

QUADRAM INSTITUTE BIOSCIENCE

Annual Report and Accounts for the year ended 31 March 2022

Quadram Institute Bioscience is a company limited by guarantee and a registered charity: registered company number: 03009972; registered charity number: 1058499.

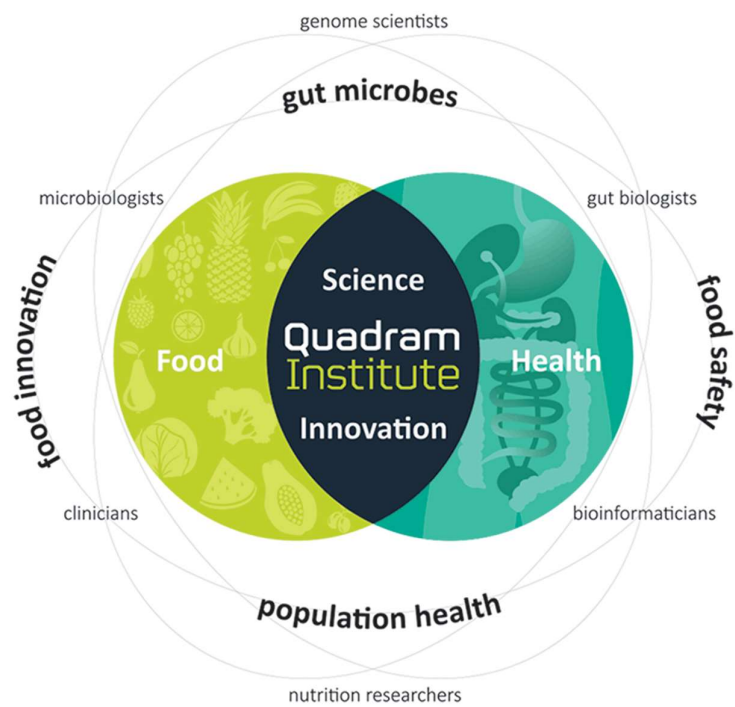
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THE QUADRAM INSTITUTE

Quadram Institute Bioscience (QIB) is one of four founding partners in the establishment of the Quadram Institute – a multi-million-pound food and health research centre that was completed in autumn 2018.

The Quadram Institute is at the forefront of the interface between food science, gut biology and health, developing solutions to worldwide challenges in food-related disease and human health. It brings together the Quadram Institute Bioscience research teams, the Norfolk and Norwich University Hospitals NHS Foundation Trust (NNUH) and the University of East Anglia (UEA), as well as NNUH's regional gastrointestinal endoscopy unit and a clinical research facility.



The centre has been funded by the partners and the Biotechnology and Biological Sciences Research Council (BBSRC), part of UK Research and Innovation. The Quadram Institute has capacity for 300 research staff with a further 100 staff supporting one of Europe's largest endoscopy facilities. It is engaged in fundamental and translational food and health research, alongside clinical studies, endoscopy and industry, working together to become a leading international hub for food and health research. It combines scientific excellence and clinical expertise, delivering patient care and accelerating innovation.

The Quadram Institute maximises the unique world-class bioscience cluster based at the Norwich Research Park, including excellent plant and microbial science at the John Innes Centre and The Sainsbury Laboratory and computational science and sequencing expertise at the Earlham Institute.

INTRODUCTION TO THE ANNUAL REPORT

The Quadram Institute Bioscience trustees (who are also directors in company law) are pleased to present their Annual Report together with the consolidated financial statements of the charity and its subsidiaries for the year ending 31 March 2022, which are also prepared to meet the requirements for a directors' report (incorporating a strategic report) and accounts for Companies Act purposes.

The Annual Report and Accounts have been prepared in accordance with the Accounting and Reporting by Charities: Statement of Recommended Practice (SORP), Financial Reporting Standard 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS102), together with the reporting requirements of the Companies Act 2006 and the Charities Act 2011.

The charity constitutes a public benefit entity as defined by FRS102.

TRUSTEES' REPORT INCORPORATING THE STRATEGIC REPORT

QUADRAM INSTITUTE BIOSCIENCE

QIB is focussed on the relationship between food and health with an emphasis on the gut microbiota and the potentially pathogenic microorganisms that can be present in the food chain. QIB is delivering its vision of excellence, with an ambitious programme to increase the number of Research Leaders in the institute to 40 by 2024, attracting the best minds from around the world, funded by a combination of the Quadram Institute partners, other funding bodies and industry. QIB will leverage BBSRC strategic funding to attract investment from other research councils, funding organisations and industry to become a world leading institute for food and health research. Moreover, it is forging links with other world-class academics to

become a hub for national and international networks of related research organisations that promotes collaboration and training necessary to accelerate innovation and deliver solutions to UK and global food and health challenges.

Charitable objective

The Charity's object is the worldwide advancement of education in food sciences for the public benefit by:

- undertaking research and disseminating the useful results of such research; and
- training research scientists.

REVIEW OF THE YEAR

QIB has continued to bounce back from the 2020-21 COVID-19 pandemic delays. The laboratories have returned to full occupancy and in-person working in the offices has resumed along with in-person meetings. Preparation for the next round of BBSRC strategic funding was well underway by end of year with strong new programmes of research proposed.

Key milestones achieved in the year include:

- As part of the COVID-19 Genomics UK Consortium QIB scientists completed sequencing of over 87,000 SARS-CoV-2 genomes;
- The Food Standards Agency invested £1.6m into the UK Food Safety Research Network, hosted by Quadram Institute Bioscience.
- Professor Martin Warren was appointed as QIB's Chief Scientific Officer with responsibility for development of the Institute's scientific strategy and the scientific leadership of QIB.
- Alison Mather, Mark Webber and Lindsay Hall all received promotion by the University of East Anglia to Professor.
- QIB received Bronze Athena SWAN accreditation in acknowledgement of its work towards supporting gender equality;
- QIB's Business Development Team expanded under the leadership of Dr Graeme Brown, This has facilitated a powerful integration of translation activities within QIB's strategic science programmes.
- QIB's international collaborations have received a funding boost with BBSRC partnership funding that will support research interactions with Canadian, New Zealand and Dutch scientists.
- Nathalie Juge at QIB led development of a new £1.1m "Integrated Models of the Human Gut" technology hub, funded by BBSRC. The hub includes organ-on-chip technology and the SHIME® simulator model of the human digestion system.
- International opportunities were given a boost in 2021 when Norfolk and Suffolk were selected for inclusion in the Department for International Trade's (DIT) prestigious High Potential Opportunities programme. QIB was a partner in preparation of the document that proposed a DIT showcase of the region's globally renowned plant science expertise in developing nutritious food products. We look forward to discussing investment opportunities.

Scientific achievements during the year include:

- A QIB study has uncovered a new link between bowel cancer progression and the microbiome. Research in Nathalie Juge's group has shown how the bacterium *Fusobacterium nucleatum*, which is enriched in bowel cancer tissue, interacts with specific proteins on immune cells and promotes inflammation. Bowel cancer is one of the most common cancers and is second only to lung cancer in the number of fatalities it causes each year in the UK. This collaboration with Professor Kristian Bowles from the Norfolk and Norwich University Hospital and Norwich Medical School at the University of East Anglia provides new fundamental insights into how *F. nucleatum* interacts with human cells, but also provides exciting new routes to alleviate the issues associated with the presence of *F. nucleatum* in colorectal tumours
- QIB researcher Fred Warren is developing healthier foods based on the slower release of energy. Using the latest scientific knowledge about how different types of starch are digested, the project hopes to introduce consumer-focused products that can contribute to consumers' health and reduce the risk of developing diet-related disease. 10-25% of the adult population of the European Union is obese, and 10% has Type II diabetes, so there has been a lot of focus on supporting consumers to eat more nutritious foods. The calorific value of foods is not the only thing that defines their impact on health, the rate at which they are digested is also extremely important. In an EU-funded project with collaborators at Pepsico and KU leuven, QIB is selecting starches from different botanical origins and then optimising processing conditions to produce a range of products with slow starch digestion properties. They have produced oat-based cookie prototypes that deliver a high level of slowly digestible starch. The team is now developing oat-based drinkable and spoonable products, creating opportunities for a new class of breakfast products with the added benefits of sustained energy release.
- In a second EU-funded project, called PERNUG, Paul Kroon is aiming to bring sustainable vertical farming and personalised nutrition into the home and workplace by developing kitchen gardens that grow produce to match individual dietary needs. Vertical farming is one of the solutions to making agriculture more sustainable, whilst still supplying produce year-round to satisfy consumer demand. Crops are cultivated without soil in a controlled, optimised environment in which they efficiently reuse resources, reducing wastage. Vertical farms have been shown to use 90% less water and deliver much higher yields per square metre of land. QIB has teamed up with KU Leuven and Studio Kapp to develop ways of biofortifying crops with bioactive forms of iron and B₁₂ through the PERNUG kitchen garden then provide these directly to consumers who most need them, reducing the need for expensive supplements.
- Simon Carding (QIB) and Tamás Korcsmáros (QIB and Earlham Institute) have developed a new computational biology method to better understand how communication between the gut microbiome and the immune system affects Inflammatory Bowel Disease (IBD) to help deliver targeted clinical treatments. By analysing specific differences in gut cell types, the study deciphers cellular crosstalk to identify how beneficial bacteria communicate with our immune system to treat IBD and reduce gut inflammation. Around 500,000 people in the UK live with IBD (including Crohn's Disease and Ulcerative Colitis), a life-long, chronic condition characterised by sporadic bouts of gut inflammation causing debilitating symptoms. The insights gained from studies such as this will be invaluable in developing new interventions aimed at maintaining health by promoting beneficial interactions with gut microbes and preventing harmful ones that can lead to diseases such as IBD.
- QIB has entered into a strategic agreement with Eagle Genomics, a Deep Tech software business pioneering the application of network science to biology, that will promote the understanding of microbiome science. will involve the sharing of datasets, innovation pipelines and tools to facilitate the understanding of complex microbiome data through Eagle Genomics' e[datascientist][™] platform. By applying advances in genetic sequencing technology, laboratories across the world can now identify which species of microbes are present in different microbiome ecosystems, and also comprehend, from reading the sequence of individual genes, which functions those microbes might have. In addition, analysis of 'multi-omic' data from humans, as well as that of soil, plants, animals, and their interactions with their diverse hosts, could help scientists develop new innovations to meet the rapidly increasing nutritional requirements of a growing global population. Such an approach would also help in reducing the carbon footprint of sectors such as food processing and agriculture.
- Martin Warren, QIB's Chief Scientific Officer, joined leading international researchers in warning of the dangers of a quiet epidemic of vitamin B12 deficiency in people who follow increasingly popular plant-based diets. Plant-

based diets (vegetarian or vegan) are becoming significantly more popular as people adopt a diet that is seen to be better for the environment, animal welfare, and/or personal health. Sales of plant-based foods have seen a 49 per cent increase in Western Europe since 2018. Martin joined scientists from around the world with expertise in food, nutrition, medicine, and health in forming a vitamin B12 research discussion group called cluB-12 to raise awareness of B12 deficiency and how it can be addressed. Vitamin B12 is an essential micronutrient which plays a role in supporting red blood cell production, energy, metabolism, and nerve function, but it is not found in plants. cluB-12 aims to make public and policymakers aware of the public health implications and measures needed to mitigate vitamin B12 deficiency.

- Researchers from QIB, University of East Anglia and Technische Universität Braunschweig have undertaken research to unravel the role of a key molecule in cholestatic liver disease. They showed that, in mice, a key metabolic regulator, SIRT 1, triggers cells in the immune system to attack liver cells, progressing the disease. Cholestatic liver disease is a spectrum of conditions characterised by an accumulation of bile acids in the liver, leading to liver damage. Naiara Beraza at QIB and others have previously shown that SIRT1 is involved in liver disease and in impairing liver regeneration. This new research showed how SIRT 1 activates macrophages (key immune cells) and promote inflammation, damaging the liver. This suggests that fine-tuning SIRT 1 levels could help to maintain liver health.
- Mark Webber and Ian Charles at QIB have identified genes that are essential for bacteria to survive in the environment. Many bacteria, such as *E. coli*, live in complex communities called biofilms. Communities of microbes form biofilms by exuding a sticky slime to hold them together and also to adhere to surfaces. This helps protect the community from environmental stresses, like drying out, as well as the actions of disinfectants or antibiotics. Biofilms can be a significant source of infections in hospital environments and foodstuffs, but they can also be beneficial, and we use bacterial biofilms to make products including some medicines like insulin. This research used a genetic sequencing platform developed by QIB researchers called TraDIS-Xpress. This can simultaneously analyse all of an organism's genes to find those that are essential, as well as those which when turned on or off help the organism survive and grow under specific conditions. The team used the model bacterium *E. coli* and identified the genes that are important at each

stage of the bacterium's biofilm creation. Understanding the importance of these genes could lead to new ways of stopping bacterial biofilms forming, helping prevent infections.

- QIB's COVID-19 activities continued into the second year of the pandemic. The QIB Head of Informatics, Andrew Page, was an attendee at the SAGE social care working group, providing expert advice on genomics to inform pandemic management in care settings. QIB researchers also provided outbreak management and genomic sequencing support for Ireland, Germany, Nepal, Tunisia, Palestine, Lebanon, The Gambia, Zimbabwe, Mexico, Bangladesh and Pakistan. Simon Carding provided expert guidance to the World Health Organisation (WHO) in relation to standardising international vaccine guidelines and Mark Pallen worked in a group led by the Virus Evolution Working Group of the WHO to devise a new, virus nomenclature for SARS-CoV-2 new variants (the Greek alphabet system). QIB was also involved in the production of recombinant viral proteins that were used to help develop and evaluate vaccines. The QIB Communications team and counterparts at the NNUH formed an efficient partnership to recruit 500 volunteers to the Novavax COVID-19 vaccine trial. The QI CRF was one of 33 UK sites where the Novavax COVID-19 vaccine was trialled ahead of its approval in early 2022 by the Medicines and Healthcare products Regulatory Agency (MHRA).
- Rob Kingsley has used genome sequencing to reveal how *Salmonella* carves out a niche in pork production. With collaborators at Roslin and Earlham Institutes he showed that *Salmonella* variants, despite being extremely closely related, can have very different effects on the health of pig and also on the risks they pose to food safety. *Salmonella* Typhimurium is a major cause of human gastroenteritis. It can also affect the health, productivity and welfare of pigs. Bacterial pathogens continually evolve to exploit new ecological niches and to evade antibiotics. Understanding exactly how this happens is crucial to countering the consequences of new variants on human and animal health. Using whole genome sequencing the research team found that two types of *S. Typhimurium*, have been circulating in UK pigs since 2003 but they infected pigs differently. Inspection of changes in the genome sequence of one variant suggested that it emerged by a unique set of changes that occurred within a short period of time and the researchers believe that these changes hold the key to understanding how this variant interacts differently with pigs during infections, in the lab, and potentially the food chain.

Public engagement

The QIB Communications Team was keen to keep engaging with the public during the pandemic. It produced an online storyboard called “This Unrelenting Pandemic”, for which it won Silver for Best Content at the 2021 Chartered Institute of Public Relations Pride 2021 awards. The QIB science team was back out and about this year and undertaking a series of in-person public engagement activities. The Norwich Science Festival had nearly 50 QIB researchers taking part at talks or other public activities.

Postdocs Aimée Parker and Stefano Romano took to the airwaves during a World Microbiome Day Radio Marathon. They spent a morning being interviewed by different radio stations to talk about the gut-brain axis, and how the microbiota could be contributing to diseases such as dementia, Parkinson’s Disease and Alzheimer’s Disease. Fred Warren was interviewed on the BBC World Service about starch.

In collaboration with the National Biofilm Innovation Centre QIB microbiologists created the Biofilm Brainhub website to provide a public resource centre about biofilms and impact they have in different areas of our lives.

PLANS FOR 2022/23

Key priorities

- Delivery of academic excellence.
- Submit proposals to the BBSRC Institute Assessment Exercise 2022 in request of strategic funding renewal.
- Review the QIB Science Strategy to incorporate the research proposed strategic grant submissions.
- Further development of clinical and science interactions within Quadram Institute.

QIB will continue to develop new research projects with our clinical colleagues at the Norfolk and Norwich

University Hospital (NNUH). This will be achieved using the clinical seedcorn fund, launched in 2021, through which NNUH clinical colleagues can take time out to engage with QIB research.

QIB will also be continuing the important work it undertakes in collaboration with the John Innes Centre, Earlham Institute, The Sainsbury Laboratory and University of East Anglia to engage with policy makers on such points as food safety and precision breeding of crops.

GOING CONCERN

The financial statements have been prepared on a going concern basis which the Trustees consider to be appropriate for the following reasons:

The Trustees have prepared cash flow forecasts for the period to March 2028 which indicate that, taking account of reasonable possible downsides and the potential impact of inflation and COVID-19 on the operations and its financial resources, the Institute will have sufficient funds to meet its liabilities as they fall due for that period.

The Institute is reliant on its strategic programme funding from BBSRC, which was £8.2m in the year (2021: £11.5m). BBSRC has confirmed continued

strategic funding of £8.2m for the year to March 2023. BBSRC has provided the Institute with a provisional strategic programme funding allocation for 5 years to March 2028 of £10.9m per annum. The funding is expected to be confirmed in late 2022, once BBSRC has received confirmation of its Spending Review Allocation.

Consequently, the Trustees are confident that the Institute will have sufficient funds to continue to meet its liabilities as they fall due for at least 12 months from the date of approval of the financial statements and therefore have been prepared the financial statements on a going concern basis.

FINANCIAL REVIEW

Key performance indicators

QIB's key financial performance indicators during the year were as follows:

<i>Consolidated</i>	2022	2021
	£m	£m
Income excluding capital grants	18.0	16.7
Unrestricted general & designated strategic reserves	14.4	10.5
Cash	22.5	19.5
Value of grant submissions	18.6	18.3
Value of grant awards	5.7	5.1

The main indicator of non-financial performance is Institute publications in relevant scientific journals, as described in 'scientific achievements' above.

Income

Total incoming resources for the year were £18.8m (2021: £22.7m), including £0.7m of capital funding (2021: £6.1m). Income excluding capital grants was £18.0m (2021: £16.7m).

QIB's principal sponsor is the BBSRC, which contributed 57% of total incoming resources (2021: 81%). Other major sources of funding were the European Union, UK government agencies and charities. An analysis of grant income by principal sponsor is included in the notes to the financial statements.

Expenditure

Total resources expended for the year amounted to £18.1m (2021: £20.0m). Staff costs accounted for £8.0m (44%) (2021: £8.1m; 41%) of expenditure.

Fundraising

QIB does not carry out any significant fundraising activities.

Subsidiaries

QIB's trading subsidiary – QIB Extra Limited - contributed an operating profit of £544,000 (2021: £32,000).

Net Movement in Reserves

QIB recorded a net increase in unrestricted reserves of £1.2m (2021: decrease of £2.6m).

Restricted reserves decreased by £0.6m (2021: increased by £5.4m).

Cash

Group cash at March 2021 was £22.5m (2021: £19.5m).

QIB deposits its cash with UK registered financial institutions that meet its credit rating policy and are subject to agreed counter-party limits. Investment income from cash deposits in the year was £67,000 (2021: £86,000).

Reserves position

Total group reserves increased by £0.6m in the year to £38.7m (2021: increased by £2.7m to £38.1m).

Restricted reserves decreased by £0.6m to £8.9m (2021: increased by £5.4m), of which £1.8m relates to capital grant funding from BBSRC that may only be utilised on completion of performance conditions.

Unrestricted reserves increased by £1.2m in the year to £29.7m (2021: £28.5m). Unrestricted reserves include the following:

- A building reserve of £1.25m has been designated to cover the outstanding loan advances to QI Partners (£1.25m) and energy cost increases;
- Strategic reserves of £10.4m have been designated to cover planned strategic programme and capital investment to support the development of the Quadram Institute. This reserve is anticipated to be mainly used between 2022 and 2023; and
- A general reserve of £4.0m (2021: £4.0m).

Reserves policy

QIB's reserves are held to support financial solvency, manage uncertainty and fund future activities. The level of reserves required by QIB is therefore determined by reference to:

- Future operational and capital expenditure requirements in the Business Plan to March 2028;
- Potential financial risks identified in the Business Plan and Risk Register;
- Potential funding required for strategic investments not included in the Business Plan;
- Working capital / liquidity requirements.

As noted above, £1.25m has been designated in connection with QIB's loan commitments. A further £10.4m has been designated in connection with planned investment in science programmes.

The general reserve of £4.0m (2021: £4.0m) is above the minimum general reserves target of £3.0m set by the Trustees.

RISK ASSESSMENT AND MANAGEMENT

The Board of Trustees is responsible for ensuring there are effective and adequate risk management and internal control systems in place, and confirm that the major risks to which the Institute is exposed have been reviewed and procedures established to manage those risks. The Audit and Risk Committee agrees an annual risk-based internal audit plan which covers major risks identified by management and Trustees. It receives reports from internal auditors on the effectiveness of internal controls, progress against the internal audit plan and progress on recommendations made in reports. The Board reviews a full risk report annually, including a 'heat map' tracking major risks.

The principal risks and uncertainties facing the Institute are considered to be:

Risk area	Description of Risk	Management of Risk
Future BBSRC research funding	<ul style="list-style-type: none"> ➤ BBSRC strategic funding for institutes is reduced due to budgetary pressures. ➤ BBSRC strategic funding is reduced due to scientific performance. 	<ul style="list-style-type: none"> ➤ Regular monitoring of scientific performance against strategic programme objectives. ➤ Regular communication with BBSRC to report performance and ensure strategic alignment of research programmes.
Research income and sponsor diversification	<ul style="list-style-type: none"> ➤ QIB is unable to generate sufficient grant and commercial research income to support the costs of its research activities and infrastructure 	<ul style="list-style-type: none"> ➤ Investment in new research leader positions in progress. ➤ Communication Strategy being developed to increase sponsor awareness of the Quadram Institute.
Staff retention and recruitment	<ul style="list-style-type: none"> ➤ QIB is unable to retain or attract suitably skilled staff to enable it to deliver its science strategy. ➤ In addition to scientific impact, this risk area could also have an impact on the level of funding the Institute is able to attract. 	<ul style="list-style-type: none"> ➤ Strategy and action plans in place, aligned to development of Quadram Institute. ➤ Career development programmes in place to support high potential staff. ➤ Performance Management processes in place.
Quadram Institute	<ul style="list-style-type: none"> ➤ Strategy for the Quadram Institute is not agreed between the partners. ➤ The Quadram Institute is not able to attract suitably skilled staff to enable it to deliver its strategy. ➤ Benefits from the project are not delivered. 	<ul style="list-style-type: none"> ➤ Governance arrangements in place. ➤ Strategy agreed and communicated. ➤ Recruitment plans in progress. ➤ Project plan in place, with identified work streams, terms of reference and appropriate partner representation. ➤ Project assurance framework in place.
QI Building	<ul style="list-style-type: none"> ➤ QI facilities management arrangements are poor value for money. ➤ Inadequate investment leads to facilities that are not fit for purpose. ➤ QI building is not used by partners in line with QI mission. 	<ul style="list-style-type: none"> ➤ Building Services Committee established to monitor facilities management arrangements and tenant coordination. ➤ Building operating costs regularly reviewed and remedial actions agreed. ➤ Lifecycle maintenance plan agreed by the partners.
Technology investment	<ul style="list-style-type: none"> ➤ QIB is unable to keep pace with developments in technology underpinning its science. ➤ Funding is inadequate to sustain and improve technology facilities necessary to deliver scientific objectives. 	<ul style="list-style-type: none"> ➤ Technology strategy has been updated alongside strategy for the Quadram Institute. ➤ Capital funding awarded for the period to March 2023 as part of institute strategic grant award.
Compliance with sponsor funding requirements	<ul style="list-style-type: none"> ➤ QIB fails to comply with sponsor grant requirements resulting in a material financial impact. 	<ul style="list-style-type: none"> ➤ QIB is subject to regular reviews of its grant compliance processes from sponsors and the internal auditors.
Impact of leaving EU	<ul style="list-style-type: none"> ➤ QIB is not able to access EU programme funding or participate in EU research collaborations. ➤ QIB is not able to recruit or retain researchers from EU member countries. 	<ul style="list-style-type: none"> ➤ Regular dialogue with staff, BBSRC, EU partners and other key stakeholders on risks and emerging issues with respect to potential changes in arrangements.
Cost pressures	<ul style="list-style-type: none"> ➤ Increased energy prices divert resources from science to infrastructure costs, resulting in a reduction in research activity and impact. ➤ High inflation rates increase research and support costs, resulting in a reduction in research activity and impact. 	<ul style="list-style-type: none"> ➤ Energy costs are hedged in the short-term and specialist advisers support the institute with energy procurement. ➤ Energy-saving opportunities are actively sought and investment cases developed. ➤ The impact of cost inflation is regularly discussed with funders with a view to mitigating the impact on research.

TRUSTEES' REPORT

GOVERNANCE AND MANAGEMENT

Organisation and governance

Quadram Institute Bioscience (referred to as "QIB", the "Institute", the "Charity" or the "Company") is a company limited by guarantee (registered number 03009972) and a registered charity (number 1058499). During the year, QIB was governed by its Memorandum and Articles of Association adopted on 31 July 2018.

The financial statements have been prepared in accordance with the Charities Act 2011, the Companies Act 2006 and Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102).

Board of Trustees

The Board of Trustees comprises an independent Chair, up to seven independent members and up to nine UEA-appointed members. The Trustees who served during the year and up to the date of signing these financial statements were:

Trustees	Sub-committees	Changes during the period
<i>At date of Report:</i>		
Dr C Caulcott (Chair)	Remuneration & Nomination Committee	-
Dr E Blair	Audit & Risk Committee; Remuneration & Nomination Committee	-
Prof F Lettice	Science Innovation & Advisory Committee (Chair)	-
Prof P Morgan	Remuneration & Nomination Committee (Chair)	-
Mr G Potter	Audit & Risk Committee	-
Dr E Robertson	Science Innovation & Advisory Committee	-
Mrs J Waterfield	Audit & Risk Committee (Chair)	-

The Board has established sub-committees to assist in exercising their company and charity stewardship responsibilities. The Audit and Risk Committee oversees internal controls, risk management and audit. The Remuneration and Nominations Committee considers remuneration, nominations, talent and succession.

The Science Innovation and Advisory Committee assists the development and maintenance of QIB's science in relation to direction, balance, strategy and quality.

Recruitment, induction and training of Trustees

The Remuneration and Nominations Committee leads the process for Board appointments and makes recommendations to the Board for the appointment of the Chair and Board Trustees. The appointment to Chair is made in agreement with the Members. The Committee makes recommendations to the Board on

Members

The Members are all guarantors of QIB, a company limited by guarantee and a registered charity, of an amount not exceeding £1.

The Members of QIB during the year were:

- UK Research and Innovation - Biotechnology and Biological Sciences Research Council ("BBSRC");
- the University of East Anglia ("UEA"); and
- the Norfolk and Norwich University Hospitals NHS Foundation Trust ("NNUH").

UEA is entitled to appoint a majority of the members of the Board of Trustees and accordingly is deemed to be the company's parent undertaking and controlling party. BBSRC, UEA and NNUH each have the right to nominate an "observer" to attend Board meetings. Observers are not entitled to vote and do not hold any authorities.

the Board's composition ensuring that the Board has an appropriate balance of skills, capabilities, expertise, experience and diversity to allow it to meet its strategic and organisational objectives.

The Institute advertises nationally for prospective Trustees to ensure appropriate expertise on the Board is maintained. The Institute will also approach individuals thought to have the right skills.

New Board Trustees are invited to spend time with members of the executive team. This is a chance to learn about the Institute and get more involved with the institute's work. In addition to the five formal meetings, all Trustees receive regular presentations from QIB's scientists and briefings on key issues.

Trustee remuneration

QIB remunerates Trustees where the Board considers payment is necessary to attract Trustees with specialist skills and experience. The power to remunerate Trustees is included in QIB's Articles of Association and has been approved by the Charities Commission.

During the year, Dr Celia Caulcott received £11,177 remuneration in connection with her role as Chair of QIB Board of Directors (2021: £10,000).

Three members of the Board of Trustees were reimbursed for travel expenses incurred during the year (2021: one). The total amount reimbursed was £576 (2021: £1,514).

Key Management Personnel

The Trustees delegate management of the day-to-day activities of the charitable company to the Institute Director and Executive Board, who are considered to be the key management personnel for the institute. The Executive Board (EB) works to support the Institute Director in developing scientific, financial, business and administrative policy and strategy. EB will monitor policy implementation and ensure that such policy is embedded in the day-to-day working of the Institute. EB is supported by the executive Science Strategy Board and the Management Forum.

EB membership during the year was as follows:

- Institute Director (EB Chair)
- Director of Operations
- Chief Business Officer
- Finance Director
- Chief Scientific Officer / Leader Food and Health ISP
- Leader Gut Health & Food Safety ISP
- Leader Microbes in the Food Chain ISP
- Head of HR

Employees

QIB staff that joined before 1 October 2011 were employed by BBSRC up to 1 October 2017, when they transferred employment to the Institute under TUPE.

Transferred employees retain their membership of the Research Councils Pension Scheme (RCPS), where applicable, with QIB becoming an admitted employer in the scheme. The RCPS is a defined benefit

scheme funded from annual grant-in-aid on a pay-as-you-go basis. The RCPS Pension Scheme is a multi-employer scheme and QIB is unable to identify its share of the underlying assets and liabilities. QIB therefore accounts for the scheme as if it were a wholly defined contribution scheme. As a result, the amount charged to the income and expenditure account represents the contributions payable to the scheme in respect of the accounting period. Liabilities for the payment of future benefits are the responsibility of the RCPS and accordingly are not included in these Financial Statements.

QIB has recruited all new staff from October 2011 on its own terms and conditions, covering basic pay and allowances, contractual payments, tax, NI, and liabilities for pension contributions and redundancy. Such staff are eligible to join a defined contribution scheme.

QIB employs a number of group leaders jointly with UEA. Staff are employed under QIB terms & conditions, but are eligible to join The University Superannuation Scheme (USS). QIB is obliged to pay the prevailing employer contribution rate for staff in the USS, however it has no liability for scheme funding deficits.

Communication

QIB provides all staff with relevant information and seeks their views on matters of common concern through their representatives and through line managers. Priority is given to ensuring that employees are aware of all significant matters affecting QIB's position and any significant organisational changes

Equality and Diversity

It is the Institute's policy to provide equal opportunities to job applicants and employees of any race, nationality, ethnic origin, marital status, religion or belief, gender, disability, sexual orientation, age or employment status. The Institute does not condone or tolerate any form of discrimination in its recruitment or employment practices. All employees and applicants are treated on merit, fairly, with respect and dignity, recognised as individuals and valued for the contribution they make, provided fair and equal access to training, development, reward and progression opportunities and are accountable for the impact of their own behaviour and actions. All the Institute's policies follow these principles.

RELATED PARTIES

Subsidiaries

QIB's subsidiaries in the year were as follows:

- QIB Extra Limited (contract research);
- IFR Enterprises Limited (dormant);
- IFR NRP Capital Limited (dormant).

NBI Partnership

QIB has a 25% interest in NBI Partnership Limited ("NBIP"). NBIP supplies support and administrative services to QIB and the other Norwich Institutes (John Innes Centre, Earlham Institute and The Sainsbury Laboratory) on a not-for-profit basis. NBIP fully recharges its costs to the four research organisations and accordingly it generates no profit or loss.

QI Partners

QIB is a member of QI Partners along with BBSRC, UEA and NNUH. QI Partners has been established for the purposes of constructing and managing the Quadram Institute building and providing such facilities for charitable use. QIB does not have any significant influence on QI Partners' financial and operating policies.

On 29 March 2019, QIB entered into a lease agreement for accommodation in the Quadram Institute building from QI Partners.

QIB has agreed to provide QI Partners with a loan facility of £5.4m, which is repayable between November 2018 and October 2024. As at 31 March 2022, £1.25m of the facility was drawn down by QI Partners (2021: £2.8m). The loan has been provided on an arm's length basis and interest is payable on the loan at a rate of 3.0% pa.

University of East Anglia (UEA)

University of East Anglia is a member of the charitable company. UEA is entitled to appoint a majority of the members of the Board of Trustees and accordingly is deemed to be the company's parent undertaking and controlling party. The majority of QIB PhD students are registered with the UEA.

Norfolk and Norwich University Hospitals NHS Foundation Trust (NNUH)

NNUH is a member of the charitable company. NNUH is entitled to appoint an observer to attend, speak and provide information to meetings of the Board of Trustees, however such observers have no right to vote at any such meeting.

Anglia Innovation Partnership LLP (AIP LLP)

QIB is a member of Anglia Innovation Partnership LLP through its 100% subsidiary, IFR NRP Capital Limited. The objective of AIP LLP is to develop and sustain the Norwich Research Park as an international centre for

food, health, plant, microbial and environmental research, innovation and enterprise. QIB is entitled to receive a share of certain profits generated by AIP LLP, however it has no liability for losses or in the event of insolvency. AIP LLP has not yet generated any profits.

BBSRC

BBSRC is a member of the charitable company. BBSRC is entitled to appoint an observer to attend, speak and provide information to meetings of the Board of Trustees, however such observers have no right to vote at any such meeting.

QIB is strategically funded, along with seven other institutes, by BBSRC. BBSRC supports QIB via strategic programme funding programmes, competitively won project grants and capital funding for infrastructure and technology investments. The principal terms and conditions under which BBSRC provides its funding are set out in the Institute Grant Agreement. Key conditions include:

- BBSRC and the Institute shall meet at least annually to review and discuss the implementation and progress of the Institute's business, including strategic and financial plans.
- The Institute shall submit a draft Business Plan, covering a period of at least five years, for discussion.
- The Institute will demonstrate appropriate plans for the maintenance, renewal and development of the estate through a rolling 10-year Institute Estates Strategy covering capital projects, long term and routine maintenance.

BBSRC is part of UK Research and Innovation (UKRI), an organisation that brings together the UK's seven research councils, Innovate UK and Research England.

STATEMENT OF RESPONSIBILITIES OF THE TRUSTEES OF QUADRAM INSTITUTE BIOSCIENCE IN RESPECT OF THE TRUSTEES' ANNUAL REPORT AND THE FINANCIAL STATEMENTS

The trustees are responsible for preparing the Trustees' Annual 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 they have are required to prepare the group and parent company financial statements in accordance with UK Accounting Standards and applicable law (UK Generally Accepted Accounting Practice), including FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland.

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 group and charitable company and of the group's excess of income over expenditure for that period. In preparing each of the group and charitable company financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- assess the group's and the charitable company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and
- use the going concern basis of accounting unless they either intend to liquidate the group or the charitable company or to cease operations, or have no realistic alternative but to do so.

The trustees are responsible for keeping adequate accounting records that are sufficient to show and explain the charitable company's transactions and disclose with reasonable accuracy at any time the financial position of the charitable company and enable them to ensure that its financial statements comply with the Companies Act 2006. They are responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error, and have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the group and to prevent and detect fraud and other irregularities.

The trustees are responsible for the maintenance and integrity of the corporate and financial information included on the charitable company's website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Public benefit

The Trustees are satisfied they have complied with their duty in section 4 of the Charities Act 2011 to have due regard to public benefit guidance published by the Charities Commission. Based on this guidance, and as described in this Trustees' report, the Trustees believe the activities of Quadram Institute Bioscience to be charitable in nature.

Insurance Disclosure

The Institute maintains liability insurance for its trustees, with an annual aggregate cover limit for all claims against them in that capacity. The trustees have also been granted a qualifying third party provision under section 233 of Companies Act 2006. Neither the Institute's indemnity nor insurance provides cover in the event that a trustee is proved to have acted fraudulently or dishonestly.

Disclosure of information to auditor

The trustees confirm that:

- so far as each trustee is aware, there is no relevant audit information of which the Company's auditor is unaware, and
- the trustees have taken all the steps that they ought to have taken as directors in order to make themselves aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

Independent auditors

Larking Gowen LLP have been appointed as auditors and a resolution has been passed by the Board, concerning their appointment as auditors.

On behalf of the Board of Trustees



Dr C Caulcott, Trustee Chair
28 September 2022

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF QUADRAM INSTITUTE BIOSCIENCE

Opinion

We have audited the financial statements of Quadram Institute Bioscience (the 'parent charitable company') and its subsidiaries (the 'group') for the year ended 31 March 2022 which comprise the Consolidated Statement of Financial Activities, Consolidated and Charitable Company Balances Sheets, Consolidated Statement of Cash Flows and Notes to the Accounts, including significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the group's and parent charitable company's affairs as at 31 March 2022, and of the group's incoming resources and application of resources, including 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 group and parent charitable company 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 group's or parent charitable company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

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

Other information

The other information comprises the information included in the trustees 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 (incorporating 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 have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the group and parent charitable company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report and 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 by the parent charitable company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent charitable company's financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of trustees

As explained more fully in the trustees' responsibilities statement set out on page 12, the trustees (who are also the directors of the parent charitable company for the purposes of company law) 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 groups and parent charitable company'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 group or parent charitable company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

We have been appointed auditor under the Companies Act 2006 and report in accordance with this Act.

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

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

Due to the field in which the group operates, we identified the areas most likely to have a direct material impact on the financial statements as compliance with UK tax legislation, UK accounting standards, UK charity law and the Companies Act 2006. In addition, we considered the provisions of other laws and regulations which whilst not having a direct impact on the financial statements, are fundamental to the group's ability to operate including health and safety; employment law, and compliance with various other regulations relevant to the conduct of the group's operations.

Our approach to identifying and assessing the risk of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, included the following:

- Enquiries with management about any known or suspected instances of non-compliance with laws and regulations, accidents in the workplace, potential litigation or claims and fraud;
- Reviewing legal and professional fees to confirm matters where the group engaged lawyers during the year;
- Reviewing financial statement disclosures and tax matters, and testing to supporting documentation to assess compliance with applicable laws and regulations;
- Reviewing board minutes and any relevant correspondence with external authorities;
- Challenging assumptions and judgements made by management in their significant accounting estimates, particularly in relation to the recognition of grant income; and
- Auditing the risk of management override of controls, including through testing journal entries and other adjustments for appropriateness, and evaluating the business rationale of any significant transactions outside the normal course of business.

Due to the inherent limitations of an audit, there is a risk that we will not detect all irregularities, including those leading to a material misstatement in the financial statements or non-compliance with regulation. This risk increases the more that compliance with a law or regulation is removed from the events and transactions reflected in the financial statements, as we will be less likely to become aware of instances of non-compliance. The risk is also greater regarding irregularities occurring due to fraud rather than error, as fraud involves intentional concealment, forgery, collusion, omission or misrepresentation.

A further description of our responsibilities is available on the Financial Reporting Council's website at:

<https://www.frc.org.uk/Our-Work/Audit/Audit-and-assurance/Standards-and-guidance/Standards-and-guidance-for-auditors/Auditors-responsibilities-for-audit/Description-of-auditors-responsibilities-for-audit.aspx>. This description forms part of our auditor's report.

Use of our report

This report is made solely to the charitable company'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 charitable company'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 charitable company and the charitable company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Larking Gowen LLP

Anders Rasmussen FCA (Senior Statutory Auditor)
for and on behalf of

Larking Gowen LLP

Chartered Accountants & Statutory Auditors
Norwich
30 September 2022

FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF FINANCIAL ACTIVITIES

FOR THE YEAR ENDED 31 MARCH 2022

(Incorporating an income and expenditure account)

		Unrestricted funds	Restricted general funds	Restricted capital funds	Total 2022	Total 2021
	Note	£000	£000	£000	£000	£000
Incoming resources						
<i>Income from Charitable activities</i>						
Grant income		-	15,921	-	15,921	14,820
Capital and maintenance grants		-	183	561	744	6,069
Other charitable income		549	133	-	682	1,005
<i>Income from other trading activities</i>						
Trading income		1,276	-	-	1,276	642
<i>Investment income</i>						
		131	-	-	131	195
Total income	2	1,956	16,237	561	18,754	22,731
Expenditure						
Charitable activities		(2,387)	(13,731)	(1,151)	(17,269)	(19,200)
Raising funds		(166)	-	-	(166)	(184)
Trading expenditure		(729)	-	-	(729)	(614)
Total expenditure	3	(3,282)	(13,731)	(1,151)	(18,164)	(19,998)
Net income/(expenditure)		(1,326)	2,506	(590)	590	2,733
<i>Transfers</i>						
Capital transfers	18	(633)	-	633	-	-
Other transfers	18	3,191	(3,191)	-	-	-
Net movement in funds for the year		1,232	(685)	43	590	2,733
Funds brought forward	18	28,521	2,914	6,639	38,074	35,341
Funds carried forward	18	29,753	2,229	6,682	38,664	38,074

The Consolidated Statement of Financial Activities ("SoFA") includes all gains and losses recognised in the year. All incoming resources and expenditure relates to continuing activities.

The accompanying notes form part of these financial statements.

CONSOLIDATED AND CHARITABLE COMPANY BALANCE SHEETS

AS AT 31 MARCH 2022

	Note	Group 2022 £000	Group 2021 £000	Company 2022 £000	Company 2021 £000
<i>Fixed assets</i>					
Tangible assets	9	18,914	19,078	18,914	19,078
Intangible assets	10	-	-	-	-
Total fixed assets		18,914	19,078	18,914	19,078
<i>Current assets</i>					
Debtors	12	5,313	9,632	5,043	9,584
Cash at bank and in hand	13	22,455	19,457	22,033	19,183
		27,768	29,089	27,076	28,767
<i>Current liabilities</i>					
Creditors: amounts falling due within one year	14	(8,018)	(10,093)	(7,865)	(9,796)
Total net current assets		19,750	18,996	19,211	18,971
Total assets less current liabilities		38,664	38,074	38,125	38,049
Provisions for liabilities and charges	16	-	-	-	-
Total net assets	17	38,664	38,074	38,125	38,049
Funds of the charity					
<i>Unrestricted funds</i>					
Fixed assets reserve	18	14,069	14,972	14,069	14,972
Designated strategic reserves	18	10,423	6,486	10,423	6,486
Designated building reserves	18	1,250	3,050	1,250	3,050
General reserve	18	4,011	4,013	3,472	3,988
Total unrestricted funds		29,753	28,521	29,214	28,496
<i>Restricted funds</i>					
Fixed assets reserve	18	4,845	4,106	4,845	4,106
Restricted general	18	2,229	2,914	2,229	2,914
Capital reserve	18	1,837	2,533	1,837	2,533
Total restricted funds		8,911	9,553	8,911	9,553
Total charity funds	18	38,664	38,074	38,125	38,049

A separate income and expenditure account has not been presented for QIB as this is exempted by Section 408 of the Companies Act 2006. The profit after tax of QIB was £76,000 (2021: £2,795,000).

The financial statements on pages 15 to 32 were approved by the Board of Trustees on 28 September 2022 and were signed on its behalf by:



Dr C Caulcott, Trustee Chair

The accompanying notes form part of these financial statements.

Company registration number: 03009972

CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED 31 MARCH 2022

	Total 2022 £000	Total 2021 £000
Cash flow from operating activities		
Operating surplus	590	2,733
Interest receivable	(131)	(195)
Depreciation and amortisation	1,151	981
Capital grants received	(744)	(6,069)
Loss on disposal of tangible assets	67	2
Decrease/(Increase) in debtors	2,769	(4,099)
(Decrease)/Increase in creditors	(2,075)	3,991
Decrease in provisions	-	(36)
Net cash provided by/(used in) operating activities	1,627	(2,692)
Cash flow from investing activities		
Interest received	131	195
Repayment of loan	1,550	975
Purchase of tangible assets	(1,054)	(1,693)
Disposal Proceeds	-	8
Capital grants received	744	6,069
Net cash provided by/(used in) investing activities	1,371	5,554
Change in cash and cash equivalents in the reporting period	2,998	2,862
Cash and cash equivalents at the beginning of the reporting period	13	16,595
Cash and cash equivalents at the end of the reporting period	13	19,457

The movement in net debt for the current and prior year is identical to the movements in cash flow set out above.

NOTES TO THE ACCOUNTS

1. ACCOUNTING POLICIES

a. Basis of preparation

The group financial statements have been prepared under the historical cost convention and applicable accounting standards. They have also 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 (Charities SORP (FRS102), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS102) and the Companies Act 2006.

The principal accounting policies adopted in these financial statements, which have been consistently applied, are:

b. Basis of consolidation

The consolidated financial statements incorporate the financial statements of Quadram Institute Bioscience ("QIB") and all its subsidiary undertakings in accordance with Financial Reporting Standard ("FRS") 102 "Accounting for Subsidiary Undertakings".

The financial statements of all group undertakings and associates are made up to 31 March 2022.

QIB is one of four members of QI Partners ("QIP"). QIP is accounted for as an investment rather than an associate and has not been consolidated in the QIB financial statements on the basis that QIB does not have significant influence over QIP financial and operating policies.

QIB is one of four members of NBIP Partnership Limited ("NBIP"). The group accounts for NBIP as an associate, although in practice the company makes no profit or loss and has net assets of NIL, therefore has no impact on the Group financial statements.

c. Going concern

The financial statements have been prepared on a going concern basis which the Trustees consider to be appropriate for the following reasons:

The Trustees have prepared cash flow forecasts for the period to March 2028 which indicate, taking account of reasonable possible downsides and that the anticipated impact of COVID-19 on the operations and its financial resources, the Institute will have sufficient funds to meet its liabilities as they fall due for that period.

The Institute is reliant on its strategic programme funding from BBSRC, which was £8.2m in the year (2021: £11.5m). BBSRC has confirmed continued strategic funding of £8.2m for the year to March 2023. BBSRC has provided the Institute with a provisional strategic programme funding allocation for 5 years to March 2028 of £10.9m per annum. The funding is expected to be confirmed in late 2022, once BBSRC has received confirmation of its Spending Review Allocation.

Like most research organisations, the Institute's activities have been impacted by Covid-19 measures over the last 2 years. During this period, the Institute has been able to successfully maintain its research programmes and projects with minimal financial impact. The Institute has considered the potential financial impact of any restrictions for the next 12 months, including the potential for a further lockdown. Taking into account experience to date, business continuity

arrangements and financial projections, the Institute considers the risk of a significant financial impact from Covid-19 to be low. The Institute has considered the potential financial impact of continued restrictions for the next 12 months, including the potential for a further lockdown. Taking into account experience to date, business continuity arrangements and financial projections, the Institute considers the risk of a significant financial impact from COVID-19 to be low.

Consequently, the Trustees are confident that the Institute will have sufficient funds to continue to meet its liabilities as they fall due for at least 12 months from the date of approval of the financial statements and therefore have been prepared the financial statements on a going concern basis.

d. Judgements in applying accounting policies and key sources of estimation

Preparation of the financial statements require management to make significant judgements and estimates. The items in the financial statements where these judgements and estimates have been made include:

- Depreciation, which has been charged in line with the accounting policy below. The amount of depreciation charged and net book value of the assets is included in Note 9.

e. Income

Charitable grant income represents grants received and receivable in the year from outside granting bodies and other miscellaneous income. Grants that provide core funding are recognised in the year in which entitlement passes. Grant funding received to undertake research is recognised in the year in which the obligation is fulfilled. Grant funding is released to match expenditure incurred during the year together with any related contributions towards overhead costs.

Trading income relates to the non-charitable services undertaken by QIB Extra Limited ("QIBX") and is recognised in accordance with the terms of the contracts entered into, reflecting the point at which the obligations of the company have been satisfied.

Investment income relates to interest receivable from treasury deposits and related party loans. The interest is recognised in the year in which it is earned.

Capital grants are recognised in the Consolidated Statement of Financial Activities ("SoFA") when entitlement passes, which is typically on receipt. Where capital funding includes terms and conditions that must be met before there is unconditional entitlement, the grant income is recognised as those conditions are met, which usually results in capital funding being recognised to match the capital costs incurred.

Where income has been received in advance of conditions being met, the income is deferred until those conditions have been fully satisfied.

NOTES TO THE ACCOUNTS

1. ACCOUNTING POLICIES (CONTINUED)

f. Expenditure

Expenditure on charitable activities represents the full cost of the research performed. It includes the cost of direct staff, consumable stocks and indirect costs apportioned on the basis of use.

Costs of generating funds represent the cost of obtaining funds for research, preparing grant applications and raising the profile of QIB. Costs incurred in preparing grant applications, which primarily comprise staff costs, have been approximated based upon a sample review of time taken to prepare the detailed applications.

Governance costs represent the necessary cost of compliance with statutory and constitutional requirements and any other costs which are not direct charitable expenditure.

Support costs have been wholly allocated to charitable activity expenditure based upon activity as indicated in note 4 to the financial statements.

g. Restricted funds

Where research at QIB is funded by grants with conditions attached to them, these are shown as restricted. Capital grants received and receivable together with other restricted funds received and receivable and used to purchase tangible assets are included within restricted funds.

A restricted fixed assets reserve has been established representing the net book value of fixed assets purchased from capital grants. The reserve is shown as restricted due to continuing conditions in connection with the capital grants and assets purchased.

Restricted reserves include a designated capital reserve of £1.8m (2021: £2.5m) in connection with funding received from BBSRC, which may only be utilised in line with grant conditions.

h. Unrestricted funds

These include the strategic programme grants from the Biotechnology and Biological Sciences Research Council ("BBSRC") and any other grants which do not have specific conditions attached to them.

A fixed assets reserve has been established within unrestricted reserves representing the net book value of fixed assets funded from unrestricted reserves.

Unrestricted reserves that have been designated by the Board for specific purposes are shown in separate designated reserves. As at March 2022, £11.7m (2021: £9.5m) of unrestricted reserves have been designated in relation to planned capital and science investment associated with the development of the Quadram Institute.

i. Capital Transfers

A transfer from unrestricted to restricted reserves equal to the depreciation charge for assets purchased from unrestricted reserves is made as a capital transfer.

A transfer from restricted to unrestricted reserves is made following the completion of performance conditions in connection with restricted capital grant activity.

j. Other Transfers

A transfer from restricted to unrestricted reserves is made following the completion of performance conditions in connection with restricted non-capital grant activity.

k. Tangible fixed assets and depreciation

Tangible assets are shown at cost or valuation less accumulated depreciation. The cost of tangible assets is their purchase cost, together with any incidental costs of acquisition.

Depreciation is calculated to write off the cost or valuation less the estimated residual value of tangible assets by equal instalments over their estimated useful economic lives as follows:

Leasehold land and buildings	over lease term or useful life, if shorter;
Plant and machinery	5 years
Scientific apparatus and equipment	5 to 10 years
Motor vehicles	4 years
Other apparatus and equipment	3 to 5 years

The leasehold improvements have been depreciated over the shorter of their estimated economic life and the remainder of the lease period.

Tangible assets under construction are not depreciated until the asset is in full use.

l. Intangible fixed assets and amortisation

Computer Software development costs are recognised as intangible fixed assets at cost less amortisation and any provision for impairment. Intangible assets are amortised over the estimated life of the asset acquired less any residual value.

Amortisation is calculated to write off the cost or valuation less the estimated residual value of intangible assets by equal instalments over their estimated useful economic lives as follows:

Computer Software	3 to 5 years
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Intangible assets under construction are not amortised until the asset is in full use.

m. Cash balances held as grant co-ordinator

Cash balances held on behalf of the European Union in the charitable company's capacity as grant co-ordinator are included within cash on the charitable company's balance sheet, and details are disclosed in note 22 to the financial statements.

n. Debtors

Debtors are non-interest bearing (excluding loan balances) and are stated at their nominal value, as reduced by appropriate allowances for estimated irrecoverable amounts.

Included in debtors is a loan (£1.25m) provided to QI Partners, which is repayable between November 2018 and October 2024. The loan has been provided on an arm's length basis and interest is payable on the loan at a rate of 3.0% pa.

NOTES TO THE ACCOUNTS

1. ACCOUNTING POLICIES (CONTINUED)

o. Trade creditors

Trade creditors are non-interest bearing and are stated at their nominal value.

p. Provisions

A provision is recognised in the financial statements where there is a legal or constructive obligation to transfer economic benefit to a third party.

q. Staff and Pensions

All staff employed by QIB (formerly Institute of Food Research) on 30 September 2011 became BBSRC employees on 1 March 2012 and were deployed back to the Institute under conditions set out in the Deployment Agreement (the "Deployed Employees"). The Deployed Employees remained with the Institute on an exclusive and full-time basis and day-to-day direction and line management of the Deployed Employees was delegated to QIB, subject to the terms of the BBSRC Employment Contract. QIB retained responsibility for paying employment costs in relation to the Deployed Employees, including basic pay and allowances, contractual payments, tax, NI and pension contributions.

On 1 October 2017, Deployed Employees transferred employment to the Institute under TUPE.

Deployed Employees retain their membership of the Research Councils Pension Scheme (RCPS), where applicable, with QIB becoming an admitted employer in the scheme. The RCPS is a defined benefit scheme funded from annual grant-in-aid on a pay-as-you-go basis. The RCPS Pension Scheme is a multi-employer scheme and QIB is unable to identify its share of the underlying assets and liabilities. QIB therefore accounts for the scheme as if it were a wholly defined contribution scheme. As a result, the amount charged to the income and expenditure account represents the contributions payable to the scheme in respect of the accounting period. Liabilities for the payment of future benefits are the responsibility of the RCPS and accordingly are not included in these Financial Statements.

QIB staff that joined after 30 September 2011 are eligible to join a defined contribution scheme.

The Company employs some staff jointly with the University of East Anglia. Staff are employed under QIB terms & conditions, but are eligible to join The University Superannuation Scheme (USS). QIB is obliged to pay the prevailing employer contribution rate for staff in the USS, however it has no liability for scheme funding deficits. Accordingly, these arrangements have been accounted for as defined contribution scheme.

r. Termination benefits

Redundancy payments are recognised as a liability and an expense only when the event is demonstrably committed to by either: a. termination of the employment of an employee or group of employees before the normal retirement date, or b. provision of termination benefits as a result of an offer made in order to encourage voluntary redundancy.

s. Operating Leases

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

t. Foreign currency transactions

The functional and reporting currency of the charity is pounds sterling.

Transactions in foreign currencies are recorded at the rate of exchange ruling at the date of the transaction. Assets and liabilities denominated in foreign currencies are translated at year end exchange rates.

All gains and losses are taken to the Statement of Financial Activities in the year to which they relate.

u. Financial instruments

Financial assets and financial liabilities are recognised upon becoming a party to the contractual provisions of the instrument.

The group only enters into basic financial instrument transactions that result in financial assets and liabilities like trade and other accounts receivable and payable.

NOTES TO THE ACCOUNTS

2. ANALYSIS OF INCOMING RESOURCES

	Research activities £000	Other activities £000	Total 2022 £000	Research activities £000	Other activities £000	Total 2021 £000
Grant income						
BBSRC	10,031	-	10,031	12,402	-	12,402
Other government departments	4,299	-	4,299	1,011	-	1,011
European Union	754	-	754	488	-	488
Other grants	837	-	837	919	-	919
Total grant income	15,921	-	15,921	14,820	-	14,820
Capital and maintenance grants						
BBSRC						
Capital expenditure	744	-	744	6,069	-	6,069
Total capital grants	744	-	744	6,069	-	6,069
Other charitable income						
Miscellaneous income	-	682	682	-	1,005	1,005
Total other charitable income	-	682	682	-	1,005	1,005
Trading income						
QIB Extra	-	1,276	1,276	-	642	642
Total trading income	-	1,276	1,276	-	642	642
Investment income						
Interest receivable on cash deposits	-	67	67	-	86	86
Other interest receivable	-	64	64	-	109	109
Total investment income	-	131	131	-	195	195
Total incoming resources	16,665	2,089	18,754	20,889	1,842	22,731

QIB's activities consist principally of scientific research in the United Kingdom.

- Grant income of £15,921k (2021: £14,820k) is all restricted general funds.
- Capital grants of £744k (2021: £6,069k), £183k (2021: £3,243k) is restricted general funds and £561k (2021: £2,826k) is restricted capital funds
- Other charitable income of £682k (2021: £1,005k), £549k (2021: £775k) is unrestricted funds and £133k (2021: £230k) is restricted general funds
- In both periods all trading and investment income is unrestricted.

NOTES TO THE ACCOUNTS

3. ANALYSIS OF EXPENDITURE

	Research activities	Student activities	Other activities	Total 2022	Research activities	Student activities	Other activities	Total 2021
Note	£000	£000	£000	£000	£000	£000	£000	£000
Direct charitable expenditure								
Staff costs	7,304	-	-	7,304	7,146	-	-	7,146
Direct costs	2,875	441	-	3,316	5,130	546	-	5,676
Depreciation	1,151	-	-	1,151	981	-	-	981
Buildings maintenance	351	-	-	351	348	-	-	348
Governance costs	-	-	50	50	-	-	36	36
Support costs	4,864	233	-	5,097	4,759	254	-	5,013
Expenditure on charitable activities	16,545	674	50	17,269	18,364	800	36	19,200
Raising funds	-	-	166	166	-	-	184	184
Trading expenditure	-	-	729	729	-	-	614	614
Total expenditure	16,545	674	945	18,164	18,364	800	834	19,998

Included within expenditure on charitable activities is restricted general expenditure of £13,731k (2021: £17,557k), and restricted capital expenditure (depreciation) of £1,151k (2021: £981k). All other expenditure is unrestricted.

Staff costs are allocated based on time spent by staff. Depreciation is allocated based on the usage of assets. Other costs are allocated on the basis of their nature.

Analysis of governance costs	Total 2022	Total 2021
	£000	£000
Staff costs	26	16
Other costs	24	20
Total governance costs	50	36

4. ALLOCATION OF SUPPORT COSTS

	Research activities	Student activities	Total 2022	Research activities	Student activities	Total 2021	Basis of Allocation
	£000	£000	£000	£000	£000	£000	
Lab management	151	8	159	141	8	149	Headcount
Institute management	638	32	670	589	33	622	Headcount
Scientific services	247	12	259	251	14	265	Headcount
Facilities management and utilities*	1,996	100	2,096	1,780	100	1,880	Headcount
Finance and Purchasing*	388	19	407	639	36	675	Headcount
Computing and Library*	460	23	483	498	28	526	Headcount
Human Resources*	168	8	176	159	9	168	Headcount
Public engagement	355	18	373	346	19	365	Headcount
Health and Safety*	115	6	121	109	6	115	Headcount
Other support services*	346	7	353	247	1	248	Headcount
Total support costs	4,864	233	5,097	4,759	254	5,013	

*Includes services supplied by NBI Partnership Limited (see note 21).

NOTES TO THE ACCOUNTS

5. TAXATION

QIB is considered to pass the tests set out in Paragraph 1 Schedule 6 Finance Act 2010 and therefore it meets the definition of a charitable company for UK Corporation tax purposes. Accordingly, the Charity is potentially exempt from taxation in respect of income or capital gains received within categories covered by Chapter 3 Part 11 Corporation Tax Act 2010 or Section 256 of the Taxation of Chargeable Gains Act 1992, to the extent that such income or gains are applied exclusively to charitable purposes.

The trading activities of the subsidiary companies are subject to corporation tax; however profits in the year are gifted to the charitable company resulting in a £nil (2021: £nil) tax charge payable.

There is no provision for deferred tax on fair value adjustments because any chargeable gains are applied to charitable objectives so no tax liability arises.

6. OPERATING SURPLUS/(DEFICIT)

Operating surplus/(deficit) is stated after charging/(crediting):

	Total 2022 £000	Total 2021 £000
Audit services:		
Fees payable for the audit of the charitable company and consolidated financial statements	19	18
Fees payable for the audit of the charitable company's subsidiaries pursuant to legislation	2	2
Depreciation	1,151	981
Hire of plant and equipment	22	18
Loss on disposal of tangible assets	67	2
Loss on foreign exchange translations	8	59

7. REMUNERATION OF THE BOARD OF TRUSTEES

QIB has been given approval by the Charities Commission to remunerate Trustees where the Board considers that payment is necessary to attract Trustees with specialist skills and experience. The power to remunerate Trustees is included in the QIB's Articles of Association.

One member of the Board of Trustees, Dr Celica Caulcott, received remuneration from the group during the year for duties as a trustee (2021: none). Total trustee remuneration in the year was £11,177 (2021: £10,000).

Three members of the Board of Trustees were reimbursed for expenses incurred during the year (2021: one). The total amount reimbursed was £576 (2021: £1,514).

NOTES TO THE ACCOUNTS

8. EMPLOYEE INFORMATION

The average monthly number of persons employed by or deployed to the group during the year, analysed by category, was as follows:

Group	2022 Number	2021 Number
Scientific	163	162
Office management and services	19	20
Total	182	182

The aggregate payroll costs of these persons were:

	2022 £000	2021 £000
	Note	
Wages and salaries	6,450	6,480
Redundancy payments	3	56
Social security costs	663	683
Other pension costs	20 917	889
Total	8,033	8,108

As required by the Statement of Recommended Practice applicable to charities, an analysis has been provided below of the number of staff who fall within staff cost bands (excluding pension cost) from £60,000 upwards:

Group and charitable company	2022 Number	2021 Number
£60,000 - £69,999	7	7
£70,000 - £79,999	4	7
£80,000 - £89,999	4	4
£90,000 - £99,999	2	1
£100,000 - £109,999	1	1
£110,000 - £119,999	1	1
£120,000 - £129,999	1	1
£130,000 - £139,999	2	1
Total	22	23

The number of staff with emoluments greater than £60,000 who are also members of the Research Councils' Pension Schemes was six (2021: seven). Seven staff with emoluments greater than £60,000 are members of a Defined Contribution Pension Scheme (2021: seven).

All staff employed by QIB on 30 September 2011 became BBSRC employees on 1 March 2012 and were deployed back to the Institute under conditions set out in the Deployment Agreement (the "Deployed Employees"). On 1 October 2017, Deployed Employees transferred employment to the Institute under TUPE. Transferring employees retain their membership of the Research Councils Pension Scheme, where applicable, with QIB becoming an admitted employer in the scheme.

QIB staff that joined after 30 September 2011 are employed under QIB terms & conditions.

The key management personnel of the parent charity, Quadram Institute Bioscience, comprise of the trustees and the members of the Executive Board. The total employee benefits of the key management personnel of the charity were £776,414 (2021: £734,001).

The key management personnel of the group comprise those of the charity and the key management personnel of the wholly owned subsidiary, QIB Extra Ltd. The key management personnel of QIB Extra Ltd are the Director of Operations and the Head of QIB Extra Operations. The costs of the key management personnel to QIB Extra was £54,223 (2021: £44,985).

The employee benefits of the key management personnel for the group was £830,637 (2021: £778,986).

NOTES TO THE ACCOUNTS

9. TANGIBLE ASSETS

Group	Leasehold land and buildings £000	Plant, machinery and equipment £000	Apparatus and equipment £000	Assets under construction £000	Total £000
Cost/Valuation					
At 1 April 2021	14,609	22	11,918	1,536	28,085
Transfer	-	217	1,252	(1,469)	-
Additions	61	39	652	302	1,054
Disposals	-	-	(71)	(67)	(138)
At 31 March 2022	14,670	278	13,751	302	29,001
Accumulated Depreciation					
At 1 April 2021	485	2	8,520	-	9,007
Charge for the year	246	25	880	-	1,151
Disposals	-	-	(71)	-	(71)
At 31 March 2022	731	27	9,329	-	10,087
Net book value at 31 March 2022	13,939	251	4,422	302	18,914
Net book value at 31 March 2021	14,124	20	3,398	1,536	19,078

Charitable company	Leasehold land and buildings £000	Plant, machinery and equipment £000	Apparatus and equipment £000	Assets under construction £000	Total £000
Cost/Valuation					
At 1 April 2021	14,609	22	11,821	1,536	27,988
Transfer	-	217	1,252	(1,469)	-
Additions	61	39	652	302	1,054
Disposals	-	-	(71)	(67)	(138)
At 31 March 2022	14,670	278	13,654	302	28,904
Accumulated Depreciation					
At 1 April 2021	485	2	8,423	-	8,910
Charge for the year	246	25	880	-	1,151
Disposals	-	-	(71)	-	(71)
At 31 March 2022	731	27	9,232	-	9,990
Net book value at 31 March 2022	13,939	251	4,422	302	18,914
Net book value at 31 March 2021	14,124	20	3,398	1,536	19,078

All of the tangible assets of the charitable company are used for charitable purposes.

Assets under construction represent capital items which are not yet in full economic use.

NOTES TO THE ACCOUNTS

10. INTANGIBLE ASSETS

Group and charitable company	Software development £000	Total £000
Cost/Valuation		
At 1 April 2021	147	147
Additions	-	-
Disposals	-	-
At 31 March 2022	147	147
Accumulated Depreciation		
At 1 April 2021	147	147
Charge for the year	-	-
Disposals	-	-
At 31 March 2022	147	147
Net book value at 31 March 2022	-	-
Net book value at 31 March 2021	-	-

The intangible asset relates to internally generated research software.

11. INVESTMENT IN SUBSIDIARIES AND ASSOCIATES

Subsidiaries

The following are the operating subsidiary undertakings in which the charitable company has an interest:

Subsidiary Undertaking	Registration number	Country of registration	Principal activity	Class and percentage of shares held
QIB Extra Limited	06500711	England	Contract research	100% ordinary shares
IFR Enterprises Limited	03398534	England	Dormant	100% ordinary shares
IFR NRP Capital Limited	08132483	England	Dormant	100% ordinary shares

The charitable company owns 100% of the ordinary share capital of IFR Enterprises Limited (cost: £3), QIB Extra Limited (cost: £100) and IFR NRP Capital Limited (cost: £1), all of which are incorporated in England. The subsidiaries are used for trading activities.

The companies' results for the year were as follows:

	IFR Enterprises Limited £000	QIB Extra Limited £000	IFR NRP Capital Limited £000	Total 2022 £000	Total 2021 £000
Profit and loss account					
Turnover	-	1,276	-	1,276	646
Cost of sales	-	(537)	-	(537)	(346)
Gross profit	-	739	-	739	300
Administrative expenses	-	(195)	-	(195)	(268)
Operating profit retained in subsidiary	-	544	-	544	32
Net assets at 31 March 2022	-	541	-	541	27

In addition to the above, £29,827 (2021: £93,852) in Gift Aid was paid to the charitable company in the year.

The charitable company has committed to provide financial support to QIB Extra Limited ("QIBX"), and not demand repayment of amounts due to it, in order to enable QIBX to meet its liabilities as they fall due – but only to the extent that money is not otherwise available to the company to meet such liabilities – for a period of at least 12 months from the signing of the financial statements of QIBX for the year ended 31 March 2022.

IFR NRP Capital Limited is a member of Anglia Innovation Partnership LLP, which is responsible for the management and development of the Norwich Research Park (NRP) estate and for the furtherance of the NRP Enterprise Vision. IFR NRP Capital Limited did not trade during the year.

NOTES TO THE ACCOUNTS

12. DEBTORS

		Group 2022	Group 2021	Company 2022	Company 2021
	Note	£000	£000	£000	£000
<i>Grants receivable:</i>					
from government bodies		743	3,477	743	3,477
from other sources		1,657	1,521	1,657	1,521
Trade debtors		223	322	26	211
Amounts owed by subsidiary undertakings		-	-	72	75
Amounts owed by other related parties	21	1,452	3,524	1,452	3,524
Other debtors		98	83	97	83
Prepayments and accrued income		1,140	705	996	693
Total amounts falling due within one year		5,313	9,632	5,043	9,584

Included in the above amounts is £1,250k (2021: £2,800k) unsecured loan to QI Partners, of which £350k is repayable in over one year. Interest is payable on the loan at a rate of 3.0% per annum.

13. CASH AT BANK AND IN HAND

	Group 2022	Group 2021	Company 2022	Company 2021
	£000	£000	£000	£000
Cash at bank	22,452	19,454	22,031	19,180
Cash in hand	3	3	2	3
Total	22,455	19,457	22,033	19,183

14. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	Group 2022	Group 2021	Company 2022	Company 2021
	£000	£000	£000	£000
<i>Grants received in advance:</i>				
from government bodies	892	951	892	951
from other sources	2,590	2,332	2,572	2,179
Amounts owed to subsidiary undertakings	-	-	-	-
Amounts owed to other related parties	21	788	788	3,467
Trade creditors	849	425	842	419
Other creditors	1,470	1,415	1,430	1,415
Accruals and deferred income	1,265	1,342	1,186	1,204
Taxation and social security	164	161	155	161
Total amounts falling due within one year	8,018	10,093	7,865	9,796

NOTES TO THE ACCOUNTS

15. RECONCILIATION OF MOVEMENT IN GRANTS RECEIVABLE

Group	Note	Total 2022 £000	Total 2021 £000
Grants receivable	12	2,400	4,998
Grants received in advance	14	(3,482)	(3,283)
Net grants received in advance		(1,082)	1,715
Net grants received in advance at beginning of year		1,715	(767)
Grant monies received during the year		(19,400)	(13,343)
Grant money released to SOFA during the year		16,603	15,825
Net grants received in advance at end of year		(1,082)	1,715

16. PROVISIONS FOR LIABILITIES AND CHARGES

Group and charitable company	Dilapidations provision £000	Total 2022 £000	Total 2021 £000
Provision at beginning of year	-	-	36
Charge in the year	-	-	(36)
Utilised	-	-	-
Provision at end of year	-	-	-

The dilapidations provision related to remedial costs to be incurred by QIB when it relocated to the Quadram Institute in 2019.

17. ANALYSIS OF NET ASSETS BETWEEN FUNDS

Group	Fixed assets £000	Net current assets £000	Total 2022 £000
<i>Unrestricted:</i>			
Fixed assets reserve	14,069	-	14,069
Designated strategic reserve	-	10,423	10,423
Designated building reserve	-	1,250	1,250
General	-	4,011	4,011
<i>Restricted:</i>			
Fixed assets reserve	4,845	-	4,845
Capital reserve	-	1,837	1,837
General	-	2,229	2,229
Net assets	18,914	19,750	38,664
Charitable company			
<i>Unrestricted:</i>			
Fixed assets reserve	14,069	-	14,069
Designated strategic reserves	-	10,423	10,423
Designated building reserves	-	1,250	1,250
General	-	3,472	3,472
<i>Restricted:</i>			
Fixed assets reserve	4,845	-	4,845
Capital reserve	-	1,837	1,837
General	-	2,229	2,229
Net assets	18,914	19,211	38,125

NOTES TO THE ACCOUNTS

17. ANALYSIS OF NET ASSETS BETWEEN FUNDS (CONTINUED)

	Fixed assets £000	Net current assets £000	Total 2021 £000
Group			
<i>Unrestricted:</i>			
Fixed assets reserve	14,972	-	14,972
Designated strategic reserve	-	6,486	6,486
Designated building reserve	-	3,050	3,050
General	-	4,013	4,013
<i>Restricted:</i>			
Fixed assets reserve	4,106	-	4,106
Capital reserve	-	2,533	2,533
General	-	2,914	2,914
Net assets	19,078	18,996	38,074
Charitable company			
<i>Unrestricted:</i>			
Fixed assets reserve	14,972	-	14,972
Designated strategic reserves	-	6,486	6,486
Designated building reserves	-	3,050	3,050
General	-	3,988	3,988
<i>Restricted:</i>			
Fixed assets reserve	4,106	-	4,106
Capital reserve	-	2,533	2,533
General	-	2,914	2,914
Net assets	19,078	18,971	38,049

The unrestricted fixed assets reserve relates to the net book value of fixed assets purchased from unrestricted funds. The restricted fixed assets reserve relates to the net book value of fixed assets purchased from capital grants.

The unrestricted designated strategic reserve relates to funds designated by the Board for use in relation to planned science investment associated with the Quadram Institute. The designated building reserve represents the loan advances to QI Partners (£1.25m).

The restricted capital reserve is not an endowment fund, but represents capital funding received, from BBSRC, that may only be utilised on fulfilment of certain grant conditions.

The unrestricted general reserve is held to manage income fluctuations, cover unexpected liabilities including restructuring costs.

18. ANALYSIS OF FUNDS MOVEMENTS

	Unrestricted fixed assets £000	Unrestricted designated strategic £000	Unrestricted designated building £000	Unrestricted general £000	Restricted fixed assets £000	Restricted general £000	Restricted capital £000	Total 2022 £000
Group								
At 1 April 2021	14,972	6,486	3,050	4,013	4,106	2,914	2,533	38,074
Surplus for the year	-	-	-	(1,326)	(590)	2,506	-	590
Designated reserve transfers	-	3,937	(1,800)	1,054	-	(3,191)	-	-
Depreciation transfer	(903)	-	-	-	903	-	-	-
Capital transfers	-	-	-	270	426	-	(696)	-
At 31 March 2022	14,069	10,423	1,250	4,011	4,845	2,229	1,837	38,664
Charitable company								
At 1 April 2021	14,972	6,486	3,050	3,988	4,106	2,914	2,533	38,049
Surplus for the year	-	-	-	(1,840)	(590)	2,506	-	76
Designated reserve transfers	-	3,937	(1,800)	1,054	-	(3,191)	-	-
Depreciation transfer	(903)	-	-	-	903	-	-	-
Capital transfers	-	-	-	270	426	-	(696)	-
At 31 March 2022	14,069	10,423	1,250	3,472	4,845	2,229	1,837	38,125

NOTES TO THE ACCOUNTS

18. ANALYSIS OF FUNDS MOVEMENTS (CONTINUED)

	Unrestricted fixed assets £000	Unrestricted designated strategic £000	Unrestricted designated building £000	Unrestricted general £000	Restricted fixed assets £000	Restricted general £000	Restricted capital £000	Total 2021 £000
Group								
At 1 April 2020	15,746	6,921	4,375	4,108	2,630	-	1,561	35,341
Surplus for the year	-	-	-	152	1,845	736	-	2,733
Designated reserve transfers	-	(807)	(1,325)	2,132	-	-	-	-
Depreciation transfer	(824)	-	-	-	824	-	-	-
Capital transfers	50	-	-	171	(1,193)	-	972	-
Other transfers	-	372	-	(2,550)	-	2,178	-	-
At 31 March 2021	14,972	6,486	3,050	4,013	4,106	2,914	2,533	38,074
Charitable company								
At 1 April 2020	15,739	6,921	4,375	4,022	2,636	-	1,561	35,254
Surplus for the year	-	-	-	214	1,845	736	-	2,795
Designated reserve transfers	-	(807)	(1,325)	2,132	-	-	-	-
Depreciation transfer	(818)	-	-	-	818	-	-	-
Capital transfers	51	-	-	170	(1,193)	-	972	-
Other transfers	-	372	-	(2,550)	-	2,178	-	-
At 31 March 2021	14,972	6,486	3,050	3,988	4,106	2,914	2,533	38,049

The designated reserve transfers relates to costs incurred in the year that have been set against the designated strategic reserves, or changes to designations approved by the trustees.

The depreciation transfer is the reallocation of the depreciation charge for assets purchased from unrestricted reserves.

Capital transfers include a transfer from restricted to unrestricted reserves following the completion of performance conditions in connection with restricted capital grant activity, and the reallocation of funds to reflect the capital funding restrictions.

Other transfers include a transfer from restricted to unrestricted funds following the completion of performance conditions in connection with restricted non-capital grant activity, and the reallocation of funds to reflect funding restrictions.

19. COMMITMENTS

	Total 2022 £000	Total 2021 £000
Group and charitable company		

Capital commitments at the end of the financial year for which no provision has been made:

Contracted	963	391
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Amounts due under other operating leases for plant and machinery:

Within one year	2	1
Between one and two years	2	1
Between two and five years	2	3
	6	5

NOTES TO THE ACCOUNTS

20. PENSION SCHEMES

All staff employed by QIB on 30 September 2011 became BBSRC employees on 1 March 2012 and were deployed back to the Institute under conditions set out in the Deployment Agreement (the “Deployed Employees”). On 1 October 2017, Deployed Employees transferred employment to the Institute under TUPE.

Deployed Employees retain their membership of the Research Councils Pension Scheme (RCPS), where applicable, with QIB becoming an admitted employer in the scheme. The RCPS is a defined benefit scheme funded from annual grant-in-aid on a pay-as-you-go basis. The RCPS Pension Scheme is a multi-employer scheme and QIB is unable to identify its share of the underlying assets and liabilities. QIB therefore accounts for the scheme as if it were a wholly defined contribution scheme. As a result, the amount charged to the income and expenditure account represents the contributions payable to the scheme in respect of the accounting period. Liabilities for the payment of future benefits are the responsibility of the RCPS and accordingly are not included in these Financial Statements. The employer contribution rate during the year was 26% (2021: 26%).

QIB employees that joined after 30 September 2011 are eligible to join a defined contribution scheme.

The Company employs some staff jointly with the University of East Anglia. Staff are employed under QIB terms & conditions but are eligible to join The University Superannuation Scheme (USS). QIB is obliged to pay the prevailing employer contribution rate for staff in the USS, however it has no liability for scheme funding deficits. Accordingly, these arrangements have been accounted for as defined contribution scheme.

The total pension charge for the year was £916,995 (2021: £889,644), with outstanding contributions at the year-end of £50,079 (2021: £47,236).

21. RELATED PARTY TRANSACTIONS

Biotechnology and Biological Science Research Council (Member)

The charitable company is strategically funded by BBSRC along with seven other Institutes.

Grants received from BBSRC are detailed in note 2.

As at 31 March 2022, BBSRC owed £358,502 (2021: £78,905) to QIB, and QIB owed BBSRC £nil (2021: £37,498).

BBSRC is part of UK Research and Innovation (UKRI), an organisation that brings together the UK’s seven research councils, Innovate UK and Research England.

University of East Anglia (Member)

University of East Anglia (“UEA”) is a member of the charitable company. UEA is entitled to appoint a majority of the members of the Board of Trustees and accordingly is deemed to be the company’s parent undertaking and controlling party.

UEA invoiced QIB £4,320,482 (2021: £4,559,763) for salaries and other charges and QIB invoiced UEA £162,221 (2021: £753,880) for services.

As at 31 March 2022, the UEA owed QIB £82,355 (2021: £580,375) and QIB owed UEA £241,093 (2021: £2,989,655).

Norfolk and Norwich University Hospitals NHS Foundation Trust (Member)

Norfolk and Norwich University Hospitals NHS Foundation Trust (NNUH) is a member of the charitable company.

During the year NNUH invoiced QIB £407,681 for services and capital costs (2021: £428,734) and QIB invoiced £28,802 (2021: £42,287) for grant related costs. As at 31 March 2022, NNUH owed QIB £3,028 (2021: £10,689) and QIB owed NNUH £160,796 (2021: £146,028).

NBI Partnership Limited (Associate)

The charitable company is one of four members and guarantors of NBI Partnership Limited (“NBIP”), a company limited by guarantee. QIB has provided short-term loans to NBIP to enable NBIP to manage its cash requirements. At 31 March 2022, QIB had a loan balance with NBIP of £105,000 (2021: £105,000).

During the year, QIB received services totalling £1,399,627 (2021: £1,395,255), received interest from NBIP of £2,100 (2021: £2,100) and invoiced NBIP £nil (2021: £2,160) for other services. As at 31 March 2022, QIB owed NBIP £117,109 (2021: £177,468) and NBIP owed QIB £nil (2021: £2,100).

NOTES TO THE ACCOUNTS

21. RELATED PARTY TRANSACTIONS (CONTINUED)

QI Partners (Associate)

The charitable company is one of four members and guarantors of QI Partners, a charitable company limited by guarantee.

QIB has agreed to provide QI Partners with a loan facility of £5,400,000, which is repayable between November 2018 and October 2024. As at 31 March 2022, £1,250,000 of the facility has been drawn down by QI Partners (2021: £2,800,000). Interest is payable on the loan at a rate of 3.0% pa.

During the year, QIB invoiced QI Partners £61,705 (2021: £106,741) for interest on its loan. As at 31 March 2022, QI Partners owed QIB £11,178 (2021: £25,045).

QI Partners has invoiced QIB for service charges totalling £1,809,666 (2021: £1,826,465) in relation to the building running costs. As at 31 March 2022, QIB owed QI Partners £268,547 (2021: £92,197).

QIB does not have any significant influence on QI Partners' financial and operating policies.

Anglia Innovation Partnership LLP

QIB is a member of Anglia Innovation Partnership LLP ("AIP LLP") through its 100% subsidiary, IFR NRP Capital Limited. AIP LLP is responsible for the management and development of the Norwich Research Park (NRP) estate and for the furtherance of the NRP Enterprise Vision. During the year, QIB was charged £24,854 (2021: £32,117) for estate costs and services and QIB charged AIP £nil for utility costs (2021: £nil). As at 31 March 2022, QIB owed AIP LLP £nil (2021: £23,783).

QIB Extra Ltd

QIB Extra Ltd is the wholly owned trading subsidiary of QIB. QIB Extra undertakes contract research for the food industry.

During the year, QIB invoiced QIBX for services and other costs totalling £258,148 (2021: £394,796). QIBX invoiced QIB for services totalling £817 (2021: £3,759). In addition, QIBX made a gift aid payment to QIB of £29,827 (2021: £93,852). As at 31 March 2022, QIBX owed QIB £71,955 (2021: £75,099).

22. CASH HELD AS EUROPEAN GRANT CO-ORDINATOR

The charitable company holds cash on behalf of the European Union in its capacity as project co-ordinator on a number of projects. It acts as an intermediary only and does not control the risks and rewards associated with the cash balances. Cash balances of £1,088,439 (2021: £1,178,812) in relation to this are included within the balance sheet.

23. ULTIMATE PARENT UNDERTAKING AND CONTROLLING PARTY

The trustees consider that the ultimate parent undertaking and controlling party is the University of East Anglia, by virtue of its right under the Articles of Association to appoint a majority of the company's directors.

QIB is the parent undertaking of the smallest group of undertakings to consolidate these financial statements, and the University of East Anglia is the parent undertaking of the largest group of undertakings to consolidate these financial statements.

REFERENCE AND ADMINISTRATIVE DETAILS

Directors and Trustees

Dr C Caulcott	Chair – Board
Dr E Blair	
Prof F Lettice	Chair – Science Innovation and Advisory Committee
Prof P Morgan	Chair – Remuneration and Nomination Committee
Mr G Potter	
Dr E Robertson	
Mrs J Waterfield	Chair – Audit and Risk Committee

Director of the Institute Professor I Charles

Company Secretary Mr D Foreman

Key Management Personnel

Prof I Charles
Dr G Brown
Prof S Carding
Mr D Foreman
Ms A O'Halleron
Dr A Mather
Prof M Warren
Dr R Wilson

Registered charity number 1058499

Registered company number 03009972

Registered office and principal office of the charity

Norwich Research Park
Norwich
NR4 7UQ

Independent auditors

Larking Gowen LLP
Chartered Accountants and Statutory Auditors
King Street House
15 Upper King Street
Norwich
NR3 1RB

Bankers

Barclays Bank Plc
54 Lombard Street
London
EC3V 9EX