TOTAL INCOME</b>	<b>70,686</b>	<b>188,839</b>	<b>291,326</b>	<b>550,851</b>	<b>312,728</b>	<b>253,376</b>	<b>234,817</b>	<b>800,921</b>
<b>EXPENDITURE ON:</b>								
6 Charitable activities	411,036	200,057	16,770	627,863	385,180	113,416	16,770	515,366
<b>TOTAL EXPENDITURE</b>	<b>411,036</b>	<b>200,057</b>	<b>16,770</b>	<b>627,863</b>	<b>385,180</b>	<b>113,416</b>	<b>16,770</b>	<b>515,366</b>
7 Net income/(expenditure) before gains on investments	(340,350)	(11,218)	274,556	(77,012)	(72,452)	139,960	218,047	285,555
11 Net (losses)/gains on investments	(370,801)	(273,185)	(1,062,078)	(1,706,064)	436,553	306,649	1,382,437	2,125,639
<b>NET INCOME/(EXPENDITURE)</b>	<b>(711,151)</b>	<b>(284,403)</b>	<b>(787,522)</b>	<b>(1,783,076)</b>	<b>364,101</b>	<b>446,609</b>	<b>1,600,484</b>	<b>2,411,194</b>
Transfers between funds	310,889	(19,563)	(291,326)	-	290,964	(56,147)	(234,817)	-
<b>NET MOVEMENT IN FUNDS</b>	<b>(400,262)</b>	<b>(303,966)</b>	<b>(1,078,848)</b>	<b>(1,783,076)</b>	<b>655,065</b>	<b>390,462</b>	<b>1,365,667</b>	<b>2,411,194</b>
<b>RECONCILIATION OF FUNDS</b>								
Total funds brought forward	4,068,006	2,593,253	10,833,466	17,494,725	3,412,941	2,202,791	9,467,799	15,083,531
Total funds carried forward	3,667,744	2,289,287	9,754,618	15,711,649	4,068,006	2,593,253	10,833,466	17,494,725

The Statement of Financial Activities includes all gains and losses recognised in the year. All income and expenditure derive from continuing activities.

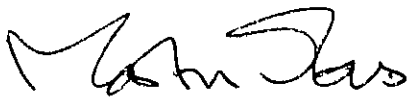
The notes on pages 12 to 25 form part of these financial statements.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## BALANCE SHEET

	Notes	2022		2021	
		£	£	£	£
<b>FIXED ASSETS</b>					
Tangible assets	10		1,100,940		1,126,161
Investments	11		14,399,017		16,158,541
<b>TOTAL FIXED ASSETS</b>			<u>15,499,957</u>		<u>17,284,702</u>
<b>CURRENT ASSETS</b>					
Debtors	12	53,600		22,069	
Cash at bank and in hand		225,324		258,461	
<b>TOTAL CURRENT ASSETS</b>		<u>278,924</u>		<u>280,530</u>	
<b>LIABILITIES:</b>					
Creditors: Amounts falling due within one year	13	(32,070)		(32,065)	
<b>NET CURRENT ASSETS</b>			<u>246,854</u>		<u>248,465</u>
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>			15,746,811		17,533,167
Provisions for liabilities and charges	14		(35,162)		(38,442)
<b>TOTAL NET ASSETS</b>	18		<u>15,711,649</u>		<u>17,494,725</u>
<b>THE FUNDS OF THE CHARITY:</b>					
Restricted funds	15		2,289,287		2,593,253
Endowment funds	16		9,754,618		10,833,466
Unrestricted funds:					
Designated funds	17	75,132		91,519	
Other charitable funds	17	3,592,612	3,667,744	3,976,487	4,068,006
<b>TOTAL CHARITY FUNDS</b>	18		<u>15,711,649</u>		<u>17,494,725</u>

The financial statements were approved by the Trustees at its meeting on 24 March 2023 and signed on its behalf by



.....  
PROFESSOR MARTIN JONES  
CHAIRMAN OF TRUSTEES

The notes on pages 12 to 25 form part of these financial statements.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## STATEMENT OF CASH FLOWS

	Notes	2022 Total Funds £	2021 Total Funds £
<b>Cash flows from operating activities:</b>			
<i>Net cash provided by (used in) operating activities</i>	19	<u>(484,005)</u>	<u>(119,607)</u>
<b>Cash flows from investing activities:</b>			
Investment income		399,077	364,023
Purchase of tangible fixed assets		(1,669)	(2,998)
Purchase of investments		(2,364,907)	(2,101,529)
Proceeds from investments		2,942,870	1,515,158
<i>Net cash provided by (used in) investing activities</i>		<u>975,371</u>	<u>(225,346)</u>
<i>Change in cash and cash equivalents in the year</i>		491,366	(344,953)
Cash and cash equivalents brought forward		381,664	726,617
Cash and cash equivalents carried forward	19	<u>873,030</u>	<u>381,664</u>

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

## 1. ACCOUNTING POLICIES

## (a) BASIS OF PREPARATION

The financial statements have been prepared in accordance with the Statement of Recommended Practice: Accounting and Reporting by Charities preparing their financial statements in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019) - (Charities SORP (FRS 102)) and the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102).

The Needham Research Institute meets the definition of a public benefit entity under FRS 102.

Assets and liabilities are initially recognised at historical cost or transaction values unless otherwise stated in the relevant accounting policy notes.

## (b) ASSESSMENT OF GOING CONCERN

The trustees consider that there are no material uncertainties about the Institute's ability to continue as a going concern.

## (c) INCOME RECOGNITION

All incoming resources are included in the Statement of Financial Activities when the charity is legally entitled to the money and the amounts can be quantified with reasonable accuracy. The following specific policies are applied to particular categories of income:

*Donations and legacies:*

Donations, are recognised when the Institute has been notified in writing of both the amount and settlement date. In the event that a donation is subject to conditions that require a level of performance before the charity is entitled to the funds, the income is deferred and not recognised until either those conditions are fully met, or the fulfilment of those conditions is wholly within the control of the charity and it is probable that those conditions will be fulfilled in the reporting period.

*Grant income:*

Income from grants, whether 'capital' grants or 'revenue' grants, is recognised when the trust has entitlement to the funds, any performance conditions attached to the grants have been met, it is probable that the income will be received and the amount can be measured reliably and is not deferred.

*Investment income:*

Interest on funds held on deposit is included when receivable and the amount can be measured reliably by the trust; this is normally upon notification of the interest paid or payable by the bank. Dividends are recognised once the dividend has been declared and notification has been received of the dividend due. This is normally upon notification by our investment advisor of the dividend yield of the investment portfolio.

## (d) EXPENDITURE AND IRRECOVERABLE VAT

Expenditure is recognised once there is a legal or constructive obligation to make a payment to a third party, it is probable that settlement will be required and the amount of the obligation can be measured reliably.

All expenditure is accounted for on an accruals basis. All expenses including support costs and governance costs are allocated or apportioned to the following expenditure headings as follows:

*Raising funds:*

Costs of raising funds comprise the costs of seeking and applying for grants and costs associated with the seeking and arranging of licence fee agreements.

*Charitable activities:*

Expenditure on charitable activities includes the costs of activities undertaken to further the purposes of the institute and their associated support costs. Costs relating to a particular activity are allocated directly, others are apportioned on an appropriate basis.

Governance costs include all expenditure not directly related to the charitable activity or fundraising ventures. This includes an appropriate proportion of costs of staff salaries for administration staff and audit fees.

Irrecoverable VAT is charged as a cost against the activity for which the expenditure was incurred.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

**(e) TANGIBLE FIXED ASSETS**

The charity has a policy of capitalising fixed assets with a cost in excess of £100. Depreciation is provided on all tangible fixed assets at rates calculated to write-off the costs less estimated residual value of each asset over its expected useful life as follows:

8 Sylvester Road (Long leasehold)	- over the period of the lease (97 years)
Fixtures and fittings	- 10 years straight line
Equipment	- 4 years straight line

**(f) INVESTMENTS FIXED ASSETS**

Investments are a form of basic financial instrument and are initially recognised at their transaction value and subsequently measured at their fair value as at the balance sheet date using the closing quoted market price. The Statement of Financial Activities includes the net gains and losses arising on revaluation and disposals throughout the year.

The Institute does not acquire put options, derivatives or other complex financial instruments.

The main form of financial risk faced by the charity is that of volatility in equity markets and investment markets due to wider economic conditions, the attitude of investors to investment risk, and changes in sentiment concerning equities and within particular sectors or sub sectors.

**(g) REALISED GAINS AND LOSSES**

All gains and losses are taken to the Statement of Financial Activities as they arise. Realised gains and losses on investments are calculated as the difference between sales proceeds and their opening carrying value or their purchase value if acquired subsequent to the first day of the financial year.

Unrealised gains and losses are calculated as the difference between the fair value at the year end and their carrying value. Realised and unrealised investment gains and losses are combined in the Statement of Financial Activities.

**(h) DEBTORS**

Trade and other debtors are recognised at the settlement amount due after any trade discount offered. Prepayments are valued at the amount prepaid net of any trade discounts due.

**(i) CREDITORS**

Creditors and provisions are recognised where the charity has a present obligation resulting from a past event that will probably result in the transfer of funds to a third party and the amount due to settle the obligation can be measured or estimated reliably. Creditors and provisions are normally recognised at their settlement amount after allowing for any trade discounts due.

**(j) PENSIONS**

The Institute participates in the Universities Superannuation Scheme (the scheme). Throughout the current and preceding periods, the scheme was a defined benefit only pension scheme until 31 March 2016 which was contracted out of the Second State Pension (S2P). The assets of the scheme are held in a separate trustee-administered fund. Because of the mutual nature of the scheme, the scheme's assets are not hypothecated to individual institutions and a scheme-wide contribution rate is set.

The Institute is therefore exposed to actuarial risks associated with other institutions' employees and is unable to identify its share of the underlying assets and liabilities of the scheme on a consistent and reasonable basis and therefore, as required by Section 28 of FRS 102 "Employee benefits", accounts for the scheme as if it were a defined contribution scheme.

As a result, the amount charged to the Statement of Financial Activities represents the contributions payable to the scheme in respect of the accounting period. Since the institution has entered into an agreement (the Recovery Plan that determines how each employer within the scheme will fund the overall deficit), the institution recognises a liability for the contributions payable that arise from the agreement to the extent that they relate to the deficit and the resulting expense in the Statement of Financial Activities.

The Institute also participates in the Cambridge University Assistants' Contributory Pension Scheme (CPS). The scheme is a defined benefit scheme which is externally funded and is also contracted out of the State Second Pension (S2P). The fund is valued every three years by a professionally qualified independent actuary, with the actuary reviewing the progress of the scheme in the intervening years.

The Cambridge University Assistants' Contributory Pension Scheme, provides benefits based on final pensionable salary and contributions are made into a defined contribution scheme under the stakeholder rules.

The Institute's contributions to this scheme are charged to the Statement of Financial Activities as they are incurred.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

2.	INCOME FROM DONATIONS AND LEGACIES FOR THE YEAR ENDED 30TH SEPTEMBER 2022	Unrestricted Funds £	Restricted Funds £	Endowment Funds £	2022 Total £
	Donations	150	32,097	-	32,247
	Gift Aid	-	1,250	-	1,250
		<u>150</u>	<u>33,347</u>	<u>-</u>	<u>33,497</u>
	INCOME FROM DONATIONS AND LEGACIES FOR THE YEAR ENDED 30TH SEPTEMBER 2021	Unrestricted Funds £	Restricted Funds £	Endowment Funds £	2021 Total £
	Donations	229,893	6,703	-	236,596
	Gift Aid	-	1,250	-	1,250
		<u>229,893</u>	<u>7,953</u>	<u>-</u>	<u>237,846</u>
3.	INCOME FROM CHARITABLE ACTIVITIES YEAR ENDED 30TH SEPTEMBER 2022	Unrestricted Funds £	Restricted Funds £	Endowment Funds £	2022 Total £
	Grants	11,160	94,850	-	106,010
	INCOME FROM CHARITABLE ACTIVITIES YEAR ENDED 30TH SEPTEMBER 2021	Unrestricted Funds £	Restricted Funds £	Endowment Funds £	2021 Total £
	Grants	-	190,327	-	190,327
4.	INCOME FROM INVESTMENTS YEAR ENDED 30TH SEPTEMBER 2022	Unrestricted Funds £	Restricted Funds £	Endowment Funds £	2022 Total £
	Interest receivable	-	-	-	-
	Dividends receivable	12,955	60,642	291,326	364,923
	Rents receivable (No 2 Sylvester Road)	34,154	-	-	34,154
		<u>47,109</u>	<u>60,642</u>	<u>291,326</u>	<u>399,077</u>
	INCOME FROM INVESTMENTS YEAR ENDED 30TH SEPTEMBER 2021	Unrestricted Funds £	Restricted Funds £	Endowment Funds £	2021 Total £
	Interest receivable	28	-	-	28
	Dividends receivable	41,931	55,053	234,817	331,801
	Rents receivable (No 2 Sylvester Road)	32,194	-	-	32,194
		<u>74,153</u>	<u>55,053</u>	<u>234,817</u>	<u>364,023</u>
5.	INCOME FROM OTHER YEAR ENDED 30TH SEPTEMBER 2022	Unrestricted Funds £	Restricted Funds £	Endowment Funds £	2022 Total £
	Royalties	3,506	-	-	3,506
	Sundry	8,761	-	-	8,761
		<u>12,267</u>	<u>-</u>	<u>-</u>	<u>12,267</u>
	INCOME FROM OTHER YEAR ENDED 30TH SEPTEMBER 2021	Unrestricted Funds £	Restricted Funds £	Endowment Funds £	2021 Total £
	Royalties	7,820	-	-	7,820
	Sundry	862	43	-	905
		<u>8,682</u>	<u>43</u>	<u>-</u>	<u>8,725</u>

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

6.	EXPENDITURE ON: CHARITABLE ACTIVITIES YEAR ENDED 30TH SEPTEMBER 2022	Unrestricted Funds £	Restricted Funds £	Endowment Funds £	2022 Total £
	Academic and related costs	190,333	183,725	-	374,058
	Establishment costs	67,725	-	16,770	84,495
	Office and support costs	146,201	16,332	-	162,533
	Governance costs	6,777	-	-	6,777
		<u>411,036</u>	<u>200,057</u>	<u>16,770</u>	<u>627,863</u>
	<b>ANALYSIS OF EXPENDITURE ON CHARITABLE ACTIVITIES YEAR ENDED 30TH SEPTEMBER 2022</b>	<b>Unrestricted Funds £</b>	<b>Restricted Funds £</b>	<b>Endowment Funds £</b>	<b>2022 Total £</b>
	<b>Academic and related costs</b>				
	Salaries (academic)	98,302	83,376	-	181,678
	Salaries (librarian)	68,119	34,998	-	103,117
	Research grants	-	41,500	-	41,500
	Books and publications	5,299	1,088	-	6,387
	Travel and accommodation	5,157	1,269	-	6,426
	Computer costs	8,791	5,213	-	14,004
	Telephone, postage and photocopying	2,996	-	-	2,996
	Other (incl. lecture and exhibition expenses)	1,669	16,281	-	17,950
		<u>190,333</u>	<u>183,725</u>	<u>-</u>	<u>374,058</u>
	<b>Establishment costs</b>				
	Rates	12,185	-	-	12,185
	Insurance	9,609	-	-	9,609
	Repairs and maintenance	19,255	-	-	19,255
	Water, light and heat	9,727	-	-	9,727
	Cleaning	8,522	-	-	8,522
	Gardening and grounds	8,427	-	-	8,427
	Depreciation	-	-	16,770	16,770
		<u>67,725</u>	<u>-</u>	<u>16,770</u>	<u>84,495</u>
	<b>Office and support costs</b>				
	Other salaries	72,059	-	-	72,059
	Depreciation	10,120	-	-	10,120
	Printing and stationery	1,795	430	-	2,225
	Events	6,849	1,707	-	8,556
	Investment broker charges	55,381	14,195	-	69,576
	Foreign exchange gain	(3)	-	-	(3)
		<u>146,201</u>	<u>16,332</u>	<u>-</u>	<u>162,533</u>
	<b>Governance costs</b>				
	Audit and accountancy	6,533	-	-	6,533
	Other legal and professional fees	244	-	-	244
		<u>6,777</u>	<u>-</u>	<u>-</u>	<u>6,777</u>
		<u>411,036</u>	<u>200,057</u>	<u>16,770</u>	<u>627,863</u>

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

## 6. EXPENDITURE ON:

CHARITABLE ACTIVITIES continued  
YEAR ENDED 30TH SEPTEMBER 2021

	Unrestricted Funds	Restricted Funds	Endowment Funds	2021 Total
	£	£	£	£
Academic and related costs	169,610	101,874	-	271,484
Establishment costs	61,254	-	16,770	78,024
Office and support costs	146,926	11,387	-	158,313
Governance costs	7,390	155	-	7,545
	<u>385,180</u>	<u>113,416</u>	<u>16,770</u>	<u>515,366</u>

ANALYSIS OF EXPENDITURE ON CHARITABLE  
ACTIVITIES YEAR ENDED 30TH SEPTEMBER 2021

	Unrestricted Funds	Restricted Funds	Endowment Funds	2021 Total
	£	£	£	£
<b>Academic and related costs</b>				
Salaries (academic)	85,193	57,780	-	142,973
Salaries (librarian)	63,732	26,691	-	90,423
Research grants	-	14,500	-	14,500
Books and publications	4,936	1,680	-	6,616
Travel and accommodation	55	-	-	55
Computer costs	9,327	-	-	9,327
Telephone, postage and photocopying	3,373	-	-	3,373
Other (incl. lecture and exhibition expenses)	2,994	1,223	-	4,217
	<u>169,610</u>	<u>101,874</u>	<u>-</u>	<u>271,484</u>
<b>Establishment costs</b>				
Rates	12,186	-	-	12,186
Insurance	14,947	-	-	14,947
Repairs and maintenance	9,658	-	-	9,658
Water, light and heat	7,410	-	-	7,410
Cleaning	8,348	-	-	8,348
Gardening and grounds	8,670	-	-	8,670
Ground rent	35	-	-	35
Depreciation	-	-	16,770	16,770
	<u>61,254</u>	<u>-</u>	<u>16,770</u>	<u>78,024</u>
<b>Office and support costs</b>				
Other salaries	65,946	-	-	65,946
Depreciation	8,483	1,224	-	9,707
Printing and stationery	877	282	-	1,159
Events	199	-	-	199
Investment broker charges	71,445	9,881	-	81,326
Foreign exchange gain	(24)	-	-	(24)
	<u>146,926</u>	<u>11,387</u>	<u>-</u>	<u>158,313</u>
<b>Governance costs</b>				
Audit and accountancy	6,196	-	-	6,196
Other legal and professional fees	1,194	155	-	1,349
	<u>7,390</u>	<u>155</u>	<u>-</u>	<u>7,545</u>
	<u>385,180</u>	<u>113,416</u>	<u>16,770</u>	<u>515,366</u>

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

7.	NET INCOME FOR THE YEAR	2022	2021
	This is stated after charging:	£	£
	Auditors remuneration - external audit	6,533	6,196
	- non audit services	-	-
	Depreciation of tangible fixed assets	26,890	26,477

## MANAGEMENT THREAT IN RELATION TO NON-AUDIT SERVICES

In common with many other businesses of our size and nature we use our auditors to assist with the preparation of the financial statements.

8.	ANALYSIS OF STAFF COSTS AND REMUNERATION OF KEY MANAGEMENT PERSONNEL	2022	2021
		£	£
	Salaries and wages	258,151	214,197
	Social security costs	28,912	23,382
	Pension contributions	76,864	69,118
		<u>363,927</u>	<u>306,697</u>

The pension contributions shown above include amounts relevant to the inclusion of the pension provision shown in note 14 to the financial statements as required following the introduction of FRS 102.

The number of employees whose emoluments (salaries and pension contributions) exceeded £60,000 was 2 (2021: 1).

The average number of staff employed, analysed by function, employed during the year were:

	2022	2021
	Number	Number
Academic	6	7
Administration	3	3
Establishment	1	1
	<u>10</u>	<u>11</u>

The above numbers do not include Trustees who are not permitted to receive remuneration for their duties.

Related party transactions in the year were £Nil (2021: £Nil)

The aggregate amount of expenses reimbursed to the Trustees was £Nil (2021: £Nil).

The Institute considers its key management personnel comprise of the Trustees and the Institute's Director. The total employment benefits including employer pension contributions of the key management personnel were £101,538 (2021: £99,132).

## 9. TAXATION

As a charity, The Needham Research Institute is exempt from tax on income and gains falling within section 505 of the Taxes Act 1988 or section 252 of the Taxation of Chargeable Gains Act 1992 to the extent that these are applied to its charitable objects. No tax charges have arisen in the year.

10.	TANGIBLE FIXED ASSETS	Long	Fixtures &	Equipment	
	YEAR ENDED 30TH SEPTEMBER 2022	Leasehold	Fittings	& Software	Total
		£	£	£	£
	COST				
	Balance at 1st October 2021	1,626,664	70,813	28,422	1,725,899
	Additions	-	-	1,669	1,669
	Disposals	-	-	(6,666)	(6,666)
	Balance at 30th September 2022	<u>1,626,664</u>	<u>70,813</u>	<u>23,425</u>	<u>1,720,902</u>
	DEPRECIATION				
	Balance at 1st October 2021	519,788	57,395	22,555	599,738
	Charge for the year	16,770	5,715	4,405	26,890
	Eliminated in disposal	-	-	(6,666)	(6,666)
	Balance at 30th September 2022	<u>536,558</u>	<u>63,110</u>	<u>20,294</u>	<u>619,962</u>
	NET BOOK VALUE as at 30th September 2022	<u>1,090,106</u>	<u>7,703</u>	<u>3,131</u>	<u>1,100,940</u>

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

10.	TANGIBLE FIXED ASSETS continued YEAR ENDED 30TH SEPTEMBER 2021	Long Leasehold £	Fixtures & Fittings £	Equipment & Software £	Total £
	COST				
	Balance at 1st October 2020	1,626,664	70,813	25,424	1,722,901
	Additions	-	-	2,998	2,998
	Balance at 30th September 2021	<u>1,626,664</u>	<u>70,813</u>	<u>28,422</u>	<u>1,725,899</u>
	DEPRECIATION				
	Balance at 1st October 2020	503,018	51,675	18,568	573,261
	Charge for the year	16,770	5,720	3,987	26,477
	Balance at 30th September 2021	<u>519,788</u>	<u>57,395</u>	<u>22,555</u>	<u>599,738</u>
	NET BOOK VALUE as at 30th September 2021	<u>1,106,876</u>	<u>13,418</u>	<u>5,867</u>	<u>1,126,161</u>
11.	INVESTMENT FIXED ASSETS	2022		2021	
		Cost	Market Value	Cost	Market Value
		£	£	£	£
	Investment properties - long leasehold	111,548	1,200,000	111,548	1,200,000
	Listed investments	9,631,066	12,551,311	9,704,711	14,835,338
	Capital account	647,706	647,706	123,203	123,203
		<u>10,390,320</u>	<u>14,399,017</u>	<u>9,939,462</u>	<u>16,158,541</u>
	Market value at 1st October		16,035,338		13,323,327
	Listed investments acquired		2,364,907		2,101,529
	Listed investments disposed		(2,942,870)		(1,515,157)
	Realised (losses)/gains		(564,714)		(75,758)
	Gains/(losses) on revaluations at 30th September		(1,141,350)		2,201,397
	Market value at 30th September		<u>13,751,311</u>		<u>16,035,338</u>
	The long leasehold of 2 Sylvester Road was valued by the Westley & Huff on the basis of its market value being £1,200,000.				
	Listed investments have been valued at the prices as shown on recognised exchanges.				
	No listed investment, excluding cash balances, made up more than 5% of the portfolio.				
12.	DEBTORS			2022	2021
	Due within one year:			£	£
	Prepayments and accrued income			5,234	1,709
	Other debtors			48,366	20,360
				<u>53,600</u>	<u>22,069</u>
13.	CREDITORS			2022	2021
	Due within one year:			£	£
	Trade creditors			55	54
	Accruals and deferred income			29,990	29,986
	Deposit held			2,025	2,025
				<u>32,070</u>	<u>32,065</u>

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

14.	PROVISIONS FOR LIABILITIES	2022
		£
	Balance at 1st October 2021	38,442
	Provision identified in the year	-
	Movement in provision	(3,280)
	Balance at 30th September 2022	<u>35,162</u>
	PROVISIONS FOR LIABILITIES	2021
		£
	Balance at 1st October 2020	50,199
	Provision identified in the year	-
	Movement in provision	(11,757)
	Balance at 30th September 2021	<u>38,442</u>

The introduction of FRS 102 necessitates the inclusion of a provision to account for the full liability of any pension deficit catch up plan. The liability is based on the additional expected payments required over the life of the catch up plan, allowing for discounting rates and changes in future contributions.

The provision relates to the USS pension deficit recovery plan as mentioned in note 1 (j) to the financial statements.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

15. RESTRICTED FUNDS  
YEAR ENDED 30TH SEPTEMBER 2022

	Balance B/Fwd £	Income £	Expenditure £	Revaluation Gains £	Transfers £	Balance C/Fwd £
a) SCC Fund (NSF)	14,037	-	-	-	-	14,037
b) Li Foundation Fund	36,729	44,201	(10,549)	-	(844)	69,537
c) Sino-British Fellowship Trust	24,788	-	-	-	-	24,788
d) SYK Fellowship Fund	704,129	19,090	(19,120)	(73,665)	(1,650)	628,784
e) Kim Foundation	27,883	-	-	-	-	27,883
f) CNRS Sphere Project	9,805	-	(3,991)	-	(399)	5,415
g) Independent Schools Fund	-	50,649	(50,649)	-	-	-
h) Lloyd Dan David Fund	773,430	26,113	(39,934)	(77,036)	(3,532)	679,041
i) Jing Brand Fund (including Tianyoude grant)	168,368	23,975	(7,399)	(25,112)	(4,000)	155,832
j) Beijing Xingzhi	5,425	-	-	-	-	5,425
k) Kan Wen Ma Fund (in memory of Prof Ma)	7,407	-	-	-	-	7,407
l) Ho Peng Yoke Fellowship	709,879	17,811	(15,232)	(97,372)	(1,077)	614,009
m) Wellcome Grant	61,180	-	(53,124)	-	(8,056)	-
n) Suiyuan Grant	50,193	-	(59)	-	(5)	50,129
o) HK Trust	-	7,000	-	-	-	7,000
	<u>2,593,253</u>	<u>188,839</u>	<u>(200,057)</u>	<u>(273,185)</u>	<u>(19,563)</u>	<u>2,289,287</u>

## Purpose of funds:

- a) Fund is for research resulting in publications, mainly in the Science and Civilisation in China projects.
- b) Fund is to support research fellows.
- c) Fund is to support research fellows.
- d) Fund is to fund PhD students and Scholars.
- e) Fund is to support research in the history of science in modern East Asia.
- f) Fund is to support the CNRS Sphere Project.
- g) Fund is to support Independent Schools in research.
- h) Fund is established under a grant given by Lloyd Dan David for support for future fellows research.
- i) Fund is established under a grant given by The Jing Brand for support for future fellowships.
- j) Fund is established under a grant given by the Beijing Xingzhi Exploring Culture Communication Company for support for future scholarships.
- k) Fund is for the establishment of an annual lecture in memory of Professor K W Ma.
- l) Fund is for the establishment of a visiting Fellowship in memory of Professor Ho Peng Yoke.
- m) Fund to digitise and organise the extensive archives of Joseph and Dorothy Needham.
- n) Fund to support short term academic visits of Chinese scholars and small seminars related to research on the history of science and technology in China.
- o) Fund was established for supporting our archival project.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

15. RESTRICTED FUNDS continued  
YEAR ENDED 30TH SEPTEMBER 2021

	Balance B/Fwd £	Income £	Expenditure £	Revaluation Gains £	Transfers £	Balance C/Fwd £
a) SCC Fund (NSF)	14,037	-	-	-	-	14,037
b) Li Foundation Fund	14,570	22,159	-	-	-	36,729
c) Sino-British Fellowship Trust	24,788	-	-	-	-	24,788
d) SYK Fellowship Fund	627,259	18,217	(12,878)	87,712	(16,181)	704,129
e) Kim Foundation	27,883	-	-	-	-	27,883
f) Fundraising and promotion	9,905	-	-	-	(9,905)	-
g) CNRS Sphere Project	9,929	-	(113)	-	(11)	9,805
h) Independent Schools Fund	-	53,074	(49,074)	-	(4,000)	-
i) Lloyd Dan David Fund	676,983	25,709	(13,952)	89,328	(4,638)	773,430
j) Jing Brand Fund (including Tianyoude grant)	148,868	2,983	(698)	26,083	(8,868)	168,368
k) Beijing Xingzhi	5,425	-	-	-	-	5,425
l) Conservation of Needham Archives	2,000	-	-	-	(2,000)	-
m) Kan Wen Ma Fund (in memory of Prof Ma)	7,407	-	-	-	-	7,407
n) Ho Peng Yoke Fellowship	604,359	16,097	(7,559)	103,526	(6,544)	709,879
o) Wellcome Grant	29,378	60,944	(29,142)	-	-	61,180
p) Suiyuan Grant	-	54,193	-	-	(4,000)	50,193
	<u>2,202,791</u>	<u>253,376</u>	<u>(113,416)</u>	<u>306,649</u>	<u>(56,147)</u>	<u>2,593,253</u>

## Purpose of funds:

- a) Fund is for research resulting in publications, mainly in the Science and Civilisation in China projects.
- b) Fund is to support research fellows.
- c) Fund is to support research fellows.
- d) Fund is to fund PhD students and Scholars.
- e) Fund is to support research in the history of science in modern East Asia.
- f) Fund is an amalgamation of the Chinese Academy and Joseph Needham Lecture and Conference Fund to be used towards the fundraising and promotion of The Needham Research Institute.
- g) Fund is to support the CNRS Sphere Project.
- h) Fund is to support Independent Schools in research.
- i) Fund is established under a grant given by Lloyd Dan David for support for future fellows research.
- j) Fund is established under a grant given by The Jing Brand for support for future fellowships.
- k) Fund is established under a grant given by the Beijing Xingzhi Exploring Culture Communication Company for support for future scholarships.
- l) Fund is for the conservation and preservation of the Joseph Needham archives.
- m) Fund is for the establishment of an annual lecture in memory of Prof K W Ma.
- n) Fund is for the establishment of a visiting Fellowship in memory of Professor Ho Peng Yoke.
- o) Fund to digitise and organise the extensive archives of Joseph and Dorothy Needham.
- p) Fund to support short term academic visits of Chinese scholars and small seminars related to research on the history of science and technology in China.

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

16.	ENDOWMENT FUNDS	Balance			Revaluation		Balance
	YEAR ENDED 30TH	B/Fwd.	Income	Expenditure	Gains	Transfers	C/Fwd.
	SEPTEMBER 2022	£	£	£	£	£	£
	Building Fund	705,257	-	(10,650)	-	-	694,607
	Building Fund (South Wing)	453,956	-	(6,120)	-	-	447,836
	Endowment Fund	9,166,514	291,326	-	(1,062,078)	(291,326)	8,104,436
	Endowment Fund Library	21,850	-	-	-	-	21,850
	Joseph Needham Estate	485,889	-	-	-	-	485,889
		<u>10,833,466</u>	<u>291,326</u>	<u>(16,770)</u>	<u>(1,062,078)</u>	<u>(291,326)</u>	<u>9,754,618</u>

The building funds were provided for and expended on the erection of permanent premises for the Needham Research Institute and to house the East Asian History of Science Library.

The Endowment Fund exists to provide capital for investment which in turn will produce income sufficient in time to secure the continuing operation of the Institute.

	ENDOWMENT FUNDS	Balance			Revaluation		Balance
	YEAR ENDED 30TH	B/Fwd.	Income	Expenditure	Gains	Transfers	C/Fwd.
	SEPTEMBER 2021	£	£	£	£	£	£
	Building Fund	715,907	-	(10,650)	-	-	705,257
	Building Fund (South Wing)	460,076	-	(6,120)	-	-	453,956
	Endowment Fund	7,784,077	234,817	-	1,382,437	(234,817)	9,166,514
	Endowment Fund Library	21,850	-	-	-	-	21,850
	Joseph Needham Estate	485,889	-	-	-	-	485,889
		<u>9,467,799</u>	<u>234,817</u>	<u>(16,770)</u>	<u>1,382,437</u>	<u>(234,817)</u>	<u>10,833,466</u>

17.	UNRESTRICTED FUNDS	Balance			Revaluation		Balance
	YEAR ENDED 30TH	B/Fwd.	Income	Expenditure	Gains	Transfers	C/Fwd.
	SEPTEMBER 2022	£	£	£	£	£	£
	<b>Designated funds:</b>						
	Building repairs fund	32,000	-	(12,378)	-	4,000	23,622
	Computer and equipment fund	21,429	-	(4,944)	-	-	16,485
	Library Special Fund	38,090	-	(3,065)	-	-	35,025
		<u>91,519</u>	<u>-</u>	<u>(20,387)</u>	<u>-</u>	<u>4,000</u>	<u>75,132</u>
	<b>Other charitable funds</b>	<u>3,976,487</u>	<u>70,686</u>	<u>(390,649)</u>	<u>(370,801)</u>	<u>306,889</u>	<u>3,592,612</u>
		<u>4,068,006</u>	<u>70,686</u>	<u>(411,036)</u>	<u>(370,801)</u>	<u>310,889</u>	<u>3,667,744</u>

Purpose of designated funds:

The building repairs fund arises from amounts set aside towards major building maintenance.

The computer and equipment fund arises from amounts set aside towards the updating and replacement of computers and equipment.

The Library Special Fund arises from amounts set aside towards the purchase of books and publications for the Library.

	UNRESTRICTED FUNDS	Balance			Revaluation		Balance
	YEAR ENDED 30TH	B/Fwd.	Income	Expenditure	Gains	Transfers	C/Fwd.
	SEPTEMBER 2021	£	£	£	£	£	£
	<b>Designated funds:</b>						
	Building repairs fund	28,000	-	-	-	4,000	32,000
	Computer and equipment fund	27,143	-	(2,857)	-	(2,857)	21,429
	Library Special Fund	38,933	5	(2,848)	-	2,000	38,090
		<u>94,076</u>	<u>5</u>	<u>(5,705)</u>	<u>-</u>	<u>3,143</u>	<u>91,519</u>
	<b>Other charitable funds</b>	<u>3,318,865</u>	<u>312,723</u>	<u>(379,475)</u>	<u>436,553</u>	<u>287,821</u>	<u>3,976,487</u>
		<u>3,412,941</u>	<u>312,728</u>	<u>(385,180)</u>	<u>436,553</u>	<u>290,964</u>	<u>4,068,006</u>

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

18. ANALYSIS OF NET ASSETS BETWEEN FUNDS YEAR ENDED 30TH SEPTEMBER 2022	Unrestricted Funds £	Restricted Funds £	Endowment Funds £	2022 Total Funds £
Fund balances at 30th September are represented by:.				
Tangible fixed assets	10,834	-	1,090,106	1,100,940
Investment fixed assets	3,505,024	2,260,946	8,633,047	14,399,017
Debtors	37,895	15,705	-	53,600
Cash at bank and in hand	178,624	15,235	31,465	225,324
Current liabilities	(29,471)	(2,599)	-	(32,070)
Provisions for liabilities	(35,162)	-	-	(35,162)
Net assets	<u>3,667,744</u>	<u>2,289,287</u>	<u>9,754,618</u>	<u>15,711,649</u>

ANALYSIS OF NET ASSETS BETWEEN FUNDS YEAR ENDED 30TH SEPTEMBER 2021	Unrestricted Funds £	Restricted Funds £	Endowment Funds £	2021 Total Funds £
Fund balances at 30th September are represented by:.				
Tangible fixed assets	11,781	7,504	1,106,876	1,126,161
Investment fixed assets	4,107,610	2,355,806	9,695,125	16,158,541
Debtors	17,186	4,883	-	22,069
Cash at bank and in hand	1,936	225,060	31,465	258,461
Current liabilities	(32,065)	-	-	(32,065)
Provisions for liabilities	(38,442)	-	-	(38,442)
Net assets	<u>4,068,006</u>	<u>2,593,253</u>	<u>10,833,466</u>	<u>17,494,725</u>

## 19. RECONCILIATION OF NET MOVEMENT IN FUNDS TO NET CASH FLOW FROM OPERATING ACTIVITIES

	2022 £	2021 £
Net movement in funds	(1,783,076)	2,411,194
Add: Depreciation	26,890	26,477
Less: Investment income	(399,077)	(364,023)
Less: (Losses)/Gains on investments	1,706,064	(2,125,639)
Decrease/(increase) in debtors	(31,531)	(14,502)
Increase/(decrease) in creditors	5	(41,357)
(Decrease)/increase in provisions	(3,280)	(11,757)
Net cash provided by (used in) operating activities	<u>(484,005)</u>	<u>(119,607)</u>

ANALYSIS OF CASH AND CASH EQUIVALENTS	2022 £	2021 £
Cash held under investments	647,706	123,203
Cash at bank	225,324	258,461
	<u>873,030</u>	<u>381,664</u>

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

## 20. PENSIONS

**(a) Universities Superannuation Scheme**

The Institute participates in the Universities Superannuation Scheme (the scheme) with three active members. Throughout the current and preceding periods, the scheme was a defined benefit only pension scheme until 31 March 2017 which was contracted out of the State Second Pension (S2P). The assets of the scheme are held in a separate trustee-administered fund. Because of the mutual nature of the scheme, the scheme's assets are not hypothecated to the individual institutions and a scheme-wide contribution rate is set. The Institute is therefore exposed to actuarial risks associated with other institutions' employees and is unable to identify its share of the underlying assets and liabilities of the scheme on a consistent and reasonable basis and therefore, as required by Section 28 of FRS 102 "Employee benefits", accounts for the scheme as if it were a defined contribution scheme.

As a result, the amount charged to the Statement of Financial Activities represents the contributions payable to the scheme. Since the Institute has entered into an agreement (the Recovery Plan) that determines how each employer within the scheme will fund the overall deficit, the Institute recognises a liability for the contributions payable that arise from the agreement to the extent that they relate to the deficit and the resulting expense in the Statement of Financial Activities.

The total cost charged to the Statement of Financial Activities for the Institute is £21,785 (2020/21: £14,942).

Since the Institute cannot identify its share of the scheme assets and liabilities, the following disclosures reflect those relevant for the scheme as a whole.

The latest available full actuarial valuation of the scheme was at 31 March 2020 ("the valuation date"), which was carried out using the projected unit method.

The 2020 valuation was the sixth valuation for USS under the scheme-specific funding regime introduced by the Pensions Act 2004, which requires schemes to adopt a statutory funding objective, which is to have sufficient and appropriate assets to cover their technical provisions. At the valuation date, the value of the assets of the scheme was £66.5 billion and the value of the scheme's technical provisions was £80.6 billion indicating a shortfall of £14.1 billion.

The assets therefore were sufficient to cover 83% of the benefits which has accrued to members after allowing for expected future increases in earnings.

Defined benefit liability numbers for the scheme have been produced using the following assumptions:

	2021/22	2020/21
Discount rate	3.31%	0.87%
Pensionable salary growth	3.00%	2.70%

The main demographic assumption used relates to the mortality assumptions. These assumptions are based on analysis of the scheme's experience carried out as part of the 2020 actuarial valuation. The mortality assumptions used in these figures are as follows:

	2020 Valuation
Mortality base table	101% of S2PMA "light" for males and 95% of S3FPA for females
Future improvements to mortality	CMI_2019 with a smoothing parameter of 7.5, an initial addition of 0.5% p.a. and a long-term improvement rate of 1.8% p.a. for males and 1.6% p.a. for females.

The current life expectancies on retirement at 65 are:

	2021/22	2020/21
Males currently aged 65 (years)	23.9	24.7
Females currently aged 65 (years)	23.5	26.1
Males currently aged 45 (years)	25.9	26.7
Females currently aged 45 (years)	27.3	27.9

## FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH SEPTEMBER 2022

## NOTES TO THE FINANCIAL STATEMENTS

## PENSIONS .....(CONT.)

**(b) Cambridge University Assistants' Contributory Pension Scheme**

The Institute participates in the Cambridge University Assistants' Contributory Pension Scheme (CPS) which is a defined benefit scheme. The Institute's contributions are affected by a surplus or deficiency in the CPS but the Institute is unable to identify its share of the underlying assets and liabilities in the Scheme on a consistent and reasonable basis. The Institute therefore accounts for its contributions to the CPS as if it were a defined contribution scheme. It had six active members participating in the Scheme.

The CPS was established under the authority of the Universities of Oxford and Cambridge Act 1923. It is a registered pension scheme for the purposes of the Finance Act 2004. The active members of the scheme are employees of the University and its subsidiary undertakings. The scheme's benefit structure changed significantly from 1 January 2013, at which point employees covered by the schemes ceased to be contracted out of the State Second Pension.

**Triennial valuation of the scheme**

A full triennial valuation of the scheme was carried out by the actuary for the trustees of the scheme as at 31 July 2021. The results of valuation showed the actuarial value of the scheme's assets as £814m. These were sufficient to cover the scheme's past service liabilities of £738m; the scheme had a surplus of £76m and was 110% funded.

Since 1 August 2013 employer contributions have been set at 11.5% of pensionable pay for existing members at 31 December 2021 and 5.8% of pensionable pay (together with contributions at 5.0% to a separate defined contribution arrangement) for new entrants from 1 January 2013. On 1 August 2023, employer contributions will be adjusted to 14.1% of pensionable pay for existing members at 31 December 2022 and 7.6% of pensionable pay (together with contributions at 5% to a separate defined contribution arrangement) for new entrants from 1 January 2013. In addition, fixed employer contributions totalling £14.6m per annum are payable over the period from 1 August 2011 to 31 July 2023. These payments are subject to review at the next triennial valuation due as at 31 July 2024