



(A Charitable Company Limited by Guarantee)

ANNUAL REPORT AND FINANCIAL STATEMENTS

31st December 2022

Company Number: 01765239

Registered Charity Number: 290866

Lhasa Limited

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OBJECTIVES

Lhasa Limited is a not-for-profit, charitable organisation whose objective is to promote scientific knowledge and understanding through the development of computer-aided reasoning and information systems in chemistry and the chemistry-related sciences.

OUR MISSION

Shared Knowledge, Shared Progress

OUR VISION

“To be acknowledged and trusted by our members and the scientific community as the world leader in knowledge and data sharing for chemistry-related sciences”

OUR CORE VALUES

	Ownership is more than just empowerment at Lhasa. It means everyone cares about the difference we make and the company outcomes, just as an owner would. At Lhasa, colleagues are trusted partners, working towards shared goals, collective success and celebrating those successes.
	Collaboration is a necessity as we won't thrive without recognising one another's strengths. It means listening and evolving together, helping and supporting each other for the sake of a collective goal. We believe in the power of teamwork and that by working as one we can deliver exceptional outcomes.
	Integrity is fundamental to who we are and what we do. We are consistent in our adherence to strong moral and ethical principles. At Lhasa we don't just do something right, we do the right thing and are accountable for our actions.
	Diversity and Inclusivity guides all our daily interactions. We recognise creating a work environment that respects and includes difference, recognizing the unique contributions that individuals with many types of differences can make and maximizes the potential of all colleagues.
	Curiosity and Adaptability is key to maintaining our world leader status. As individuals we never stop learning and growing, our enquiring minds and love of problem-solving means we are collectively able to embrace change with optimism and see challenges as opportunities.

We care about the difference we can make | **Ownership**

We achieve more when we work together | **Collaboration**

We commit to doing the right thing | **Integrity**

We create an environment where everyone can succeed | **Diversity and Inclusivity**

We maximise our potential by seeking and embracing new ideas | **Curiosity and Adaptability**

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OFFICERS AND PROFESSIONAL ADVISORS

Chairman:	Dr C Alexander-White
Deputy Chairman:	Mr S Marsland
Other Trustees:	Mr A Bowie Dr R Brennan Dr K Dobo Dr S Gutsell Dr J Harvey Mr M Mills (appointed 22 June 2022) Mr D Ratcliffe Mr D Rawson (appointed 14 December 2022)
Chief Executive Officer:	Dr C Barber
Registered Office:	Granary Wharf House 2 Canal Wharf Holbeck Leeds LS11 5PS
Auditors:	Mazars LLP 5 th Floor 3 Wellington Place Leeds LS1 4AP
Bankers:	HSBC Bank 33 Park Row Leeds LS1 1LD
Solicitors:	Irwin Mitchell LLP 2 Wellington Place Leeds LS1 4BZ
Registered Charity Number:	290866
Company Number:	01765239

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DIRECTORS' AND TRUSTEES' REPORT

The Board of Trustees presents the report and financial statements of Lhasa Limited for the year ended 31 December 2022. The statements appear in the format required by the Statement of Recommended Practice for Accounting and Reporting by Charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019).

The report and statements also comply with the Companies Act 2006 (as amended August 2013) as Lhasa Limited was incorporated as a Company Limited by Guarantee on 27 October 1983. It has no share capital and is a registered charity. The guarantee of each member is limited to £10. The governing documents are the Memorandum and Articles of Association of the company and members of the Board of Trustees are the Directors of the company.

1. STRUCTURE GOVERNANCE AND MANAGEMENT

The Charity is governed by its Articles of Association (June 2013), its Memorandum of Association (June 2006) and its Codes of Practice (December 2008).

GOVERNANCE

The governing bodies consist of a Board of Trustees, responsible for the governance of the Charity; a Scientific Advisory Board, responsible for scientific matters, and a Finance and Investment Sub-Committee, responsible for working with our Investment Managers (RBC Brewin Dolphin UK, Leeds and Investec Wealth & Investment, Leeds), which reports to the Board of Trustees. All of these bodies meet quarterly in Leeds when it is possible to do so or virtually when it is not.

RECRUITMENT, INDUCTION AND TRAINING OF TRUSTEES

In accordance with policy, Trustees are recruited either by recommendation or via a recruitment process for their specific skills defined as a requirement by the Board of Trustees. Upon approval, potential Trustees are sent an induction pack covering their obligations under Charity and Company Law; Articles of Association; Memorandum of Association and Codes of Practice; company policies and a non-disclosure agreement. Potential Trustees are invited to attend a maximum of two meetings as observers and after these two meetings the Board of Trustees and the individual consider their suitability to act as a Trustee ahead of their formal acceptance to the post. Upon acceptance and appointment, Trustees receive an induction to the business, covering key aspects of the organisation, its operations and salient Health and Safety information.

Charity Commission news and guidelines on good governance are reported to the Board on a quarterly basis.

MEMBERSHIP OF LHASA LIMITED

As at the Annual General Meeting held on 22 June 2022, there were 583 members of which 173 were full members, 395 associate, 1 honorary and 14 affiliate members of Lhasa Limited. At the Ordinary General Meeting held on 14 December 2022, there were 604 members of which 177 were full, 412 associate, 1 honorary and 14 affiliate members. A list of Lhasa Limited member organisations can be found on the Lhasa Limited website (www.lhasalimited.org).

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MANAGEMENT AND STAFFING

Day to day management is delegated to the Chief Executive Officer who leads the management team based in Leeds. Key members of the management team are:

Chief Executive Officer	Dr C Barber
Director of Applied Sciences	Dr C Heghes
Director of Science	Dr A Oliveira
Head of Finance	Ms C Williams
Head of Information Technology	Vacant at 31 December 2022
Head of People and Culture	Ms S Kelly
Head of Software Development	Vacant at 31 December 2022
Head of Solutions	Dr N Marchetti
Business Improvement Manager	Dr G Poignant

The Chief Executive Officer formally reports to the Board of Trustees through a quarterly report and by attendance at quarterly meetings of the Board of Trustees. Progress is reviewed with the Chairman, the immediate past Chairman and Deputy Chairman monthly, via telephone conference.

At 31 December 2022, staff numbers stood at 160 against the 157 of the previous year.

Remuneration Policy

The Board of Trustees give up their time freely and no trustee received remuneration in the year. Details of Trustees' expenses are disclosed in note 7 to the accounts. The Board of Trustees entrust the directing, controlling, running and operation of the Charity to the Chief Executive Officer who is supported by the key management personnel. The pay of the senior staff is reviewed annually and increased in accordance with the company remuneration policy which is applicable to all Lhasa staff.

PUBLIC BENEFIT

The Lhasa Limited Board of Trustees holds in high regard the principle of public benefit and requires the Chief Executive Officer and staff of Lhasa Limited to pursue policies that demonstrate this. The Board of Trustees, at its quarterly meetings, reviews ongoing charitable activities to ensure consistency with our charitable objects. The Board of Trustees is aware of the Charity Commission's guidance on public benefit and has had regard to it in determining the Charity's aims and objectives and in the way it carries out its activities.

For the public benefit, the Charity is committed to enabling scientists to make better predictions on the safety of drugs, chemicals and cosmetics by providing members with software systems that support research on toxicology, metabolism and degradation data. The Charity is committed to the development and use of computer-aided reasoning and information systems for the advancement of chemistry and the life sciences. This further benefits the public by:

- reducing the need for animal testing;
- improving the lengthy and costly process of developing new drugs; and
- safeguarding human health from the adverse effects of chemicals.

Our Membership model and charitable status facilitates the sharing of confidential data with Lhasa that supports collaborative development of more predictive software which would not normally be made available. This position has been recognised in EU public/private partnership projects in which Lhasa is recognised as the eponymous 'Honest Broker' for the management of confidential data. During 2022, Lhasa hosted data within the EU Project eTRANSafe and ran 7 data sharing consortia (where consortia members gain access to the donated data). In addition, members continue to donate data to Lhasa that is being used to improve models available to all sponsoring

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Lhasa members (thereby sharing knowledge derived from private data). These donations are supporting the improvement of predictions made within Derek, Effiris, Sarah, Mirabilis and Zeneth. Effiris is a qualitative model suite that uses a machine-learning technique to apply privacy-preserving knowledge transfer in order to learn from multiple sources of proprietary data.

In support of its charitable purpose, Lhasa has made freely available the Lhasa Carcinogenicity Database – ensuring continued access to data that used to be provided by CPDB which is no longer available. This valuable data set has been supplemented with additional data ensuring it will continue to provide public benefit.

The charitable aims of Lhasa Limited include the sponsorship of activities that advance scientific knowledge and understanding through the use of computer-aided reasoning in chemistry and the life sciences. The Charity directly promotes and encourages the use of our software for academic teaching and research by offering membership on significantly preferential terms. In addition, the Charity actively supports research through the teaching of the use of computer aided reasoning in toxicology and the sponsorship of:

- computational chemistry events;
- scientific symposia and academic prizes; and
- research projects and scientific training to Ph.D. level.

As well as performing research and development, the Charity is committed to providing financial support for others to carry out their own research and to discuss their findings to further advance and refine the science. Specifically, the Charity provides support for research within academic institutions and the outcomes of this research, and that of our own scientists, are disseminated through publications, talks and poster presentations at relevant scientific events all around the world, encouraging further work in the public domain.

The software developed by the Charity enables the scientific community to carry out research much more effectively, reducing animal use in experiments, helping to improve toxicological testing and improving the communication of knowledge about toxicology and metabolism. Members, academic scientists and government regulatory organisations benefit from the unique data and knowledge-sharing approach of Lhasa Limited, enhancing quality of life by assisting in the development of, and access to, safer chemical entities for the benefit of the public. Lhasa works closely with its membership to identify new areas of application for computer aided reasoning and develops specialist software that meets that need.

Our position as a Charity makes it easier for organisations to donate their data, secure in the knowledge that it will only be used to promote scientific development to the benefit of all and, as such, we are able to access data and knowledge that would otherwise not be accessible. In addition, our position is seen as key for sharing contributed data (for example our role in the IMI eTRANSAFE consortia (see page 9 and page 14) where we hold the position of “honest broker”), which further expands (and makes more effective) the scope of scientific collaboration for the public benefit.

Membership and software sponsorship fees are used to support the ongoing research and development carried out by the Charity. Through the generous funding of our main sponsors, Lhasa Limited is able to offer very low fees to academic organisations and public non-political bodies to ensure that its knowledge is available to the widest possible public audience. In addition, members contribute the results of their own research, thereby making scientific research publicly available that would not otherwise be accessible to the scientific community. The Charity therefore plays an invaluable role by bringing previously unpublished information into the public domain, and permitting the knowledge derived from this to be used by the scientific community for the public benefit.

The science behind our efforts on behalf of members is published in accredited scientific journals and our scientists attend conferences across the world in order to promote our charitable purpose. During

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2022 Lhasa had 14 articles published, made 15 presentations to conferences and presented 19 scientific posters.

RESERVES POLICY

Lhasa Limited's reserves policy requires the retention of funds sufficient to encompass:

- The balance on tangible and intangible fixed assets for use by the Charity to avoid having to liquidate functional assets to release cash less all loans associated directly with these assets.
- To cover at least 3 months of the direct costs and support costs, agreed in the budget at meetings of the Board of Directors. Reserves held are not anticipated to be required in excess of 6 months direct costs and support costs.
- The reserves policy is reviewed annually to take into consideration perceived risks and opportunities. Lhasa revised its reserves policy in 2017 to reflect the changing needs since the previous major change in 2010. The current policy has been reviewed in 2022 and is felt still appropriate to Lhasa's future reserves needs.

CURRENT POSITION

Based upon the above our present position is:

	<u>Dec-22</u>
	£'000s
Unrestricted Reserves	£20,631
Fixed Assets	£7,163
Designated Pension Deficit Top Up Fund	-
Designated Development Fund	£3,310
Total Designated Funds (excluding Pension Provision)	£10,473
Free Reserves	£10,158
2022 Forecasted Costs - 25%	£4,958
2022 Forecasted Costs - 50%	£9,916

Free reserves are £242k above the maximum that the Board of Directors would normally expect to hold. Additional reserves were accrued during 2020 as a result of prudent action taken in response to the coronavirus pandemic, during 2021 the challenge of recruiting resulted in a further increase to reserves. The trustees established a £2,000k Development Fund in 2021 to support further advancement of Lhasa's charitable objectives over the next 3-5 years, £690k was released from this Fund during 2022 and a further £1,273k has been allocated to development projects for 2023. The Trustees have added a further £2,000k to the Designated Development Fund in 2022 to enable continued investment which will bring reserves back below the maximum level. In accordance with the policy, we have designated funds equal to tangible and intangible fixed assets and all additional designated funds are allocated from the balance of Fixed Assets.

Fixed assets

The movement in intangible and tangible fixed assets are set out in notes 8 and 9 respectively.

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INVESTMENT

During 2012, in accordance with Charity Commission guidelines, the Board of Trustees took the decision to review the investment policy of the Charity and to invest a proportion of the Charity's reserves. Brewin Dolphin were appointed as investment managers for the Charity, reporting to the Board of Trustees through the Finance and Investment Sub-Committee (FIC). During 2022 the Investment Policy was reviewed and updated to meet the current needs of Lhasa. An additional Investment Manager, Investec Wealth & Investment was appointed in 2018.

The Investment advisers produce detailed written reports which value the portfolio and record its respective performance statistics, these are presented to the FIC on a quarterly basis. An integral part of the regular meetings is a discussion on the content of the report with particular reference to the performance aspect.

As at 31 December 2022, the total investment portfolios held were valued at £9,337k (2021: £9,920k). The portfolios produced an annual gross income of £195k (2021: £134k), which is equivalent to a gross yield of 2.09% (2021: 1.35%). The Brewin Dolphin portfolio was initiated with an investment of £750k in 2013. During both 2014 and 2015 an additional sum of £500k was added to the portfolio in 2020 a further sum of £2,000k was added and in 2021 there was a further addition of £1,150k; giving a total invested of £4,900k. An additional portfolio was initiated with Investec Wealth & Investment in November 2018 with an initial investment of £500k. During both 2019 and 2020 an additional sum of £1,000k was added to this portfolio and in 2021 there was a further addition of £1,150k; giving a total invested of £3,650k. All sums invested are specifically approved by the Board of Trustees.

Both portfolios showed a net loss during 2022 as a result of the impact on the market of surging energy prices and rising interest rates. Lhasa Limited hold investments with a long-term view and receive regular updates from our Investment Managers to ensure that the portfolios are still appropriate for our risk appetite, and both have confirmed that the portfolios remain suitable and are in line with our investment objectives.

The structure of the portfolios is in accordance with the current Investment Policy.

Investment Policy

Lhasa Limited receives income on an annual basis through membership subscriptions, sponsorships, grants and other sources. It plans activities over a three-to-five-year time horizon and budgets to expend all anticipated income in each year, except for retained reserves in line with the reserves policy, and provides for capital expenditure within the budget or through designated income funds.

Lhasa Limited will review and determine its investment policy and attitude to risk in consultation with its Investment Managers having regards to its objectives and operating financial conditions. Lhasa Limited has a dual objective of income and real growth.

The portfolios will target growth with the objective of protecting the capital value of the fund against inflation. Income is retained on the portfolios.

A strategy of limiting risk by matching to a degree the types of assets invested in, to the obligations or liabilities of the Fund has been adopted. The balance between investing for growth and investing for income with the best fit or match to liabilities is a judgment requiring regular reappraisal, constrained only by the requirement to achieve an average moderate risk rating.

Lhasa Limited recognises that the portfolios will be invested in assets that will rise and fall in value in the short term but are most likely to show a positive return over an intermediate period of time.

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Lhasa Limited further recognises that investments in this area will require a minimum time horizon of five years or more.

The suitability of various types of investments has been considered, as has the need to diversify investments to reduce the risk of being invested in too narrow a range of assets. Investments in significant holdings (>10% of the portfolio) are not permitted.

These principles are reviewed annually and discussed at least quarterly at the regular review meetings between our Investment Managers and the FIC.

Lhasa Limited is keen to maintain the liquidity of its investments and so would not wish to invest in the most speculative instruments.

Lhasa Limited keeps sufficient cash separate to its investment assets to meet short-term working capital needs. Lhasa also keeps sufficient cash savings to meet mid-term cash needs. Lhasa Limited will only place funds with the Investment Managers in excess of these funds.

The FIC reviews Lhasa's liquidity on a quarterly basis and reports back to the Board of Trustees.

Investments may be excluded if they run counter to the work of the Charity or result in loss of financial support.

Lhasa Limited appoint professional Investment Managers to manage the assets on a discretionary basis, in line with this investment policy.

The Investment Managers are responsible for monitoring their own performance and formally reporting it (in actual and comparative terms) to the FIC quarterly. The trustees have agreed with the Investment Managers that the management of the portfolio must be within detailed tactical asset allocation (TAA). Should the agreed TAA boundaries need to be deviated from, which would only be expected in exceptional circumstances, then express permission will be required by the Investment Manager from Lhasa Limited to do so.

Any changes to this allocation must be presented by the Investment Managers, the FIC or Trustees and subsequently approved.

The Investment Managers will provide quarterly information to the FIC with a minimum disclosure of: valuation of investment; annual estimated income and yield; trading activity; performance and commentary.

Performance will be measured against agreed market indices and inflation.

2. STRATEGIC REPORT

ACHIEVEMENTS AND PERFORMANCE

Membership

In line with the improved sponsorship income, membership levels increased from 560 in 2021 to 604 in 2022.

Vision

Lhasa supports its members and thereby benefit the wider public by helping them make informed decisions on chemical safety resulting in improved chemical safety for humans, reduced dependency on animal testing, and a greater understanding of the mechanisms that result in toxicity. It does this through the development and sharing of scientific knowledge, through the creation of predictive models, through the assembling and curation of public experimental data and by facilitating

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proprietary data sharing. Lhasa Limited's continuing participation in the IMI eTRANSAFE project (see page 15) and numerous Lhasa data sharing consortia is a clear indication of a continuing acceptance of Lhasa Limited's role at the heart of knowledge and data sharing in our chosen field and, as such, is in line both with our vision and our charitable objects. Furthermore, participation in projects of this type promotes further opportunities for the public to benefit from our activities as we widen our scope of influence and provide additional support for the use of computer aided reasoning in the sector.

Company Objectives & Strategy

The Board of Trustees reviews progress against the Company Objectives at each Board Meeting in the light of the prevailing operating climate and changes are made to objectives and strategies as required.

All aspects of strategy are monitored throughout the year and formally reviewed at least biannually by the internal Strategy Group in the light of new market and scientific information. Changes in tactics are managed operationally and any suggested changes to strategy are recommended to the Board of Trustees. A review of strategy is made annually by the Board of Trustees with the last one taking place in March 2022.

Key Performance Indicators

The Board of Trustees task the CEO and senior management team to work to a budget, agreed annually, for income and associated expenditure in support of the charity's aims; performance is monitored each quarter by the Trustees. Lhasa membership numbers are increasing, which supports our efforts to promote the use of computer aided reasoning in chemistry and the life sciences. In 2022 15 presentations associated with conferences, 14 publications and 19 posters were presented by Lhasa Limited staff (2021: 8 presentations associated with conferences, 14 publications and 6 posters).

Research and Development

The science team continued to maintain and develop the scientific components (data, knowledge bases, algorithms) that power our existing products (Vitic, Derek Nexus, Zeneth, Mirabilis, Sarah Nexus, Meteor Nexus), in addition to progressing new scientific innovations to enhance current products or leading to the delivery of new products (Kaptis and Effiris). Additionally, the science team have continued to provide scientific support for our existing and future products which included interactions with members, active participation in scientific committees and cross-industry collaboration groups, delivery of presentations, posters and publications.

Highlights for the year include:

- Development of the knowledge bases in Derek, Zeneth and Mirabilis, improving predictivity and coverage for the use-cases identified in Lhasa's product strategy.
- Enhancements to the training set and predictions within Sarah Nexus.
- Expansion of the core Vitic database and Vitic databases used to support collaborative projects.
- Enhancing member's QSAR models for secondary pharmacology endpoints, through the production of hybrid models and development of supporting infrastructure.
- Inclusion of Derek Nexus as one of the in-silico systems in the OECD guideline 479, which describes two Defined Approaches for assessing skin sensitization without the use of animals.
- Development of Wiki-Kaptis to allow visualization and navigation of AOP-Wiki knowledge in networks.
- Development of an application in Kaptis to support the implementation of the ICH S1B(R1) addendum, which proposes a substantial change in the assessment of the carcinogenicity risk of pharmaceuticals.

Toxicity prediction (Derek Nexus and Sarah Nexus)

The development of Derek Nexus (DX) and Sarah Nexus (SX) to meet two key use cases (below) continued as planned. The two use cases and key results are:

- Assessing the mutagenicity of pharmaceutical impurities (DX+SX), a key requirement of members for the use of the software in the regulatory context of the international ICH M7 guidelines. Additional mutagenicity datasets have been curated and stored in the Vitic database, which has supported the expansion of the Sarah Nexus training set. In addition to further development of models that satisfy ICH M7, the expert review workflow has been improved based on member's feedback. This workflow guides the user to make an informed decision when reviewing the predictions from two complementary systems. Knowledge updates were conducted for the following endpoints in Derek Nexus: mutagenicity, chromosome damage, carcinogenicity, skin sensitization and skin irritation.

Predicting the risk of skin sensitisation for product and occupational safety assessments (DX), where alternative methods for hazard and risk assessments are being pursued by members in response to an increased focus on predicting human safety and legal/ethical restrictions on carrying out studies in experimental animals. The skin sensitisation alerts within the knowledge base were further developed as was the potency prediction (EC3) model. A web application to support the use of Derek within the context of the ITSv1 Defined Approach (OECD TG 497) was released to members. Additional research has been conducted in the skin sensitization space to support the current industry need to assess the safety of extractables and leachables.

Adverse outcome pathways (Kaptis)

Adverse outcome pathways (AOPs) can act as a framework to organise evidence to support toxicity risk assessments. Kaptis has been developed by Lhasa to allow experts across industries to share mechanistic knowledge, and interactively explore toxicity pathways. The science team continues to develop AOPs that capture established mechanisms leading to carcinogenicity and developmental/reproductive toxicity. Additional knowledge was developed to support the application of the weight of evidence approach described in the ICH S1B addendum for assessing the carcinogenicity risk of small molecules in the pharmaceutical setting. AOPs are also providing the backdrop for many interactions and collaborations with academia, industry and regulators.

Secondary pharmacology (Effiris)

Effiris will provide a suite of federated QSARs models enabling members to profile the secondary pharmacology of novel compounds using public models, which have been trained on numerous proprietary datasets without revealing the underlying confidential data on which they are trained. The underlying technology has been developed by the science team, allowing members to store models and run predictions. The number of endpoints has been further expanded proving the wide applicability of this approach. A hackathon involving several industry members allowed to confirm the effectiveness of the methodology for knowledge transfer whilst preserving data privacy. Further research is ongoing to explore the value of this approach for model development.

Toxicity Data (Vitic and Lhasa Carcinogenicity Database)

Vitic has been rewritten to improve the functionality of our flagship toxicity database and the dataset expanded with a focus on genotoxicity, carcinogenicity, sensitisation and irritation. In addition, the Vitic Nexus platform is continuing to support several data sharing initiatives including Aromatic Amines, Production Intermediates, Exposure Limits for Pharmaceutical Impurities (PDE), Excipients, Elemental Impurities, Nitrites and Complex Nitrosamines. The Lhasa Carcinogenicity Database was also further developed by the science team, with the curation of additional records, inclusion of features to enhance the usability of the database.

Forced degradation (Zeneth)

Zeneth continues to be developed to support members' understanding of potential degradation pathways. A new version of Zeneth was released giving an improved interface and processing speed. In addition, improved algorithms now take into account pKa and bond disassociation energy when

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scoring the likelihood of degradant formation. The knowledge base was also improved through the implementation of new transformations and a wider range of excipients, many of which were requested by members.

Impurity tracking (Mirabilis)

Mirabilis enables users to predict whether potential impurities will be removed (purged) from pharmaceutical products during their synthesis. Such impurities can be introduced during drug synthesis and may pose a carcinogenic risk. Mirabilis has established itself as the leading tool to support use of the purge argument to satisfy option 4 of the ICH M7 guideline. The science team is helping maintain this position through developing a condition-based approach, which increases the confidence and robustness of reactivity predictions, as well as further development of the Mirabilis knowledge base to cover additional impurity and reaction types – with a particular focus on nitrosamines which have been focus of increasing regulatory scrutiny and caused impacts in the supply of medicines worldwide.

Metabolism (Meteor)

Meteor remains Lhasa's solution for the prediction of the metabolic fate of compounds. A metabolism database is being developed to support improved predictivity and decision making within Meteor.

Strategic Projects

During 2022, ongoing strategic projects were completed on schedule and additional research commissioned on projects funded directly by members, with outputs being made generally available to members in releases scheduled for 2022/2023.

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Key Collaborations

USA Food and Drug Administration Research Collaboration Agreement

The FDA RCA (Research Collaboration Agreement) allowing for research collaboration and access to Lhasa software by the FDA progressed well through 2022. The FDA also continues to provide valuable feedback/input for the further development of Mirabilis, and development of alerts in Derek Nexus related to the assessment of nitrosamines. development. This project benefits the outputs of computer-aided reasoning in chemistry and the life sciences in accordance with our charitable objects by providing the regulatory feedback needed to ensure our software remains regulatory applicable and to support regulatory access to ensure public safety.

European Medicines Agency

Access to the EMA and 18 EU regulators has been provided under a collaboration agreement. Lhasa continues to provide training sessions and material, with positive feedback received for the sessions provided so far. Marketing activity is also being planned to socialise the EMA's membership.

NIHS Japan

The Japanese NIHS continued to fund a long-standing research collaboration with Lhasa, with the focus (for 2022) on continuing the improvement of the prediction of development/repro toxicity adverse outcome pathways which is in-line with the goal of increasing understanding of computational methods in pharmaceutical, cosmetic, personal products and chemical applications.

Lhasa sponsored data sharing projects

During 2022 Lhasa continued to drive the following data sharing projects:

- Intermediate Impurities (including Aryl Boronic acids)
- Aromatic Amines
- Excipients
- Elemental Impurities
- PDEs
- Fragrance Data Capture
- Sharing of Nitrites in Excipients data between pharmaceutical companies Complex Nitrosamines (to support the assessment of the mutagenic risk posed by structurally complex impurities)

Training

As part of the Lhasa Limited service to our members, and in support of the education of individual users at each of our member organisations, in 2022 241 training sessions were delivered overall with 16 at member sites and 225 via the web. Since the pandemic, a large proportion of members are now working from home, this has impacted the number of member site training sessions.

Lhasa Limited Face to Face and Virtual Events

Lhasa Limited continues to run a number of events to share knowledge and experience in chemistry and the life sciences as it applies to the future developments of the Charity's collaborative tools.

During 2022 we held 5 virtual events some of which were held at more than one time and in more than one language (attracting a total of 835 external logins and generating 137 leads to follow up with).

During 2022, we held two in-person events in Brazil, with 77 in-person and 82 additional online attendees - as the first, post-pandemic events, we offered a hybrid format in 2022.

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Conferences

In 2022, Lhasa Limited staff attended 28 scientific events (conferences and external webinars) in support of our aims, philosophy, services and charitable objects.

Publications

A key part of the work of Lhasa Limited is the expansion in the understanding of toxicology, metabolism and degradation prediction. During 2022 this objective was achieved by the delivery of 15 presentations to conferences, 14 publications and 19 posters.

Sponsorship

The Board of Trustees have approved a number of sponsorship activities in accordance with Lhasa Limited's charitable objects including:

- The sponsorship of PhD students at the:
 - University of Sheffield – Representation of Chemical Structure for Deep Learning
 - University of Oxford - Investigating graph-based machine learning methods in drug discovery
 - University of Leeds - Reactivity data for prediction models in chemical syntheses
 - Sponsorship of Connect on N-Nitrosamines webinar organized by Scientific Update UK

Member facing activity

Lhasa Limited is justifiably proud of its record of supporting members. During 2022 we continued to provide first class scientific and technical support through our strong team of Application Scientists. Our members are regularly surveyed for their views on the scientific and technical support we provide and in 2022 our approval rating was 99.7%, the highest score to date.

3. FINANCIAL REVIEW

Funding Sources

Lhasa Limited receives the majority of its income from membership fees, software sponsorship fees and buying-in fees from members using Lhasa software for their own research and development purposes and royalty fees from consultants using Lhasa software to provide results to third parties, with the aim of attracting significant income from the additional sponsorship of specific research and development projects. The results derived from these projects are incorporated into the software available to the whole Lhasa Limited membership.

Lhasa Limited is involved in several externally funded research projects. As well as the EU and data sharing projects mentioned above, during 2022, the Charity continued to run various strategic projects, including a collaboration with Boehringer in order to store their in-house data within a bespoke version of Vitic, Kaptis for the knowledge management of Adverse Outcome Pathways and Effiris for building models for secondary pharmacology targets through privacy preserving knowledge transfer.

Results for the year

The surplus for the financial year 2022 was £1,293k (2021 £2,653k). Income for the 2022 financial year increased as a number of new organisations bought into the database systems. The majority of existing customers renewed their membership and continued to license the software. The geographical income split for 2022 (2021) was:

Europe	39%	(41%)
Americas	36%	(31%)
Asia	25%	(28%)

The value of the software systems owned and developed by Lhasa Limited increased during 2022 by £617k (2021: decreased by £193k), a further £737k (2021: £79k) was invested in new product

Lhasa Limited

DIRECTORS' AND TRUSTEES' REPORT

development in 2022. In 2022 Lhasa Limited continued to deliver work for the strategic projects which included eTRANSAFE. The capitalisation of staff effort expended in developing the database systems during 2022 was £2,618k (2021: £1,142k) which was offset by their amortisation charges during the year of £1,264k (2021: £1,256k).

The financial statements have been prepared in accordance with 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 January 2019) - (Charities SORP (FRS 102)). The notes to the financial statements on pages 28 to 43 indicate how the income totalling £16,973k (2021 £15,694k) represents the commitment of the existing customers to the Charity and each of the databases.

The expenditure has been allocated on the same basis as income across the main activities, the allocation of the costs being based on the staff hours spent on each database together with the direct costs incurred.

The governance costs totalling £62k (2021: £46k) are detailed in note 5 on page 34 and include the management time incurred in assisting the Board of Trustees to fulfil their duties.

Lhasa has provided for its share of the material USS pension deficit funding liability following the valuation of the scheme as at 31 March 2020 which amounts to £2,319k. This provision will be used to reduce the scheme deficit over the next 16 years 3 months to 31 March 2038.

The Charity has prepared a budget for the year ended 31 December 2023 which indicates a deficit of £1,551k for the coming year. This budget is based on identified income sources and planned costs and reflects Lhasa's commitment to the development of new databases. This budget was approved by the Board in December 2022.

The level of income and the Charity's year end position in 2022 were positive and very satisfactory.

4. FUTURE PROSPECTS

Income

To directly address the further development of the Charity, the Charity has released, and continues to develop, new software with an identified market to provide a broader base of support for member needs in accordance with our charitable objectives. The focus will remain on increasing value to our membership through the development of existing and new software alongside the further development of strategic, collaborative projects that meet our member's future needs, and together will further safeguard the longer-term future of the Charity.

Income growth from core sponsorship has remained strong for 2022 at 11.1% (2021: 13.1%) representing an excellent performance which indicates that the chosen strategic direction and overall approach of the Charity is right for the current economic climate. The budgeted income growth from core sponsorship for 2022 is 9.2%. A small increase of 1.5% was passed on to our members during 2022 and an increase of 5.0% was approved by the Board for 2023 in recognition of the cumulative effects on our costs of price rises and inflation over the past few years.

Lhasa Limited

DIRECTORS' AND TRUSTEES' REPORT

Applied Sciences

Global Alliances

Global Alliance managers, working within our Applied Sciences team, provide project direction and support for our new strategic projects, consortia developments and for our relationships with regulators in Europe, the USA, Japan and other territories.

Business Partnerships

The Business Partnerships team are focused on working with prospective members to secure sponsorship of our solutions and to extend the application to new markets and new territories.

Application Scientists

The focus of application scientists is to support our members to solve problems they have. The application scientist identifies needs and applies our solutions to meet member's needs.

Marketing

The focus of the Marketing team is to promote our science, our solutions and the value that it can bring to members and prospects alongside other activities that support our charitable purpose.

Business Support

The focus of business support is to assist all Lhasa employees with travel, negotiate deals for conferences, hotels, events etc. The team are also involved in release activities for all our solutions and always looking for improvements by automating and making processes more effective.

Solutions

Delivery Management

How our work is delivered has changed significantly over the past three years, and to reflect that the management methodology to control and plan that delivery has changed alongside. In the past, work was broken down into fixed length projects, with resources assigned for the duration and then removed and refocused on other areas.

We now have a Delivery Management team, who take a different approach to ensuring we deliver value to members – they are embedded within the teams who are delivering the value, and they take a broad view across all of the elements that come together to build a great product or solution, rather than focusing on just the software element. Development of products and solutions is now 'continuous', so we are not bound by artificial constraints beyond which we have to reallocate resource this can now be dynamically assigned based upon the priority and importance of the member demand.

Product Management

The methodology by which the planning, developing, launching, and managing our products and solutions is known as Product Management. This includes the entire lifecycle of a product, from ideation to development to release. The way this is done at Lhasa has evolved significantly over the last few years. The key aspect of this methodology is determining what the members' needs are, translating those needs into solutions, and defining what our products must do to provide those solutions. The role of Product Owner has been introduced to lead this process, working much more closely with Application Scientists who interact with our members, with Scientists who understand our capacity and capability to deliver robust solutions to meet those needs, and with Software Developers and Architects who are responsible for delivery those solutions efficiently, with consistency and with an eye on the entire portfolio.

Lhasa Limited

DIRECTORS' AND TRUSTEES' REPORT

Science Team

The Science Team continues to deliver the necessary capacity to investigate opportunities to develop computer-aided reasoning for the life sciences outside of the general improvements delivered via operational projects.

Upon continuous review of our scientific strategy and inputs provided by the Science Advisory Board, a number of key scientific domains will continue to be supported via specific research projects:

- Novel approaches to the prediction of toxicology/reactivity-driven purge/degradation with the objective of improving the accuracy, scope of applicability and transparency of predictions;
- Automation of the acquisition of new knowledge in support of expert knowledge development and curation;
- Increase the understanding and articulation at the chemistry/biology interface;
- Develop new approaches for the resolution of workflow challenges in safety assessment in the pharmaceutical/cosmetics/chemical/agrochemical markets; and
- Specific research projects underpinning the longer-term scientific objectives of the Charity.

The work of the Science Team will be applied by multidisciplinary teams to ensure the delivery of value to members through different solutions. Synergies arising from the integration of the knowledge, data and technology teams will be leveraged to increase the quality, accuracy and transparency of scientific interpretation that the Lhasa Limited software provides for members.

Architecture

The Architecture team are supporting the effective orchestration of technical activities to deliver the best-in-class products to Lhasa's members, maturing architectural practices will continue to ensure greater consistency and alignment of solutions against industry standards. Architectural leadership and governance will ensure cross-solution alignment supporting tighter integration, cross-product workflows and component reuse across our product portfolio.

Software Development

The scientific and knowledge insights provided by the Science Team continue to be successfully presented in user-centric software in support of member needs. The adoption of Agile Scrum methodology and increased application of automated testing continues to improve the quality and effectiveness of the software to our members. The implementation of cloud-based solutions (Mirabilis, Vitic) provides more flexible routes to consumption of Lhasa's software products.

Lhasa Limited

DIRECTORS' AND TRUSTEES' REPORT

5. RISK MANAGEMENT & REVIEW

The Board of Trustees is responsible for the management of risk by the Charity. Key controls for the management of risk include:

- Formal agendas for all Board of Trustees' activity and minutes;
- Comprehensive strategic planning, budgeting and management accounting;
- Established organisational structure and lines of reporting;
- Formal written policies; and
- Clear authorisation and approval levels.

The Board of Trustees has conducted a review of the major risks to which the Charity is exposed, and systems have been established to mitigate those risks. During 2007 the Board of Trustees approved the use of Charity Magique software which is used to further identify, manage and mitigate risks throughout the Charity's operations. An overview of key risks is presented at each quarterly Board of Trustees meeting and the risk register is formally reviewed by the Board of Trustees on an annual basis.

Corporate Risk

The Board of Trustees meet on a regular basis to review the performance of the Charity and its activities and are provided with financial management reports and forecasts which they use to ensure proper business controls are in place. Contractual and other legal arrangements are regularly reviewed by the management team and brought to the Board of Trustees for their consideration and approval where appropriate before action.

As far as the Board of Trustees is aware there are no instances of actual, suspected or alleged fraud that will affect the Charity.

Financial Risk

With the majority of income derived from overseas sources, the risk of currency fluctuation is mitigated by our policy not to retain significant currency holdings. The foreign exchange loss in the current year is £68k compared to a gain in the prior year of £3k reflecting the movement in the currency market.

Data Loss

Lhasa has established policies and procedures which ensure all data is stored and backed up aligned to industry good practice. Lhasa operates full resilience and high availability across the networking and core infrastructure; all critical services are backed up in Microsoft Azure Cloud with full business continuity failover in the event of loss or interruption to primary services, non-critical services are backed up in Arcserve Cloud which can be restored to cloud services or more traditional servers in the event Granary Wharf House cannot be accessed. Lhasa also has an established Disaster Recovery & Business Continuity test and restoration schedule which ensures data can be restored from back up if and when required in very short timescales; due to Lhasa's high availability, high dependency network infrastructure all DR & BC activity can be executed remotely without on-site presence at Granary Wharf House.

Lhasa Limited

DIRECTORS' AND TRUSTEES' REPORT

Fraud

To minimise the risk of fraud, all key financial transactions greater than £100k must be approved by two Officers of the Charity with approval from the Board for all expenditure over £250k. All signatories have clear and communicated authorisation levels.

Competitive Risk

The Charity continues to monitor the competitive risk arising from a number of different sources including direct substitution of the software provided by the Charity and the potential replacement by newer or more cost-effective technologies. In addition, to protect our existing intellectual property, we protect our company and product names by means of registration in all countries in which we support our members.

Key Risks

The primary risks for Lhasa Limited are managed and mitigated through the application of Board of Trustee approved strategies and monitored using the Charity Magique software system.

The key risks as identified by the Board of Trustees all have controls in place to mitigate any potential impact they might have. The key risks identified are:

- The long-term demand for the charity's activities may diminish;
- Failure to innovate in product software;
- Impact of new technology may damage competitiveness;
- We are unable to manage the quantity and complexity of scientific data to enable us to achieve our long-term ambitions;
- Under-funding of the USS pension scheme causes significantly increased financial burden to the Company;
- Heavy reliance on revenue from a single product, Derek, leads to extreme vulnerability if Derek revenue falls;
- The impact on Business Continuity of a systems failure or other emergency situation;
- Breach of security;
- The exit of EU membership may lead to significant loss in revenue from any new EU-funded projects;
- That we are unable to provide secure cloud instances of our software as SaaS;
- Lhasa is unable to recruit, develop or retain the skills needed.

Lhasa Limited

DIRECTORS' AND TRUSTEES' REPORT

STATEMENT AS TO DISCLOSURE OF INFORMATION TO AUDITORS

The Trustees who were in office on the date of approval of these financial statements have confirmed, as far as they are aware, that there is no relevant audit information of which the auditors are unaware. Each of the Trustees has confirmed that they have taken all the steps that they ought to have taken as Trustees in order to make themselves aware of any relevant audit information and to establish that it has been communicated to the auditor.

AUDITORS

A resolution to reappoint Mazars LLP will be put to the annual general meeting.

This report was approved by the Board of Trustees on May 15, 2023 and signed on its behalf.

In approving the Directors' and Trustees' Report, the Trustees are also approving the Strategic Report therein in their capacity as company directors.

Camilla Alexander-White

Dr Camilla Alexander-White
CHAIR OF TRUSTEES

By order of the Board

Lhasa Limited

DIRECTORS' RESPONSIBILITIES

The Trustees are responsible for preparing the Trustees' Report and the financial statements in accordance with applicable law and regulations.

Company law requires the Trustees to prepare financial statements for each financial year. Under that law the Trustees have elected to prepare the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law). Under company law the Trustees must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the company and of the profit or loss of the company for that period. In preparing those financial statements, the Trustees are required to:

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

The Trustees are responsible for keeping adequate accounting records that are sufficient to show and explain the company's transactions and disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Lhasa Limited

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF LHASA LIMITED

Opinion

We have audited the financial statements of Lhasa Limited (the 'charity') for the year ended 31 December 2022 which comprise Statement of Financial Activities, Balance Sheet, Statement of Cashflows and notes to the financial statements, including a summary of significant accounting policies.

The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including FRS 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 31 December 2022 and of its income and expenditure 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 Companies Act 2006.

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 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 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.

Lhasa Limited

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF LHASA LIMITED

Other information

The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. The trustees are responsible for the other information contained within the annual report. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of 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 this gives rise to a material misstatement in the financial statements themselves. 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.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the trustees' report which includes the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report including in the trustees' report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In light of the knowledge and understanding of the charity and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the directors' report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Lhasa Limited

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF LHASA LIMITED

Responsibilities of Trustees

As explained more fully in the trustee's responsibilities statement set out on page 21, 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 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 the financial statements. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

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. Based on our understanding of the charity and its industry, we considered that non-compliance with the following laws and regulations might have a material effect on the financial statements: Charities Act 2011, UK tax legislation, anti-bribery, corruption and fraud and money laundering.

To help us identify instances of non-compliance with these laws and regulations, and in identifying and assessing the risks of material misstatement in respect to non-compliance, our procedures included, but were not limited to:

- Inquiring of management and, where appropriate, those charged with governance, as to whether the charity is in compliance with laws and regulations, and discussing their policies and procedures regarding compliance with laws and regulations;
- Inspecting correspondence, if any, with relevant licensing or regulatory authorities;
- Communicating identified laws and regulations to the engagement team and remaining alert to any indications of non-compliance throughout our audit; and
- Considering the risk of acts by the charity which were contrary to applicable laws and regulations, including fraud.

We also considered those laws and regulations that have a direct effect on the preparation of the financial statements, such as the Companies Act 2006 and the Charities Statement of Recommended Practice.

Lhasa Limited

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF LHASA LIMITED

In addition, we evaluated the trustees' and management's incentives and opportunities for fraudulent manipulation of the financial statements, including the risk of management override of controls, and determined that the principal risks related to posting manual journal entries to manipulate financial performance, management bias through judgements and assumptions in significant accounting estimates, in particular in relation to revenue recognition (which we pinpointed to the cut-off assertion), the classification of income and expenditure, the pension deficit provision, the capitalisation of labour, the depreciation of fixed assets and the amortisation of databases, the bad debt provision and significant one-off or unusual transactions.

Our audit procedures in relation to fraud included but were not limited to:

- Making enquiries of the trustees and management on whether they had knowledge of any actual, suspected or alleged fraud;
- Gaining an understanding of the internal controls established to mitigate risks related to fraud;
- Discussing amongst the engagement team the risks of fraud; and
- Addressing the risks of fraud through management override of controls by performing journal entry testing.

There are inherent limitations in the audit procedures described above and the primary responsibility for the prevention and detection of irregularities including fraud rests with management. As with any audit, there remained a risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal controls.

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. This description forms part of our auditor's report.

Use of the audit report

This report is made solely to the charity's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the charity's members 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 members as a body for our audit work, for this report, or for the opinions we have formed.



David Hoose (May 18, 2023 16:32 GMT+1)

David Hoose (Senior Statutory Auditor) for and on behalf of Mazars LLP
Chartered Accountants and Statutory Auditor

5th Floor
3 Wellington Place
Leeds
LS1 4AP

Date: 18-May-2023

Lhasa Limited

STATEMENT OF FINANCIAL ACTIVITIES (INCORPORATING AN INCOME AND EXPENDITURE ACCOUNT)

For the year ended 31 December 2022

	Notes	Unrestricted Funds £'000	Restricted Funds £'000	Total 2022 £'000	Total (all unrestricted) 2021 £'000
INCOME					
Income from investments	1	267	-	267	153
Income from charitable activities	2	16,716	-	16,716	15,530
Other income	3	1	-	1	11
TOTAL INCOME		16,984	-	16,984	15,694
EXPENDITURE					
Expenditure on raising funds	4	71	-	71	90
Expenditure on charitable activities	4	14,186	-	14,186	13,761
TOTAL EXPENDITURE		14,257	-	14,257	13,851
Net gains/(losses) on investments	10	(1,434)	-	(1,434)	810
NET INCOME AND NET MOVEMENT IN FUNDS		1,293	-	1,293	2,653
Total funds brought forward at 1 January 2022		19,338	-	19,338	16,685
TOTAL FUNDS CARRIED FORWARD AT 31 DECEMBER 2022		20,631	-	20,631	19,338

The net income for the year arises from the company's continuing operations.

No separate Statement of Total Recognised Gains and Losses has been presented as all such gains and losses have been dealt with in the Statement of Financial Activities.

The notes on pages 28 to 43 form part of these financial statements.

Lhasa Limited
BALANCE SHEET
As at 31 December 2022

Company Registration No. 01765239

		2022	2021
	Notes	£'000	£'000
FIXED ASSETS			
Intangible	8	3,852	3,236
Tangible	9	3,311	3,381
Investments	10	<u>9,337</u>	<u>9,920</u>
		<u>16,500</u>	<u>16,537</u>
CURRENT ASSETS			
Debtors	11	4,993	4,446
Cash and cash equivalents	12	<u>11,118</u>	<u>9,329</u>
		<u>16,111</u>	<u>13,775</u>
LIABILITIES			
Creditors: Amounts falling due within one year	13	1,753	1,974
Deferred income	14	<u>8,088</u>	<u>6,691</u>
		<u>9,840</u>	<u>8,665</u>
NET CURRENT ASSETS		<u>6,271</u>	<u>5,110</u>
TOTAL ASSETS LESS CURRENT LIABILITIES		22,770	21,647
Creditors: Amounts falling due after more than one year	15	<u>2,139</u>	<u>2,309</u>
NET ASSETS		<u>20,631</u>	<u>19,338</u>
FUNDS			
Accumulated unrestricted funds			
• designated funds	16,17	8,154	6,170
• general funds	16,17	<u>12,477</u>	<u>13,168</u>
TOTAL FUNDS		<u>20,631</u>	<u>19,338</u>

The financial statements were approved by the Board of Trustees and authorised for issue on May 15, 2023 and are signed on its behalf by:

Camilla Alexander-White

Dr C Alexander-White
 CHAIR OF TRUSTEES

The notes on pages 28 to 43 form part of these financial statements.

Lhasa Limited
STATEMENT OF CASH FLOWS
for the year ended 31 December 2022

	Notes	2022 £'000	2021 £'000
<i>Cash flows from operating activities</i>	18	5,320	4,559
Cash flows from investing activities:			
Interest received		72	19
Dividends received		195	134
Purchase of fixed assets		(272)	(684)
Purchase of investments		(1,741)	(2,603)
Sale of investments		843	1,064
Purchase of intangible assets		(2,628)	(1,142)
<i>Net cash used in investing activities</i>		<u>(3,531)</u>	<u>(3,212)</u>
Cash flows from financing activities:			
Repayments of borrowing		-	-
Cash inflows from new borrowing		-	-
<i>Net cash provided by/(used in) financing activities</i>		<u>-</u>	<u>-</u>
<i>Change in cash and cash equivalents in the reporting period</i>		1,789	1,347
Cash and cash equivalents at the beginning of the reporting period		9,329	7,982
<i>Cash and cash equivalents at the end of the reporting period</i>		<u>11,118</u>	<u>9,329</u>
Analysis of change in net cash			
	At 1 January 2022 £'000	Cash flows £'000	At 31 December 2022 £'000
Cash at bank and in hand	9,329	1,789	11,118

The notes on pages 28 to 43 form part of these financial statements.

Lhasa Limited

ACCOUNTING POLICIES

BASIS OF ACCOUNTING

Lhasa Limited is a charitable company limited by guarantee and registered in England. The registered address is Granary Wharf House, 2 Canal Wharf, Holbeck, Leeds, LS11 5PS.

The financial statements have been prepared under the historical cost convention and in accordance with 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 January 2019) – (Charities SORP (FRS 102)), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Companies Act 2006.

Lhasa Limited meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historical cost or transaction value unless otherwise stated in the relevant accounting policy note. The financial statements have been prepared in Pound Sterling as this is the currency of the primary economic environment in which the company operates.

CRITICAL ACCOUNTING JUDGEMENTS & KEY SOURCES OF ESTIMATION UNCERTAINTY

In applying the company's accounting policies, the Trustees are required to make judgements, estimates and assumptions in determining the carrying amounts of assets and liabilities. The Trustees' judgements, estimates and assumptions are based on the best and most reliable evidence available at the time when the decisions are made and are based on historical experience and other factors that are considered to be applicable. Due to the inherent subjectivity involved in making such judgements, estimates and assumptions, the actual results and outcomes may differ.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised, if the revision affects only that period, or in the period of the revision and future periods, if the revision affects both current and future periods.

Critical accounting judgements

The critical accounting judgements that the Trustees have made in the process of applying the company's accounting policies that have the most significant effect on the amounts recognised in the statutory financial statements are discussed below.

- Assessing indicators of impairment

In assessing whether there have been any indicators of impairment in relation to assets, the Trustees have considered both external and internal sources of information such as market conditions and experience of recoverability. There have been no indicators of impairments identified during the current financial year, other than in relation to the development of new databases which have not as yet been released to Members. Those databases where the future value is not sufficiently certain to warrant capitalisation of the development costs have been expensed.

- Capitalisation of wage costs in intangible fixed assets

Wage costs capitalised within intangible fixed assets are based on time sheet postings made by the employee and reviewed by management which allows for the separation of time to be expensed (such as that spent on database maintenance) and time to be capitalised, for which there is considered to be future benefit (such as the input of information or the development of new functionality).

Key sources of estimation uncertainty

The key assumptions concerning the future, and other key sources of estimation uncertainty, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

Lhasa Limited

ACCOUNTING POLICIES

- Estimating value in use

Where an indication of impairment exists, the Trustees will carry out an impairment review to determine the recoverable amount, which is the higher of fair value less cost to sell and value in use. The value in use calculation requires the Trustees to estimate the future cash flows expected to arise from the asset or the cash generating unit and a suitable discount rate in order to calculate present value.

- Recoverability of receivables

The company establishes a provision for receivables that are estimated not to be recoverable. When assessing recoverability, the Trustees consider factors such as the ageing of the receivables, past experience of recoverability, and the credit profile of individual or groups of customers.

- Determining residual values and useful economic lives of property, plant and equipment

The company depreciates tangible and intangible assets over their estimated useful lives. The estimation of the useful lives of assets is based on historic performance as well as expectations about future use and therefore requires estimates and assumptions to be applied by management. The actual lives of these assets can vary depending on a variety of factors, including technological innovation, product life cycles and maintenance programmes. Judgement is applied by management when determining the residual values for plant, machinery and equipment. When determining the residual value, management aim to assess the amount that the company would currently obtain for the disposal of the asset, if it were already of the condition expected at the end of its useful economic life. Where possible, this is done with reference to external market prices.

- Determining useful economic lives of intangible assets

The company continually develops our database systems. This investment enables our databases to stay current both in content and delivery. Without this continual investment our databases would not provide our members with the latest research nor be accessible in an effective way as science and technology both continually change. Historic data suggests that a reasonable economic life of five years is appropriate over which to amortise our databases on a straight-line basis. This assumption is validated by an annual review of the future cash flows expected to arise from each database and, where this is not reflected in the asset value, it is impaired.

- Pension deficit provision

The company has recognised a provision in respect of the deficit of the multi-employer defined benefit pension scheme. As at the balance sheet date, the deficit reduction plan runs to 2038, at which point the intention is for the deficit to be fully repaid by the employers within the scheme. In calculating the fair value of the company's deficit funding within the scheme, management have utilised a number of assumptions and estimates. The key assumptions in the calculation are the rate at which the deficit funding is discounted (for which long term bond rates of 4.98% for current year and 2.06% for prior year have been used); wage inflation (for which historical trends have been calculated and projected forward at 7.93%) and the rate at which scheme members will leave the employment of Lhasa Limited (for which historical trends have been calculated and projected forward at -4.68%).

GOING CONCERN

Having reviewed the current working capital position, the forecast financial activity and capital commitment spend, the Trustees believe that there are no apparent reasons that the charity will not continue to operate for at least 12 months following the signing of the audit report and as such the financial statements have been prepared on the basis that Lhasa Limited is and will continue to be a going concern.

FUND ACCOUNTING

Unrestricted funds are available for use at the discretion of the Trustees in furtherance of the general objectives of the charity.

Restricted funds are funds which are to be used in accordance with specific restrictions imposed by donors. They include income received under contracts with members in respect of special projects where use of the

Lhasa Limited

ACCOUNTING POLICIES

income is restricted to that project. On completion of a project, the resulting data or software becomes available to the general membership and so there is no longer any restriction on the assets. At this point the value of the income relating to the completed projects is transferred from restricted to unrestricted funds.

INCOME

Income comprises:

Buying in fees

This is a one-off payment by a sponsor to buy into an existing Lhasa Limited software development project. This takes account of the investment already made in the project by the existing sponsors. This income is recognised once access to the relevant database has been granted.

Computer software sponsorship and license fees

This is an annual fee made by an organisation to fund ongoing software development projects. This income is recognised on an accruals basis in line with the period of service provided.

Subscriptions

This is an annual fee payable by an organisation to become a member of Lhasa Limited and to have access to software developed by Lhasa Limited. This income is recognised on an accruals basis in line with the period of membership.

Project sponsorship

This is income received from sponsors for specific projects which is recognised immediately, unless a contract has been entered into that specifically limits the income use.

The percentage of income arising from outside the UK was 90% (2021: 90%).

RESEARCH AND DEVELOPMENT

Expenditure, including direct staff costs attributable to the computer software, is capitalised. All other expenditure on research and development is written off in the year in which it is incurred.

FOREIGN CURRENCIES

Assets and liabilities denominated in foreign currencies are translated into sterling at the rates of exchange ruling at the balance sheet date. Transactions in foreign currencies are translated into sterling at the date ruling at the date of the transaction. Exchange differences are taken into account in arriving at the operating surplus or deficit for the year.

EXPENDITURE

All expenditure is accounted for on an accruals basis and has been classified under headings that aggregate all costs related to that activity. Where costs cannot be directly allocated to activities, they have been allocated to activities on a basis consistent with the use of resources.

Direct costs, including directly attributable salaries, are allocated on an actual basis to the key strategic areas of activity. Support costs are allocated on an actual basis to the key strategic areas of activity with any unallocated support costs being apportioned on an income received basis for each strategic area of activity.

Governance costs include the cost of governance arrangements which relate to the general running of the charity. These activities provide the governance infrastructure which allows the charity to operate and to generate the information required for public accountability. They include the strategic planning processes that contribute to the future development of the charity.

Lhasa Limited

ACCOUNTING POLICIES

TANGIBLE FIXED ASSETS

Fixed assets are stated at cost less accumulated depreciation.

Assets with a cost in excess of £1,000 intended to be of ongoing use to Lhasa Limited in carrying out its activities are capitalised as fixed assets.

Depreciation is provided on all tangible fixed assets other than freehold land at rates calculated to write each asset down to its estimated residual value evenly over its expected useful life at the following rates:

Freehold properties	2%
Freehold property refurbishment	10%
Fixtures and fittings	20%
Computer hardware	25%
Office equipment	20%

INTANGIBLE FIXED ASSETS

Intangible fixed assets are stated at cost less accumulated amortisation.

Expenditure, including direct staff costs attributable to project sponsorship is either capitalised if attributable to the computer software or prepaid until the information is available to add to the software.

Assets with a cost in excess of £1,000 intended to be of ongoing use to Lhasa Limited in carrying out its activities are capitalised as intangible assets.

Amortisation is provided on all intangible fixed assets at rates calculated to write each asset down to its estimated residual value evenly over its expected useful life at the following rates:

Trademarks	10%
Databases	20%
Computer software	25%

FIXED ASSET INVESTMENTS

Listed investments are revalued to open market value on an annual basis in accordance with the Statement of Recommended Practice: Accounting and Reporting by Charities. Any gains or losses on revaluation are taken to the Statement of Financial Activities.

CASH AND CASH EQUIVALENTS

Cash is represented by cash in hand and deposits with financial institutions repayable without penalty on notice of not more than 24 hours. Cash equivalents notice deposit accounts with terms of 125 days or less that are readily convertible to known amounts of cash with insignificant risk of change in value.

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ACCOUNTING POLICIES

RETIREMENT BENEFITS

The charitable company participates in the Universities Superannuation Scheme. This scheme was closed to new staff members in 2015. This is a multi-employer scheme for which it is not possible to separately identify the charity's share of the underlying assets and liabilities attributable to the scheme.

If the actuarial valuation of the scheme reveals a deficit, the Trustees will agree a recovery plan to eliminate the deficit over a specified period. This is held as a provision in the financial statements, as detailed in note 13.

The charitable company operates a defined contributions scheme on behalf of its new staff with the Aviva pension scheme.

Company contributions to both these schemes are charged to the Statement of Financial Activities in the period to which they relate.

The pension charge represents contributions payable by the charity to the funds in respect of the year, as disclosed in note 21.

TAXATION

As a charity Lhasa Limited is exempt from tax on income and gains to the extent that these are applied to its charitable objects. No tax charges have arisen in the charity.

OPERATING LEASES

Rentals paid under operating leases are charged to the Statement of Financial Activities on a straight-line basis over the term of the lease.

FINANCIAL INSTRUMENTS

The charitable company only enters into basic financial instruments transactions that result in the recognition of financial assets and liabilities like trade and other accounts receivable and payable, loans from banks and other third parties, loans to related parties and investments in non-puttable ordinary shares. Basic financial instruments are initially recognised at transaction value and subsequently measured at their settlement value.

Debt instruments (other than those wholly repayable or receivable within one year), including loans and other accounts receivable and payable, are initially measured at present value of the future cash flows and subsequently at amortised cost using the effective interest method. Debt instruments that are payable or receivable within one year, typically trade payables or receivables, are measured, initially and subsequently, at the undiscounted amount of the cash or other consideration, expected to be paid or received.

Financial assets and liabilities are offset, and the net amount reported in the Balance Sheet when there is an enforceable right to set off the recognised amounts and there is an intention to settle on a net basis or to realise the asset and settle the liability simultaneously.

Lhasa Limited

NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 December 2022

1	INVESTMENT INCOME	2022 £'000	2021 £'000
	Bank interest	72	19
	Investment income	195	134
		<u>267</u>	<u>153</u>
2	INCOME FROM CHARITABLE ACTIVITIES	2022 £'000	2021 £'000
	Buying in fee	113	391
	Membership subscriptions	848	762
	Computer software sponsorship	14,837	13,355
	Strategic projects	918	1,022
		<u>16,716</u>	<u>15,530</u>
	A geographical analysis of income is as follows:	2022 £'000	2021 £'000
	Europe	6,478	6,207
	Americas	6,004	4,793
	Asia	4,234	4,530
		<u>16,716</u>	<u>15,530</u>
3	OTHER INCOME	2022 £'000	2021 £'000
	Insurance Claims	1	-
	Loss on disposal of assets	-	-
	CJRS grant	-	11
		<u>1</u>	<u>11</u>

Lhasa Limited

NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 December 2022

4	EXPENDITURE	2022 £'000	2021 £'000
	<i>Costs of generating funds:</i>		
	Investment management costs	71	90
	<i>Analysis of expenditure on charitable activities:</i>		
	Consultancy fees	108	5
	Travel costs	240	1
	Depreciation and amortisation	1,617	1,514
	Impairment (reversal)/charge	737	79
	Staff costs	7,029	8,458
	Sales exhibition costs	59	3
	Support costs (see below)	4,319	3,652
	Marketing costs	15	3
		<u>14,195</u>	<u>13,805</u>
	Governance costs (see note 5)	62	46
		<u>14,257</u>	<u>13,851</u>

Analysis of support costs:

All support costs are allocated on the basis of income, with the exception of recruitment of direct staff which are based on the hours spent on each database. Support costs include:

	2022 £'000	2021 £'000
Research sponsorship	4	-
Employee related costs	2,565	2,149
Premises costs	363	266
IT costs	573	374
Other costs	813	863
	<u>4,319</u>	<u>3,652</u>

Research sponsorship represents the impact of grants awarded to institutions to sponsor PhD students in accordance with Lhasa Limited's charitable objects. Certain of these grants span multiple accounting periods, in which case the terms of the grant dictate the accounting treatment.

5	ANALYSIS OF GOVERNANCE COSTS	2022 £'000	2021 £'000
	Audit	20	15
	Accountancy and other audit costs	15	3
	Cost of AGMs and Board of Trustees' expenses	28	28
		<u>62</u>	<u>46</u>

Lhasa Limited

NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 December 2022

6 NET INCOME

	2022 £'000	2021 £'000
This is stated after charging:		
Auditor's remuneration	20	15
Depreciation	342	241
Amortisation	1,275	1,273
Impairment charge/(reversal)	737	79
Exchange (gains)/losses	(68)	(3)
Operating lease rentals:		
Lease costs	3	-
	<u> </u>	<u> </u>

7 REMUNERATION

No Trustees' remuneration was paid in either year. Trustees' expenses totalling £4k (2021: £1k) were incurred by the charity for 9 Trustees (2021 – 11 Trustees). The Trustees expenses related to travel, accommodation and subsistence within their role as Trustee.

The average number of employees in the year, analysed by category, is as follows:

	2022	2021
Administration	32	29
Science	54	50
Applied Sciences	25	24
Product Management	5	9
Software Delivery	44	45
	<u> </u>	<u> </u>
	160	157
	<u> </u>	<u> </u>

The average number of full-time equivalent number of employees in the year was:

	2022	2021
	160	157
	<u> </u>	<u> </u>
	2022	2021
Wages and salaries	8,797	8,135
Social security	1,031	897
Pension	1,151	2,514
	<u> </u>	<u> </u>
	10,978	11,546

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NOTES TO THE FINANCIAL STATEMENTS

for the year ended 31 December 2022

The key management personnel are considered to be the Chief Executive Officer, Director of Applied Sciences, Director of Science, Head of Finance, Head of Information Technology, Lead Architect, Head of People and Culture, Head of Software Development, Head of Solutions, Business Improvement Manager. The total emoluments and employee benefits of the key management personnel (including employer's National Insurance contributions and costs attributable to re-organisation) were £1,185k (2021: £991k).

Employees received emoluments of more than £60,000 as follows:

	2022	2021
£60,000 - £70,000	21	16
£70,000 - £80,000	9	3
£80,000 - £90,000	1	3
£90,000 - £100,000	1	1
£120,000 - £130,000	2	-
£140,000 - £150,000	1	2

Pension contributions in respect of the above higher paid staff were £403,381 (2021: £305,788).

8 INTANGIBLE FIXED ASSETS

	Computer Software £'000	Databases £'000	Trademarks £'000	Total £'000
Cost				
At 1 January 2022	110	18,013	65	18,188
Additions	9	2,618	-	2,628
At 31 December 2022	119	20,631	65	20,816
Depreciation				
At 1 January 2022	105	14,820	27	14,952
Amortisation	4	1,264	6	1,275
Impairment charge		737		737
At 31 December 2022	109	16,821	33	16,964
Net book value				
At 31 December 2022	10	3,810	32	3,852
At 31 December 2021	5	3,193	38	3,236

The direct effort in the development of Lhasa's databases is capitalised where there is added value which adds to the economic life of the database. Lhasa tests the capitalised value annually to forecasted income to ensure that the capitalised effort does not exceed economic value.

Lhasa Limited

NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 December 2022

9 TANGIBLE FIXED ASSETS

	Freehold Land and Buildings £'000	Computer Hardware £'000	Office Equipment £'000	Total £'000
Cost				
At 1 January 2022	3,797	711	247	4,755
Additions	104	138	29	272
Disposals				-
At 31 December 2022	<u>3,901</u>	<u>849</u>	<u>276</u>	<u>5,027</u>
Depreciation				
At 1 January 2022	871	459	44	1,374
Provided in year	176	115	51	342
Disposals				-
At 31 December 2022	<u>1,047</u>	<u>574</u>	<u>95</u>	<u>1,716</u>
Net book value				
At 31 December 2022	<u>2,854</u>	<u>276</u>	<u>181</u>	<u>3,311</u>
At 31 December 2021	<u>2,926</u>	<u>252</u>	<u>203</u>	<u>3,381</u>

10 INVESTMENTS

	2022 £'000	2021 £'000
Listed fixed asset investments:		
Share portfolio	<u>9,337</u>	<u>9,920</u>

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NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 December 2022

10 INVESTMENTS (continued)

The share portfolio comprises the following movements:

	2022 £'000	2021 £'000
Market value at 1 Jan 2021	9,920	7,620
Additions	1,741	2,603
Disposals	(843)	(1,064)
Unrealised gain/(losses) on investments	(1,467)	478
Realised gain on investments	34	329
Fund management fees	(49)	(46)
Market value at 31 Dec 2022	9,337	9,920
Historical cost at 31 Dec 2022	9,302	8,414

The cost and market value of the investments listed on a recognised Stock Exchange were £9,302k (2021: £8,414k) and £9,337k (2021: £9,920k) respectively.

	2022 £'000	2021 £'000
The investments are held:		
In the UK	2,928	2,818
Outside the UK	6,409	7,102
	9,337	9,920

The entity holds one investment which has a market value at 31 December 2022 exceeding 5% of the value of the portfolio. The entity's investment in Vanguard Funds Plc S&P 500 consists of 6.1% of the total market value of the investment (2021: 5.5%)

11 DEBTORS

	2022 £'000	2021 £'000
Trade debtors	3,689	3,441
Prepayments	490	329
Other debtors	183	121
Accrued income	631	555
	4,993	4,446

Lhasa Limited

NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 December 2022

12 CASH

	2022 £'000	2021 £'000
Cash	5,428	4,443
Cash equivalents	5,690	4,886
	<u>11,118</u>	<u>9,329</u>

Cash is represented by cash in hand and deposits with financial institutions repayable without penalty on notice of not more than 24 hours. Cash equivalents represent notice deposit accounts with terms of 125 days or less that are readily convertible to known amounts of cash with insignificant risk of change in value.

13 CREDITORS

	2022 £'000	2021 £'000
Trade creditors	118	246
Other tax and social security	264	236
Other creditors	466	779
Accruals	725	575
Pension deficit provision	180	138
	<u>1,753</u>	<u>1,974</u>

14 DEFERRED INCOME

Deferred income in the year relates to monies invoiced in the year for subscriptions, knowledge contributions and licences which relate to subsequent years.

	2022 £'000	2021 £'000
Deferred income as at 1 January 2022	6,691	6,073
Invoiced during year	17,195	15,126
Deferred income as at 31 December 2022	<u>(8,088)</u>	<u>(6,691)</u>
Income for the year	<u>15,798</u>	<u>14,508</u>

Lhasa Limited

NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 December 2022

15 CREDITORS: amounts falling due after more than one year

	2022 £'000	2021 £'000
Pension deficit provision	2,139	2,309
	<u>2,139</u>	<u>2,309</u>

Included within creditors due after more than one year is the multi-employer defined benefit pension scheme deficit and the estimated employer debt. Following the valuation of the scheme as at 31 March 2020 using the October 2021 recovery plan schedule of contributions, the contribution rate is 21.6% to 1 April 2024 and thereafter 21.4% over the 13 years to 31 March 2038. As of the balance sheet date the estimated discounted employer deficit is detailed below.

	2022 £'000	2021 £'000
Pension deficit provision as at 1 January 2022	2,309	1,152
Provision made/(released) in the period	10	1,295
	<u>2,319</u>	<u>2,447</u>
Pension deficit provision as at 31 December 2022	(180)	(138)
	<u>2,139</u>	<u>2,309</u>

16 RESERVES

	At 1 January 2022 £'000	Income £'000	Expenditure £'000	Net losses on investments £'000	Transfer between Funds £'000	At 31 December 2022 £'000
Unrestricted funds - general	13,168	16,984	(11,341)	(1,434)	(4,899)	12,477
Unrestricted designated funds – fixed assets	6,617		(2,354)	-	2,899	7,163
Unrestricted designated funds – closed pension deficit fund	(2,447)		128			(2,319)
Unrestricted designated funds – closed pension deficit fund	2,000		(690)		2,000	3,310
	<u>19,338</u>	<u>16,984</u>	<u>(14,257)</u>	<u>(1,434)</u>	<u>-</u>	<u>20,631</u>

Lhasa Limited

NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 December 2022

Designated funds are general funds that the Trustees have chosen to use for a specific purpose, as detailed below:

Fixed asset fund – represents the net book value of intangible and tangible fixed assets totalling £7,163k (2021: £6,617k).

Closed pension deficit fund – this represents the value of the pension deficit provision.

Development Fund – this represents funds set aside for further development of charitable objectives over the next 3 to 5 years.

17 ANALYSIS OF NET ASSETS BETWEEN FUNDS

As at 31 December 2022	Fixed assets	Net current assets	Long term creditors	Total
	£'000	£'000	£'000	£'000
Unrestricted funds – general	6,027	6,450		12,477
Unrestricted designated funds – fixed assets	7,163			7,163
Unrestricted designated funds – closed pension deficit fund		(180)	(2,139)	(2,319)
Unrestricted designated funds – future development designation	3,310			3,310
Total unrestricted	16,500	6,270	(2,139)	20,631
Restricted	-	-	-	-
Total	16,500	6,270	(2,139)	20,631
As at 31 December 2021	Fixed assets	Net current assets	Long term creditors	Total
	£'000	£'000	£'000	£'000
Unrestricted funds – general	7,920	5,248		13,168
Unrestricted designated funds – fixed assets	6,617			6,617
Unrestricted designated funds – closed pension deficit fund		(138)	(2,309)	(2,447)
Unrestricted designated funds – future development designation	2,000			2,000
Total unrestricted	16,537	5,110	(2,309)	19,338
Restricted	-	-	-	-
Total	16,537	5,110	(2,309)	19,338

Lhasa Limited

NOTES TO THE FINANCIAL STATEMENTS for the year ended 31 December 2022

18	CASH FLOWS	2022 £'000	2021 £'000
	RECONCILIATION OF NET INCOME TO NET CASH INFLOW FROM OPERATIONS		
	Net income	1,293	2,653
	Investment income	(267)	(153)
	Depreciation	342	241
	Amortisation	1,275	1,273
	Impairment charge	737	79
	Profit on disposal of fixed assets	-	-
	(Increase)/decrease in debtors	(547)	(665)
	Increase in creditors	1,005	1,893
	Loss on investments	1,433	(808)
	Investment management fees	49	46
	Net cash provided by operating activities	<u>5,320</u>	<u>4,559</u>

19 OPERATING LEASE COMMITMENTS

At 31 December 2022 the company had the following commitments under non-cancellable operating leases in respect of assets:

	2022 £'000	2021 £'000
Within 1 year	3	5
Between 2 and 5 years	8	10
	<u>11</u>	<u>15</u>

20 LIABILITY OF MEMBERS

Lhasa Limited is a company limited by guarantee. The company has 604 members and joint liability under guarantee is limited to £10 per member.

21 PENSION FUND

Employees of this company, together with other University entities participate in the Universities Superannuation Scheme. This is a defined benefit scheme and the rules require a full actuarial valuation of the Fund at intervals of not less than three years and six months. The assets of the Scheme are held in a separate Trustee administered fund. The Universities Superannuation Scheme is a multi-employer scheme for which it is not possible to separately identify the share of the total underlying assets and liabilities attributable to this particular company.

Lhasa Limited

NOTES TO THE FINANCIAL STATEMENTS

for the year ended 31 December 2022

The latest actuarial valuation of the Universities Superannuation Scheme was carried out as at 31 March 2022. The valuation at 31 March 2022 shows that the market value of the total assets held by the University Scheme was £88,900m and that the actuarial valuation of these assets represented 98% of the amount of the liabilities of the scheme. Contributions by participating employers are at the rate of 21.6% up to March 2024 then from April 2024 21.4% of salaries. The next full actuarial valuation is due as at 31 March 2023.

The basis of the valuation was from the long-term yield on Government bonds in the market at the valuation date and the significant assumptions underlying the valuation were that the investment return would be 1.7% pa, and that salary increases would be CPI +3.0%

During the year the company made contributions for the year, in respect of its eligible employees, totalling £578,385 (2021: £2,115,150). Included within this figure is a decrease in the provision made in relation to the pension deficit in the year of £48,889 (2021: increase of £1,288,486).

Pension contributions were made in respect of 189 (2021: 187) employees in the year.

The Charity also operates a defined contribution pension scheme. The cost for the year represents the Charity's contributions to the scheme of £572,188 (2021: £399,773). There were no contributions payable to the scheme at the year end (2021: £nil).