JOHN INNES CENTRE

England & Wales · Charity number 223852

Details

Other names	AFRC INSTITUTE OF PLANT SCIENCE RESEARCH, PLANT SCIENCE RESEARCH LIMITED, THE PLANT BREEDING INSTITUTE
Status	Registered
Legal form	Charitable company
Company number	00511709
Registered	1976-10-04
Register	View on the Charity Commission register

Contact

Address	John Innes Institute Colney Lane Colney Norwich NR4 7UH
Phone	01603 450000
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Website	www.jic.ac.uk

Activities

Objects: THE CHARITY'S OBJECT IS THE ADVANCEMENT OF EDUCATION IN AGRICULTURE, HORTICULTURE AND BIOTECHNOLOGY WORLD-WIDE BY UNDERTAKING RESEARCH AND DISSEMINATING THE RESULTS OF SUCH RESEARCH, AND TRAINING RESEARCH SCIENTISTS.

Activities: An independent, international Centre of excellence in plant science and microbiology. The Centre's mission is:- To generate knowledge of plants and microbes through innovative research- To apply it's knowledge of nature's diversity to benefit agriculture, the environment, human health and well-being- To train scientists for the future- To engage with policy makers and the public

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Classification

- **How:** Sponsors Or Undertakes Research
- **What:** Education/training, The Advancement Of Health Or Saving Of Lives, Arts/culture/heritage/science, Environment/conservation/heritage
- **Who:** Other Charities Or Voluntary Bodies, The General Public/mankind

Geography

- Norfolk

Finances

Period end	Income	Expenditure	Assets	Employees
2025-03-31	£78,782,050	£54,047,867	£150,788,165	344
2024-03-31	£74,414,677	£52,796,137	£126,056,149	346
2023-03-31	£58,426,337	£53,494,209	£104,438,787	363
2022-03-31	£52,948,148	£47,024,574	£135,611,119	378
2021-03-31	£50,268,463	£46,142,609	£118,782,402	375

Trustees

Name	Role	Appointed
SIR THOMAS HUGHES-HALLETT	Chair	2021-09-01
Christopher Maw		2022-07-21
Dr James Daniel McCafferty		2023-05-11
Professor Jane Alison Langdale		2024-05-09
Professor Judith Patricia Armitage		2020-10-20
Professor Julian Michael Hibberd		2024-02-14
Professor Robert Andrew Field		2025-05-08
Sarah Sands		2024-10-17
William Bruce Kendall		2024-02-14

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JOHN INNES CENTRE

England & Wales - Charity number 223852

Accounts

JOHN INNES CENTRE

Annual Report and Accounts

for the year ended 31 March 2025

Registered charity number: 223852

Registered company number: 00511709

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INTRODUCTION

Introduction to the Annual Report

The Board of Trustees, who are directors for the purposes of company law, present their Annual Report and the audited consolidated financial statements for the year ended 31 March 2025.

John Innes Centre ("JIC") is a company limited by guarantee and a registered charity. The Annual Report provides information on the legal purposes of the charity, the activities it undertakes and its main achievements. The Annual Report has 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.

Message from the Chair of the Governing Council

It would be remiss of me to start with anything other than a huge thank you to outgoing Director, Professor Graham Moore for his service and dedication to the John Innes Centre as we approach his well-earned retirement.

He has led the Institute through the beginning of a huge change programme across site, as we become future-ready with our Next Generation Infrastructure project to create a world-leading hub for plant and microbial science, and his leadership and collaboration have been vital.

I would also like to thank Dr Celia Caulcott for being an exceptionally supportive vice-chair during her time on the Governing Council. As Celia steps down, I am pleased to welcome James McCafferty as our new vice-chair.

Looking to the future, I am also delighted to welcome Professor Cristobal Uauy into the role of Director, who will be building on the excellent work already being done, while bringing his unique expertise and vision to our institute.

And what a time it is for plant and microbial science at the John Innes Centre. Another year has passed, and again I am astounded by the high-quality science and discoveries that our colleagues have been working on.

We continue to focus on increasing our collaboration with the very best scientists in our field nationally and internationally, while building ever stronger links across the brilliant Norwich Research Park.

As part of our fundraising campaign, we have stepped up our engagement by forging strong connections, and engaging others with our vision. Personally, I am always exceptionally proud to talk about our work, promoting the incredible research and discoveries that make us so unique.

Here’s to another year of supporting Healthy Plants, Healthy People, and a Healthy Planet.

Sir Thomas Hughes-Hallett, Chair

TRUSTEES' REPORT INCORPORATING THE STRATEGIC REPORT

JOHN INNES CENTRE

The John Innes Centre (JIC) is a world-leading international centre of excellence in plant science and microbiology based at the Norwich Research Park.

For the past 110 years, JIC has been addressing global challenges through research. Our knowledge of plants and microbes combined with our creative, curiosity-driven approach answers fundamental questions and significantly impacts industrial biotechnology, society, and global development.

Healthy Plants, Healthy People, Healthy Planet (HP3), our joint strategy with The Sainsbury Laboratory (TSL), outlines our vision for delivering a safer, healthier and more sustainable future through the power of plant and microbial science.

In collaboration with world-leading academic partners, we are uniquely positioned to lead the fundamental scientific advances needed to address three intertwined, era-defining challenges: securing nutritious food for all, global health threats, and climate change.

NEXT GENERATION INFRASTRUCTURE (NGI)

Key to delivering our HP3 strategy, work has started on a new world-class research environment at the heart of the Norwich Research Park, supported by UK Research and Innovation (UKRI) Infrastructure Fund capital investment of £317.7m.

This transformational investment will fund new cutting-edge, world-class facilities for JIC and TSL to deliver a step change in our capability to translate scientific knowledge into bio-based solutions in response to some of society's most pressing challenges. Our vision to improve collaborative working across the UK and overseas, helping us to provide a safer, healthier and more sustainable future through the power of plant and microbial science.

As well as transforming the existing capabilities of JIC and TSL, both internationally recognised centres of excellence in plant and microbial science, the new hub also aims to deliver a net-zero carbon laboratory. As well as new laboratories, the investment includes a redevelopment of our plant growth facilities, which in conjunction with our existing field station, will improve our ability to study the effects of climate change.

NGI has garnered generous contributions from the Gatsby Charitable Foundation, the University of East Anglia, the John Innes Foundation, the Wolfson Foundation and the Garfield Weston Foundation. JIC and TSL have embarked on an ongoing fundraising campaign, to secure a further £35m to support the full cost of the programme. Construction of the research hub is expected to be completed in 2031.

STRATEGIC RESEARCH PROGRAMMES

JIC receives strategic funding from UKRI-BBSRC (Biotechnology and Biological Sciences Research Countil) for four strategic research programmes, enabling research across plant and microbial science, from the unlocking of the remarkable and under-exploited biosynthetic capabilities of plants and microbes, through to the understanding and delivery of sustainable, resilient and robust high-yielding crops.

These five-year strategic research programmes allow us to continue our work to understand how we can support the transition to net-zero agriculture, improve public health and mitigate the effects of climate change on food security with our research into plants and microbes.

Through these programmes JIC, our partners at the Norwich Research Park and from across the UK, can have real-world impact from our world-leading research and innovation.

Our Institute Strategic Programmes are:

- **Advancing Plant Health (APH)** aims to deliver new solutions to promote beneficial interactions and disease/pest resistance in crops of both national and global significance and integrates research expertise from JIC and TSL.
- **Building Robustness in Crops (BRiC)** will deliver genetic diversity and knowledge, innovative technologies and training to allow sustainable production of robust high-yielding crops including oilseed rape, pea, cereals and Brassica vegetables to identify and overcome key challenges caused by our changing climate.
- **Delivering Sustainable Wheat (DSW)** aims to address critical challenges in wheat health, yield, and production in order to safeguard the future of this vital crop and brings together four research institutes – JIC, Rothamsted Research, Quadram Institute, and Earlham Institute, plus the National Institute of Agricultural Botany, and the universities of Leeds, Nottingham, Lancaster, Bristol, and Imperial College London.
- **Harnessing Biosynthesis for Sustainable Food and Health (HBio)** will unlock the remarkable and under-exploited biosynthetic capabilities of plants and microbes to make valuable new molecules to address global challenges of food security and human health.

SCIENCE HIGHLIGHTS

A round-up of recent research from the John Innes Centre

Finding hidden genetic treasure: study uncovers untapped diversity in historic wheat collection

A decade-long study led by Dr Simon Griffiths, group leader, and Professor Shifeng Cheng at the Agricultural Genomics Institute at Shenzhen has discovered huge genetic potential that is untapped in modern wheat varieties.

The international study reveals that at least 60% of the genetic diversity found in a historic collection of wheat is unused providing an unprecedented opportunity to improve modern wheat and sustainably feed a growing population.

The remaining diversity represents a goldmine of potential to improve modern wheat, says Dr Simon Griffiths, “This missing 60% discovered in this study is full of beneficial genes that we need to feed people sustainably.”

Fundamental discovery could revolutionise fertiliser use in farming

A new biological mechanism has been found that makes plant roots more welcoming to beneficial soil microbes. The mutation was found in a *Medicago truncatula* gene that reprogrammes the legume’s signalling capacity, benefitting partnerships with nitrogen-fixing bacteria and the phosphorus supplying arbuscular mycorrhiza fungi (AMF). Our researchers showed that this same gene mutation created in a calcium signalling pathway enhances endosymbiosis in farming conditions, and in wheat in the field.

“Our findings hold great potential for advancing sustainable agriculture. This mutation offers opportunities for sustainable crop production using endosymbionts, alongside reduced inorganic fertiliser use,” said Dr Myriam Charpentier, group leader.

Updated grass pea genome sequence published

An international research collaboration published a chromosome-scale reference genome of the grass pea (*Lathyrus sativus*), enabling further development of this underutilized, climate-resilient legume.

“This genome allows us to unlock the secrets of grass pea’s resilience, to further improve this crop for farmers, and inform development of other crops, such as peas,” explained Dr Peter Emmrich, Norwich Institute for Sustainable Development (NISD) and Visiting group leader at the John Innes Centre.

Improvements in genome accuracy and completeness also allow researchers to study evolutionary links between species, helping identify gene pathways that could be used to improve the crop or to understand its remarkable drought tolerance.

Barley fine-tunes microbial root communities with sugary secretions

Different types of barley recruit distinct communities of microbes to grow around their roots by releasing a custom mix of sugars and other compounds into the soil.

Dr Jacob Malone, Group Leader, said: “These microbes help some varieties to grow but not others, suggesting that breeding cereals to recruit beneficial, growth promoting microbes may be possible in the future.”

Beneficial microbes that live on or around plant roots can provide nutrition, help the plant withstand stress, and protect it from pathogenic microbes. In return, the plant secretes a portion of the sugars it makes through photosynthesis, along with amino acids and other metabolites, into the surrounding environment.

‘Simple’ mosses and ferns offer new hope for crop protection

Mosses, liverworts, ferns and algae may offer an exciting new research frontier in the global challenge of protecting crops from the threat of disease.

These non-flowering plants, or bryophytes, are often regarded as unsophisticated compared to their flowering relatives. New research from Dr Phil Carella’s group has found that bryophytes and mosses in particular, have sophisticated immune receptors.

Using biotechnological techniques researchers have revealed that nucleotide-binding and leucine-rich repeat receptors (NLR) immune receptor domains which protect plants against pathogens are transferable between flowering and non-flowering plants. This breakthrough offers a route to practical applications for crop protection and a source of new resistance genes against pathogens.

European funding takes cell-to-cell communication research to next level

Professor Christine Faulkner, group leader, received a European Research Council (ERC) Advanced Grant to support their pioneering research into the mysteries of cell-to-cell communication.

Inspired by their investigations into the route amino acids take through plant tissues, and how they trigger responses in the cells that they pass, ACUTE (Apoplastic signalling communicates emergency responses) will allow the team to explore how a variety of molecules travel between cells, acting as information carriers in response to different stresses.

“We have proposed that the transmission of these signalling molecules is dependent on physical and measurable parameters,” said Professor Faulkner. “ACUTE aims to determine these parameters and use

them to predict which cells and tissues will respond to different stress signals under different conditions. This way we can predict the overall impact of different stresses across the whole plant."

European funding to investigate bacteria's biological clocks

An international collaboration investigating the intricacies of biological clocks in bacteria has been awarded European Research Council funding.

Professor Antony Dodd, group leader, working with LMU Munich and Leiden secured an ERC Synergy Grant. The project, called MicroClock, follows discoveries by this collaboration of biological or circadian rhythms in the non-photosynthetic soil bacterium *Bacillus subtilis*. The knowledge that this bacterium has internal clocks, which synchronises its activities to daily cycles, opens exciting research horizons in the emerging field of 'chronomicrobiology.'

Professor Dodd, said: "The implications of this research will be fascinating and far-reaching: bacteria make up 12 percent of life on earth, cause devastating human diseases, and are vital to soil health and crop protection. They are also central to biotechnology."

Major investment for doctoral students on the Norwich Research Park

The Biotechnology and Biological Sciences Research Council (BBSRC) awarded the John Innes Centre a Doctoral Landscape Award, partnered with the University of East Anglia, The Sainsbury Laboratory, the Quadram Institute and the Earlham Institute. These awards support discovery-driven research at universities across the UK to train the next generation of scientists.

Doctoral students will develop their skills and experience across a four-year PhD studentship, with an integrated three-month Professional Internship for PhD Students (PIPS) working on a topic that does not directly relate to their PhD project, to explore future career options.

Defra funding supports two crop improvement networks

Defra has awarded funding to continue the development of climate resilient legume crops and precision bred wheat fit for the future of food.

WGIN - the Wheat Genetic Improvement Network - aims to generate pre-breeding material carrying novel traits for UK wheat breeding companies, delivering accessible technologies to support breeders and growers. The aim is to deliver wheat that is more nutritious, disease resistant, and better able to withstand drought, salinity and slugs in an ever-changing climate.

As part of a new five-year project, led by Rothamsted Research, with collaborators Bristol Genomics Facility and USA-based Arbor Biosciences, the John Innes Centre will lead on honing precision breeding techniques to adapt landraces, ancient and wild wheat varieties, to make them accessible and useful for the breeding industry.

PCGIN - the Pulse Crop Genetic Improvement Network - a consortium of four UK research organisations led by the John Innes Centre was awarded £3m over the next five years to provide improved breeding material for the cultivation of peas, beans and other pulses in the UK.

Professor Janneke Balk, group leader and co-lead of PCGIN, said: "Over the last 17 years PCGIN has made critical contributions to pea and faba bean development that are now close to being brought to market. In the new funding phase, we will expand our research to lentil and common bean, which could be grown more widely in the future as we see higher temperatures in the UK."

PCGIN, led by the John Innes Centre, is in collaboration with the University of Reading, NIAB in Cambridge, the Institute of Biological, Environmental and Rural Sciences (IBERS) at Aberystwyth University, and PGRO, the Processors and Growers Research Organisation, Peterborough.

Understanding, valuing and celebrating Neurodiversity

Dr Clare Stevenson and Leah Milner-Campbell led an innovative BBSRC-funded project, cultivating a Neuroinclusive environment for staff and students.

Unlocking Nature's Diversity is the Institute's ethos. Neurodiversity adds value to social environments in the same way that biodiversity enriches our ecosystems. The unique insights Neurodivergent individuals can bring to a research environment include innovative problem solving, excellent pattern recognition, and increased spatial thinking.

Dr Stevenson, Head of Science Coordination and Research Culture, highlighted: "We all bring our own strengths to a team. When everyone has the psychological safety and trust to bring their real self to work, it makes us all stronger."

Neurodivergent profiles include Autism, ADHD, and dyslexia. More than 20% of the population are Neurodivergent, meaning their cognition differs from what is considered 'Neurotypical' in society.

Following an Accessibility Advocates group seminar on Neurodiversity in 2022, Dr Stevenson was awarded a BBSRC Connecting Cultures grant with the aim of establishing Neuroinclusive best practice principles for research institutes, and to share learning with other BBSRC institutions.

Neuroinclusive building blocks

To foster an inclusive environment, and to value diverse ways of thinking, the project focussed on training, awareness raising, and building networks, Neurodiversity project officer, Leah Milner-Campbell, has created bespoke e-learning modules, an accessible and impactful learning experience that resonates within research environments.

Leah said: "We have a way to go to make the world fair and equitable, but by embedding structural change and shifting perspectives away from a Neurotypical lens, we can create a research environment where Neurodivergent individuals can thrive."

So far more than 600 people have engaged with the e-learning, from every BBSRC-supported institute as well as colleagues at BBSRC head office, and bespoke training sessions for Neurodivergent individuals, allies, and managers have been delivered in person at seven BBSRC-funded institutes.

Dr Lionel Hill, metabolite service manager said "Taking part in the Neurodiversity e-learning was one of the most emotional and rewarding things I've done at the John Innes Centre. It emphasised that we value one another with all our differences. My challenges aren't half as challenging when I'm among friends."

OUR IMPACT

JIC has made significant contributions to the UK economy and its position as a global leader in science, knowledge, and innovation.

- **Food security** - With the global population expected to reach nine billion by 2050, JIC's research on improving wheat and oilseed rape yields and mitigating the impact of vernalisation in brassicas is crucial for ensuring food security.
- **Staying healthier for longer** - As the proportion of UK citizens living beyond 65 increases dramatically, JIC's fundamental bioscience research on resistant starch, antibiotics, and other high-value compounds is critical to enabling people to stay healthy for longer.
- **Developing renewable 'low carbon' energy and chemicals through bioscience** - JIC's research on developing high-value products from plants, such as adjuvants and drugs, improving extraction sustainability, and increasing oil content in oilseed rape, has the potential to revolutionise the bioenergy and chemical industries.

OUR PEOPLE

AWARDS & HONOURS

Professor Graham Moore and Professor Saskia Hogenhout elected as Fellows of the Royal Society

Professor Graham Moore, Director, and Professor Saskia Hogenhout, group leader, have been elected as Fellows to the Royal Society. Fellows are leaders in their field, and election recognises their invaluable scientific contributions.

Professor Moore has made outstanding contributions to wheat research, which have provided insight into the pairing and crossover control between related wheat chromosomes. Professor Hogenhout has pioneered research on the functional characterisation of virulence factors from non-culturable bacteria and interactions of sap-feeding insect vectors with plants.

Professor Diane Saunders awarded an OBE

Professor Diane Saunders, group leader and Head of the Crop Genetics department, was recognised for her outstanding scientific achievements and dedication to women in STEM with the honour of Officer of the Order of the British Empire (OBE) in the King's Birthday Honours 2024.

Professor Saunders said: "It is a phenomenal honour to be recognised in this way, and really this recognition reflects the remarkable research accomplishments and dedication of each and every person who has worked in the incredible team that I have the privilege to lead at the John Innes Centre."

Dr Simon Griffiths honoured by the Royal Agricultural Society of England

Dr Simon Griffiths, group leader and lead for the Delivering Sustainable Wheat Institute Strategic Programme (ISP), won the 2024 Royal Agricultural Society of England (RASE) award for Science and Technology.

This award recognised his exceptional support for crop breeders and farmers, and his outstanding contributions to the agricultural industry, including his work on the ancient Watkins wheat seed collection.

Dr Griffiths said: "I was particularly pleased to be nominated for this award by the breeding company Limagrain. We should be proud of the partnerships we have forged with industry and the fact that leading companies are putting their faith and resources into our research."

Professor Noel Ellis awarded Mendel Memorial Medal

In March 2025, Professor Noel Ellis was awarded the Mendel Memorial Medal – a prestigious annual accolade given by the Mendelianum, part of the Moravian Museum in Brno. The medal is awarded to an individual who has made an outstanding contribution to the scientific and cultural legacy of the 'Father of Genetics', Gregor Mendel.

Professor Ellis is a senior affiliated scientist with a 36-year association with the John Innes Centre. He said: "I am delighted to receive this prestigious award. The work this award recognises is both biological and historical. The medal celebrates the work of a truly great scientist who is an inspiration for future generations."

Professor Martin Howard elected to EMBO Membership

Professor Martin Howard, group leader, has been elected as a member of the prestigious European Molecular Biology Organisation (EMBO) in its 60th anniversary year. His group combines predictive mathematical modelling with long-term experimental collaborations, to dissect biological mechanisms too complex to unravel by experiments alone.

Professor Howard said: "It is a great honour and privilege to be elected as a member of EMBO. It is particularly pleasing that the heavily interdisciplinary work of my group, applying theoretical tools from physics and mathematics to basic biology, is being recognised."

NEW APPOINTMENTS & FELLOWSHIPS

Professor Cristobal Uauy appointed Director of the John Innes Centre

Following an international search, Professor Cristobal Uauy has been appointed as the next Director of the John Innes Centre.

Professor Uauy is internationally recognised for his significant contribution to the development of resources and tools available to the wheat research community which allow for the rapid identification of genes for key traits. His research has identified important genes for improved yield, quality and disease resistance.

The Director-designate of the John Innes Centre said: "I am delighted and deeply honoured to take on the directorship of the John Innes Centre at such an exciting time, as we progress our vision for *Healthy Plants, Healthy People, Healthy Planet*.

"I'm passionate about the John Innes Centre's mission which is rooted in its unique blend of interdisciplinary

science and I am looking forward to working closely with colleagues to continue to build on our strength in discovery-led research, as well as applying our knowledge for the benefit of humanity and the environment."

Lucia Carter, executive assistant to the Director

Joining the institute in May 2024, Lucia enables the Directorate's office to run smoothly. Whether it is coordinating Committees, managing projects, organising events such as JIC-all, or supporting high-profile visits, Lucia ensures the Director and the Chair of Governing Council are fully supported.

Royal Society Fellowship – Dr Chris Morgan

Dr Chris Morgan, group leader, was awarded a prestigious eight-year Royal Society University Research Fellowship to carry forward his exciting investigations into the mysteries of meiosis, the cell division process in which sex cells – sperm and eggs in humans, pollen and egg cells in plants – are produced.

KEY PERFORMANCE INDICATORS

JIC's key performance indicators are:

- submission levels and success rates for research grant proposals;
- publications in relevant scientific journals;
- recruitment and retention of high quality staff and students;
- annual research income vs. budget; and
- unrestricted reserves vs. budget.

Details of science achievements and recruitment in the year are provided in the sections above.

Details of grant submissions, success rates, research income and reserves are provided in the Financial Review.

FUTURE PLANS

The next 12 months will be an exciting period for us, as a new Director takes post, an innovative Scientific Strategy is unveiled and a series of targeted recruitment and building plans help us create the expertise and infrastructure to deliver these ambitious new plans.

Welcoming our new Director

In September 2025 we will welcome our new Director, Professor Cristobal Uauy, an internationally recognised wheat researcher, whose research has identified important genes for improving yield, quality and disease resistance in crops. He takes on the role as we continue to develop ambitious plans to deliver *Healthy Plants, Healthy People, Healthy Planet (HP3)* – our joint scientific vision with The Sainsbury Laboratory.

Launching an ambitious new Scientific Strategy

Over the last year, Professor Uauy worked with staff to develop a new Scientific Strategy, which will launch in the coming year. It identifies the major research questions we'll be tackling in the next ten years, and is focused on how plants and their associated microbes are likely to respond to the challenges posed by a changing climate, and the need for more sustainable farming practices.

This refined strategic direction will feed into the mid-term review of our strategic BBSRC strategic funding, guiding our assessment of progress and future plans to ensure we continue delivering world-class, strategically aligned research with clear value and impact.

Recruiting new Group Leaders with the expertise needed to deliver our strategy

To help deliver our new strategy, we will undertake a targeted recruitment drive to bring in new Group Leaders in strategic areas such as discovery plant science, plant-insect interactions, and plant associated microbial interactions. This will build our research capacity and expertise in new areas to deliver our strategy.

Creating a world-leading Plant and Microbial Innovation Hub

As our ambitious plan to deliver a Plant & Microbial Innovation Hub progress, we are set to make several major steps forward in the coming year, alongside our partner The Sainsbury Laboratory.

Currently our Next Generation Infrastructure programme focusses on renewing our plant growth facilities and insectary, with work progressing at pace to the south of our campus. Construction of new, and refurbishment of existing, horticulture infrastructure will modernise our plant growth facilities, and construction of new state of the art glasshouses and insectary building will begin.

We will build on the progress made in raising over £365m from Government and private sources to date, with a major capital fundraising campaign aiming to raise the final £35m of our infrastructure programme to provide the state-of-the-art facilities planned.

Finally, a major project to refresh how we work with partners to create the best possible environment for plant and microbial science has begun. Bringing people together to strengthen and amplify the impact of UK plant and microbial science is fundamental to our success. We will work to widen the HP3 vision across the Norwich Research Park, creating a shared purpose as we work on new, cross-cutting and collaborative research.

FINANCIAL REVIEW

Income

Total income for the year was £78.8m (2024: £74.4m). The increase in the year was due to additional BBSRC strategic and capital grant funding. Income excluding capital funds was £46.0m (£45.3m).

An analysis of grant income by principal sponsor is included in the notes to the financial statements. JIC's principal sponsor is the Biotechnology and Biological Sciences Research Council (BBSRC), which contributed 77% of total income (2024: 79%). Other major sources of funding were other UK Government departments, the European Union and charitable organisations.

During the year, JIC researchers submitted grant proposals with a sponsor value of £50.2m (2024: £51.2m) and were awarded grants with a value of £18.3m (2024: £22.7m). The success rate for grant awards in the year was 36% by value (2024: 43%).

Expenditure

Expenditure for the year amounted to £54.0m (2024: £52.8m). Staff costs accounted for £17.9m (33%) (2024: £17.1m; 32%) of expenditure.

Fundraising

JIC did not carry out any significant public fundraising activities in the year.

Net Movement in Reserves

JIC recorded a net increase in unrestricted reserves of £1.8m (2024: decrease of 1.6m). Restricted reserves increased by £22.9m (2024: £23.2m) principally due to £32.7m of capital funding (2024: £30.4m).

Subsidiaries and Associated Parties

Subsidiary companies contributed an operating profit of £151k (2024: £38k), while JIC's share of associates' results was a loss of £54k (2024: £127k). The share of associates' results in the year relates to JIC's 33% interest in Plant Bioscience Limited.

Capital Expenditure

Capital expenditure in the year was £38.9m (2024: £16.8m). Investment has continued from the previous year in state-of-the-art scientific equipment, energy-efficient plant infrastructure and enhanced plant growth facilities.

Cash

Group cash at 31 March 2025 was £44.1m (2024: £48.3m). JIC deposits its cash with UK registered financial institutions that meet its credit rating policy, subject to agreed counter-party limits. Investment income from cash deposits in the year was £2,046k (2024: £1,486k), up on last year due to higher deposit rates.

Reserves Position

Total group reserves increased by £24.7m in the year to £150.8m (2024: £21.6m to £126.1m).

Restricted reserves increased by £22.9m to £125.8m. Reserves of £18.2m relate to restricted designated capital reserves in connection with funding received from BBSRC to be used for future capital projects. The remaining £107.6m of restricted reserves relate to the value of fixed assets funded by grants.

Unrestricted reserves increased by £1.8m in the year to £25.0m (2024: decreased by £1.6m to £23.2m). Reserves of £13.5m relate to unrestricted designated reserves for planned capital and strategic investments. The remaining unrestricted reserves include general reserves of £6.3m and fixed assets reserves of £5.2m.

Reserves Policy

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

- Future operational and capital expenditure requirements in the 5-year 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.

Unrestricted reserves that have been designated by the Governing Council for specific purposes are shown in separate designated reserves. At March 2025, £13.5m of unrestricted reserves were designated for planned capital and strategic investments (2024: £10.9m).

General unrestricted reserves at March 2025 were £6.3m, above the minimum general reserves target of £6.0m set by the Governing Council.

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 on the operations and its financial resources, the Institute will have sufficient funds to meet is liabilities as they fall due for that period.

The Institute is reliant on its strategic programme funding from BBSRC, which was £14.6m in the year (2024: £14.6m). BBSRC has confirmed strategic funding of £14.6m for the year to March 2026 and in principle funding at this level for the 2 years to March 2028.

The Institute has prepared income, reserves and cash flow forecasts to March 2028. The forecasts indicate that the Institute will have significant cash headroom over the period.

The assessment has included consideration of the NGI project, and in particular, funding, cash flows and the programmes wider risks.

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 prepared the financial statements on a going concern basis.

Accelerated Depreciation

The Next Generation Infrastructure (NGI) programme results in the replacement of several buildings. The useful lives of these assets have been reviewed based upon the latest NGI timetable. The depreciation of these assets has been accelerated to depreciate them to nil over their estimated remaining useful lives.

The effect of this to increase the depreciation charge on those assets. The additional depreciation in the current year is £2.0m (2024: £3.5m).

STAKEHOLDER ENGAGEMENT – SECTION 172 STATEMENT

The Trustee Directors consider that the decisions they have made during the financial year have satisfied the requirements of s172(1) of the Companies Act 2006 and that they have acted in good faith to promote the success of JIC as a whole, and in doing so having regard to the stakeholders and matters outlined in s172(1).

The Governing Council has the ultimate responsibility for the strategy of JIC and delivery of its charitable objectives. The table below sets out JIC's most significant stakeholders, why they are considered important and how the Institute engages.

Stakeholders	Why they are important	How we engage with them
Our staff and students	➢ We are committed to providing a supportive, inspirational and dynamic environment for our staff and students to meet future scientific and societal challenges. ➢ We value the diversity of our staff, and are committed to the creation of a positive environment which is fair, welcoming and inclusive and where everyone is treated with dignity and respect. ➢ We are committed to the development of all our staff and students and providing equal opportunities that encourage flexible working, career development and work-life balance.	➢ During the year, regular communications to employees have been provided on matters affecting them, including factors affecting the Charity's progress, and have been consulted on decisions that impact them. ➢ In 2024/25 JIC created and rolled out the first tailored neurodiversity training for the UK research environment. In just three months, more than 600 people across BBSRC Institutes engaged with the e-learning course, with a further 170 staff trained in person at seven institutes. ➢ All groups of staff and students have representation on the Inclusivity & Diversity Committee that meets 4 times a year to ensure an inclusive research culture. ➢ Students' progress is monitored on a regular basis and employees undertake an annual appraisal where their training needs, work-life balance and career development are discussed.
Our members	➢ JIC's corporate members are UK Research and Innovation (UKRI); John Innes Foundation (JIF); and the University of East Anglia (UEA). Our members are key strategic partners that oversee our delivery against charitable objectives. ➢	➢ The Members each nominate one Governing Council member and appoint one "observer" to attend Governing Council meetings, enabling them to participate in key decisions.
Norwich Research Park	➢ JIC is one of 4 independent, world-class research institutes based at the Norwich Research Park. The Institutes work closely together to create a unique centre of excellence in plant and microbial sciences, big data science and genomics, and food and health.	➢ The Institute Directors of the 4 institutes meet regularly to discuss common strategic and operational matters. ➢ JIC, the other Institutes, UKRI, UEA, JIF and the N&NU Hospital Trust are members of Anglia Innovation Partnership LLP, an organisation established to promote collaborative solutions to global challenges in food and health.
UK Research and Innovation	➢ JIC is strategically funded, along with 7 other institutes, by the Biotechnology and Biological Sciences Research Council (BBSRC), part of UKRI. BBSRC supports JIC via strategic 5-year funding programmes, competitively won project grants and capital funding for infrastructure and technology investments.	➢ UKRI nominates a Governing Council member and appoints an "observer" to attend Governing Council meetings. ➢ JIC holds regular meetings with BBSRC to review and progress of the Institute's mission and science programmes, including strategic and financial plans.
Research partners	➢ JIC is an international centre of plant and microbial research. Our success is built on our collaborations and our international outlook. ➢ JIC is home to a range of state-of-the-art facilities and technology platforms to support scientists across the UK.	➢ An extensive programme of engagement with our new collaborative vision, Healthy Plants, Healthy People, Healthy Planet (HP3) is ongoing and involves discussion, input and views from stakeholders from industry, government and research partners, locally, nationally and internationally. JIC has strategic partnerships with research and academic institutions in the UK and worldwide, including Europe, China, Africa, Brazil and India.

Industry	➢ JIC works closely with industry and the private sector to provide access to our capabilities, and to deliver sophisticated interdisciplinary research and product development at pace.	➢ JIC maintains a dialogue with industry, with regular consultations and knowledge exchange. ➢ JIC supports industry through collaborative and sponsored research and access to its facilities and platform services. JIC is proactive in identifying and responding to industry need. ➢ JIC protects its innovations and promotes their commercialisation and adoption by Industry. ➢ JIC actively supports policy development in areas relevant to industry and researchers, including recently taking a leading role in shaping the UK Genetic Technology (Precision Breeding) Regulations by providing expert advice and evidence.”.
Community & the environment	➢ Public views are at the heart of our research strategy and engaging with the public is an important part of our mission statement.	➢ JIC staff and students are trained in public engagement and communications and are supported to attend events, use digital media and to discuss and engage the public with our research. ➢ JIC hosts and attends community events – online, locally and nationally, to showcase, debate and discuss the nature of our research. ➢ JIC scientists are engaged in policy discussions at a national level surrounding the use of genetic technologies for crop improvement. ➢ JIC is investing heavily in more energy efficient facilities to reduce utilities consumption and waste.
Suppliers	➢ JIC seeks to maintain and develop strong, open, collaborative relationships with our supply chain.	➢ JIC holds regular meetings with suppliers about purchasing relationships and ethical behaviours such as adherence to Modern Slavery principles.

RISK ASSESSMENT AND MANAGEMENT

Governing Council 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 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. Governing Council reviews a full risk report annually, including a 'heat map' tracking major risks. The Science and Impact Advisory Board (SIAB) assess the science quality and vision section of the risk register.

Principal risks and uncertainties

Risk area	Description of Risk	Management of Risk
BBSRC research funding	➢ BBSRC strategic funding is reduced as a result of poor performance or public sector spending pressures. ➢ JIC is too reliant on BBSRC strategic and grant funding	➢ Regular monitoring of scientific performance, including consideration from the Science and Impact Advisory Board. ➢ Regular engagement with BBSRC to report performance and ensure strategic alignment of research programmes. ➢ Monitoring of performance of grant submissions. ➢ Funding opportunities for other research bodies and charities regularly communicated to Group Leaders. ➢ Philanthropic Fundraising strategy being developed to support NGI plus strategic research activity.
Science direction and quality	➢ The focus of science programmes, or balance between discovery and translational science, does not meet funders' or stakeholders' expectations. ➢ JIC fails to deliver the world-leading science	➢ The Science Impact and Advisory Board, comprising independent international experts, regularly reviews the development of strategic programmes and JIC impact. ➢ The executive Research Committee reviews scientific areas of excellence and horizon scans to identify strategically important scientific areas and opportunities.
Staff retention and recruitment	➢ JIC is unable to retain or attract suitably skilled staff to enable it to sustain its scientific performance. ➢ In addition to scientific impact, this risk area could also have an impact on the level of funding the institute is able to attract.	➢ Strategy and action plans in place, overseen by JIC People & Culture Committee. ➢ Career development programmes in place to support high potential staff. ➢ Recruitment strategy and processes in place, including attractive support arrangements.
Cost pressures	➢ Increased energy prices divert resources from science to infrastructure costs, resulting in a reduction in research activity and impact. ➢ High inflation increases research and support costs, resulting in a reduction in research activity and impact.	➢ Energy-saving opportunities are actively targeted and investment cases developed, aligned to net zero carbon strategic planning. ➢ The impact of cost inflation is regularly discussed with funders with a view to mitigating the impact on research.
Next Generation Infrastructure Programme	➢ Cost pressures mean that the agreed scope cannot be delivered ➢ Insufficient additional funding raised ➢ Vision for NGI Hub not sufficiently defined or communicated ➢ Buildings design do not reflect future science requirements or Hub vision ➢ Building works significantly disrupt science activity during construction ➢ Project does not achieve Net Zero Carbon ambition	➢ Dedicated programme team recruited, supported by JIC staff and professional consultants ➢ Governance structure for programme implemented, led by Programme Board and supported by external assurance ➢ Workstreams established to define Hub vision, engage with external stakeholders and deliver business change ➢ Building design engagement groups established ➢ Strategy developed to deliver Net Zero Carbon ambition ➢ Fundraising plan being developed
Technology investment	➢ JIC is unable to keep pace with developments in technology underpinning its science.	➢ 5-year investment plan developed. ➢ Funding opportunities identified and pursued for technology investments.
Major site incident	➢ A major incident disrupts scientific research programmes or administrative systems.	➢ Business Continuity and Disaster recovery plans in place and tested periodically. ➢ Review of compliance with health & safety and relevant regulations from government agencies and internal auditors. ➢ Insurance arrangements in place.

STRUCTURE, GOVERNANCE AND MANAGEMENT

Organisation and governance

JIC is incorporated in England and Wales and is a company limited by guarantee (registered number 00511709) and a registered charity (number 223852). JIC is governed by its Memorandum and Articles of Association, adopted 27 September 2011.

Governing Council (Board of Trustees)

The Governing Council comprises of at least the Chair, three science and three non-science trustees. The trustees who served during the year and up to the date of signing these financial statements were as follows:

Members

The Members of JIC are:

- UK Research and Innovation - Biotechnology and Biological Sciences Research Council (BBSRC);
- John Innes Foundation (JIF); and
- University of East Anglia (UEA).

The Members have the right to nominate one governing council member and appoint one "observer" to attend meetings. Details of member appointments are shown in the table below. The Members are all guarantors of JIC, a company limited by guarantee and a registered charity, of an amount not exceeding £1, and for a year after resignation.

Trustees	Appointment status	Role	Changes during period
At date of Annual Report:			
Sir T Hughes-Hallett	Independent	Chair	-
Prof N J Talbot	Independent	Science	-
Prof J P Armitage	BBSRC appointment	Science	-
Mr C Maw	Independent	Non-Science	-
Dr J D McCafferty	Independent	Non-Science	-
Prof J M Hibberd	Independent	Science	-
Mr W B Kendall	JIF appointment	Non-Science	-
Prof J A Langdale	Independent	Science	Appointed 9 May 2024
Ms S Sands	Independent	Non-Science	Appointed 17 October 2024
Prof R A Field	UEA Appointment	Science	Appointed 8 May 2025
Served during the year:			
Mr J H Innes	Independent	Non-science	Resigned 9 May 2024
DR C A Caulcott	Independent	Science	Resigned 8 May 2025
Prof M Searcey	UEA appointment	Science	Resigned 8 May 2025

The Governing Council has the ultimate responsibility for the strategy of JIC. Strategy is developed under advice from the Science Impact and Advisory Board (SIAB) and JIC Executive Group.

The Governing Council is supported by an Audit Committee to oversee financial management and risk, and a Remuneration and Nominations Committee to consider senior staff remuneration. The full Governing Council meets five times a year, the Audit Committee four times a year and the Remuneration and Nominations Committee at least once a year and otherwise as required.

The Governing Council is also supported by a Science and Impact Advisory Board which comprises international experts in science and application of science, chaired in the year by Prof Judith Armitage.

SIAB is responsible for providing strategic and scientific advice to the Director of JIC and the Governing Council on issues relevant to JIC's Mission and Science Programme. This includes ensuring that JIC Science Programme maximises JIC's potential for knowledge transfer, outreach and engagement with research users, stakeholders and the general public in addition to helping in the identification and development of new scientific funding opportunities to support the development of JIC Science Programmes.

Recruitment, induction and training of Trustees

Governing Council vacancies are advertised as necessary. The Institute will also approach individuals thought to have the right skills.

New Governing Council members are invited to spend time with members of the senior management team. This is a chance to learn about the Institute and identify opportunities to get more involved with JIC's work.

In addition to the five formal meetings, all trustees receive regular presentations from JIC's scientists and briefings on key issues facing the organisation.

Trustee assessment

In keeping with an effective governance framework, in Autumn 2023, we introduced reviews for Trustee Directors and the Chair. The process of self-assessment, feedback and discussion of priorities and any development needs will ensure that we fully utilise each Trustee Director's skills and successfully deliver as a board.

Trustee remuneration

None of the trustees received any remuneration in the year in respect of their role as trustee directors.

Key Management Personnel

The trustees delegate management of the day to day activities of the charitable company to the Director of the Institute and the Executive Group.

Executive Group

JIC's Executive Group advises the Director at strategic and operational levels on major issues that affect the Institute with respect to research, appointments, new initiatives, Business Plan and infrastructure, particularly where such issues involve more than one of these areas.
Its membership is as follows:

- Director, (Prof Graham Moore (Chair), to 31 August 2025, Prof Cristobal Uauy (Chair) from 1 September 2025);
- Deputy Director, Prof Anne Osbourn;
- Chief Operating Officer, Mr Dave Foreman;
- Human Resources Director, (Ms Anne O'Halleron until 25 July 25);
- Chair of Faculty, (Prof Tony Maxwell to 18 September 2024, Prof Richard Morris from 19 September 2024).

Executive Group is supported by a number of other executive committees and groups including: Research Committee; Scientific Resources Committee; People & Culture Committee; and Appointments Committee.

Employees

JIC is a dynamic, multinational community of about 400 scientists and post graduate students. JIC's reputation for scientific excellence is international and it attracts some of the best scientists and brightest students internationally. JIC is committed to the training of the next generation of scientists. Activities include an undergraduate summer school (jointly with TSL and Earlham Institute) that gives students the unique opportunity to spend the summer on site. There are two different routes to a PhD: the prestigious rotation studentships and the NRP Doctoral Training Programme. We host Postdoctoral scientists and independent Fellows from around the world.

Equality and Diversity

It is the Charity'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 Charity 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 Charity's policies follow these principles.

JIC is aware of its statutory duty to support the employment of disabled persons where possible, both in recruitment and by retention of employees who become disabled whilst in the employment of the charitable company, as well as generally through training and career development.

During the year, regular communications to employees have been provided on matters affecting them, including factors affecting the Charity's progress, and they have been consulted on decisions affecting them.

Culture champions

JIC's ability to attract the best researchers and students internationally creates a vibrant, dynamic and intellectually nurturing environment for both training and scientific discovery and is a primary driver of our scientific effectiveness.

To support our work embedding a positive research culture at JIC, this year we launched a new trial initiative, the 'Culture Champions'. This small group of staff support positive behaviours at work, provide an independent point of contact when any concerns arise, can signpost to other initiatives and help and will offer support to help colleagues find a positive way forward.

The Culture Champions help by supporting others, by being active bystanders and role models and by sign posting others to find the support and guidance that they need. They are informal, confidential and independent points of contact for staff.

Connecting cultures - Neurodiversity

At the John Innes Centre we value diversity and are committed to the creation of a positive environment which is fair, welcoming and inclusive: where everyone is treated with dignity and respect. Diversity, including neurodiversity is central to the success of our research and innovation endeavour.

We are leading the UKRI-BBSRC supported project, "Understanding, Valuing, and Celebrating Neurodiversity" which aims to raise the profile of neurodiverse people in research institutes, combining

training, awareness building and networking activities, as well as sharing experiences of working with – and for – the neurodiverse community.

Athena Swan

In 2017, JIC became the first research institute to be awarded a 'Gold' Athena Swan award and this was successfully renewed for a further 5 years in 2023. The Athena SWAN charter recognises and celebrates good practice in recruiting, retaining and promoting women in science, technology, engineering, maths and medicine (STEMM) in higher education.

This award recognises JIC's culture that embraces the principles of flexibility that provide for family-friendly working practices, while at the same time demonstrating a commitment to career advancement for all employees.

JIC recognises the value of a diverse workforce and, although Athena SWAN is focused on gender equality, we believe that a fair and equitable working environment is key to both a productive workforce and delivery of JIC strategy, and that initiatives put in place to address gender inequality ultimately benefit all staff. JIC is a member of Stonewall Diversity champion programme.

RELATED PARTIES

Subsidiaries

JIC's subsidiaries in the year were as follows:

- John Innes Enterprises Limited (commerce);
- Norwich Biosciences Limited (dormant);
- Norwich Research Limited (dormant);
- JIC NRP Capital Limited (dormant).

Associates

JIC's associates in the year were as follows:

- NBI Partnership Limited;
- Plant Bioscience Limited;
- Leaf Expression Systems Limited (until the company entered liquidation in August 2024).

NBI Partnership Limited

JIC has a 25% interest in NBI Partnership Limited ("NBIP"). NBIP supplies support and administrative services to JIC and the three other research organisations based on the Norwich Research Park (Quadram Bioscience Institute, Earlham Institute and TSL). NBIP fully recharges its costs to the four research organisations and accordingly it generates no profit or loss.

Plant Bioscience Limited

JIC owns one third of the share capital of Plant Bioscience Limited ("PBL"). PBL manages the intellectual property rights of the charitable company and other organisations.

Leaf Expression Systems Limited

JIC owns 45% of the voting share capital and at 31 March 2025 had invested £1,630k in non-voting share capital of Leaf Expression Systems Limited ("Leaf"). Leaf is a commercial research & development company specialising in the expression and production of proteins, metabolites and complex natural products. Since August 2024 Leaf Expression Systems Limited has been in liquidation.

BBSRC

BBSRC is a member of the charitable company.

JIC is strategically funded, along with seven other institutes, by BBSRC. BBSRC supports JIC via strategic 5-year funding programmes, competitively won project grants and capital funding for infrastructure and technology investments.

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

John Innes Foundation

The John Innes Foundation ("JIF") is a member of the charitable company. JIC occupies land and buildings which are owned by JIF, with the principal research buildings leased at a peppercorn rent. In addition, JIF also sponsors the training of a number of students. Studentship grants in the year were £633k (2024: £533k). Further details are provided in note 22 to the financial statements.

University of East Anglia

University of East Anglia ("UEA") is a member of the charitable company. The majority of PhD students at JIC are registered with UEA.

Anglia Innovation Partnership LLP

JIC is a member of Anglia Innovation Partnership LLP through its 100% subsidiary, JIC NRP Capital Limited. Anglia Innovation Partnership LLP is responsible for the management and development of the Norwich Research Park (NRP) estate and for the furtherance of the NRP Enterprise Vision.

JIC is entitled to receive a share of certain profits generated by Anglia Innovation Partnership LLP, however it has no liability for losses or in the event of insolvency. Anglia Innovation Partnership LLP has not yet generated any realised profits.

ENERGY AND CARBON REPORTING

GHG emissions and energy use data	Units	2024/25	2023/24
Emissions from combustion of gas (scope 1)	tCO^2e	11,933	11,770
Emissions from other sources i.e. refrigerants (scope 1)	tCO^2e	123	215
Emissions from combustion of fuel for transport purposes (scope 1)	tCO^2e	30	26
Emissions from purchase of electricity (scope 2) - Location based grid factors	tCO^2e	858	1,159
Emissions from purchase of electricity (scope 2) – Market based method (voluntary-not summed)	tCO^2e	1,686	2,135
Emissions from generation of electricity consumed in a transmission and distribution system which the company does not own or control (scope 3)	tCO2e	76	100
Emissions from business travel in rental cars or employee-owned vehicles, where company is responsible for purchasing fuel (scope 3)	tCO^2e	3.34	4.80
Total gross CO^2e based on above	**tCO^2e**	**13,023**	**13,275**
Energy consumption used to calculate above emissions	**kWh**	**69,156,191**	**70,057,630**
Intensity Metric	**m^2**	**38,065**	**39,997**
Intensity Ratio	**tCO^2/m^2**	**0.342**	**0.332**

Methodology

JIC have followed the 2019 HM Government Environmental Reporting Guidelines. Emissions factors used are tonnes of CO2 equivalent and data has been calculated using the 2024 UK Government's Conversion Factors for Company Reporting (DEFRA).

Scope 1 emissions relate to on-site gas usage and emissions from Company owned vehicles and refrigerant emissions. Scope 2 emissions relate to onsite imported electricity usage. Scope 3 SECR emissions relate to grey fleet, electricity transmissions and distribution losses as required by the regulations. The primary source for calculating energy consumption is supplier invoices. Where energy data is not in line with the financial year, a pro rata calculation has been used to estimate the usage for the remainder of the reporting period. Electricity is supplied to other companies on site, their consumption is monitored using sub meters and deducted from total site usage to provide us with JIC consumption.

JIC operate 3 combined heat and power (CHP) engines. For 2024/25 financial year, all the gas used in the CHP is being reported as this is under JIC's operational control, power and heat are supplied to other companies on site. JIC has continued the journey to quantify scope 3 emissions. Since 2022 this has grown to include: Category 5 - Waste generated in operations Category 3 - Fuel and energy related activities for 'well to tank' data, also third-party tenant energy usage. Category 1 - Purchased goods and services has been included, analysing the top 99% of spend.

Category 6 - Business travel using spend methodology, emissions factors are sourced from the Exiobase EEIO database for GHG emissions in tCO2e per EUR spent. Business travel mainly includes flights, rail, taxis and overnight accommodation. Remaining emission factors have been sourced from the 2024 DEFRA factors.

Energy consumption

CHP engines use gas to generate heat and power on site. In 2024/25 more gas (2.3%) was consumed than the previous year, consequently resulting in more electricity being generated (0.3%). A change in accounting methodology, in line with the GHG Protocol, now treats CHP gas consumption as a Scope 1 emissions source within JIC's control as the generator, rather than a source from third-party electricity use (Scope 3). This has increased Scope 1 emissions but decreased Scope 3 emissions. Scope 2 emissions have also decreased due to other energy savings across site, namely a reduction in Horticultural Services use.

Energy management

JIC have continued their focus on operational efficiency and improvements during the last year and have continued to be committed to responsible energy consumption.

During the financial year, JIC have continued to focus on improving energy management and have focussed on the following areas:

- Continued LED replacement and lighting control improvements to help improve lighting energy efficiency
- Replacement of chillers with more efficient units using refrigerants with lower global warming potentials
- Expansion of energy reporting dashboards to help raise awareness of other utilities, namely gas, waste and water consumption
- Continuation of environmental engagement strategy including a focus on energy efficiency
- Improving the building management systems to connect additional submetering and analysis to ongoing trends and potential efficiency gains

JIC have also conducted a site wide energy review in collaboration with NBIP, which identified opportunities to improve energy efficiency via procurement, energy reduction, building design and an increase in onsite energy generation.

STATEMENT OF RESPONSIBILITIES OF THE TRUSTEES OF JOHN INNES CENTRE 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 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.

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 of a trustee being proven to have acted fraudulently or dishonestly.

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 JIC to be charitable in nature.

Disclosure of information to auditor

The trustees confirm that:

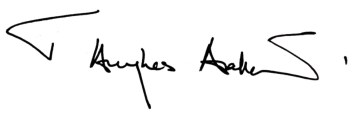
- so far as each trustee is aware, there is no relevant audit information of which the Company's auditor is unaware, and
- the trustees have taken all the steps that they ought to have taken as directors in order to make themselves aware of any relevant audit information and to establish that the Company's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

Independent auditor

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

Approval of the trustees' report

The trustees' report and strategic report were approved by Governing Council on 16 October 2025.



Sir Thomas Hughes-Hallett, Chair

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF JOHN INNES CENTRE

Opinion

We have audited the financial statements of JIC (the 'parent charitable company') and its subsidiaries (the 'group') for the year ended 31 March 2025 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 2025, 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 10, 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

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.

The extent to which the audit was considered capable of detecting irregularities including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud.

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 the accelerated depreciation of assets affected by the Next Generation Infrastructure programme;
- 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/auditorsresponsibilities

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.



Anders Rasmussen FCA (Senior Statutory Auditor)

for and on behalf of
Larking Gowen LLP

Chartered Accountants
Statutory Auditors

5 November 2025

FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF FINANCIAL ACTIVITIES

FOR THE YEAR ENDED 31 MARCH 2025
INCORPORATING AN INCOME AND EXPENDITURE ACCOUNT

	Note	Unrestricted funds	Restricted general funds	Restricted capital funds	**Total 2025**	Total 2024
		£000	£000	£000	**£000**	£000
Income						
Income from charitable activities						
Grant income		-	35,551	-	**35,551**	36,608
Capital and maintenance grants		-	1,938	32,734	**34,672**	30,432
Other charitable income		1,017	-	-	**1,017**	1,210
Income from other trading activities						
Trading income		827	-	-	**827**	750
Rental income		315	-	-	**315**	268
Investment income		2,062	-	-	**2,062**	1,504
Other income		4,338	-	-	**4,338**	3,640
Total income	2	8,559	37,489	32,734	**78,782**	74,412
Expenditure						
Charitable activities	3	(7,243)	(36,980)	(8,208)	**(52,431)**	(51,278)
Raising funds	3	(478)	-	-	**(478)**	(454)
Trading expenditure	3	(724)	-	-	**(724)**	(685)
Other resources expended	3	(361)	-	-	**(361)**	(252)
Share of operating result of associates	12	(54)	-	-	**(54)**	(127)
Total expenditure		(8,860)	(36,980)	(8,208)	**(54,048)**	(52,796)
Net income for the year		(301)	509	24,526	**24,734**	21,616
Transfers and revaluation						
Capital transfers	19	159	(207)	48	**-**	-
Other transfers	19	1,939	(262)	(1,677)	**-**	-
Net movement in funds for the year		1,797	40	22,897	**24,734**	21,616
Funds brought forward		23,225	-	102,829	**126,054**	104,438
Net movement in funds for the year		1,797	40	22,897	**24,734**	21,616
Funds carried forward	19	25,022	40	125,726	**150,788**	126,054

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

The notes on pages 27 to 41 form part of these financial statements.

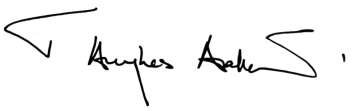
CONSOLIDATED AND CHARITABLE COMPANY BALANCE SHEETS

AS AT 31 MARCH 2025

	Note	**Group 2025** **£000**	Group 2024 £000	**Company 2025** **£000**	Company 2024 £000
Fixed assets					
Tangible assets	10	**111,324**	80,731	**111,324**	80,731
Intangible assets	11	**-**	-	**-**	-
Investments	12	**-**	-	**1**	1
Investments in associates					
Share of total assets		**1,581**	1,675	**-**	-
Share of total liabilities		**(155)**	(195)	**-**	-
	12	**1,426**	1,480	**-**	-
Total fixed assets		**112,750**	82,211	**111,325**	80,732
Current assets					
Stocks	13	**250**	278	**250**	278
Debtors	14	**15,342**	13,059	**15,436**	12,960
Cash at bank and in hand	15	**44,093**	48,334	**43,690**	47,975
		59,685	61,671	**59,376**	61,213
Current liabilities					
Creditors: amounts falling due within one year	16	**(21,647)**	(17,828)	**(21,669)**	(17,598)
Total net current assets		**38,038**	43,843	**37,707**	43,615
Total assets less current liabilities		**150,788**	126,054	**149,032**	124,347
Total net assets	18	**150,788**	126,054	**149,032**	124,347
The funds of the charity					
Unrestricted funds					
Fixed assets reserve	19	**5,233**	5,761	**3,807**	4,281
Designated reserves	19	**13,467**	10,915	**13,467**	10,915
General reserve	19	**6,322**	6,549	**5,991**	6,321
Total unrestricted funds		**25,022**	23,225	**23,265**	21,517
Restricted funds					
General reserve	19	**40**	-	**40**	-
Fixed assets reserve	19	**107,517**	76,450	**107,518**	76,451
Designated reserves	19	**18,209**	26,379	**18,209**	26,379
Total restricted funds		**125,766**	102,829	**125,767**	102,830
Total charity funds		**150,788**	126,054	**149,032**	124,347
Total funds	19	**150,788**	126,054	**149,032**	124,347

A separate income and expenditure account has not been presented for JIC as this is exempted by Section 408 of the Companies Act 2006. The surplus after tax of JIC was £24,685k (2024: £21,776k).

The financial statements on pages 24 to 41 were approved by the Governing Council on 16 October 2025 and were signed on its behalf by:



Company registration number: 00511709

Sir Thomas Hughes-Hallett, Chair

CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED 31 MARCH 2025

	Total 2025	Total 2024
	£000	£000
Cash flows from operating activities		
Net movement in funds for the year	**24,734**	21,616
Share of operating result of associates	**54**	127
Net income for the year	**24,788**	21,743
Interest receivable	**(2,062)**	(1,504)
Depreciation and amortisation	**8,208**	9,827
Capital grants receivable	**(32,734)**	(29,104)
Loss/(Profit) on disposal of tangible assets	**108**	(6)
Decrease in stocks	**28**	62
(Increase) in debtors	**(2,283)**	(858)
Increase/(decrease) in creditors	**3,819**	(3,365)
Net cash (used in) operating activities	**(128)**	(3,205)
Cash flows from investing activities:		
Interest received	**2,062**	1,504
Purchase of tangible assets	**(38,909)**	(16,751)
Capital grants received	**32,734**	29,104
Proceeds from sale of tangible assets	**-**	14
Net cash provided by / (used in) investing activities	**(4,113)**	13,871
Change in cash and cash equivalents in the reporting period	**(4,241)**	10,666
Cash and cash equivalents at the beginnning of the period	**48,334**	37,668
Total cash and cash equivalents at the end of the year	**44,093**	48,334

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

The notes on pages 27 to 41 form part of these financial statements.

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 (FRS102)– (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 as follows:

b) Basis of consolidation

The consolidated financial statements incorporate the financial statements of JIC and all its subsidiary undertakings in accordance with Financial Reporting Standard ("FRS") 102 "Accounting for Subsidiary Undertakings", and associated entities which are accounted for using the equity method.

Associates are entities over which JIC has significant influence but not control. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise JIC's share of the profit or loss of the associate after the date of acquisition. JIC's share of post-acquisition operating result is recognised in the statement of financial activities. Determination is made at each balance sheet date whether there is any evidence that the investment in the associate is impaired. If this is the case, the amount of impairment is calculated as the difference between the recoverable amount of the associate and its carrying value, and this amount is recognised adjacent to share of operating result of associates in the statement of financial activities.

JIC is one of four members of NBI 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.

The financial statements of all group undertakings and associates are made up to 31 March 2025.

A separate income and expenditure account has not been presented for JIC as this is exempted by Section 408 of the Companies Act 2006. The surplus of JIC was £24,685k (2024: £21,776k).

c) Going concern

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 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 £14.6m in the year (2024: £14.6m). BBSRC has confirmed strategic funding of £14.6m for the year to March 2026 and the Institute expects its strategic programme funding to continue at this level for the 2 years to March 2028.

The Institute has prepared income, reserves and cash flow forecasts to March 2028. The forecasts indicate that the Institute will have significant cash headroom over the period..

The assessment has included consideration of the NGI project, and in particular, funding, cash flows and the programmes wider risks.

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 prepared the financial statements on a going concern basis.

d) Income

Charitable grant income represents grants received and receivable in the year from outside granting bodies.

Grants that provide core funding are recognised in the year in which entitlement passes. Grant funding received to train students and 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.

Other charitable income represents non-grant revenue from providing scientific research services to other academic institutions and other services. Revenue is recognised in the year in which the obligation is fulfilled.

Trading income, which includes rent, other letting income and other income, relates to the non-charitable services undertaken by John Innes Enterprises Limited, subsidiary company of JIC, and is recognised in accordance with the terms of the contracts entered into, reflecting the point at which the obligations of the companies 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 earnt.

Other income includes site infrastructure charges, UEA tuition fee income and miscellaneous income. Revenue is recognised in the year in which the obligation is fulfilled.

Capital grants are recognised 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.

e) Expenditure

Charitable activity expenditure 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.

Raising funds represents the cost of obtaining funds for research. The cost of obtaining funds includes an estimate of the time/salary cost of project leaders preparing and reviewing grant application forms.

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 allocated to charitable activity expenditure, costs of generating funds and governance costs based upon activity or headcount as indicated in note 4 to the financial statements.

Other expenditure relates to expenditure maintaining capital assets that does not meet the capitalisation policy.

Trading expenditure relates to the costs of undertaking the non-charitable services performed by subsidiary companies of JIC and is recognised in the period in which it is incurred.

f) Restricted funds

Where research at JIC 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.

From April 2018 the strategic programme grants from the UK Research and Innovation - Biotechnology and Biological Sciences Research Council ("BBSRC") are shown as restricted.

A restricted fixed assets reserve has been established representing the net book value of fixed assets purchased from capital grants.

Restricted reserves include a designated capital reserve of £18,209k (2024: £26,379k) in connection with funding received from BBSRC, which is to be used on future capital projects to be agreed with BBSRC.

g) Unrestricted funds

Research grants that do not contain conditions for the final receipt of funds have been treated as unrestricted. Funds received for non-specified purposes have also been included as unrestricted.

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 Governing Council for specific purposes are shown in separate designated reserves.

h) 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.

i) 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.

j) Designated capital transfers

A transfer from the unrestricted general reserve to the unrestricted designated reserve is made in relation to the expenditure which had been designated by Governing Council for use in the financial projections to March 2028.

k) Centre funded capital

Capital expenditure funded from unrestricted reserves is shown as a transfer from the unrestricted designated capital reserve or general reserve to the unrestricted fixed asset reserve.

l) Tangible assets and depreciation

Tangible assets are shown at cost less accumulated depreciation. The cost of tangible assets is their purchase cost, together with any incidental costs of acquisition. Depreciation is calculated using the straight-line method to write off the cost of assets, less any estimated residual value, over their estimated useful lives at the following rates:

Leasehold land and buildings – over lease term or useful life, if shorter;

Freehold land – not depreciated;

Freehold buildings – estimated economic life;

Plant, machinery and equipment – estimated economic life;

Scientific equipment - 5 to 15 years straight line;

Computer equipment – 3 to 5 years straight line;

Motor vehicles – 4 years straight line;

Combined heat and power scheme – 20 years straight line.

The leasehold buildings have been depreciated over their estimated economic life. The trustees have determined that land is not subject to depreciation. Assets in the course of construction are not depreciated until the asset is in full use.

JIC includes in its financial statements leasehold land and buildings owned by third parties, which it occupies and enjoys through extended peppercorn leases. The trustees consider that in substance, the risks and rewards of ownership of the assets have passed to the Institute, and as such follow a policy of recognising the assets on the balance sheet that reflects its continuing occupancy of these assets for the foreseeable future.

As a result of the proposed redevelopment outlined in the NGI programme, the useful lives of associated assets have been reviewed based upon the timetable.

m) 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 straight line

Intangible assets under construction are not amortised until the asset is in full use.

n) Fixed asset investments

The consolidated balance sheet includes the group's share of each associate's gross assets and liabilities. The share of each associate's net income is reported in JIC's consolidated statement of financial activities.

o) Stocks

Stocks are stated at the lower of cost and net realisable value. Provision is made, where necessary, for slow moving or obsolete stock.

p) Debtors

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

q) Cash balances held as grant co-ordinator

Cash balances held in the charitable company's capacity as grant co-ordinator are included within cash on the charitable company's balance sheet and are disclosed in note 24 to the financial statements.

r) Trade creditors

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

s) Loans

Loans are stated on the balance sheet at amortised cost.

t) 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.

u) Staff and Pensions

JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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.

JIC 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.

v) 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.

w) Operating leases

Rental costs are charged to the statement of financial activities on a straight-line basis over the life of the lease.

x) Foreign currency transactions

The functional and reporting currency 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.

y) 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 such as trade and other accounts receivable and payable.

z) 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 above. The amount of depreciation charged and net book value of the assets is included in Note 10.

- Accelerated depreciation, which results from a review of useful lives of assets affected by the latest NGI timetable. The depreciation of these assets has been accelerated to depreciate them to nil over their estimated remaining useful lives. The amount of depreciation charged and net book value of the assets is included in Note 10.

NOTES TO THE ACCOUNTS

2. ANALYSIS OF INCOMING RESOURCES

	Research activities	Student activities	Other activities	**Total 2025**	Research activities	Student activities	Other activities	**Total 2024**
	£000	£000	£000	**£000**	£000	£000	£000	£000
Grant income								
BBSRC	23,015	3,186	-	**26,201**	26,061	2,563	-	**28,624**
Other government departments	2,824	12	-	**2,836**	2,086	10	-	**2,096**
European Union	951	-	-	**951**	1,265	9	-	**1,274**
Industrial partners	348	-	-	**348**	171	-	-	**171**
John Innes Foundation	191	633	-	**824**	207	533	-	**740**
Other charities	2,555	208	-	**2,763**	2,354	132	-	**2,486**
Universities	36	64	-	**100**	1	22	-	**23**
Other grants	1,528	-	-	**1,528**	1,161	33	-	**1,194**
Total grant income	31,448	4,103	-	**35,551**	33,306	3,302	-	**36,608**
Capital and maintenance grants								
BBSRC								
Capital expenditure	34,672	-	-	**34,672**	30,432	-	-	**30,432**
Total capital grants	34,672	-	-	**34,672**	30,432	-	-	**30,432**
Other charitable income								
Scientific services	-	-	853	**853**	-	-	813	**813**
Miscellaneous income	-	-	164	**164**	-	-	397	**397**
Total other charitable income	-	-	1,017	**1,017**	-	-	1,210	**1,210**
Trading income								
John Innes Enterprises Limited	-	-	827	**827**	-	-	750	**750**
Total trading income	-	-	827	**827**	-	-	750	**750**
Rental income								
Conferencing Facilties	-	-	230	**230**	-	-	182	**182**
Hill House	-	-	85	**85**	-	-	86	**86**
Total rental income	-	-	315	**315**	-	-	268	**268**
Investment income								
Interest receivable on cash deposits	-	-	2,046	**2,046**	-	-	1,486	**1,486**
Interest receivable on loan to related party	-	-	16	**16**	-	-	18	**18**
Total investment income	-	-	2,062	**2,062**	-	-	1,504	**1,504**
Other generated income								
Site infrastructure recharges	-	-	1,657	**1,657**	-	-	1,759	**1,759**
Other	-	-	2,681	**2,681**	-	-	1,881	**1,881**
Total other generated income	-	-	4,338	**4,338**	-	-	3,640	**3,640**
Total income	66,120	4,103	8,559	**78,782**	63,738	3,302	7,372	**74,412**

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

- Of grant income totalling £35,551k (2024: £36,608k), £35,551k (2024: £36,608k) is restricted general funds and £nil (2024: £nil) is restricted capital funds.
- Of capital grants totalling £34,672k (2024: £30,432k), £1,938k (2024: £1,328k) is restricted general funds and £32,734k (2024: £29,104k) is restricted capital funds.
- Other charitable income of £1,017k (2024: £1,210k) is all unrestricted funds.
- In both periods all trading and investment income is unrestricted funds.

NOTES TO THE ACCOUNTS

3. ANALYSIS OF RESOURCES EXPENDED

	Note	Research activities £000	Student activities £000	Other activities £000	**Total 2025 £000**	Research activities £000	Student activities £000	Other activities £000	**Total 2024 £000**
Direct charitable expenditure:									
Staff costs		14,298	-	-	**14,298**	13,678	-	-	**13,678**
Direct costs		16,438	174	-	**16,612**	10,781	4,303	-	**15,084**
Depreciation and impairment		8,765	-	-	**8,765**	9,827	-	-	**9,827**
Governance costs	4	-	-	94	**94**	-	-	80	**80**
Support costs	4	9,827	2,835	-	**12,662**	10,050	2,559	-	**12,609**
Expenditure on charitable activities		**49,328**	**3,009**	**94**	**52,431**	44,336	6,862	80	**51,278**
Raising funds	4	-	-	478	**478**	-	-	454	**454**
Trading expenditure		-	-	724	**724**	-	-	685	**685**
Other resources expended		-	-	361	**361**	-	-	252	**252**
Share of operating result of associates		-	-	54	**54**	-	-	127	**127**
Total expenditure		**49,328**	**3,009**	**1,711**	**54,048**	44,336	6,862	1,598	52,796

Included within expenditure is restricted general expenditure of £36,980k (2024: £36,280k) and restricted capital resources expended (depreciation) of £8,208k (2024: £9,827k). All other expenditure is unrestricted.

Analysis of governance costs	**Total 2025 £000**	Total 2024 £000
Staff costs	**29**	29
Travel costs	**14**	12
Other costs	**51**	39
Total governance costs	**94**	80

4. ALLOCATION OF SUPPORT COSTS, GOVERNANCE AND RAISING FUNDS

	Research activities £000	Student activities £000	Raising funds £000	Governance costs £000	**Total 2025 £000**	Basis of Allocation
Governing Council and SIAB	-	-	-	47	**47**	Headcount
Lab management	481	139	-	-	**620**	Headcount
Institute management	543	156	-	-	**699**	Headcount
Scientific services	82	24	-	-	**106**	Headcount
Facilities management and utilities*	6,429	1,855	-	-	**8,284**	Headcount
Finance and Purchasing*	558	161	-	-	**719**	Headcount
Computing and Library*	708	204	-	-	**912**	Headcount
Human Resources*	289	83	-	-	**372**	Headcount
Contracts services*	-	-	317	-	**317**	Activity
Other support services	737	213	161	47	**1,158**	Activity
Total support costs	**9,827**	**2,835**	**478**	**94**	**13,234**	

	Research activities £000	Student activities £000	Raising funds £000	Governance costs £000	**Total 2024 £000**	Basis of Allocation
Governing Council and SIAB	-	-	-	42	**42**	Headcount
Lab management	483	123	-	-	**606**	Headcount
Institute management	577	148	-	-	**725**	Headcount
Scientific services	463	118	-	-	**581**	Headcount
Facilities management and utilities*	6,336	1,609	-	-	**7,945**	Headcount
Finance and Purchasing*	563	144	-	-	**707**	Headcount
Computing and Library*	688	176	-	-	**864**	Headcount
Human Resources*	292	75	-	-	**367**	Headcount
Contracts services*	-	-	319	-	**319**	Activity
Other support services	648	166	135	38	**987**	Activity
Total support costs	**10,050**	**2,559**	**454**	**80**	**13,143**	

* Includes services supplied by NBI Partnership Limited (see note 22). Scientific services costs are shown net of recharges to science projects.

NOTES TO THE ACCOUNTS

5. TAXATION

JIC ("JIC") 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 (2024: £nil) tax charge payable.

6. OPERATING SURPLUS

Operating surplus is stated after charging/(crediting):

	Total 2025	Total 2024
	£000	£000
Audit services:		
Fees payable to the charitable company's auditors for the audit of charitable company and consolidated financial statements	**33**	32
Fees payable for the audit of the charitable company's subsidiaries pursuant to legislation	**2**	2
Depreciation and amortisation	**8,208**	9,827
Loss/(Profit) on disposal of tangible assets	**108**	(6)
Hire of plant and equipment	**91**	64
Rent of land and buildings	**179**	26
Loss on foreign exchange translations	**47**	89

7. NET INCOME FROM TRADING ACTIVITIES OF SUBSIDIARIES

Profit and loss account	John Innes Enterprises Limited £000	**Total 2025 £000**	John Innes Enterprises Limited £000	**Total 2024 £000**
Turnover	1,527	**1,527**	750	**750**
Cost of sales	(1,376)	**(1,376)**	(712)	**(712)**
Gross profit/(loss)	151	**151**	38	**38**
Administrative expenses	-	**-**	-	**-**
Operating profit/(loss)	151	**151**	38	**38**
Interest received	-	**-**	-	**-**
Operating profit/(loss) retained in subsidiary	151	**151**	38	**38**
Net assets at 31 March	328	**328**	225	**225**

In addition to the above, £48,544 (2024: £71,091) in Gift Aid was paid to the charitable company in the year.

8. REMUNERATION OF MEMBERS OF THE GOVERNING COUNCIL

None of the members of the Governing Council received any remuneration from the group during the current or prior year for their duties as trustees. During the year, Professor J Armitage, Trustee of JIC, received £5,000 (2024: £5,000) as chair of JIC's Science Impact Advisory Board (SIAB). Professor J Langdale, Trustee of JIC, received £3,000 (2024: £nil) for JIC's Science Impact Advisory Board (SIAB).

Attendance expenses incurred by 6 (2024: 6) trustees whilst carrying out their duties amounted to £2,106 during the year (2024: £1,662).

NOTES TO THE ACCOUNTS

9. EMPLOYEE INFORMATION

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

Group and charitable company	**2025**	2024
	Number	Number
Scientific	**305**	307
Office management and services	**39**	39
Total	**344**	346

The aggregate payroll costs of these persons were:

Group and charitable company		**2025**	2024
	Note	**£000**	£000
Wages and salaries		**13,960**	13,630
Redundancy costs		**138**	84
Social security costs		**1,466**	1,418
Other pension costs	22	**2,326**	1,957
Total		**17,890**	17,089

An analysis of the number of staff who fall within staff cost bands (excluding pension cost) from £60k upwards is provided below:

Group and charitable company	**2025**	2024
	Number	Number
£60,000 - £69,999	**8**	16
£70,000 - £79,999	**15**	12
£80,000 - £89,999	**6**	6
£90,000 - £99,999	**11**	5
£100,000 - £109,999	**4**	6
£110,000 - £119,999	**1**	3
£120,000 - £129,999	**3**	2
£130,000 - £139,999	**2**	2
£150,000 - £159,999	**-**	1
£160,000 - £169,999	**1**	-
£170,000 - £179,999	**1**	1
£220,000 - £229,999	**1**	1
Total	**53**	55

The number of staff with emoluments greater than £60k who were also members of the Research Councils' Pension Schemes was eighteen (2024: twenty-one). Thirty-one (2024: twenty-eight) with emoluments greater than £60k are members of a defined contribution pension scheme.

Staff that joined prior to 1 October 2011 were employed by BBSRC up to 1 October 2017, when these employees' transferred employment to the Institute under TUPE. Transferred employees retain their membership of the Research Councils Pension Scheme, where applicable, with JIC becoming an admitted employer in the scheme. Staff that joined after 1 October 2011 are employed under JIC terms & conditions.

The key management personnel of the parent charity, JIC, comprise of the trustees and members of the Executive Group. In 2024 this also included members of the Strategy Committee.

The key management personnel of the group comprise those of the charity and the key management personnel of the wholly owned subsidiaries, John Innes Enterprises Ltd, Norwich Biosciences Ltd, Norwich Research Ltd and JIC NRP Capital Ltd. All the subsidiaries key management personnel are the same as the parent company. No staff costs were recharged in respect of this. The employee costs (salaries, social security costs and pension costs) of the key management personnel for the group and charitable company were £952,088 (2024: £818,394). The number of key management personnel staff for the group and charitable company was five (2024: four).

NOTES TO THE ACCOUNTS

10. TANGIBLE ASSETS

Group & Company	Note	Freehold land and buildings	leasehold land and buildings	machinery and equipment	Assets under construction	Total
		£000	£000	£000	£000	**£000**
Cost						
At 1 April 2024		3,820	69,465	63,216	20,029	**156,530**
Transfers		-	341	1,719	(2,060)	**-**
Additions		-	2,997	4,199	31,713	**38,909**
Disposals		-	(927)	(1,977)	(2)	**(2,906)**
At 31 March 2025		**3,820**	**71,876**	**67,157**	**49,680**	**192,533**
Accumulated Depreciation						
At 1 April 2024		834	37,491	37,474	-	**75,799**
Charge for the year		5	3,987	4,216	-	**8,208**
Disposals		-	(927)	(1,871)	-	**(2,798)**
At 31 March 2025		**839**	**40,551**	**39,819**	**-**	**81,209**
Net book value at 31 March 2025		**2,981**	**31,325**	**27,338**	**49,680**	**111,324**
Net book value at 31 March 2024		2,986	31,974	25,742	20,029	80,731

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

JIC includes in its financial statements land and buildings owned by third parties, which it occupies and enjoys through extended peppercorn leases. The trustees consider that in substance, the risks and rewards of ownership of the assets have passed to the Institute, and as such a policy of recognising the assets on the balance sheet reflects its continuing occupancy of these assets for the foreseeable future.

All of the charitable company's assets at 31 March 2025 are used for direct charitable purposes.

The depreciation charge for the year includes an additional £2.0m (2024: £3.5m), resulting from the acceleration of depreciation on assets affected by the NGI programme of redevelopment.

11. INTANGIBLE ASSETS

Group and Charitable company	Software development	Total
	£000	**£000**
Cost		
At 1 April 2024	147	**147**
Additions	-	**-**
Disposals	(147)	**(147)**
At 31 March 2025	**-**	**-**
Accumulated Depreciation		
At 1 April 2024	147	**147**
Charge for the year	-	**-**
Disposals	(147)	**(147)**
At 31 March 2025	**-**	**-**
Net book value at 31 March 2025	**-**	**-**
Net book value at 31 March 2024	-	**-**

NOTES TO THE ACCOUNTS

12. INVESTMENTS

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
John Innes Enterprises Limited	02549904	England	Commerce	100% ordinary shares
Norwich Biosciences Limited	03076575	England	Dormant	100% ordinary shares
Norwich Research Limited	02814101	England	Dormant	100% ordinary shares
JIC NRP Capital Limited	06145922	England	Member of Anglia Innovation Partnership LLP	100% ordinary shares

The registered address for all the subsidiaries is JIC, Norwich Research Park, Colney, Norwich, NR4 7UH.

The charitable company's investment in subsidiary undertakings at cost amounts to £1,248 (2024: £1,248) and accumulated impairment of £244 (2024: £244) has been recognised against cost.

JIC 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. The company did not trade during the year.

The net income from trading activities of the subsidiaries during the year is shown in note 7.

Associates

The charitable company has an investment in Plant Bioscience Limited ("PBL"), a company registered in England and Wales, representing 33% (2024: 33%) of the ordinary £1 issued share capital. Plant Bioscience Limited manages the intellectual property rights of the charitable company and other organisations. This company is deemed to be an associate of the group and has therefore been included in the consolidated financial statements on that basis.

The charitable company has a 25% interest in NBI Partnership Limited ("NBIP"). NBIP supplies support and administrative services to JIC and the other Norwich Institutes (Quadram Bioscience Institute, 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.

The charitable company had an investment of 45% voting share capital and £1,630k non-voting share capital in Leaf Expression Systems Limited ("Leaf"). Leaf was a commercial research & development company specialising in the expression and production of proteins, metabolites and complex natural products. The value of JIC's investment in Leaf has been fully written down at March 2025 and March 2024 to reflect Leaf's trading position, since August 2024 Leaf has been in liquidation therefore it no longer meets the definition of an associate.

Investments – Company

The movement in the value of investments during the year was as follows:

	Total 2025	Total 2024
	£000	£000
Valuation		
At beginning of year	**1**	1
At end of year	**1**	1

Investments – Group

The Group's share of the operating results of associates was as follows:

Group	Leaf Expression Systems Limited	Plant Bioscience Limited	**Total 2025**	Leaf Expression Systems Limited	Plant Bioscience Limited	**Total 2024**
	£000	£000	**£000**	£000	£000	**£000**
Associates, share of:						
Turnover	-	292	**292**	-	407	**407**
Operating (loss)	-	(112)	**(112)**	-	(191)	**(191)**
Movement in opening balance	-	58	**58**	-	64	**64**
Share of result for the year	-	(54)	**(54)**	-	(127)	**(127)**

NOTES TO THE ACCOUNTS

12. INVESTMENTS (CONTINUED)

The Group's investment in associates is represented as follows:

Group	Leaf Expression Systems Limited £000	Plant Bioscience Limited £000	**Total 2025 £000**	Leaf Expression Systems Limited £000	Plant Bioscience Limited £000	**Total 2024 £000**
Associates: Share of net assets						
At beginning of year	-	1,480	**1,480**	-	1,607	**1,607**
Share of result for the year	-	(54)	**(54)**	-	(127)	**(127)**
At end of year	-	1,426	**1,426**	-	1,480	**1,480**
Represented by:						
Share of total assets	-	1,581	**1,581**	-	1,675	**1,675**
Share of total liabilities	-	(155)	**(155)**	-	(195)	**(195)**
Share of net assets	-	1,426	**1,426**	-	1,480	**1,480**

The trustees consider the value of investments included in the financial statements to be supported by their underlying assets. The value of the investment in Leaf Expression Systems Limited has been fully written down, reflecting the net deficit position of the company at 31 March 2024 and 2025. JIC has no liability to contribute to losses in the company.

13. STOCKS

Group and charitable company	**Total 2025 £000**	Total 2024 £000
Raw materials and consumables	**250**	278
Total	**250**	278

There is no material difference between the valuation of stock and its replacement cost.

14. DEBTORS

	Note	**Group 2025 £000**	Group 2024 £000	**Company 2025 £000**	Company 2024 £000
Grants receivable:					
from government bodies	22	**7,435**	1,690	**7,435**	1,690
from other sources		**2,298**	3,068	**2,298**	3,068
Trade debtors		**553**	2,225	**421**	2,097
Amounts owed by subsidiary undertakings		**-**	-	**280**	89
Amounts owed by other related parties	22	**1,284**	1,510	**1,283**	1,486
Other debtors		**1,189**	1,085	**1,189**	1,085
Prepayments and accrued income		**2,583**	3,481	**2,530**	3,445
Total amounts falling due within one year		**15,342**	13,059	**15,436**	12,960

Grants receivable from government bodies includes £1,414k in relation to capital funding receivable from BBSRC (2024: £8k).

15. CASH AT BANK AND IN HAND

	Group 2025 £000	Group 2024 £000	**Company 2025 £000**	Company 2024 £000
Cash at bank	**44,091**	48,332	**43,688**	47,973
Cash in hand	**2**	2	**2**	2
Total	**44,093**	48,334	**43,690**	47,975

NOTES TO THE ACCOUNTS

16. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	Note	**Group 2025 £000**	Group 2024 £000	**Company 2025 £000**	Company 2024 £000
Grants received in advance:					
from government bodies	22	**6,608**	4,786	**6,608**	4,786
from other sources		**2,535**	3,043	**2,497**	3,043
Trade creditors		**2,616**	834	**2,598**	807
Amounts owed to subsidiary undertakings		**-**	-	**134**	38
Amounts owed to other related parties	22	**965**	910	**964**	910
Other creditors		**1,354**	732	**1,299**	690
Taxation and social security		**362**	352	**362**	352
Accruals and deferred income		**7,207**	7,171	**7,207**	6,972
Total amounts falling due within one year		**21,647**	17,828	**21,669**	17,598

17. RECONCILIATION OF MOVEMENT IN GRANTS RECEIVABLE

Group and charitable company	Note	**Total 2025 £000**	Total 2024 £000
Grants receivable	14	**9,733**	4,758
Grants received in advance	16	**(9,143)**	(7,829)
Net grants received in advance		**590**	(3,071)
Net grants received in advance at beginning of year		**(3,071)**	(4,469)
Grant monies received during the year		**(66,562)**	(65,642)
Grant money released to SOFA during the year		**70,223**	67,040
Net grants received in advance		**590**	(3,071)

18. ANALYSIS OF NET ASSETS BETWEEN FUNDS

	Fixed assets £000	Net current assets £000	**Total 2025 £000**
Group			
Unrestricted:			
Fixed assets reserve	5,233	-	**5,233**
Designated capital reserve	-	13,467	**13,467**
General	-	6,322	**6,322**
Restricted:			
General reserve	-	40	**40**
Fixed assets reserve	107,517	-	**107,517**
Designated capital reserve	-	18,209	**18,209**
Net assets	**112,750**	**38,038**	**150,788**
Charitable company			
Unrestricted:			
Fixed assets reserve	3,807	-	**3,807**
Designated capital reserve	-	13,467	**13,467**
General	-	5,991	**5,991**
Restricted:			
General reserve	-	40	**40**
Fixed assets reserve	107,518	-	**107,518**
Designated capital reserve	-	18,209	**18,209**
Net assets	**111,325**	**37,707**	**149,032**

NOTES TO THE ACCOUNTS

18. ANALYSIS OF NET ASSETS BETWEEN FUNDS (CONTINUED)

	Fixed assets	Net current assets	**Total 2024**
	£000	£000	**£000**
Group			
Unrestricted:			
Fixed assets reserve	5,761	-	**5,761**
Designated capital reserve	-	10,915	**10,915**
General	-	6,549	**6,549**
Restricted:			
Fixed assets reserve	76,450	-	**76,450**
Designated capital reserve	-	26,379	**26,379**
Net assets	**82,211**	**43,843**	**126,054**
Charitable company			
Unrestricted:			
Fixed assets reserve	4,281	-	**4,281**
Designated reserves	-	10,915	**10,915**
General	-	6,321	**6,321**
Restricted:			
Fixed assets reserve	76,451	-	**76,451**
Designated reserves	-	26,379	**26,379**
Net assets	**80,732**	**43,615**	**124,347**

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 designated capital reserves are not endowment funds. The unrestricted designated capital reserve relates to funds designated by Governing Council for use in relation to planned capital investments in the financial projections to March 2028. The restricted capital reserve relates to funding received from BBSRC to be used in connection with future estates rebuild costs with the agreement of BBSRC.

The restricted general reserve relates to ring fenced strategic funding received from BBSRC. This funding has performance conditions attached and is transferred to the general reserve once the conditions have been met.

19. ANALYSIS OF FUNDS MOVEMENTS

	Unrestricted fixed assets	Unrestricted designated	Unrestricted general	Restricted general	Restricted fixed assets	Restricted designated	**Total 2025**
	£000	£000	£000	£000	£000	£000	**£000**
Group							
At 1 April 2024	5,761	10,915	6,549	-	76,450	26,379	**126,054**
Total income and expenditure for the year	-	-	(301)	509	24,526	-	**24,734**
Associates	(54)	-	54	-	-	-	**-**
Capital transfers	(575)	-	527	-	468	(420)	**-**
Designated capital transfers	-	-	-	-	6,073	(6,073)	**-**
Centre funded capital	101	-	106	(207)	-	-	**-**
Other transfers	-	2,552	(613)	(262)	-	(1,677)	**-**
At 31 March 2025	5,233	13,467	6,322	40	107,517	18,209	**150,788**
Charitable company							
At 1 April 2024	4,281	10,915	6,321	-	76,451	26,379	**124,347**
Total income and expenditure for the year	-	-	(350)	509	24,526	-	**24,685**
Capital transfers	(575)	-	527	-	468	(420)	**-**
Designated capital transfers	-	-	-	-	6,073	(6,073)	**-**
Centre funded capital	101	-	106	(207)	-	-	**-**
Other transfers	-	2,552	(613)	(262)	-	(1,677)	**-**
At 31 March 2025	3,807	13,467	5,991	40	107,518	18,209	**149,032**

NOTES TO THE ACCOUNTS

19. ANALYSIS OF FUNDS MOVEMENTS (CONTINUED)

	Unrestricted fixed assets	Unrestricted designated	Unrestricted general	Restricted general	Restricted fixed assets	Restricted designated	**Total 2024**
	£000	£000	£000	£000	£000	£000	**£000**
Group							
At 1 April 2023	6,770	11,705	6,378	108	68,652	10,825	**104,438**
Total income and expenditure for the year	-	-	683	1,656	19,277	-	**21,616**
Associates	(127)	-	127	-	-	-	**-**
Capital transfers	(882)	-	1,432	(1,328)	1,606	(828)	**-**
Designated capital transfers	-	-	-	-	(12,619)	12,619	**-**
Centre funded capital	-	-	466	-	(466)	-	**-**
Other transfers	-	(790)	(2,537)	(436)	-	3,763	**-**
At 31 March 2024	5,761	10,915	6,549	-	76,450	26,379	**126,054**
Charitable company							
At 1 April 2023	5,163	11,705	6,117	108	68,653	10,825	**102,571**
Total income and expenditure for the year	-	-	843	1,656	19,277	-	**21,776**
Capital transfers	(882)	-	1,432	(1,328)	1,606	(828)	**-**
Designated capital transfers	-	-	-	-	(12,619)	12,619	**-**
Centre funded capital	-	-	466	-	(466)	-	**-**
Other transfers	-	(790)	(2,537)	(436)	-	3,763	**-**
At 31 March 2024	4,281	10,915	6,321	-	76,451	26,379	**124,347**

Capital transfers relate to fund movements in connection with fixed assets and depreciation; ensuring assets are appropriately reflected in separate reserves.

Designated capital transfers relate to capital grants recognised in advance of the associated expenditure being incurred.

Centre funded capital transfers relate to capital expenditure funded from the unrestricted designated capital reserve and general reserve.

Where research at JIC is funded by grants with performance conditions attached to them these are shown in the Restricted general fund. When the conditions have been met the remaining contribution to core funding is transferred to general reserves, shown in other transfers above. Other transfers also includes transfers between unrestricted funds to charge expenditure against institute ringfenced funds, set aside for a specific purpose.

20. COMMITMENTS

Group and charitable company	**Group 2025**	Group 2024	**Company 2025**	Company 2024
	£000	£000	**£000**	£000
Capital commitments at the end of the financial year for which no provision has been made:				
Contracted	**9,459**	22,438	**9,459**	22,438
Amounts due under other operating leases for plant and machinery:				
Expiring in less than one year	**54**	32	**54**	32
Expiring between one and two years	**45**	14	**45**	14
Expiring between two and five years	**92**	16	**92**	16
Expiring over five years	**3**	-	**3**	-
	194	62	**194**	62
Amounts due under other operating leases for land and buildings:				
Expiring in less than one year	**130**	-	**-**	-
Expiring between one and two years	**130**	-	**-**	-
Expiring between two and five years	**390**	-	**-**	-
Expiring after five years	**1,395**	-	**-**	-
	2,045	-	**-**	-

NOTES TO THE ACCOUNTS

21. PENSION SCHEMES

JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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% (2024: 26%).

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

The total pension charge for the year was £2,326,091 (2024: £1,956,862) with outstanding contributions at the year-end of £217,860 (2024: £nil).

22. RELATED PARTY TRANSACTIONS

BBSRC

JIC is strategically funded by BBSRC. Grants received from BBSRC are detailed in note 2. At 31 March 2025, BBSRC owed JIC £6,959,137 (2024: £1,689,669).

Plant Bioscience Limited

PBL is 33% directly owned by JIC. PBL has been accounted for as an associate within the consolidated financial statements. Services provided to JIC by PBL in the year to 31 March 2025 amounted to £nil (2024: £54,000). During the year, PBL paid JIC £49,994 (2024: £47,932) in rent and £186 (2024: £432) for other costs. At the end of the year £nil was due from PBL (2024: £26) and £nil was due to PBL (2024: £10,800).

Leaf Expression Systems Limited

JIC has invested £1,630,000 in the non-voting share capital of Leaf Expression Systems Limited (“Leaf”). Leaf has been accounted for as an associate within the consolidated financial statements up until the company entered liquidation in August 2024. JIC paid Leaf £nil (2024: £nil) for services in the year ended 31 March 2025. At 31 March 2025, JIC owed Leaf £nil (2024: £nil). During the year, Leaf paid JIC £44,617 (2024: £131,163) for costs incurred by JIC on behalf of Leaf. At 31 March 2025, Leaf owed JIC £nil (2024: £57,047).

NBI Partnership Limited

JIC is one of the four guarantors of NBI Partnership Ltd (“NBIP”), a company limited by guarantee. JIC has provided short-term loans to NBIP to enable NBIP to manage its cash requirements. Interest is payable on the loan at 4.75% and during the year JIC charged £16,150 (2024: £13,090) in respect of interest due. At 31 March 2025, JIC had a loan balance with NBIP of £340,000 (2024: £340,000).

JIC was charged £5,684,053 (2024: £5,360,238) for services by NBIP under a cost sharing agreement. As at 31 March 2025, JIC owed NBIP £693,525 (2024: £509,631). NBIP paid JIC £142,585 (2024: £21,919) for services and, as at 31 March 2025, NBIP owed JIC £8,950 (2024: £6,520).

Anglia Innovation Partnership LLP

JIC is a member of Anglia Innovation Partnership LLP through its 100% subsidiary, JIC NRP Capital Limited. Anglia Innovation Partnership 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, JIC received services totalling £29,135 (2024: £20,143) and was charged £120,697 (2024: £125,177) for estate costs. As at 31 March 2025, JIC owed AIP LLP £3,616 (2024: £nil). JIC invoiced Anglia Innovation Partnership LLP for services totalling £293,178 (2024: £283,993). As at 31 March 2025 Anglia Innovation Partnership LLP owed JIC £86,274 (2024: £71,781).

NOTES TO THE ACCOUNTS

22. RELATED PARTY TRANSACTIONS (CONTINUED)

University of East Anglia

UEA is a member of the charitable company and it nominates one Governor to the Governing Council.
The majority of PhD students carrying out research at JIC are registered with UEA. During the year UEA provided student services of £584,514 (2024: £215,960) and other services amounting to £465,591 (2024: £547,339) to JIC. At 31 March 2025, JIC owed UEA £142,312, for student fees and other costs (2024: £223,457) and £18,298 for other services (2024: £22,438). During the year, JIC received £644,729 (2024: £1,100,671) in student payments from UEA and provided £758,682 (2024: £615,471) of other services and JIE received £nil (2024: £nil). At 31 March 2025, UEA owed JIC £839,831 (2024: £927,659) for student fees and other services and owed JIE £nil (2024: £nil).

Board of Trustees

During the year, JIC received £33,334 (2024: £nil) in donations from its trustees.

John Innes Foundation

JIF is a member of the charitable company and it nominates one Governor to the Governing Council of JIC. JIC occupies land and buildings which are owned by JIF, with the principal research buildings leased at a peppercorn rent.

The following transactions took place during the year:

	Total 2025	Total 2024
	£000	£000
Paid to JIC:		
Grants for studentships	**633**	533
Grants for research project	**77**	134
Contribution to salary costs	**100**	39
Contribution to other costs	**14**	34
Contribution to capital costs	**-**	-
	824	740

During the year, JIF invoiced JIC for services and other costs totalling £16,012 (2024: £15,623). As at 31 March 2025, JIF owed JIC £8,066 (2024: £82,987) and JIC owed JIF £106,717 (2024: £143,701).

John Innes Enterprises Ltd

JIE Ltd is the wholly owned trading subsidiary of JIC. JIE undertakes contract research, research services and consultancy.

During the year, JIC invoiced JIE for services and other costs totalling £859,787 (2024: £715,012) and JIE invoiced JIC for costs totalling £542,065 (2024: £37,854). In addition, JIE made a gift aid payment to JIC of £48,544 (2024: £71,091). As at 31 March 2025, JIE owed JIC £280,481 (2024: £89,296) and JIC owed JIE £134,222 (2024: £37,854).

23. CASH HELD AS GRANT CO-ORDINATOR

JIC holds cash of £870,922 (2024: £485,943) on behalf of various institutes in its capacity as project co-ordinator on a number of projects. JIC acts as an intermediary only and does not control the risks and rewards associated with the cash. An equal balance is held in other creditors.

24. ULTIMATE PARENT UNDERTAKING AND CONTROLLING PARTY

The trustees consider that there is no ultimate parent undertaking and controlling party. JIC is the parent undertaking of the smallest and largest group of undertakings to consolidate these financial statements.

25. CONTINGENT LIABILITY

JIC receives grant income from funding bodies, such as the BBSRC and the European Union, that routinely undertake retrospective financial audits of costs claimed. Such audits may from time to time give rise to adjustments to grant income receivable. No general provision is made for such potential audit adjustments in the financial statements.

CHARITY INFORMATION

Directors and Trustees	Sir T Hughes-Hallett (Chair - Governing Council) Prof N Talbot Prof J P Armitage (Chair - Science and Impact Advisory Board) Mr C Maw (Chair – Audit Committee) Dr J D McCafferty Prof J M Hibberd Mr W B Kendall Prof J A Langdale Ms Sarah Sands Prof R A Field
Company Secretary	Mr D Foreman
Director of the Institute	Prof C Uauy
Key Management Personnel	Prof C Uauy Prof A Osbourn Mr D Foreman Prof R Morris Ms Angela Bowen
Registered charity number	223852
Registered company number	00511709
Registered and principal office	Norwich Research Park Colney Norwich NR4 7UH
Independent auditor	Larking Gowen LLP Chartered Accountants and Statutory Auditors Prospect House Rouen Road Norwich NR1 1RE
Bankers	Barclays Bank plc 54 Lombard Street London EC3V 9EX
Solicitors	Mills and Reeve 1 St James Court Whitefriars Norwich NR3 1RU Birketts Kingfisher House 1 Gilders Way St James Place Norwich NR3 1UB

JOHN INNES CENTRE

England & Wales - Charity number 223852

Accounts

JOHN INNES CENTRE

Annual Report and Accounts

for the year ended 31 March 2024

Registered charity number: 223852

Registered company number: 00511709

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INTRODUCTION

Introduction to the Annual Report

The Board of Trustees, who are directors for the purposes of company law, present their Annual Report and the audited consolidated financial statements for the year ended 31 March 2024.

John Innes Centre ("JIC") is a company limited by guarantee and a registered charity. The Annual Report provides information on the legal purposes of the charity, the activities it undertakes and its main achievements. The Annual Report has 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.

Message from the Chair of the Governing Council

It's an incredibly exciting time for the John Innes Centre!

This past year, we have made tremendous strides in shaping the future of plant and microbial science, and it fills me with optimism as we look ahead. Our new science strategy is addressing the most pressing global challenges, from food security to climate resilience. This strategy will drive innovation and ensure that we continue to lead the way globally in scientific excellence.

We're also working on a bold funding strategy that will allow us to expand our impact further. By building on our strengths and forging new directions, we are paving the way for groundbreaking research initiatives that will inspire the next generation of scientists.

Our spirit of collaboration has never been stronger. Alongside our global partners, we are pushing boundaries, and it's this shared commitment that will drive us towards a future where our research not only solves today's problems but anticipates tomorrow's.

I would like to express my heartfelt thanks to Jennifer Midura Haywood and John Innes for their commitment and invaluable contributions over the years as Trustee Directors. At the same time, I am delighted to welcome Jane Langdale, James McCafferty, and Mark Searcey as Trustees and Baroness Eliza Manningham Buller and Henry Dimbleby as Advisors to the board. We look forward to the fresh perspectives and energy they will bring to our shared vision.

As you explore the achievements outlined in this report, it is clear that, with the dedication of our teams and the strength of our partnerships, the future is indeed bright for the John Innes Centre.

Sir Thomas Hughes-Hallett, Chair

TRUSTEES' REPORT INCORPORATING THE STRATEGIC REPORT

JOHN INNES CENTRE

The John Innes Centre (JIC) is a world-leading international centre of excellence in plant science and microbiology. Our mission is to generate knowledge of plants and microbes through fundamental research and to use this knowledge to benefit agriculture, the environment, human health and well-being. We train excellent scientists for the future and engage with policy makers and the public.

Our joint strategy with The Sainsbury Laboratory (TSL), Healthy Plants, Healthy People, Healthy Planet (HP^3) outlines our vision for delivering a safer, healthier and more sustainable future through the power of plant and microbial science.

NEXT GENERATION INFRASTRUCTURE (NGI)

Key to delivering our HP^3 strategy, work has started on a new world-class research environment at the heart of the Norwich Research Park, supported by UK Research and Innovation (UKRI) Infrastructure Fund capital investment of £317.7m.

This transformational investment will fund new cutting-edge, world-class facilities for JIC and TSL to deliver a step change in our capability to translate scientific knowledge into bio-based solutions in response to some of society's most pressing challenges. Our vision to improve collaborative working across the UK and overseas, helping us to provide a safer, healthier and more sustainable future through the power of plant and microbial science.

As well as transforming the existing capabilities of JIC and TSL, both internationally recognised centres of excellence in plant and microbial science, the new hub also aims to deliver a net-zero carbon laboratory. As well as new laboratories, the investment includes a redevelopment of our plant growth facilities, which in conjunction with our existing field station, will improve our ability to study the effects of climate change.

NGI has garnered generous contributions from the Gatsby Charitable Foundation, the University of East Anglia, the John Innes Foundation, the Wolfson Foundation and the Garfield Weston Foundation. JIC and TSL have embarked on an ongoing fundraising campaign, to secure a further £30m to support the full cost of the programme. Construction of the research hub is expected to be completed in 2030.

STRATEGIC RESEARCH PROGRAMMES

JIC receives strategic funding from UKRI-BBSRC for four strategic research programmes enabling research across plant and microbial science, from the unlocking of the remarkable and under-exploited biosynthetic capabilities of plants and microbes, through to the understanding and delivery of sustainable, resilient and robust high-yielding crops.

These five-year strategic research programmes allow us to continue our work to understand how we can support the transition to net-zero agriculture, improve public health and mitigate the effects of climate change on food security with our research into plants and microbes.

Through these programmes JIC, our partners at the Norwich Research Park and from across the UK, can have real-world impact from our world-leading research and innovation.

Our Institute Strategic Programmes are:

- **Advancing Plant Health (APH)** aims to deliver new solutions to promote beneficial interactions and disease/pest resistance in crops of both national and global significance and integrates research expertise from JIC and TSL.
- **Building Robustness in Crops (BRiC)** will deliver genetic diversity and knowledge, innovative technologies and training to allow sustainable production of robust high-yielding crops including oilseed rape, pea, cereals and Brassica vegetables to identify and overcome key challenges caused by our changing climate.
- **Delivering Sustainable Wheat (DSW)** aims to address critical challenges in wheat health, yield, and production in order to safeguard the future of this vital crop and brings together four research institutes – JIC, Rothamsted Research, Quadram Institute, and Earlham Institute, plus the National Institute of Agricultural Botany, and the universities of Leeds, Nottingham, Lancaster, Bristol, and Imperial College London.
- **Harnessing Biosynthesis for Sustainable Food and Health (HBio)** will unlock the remarkable and under-exploited biosynthetic capabilities of plants and microbes to make valuable new molecules to address global challenges of food security and human health.

SCIENCE HIGHLIGHTS

How the plant with a toxic past can become a climate-smart crop of tomorrow

Genomic detective work has brought researchers closer to the secret of how and why grass pea produces its notorious toxin, paving the way for this ancient and climate resilient crop to become a food of the future. Using a newly available genome sequence of grass pea (*Lathyrus sativus L.*) a research collaboration led by the John Innes Centre has identified key biochemical steps that lead to the production of the neurotoxin β-L-ODAP (ODAP).

The availability of the genome sequence means the researchers can use gene-editing and modern breeding methods to develop varieties of grass pea with low or zero ODAP content. This means that grass pea could be poised to make an important contribution to a more diversified and climate resilient food system in the future.

Starch discovery reaps benefits for brewing, baking and milling industries

Research has brought clarity to the longstanding question of how starch granules form in the seeds of *Triticeae* crops – wheat, barley, and rye – unlocking diverse potential benefits for numerous industries and for human health. Starch in wheat, maize, rice and potatoes is a vital energy-giving part of our diet and a key ingredient in many industrial applications from brewing and baking to the production of paper, glue, textiles, and construction materials.

Starch granules of different crops vary greatly in size and shape. Wheat starch (and those of other Triticeae) uniquely have two distinct types of granules: large A-type granules and smaller B-type granules. The ratio of A- and B-type granules can affect the quality of wheat-based foods, such as bread and pasta.

Soap bark discovery offers a sustainability booster for the global vaccine market

A valuable molecule sourced from the soapbark tree and used as a key ingredient in vaccines has been replicated in an alternative plant host for the first time, opening unprecedented opportunities for the vaccine industry. A research collaboration led by the John Innes Centre used the recently published genome sequence of the Chilean soapbark tree (*Quillaja saponaria)* to track down and map the elusive genes and enzymes in the complicated sequence of steps needed to produce the molecule QS-21.

Using transient expression techniques developed at the John Innes Centre, the team reconstituted the chemical pathway in a tobacco plant, demonstrating for the first time 'free-from 'tree' production of this highly valued compound.

Discovery raises hopes of more temperature tolerant wheat

Gene-editing techniques have helped to identify a temperature tolerance factor that may protect wheat from the increasingly unpredictable challenges of climate change. Wheat fertility and therefore yield is highly influenced by temperature, particularly the initial stages of meiosis when chromosomes from parent cells cross over and pair to create seeds for the next generation.

Meiosis in wheat functions most efficiently at temperatures between 17-23 degrees centigrade. It is known that developing wheat does not cope well with hot temperatures and can also fail during low summer temperatures. Identifying genetic factors that help stabilise wheat fertility outside optimal temperatures is critical if we are to breed climate resilient crops of the future.

Photosynthetic secrets come to light

Secrets of photosynthesis have been discovered at atomic level, shedding important new light on this plant super-power that greened the earth more than a billion years ago. Researchers explored how the photosynthetic proteins are made and presented a model and resources to stimulate further fundamental discoveries in this field and assist longer term goals of developing more resilient crops.

The research team used a method called cryogenic electron microscopy (cryo-EM) to image samples of chloroplast RNA polymerase purified from white mustard plants. By processing these images, they were able to build a model that contains the positions of more than 50,000 atoms in the molecular complex.

The clue is in the glue – Nature's secret for holding it together

An obscure aquatic plant has helped to explain how plants avoid cracking up under the stresses and strains of growth. The finding started with a curious observation in a dwarf mutant of the carnivorous plant *Utricularia gibba.* The stems of this floating plant are filled with airspaces and this means that the vascular column inside the stem can buckle when under stress. This effect would not be apparent in most plants, which have solid stems.

The researchers saw that in a dwarf mutant the central column was wavy instead of straight. They hypothesised that this wobbly spine was caused by an internal conflict, a disparity between what was happening inside the plant stem and the epidermis or skin.

How plants cope with the cold light of day – and why it matters for future crops

On bright chilly mornings you can either snuggle down under the duvet or leap up and seize the day. However, for photosynthesising plants, this kind of dawn spells danger, so they have evolved their own way of making cold mornings tolerable. Research has discovered a cold "coping" mechanism that is under the control of the plant biological clock and could offer solutions to breeding more climate resilience into crops.

Cold temperatures can damage plant cells, particularly when combined with too much light or during freezing temperatures. Hence why those bright cold mornings are so dangerous to plants.

Lead role for John Innes Centre as the UK's first CGIAR Centre

The John Innes Centre will play a leading role in the UK-CGIAR Centre which aims to drive global food security by forging dynamic, new collaborations between CGIAR, UK science institutes and research centres in the Global South as well as galvanising existing partnerships.

As part of the initiative John Innes Centre researchers will help lead a project to develop locally adapted wheat crops with enhanced resistance to wheat rusts and with elevated levels of iron—an essential micronutrient for human health.

Expanding Wheat Pathogen Surveillance System

An international collaboration, including researchers at John Innes Centre, TSL and GetGenome have announced the Wheat Disease Early Warning Advisory System (Wheat DEWAS), to strengthen crop resilience against devastating wheat diseases.

Thanks to a generous $7.3 million grant, Wheat DEWAS will bolster the protection of wheat productivity in vulnerable regions of East Africa and South Asia, with a focusing on preventing outbreaks from novel pathogen strains.

By bringing together and expanding existing successful systems, including the MARPLE diagnostics network developed by Professor Diane Saunders, the team aims to provide governments with near-real-time risk forecasts and actionable advice for farmers. This invaluable information will enable proactive responses to transboundary wheat diseases, ensuring long-term sustainable crop productivity.

Horizon Europe funding award to accelerate innovative research in antibiotic-producing bacteria

Dr Susan Schlimpert and her team have been awarded European funding to take forward their innovative research into the antibiotics of the future. Dr Schlimpert, a group leader at the John Innes Centre, receives a European Research Council consolidator grant, part of the EU's Horizon Europe programme.

The Schlimpert group investigates molecular mechanisms that underpin the lifecycle of Streptomyces bacteria, producers of more than 50% of all clinically used antibiotics. "I am delighted and very excited to receive this prestigious funding which will enable us to establish a new line of research in the lab to provide a holistic understanding of the biology of Streptomyces." she said.

Two innovative projects have been awarded Farming Future's funding from Defra

Soil and Root Health

John Innes Centre researchers will work alongside farmers and agritech partners in a £1m research collaboration to boost crop productivity by unearthing the secrets of soil and root health.

The new project, called Thriving Roots Underpinning Total soil Health (TRUTH) is funded by Farming Futures part of Defra and Innovate UK's Farming Innovation Programme (FIP).

The three-year project involves setting up a research platform that allows farmers to monitor and evaluate soil/root interactions more accurately, particularly plant control of soil microbiome and the relation between root and soil structure. This data will allow the partnership to explore the viability of an innovative sensor that can detect the biological "signature" of soil.

Sugar Beet innovation

The John Innes Centre, biotechnology company Tropic and British Sugar have secured funding to develop innovative gene editing approaches to protect the British sugar beet crop against potentially catastrophic losses to virus yellows disease.

The British Beet Research Organisation – the UK's beet sugar industry's dedicated research centre will also support the project which aims to build resilience and productivity in this economically important crop.

Ultimately, successful project outcomes will protect British sugar beet farmers from potentially catastrophic losses to virus yellows disease, increase crop productivity, resilience, and sustainability, while supporting progression towards net zero emissions in English agriculture.

OUR IMPACT

The socio-economic impacts from our research have been quantified by Brookdale Consulting using case studies from across our patent portfolio and include research in agritech for food security, health, and innovation in natural and new-to-nature chemicals.

- In 2021, JIC was ranked among the top 10 institutions in the world by patent influence.
- We support over 850 jobs.
- Return on investment (ROI) of £15.29 per £1 invested, based on a sample of commercialisation projects and research costs.
- JIC's extensive training activities are estimated to contribute £89m to the UK economy over the next decade and a further £49m internationally.

Overall, the report highlights JIC's significant contributions to the UK economy and its position as a global leader in science, knowledge, and innovation.

- **Food security** - With the global population expected to reach nine billion by 2050, JIC's research on improving wheat and oilseed rape yields and mitigating the impact of vernalisation in brassicas is crucial for ensuring food security.
- **Staying healthier for longer** - As the proportion of UK citizens living beyond 65 increases dramatically, JIC's fundamental bioscience research on resistant starch, antibiotics, and other high-value compounds is critical to enabling people to stay healthy for longer.
- **Developing renewable 'low carbon' energy and chemicals through bioscience** - JIC's research on developing high-value products from plants, such as adjuvants and drugs, improving extraction sustainability, and increasing oil content in oilseed rape, has the potential to revolutionise the bioenergy and chemical industries.

OUR PEOPLE

AWARDS & HONOURS

The pioneering research of Professor Ding honoured with major award

Professor Yiliang Ding is the first UK plant scientist to receive a Blavatnik Award for Young Scientists. These prestigious awards recognise research that is transforming medicine, technology, and our understanding of the world, and lends global focus to her innovative work investigating the structure and function of RNA in living cells.

“This is a great personal accolade, an honour for my group and the John Innes Centre. It’s wonderful that the global community has recognised the importance of plant science in trying to solve the critical challenges of feeding the world, improving crop yields, and combatting plant health threats,” she said.

The Ding group pioneers innovative methods of profiling the structure of RNA inside living cells, providing a springboard for the global use of RNA structure-guided therapeutics for human health and crop improvement.

Professor Dame Dean FRS awarded Mendel Medal and McClintock Prize

The ground-breaking career of Professor Dame Caroline Dean FRS has addressed two central questions in biology: why do certain plants have to pass though winter before they bloom, and how do they remember that they have been exposed to cold temperatures weeks or months earlier?

Over her career, Caroline, and her research group have determined the mechanistic basis of how plants use temperature signals to know when to flower, and discovering a cellular memory mechanism that senses and remembers long-term temperature exposure. Her work has revealed important general concepts on epigenetic switching, the role of non-coding transcripts in transcriptional dynamics, and how non-coding single-nucleotide polymorphism can modulate silencing to underpin adaptation.

This year Caroline has been honoured with two awards, The Genetics Society’s Mendel Medal and the Barbara McClintock Prize for Plant Genetics and Genome Studies.

“I’m honoured to receive these awards in recognition of the work of my group at the John Innes Centre and our collaborators, Prof Martin Howard (John Innes Centre) and Dr Mariann Bienz (MRC, Laboratory of Molecular Biology, Cambridge). Our molecular understanding of how plants respond to seasonal signals. has major implications for fragile ecosystems and agricultural practice as the extremes in our climate increase,” said Professor Dean.

Papin Prize for Crop Transformation Team

The expertise of the Crop Transformation team received a Papin Prize, which recognise technicians who have demonstrated excellence. The team supports science at the John Innes Centre and across the world, providing Genetically Modified (GM) and gene-edited plants to universities and institutes for research.

Professor Diane Saunders

Received the British Society for Plant Pathology (BSPP) RKS Wood Prize recognising excellence in the study of plant disease biology and its application in the protection of plants against pathogens.

Professor Saskia Hogenhout

Elected as a member of the prestigious European Molecular Biology Organisation (EMBO), joining a community of more than 2,000 members elected by peers in recognition of scientific excellence.

STAFF SURVEY RESULTS 2024 - 'JIC IS A GREAT PLACE TO WORK.'

In 2024 we ran our biannual staff survey, and 88% of respondents Strongly Agreed or Agreed with the statement 'I would recommend JIC as a great place to work.'

'I strongly feel that JIC is a great place to work and would recommend people to join us.' *Postdoc.*

- 86% Strongly Agree/Agree - I can access the training and development that I need to do my job
- 82% Strongly Agree/Agree - My manager provides me with the right level of support to perform at my best
- 88% Strongly Agree/Agree - I am treated with respect by the people I work with
- 90% Strongly Agree/Agree - The people I work with can be relied on when needed

'I love working for JIC. Not only is the science great but also the institute manages to create a collaborative and inclusive atmosphere helping everyone to feel welcome and supported.' *Research and Support Staff.*

NEW APPOINTMENTS & FELLOWSHIPS

Director of Development – Angela Bowen

Angela joins us as Director of Development to spearhead fundraising for the Next Generation Infrastructure (NGI) programme has been successful. She joined us in September 2024, bringing nearly 30 years of experience of high-level fundraising.

Norwich Research Park Biosciences Doctoral Training Partnership (NRPDTP) Director and Chair of the Norwich Research Park (NRP) Graduate School – Professor Anne Graham

Anne joins the NRP as the NRPDTP Director and Chair of the NRP Graduate School. Previously, she was Head of School of Chemistry & BioSciences at the University of Bradford and was Director of Postgraduate Research for Life Sciences for five years prior to that.

UKRI Future Leader Fellow – Dr Michael Webster

Dr Michael Webster has been awarded a UKRI Future Leader Fellowship, a prestigious award that will enable his group at the John Innes Centre to take their research into the molecular workings of photosynthesis and genes in an exciting new direction. The Webster group's research seeks to understand how plants produce photosynthetic proteins by visualizing the structures and biochemical activities of the complex molecules in the chloroplast.

Royal Commission 1851 Fellowship – Dr Emma Banks

Dr Emma Banks, a molecular microbiologist and outstanding early-career researcher has been awarded a prestigious fellowship to take forward research into the global threat posed by antibiotic resistant bacteria.

KEY PERFORMANCE INDICATORS

JIC's key performance indicators are:

- submission levels and success rates for research grant proposals;
- publications in relevant scientific journals;
- recruitment and retention of high quality staff and students;
- annual research income vs. budget; and
- unrestricted reserves vs. budget.

Details of science achievements and recruitment in the year are provided in the sections above.

Details of grant submissions, success rates, research income and reserves are provided in the Financial Review.

FUTURE PLANS

The next 12 months will be an important period for the John Innes Centre as we prepare and plan and range of new initiatives to drive forward our strategy and ambitious plans for the future.

Evolving our scientific strategy

The John Innes Centre will develop a new scientific strategy, setting out our research priorities for the next ten years. The new strategy will build on our joint vision with TSL, Healthy Plants, Healthy People, Healthy Planet, which sets out how we will address critical global challenges.

Staff across JIC will help shape the scientific strategy and future plans, identifying the major scientific challenges we'll be tackling in the years to come and its delivery will be led by Group Leader, Professor Cristobal Uauy.

The first step will be to complete a series of scientific reviews led by subject experts to identify key gaps and opportunities in our current research, shaping a series of strategic recruitments over the coming year, to grow our capacity in strategic areas and support our succession planning.

Creating a world leading plant and microbial science hub

Following the confirmation of a major investment from the UKRI Infrastructure Fund in 2023, we are set to make significant progress over the coming year on our ambitious plans to deliver a world-leading plant and microbial science hub at the Norwich Research Park.

Building works on site will begin in earnest in 2025, with the redevelopment of our Horticultural Services buildings and glasshouses. In parallel we will move through the next stages of design work for the new laboratory building and expect to apply for planning permission.

As we develop our plans for the plant and microbial science hub, we will carry out a programme of external engagement with the scientific community, to scope opportunities and interest across the sector to collaborate through the hub.

The Centre for Microbial Interactions

The John Innes Centre will work with partners across the Norwich Research Park on the launch of a new joint centre, the Centre for Microbial Interactions. The virtual centre will focus on bringing together the breadth of expertise within the microbiology community at the Norwich Research Park to solve global challenges in food security, human health and climate change.

The park has the largest concentration of microbiologists anywhere in the UK, and the new centre will capitalise on our existing collaborative culture and established infrastructure. Through the centre, we will work with our partners to create new opportunities to drive high quality research and innovation through studying microbial interactions across a wide range of disciplines and scales.

Building on our research culture

Over the coming year we will develop a series of new projects to build on our research culture and our commitment to create a supportive and inclusive work environment.

Working with our staff and students to develop our ideas, we will be running a major project focused on neurodiversity, offering a new suite of training, creating an internal network and delivering an external communications campaign.

We will develop new training on micro-behaviours, improve the support we provide for our Tenure Track Group Leaders as they progress in their careers and we will create a new policy on Trusted Research and Innovation.

Renewing the Norwich Research Park's collaborative PhD studentship programme

We will work with partners across the NRP on an application for a Doctoral Landscape Award to secure the next five years of funding for the NRPDTP.

This will be a crucial part of our commitment to support postgraduate researchers and produce the next generation of plant and microbial scientists. The multi-disciplinary partnership brings together JIC with TSL, Earlham Institute, Quadram Institute and UEA, enabling collaboration and innovation across the graduate schools.

The partnership will be structured around the BBSRC's central research themes of integrated understanding of health, renewable resources and clean growth, sustainable food and agriculture and advancing the frontiers of bioscience discovery.

FINANCIAL REVIEW

Income

Total income for the year was £74.4m (2023: £58.4m). The increase in the year was due to additional BBSRC strategic and capital grant funding. Income excluding capital funds was £45.3m (£43.4m).

An analysis of grant income by principal sponsor is included in the notes to the financial statements. JIC's principal sponsor is the Biotechnology and Biological Sciences Research Council (BBSRC), which contributed 79% of total income (2023: 73%). Other major sources of funding were other UK Government departments, the European Union and charitable organisations.

During the year, JIC researchers submitted grant proposals with a sponsor value of £51.2m (2023: £44.0m) and were awarded grants with a value of £22.7m (2023: £15.5m). The success rate for grant awards in the year was 43% by value (2023: 35%).

Expenditure

Expenditure for the year amounted to £52.8m (2023: £53.5m). Staff costs accounted for £17.1m (32%) (2023: £17.0m; 32%) of expenditure.

Fundraising

JIC did not carry out any significant public fundraising activities in the year.

Net Movement in Reserves

JIC recorded a net decrease in unrestricted reserves of £1.6m (2023: decrease of £1.3m). Restricted reserves increased by £23.2m (2023: £6.2m) principally due to £30.4m of capital funding (2023: £14.9m).

Subsidiaries and Associated Parties

Subsidiary companies contributed an operating profit of £38k (2023: £197k), while JIC's share of associates' results was a loss of £127k (2023: £304k). The share of associates' results in the year relates to JIC's 33% interest in Plant Bioscience Limited and 45% interest in Leaf Expression Systems Limited.

Capital Expenditure

Capital expenditure in the year was £16.8m (2023: £14.9m). Investment has continued from the previous year in state-of-the-art scientific equipment, energy-efficient plant infrastructure and enhanced plant growth facilities.

Cash

Group cash at 31 March 2024 was £48.3m (2023: £37.7m). JIC deposits its cash with UK registered financial institutions that meet its credit rating policy and subject to agreed counter-party limits. Investment income from cash deposits in the year was £1,486k (2023: £629k), up on last year due to higher deposit rates.

Reserves Position

Total group reserves increased by £21.6m in the year to £126.1m (2023: £4.9m to £104.4m).

Restricted reserves increased by £23.2m to £102.8m. Reserves of £26.4m relate to restricted designated capital reserves in connection with funding received from BBSRC to be used for future capital projects. Reserves of £Nil relate to restricted designated general reserves in respect of ring-fenced strategic funding from BBSRC. The remaining £76.5m of restricted reserves relate to the value of fixed assets.

Unrestricted reserves decreased by £1.6m in the year to £23.2m (2023: decreased by £1.3m to £24.9m). Reserves of £10.9m relate to unrestricted designated reserves for planned capital and strategic investments. The remaining unrestricted reserves include general reserves of £6.5m and fixed assets reserves of £5.8m.

Reserves Policy

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

- Future operational and capital expenditure requirements in the 5-year 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.

Unrestricted reserves that have been designated by the Governing Council for specific purposes are shown in separate designated reserves. At March 2024, £10.9m of unrestricted reserves were designated for planned capital and strategic investments (2023: £11.7m).

General unrestricted reserves at March 2024 were £6.5m, above the minimum general reserves target of £6.0m set by the Governing Council.

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 on the operations and its financial resources, the Institute will have sufficient funds to meet is liabilities as they fall due for that period.

The Institute is reliant on its strategic programme funding from BBSRC, which was £14.6m in the year (2023: £14.6m). BBSRC has confirmed strategic funding of £14.6m for the year to March 2025 and in principle funding at this level for the 3 years to March 2028.

The Institute has prepared income, reserves and cash flow forecasts to March 2028. The forecasts indicate that the Institute will have significant cash headroom over the period.

The assessment has included consideration of the NGI project, and in particular, funding, cash flows and the programmes wider risks.

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.

Accelerated Depreciation

The Next Generation Infrastructure (NGI) programme results in the replacement of several buildings. The useful lives of these assets have been reviewed based upon the latest NGI timetable. The depreciation of these assets has been accelerated to depreciate them to nil over their estimated remaining useful lives.

The effect of this to increase the depreciation charge on those assets. The additional depreciation in the current year is £3.5m (2023: £2.2m).

STAKEHOLDER ENGAGEMENT – SECTION 172 STATEMENT

The Trustee Directors consider that the decisions they have made during the financial year have satisfied the requirements of s172(1) of the Companies Act 2006 and that they have acted in good faith to promote the success of JIC as a whole, and in doing so having regard to the stakeholders and matters outlined in s172(1).

The Governing Council has the ultimate responsibility for the strategy of JIC and delivery of its charitable objectives. The table below sets out JIC's most significant stakeholders, why they are considered important and how the Institute engages.

Stakeholders	Why they are important	How we engage with them
Our staff and students	➢ We are committed to providing a supportive, inspirational and dynamic environment for our staff and students to meet future scientific and societal challenges. ➢ We value the diversity of our staff, and are committed to the creation of a positive environment which is fair, welcoming and inclusive and where everyone is treated with dignity and respect. ➢ We are committed to the development of all our staff and students and providing equal opportunities that encourage flexible working, career development and work-life balance.	➢ During the year, regular communications to employees have been provided on matters affecting them, including factors affecting the Charity's progress, and have been consulted on decisions that impact them. ➢ All groups of staff and students have representation on the Inclusivity & Diversity Committee that meets 4 times a year to ensure an inclusive research culture ➢ Students' progress is monitored on a regular basis and employees undertake an annual appraisal where their training needs, work-life balance and career development are discussed.
Our members	➢ JIC's corporate members are UK Research and Innovation (UKRI); John Innes Foundation (JIF); and the University of East Anglia (UEA). Our members are key strategic partners that oversee our delivery against charitable objectives.	➢ The Members each nominate one Governing Council member and appoint one "observer" to attend Governing Council meetings, enabling them to participate in key decisions.
Norwich Research Park	➢ JIC is one of 4 independent, world-class research institutes based at the Norwich Research Park. The Institutes work closely together to create a unique centre of excellence in plant and microbial sciences, big data science and genomics, and food and health.	➢ The Institute Directors of the 4 institutes meet regularly to discuss common strategic and operational matters. ➢ JIC, the other Institutes, UKRI, UEA, JIF and the N&NU Hospital Trust are members of Anglia Innovation Partnership LLP, an organisation established to promote collaborative solutions to global challenges in food and health.
UK Research and Innovation	➢ JIC is strategically funded, along with 7 other institutes, by the Biotechnology and Biological Sciences Research Council (BBSRC), part of UKRI. BBSRC supports JIC via strategic 5-year funding programmes, competitively won project grants and capital funding for infrastructure and technology investments.	➢ UKRI nominates a Governing Council member and appoints an "observer" to attend Governing Council meetings. ➢ JIC holds regular meetings with BBSRC to review and progress of the Institute's mission and science programmes, including strategic and financial plans.
Research partners	➢ JIC is an international centre of plant and microbial research. Our success is built on our collaborations and our international outlook. ➢ JIC is home to a range of state-of-the-art facilities and technology platforms to support scientists across the UK.	➢ An extensive programme of engagement with our new collaborative vision, Healthy Plants, Healthy People, Healthy Planet (HP3) is ongoing and involves discussion, input and views from stakeholders from industry, government and research partners, locally, nationally and internationally. JIC has strategic partnerships with research and academic institutions in the UK and worldwide, including Europe, China, Africa, Brazil and India.
Industry	➢ JIC works closely with industry and the private sector to provide access to our capabilities, and to deliver sophisticated interdisciplinary research and product development at pace.	➢ JIC maintains a dialogue with industry, with regular consultations and knowledge exchange. ➢ JIC supports industry through collaborative and sponsored research and access to its facilities and platform services. JIC is proactive in identifying and responding to industry need. ➢ JIC protects its innovations and promotes their commercialisation and adoption by Industry. ➢ JIF nominates an industry representative as an "observer" to attend Governing Council meetings.

Community & the environment	➢ Public views are at the heart of our research strategy and engaging with the public is an important part of our mission statement.	➢ JIC staff and students are trained in public engagement and communications and are supported to attend events, use digital media and to discuss and engage the public with our research. ➢ JIC hosts and attends community events – online, locally and nationally, to showcase, debate and discuss the nature of our research. ➢ JIC scientists are engaged in policy discussions at a national level surrounding the use of genetic technologies for crop improvement. ➢ JIC is investing heavily in more energy efficient facilities to reduce utilities consumption and waste.
Suppliers	➢ JIC seeks to maintain and develop strong, open, collaborative relationships with our supply chain.	➢ JIC holds regular meetings with suppliers about purchasing relationships and ethical behaviours such as adherence to Modern Slavery principles.

RISK ASSESSMENT AND MANAGEMENT

Governing Council 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 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. Governing Council reviews a full risk report annually, including a 'heat map' tracking major risks. The Science and Impact Advisory Board (SIAB) assess the science quality and vision section of the risk register.

Principal risks and uncertainties

Risk area	Description of Risk	Management of Risk
BBSRC research funding	➢ BBSRC strategic funding is reduced as a result of poor performance or public sector spending pressures. ➢ JIC is too reliant on BBSRC strategic and grant funding	➢ Regular monitoring of scientific performance, including consideration from the Science and Impact Advisory Board. ➢ Regular engagement with BBSRC to report performance and ensure strategic alignment of research programmes. ➢ Monitoring of performance of grant submissions. ➢ Funding opportunities for other research bodies and charities regularly communicated to Group Leaders. ➢ Philanthropic Fundraising strategy being developed to support NGI plus strategic research activity.
Science direction and quality	➢ The focus of science programmes, or balance between discovery and translational science, does not meet funders' or stakeholders' expectations. ➢ JIC fails to deliver the world-leading science	➢ The Science Impact and Advisory Board, comprising independent international experts, regularly reviews the development of strategic programmes and JIC impact. ➢ The executive Research Committee reviews scientific areas of excellence and horizon scans to identify strategically important scientific areas and opportunities.
Staff retention and recruitment	➢ JIC is unable to retain or attract suitably skilled staff to enable it to sustain its scientific performance. ➢ In addition to scientific impact, this risk area could also have an impact on the level of funding the institute is able to attract.	➢ Strategy and action plans in place, overseen by JIC People & Culture Committee. ➢ Career development programmes in place to support high potential staff. ➢ Recruitment strategy and processes in place, including attractive support arrangements.
Cost pressures	➢ Increased energy prices divert resources from science to infrastructure costs, resulting in a reduction in research activity and impact. ➢ High inflation increases research and support costs, resulting in a reduction in research activity and impact.	➢ Energy-saving opportunities are actively targeted and investment cases developed, aligned to net zero carbon strategic planning. ➢ The impact of cost inflation is regularly discussed with funders with a view to mitigating the impact on research.
Next Generation Infrastructure Programme	➢ Cost pressures mean that the agreed scope cannot be delivered ➢ Insufficient additional funding raised ➢ Vision for NGI Hub not sufficiently defined or communicated ➢ Buildings design do not reflect future science requirements or Hub vision ➢ Building works significantly disrupt science activity during construction ➢ Project does not achieve Net Zero Carbon ambition	➢ Dedicated programme team recruited, supported by JIC staff and professional consultants ➢ Governance structure for programme implemented, led by Programme Board and supported by external assurance ➢ Workstreams established to define Hub vision, engage with external stakeholders and deliver business change ➢ Building design engagement groups established ➢ Strategy developed to deliver Net Zero Carbon ambition ➢ Fundraising plan being developed
Technology investment	➢ JIC is unable to keep pace with developments in technology underpinning its science.	➢ 5-year investment plan developed. ➢ Funding opportunities identified and pursued for technology investments.
Major site incident	➢ A major incident disrupts scientific research programmes or administrative systems.	➢ Business Continuity and Disaster recovery plans in place and tested periodically. ➢ Review of compliance with health & safety and relevant regulations from government agencies and internal auditors. ➢ Insurance arrangements in place.

STRUCTURE, GOVERNANCE AND MANAGEMENT

Organisation and governance

JIC is incorporated in the England and Wales and is a company limited by guarantee (registered number 00511709) and a registered charity (number 223852). JIC is governed by its Memorandum and Articles of Association, adopted 27 September 2011.

Governing Council (Board of Trustees)

The Governing Council comprises of at least the Chair, three science and three non-science trustees. The trustees who served during the year and up to the date of signing these financial statements were as follows:

Members

The Members of JIC are:

- UK Research and Innovation - Biotechnology and Biological Sciences Research Council (BBSRC);
- John Innes Foundation (JIF); and
- University of East Anglia (UEA).

The Members have the right to nominate one governing council member and appoint one "observer" to attend meetings. Details of member appointments are shown in the table below. The Members are all guarantors of JIC, a company limited by guarantee and a registered charity, of an amount not exceeding £1, and for a year after resignation.

Trustees	Appointment status	Role	Changes during period
At date of Annual Report:			
Sir T Hughes-Hallett	Independent	Chair	-
Prof N J Talbot	Independent	Science	-
Prof J P Armitage	BBSRC appointment	Science	-
Dr C A Caulcott	Independent	Science	-
Mr C Maw	Independent	Non-Science	-
Dr J D McCafferty	Independent	Non-Science	-
Prof M Searcey	UEA appointment	Science	-
Prof J M Hibberd	Independent	Science	Appointed 14 February 2024
Mr W B Kendall	JIF appointment	Non-Science	Appointed 14 February 2024
Prof J A Langdale	Independent	Science	Appointed 9 May 2024
Ms Sarah Sands	Independent	Non-Science	Appointed 17 October 2024
Served during the year:			
Ms J K Midura	Independent	Non-science	Resigned 14 February 2024
Mr J H Innes	Independent	Non-science	Resigned 9 May 2024

The Governing Council has the ultimate responsibility for the strategy of JIC. Strategy is developed under advice from the Science Impact and Advisory Board (SIAB) and JIC Executive Group.

The Governing Council is supported by an Audit Committee to oversee financial management and risk, and a Remuneration and Nominations Committee to consider senior staff remuneration. The full Governing Council meets five times a year, the Audit Committee four times a year and the Remuneration and Nominations Committee at least once a year and otherwise as required.

The Governing Council is also supported by a Science and Impact Advisory Board which comprises international experts in science and application of science, chaired in the year by Prof Judith Armitage.

SIAB is responsible for providing strategic and scientific advice to the Director of JIC and the Governing Council on issues relevant to JIC's Mission and Science Programme. This includes ensuring that JIC Science Programme maximises JIC's potential for knowledge transfer, outreach and engagement with research users, stakeholders and the general public in addition to helping in the identification and development of new scientific funding opportunities to support the development of JIC Science Programmes.

Recruitment, induction and training of Trustees

Governing Council vacancies are advertised as necessary. The Institute will also approach individuals thought to have the right skills.

New Governing Council members are invited to spend time with members of the senior management team. This is a chance to learn about the Institute and identify opportunities to get more involved with JIC's work.

In addition to the five formal meetings, all trustees receive regular presentations from JIC's scientists and briefings on key issues facing the organisation.

Trustee assessment

In keeping with an effective governance framework, in Autumn 2023, we introduced reviews for Trustee Directors and the Chair. The process of self-assessment, feedback and discussion of priorities and any development needs will ensure that we fully utilise each Trustee Director's skills and successfully deliver as a board.

Trustee remuneration

None of the trustees received any remuneration in the year in respect of their role as trustee directors.

Key Management Personnel

The trustees delegate management of the day to day activities of the charitable company to the Director of the Institute, Prof Graham Moore, and the Executive Group.

Executive Group

JIC's Executive Group advises the Director at strategic and operational levels on major issues that affect the Institute with respect to research, appointments, new initiatives, Business Plan and infrastructure, particularly where such issues involve more than one of these areas.
Its membership is as follows:

- Director, Prof Graham Moore (Chair);
- Deputy Director, Prof Anne Osbourn;
- Chief Operating Officer, Mr Dave Foreman;
- Human Resources Director, Ms Anne O'Halleron;
- Chair of Faculty, (Prof Tony Maxwell to 18 September 2024, Prof Richard Morris from 19 September 2024).

Executive Group is supported by a number of other executive committees and groups including: Research Committee; Scientific Resources Committee; People & Culture Committee; and Appointments Committee.

Employees

JIC is a dynamic, multinational community of about 400 scientists and post graduate students. JIC's reputation for scientific excellence is international and it attracts some of the best scientists and brightest students internationally. JIC is committed to the training of the next generation of scientists. Activities include an undergraduate summer school (jointly with TSL and Earlham Institute) that gives students the unique opportunity to spend the summer on site. There are two different routes to a PhD: the prestigious rotation studentships and the NRP Doctoral Training Programme. We host Postdoctoral scientists and independent Fellows from around the world.

Equality and Diversity

It is the Charity'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 Charity 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 Charity's policies follow these principles.

JIC is aware of its statutory duty to support the employment of disabled persons where possible, both in recruitment and by retention of employees who become disabled whilst in the employment of the charitable company, as well as generally through training and career development.

During the year, regular communications to employees have been provided on matters affecting them, including factors affecting the Charity's progress, and they have been consulted on decisions affecting them.

Culture champions

JIC's ability to attract the best researchers and students internationally creates a vibrant, dynamic and intellectually nurturing environment for both training and scientific discovery and is a primary driver of our scientific effectiveness.

To support our work embedding a positive research culture at JIC, this year we launched a new trial initiative, the 'Culture Champions'. This small group of staff support positive behaviours at work, provide an independent point of contact when any concerns arise, can signpost to other initiatives and help and will offer support to help colleagues find a positive way forward.

The Culture Champions help by supporting others, by being active bystanders and role models and by sign posting others to find the support and guidance that they need. They are informal, confidential and independent points of contact for staff.

Connecting cultures - Neurodiversity

At the John Innes Centre we value diversity and are committed to the creation of a positive environment which is fair, welcoming and inclusive: where everyone is treated with dignity and respect. Diversity, including neurodiversity is central to the success of our research and innovation endeavour.

We are leading the UKRI-BBSRC supported project, "Understanding, Valuing, and Celebrating Neurodiversity" which aims to raise the profile of neurodiverse people in research institutes, combining training, awareness building and networking activities, as well as sharing experiences of working with – and for – the neurodiverse community.

Athena Swan

In 2017, JIC became the first research institute to be awarded a 'Gold' Athena Swan award and this was successfully renewed for a further 5 years in 2023. The Athena SWAN charter recognises and celebrates good practice in recruiting, retaining and promoting women in science, technology, engineering, maths and medicine (STEMM) in higher education.

This award recognises JIC's culture that embraces the principles of flexibility that provide for family-friendly working practices, while at the same time demonstrating a commitment to career advancement for all employees.

JIC recognises the value of a diverse workforce and, although Athena SWAN is focused on gender equality, we believe that a fair and equitable working environment is key to both a productive workforce and delivery of JIC strategy, and that initiatives put in place to address gender inequality ultimately benefit all staff. JIC is a member of Stonewall Diversity champion programme.

RELATED PARTIES

Subsidiaries

JIC's subsidiaries in the year were as follows:

- John Innes Enterprises Limited (commerce);
- Norwich Biosciences Limited (dormant);
- Norwich Research Limited (dormant);
- JIC NRP Capital Limited (dormant).

Associates

JIC's associates in the year were as follows:

- NBI Partnership Limited;
- Plant Bioscience Limited;
- Leaf Expression Systems Limited.

NBI Partnership Limited

JIC has a 25% interest in NBI Partnership Limited ("NBIP"). NBIP supplies support and administrative services to JIC and the three other research organisations based on the Norwich Research Park (Quadram Bioscience Institute, Earlham Institute and TSL). NBIP fully recharges its costs to the four research organisations and accordingly it generates no profit or loss.

Plant Bioscience Limited

JIC owns one third of the share capital of Plant Bioscience Limited ("PBL"). PBL manages the intellectual property rights of the charitable company and other organisations.

Leaf Expression Systems Limited

JIC owns 45% of the voting share capital and at 31 March 2024 had invested £1,630k in non-voting share capital of Leaf Expression Systems Limited ("Leaf"). Leaf is a commercial research & development company specialising in the expression and production of proteins, metabolites and complex natural products. As of 20 August 2024 Leaf Expression Systems Limited is in liquidation.

BBSRC

BBSRC is a member of the charitable company.

JIC is strategically funded, along with seven other institutes, by BBSRC. BBSRC supports JIC via strategic 5-year funding programmes, competitively won project grants and capital funding for infrastructure and technology investments.

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

John Innes Foundation

The John Innes Foundation ("JIF") is a member of the charitable company. JIC occupies land and buildings which are owned by JIF, with the principal research buildings leased at a peppercorn rent. In addition, JIF also sponsors the training of a number of students. Studentship grants in the year were £533k (2023: £471k). Further details are provided in note 23 to the financial statements.

University of East Anglia

University of East Anglia ("UEA") is a member of the charitable company. The majority of PhD students at JIC are registered with UEA.

Anglia Innovation Partnership LLP

JIC is a member of Anglia Innovation Partnership LLP through its 100% subsidiary, JIC NRP Capital Limited. Anglia Innovation Partnership LLP is responsible for the management and development of the Norwich Research Park (NRP) estate and for the furtherance of the NRP Enterprise Vision.

JIC is entitled to receive a share of certain profits generated by Anglia Innovation Partnership LLP, however it has no liability for losses or in the event of insolvency. Anglia Innovation Partnership LLP has not yet generated any realised profits.

ENERGY AND CARBON REPORTING

GHG emissions and energy use data	Units	2023/24	2022/23
Emissions from combustion of gas (scope 1)	tCO^2e	10,065	9,414
Emissions from other sources i.e. refrigerants (scope 1)	tCO^2e	212	87
Emissions from combustion of fuel for transport purposes (scope 1)	tCO^2e	26	26
Emissions from purchase of electricity (scope 2) - Location based grid factors	tCO^2e	1,150	1,299
Market based electricity (scope 2) emissions (renewable electricity contract)	tCO^2e	2,118	2,359
Emissions from generation of electricity consumed in a transmission and distribution system which the company does not own or control (scope 3)	tCO2e	100	119
Emissions from business travel in rental cars or employee-owned vehicles, where company is responsible for purchasing fuel (scope 3)	tCO^2e	38.5	3.4
Total gross CO^2e based on above	**tCO^2e**	**11,590**	**10,948**
Energy consumption used to calculate above emissions	**kWh**	**60,673,317**	**58,416,079**
Intensity Metric	**m^2**	**39,997**	**39,997**
Intensity Ratio	**tCO^2/m^2**	**0.290**	**0.274**

Methodology

JIC have followed the 2019 HM Government Environmental Reporting Guidelines. Emissions factors used are tonnes of CO^2 equivalent and data has been calculated using the 2023 UK Government's Conversion Factors for Company Reporting (DEFRA).

Scope 1 emissions relate to on-site gas usage and emissions from Company owned vehicles and refrigerant emissions. Scope 2 emissions relate to on-site imported electricity usage. Scope 3 SECR emissions relate to grey fleet, electricity transmissions and distribution losses as required by the regulations. The primary source for calculating energy consumption is supplier invoices. Where energy data is not in line with the financial year, a pro rata calculation has been used to estimate the usage for the remainder of the reporting period. Electricity is supplied to other companies on site, their consumption is monitored using sub meters and deducted from total site usage to provide us with JIC consumption.

JIC operate 3 combined heat and power (CHP) engines. The proportion of JIC heat and power usage generated by the CHP's has been calculated. To do this, measured heat and power efficiencies of the engines have been used to estimate the fuel input associated to the energy outputs.

JIC has continued the journey to quantify scope 3 emissions. Since 2022 this has grown to include:
Category 5 - Waste generated in operations

Category 3 - Fuel and energy related activities for 'well to tank' data, also third-party tenant energy usage.
Category 1 - Purchased goods and services has been included, analysing the top 99%.

Category 6 - Business travel using spend methodology, emissions factors are sourced from the Exiobase EEIO database for GHG emissions in tCO^2e per EUR spent.

Business travel mainly includes flights, rail, taxis and overnight accommodation. Remaining emission factors have been sourced from the 2023 DEFRA factors.

Energy consumption

CHP engines use gas to generate heat and power on site. In 2023/24 more gas was consumed than the previous year, consequently resulting in more electricity being generated. As a result, scope 1 emissions have increased due to greater gas consumption, but scope 2 emissions have decreased as less electricity was needed from the national grid.

Energy management

JIC have continued their focus on operational efficiency and improvements during the last year and have continued to be committed to responsible energy consumption.

During the financial year, JIC have continued to focus on improving energy management and have focussed on the following areas:

- Additional submetering and analysis to better understand energy usage across the site, identifying areas for improvement

- Further LED replacement and lighting control to help improve energy efficiency

- Development of energy reporting dashboards to help raise awareness of energy performance

- Implementation of an environmental engagement strategy, including a focus on energy efficiency.

JIC have also conducted a site wide energy review in collaboration with NBIP, which identified opportunities to improve energy efficiency via procurement, energy reduction, building design and an increase in onsite energy generation.

STATEMENT OF RESPONSIBILITIES OF THE TRUSTEES OF JOHN INNES CENTRE 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.

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 of a trustee being proven to have acted fraudulently or dishonestly.

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 JIC to be charitable in nature.

Disclosure of information to auditor

The trustees confirm that:

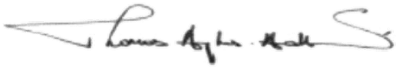
- so far as each trustee is aware, there is no relevant audit information of which the Company's auditor is unaware, and
- the trustees have taken all the steps that they ought to have taken as directors in order to make themselves aware of any relevant audit information and to establish that the Company's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

Independent auditor

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

Approval of the trustees' report

The trustees' report and strategic report were approved by Governing Council on 17 October 2024.



Sir Thomas Hughes-Hallett, Chair

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF JOHN INNES CENTRE

Opinion

We have audited the financial statements of JIC (the 'parent charitable company') and its subsidiaries (the 'group') for the year ended 31 March 2024 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 2024, 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 19, 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

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.

The extent to which the audit was considered capable of detecting irregularities including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud.

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 the accelerated depreciation of assets affected by the Next Generation Infrastructure programme;
- 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/auditorsresponsibilities

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.



Anders Rasmussen FCA (Senior Statutory Auditor)

for and on behalf of
Larking Gowen LLP

Chartered Accountants
Statutory Auditors

31 October 2024

FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF FINANCIAL ACTIVITIES

FOR THE YEAR ENDED 31 MARCH 2024
INCORPORATING AN INCOME AND EXPENDITURE ACCOUNT

	Note	Unrestricted funds	Restricted general funds	Restricted capital funds	**Total 2024**	Total 2023
		£000	£000	£000	**£000**	£000
Income						
Income from charitable activities						
Grant income		-	36,608	-	**36,608**	36,984
Capital and maintenance grants		-	1,328	29,104	**30,432**	14,924
Other charitable income		1,210	-	-	**1,210**	828
Income from other trading activities						
Trading income		750	-	-	**750**	928
Rental income		268	-	-	**268**	255
Investment income		1,504	-	-	**1,504**	636
Other income		3,640	-	-	**3,640**	3,871
Total income	2	7,372	37,936	29,104	**74,412**	58,426
Expenditure						
Charitable activities	3	(5,171)	(36,280)	(9,827)	**(51,278)**	(51,719)
Raising funds	3	(454)	-	-	**(454)**	(439)
Trading expenditure	3	(685)	-	-	**(685)**	(692)
Other resources expended	3	(252)	-	-	**(252)**	(344)
Share of operating result of associates	12	(127)	-	-	**(127)**	(304)
Total expenditure		(6,689)	(36,280)	(9,827)	**(52,796)**	(53,498)
Net income for the year		683	1,656	19,277	**21,616**	4,928
Transfers and revaluation						
Capital transfers	19	1,016	(1,328)	312	**-**	-
Other transfers	19	(3,327)	(436)	3,763	**-**	-
Net movement in funds for the year		(1,628)	(108)	23,352	**21,616**	4,928
Funds brought forward		24,853	108	79,477	**104,438**	99,510
Net movement in funds for the year		(1,628)	(108)	23,352	**21,616**	4,928
Funds carried forward	19	23,225	-	102,829	**126,054**	104,438

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

The notes on pages 26 to 41 form part of these financial statements.

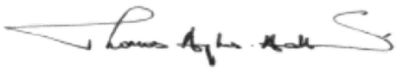
CONSOLIDATED AND CHARITABLE COMPANY BALANCE SHEETS

AS AT 31 MARCH 2024

	Note	**Group 2024 £000**	Group 2023 £000	**Company 2024 £000**	Company 2023 £000
Fixed assets					
Tangible assets	10	**80,731**	73,815	**80,731**	73,815
Intangible assets	11	**-**	-	**-**	-
Investments	12	**-**	-	**1**	1
Investments in associates					
Share of total assets		**1,675**	1,903	**-**	-
Share of total liabilities		**(195)**	(296)	**-**	-
	12	**1,480**	1,607	**-**	-
Total fixed assets		**82,211**	75,422	**80,732**	73,816
Current assets					
Stocks	13	**278**	340	**278**	340
Debtors	14	**13,059**	12,201	**12,960**	12,067
Cash at bank and in hand	15	**48,334**	37,668	**47,975**	37,444
		61,671	50,209	**61,213**	49,851
Current liabilities					
Creditors: amounts falling due within one year	16	**(17,828)**	(21,193)	**(17,598)**	(21,096)
Total net current assets		**43,843**	29,016	**43,615**	28,755
Total assets less current liabilities		**126,054**	104,438	**124,347**	102,571
Total net assets	18	**126,054**	104,438	**124,347**	102,571
The funds of the charity					
Unrestricted funds					
Fixed assets reserve	19	**5,761**	6,770	**4,281**	5,163
Designated reserves	19	**10,915**	11,705	**10,915**	11,705
General reserve	19	**6,549**	6,378	**6,321**	6,117
Total unrestricted funds		**23,225**	24,853	**21,517**	22,985
Restricted funds					
General reserve	19	**-**	108	**-**	108
Fixed assets reserve	19	**76,450**	68,652	**76,451**	68,653
Designated reserves	19	**26,379**	10,825	**26,379**	10,825
Total restricted funds		**102,829**	79,585	**102,830**	79,586
Total funds	19	**126,054**	104,438	**124,347**	102,571

A separate income and expenditure account has not been presented for JIC as this is exempted by Section 408 of the Companies Act 2006. The surplus after tax of JIC was £21,776k (2023: £5,091k).

The financial statements on pages 23 to 41 were approved by the Governing Council on 17 October 2024 and were signed on its behalf by:



Sir Thomas Hughes-Hallett, Chair

Company registration number: 00511709

CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED 31 MARCH 2024

	Total 2024 £000	Total 2023 £000
Cash flows from operating activities		
Net movement in funds for the year	**21,616**	4,928
Share of operating result of associates	**127**	304
Net income for the year	**21,743**	5,232
Interest receivable	**(1,504)**	(636)
Depreciation and amortisation	**9,827**	8,039
Capital grants receivable	**(29,104)**	(14,184)
(Profit)/loss on disposal of tangible assets	**(6)**	8
Decrease/(increase) in stocks	**62**	(57)
(Increase)/decrease in debtors	**(858)**	1,080
Decrease in creditors	**(3,365)**	(4,419)
Decrease in provisions	**-**	(284)
Net cash (used in) operating activities	**(3,205)**	(5,221)
Cash flows from investing activities:		
Interest received	**1,504**	636
Purchase of tangible assets	**(16,751)**	(14,879)
Capital grants received	**29,104**	14,184
Proceeds from sale of tangible assets	**14**	**-**
Net cash provided by / (used in) investing activities	**13,871**	(59)
Change in cash and cash equivalents in the reporting period	**10,666**	(5,280)
Cash and cash equivalents at the beginnning of the period	**37,668**	42,948
Total cash and cash equivalents at the end of the year	**48,334**	37,668

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

The notes on pages 26 to 41 form part of these financial statements.

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 (FRS102)– (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 as follows:

b) Basis of consolidation

The consolidated financial statements incorporate the financial statements of JIC and all its subsidiary undertakings in accordance with Financial Reporting Standard ("FRS") 102 "Accounting for Subsidiary Undertakings", and associated entities which are accounted for using the equity method.

Associates are entities over which JIC has significant influence but not control. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise JIC's share of the profit or loss of the associate after the date of acquisition. JIC's share of post-acquisition operating result is recognised in the statement of financial activities. Determination is made at each balance sheet date whether there is any evidence that the investment in the associate is impaired. If this is the case, the amount of impairment is calculated as the difference between the recoverable amount of the associate and its carrying value, and this amount is recognised adjacent to share of operating result of associates in the statement of financial activities.

JIC is one of four members of NBI 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.

The financial statements of all group undertakings and associates are made up to 31 March 2024.

A separate income and expenditure account has not been presented for JIC as this is exempted by Section 408 of the Companies Act 2006. The surplus of JIC was £21,776k (2023: £5,091k).

c) Going concern

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 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 £14.6m in the year (2023: £13.2m). BBSRC has confirmed strategic funding of £14.6m for the year to March 2025 and the Institute expects its strategic programme funding to continue at this level for the 3 years to March 2028.

The Institute has prepared income, reserves and cash flow forecasts to March 2028. The forecasts indicate that the Institute will have significant cash headroom over the period, with cash balances of at least £20m for the 12 months from the signing date of this Annual Report.

The assessment has included consideration of the NGI project, and in particular, funding, cash flows and the programmes wider risks.

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) Income

Charitable grant income represents grants received and receivable in the year from outside granting bodies.

Grants that provide core funding are recognised in the year in which entitlement passes. Grant funding received to train students and 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.

Other charitable income represents non-grant revenue from providing scientific research services to other academic institutions and other services. Revenue is recognised in the year in which the obligation is fulfilled.

Trading income, which includes rent, other letting income and other income, relates to the non-charitable services undertaken by John Innes Enterprises Limited, subsidiary company of JIC, and is recognised in accordance with the terms of the contracts entered into, reflecting the point at which the obligations of the companies 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 earnt.

Other income includes site infrastructure charges, UEA tuition fee income and miscellaneous income. Revenue is recognised in the year in which the obligation is fulfilled.

Capital grants are recognised 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.

e) Expenditure

Charitable activity expenditure 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.

Raising funds represents the cost of obtaining funds for research. The cost of obtaining funds includes an estimate of the time/salary cost of project leaders preparing and reviewing grant application forms.

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 allocated to charitable activity expenditure, costs of generating funds and governance costs

based upon activity or headcount as indicated in note 4 to the financial statements.

Other expenditure relates to expenditure maintaining capital assets that does not meet the capitalisation policy.

Trading expenditure relates to the costs of undertaking the non-charitable services performed by subsidiary companies of JIC and is recognised in the period in which it is incurred.

f) Restricted funds

Where research at JIC 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.

From April 2018 the strategic programme grants from the UK Research and Innovation - Biotechnology and Biological Sciences Research Council ("BBSRC") are shown as restricted.

A restricted fixed assets reserve has been established representing the net book value of fixed assets purchased from capital grants.

Restricted reserves include a designated capital reserve of £26,379k (2023: £10,825k) in connection with funding received from BBSRC, which is to be used on future capital projects to be agreed with BBSRC.

g) Unrestricted funds

Research grants that do not contain conditions for the final receipt of funds have been treated as unrestricted. Funds received for non-specified purposes have also been included as unrestricted.

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 Governing Council for specific purposes are shown in separate designated reserves.

h) 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.

i) 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.

j) Designated capital transfers

A transfer from the unrestricted general reserve to the unrestricted designated reserve is made in relation to the expenditure which had been designated by Governing Council for use in the financial projections to March 2028.

k) Centre funded capital

Capital expenditure funded from unrestricted reserves is shown as a transfer from the unrestricted designated capital reserve or general reserve to the unrestricted fixed asset reserve.

l) Tangible assets and depreciation

Tangible assets are shown at cost less accumulated depreciation. The cost of tangible assets is their purchase cost, together with any incidental costs of acquisition. Depreciation is calculated using the straight-line method to write off the cost or valuation of assets, less any estimated residual value, over their estimated useful lives at the following rates:

Leasehold land and buildings – over lease term or useful life, if shorter;

Freehold land – not depreciated;

Freehold buildings – estimated economic life;

Plant, machinery and equipment – estimated economic life;

Scientific equipment - 5 to 15 years straight line;

Computer equipment – 3 to 5 years straight line;

Motor vehicles – 4 years straight line;

Combined heat and power scheme – 20 years straight line.

The leasehold buildings have been depreciated over their estimated economic life. The trustees have determined that land is not subject to depreciation. Assets in the course of construction are not depreciated until the asset is in full use.

JIC includes in its financial statements leasehold land and buildings owned by third parties, which it occupies and enjoys through extended peppercorn leases, at their fair value. The trustees consider that in substance, the risks and rewards of ownership of the assets have passed to the Institute, and as such follow a policy of recognising the assets on the balance sheet that reflects its continuing occupancy of these assets for the foreseeable future.

As a result of the proposed redevelopment outlined in the NGI programme, the useful lives of associated assets have been reviewed based upon the timetable.

m) 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 straight line

Intangible assets under construction are not amortised until the asset is in full use.

n) Fixed asset investments

The consolidated balance sheet includes the group's share of each associate's gross assets and liabilities. The share of each associate's net income is reported in JIC's consolidated statement of financial activities.

o) Stocks

Stocks are stated at the lower of cost and net realisable value. Provision is made, where necessary, for slow moving or obsolete stock.

p) Debtors

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

q) Cash balances held as grant co-ordinator

Cash balances held in the charitable company's capacity as grant co-ordinator are included within cash on the charitable company's balance sheet and are disclosed in note 24 to the financial statements.

r) Trade creditors

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

s) Loans

Loans are stated on the balance sheet at amortised cost.

t) 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.

u) Staff and Pensions

JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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.

JIC 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.

v) 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.

w) Operating leases

Rental costs are charged to the statement of financial activities on a straight-line basis over the life of the lease.

x) Foreign currency transactions

The functional and reporting currency 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.

y) 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 such as trade and other accounts receivable and payable.

z) 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 above. The amount of depreciation charged and net book value of the assets is included in Note 10.

- Accelerated depreciation, which results from a review of useful lives of assets affected by the latest NGI timetable. The depreciation of these assets has been accelerated to depreciate them to nil over their estimated remaining useful lives. The amount of depreciation charged and net book value of the assets is included in Note 10.

NOTES TO THE ACCOUNTS

2. ANALYSIS OF INCOMING RESOURCES

	Research activities	Student activities	Other activities	**Total 2024**	Research activities	Student activities	Other activities	**Total 2023**
	£000	£000	£000	**£000**	£000	£000	£000	£000
Grant income								
BBSRC	26,061	2,563	-	**28,624**	25,068	2,953	-	**28,021**
Other government departments	2,086	10	-	**2,096**	1,326	-	-	**1,326**
European Union	1,265	9	-	**1,274**	2,540	53	-	**2,593**
Industrial partners	171	-	-	**171**	224	11	-	**235**
John Innes Foundation	207	533	-	**740**	256	451	-	**707**
Other charities	2,354	132	-	**2,486**	2,625	211	-	**2,836**
Universities	1	22	-	**23**	-	47	-	**47**
Other grants	1,161	33	-	**1,194**	1,219	-	-	**1,219**
Total grant income	33,306	3,302	-	**36,608**	33,258	3,726	-	**36,984**
Capital and maintenance grants								
BBSRC								
Capital expenditure	30,432	-	-	**30,432**	14,917	-	-	**14,917**
John Innes Foundation								
Capital expenditure	-	-	-	-	7	-	-	**7**
Total capital grants	30,432	-	-	**30,432**	14,924	-	-	**14,924**
Other charitable income								
Scientific services	-	-	813	**813**	-	-	686	**686**
Miscellaneous income	-	-	397	**397**	-	-	142	**142**
Total other charitable income	-	-	1,210	**1,210**	-	-	828	**828**
Trading income								
John Innes Enterprises Limited	-	-	750	**750**	-	-	916	**916**
Norwich Biosciences Limited	-	-	-	-	-	-	12	**12**
Total trading income	-	-	750	**750**	-	-	928	**928**
Rental income								
Conferencing Facilties	-	-	182	**182**	-	-	186	**186**
Hill House	-	-	86	**86**	-	-	69	**69**
Total rental income	-	-	268	**268**	-	-	255	**255**
Investment income								
Interest receivable on cash deposits	-	-	1,486	**1,486**	-	-	629	**629**
Interest receivable on loan to related party	-	-	18	**18**	-	-	7	**7**
Total investment income	-	-	1,504	**1,504**	-	-	636	**636**
Income from investment in associates	-	-	-	**-**	-	-	-	**-**
Total associates income	-	-	-	**-**	-	-	-	**-**
Other generated income								
Site infrastructure recharges	-	-	1,759	**1,759**	-	-	2,005	**2,005**
Other	-	-	1,881	**1,881**	-	-	1,866	**1,866**
Total other generated income	-	-	3,640	**3,640**	-	-	3,871	**3,871**
Total income	63,738	3,302	7,372	**74,412**	48,182	3,726	6,518	**58,426**

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

- Of grant income totalling £36,608k (2023: £36,984k), £36,608k (2023: £36,893k) is restricted general funds and £nil (2023: £91k) is restricted capital funds.
- Of capital grants totalling £30,432k (2023: £14,924k), £1,328k (2023: £831k) is restricted general funds and £29,104k (2023: £14,093k) is restricted capital funds.
- Other charitable income of £1,210k (2023: £828k) is all unrestricted funds.
- In both periods all trading and investment income is unrestricted funds.

NOTES TO THE ACCOUNTS

3. ANALYSIS OF RESOURCES EXPENDED

	Note	Research activities £000	Student activities £000	Other activities £000	**Total 2024 £000**	Research activities £000	Student activities £000	Other activities £000	**Total 2023 £000**
Direct charitable expenditure:									
Staff costs		13,678	-	-	**13,678**	13,116	-	-	**13,116**
Direct costs		10,781	4,303	-	**15,084**	12,580	4,196	-	**16,776**
Depreciation and impairment		9,827	-	-	**9,827**	8,039	-	-	**8,039**
Governance costs	4	-	-	80	**80**	-	-	105	**105**
Support costs	4	10,050	2,559	-	**12,609**	10,750	2,933	-	**13,683**
Expenditure on charitable activities		**44,336**	**6,862**	**80**	**51,278**	44,485	7,129	105	**51,719**
Raising funds	4	-	-	454	**454**	-	-	439	**439**
Trading expenditure		-	-	685	**685**	-	-	692	**692**
Other resources expended		-	-	252	**252**	-	-	344	**344**
Share of operating result of associates		-	-	127	**127**	-	-	304	**304**
Total expenditure		**44,336**	**6,862**	**1,598**	**52,796**	44,485	7,129	1,884	53,498

Included within expenditure is restricted general expenditure of £36,280k (2023: £38,345k) and restricted capital resources expended (depreciation) of £9,827k (2023: £8,039k). All other expenditure is unrestricted.

Analysis of governance costs	**Total 2024 £000**	Total 2023 £000
Staff costs	**29**	46
Travel costs	**12**	12
Other costs	**39**	47
Total governance costs	**80**	105

4. ALLOCATION OF SUPPORT COSTS, GOVERNANCE AND RAISING FUNDS

	Research activities £000	Student activities £000	Raising funds £000	Governance costs £000	**Total 2024 £000**	Basis of Allocation
Governing Council and SIAB	-	-	-	42	**42**	Headcount
Lab management	483	123	-	-	**606**	Headcount
Institute management	577	148	-	-	**725**	Headcount
Scientific services	463	118	-	-	**581**	Headcount
Facilities management and utilities*	6,336	1,609	-	-	**7,945**	Headcount
Finance and Purchasing*	563	144	-	-	**707**	Headcount
Computing and Library*	688	176	-	-	**864**	Headcount
Human Resources*	292	75	-	-	**367**	Headcount
Contracts services*	-	-	319	-	**319**	Activity
Other support services	648	166	135	38	**987**	Activity
Total support costs	**10,050**	**2,559**	**454**	**80**	13,143	

	Research activities £000	Student activities £000	Raising funds £000	Governance costs £000	**Total 2023 £000**	Basis of Allocation
Governing Council and SIAB	-	-	-	60	**60**	Headcount
Lab management	425	116	-	-	**541**	Headcount
Institute management	337	92	-	-	**429**	Headcount
Scientific services	365	100	-	-	**465**	Headcount
Facilities management and utilities*	7,602	2,074	-	-	**9,676**	Headcount
Finance and Purchasing*	538	147	-	-	**685**	Headcount
Computing and Library*	635	173	-	-	**808**	Headcount
Human Resources*	267	73	-	-	**340**	Headcount
Contracts services*	-	-	314	-	**314**	Activity
Other support services	581	158	125	45	**909**	Activity
Total support costs	**10,750**	**2,933**	**439**	**105**	14,227	

* Includes services supplied by NBI Partnership Limited (see note 22). Scientific services costs are shown net of recharges to science projects.

NOTES TO THE ACCOUNTS

5. TAXATION

JIC ("JIC") 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 (2023: £nil) tax charge payable.

Unutilised losses of £79k (2023: £79k) have been carried forward within the subsidiary companies for offset against future taxable profits. A deferred tax asset has not been recognised due to uncertainty over utilisation of these losses.

6. OPERATING SURPLUS

Operating surplus is stated after charging/(crediting):

	Total 2024	Total 2023
	£000	£000
Audit services:		
Fees payable to the charitable company's auditors for the audit of charitable company and consolidated financial statements	**32**	31
Fees payable for the audit of the charitable company's subsidiaries pursuant to legislation	**2**	1
Depreciation and amortisation	**9,827**	8,039
(Profit)/loss on disposal of tangible assets	**(6)**	8
Hire of plant and equipment	**64**	63
Rent of land and buildings	**26**	41
Loss/(Profit) on foreign exchange translations	**89**	(120)

7. NET INCOME FROM TRADING ACTIVITIES OF SUBSIDIARIES

Profit and loss account	John Innes Enterprises Limited	Norwich Biosciences Limited	**Total 2024**	John Innes Enterprises Limited	Norwich Biosciences Limited	**Total 2023**
	£000	£000	**£000**	£000	£000	**£000**
Turnover	750	-	**750**	916	12	**928**
Cost of sales	(712)	-	**(712)**	(731)	-	**(731)**
Gross profit/(loss)	38	-	**38**	185	12	**197**
Administrative expenses	-	-	**-**	-	-	**-**
Operating profit/(loss)	38	-	**38**	185	12	**197**
Interest received	-	-	**-**	-	-	**-**
Operating profit/(loss) retained in subsidiary	38	-	**38**	185	12	**197**
Net assets at 31 March	225	-	**225**	258	-	**258**

In addition to the above, £71,091 (2023: £55,828) in Gift Aid was paid to the charitable company in the year.

8. REMUNERATION OF MEMBERS OF THE GOVERNING COUNCIL

None of the members of the Governing Council received any remuneration from the group during the current or prior year for their duties as trustees. During the year, Professor J Armitage, Trustee of JIC, received £5,000 (2023: £nil) as chair of JIC's Science Impact Advisory Board (SIAB).

Attendance expenses incurred by 6 (2023: 6) trustees whilst carrying out their duties amounted to £1,662 during the year (2023: £2,913).

NOTES TO THE ACCOUNTS

9. EMPLOYEE INFORMATION

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

Group and charitable company	**2024**	2023
	Number	Number
Scientific	**307**	328
Office management and services	**39**	35
Total	**346**	363

The aggregate payroll costs of these persons were:

Group and charitable company		**2024**	2023
	Note	**£000**	£000
Wages and salaries		**13,630**	13,664
Redundancy costs		**84**	11
Social security costs		**1,418**	1,463
Other pension costs	22	**1,957**	1,894
Total		**17,089**	17,032

An analysis of the number of staff who fall within staff cost bands (excluding pension cost) from £60k upwards is provided below:

Group and charitable company	**2024**	2023
	Number	Number
£60,000 - £69,999	**16**	20
£70,000 - £79,999	**12**	11
£80,000 - £89,999	**6**	4
£90,000 - £99,999	**5**	7
£100,000 - £109,999	**6**	5
£110,000 - £119,999	**3**	2
£120,000 - £129,999	**2**	-
£130,000 - £139,999	**2**	1
£140,000 - £149,999	**-**	1
£150,000 - £159,999	**1**	1
£160,000 - £169,999	**-**	1
£170,000 - £179,999	**1**	1
£220,000 - £229,999	**1**	1
Total	**55**	55

The number of staff with emoluments greater than £60k who were also members of the Research Councils' Pension Schemes was twenty-one (2023: twenty-five). Twenty-eight (2023: eighteen) with emoluments greater than £60k are members of a defined contribution pension scheme.

Staff that joined prior to 1 October 2011 were employed by BBSRC up to 1 October 2017, when these employees' transferred employment to the Institute under TUPE. Transferred employees retain their membership of the Research Councils Pension Scheme, where applicable, with JIC becoming an admitted employer in the scheme. Staff that joined after 1 October 2011 are employed under JIC terms & conditions.

The key management personnel of the parent charity, JIC, comprise of the trustees and members of the Executive Group. In 2023 this also included members of the Strategy Committee.

The key management personnel of the group comprise those of the charity and the key management personnel of the wholly owned subsidiaries, John Innes Enterprises Ltd, Norwich Biosciences Ltd, Norwich Research Ltd and JIC NRP Capital Ltd. All the subsidiaries key management personnel are the same as the parent company. No staff costs were recharged in respect of this. The employee costs (salaries, social security costs and pension costs) of the key management personnel for the group and charitable company were £818,394 (2023: £1,501,403).

NOTES TO THE ACCOUNTS

10. TANGIBLE ASSETS

Group & Company	Note	Freehold land and buildings	Long leasehold land and buildings	Plant, machinery and equipment	Assets under construction	Total
		£000	£000	£000	£000	**£000**
Cost/Valuation						
At 1 April 2023		3,820	68,032	61,663	7,169	**140,684**
Transfers		-	1,034	746	(1,780)	**-**
Additions		-	399	1,704	14,648	**16,751**
Disposals		-	-	(897)	(8)	**(905)**
At 31 March 2024		**3,820**	**69,465**	**63,216**	**20,029**	**156,530**
Accumulated Depreciation						
At 1 April 2023		829	33,900	32,140	-	**66,869**
Charge for the year		5	3,591	6,231	-	**9,827**
Disposals		-	-	(897)	-	**(897)**
At 31 March 2024		**834**	**37,491**	**37,474**	**-**	**75,799**
Net book value at 31 March 2024		**2,986**	**31,974**	**25,742**	**20,029**	**80,731**
Net book value at 31 March 2023		2,991	34,132	29,523	7,169	73,815

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

JIC includes in its financial statements land and buildings owned by third parties, which it occupies and enjoys through extended peppercorn leases, at their full value. The trustees consider that in substance, the risks and rewards of ownership of the assets have passed to the Institute, and as such a policy of recognising the assets on the balance sheet reflects its continuing occupancy of these assets for the foreseeable future.

All of the charitable company's assets at 31 March 2024 are used for direct charitable purposes.

The depreciation charge for the year includes an additional £3.5m (2023: £2.2m), resulting from the acceleration of depreciation on assets affected by the NGI programme of redevelopment.

11. INTANGIBLE ASSETS

Group and Charitable company	Software development	Total
	£000	**£000**
Cost		
At 1 April 2023	147	**147**
Additions	-	**-**
At 31 March 2024	**147**	**147**
Accumulated Depreciation		
At 1 April 2023	147	**147**
Charge for the year	-	**-**
At 31 March 2024	**147**	**147**
Net book value at 31 March 2024	**-**	**-**
Net book value at 31 March 2023	-	**-**

NOTES TO THE ACCOUNTS

12. INVESTMENTS

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
John Innes Enterprises Limited	02549904	England	Commerce	100% ordinary shares
Norwich Biosciences Limited	03076575	England	Management of intellectual property	100% ordinary shares
Norwich Research Limited	02814101	England	Dormant	100% ordinary shares
JIC NRP Capital Limited	06145922	England	Member of Anglia Innovation Partnership LLP	100% ordinary shares

The registered address for all the subsidiaries is JIC, Norwich Research Park, Colney, Norwich, NR4 7UH.

The charitable company's investment in subsidiary undertakings at cost amounts to £1,248 (2023: £1,248) and accumulated impairment of £244 (2023: £244) has been recognised against cost.

JIC NRP Capital Limited is a member of Anglia Innovation Partnership LLP (formerly Norwich Research Partners 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. The company did not trade during the year.

The net income from trading activities of the subsidiaries during the year is shown in note 7.

Associates

The charitable company has an investment in Plant Bioscience Limited ("PBL"), a company registered in England and Wales, representing 33% (2023: 33%) of the ordinary £1 issued share capital. Plant Bioscience Limited manages the intellectual property rights of the charitable company and other organisations. This company is deemed to be an associate of the group and has therefore been included in the consolidated financial statements on that basis.

The charitable company has a 25% interest in NBI Partnership Limited ("NBIP"). NBIP supplies support and administrative services to JIC and the other Norwich Institutes (Quadram Bioscience Institute, 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.

The charitable company has an investment of 45% voting share capital and £1,630k non-voting share capital in Leaf Expression Systems Limited ("Leaf"). Leaf is a commercial research & development company specialising in the expression and production of proteins, metabolites and complex natural products. The value of JIC's investment in Leaf has been fully written down at March 2024 and March 2023 to reflect Leaf's trading position, as of August 2024 Leaf is in liquidation.

Investments – Company

The movement in the value of investments during the year was as follows:

	Total 2024	Total 2023
	£000	£000
Valuation		
At beginning of year	**1**	1
Acquisition	**-**	-
Impairment	**-**	-
At end of year	**1**	1
Historical cost		
As at 1 April 2023 and 31 March 2024	**1,631**	1,631

NOTES TO THE ACCOUNTS

12. INVESTMENTS (CONTINUED)

Investments – Group

The Group's share of the operating results of associates was as follows:

Group	Leaf Expression Systems Limited	Plant Bioscience Limited	**Total 2024**	Leaf Expression Systems Limited	Plant Bioscience Limited	Total 2023
	£000	£000	**£000**	£000	£000	£000
Associates, share of:						
Turnover	-	407	**407**	-	391	**391**
Operating (loss)	-	(191)	**(191)**	-	(233)	**(233)**
Movement in opening balance	-	64	**64**	-	(71)	**(71)**
Share of result for the year	-	(127)	**(127)**	-	(304)	**(304)**

The Group's investment in associates is represented as follows:

Group	Leaf Expression Systems Limited	Plant Bioscience Limited	**Total 2024**	Leaf Expression Systems Limited	Plant Bioscience Limited	**Total 2023**
	£000	£000	**£000**	£000	£000	**£000**
Associates: Share of net assets						
At beginning of year	-	1,607	**1,607**	-	1,911	**1,911**
Additions	-	-	**-**	-	-	**-**
Impairment provision	-	-	**-**	-	-	**-**
Share of result for the year	-	(127)	**(127)**	-	(304)	**(304)**
At end of year	-	1,480	**1,480**	-	1,607	**1,607**
Represented by:						
Share of total assets	-	1,675	**1,675**	-	1,903	**1,903**
Share of total liabilities	-	(195)	**(195)**	-	(296)	**(296)**
Share of net assets	-	1,480	**1,480**	-	1,607	**1,607**

The trustees consider the value of investments included in the financial statements to be supported by their underlying assets. The value of the investment in Leaf Expression Systems Limited has been fully written down, reflecting the net deficit position of the company at 31 March 2023 and 2024. JIC has no liability to contribute to losses in the company.

13. STOCKS

Group and charitable company	**Total 2024**	Total 2023
	£000	£000
Raw materials and consumables	**278**	340
Total	**278**	340

There is no material difference between the valuation of stock and its replacement cost.

14. DEBTORS

	Note	**Group 2024**	Group 2023	**Company 2024**	Company 2023
		£000	£000	**£000**	£000
Grants receivable:					
from government bodies	22	**1,690**	2,187	**1,690**	2,187
from other sources		**3,068**	2,684	**3,068**	2,684
Trade debtors		**2,225**	2,764	**2,097**	2,418
Amounts owed by subsidiary undertakings		**-**	-	**89**	238
Amounts owed by other related parties	22	**1,510**	951	**1,486**	942
Other debtors		**1,085**	559	**1,085**	574
Prepayments and accrued income		**3,481**	3,056	**3,445**	3,024
Total amounts falling due within one year		**13,059**	12,201	**12,960**	12,067

Grants receivable from government bodies includes £8k in relation to capital funding receivable from BBSRC (2023: £2,187k).

NOTES TO THE ACCOUNTS

15. CASH AT BANK AND IN HAND

	Group 2024	Group 2023	**Company 2024**	Company 2023
	£000	£000	**£000**	£000
Cash at bank	**48,332**	37,666	**47,973**	37,442
Cash in hand	**2**	2	**2**	2
Total	**48,334**	37,668	**47,975**	37,444

16. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	Note	**Group 2024**	Group 2023	**Company 2024**	Company 2023
		£000	£000	**£000**	£000
Grants received in advance:					
from government bodies	22	**4,786**	5,345	**4,786**	5,345
from other sources		**3,043**	3,995	**3,043**	3,958
Trade creditors		**834**	3,686	**807**	3,686
Amounts owed to subsidiary undertakings		**-**	-	**38**	1
Amounts owed to other related parties	22	**910**	896	**910**	896
Other creditors		**732**	1,210	**690**	1,148
Taxation and social security		**352**	353	**352**	353
Accruals and deferred income		**7,171**	5,708	**6,972**	5,709
Total amounts falling due within one year		**17,828**	21,193	**17,598**	21,096

17. RECONCILIATION OF MOVEMENT IN GRANTS RECEIVABLE

Group and charitable company	Note	**Total 2024**	Total 2023
		£000	£000
Grants receivable	14	**4,758**	4,871
Grants received in advance	16	**(7,829)**	(9,340)
Net grants received in advance		**(3,071)**	(4,469)

	Total 2024	Total 2023
	£000	£000
Net grants received in advance at beginning of year	**(4,469)**	(4,175)
Grant monies received during the year	**(65,642)**	(52,202)
Grant money released to SOFA during the year	**67,040**	51,908
Net grants received in advance	**(3,071)**	(4,469)

NOTES TO THE ACCOUNTS

18. ANALYSIS OF NET ASSETS BETWEEN FUNDS

	Fixed assets	Net current assets	**Total 2024**
	£000	£000	**£000**
Group			
Unrestricted:			
Fixed assets reserve	5,761	-	**5,761**
Designated capital reserve	-	10,915	**10,915**
General	-	6,549	**6,549**
Restricted:			
Fixed assets reserve	76,450	-	**76,450**
Designated capital reserve	-	26,379	**26,379**
Net assets	**82,211**	**43,843**	**126,054**
Charitable company			
Unrestricted:			
Fixed assets reserve	4,281	-	**4,281**
Designated reserves	-	10,915	**10,915**
General	-	6,321	**6,321**
Restricted:			
Fixed assets reserve	76,451	-	**76,451**
Designated reserves	-	26,379	**26,379**
Net assets	**80,732**	**43,615**	**124,347**

	Fixed assets	Net current assets	**Total 2023**
	£000	£000	**£000**
Group			
Unrestricted:			
Fixed assets reserve	6,770	-	**6,770**
Designated capital reserve	-	11,705	**11,705**
General	-	6,378	**6,378**
Restricted:			
General reserve	-	108	**108**
Fixed assets reserve	68,652	-	**68,652**
Designated capital reserve	-	10,825	**10,825**
Net assets	**75,422**	**29,016**	**104,438**
Charitable company			
Unrestricted:			
Fixed assets reserve	5,163	-	**5,163**
Designated reserves	-	11,705	**11,705**
General	-	6,117	**6,117**
Restricted:			
General reserve	-	108	**108**
Fixed assets reserve	68,653	-	**68,653**
Designated reserves	-	10,825	**10,825**
Net assets	**73,816**	**28,755**	**102,571**

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 designated capital reserves are not endowment funds. The unrestricted designated capital reserve relates to funds designated by Governing Council for use in relation to planned capital investments in the financial projections to March 2028. The restricted capital reserve relates to funding received from BBSRC to be used in connection with future estates rebuild costs with the agreement of BBSRC.

The restricted general reserve relates to ring fenced strategic funding received from BBSRC. This funding has performance conditions attached and is transferred to the general reserve once the conditions have been met.

NOTES TO THE ACCOUNTS

19. ANALYSIS OF FUNDS MOVEMENTS

	Unrestricted fixed assets	Unrestricted designated	Unrestricted general	Restricted general	Restricted fixed assets	Restricted designated	**Total 2024**
	£000	£000	£000	£000	£000	£000	**£000**
Group							
At 1 April 2023	6,770	11,705	6,378	108	68,652	10,825	**104,438**
Total income and expenditure for the year	-	-	683	1,656	19,277	-	**21,616**
Associates	(127)	-	127	-	-	-	**-**
Capital transfers	(882)	-	1,432	(1,328)	1,606	(828)	**-**
Designated capital transfers	-	-	-	-	(12,619)	12,619	**-**
Centre funded capital	-	-	466	-	(466)	-	**-**
Other transfers	-	(790)	(2,537)	(436)	-	3,763	**-**
At 31 March 2024	5,761	10,915	6,549	-	76,450	26,379	**126,054**
Charitable company							
At 1 April 2023	5,163	11,705	6,117	108	68,653	10,825	**102,571**
Total income and expenditure for the year	-	-	843	1,656	19,277	-	**21,776**
Capital transfers	(882)	-	1,432	(1,328)	1,606	(828)	**-**
Designated capital transfers	-	-	-	-	(12,619)	12,619	**-**
Centre funded capital	-	-	466	-	(466)	-	**-**
Other transfers	-	(790)	(2,537)	(436)	-	3,763	**-**
At 31 March 2024	4,281	10,915	6,321	-	76,451	26,379	**124,347**

	Unrestricted fixed assets	Unrestricted designated	Unrestricted general	Restricted general	Restricted fixed assets	Restricted designated	**Total 2023**
	£000	£000	£000	£000	£000	£000	**£000**
Group							
At 1 April 2022	7,663	12,118	6,387	794	61,231	11,317	**99,510**
Total income and expenditure for the year	-	-	(596)	(621)	6,145	-	**4,928**
Associates	(304)	-	304	-	-	-	**-**
Capital transfers	(920)	-	-	-	1,284	(364)	**-**
Centre funded capital	331	(331)	8	-	(8)	-	**-**
Other transfers	-	(82)	275	(65)	-	(128)	**-**
At 31 March 2023	6,770	11,705	6,378	108	68,652	10,825	**104,438**
Charitable company							
At 1 April 2022	5,752	12,118	6,267	794	61,232	11,317	**97,480**
Total income and expenditure for the year	-	-	(514)	(540)	6,145	-	**5,091**
Capital transfers	(920)	-	-	-	1,284	(364)	**-**
Centre funded capital	331	(331)	8	-	(8)	-	**-**
Other transfers	-	(82)	356	(146)	-	(128)	**-**
At 31 March 2023	5,163	11,705	6,117	108	68,653	10,825	**102,571**

Capital transfers relate to fund movements in connection with fixed assets and depreciation; ensuring assets are appropriately reflected in separate reserves.

Designated capital transfers relate to capital grants recognised in advance of the associated expenditure being incurred.

Centre funded capital transfers relate to capital expenditure funded from the unrestricted designated capital reserve and general reserve.

Where research at JIC is funded by grants with performance conditions attached to them these are shown in the Restricted general fund. When the conditions have been met the remaining contribution to core funding is transferred to general reserves, shown in other transfers above.

NOTES TO THE ACCOUNTS

20. COMMITMENTS

Group and charitable company	**Total 2024 £000**	Total 2023 £000
Capital commitments at the end of the financial year for which no provision has been made:		
Contracted	**22,438**	5,382
Amounts due under other operating leases for plant and machinery:		
Expiring in less than one year	**32**	44
Expiring between one and two years	**14**	28
Expiring between two and five years	**16**	13
Expiring over five years	**-**	2
	62	87

21. PENSION SCHEMES

JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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% (2023: 26%).

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

The total pension charge for the year was £1,956,862 (2023: £1,894,373), with outstanding contributions at the year-end of £nil (2023: £96,278).

NOTES TO THE ACCOUNTS

22. RELATED PARTY TRANSACTIONS

BBSRC

JIC is strategically funded by BBSRC. Grants received from BBSRC are detailed in note 2. At 31 March 2024, BBSRC owed JIC £1,689,669 (2023: £2,187,669).

Plant Bioscience Limited

PBL is 33% directly owned by JIC. PBL has been accounted for as an associate within the consolidated financial statements. Services provided to JIC by PBL in the year to 31 March 2024 amounted to £54,000 (2023: £32,400). During the year, PBL paid JIC £47,932 (2023: £31,670) in rent and £432 (2023: £1,603) for other costs. At the end of the year £26 was due from PBL (2023: £1,335) and £10,800 was due to PBL (2023: £nil).

Leaf Expression Systems Limited

JIC has invested £1,630,000 in the non-voting share capital of Leaf Expression Systems Limited ("Leaf"). Leaf has been accounted for as an associate within the consolidated financial statements. JIC paid Leaf £nil (2023: £129,646) for services in the year ended 31 March 2024. At 31 March 2024, JIC owed Leaf £nil (2023: £nil). During the year, Leaf paid JIC £131,163 (2023: £139,882) for costs incurred by JIC on behalf of Leaf. At 31 March 2024, Leaf owed JIC £57,047 (2023: £17,511).

NBI Partnership Limited

JIC is one of the four guarantors of NBI Partnership Ltd ("NBIP"), a company limited by guarantee. JIC has provided short-term loans to NBIP to enable NBIP to manage its cash requirements. Interest is payable on the loan at 3.85% and during the year JIC charged £13,090 (2023: £6,748) in respective of interest due. At 31 March 2024, JIC had a loan balance with NBIP of £340,000 (2023: £337,380).

JIC was charged £5,360,238 (2023: £5,005,881) for services by NBIP under a cost sharing agreement. As at 31 March 2024, JIC owed NBIP £509,631 (2023: £507,369). NBIP paid JIC £21,919 (2023: £46,926) for services and, as at 31 March 2024, NBIP owed JIC £6,520 (2023: £1,487).

Anglia Innovation Partnership LLP

JIC is a member of Anglia Innovation Partnership LLP through its 100% subsidiary, JIC NRP Capital Limited. Anglia Innovation Partnership 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, JIC received services totalling £20,143 (2023: £22,325) and was charged £125,177 (2023: £90,640) for estate costs. As at 31 March 2024, JIC owed AIP LLP £nil (2023: £9,572). JIC invoiced Anglia Innovation Partnership LLP for services totalling £283,993 (2023: £252,685). As at 31 March 2024 Anglia Innovation Partnership LLP owed JIC £71,781 (2023: £91,705).

University of East Anglia

UEA is a member of the charitable company and it nominates one Governor to the Governing Council.

The majority of PhD students carrying out research at JIC are registered with UEA. During the year UEA provided student services of £215,960 (2023: £867,829) and other services amounting to £547,339 (2023: £327,645) to JIC. At 31 March 2024, JIC owed UEA £223,457, for student fees and other costs (2023: £242,926) and £22,438 for other services (2023: £14,167).

During the year, JIC received £1,100,671 (2023: £856,347) in student payments from UEA and provided £615,471 (2023: £611,253) of other services and JIE received £nil (2023: £18,281). At 31 March 2024, UEA owed JIC £927,659 (2023: £430,717) for student fees and other services and owed JIE £nil (2023: £9,452).

NOTES TO THE ACCOUNTS

22. RELATED PARTY TRANSACTIONS (CONTINUED)

John Innes Foundation

JIF is a member of the charitable company and it nominates one Governor to the Governing Council of JIC. The following transactions took place during the year:

	Total 2024	Total 2023
	£000	£000
Paid to JIC:		
Grants for studentships	**533**	471
Grants for research project	**134**	150
Contribution to salary costs	**39**	27
Contribution to other costs	**34**	52
Contribution to capital costs	**-**	7
	740	707

During the year, JIF invoiced JIC for services and other costs totalling £15,623 (2023: £nil). As at 31 March 2024, JIF owed JIC £82,987 (2023: £62,434) and JIC owed JIF £143,701 (2023: £122,437).

John Innes Enterprises Ltd

JIE Ltd is the wholly owned trading subsidiary of JIC. JIE undertakes contract research, research services and consultancy.

During the year, JIC invoiced JIE for services and other costs totalling £715,012 (2023: £520,091) and JIE invoiced JIC for costs totalling £37,854 (2023: £1,000). In addition, JIE made a gift aid payment to JIC of £71,091 (2023: £nil). As at 31 March 2024, JIE owed JIC £89,296 (2023: £253,485) and JIC owed JIE £37,854 (2023: £1,000).

Norwich Biosciences Ltd

Norwich Biosciences Ltd is a wholly owned dormant subsidiary of JIC. NBL previously managed intellectual property on behalf of JIC and during the year NBL made gift aid a payment to JIC of £nil (2023: £55,828).

23. CASH HELD AS GRANT CO-ORDINATOR

JIC holds cash of £485,943 (2023: £833,439) on behalf of various institutes in its capacity as project co-ordinator on a number of projects. JIC acts as an intermediary only and does not control the risks and rewards associated with the cash. An equal balance is held in other creditors.

24. ULTIMATE PARENT UNDERTAKING AND CONTROLLING PARTY

The trustees consider that there is no ultimate parent undertaking and controlling party. JIC is the parent undertaking of the smallest and largest group of undertakings to consolidate these financial statements.

25. CONTINGENT LIABILITY

JIC receives grant income from funding bodies, such as the BBSRC and the European Union, that routinely undertake retrospective financial audits of costs claimed. Such audits may from time to time give rise to adjustments to grant income receivable. No general provision is made for such potential audit adjustments in the financial statements.

CHARITY INFORMATION

Directors and Trustees	Sir T Hughes-Hallett (Chair - Governing Council) Prof N Talbot Prof J P Armitage (Chair - Science and Impact Advisory Board) Dr C A Caulcott (Chair - Remuneration and Nominations Committee) Mr C Maw (Chair – Audit Committee) Dr J D McCafferty Prof M Searcey Prof J M Hibberd Mr W B Kendall Prof J A Langdale Ms Sarah Sands
Company Secretary	Mr D Foreman
Director of the Institute	Prof G Moore
Key Management Personnel	Prof G Moore Prof A Osbourn Mr D Foreman Ms A O'Halleron Prof R Morris Ms Angela Bowen
Registered charity number	223852
Registered company number	00511709
Registered and principal office	Norwich Research Park Colney Norwich NR4 7UH
Independent auditor	Larking Gowen LLP Chartered Accountants and Statutory Auditors Prospect House Rouen Road Norwich NR1 1RE
Bankers	Barclays Bank plc 54 Lombard Street London EC3V 9EX
Solicitors	Mills and Reeve 1 St James Court Whitefriars Norwich NR3 1RU Birketts Kingfisher House 1 Gilders Way St James Place Norwich NR3 1UB

JOHN INNES CENTRE

England & Wales - Charity number 223852

Accounts

JOHN INNES CENTRE

Annual Report and Accounts

for the year ended 31 March 2023

Registered charity number: 223852

Registered company number: 00511709

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INTRODUCTION

Introduction to the Annual Report

The Board of Trustees, who are directors for the purposes of company law, present their Annual Report and the audited consolidated financial statements for the year ended 31 March 2023.

John Innes Centre ("JIC") is a company limited by guarantee and a registered charity. The Annual Report provides information on the legal purposes of the charity, the activities it undertakes and its main achievements. The Annual Report has 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.

Message from the Chair of the Governing Council

It is an exceptionally exciting time here at the John Innes Centre, as we embark on an ambitious programme of development both to the site and the way that we work. The Governing Council and I are delighted to be able to support the institute to deliver this bold vision of the future.

It has been my pleasure this year to be able to welcome Professor Moore into the role of Director. He is an outstanding scientist and a world-class Director for the John Innes Centre. He brings decades of leadership experience, a wealth of research expertise in crop improvement as well as a strong appreciation for fundamental research.

Our Healthy Plants, Healthy People, Healthy Planet vision, launched with The Sainsbury Laboratory, really does embody the breadth and depth of the research, and its potential to secure a healthier, more sustainable future for our planet. To meet the challenges that we face as a society, this ambitious programme will create a modern new home for these two world-leading research institutes, and a hub for plant and microbial innovation, together with the Earlham Institute, Quadram Institute, the University of East Anglia, the Anglia Innovation Partnership LLP and the Norfolk and Norwich University Hospital here on the Norwich Research Park.

The John Innes Centre is embarking on a new period of even greater collaboration in all our work nationally and internationally. Together with our many partners we can achieve so much more as we tackle the biggest challenges facing the planet. This will include extending our work with governments, farmers, industry, and charitable foundations.

Sir Thomas Hughes-Hallett, Chair

TRUSTEES' REPORT INCORPORATING THE STRATEGIC REPORT

JOHN INNES CENTRE

The John Innes Centre (JIC) is a world-leading international centre of excellence in plant science and microbiology. Our mission is to generate knowledge of plants and microbes through fundamental research and to use this knowledge to benefit agriculture, the environment, human health and well-being. We train excellent scientists for the future and engage with policy makers and the public.

Our joint strategy with The Sainsbury Laboratory, Healthy Plants, Healthy People, Healthy Planet (HP^3) outlines our vision for delivering a safer, healthier and more sustainable future through the power of plant and microbial science.

NEXT GENERATION INFRASTRUCTURE

During the year, we have secured UKRI Infrastructure Fund capital investment of £317.7m to develop a new world-class research environment at the heart of the Norwich Research Park.

This transformational investment will fund new cutting-edge, world-class facilities for the JIC and The Sainsbury Laboratory (TSL) to deliver a step change in our capability to translate scientific knowledge into bio-based solutions in response to some of society's most pressing challenges.

As well as transforming the existing capabilities of the JIC and The Sainsbury Laboratory, both internationally recognised centres of excellence in plant and microbial science, the new hub also aims to deliver a net-zero carbon laboratory.

Securing this funding is a major step forward in realising our vision to improve collaborative working across the UK and overseas, helping us to provide a safer, healthier and more sustainable future through the power of plant and microbial science.

As well as new laboratories, the investment includes a redevelopment of our plant growth facilities, which in conjunction with our existing field station, will improve our ability to study the effects of climate change.

HP^3 has also garnered generous contributions from the Gatsby Charitable Foundation, the University of East Anglia, the John Innes Foundation, the Wolfson Foundation and the Garfield Weston Foundation.

Construction of the research hub is expected to be completed in 2030 and requires an ongoing fundraising campaign to secure a further £30m to support the full cost of the programme.

OUR IMPACT

The emerging socio-economic impacts from our research have been quantified by Brookdale Consulting using case studies from across our patent portfolio and include research in agri-tech for food security, health, and innovation in natural and new-to-nature chemicals.

- JIC is ranked among the top 10 institutions in the world by patent influence.
- We support 881 jobs.
- Return on investment (ROI) of £15.29 per £1 invested, based on a sample of commercialisation projects and research costs.
- JIC's extensive training activities are estimated to contribute £89m to the UK economy over the next decade and a further £49m internationally.

Overall, the report highlights JIC's significant contributions to the UK economy and its position as a global leader in science, knowledge, and innovation.

- **Food security** - With the global population expected to reach nine billion by 2050, JIC's research on improving wheat and oilseed rape yields and mitigating the impact of vernalisation in brassicas is crucial for ensuring food security.
- **Staying healthier for longer** - As the proportion of UK citizens living beyond 65 increases dramatically, JIC's fundamental bioscience research on resistant starch, antibiotics, and other high-value compounds is critical to enabling people to stay healthy for longer.
- **Developing renewable 'low carbon' energy and chemicals through bioscience** - JIC's research on developing high-value products from plants, such as adjuvants and drugs, improving extraction sustainability, and increasing oil content in oilseed rape, has the potential to revolutionize the renewable energy and chemical industries.

SCIENCE ACHIEVEMENTS

Discovery of wheat's clustered chemical defences creates new avenues for research

By using recent advances in mapping of bread wheat's complex genome, a collaborative team discovered several sets of genes in wheat that are switched on when the plant is attacked by disease-causing microbes.

These genes are found in six biosynthetic gene clusters in the wheat genome and were found to encode a versatile set of molecules including triterpenes, diterpenes and flavonoids, including a previously unknown molecule which was named ellarinacin.

+ Pathogen-induced Biosynthetic Pathways Encode Defence-Related Molecules in Bread Wheat appears, *PNAS*. DOI: 10.1073/pnas.2123299119

Gene-edited tomatoes could be a new source of vitamin D

Tomatoes gene-edited to produce vitamin D, the sunshine vitamin, could be a simple and sustainable innovation to address a global health problem.

Professor Cathie Martin's group used CRISPR-Cas9 gene editing to make revisions to the genetic code of tomato plants so that provitamin D3 accumulates in the tomato fruit. This was then converted to vitamin D3 through exposure to UVB light.

+ Biofortified tomatoes provide a new route to vitamin D sufficiency, *Nature Plants*. DOI: 10.1038/s41477-022-01154-6

What sea cucumbers can teach us about self-defence

Genome mining techniques have helped to explain how sea cucumbers produce defensive chemicals that enable them to fend off foes and defend their ecological niche at the bottom of the ocean.

These curious marine animals produce a category of molecule known as triterpenoid saponins which are widespread in plants, but rare in animals. Until now the question of how they evolved their unusual ability to produce these molecules has been unexplained.

This research showed that an enzyme, essential for building membranes and hormones, was missing in sea cucumber and instead they have two alternative genes, with new functions. One to make an alternative type of saponin for self-defence, and the other produces molecules that protects the sea cucumber from the toxic effects of its own chemicals.

+ Innate immunity in sea cucumbers: repurposing sterol biosynthesis for defense, *Nature Chemical Biology.* DOI: 10.1038/s41589-022-01054-y

How environmental changes affect the shapes of RNA in living cells

The impact of environmental conditions on the dynamic structures of RNAs in living cells has been revealed by innovative technology developed thorough a collaboration between the groups of Professor Dame Caroline Dean FRS and Dr Yiliang Ding. This research increases our understanding of what happens at cellular level in response to environmental signals and raises the possibility that we may use this knowledge to fine-tune crops or develop RNA-based therapies for diseases.

The understanding of how RNA structure affects RNA function and the ability to engineer plant genomes at the RNA cellular level, increases the possibility of designing crop types with more desirable agronomic and nutritional traits. The group says that the technology can also be applied to human cells where RNA structures could serve as a guide for designing RNA-based therapies.

+ In vivo single-molecule analysis reveals COOLAIR RNA structural diversity, *Nature*. DOI: 10.1038/s41586-022-05135-9

Heated plot experiments reveal link between warmer early winters and lower crop yields

Innovative experiments using temperature-controlled field plots have helped to explain the link between early winter temperatures and yield in some of our most marketable arable crops.

Laboratory and in-field technology enabled the team to simulate full growing seasons and establish that chilling is important in late November/early December because it promotes growth during early floral development of the crop.

They showed that oilseed rape plants can undergo a developmental phase known as flower bud dormancy if the winter temperature is too warm. This physiological process occurs as the microscopic, newly formed buds lie inactive waiting for low temperatures to signal growth and is well understood in perennial plants which grow year after year.

This development stage was not known to exist in annual crops.

Winter warming controls flowering time via bud dormancy activation and affects yield in a winter annual crop, *PNAS*. DOI: 10.1073/pnas.2204355119.

The science of how plants register trauma catches a new wave

Longstanding theories of how plants rely on calcium waves to respond systemically to wounding and other stresses have been given a fresh perspective. Research, from Dr Christine Faulkner's group has shown that calcium waves are not a primary response, but rather they are a secondary response to a wave of amino acids released from the wound.

These findings challenge established thinking on long distance plant signalling molecules and the mechanisms by which information travels from the point of stress through living and non-living plant tissues.

Diffusion and bulk flow of amino acids mediate calcium waves in plants appears, *Science Advances*. DOI: 10.1126/sciadv.abo6693

New Green Revolution gene discovery sows hope of drought resilient wheat

Reduced height, or semi-dwarf, wheat varieties with improved drought resilience may soon be grown in fields across the globe following an exciting scientific discovery.

Dr Philippa Borrill's have discovered a new height-reducing gene Rht13 which means that seeds can be planted deeper in the soil giving access to moisture, without the adverse effect on seedling emergence seen with existing wheat varieties. Varieties of wheat with the Rht13 gene could be rapidly bred into wheat varieties to enable farmers to grow reduced-height wheat in drier soil conditions.

+ An autoactive NB-LRR gene causes Rht13 dwarfism in wheat, *PNAS*. DOI: 10.1073/pnas.2209875119

Sweet salvation – how a sugar cane pathogen is gearing up a new era of antibiotic discovery

A potent plant toxin with a unique way of killing harmful bacteria has emerged as one of the strongest new antibiotic candidates in decades. Albicidin, is produced by the bacterial plant pathogen *Xanthomonas albilineans*, which causes the devastating leaf scald disease in sugar cane. Dr Dmitry Ghilarov's research group exploited advances in cryo-electron microscopy to show that albicidin forms an L-shape, enabling it to interact with both the gyrase and the DNA in a unique way. In this state gyrase can no longer move to bring the DNA ends together.

The way albicidin interacts with gyrase is sufficiently different from existing antibiotics that the molecule and its derivatives are likely to be effective against many of the current antibiotic resistant bacteria.

+ Molecular mechanism of topoisomerase poisoning by a potent peptide antibiotic, *Nature Catalysis.* DOI: 10.1038/s41929-022-00904-1

Can gene discovery methods halt the global march of wheat blast?

An international research collaboration has used innovative genomic discovery methods to show how we might halt the emerging and highly destructive disease, wheat blast. In experiments researchers identified two genes which protected experimental wheat plants against exposure to the fungal pathogen *Magnaporthe oryzae* which causes blast.

To make the discovery, the team used a technique called AgRenSeq, which allowed them to search for useful genes among a panel of heritage wheat varieties called the Watkins Collection. They also searched among wild grass relatives of wheat.

+ A wheat kinase and immune receptor form host-specificity barriers against the blast fungus, appears, *Nature Plants*. DOI: 10.1038/s41477-023-01357-5

Women in Wheat

Women in Wheat is a targeted career development programme established in 2019 to address the lack of female representation in wheat research at the independent career stage. It aims to support early-career female researchers to continue working in wheat research and attain senior research positions.

In August 2022, a career development training and networking event was held for fourteen early-career researchers from JIC, TSL, Rothamsted Research and the University of Nottingham. This training and networking event included one-to-one mentoring, inspirational career talks from external speakers working in wheat research and targeted career development training. Over two days attendees covered topics such as leadership skills, time management and work-life balance, influencing change and being an active bystander.

Since the Women in Wheat Mentoring programme was established, 28 participants from across the JIC and The Sainsbury Laboratory have benefitted. Four participants have secured independent research positions in academia, two have secured positions in industry, and others have secured fantastic postdoc opportunities.

Awards and honours

Professor Anne Osbourn OBE, FRS has been awarded three honours over the past 12 months. These honours show the scientific excellence and societal relevance of her pioneering work. She was elected as a member of the prestigious European Molecular Biology Organisation (EMBO), and as an international member of the National Academy of Sciences (NAS), one of the United States' highest honours for scientists, engineers and health professionals.

Finally, she was awarded the prestigious 2023 Novozymes Prize for her work in helping to produce important drugs in greater volumes and improving the natural defence systems of plants. The Prize awarded by the Novo Nordisk Foundation recognises outstanding research or technology contributions that benefit biotechnological science.

Dr Susan Schlimpert was named as a new member of the EMBO (European Molecular Biology Organisation) Young Investigator Programme. The prestigious programme supports outstanding early career group leaders who have an excellent track record of scientific achievement. Dr Schlimpert's group investigates molecular mechanisms that underpin the lifecycle of Streptomyces bacteria, producers of more than 50% of all clinically used antibiotics.

Professor Martin Howard was awarded the 2022 Institute of Physics, Rosalind Franklin Medal. The prestigious award recognises Professor Howard's pioneering work in applying concepts from statistical physics to molecular biology.

Professor Diane Saunders received the 2022 Royal Society Rosalind Franklin Award and Lecture. The award recognises Professor Saunders' long-term achievements in the field of plant pathology and will support activities to improve representation of women in STEM roles. This award will fund the development of the Rosalind Franklin Women in Wheat Champions programme that will promote the career development of women particularly in wheat research.

Professor Paul Nicholson received the British Society for Plant Pathology's RKS Wood prize in recognition of his contribution as a researcher and mentor.

Dr Philippa Borrill received the President's Medal from The Society of Experimental Biology (SEB). The awards honour outstanding early-career scientists and are presented at the SEB annual conference each year.

Stakeholder Engagement: Defra Precision Breeding (Gene Editing) Act

The Genetic Technology Act which passed into Law in March 2023 is highly relevant to the science of the JIC and will allow us to work more closely with farmers, crop breeders and food producers to deliver innovative improvements to crops to benefit our health and the environment. Over the past two years, JIC has worked closely with partners across the Norwich Research Park to engage and inform DEFRA, the Food Standards Agency and MPs, Lords and parliamentarians about genetic technologies.

This collaborative approach enabled us to provide evidence and advice to ensure evidence was provided and that scientists were involved at key points in the development of legislation.

Our scientists use gene editing to improve the crops we eat every day, including wheat, cabbage, tomatoes and pea. The new legislation will allow us to help UK farmers grow higher yielding, more resilient crops, and provide consumers with food that is healthier for them and the environment.

Technologies such as gene editing enable us to meaningfully tackle the complex challenges of climate change, food security and disease. The Precision Breeding Act allows our scientists to work more closely with food producers to address these complex issues, and at the same time capitalise on the UK's world-leading research expertise in these areas.

Culture Champions

To support our work embedding a positive research culture at the JIC, this year we launched a new trial initiative, the 'Culture Champions'. This small group of staff support positive behaviours at work, provide an independent point of contact when any concerns arise, can signpost to other initiatives and help and will offer support to help colleagues find a positive way forward.

How we interact with others plays a major role in creating a supportive and inspiring working environment. Sometimes we don't get it right and some well-timed feedback, seeing someone do it differently, or having a sounding board and help to raise concerns can make all the difference.

The Culture Champions help by supporting others, by being active bystanders and role models and by sign posting others to find the support and guidance that they need. They are informal, confidential and independent points of contact for staff.

INSTITUTE ASSESSMENT EXERCISE

Every five years, BBSRC conducts an exercise to review the funding to its strategically funded institutes. The process is designed to ensure that the institutes deliver excellent, strategically relevant research and that BBSRC's investments provide value for money.

This review informs future funding decisions, enabling BBSRC to comply with government policy and provides accountability to wider stakeholders.

The 2022 Institute Assessment Exercise was designed to support the implementation of the BBSRC Institute Strategy. The ten overarching principles that frame this strategy address the institutes' unique national capability and strategic purpose; excellence in leadership and management; their role in training and developing a positive, inclusive and diverse research culture; and convening and catalysing, both nationally and internationally.

Three themes of Capability, Connectivity and Culture underpin the ten principles for strategic investment. A key part of the IAE submission was how JIC would address these principles and themes.

The IAE submission was scored on a scale of 1 to 6, and the JIC scores for each component of the assessment ranged from 4 – 6, which classified the institute as very good to exceptional.

Institute Strategic Programmes 2023-28

On the back of the successful IAE submission, JIC received funding for four strategic research programmes enabling research across plant and microbial science, from the unlocking of the remarkable and under-exploited biosynthetic capabilities of plants and microbes, through to the understanding and delivery of sustainable, resilient and robust high-yielding crops.

These five-year strategic research programmes allow us to continue our work to understand how we can support the transition to net-zero agriculture, improve public health and mitigate the effects of climate change on food security with our research into plants and microbes.

Through these programmes the JIC, our partners at the Norwich Research Park and from across the UK, can have a real-world impact on, with our world-leading research and innovation.

Our Institute Strategic Programmes are:

- **Advancing Plant Health (APH)** aims to deliver new solutions to promote beneficial interactions and disease/pest resistance in crops of both national and global significance and integrates research expertise from the JIC and The Sainsbury Laboratory.
- **Building Robustness in Crops (BRiC)** will deliver genetic diversity and knowledge, innovative technologies and training to allow sustainable production of robust high-yielding crops including oilseed rape, pea, cereals and Brassica vegetables to identify and overcome key challenges caused by our changing climate.
- **Delivering Sustainable Wheat (DSW)** aims to address critical challenges in wheat health, yield, and production in order to safeguard the future of this vital crop and brings together four research institutes – the JIC, Rothamsted Research, Quadram Institute, and Earlham Institute, plus the National Institute of Agricultural Botany, and the universities of Leeds, Nottingham, Lancaster, Bristol, and Imperial College London.
- **Harnessing Biosynthesis for Sustainable Food and Health (HBio)** will unlock the remarkable and under-exploited biosynthetic capabilities of plants and microbes to make valuable new molecules to address global challenges of food security and human health.

RECRUITMENT

Updates to the senior leadership team

Professor Graham Moore - Director

Following an international search, Professor Moore, a world-leading wheat researcher was appointed Director of the JIC in September 2022.

Graham is internationally known for his work on wheat, one of the most important global crops, and his research has provided a huge impact on cereal research.

He developed the concept of Cereal Synteny, for which he was awarded the Royal Society Darwin Medal. In 2018, he was awarded the Rank Prize for Nutrition for his contribution to research.

Mr Dave Foreman – Chief Operating Officer

Mr Foreman joined JIC as Chief Operating Officer in March 2023. As COO, he works closely with the JIC Director to ensure delivery of JIC's scientific vision.

Dave is responsible for leading, developing, and coordinating JIC's operational strategy and providing advice and guidance to ensure the development and smooth running of the institute.

Dave leads our Next Generation Infrastructure programme to deliver new cutting-edge, world-class facilities for the JIC and The Sainsbury Laboratory.

Dr Clare Stevenson – Head of Directorate

Dr Stevenson joined the leadership team in April 2022. The Head of Directorate acts as an interface between the Director and many aspects of day-to-day functioning of the institute by providing support, advice and strategic context.

Clare, a structural biologist, managed a technology platform at the JIC for many years and is proud to have had a technical career path that has led to senior management. She believes that the people at the JIC are our strength and is committed to developing and contributing to our diverse, inclusive and positive research culture where all contributions are recognised.

Fellowships

Dr Rebecca Devine has been awarded a BBSRC Discovery Fellowship to take forward her innovative research into finding the antibiotics of the future.

Dr Tung Le has been awarded a prestigious Lister Fellowship in recognition of his group's innovative research and its potential for antibiotic discovery.

KEY PERFORMANCE INDICATORS

JIC's key performance indicators are:

- submission levels and success rates for research grant proposals;
- publications in relevant scientific journals;
- recruitment and retention of high quality staff and students;
- annual research income vs. budget; and
- unrestricted reserves vs. budget.

Details of publications and recruitment in the year are provided in the Science Achievements and Recruitment sections.

Details of grant submissions, success rates, research income and reserves are provided in the Financial Review.

FUTURE PLANS

Key priorities

- Fully implement NGI governance arrangements including risk framework and Integrated Assurance and Approvals Plan.
- Finalise NGI Benefits Plan and refresh supporting Stakeholder Engagement Plan.
- Complete reviews of strategic science areas including Microbiology, Plant Pathogens and Beneficial Interactions, Discovery Science and Crop Science.
- Implement improvements to institute governance including simplifying internal committees, strengthening platforms and administrative support, reviewing commercialisation and refreshing EDI strategy.
- Agree a new site-wide Energy Strategy and action plan to deliver Net Zero Carbon by 2040

FINANCIAL REVIEW

Income

Total income for the year was £58.4m (2022: £52.9m). The increase in the year was due to additional BBSRC strategic and capital grant funding. Income excluding capital funds was £43.4m (£39.5m).

An analysis of grant income by principal sponsor is included in the notes to the financial statements. JIC's principal sponsor is the Biotechnology and Biological Sciences Research Council (BBSRC), which contributed 73% of total income (2022: 73%). Other major sources of funding were the European Union and charitable organisations.

During the year, JIC researchers submitted grant proposals with a sponsor value of £44.0m (2022: £38.2m) and were awarded grants with a value of £15.5m (2022: £12.7m). The success rate for grant awards in the year was 35% by value (2022: 33%).

Expenditure

Expenditure for the year amounted to £53.5m (2022: £45.9m restated). Staff costs accounted for £17.0m (32%) (2022: £17.1m; 37% restated) of expenditure.

Fundraising

JIC did not carry out any significant public fundraising activities in the year.

Net Movement in Reserves

JIC recorded a net decrease in unrestricted reserves of £1.3m (2022: decrease of £1.7m). Restricted reserves increased by £6.2m (2022: £8.8m restated) principally due to £14.9m of capital funding (2022: £13.4m).

Subsidiaries and Associated Parties

Subsidiary companies contributed an operating profit of £197k (2022: £88k loss), while JIC's share of associates' results was a loss of £304k (2022: profit of £261k). The share of associates' results in the year relates to JIC's 33% interest in Plant Bioscience Limited and 45% interest in Leaf Expression Systems Limited.

Capital expenditure

Capital expenditure in the year was £14.9m (2022: £10.5m). Investment has continued from the previous year in state-of-the-art scientific equipment, energy-efficient plant infrastructure, well-found laboratory equipment and enhanced plant growth facilities.

Cash

Group cash at 31 March 2023 was £37.7m (2022: £42.9m). JIC deposits its cash with UK registered financial institutions that meet its credit rating policy and subject to agreed counter-party limits. Investment income from cash deposits in the year was £629k (2022: £111k), up on last year due to higher deposit rates.

Reserves position

Total group reserves increased by £4.9m in the year to £104.4m (2022 restated: £7.1m to £99.5m).

Restricted reserves increased by £6.2m to £79.6m. Reserves of £10.8m relate to restricted designated capital reserves in connection with funding received from BBSRC to be used for future capital projects. Reserves of £0.1m relate to restricted designated general reserves in respect of ring-fenced strategic funding from BBSRC. The remaining £68.7m of restricted reserves relate to the value of fixed assets.

Unrestricted reserves decreased by £1.3m in the year to £24.9m (2022: decreased by £1.7m to £26.2m), principally due to lower BBSRC strategic grant funding. Reserves of £11.7m relate to unrestricted designated reserves for planned capital and strategic investments. The remaining unrestricted reserves include general reserves of £6.4m and fixed assets reserves of £6.8m.

Reserves policy

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

- Future operational and capital expenditure requirements in the March 2028 Business Plan;
- 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.

Unrestricted reserves that have been designated by the Governing Council for specific purposes are shown in separate designated reserves. At March 2023, £11.7m of unrestricted reserves were designated for planned capital and strategic investments (2022: £12.1m).

General unrestricted reserves at March 2023 were £6.4m, above the minimum general reserves target of £6.0m set by the Governing Council.

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 on the operations and its financial resources, the Institute will have sufficient funds to meet is liabilities as they fall due for that period.

The Institute is reliant on its strategic programme funding from BBSRC, which was £13.2m in the year (2022: £13.2m). BBSRC has confirmed strategic funding of £14.6m for the year to March 2024 and in principle funding at this level for the 4 years to March 2028.

The Institute has prepared income, reserves and cash flow forecasts to March 2028. The forecasts indicate that the Institute will have significant cash headroom over the period, with cash balances of at least £30m for the 12 months from the signing date of this Annual Report.

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.

Change of Accounting Policy

The accounting policy for leasehold land and buildings has been reviewed and changed from valuation to historic cost less accumulated depreciation.

The leasehold land and buildings are of a specialist nature and are used by the Institute in its scientific and associated administrative activities, occupied principally through long leases on a peppercorn rent. During the year John Innes Centre secured UKRI Infrastructure Fund capital investment of £317.7m to develop a new world class research environment. The change in policy has been made because it is believed a cost model will provide more reliable and relevant information to the readers of the financial statements with this major change in the site and facilities.

Further information on the change, and its impact, is set out in note 21.

Change in Accounting Estimate

Following confirmation of UKRI funding for the Next Generation Infrastructure (NGI) programme, which will result in the replacement of a number of buildings in site, the useful lives of associated assets have been reviewed based upon the timetable.

The effect of the change has been incorporated in this accounting period (from the date of Outline Business Case approval). This has resulted in accelerating the annual deprecation charge on those assets, increasing deprecation in the current year by £2.2m.

STAKEHOLDER ENGAGEMENT – SECTION 172 STATEMENT

The Trustee Directors consider that the decisions they have made during the financial year have satisfied the requirements of s172(1) of the Companies Act 2006 and that they have acted in good faith to promote the success of JIC as a whole, and in doing so having regard to the stakeholders and matters outlined in s172(1).

The Governing Council has the ultimate responsibility for the strategy of JIC and delivery of its charitable objectives. The table below sets out JIC's most significant stakeholders, why they are considered important and how the Institute engages.

Stakeholders	Why they are important	How we engage with them
Our staff and students	➢ We are committed to providing a supportive, inspirational and dynamic environment for our staff and students to meet future scientific and societal challenges. ➢ We value the diversity of our staff, and are committed to the creation of a positive environment which is fair, welcoming and inclusive and where everyone is treated with dignity and respect. ➢ We are committed to the development of all our staff and students and providing equal opportunities that encourage flexible working, career development and work-life balance.	➢ During the year, regular communications to employees have been provided on matters affecting them, including factors affecting the Charity's progress, and have been consulted on decisions that impact them. ➢ All groups of staff and students have representation on the Inclusivity & Diversity Committee that meets 4 times a year to ensure an inclusive research culture ➢ Students' progress is monitored on a regular basis and employees undertake an annual appraisal where their training needs, work-life balance and career development are discussed.
Our members	➢ JIC's corporate members are UK Research and Innovation (UKRI); John Innes Foundation (JIF); and the University of East Anglia (UEA). Our members are key strategic partners that oversee our delivery against charitable objectives.	➢ The Members each nominate one Governing Council member and appoint one "observer" to attend Governing Council meetings, enabling them to participate in key decisions.
Norwich Research Park	➢ JIC is one of 4 independent, world-class research institutes based at the Norwich Research Park. The Institutes work closely together to create a unique centre of excellence in plant and microbial sciences, big data science and genomics, and food and health.	➢ The Institute Directors of the 4 institutes meet regularly to discuss common strategic and operational matters. ➢ JIC, the other Institutes, UKRI, UEA, JIF and the N&NU Hospital Trust are members of Anglia Innovation Partnership LLP, an organisation established to promote collaborative solutions to global challenges in food and health.
UK Research and Innovation	➢ JIC is strategically funded, along with 7 other institutes, by the Biotechnology and Biological Sciences Research Council (BBSRC), part of UKRI. BBSRC supports JIC via strategic 5-year funding programmes, competitively won project grants and capital funding for infrastructure and technology investments.	➢ UKRI nominates a Governing Council member and appoints an "observer" to attend Governing Council meetings. ➢ JIC holds regular meetings with BBSRC to review and progress of the Institute's mission and science programmes, including strategic and financial plans.
Research partners	➢ JIC is an international centre of plant and microbial research. Our success is built on our collaborations and our international outlook. ➢ JIC is home to a range of state-of-the-art facilities and technology platforms to support scientists across the UK.	➢ An extensive programme of engagement with our new collaborative vision, Healthy Plants, Healthy People, Healthy Planet (HP3) is ongoing and involves discussion, input and views from stakeholders from industry, government and research partners, locally, nationally and internationally. JIC has strategic partnerships with research and academic institutions in the UK and worldwide, including Europe, China, Africa, Brazil and India.

Industry	➢ JIC works closely with industry and the private sector to provide access to our capabilities, and to deliver sophisticated interdisciplinary research and product development at pace.	➢ JIC maintains a dialogue with industry, with regular consultations and knowledge exchange. ➢ JIC supports industry through collaborative and sponsored research and access to its facilities and platform services. JIC is proactive in identifying and responding to industry need. ➢ JIC protects its innovations and promotes their commercialisation and adoption by Industry. ➢ JIF nominates an industry representative as an "observer" to attend Governing Council meetings.
Community & the environment	➢ Public views are at the heart of our research strategy and engaging with the public is an important part of our mission statement.	➢ JIC staff and students are trained in public engagement and communications and are supported to attend events, use digital media and to discuss and engage the public with our research. ➢ JIC hosts and attends community events – online, locally and nationally, to showcase, debate and discuss the nature of our research. ➢ JIC scientists are engaged in policy discussions at a national level surrounding the use of genetic technologies for crop improvement. ➢ JIC is investing heavily in more energy efficient facilities to reduce utilities consumption and waste.
Suppliers	➢ JIC seeks to maintain and develop strong, open, collaborative relationships with our supply chain.	➢ JIC holds regular meetings with suppliers about purchasing relationships and ethical behaviours such as adherence to Modern Slavery principles.

RISK ASSESSMENT AND MANAGEMENT

Governing Council 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 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. Governing Council reviews a full risk report annually, including a 'heat map' tracking major risks. The Science and Impact Advisory Board (SIAB) assess the science quality and vision section of the risk register.

Principal risks and uncertainties

Risk area	Description of Risk	Management of Risk
BBSRC research funding	➢ BBSRC strategic funding is reduced as a result of poor performance or public sector spending pressures. ➢ JIC is too reliant on BBSRC strategic and grant funding	➢ Regular monitoring of scientific performance, including consideration from the Science and Impact Advisory Board. ➢ Regular engagement with BBSRC to report performance and ensure strategic alignment of research programmes. ➢ Monitoring of performance of grant submissions. ➢ Funding opportunities for other research bodies and charities regularly communicated to Group Leaders. ➢ Philanthropic Fundraising strategy being developed to support NGI plus strategic research activity.
Science direction and quality	➢ The focus of science programmes, or balance between discovery and translational science, does not meet funders' or stakeholders' expectations. ➢ JIC fails to deliver the world-leading science	➢ The Science Impact and Advisory Board, comprising independent international experts, regularly reviews the development of strategic programmes and JIC impact. ➢ The executive Research Committee reviews scientific areas of excellence and horizon scans to identify strategically important scientific areas and opportunities.
Staff retention and recruitment	➢ JIC is unable to retain or attract suitably skilled staff to enable it to sustain its scientific performance. ➢ In addition to scientific impact, this risk area could also have an impact on the level of funding the institute is able to attract.	➢ Strategy and action plans in place, overseen by the JIC People & Culture Committee. ➢ Career development programmes in place to support high potential staff. ➢ Recruitment strategy and processes in place, including attractive support arrangements.
Cost pressures	➢ Increased energy prices divert resources from science to infrastructure costs, resulting in a reduction in research activity and impact. ➢ High inflation increases research and support costs, resulting in a reduction in research activity and impact.	➢ Energy costs are hedged in the short-term and specialist advisers support the institute with energy procurement. ➢ Energy-saving opportunities are actively targeted and investment cases developed, aligned to net zero carbon strategic planning. ➢ The impact of cost inflation is regularly discussed with funders with a view to mitigating the impact on research.
Next Generation Infrastructure Programme	➢ Cost pressures mean that the agreed scope cannot be delivered ➢ Insufficient additional funding raised ➢ Vision for NGI Hub not sufficiently defined or communicated ➢ Buildings design do not reflect future science requirements or Hub vision ➢ Building works significantly disrupt science activity during construction ➢ Project does not achieve Net Zero Carbon ambition	➢ Dedicated programme team recruited, supported by JIC staff and professional consultants ➢ Governance structure for programme implemented, led by Programme Board and supported by external assurance ➢ Workstreams established to define Hub vision, engage with external stakeholders and deliver business change ➢ Building design engagement groups established ➢ Strategy developed to deliver Net Zero Carbon ambition ➢ Fundraising plan being developed
Technology investment	➢ JIC is unable to keep pace with developments in technology underpinning its science.	➢ 5-year investment plan developed. ➢ Funding opportunities identified and pursued for technology investments.
Major site incident	➢ A major incident disrupts scientific research programmes or administrative systems.	➢ Business Continuity and Disaster recovery plans in place and tested periodically. ➢ Review of compliance with health & safety and relevant regulations from government agencies and internal auditors. ➢ Insurance arrangements in place.

STRUCTURE, GOVERNANCE AND MANAGEMENT

Organisation and governance

JIC is incorporated in the England and Wales and is a company limited by guarantee (registered number 00511709) and a registered charity (number 223852). JIC is governed by its Memorandum and Articles of Association, adopted 27 September 2011.

Governing Council (Board of Trustees)

The Governing Council comprises of at least the Chair, three science and three non-science Trustees. The Trustees who served during the year and up to the date of signing these financial statements were as follows:

Members

The Members of JIC are:

- UK Research and Innovation - Biotechnology and Biological Sciences Research Council (BBSRC);
- John Innes Foundation (JIF); and
- University of East Anglia (UEA).

The Members have the right to nominate one governing council member and appoint one "observer" to attend meetings. Details of member appointments are shown in the table below. The Members are all guarantors of JIC, a company limited by guarantee and a registered charity, of an amount not exceeding £1, and for a year after resignation.

Trustees	Appointment status	Role	Changes during period
At date of Annual Report:			
Sir T Hughes-Hallett	Independent	Chair	-
Ms J K Midura	Independent	Non-science	-
Prof N J Talbot	Independent	Science	-
Mr J H Innes	Independent	Non-Science	-
Prof J P Armitage	BBSRC appointment	Science	-
Dr C A Caulcott	Independent	Science	Appointed 12 May 2022
Mr C Maw	Independent	Non-Science	Appointed 21 July 2022
Dr J D McCafferty	Independent	Non-Science	Appointed 11 May 2023
Prof M Searcey	UEA appointment	Science	Appointed 20 July 2023
Served during the year:			
Dr J Vincent	JIF appointment	Science	Resigned 20 July 2023
Dr D J Keith	Independent	Science	Resigned 11 May 2022
Mr R J Maskell	Independent	Non-Science	Resigned 21 July 2022
Prof J C Murrell	UEA appointment	Science	Resigned 11 May 2023

The Governing Council has the ultimate responsibility for the strategy of JIC. Strategy is developed under advice from the Science Impact and Advisory Board (SIAB) and the JIC Executive Group.

The Governing Council is supported by an Audit Committee to oversee financial management and risk and a Remuneration Committee to consider senior staff remuneration. The full Governing Council meets five times a year, the Audit Committee three times a year and the Remuneration Committee at least once a year and otherwise as required.

The Governing Council is also supported by a Science and Impact Advisory Board which comprises international experts in science and application of science, chaired in the year by Prof Judith Armitage.

SIAB is responsible for providing strategic and scientific advice to the Director of JIC and the Governing Council on issues relevant to the JIC's Mission and Science Programme. This includes ensuring that the JIC Science Programme maximises JIC's potential for knowledge transfer, outreach and engagement with research users, stakeholders and the general public in addition to helping in the identification and development of new scientific funding opportunities to support the development of the JIC Science Programmes.

Recruitment, induction and training of Trustees

Governing Council vacancies are advertised as necessary. The Institute will also approach individuals thought to have the right skills.

New Governing Council members are invited to spend time with members of the senior management team. This is a chance to learn about the Institute and identify opportunities to get more involved with JIC's work.

In addition to the five formal meetings, all Trustees receive regular presentations from JIC's scientists and briefings on key issues facing the organisation.

Trustee remuneration

None of the Trustees received any remuneration in the year in respect of their role as trustee directors.

Key Management Personnel

The Trustees delegate management of the day to day activities of the charitable company to the Director of the Institute, Prof Graham Moore, and the Executive Group.

Executive Group

JIC's Executive Group advises the Director at strategic and operational levels on major issues that affect the Institute with respect to research, appointments, new initiatives, business plan and infrastructure, particularly where such issues involve more than one of these areas.
Its membership is as follows:

- Director, Prof Graham Moore (Chair);
- Deputy Director, Prof Anne Osbourn;
- Chief Operating Officer, Mr Dave Foreman;
- Head of HR, Ms Anne O'Halleron;
- Chair of Faculty, Prof Tony Maxwell.

Executive Group is supported by a number of other executive committees and groups including: Research Committee; Scientific Resources Committee; People & Culture Committee; and Appointments Committee.

Employees

JIC is a dynamic, multinational community of about 400 scientists and post graduate students. JIC's reputation for scientific excellence is international and it attracts some of the best scientists and brightest students internationally. JIC is committed to the training of the next generation of scientists. Activities include an undergraduate summer school (jointly with The Sainsbury Laboratory and Earlham Institute) that gives students the unique opportunity to spend the summer on site. There are two different routes to a PhD: the prestigious rotation studentships and the NRP Doctoral Training Programme. We host Postdoctoral scientists and independent Fellows from around the world.

JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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.

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

Equality and Diversity

It is the Charity'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 Charity 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 Charity's policies follow these principles.

JIC is aware of its statutory duty to support the employment of disabled persons where possible, both in recruitment and by retention of employees who become disabled whilst in the employment of the charitable company, as well as generally through training and career development.

In 2017, JIC became the first research institute to be awarded a 'Gold' Athena SWAN award and this was successfully renewed for a further 5 years in 2023. The Athena SWAN charter recognises and celebrates good practice in recruiting, retaining and promoting women in science, technology, engineering, maths and medicine (STEMM) in higher education.

This award recognises JIC's culture that embraces the principles of flexibility that provide for family-friendly working practices, while at the same time demonstrating a commitment to career advancement for all employees.

JIC's ability to attract the best researchers and students internationally creates a vibrant, dynamic and intellectually nurturing environment for both training and scientific discovery and is a primary driver of our scientific effectiveness. JIC recognises the value of a diverse workforce and, although Athena SWAN is focused on gender equality, we believe that a fair and equitable working environment is key to both a productive workforce and delivery of JIC strategy, and that initiatives put in place to address gender inequality ultimately benefit all staff. JIC is a member of Stonewall Diversity champion programme.

During the year, regular communications to employees have been provided on matters affecting them, including factors affecting the Charity's progress, and they have been consulted on decisions affecting them.

RELATED PARTIES

Subsidiaries

JIC's subsidiaries in the year were as follows:

- John Innes Enterprises Limited (contract research);
- Norwich Biosciences Limited (intellectual property management);
- Norwich Research Limited (dormant);
- JIC NRP Capital Limited (dormant).

Associates

JIC's associates in the year were as follows:

- NBI Partnership Limited;
- Plant Bioscience Limited;
- Leaf Expression Systems Limited.

NBI Partnership Limited

JIC has a 25% interest in NBI Partnership Limited ("NBIP"). NBIP supplies support and administrative services to JIC and the three other research organisations based on the Norwich Research Park (Quadram Bioscience Institute, Earlham Institute and The Sainsbury Laboratory). NBIP fully recharges its costs to the four research organisations and accordingly it generates no profit or loss.

Plant Bioscience Limited

JIC owns one third of the share capital of Plant Bioscience Limited ("PBL"). PBL manages the intellectual property rights of the charitable company and other organisations.

Leaf Expression Systems Limited

JIC owns 45% of the voting share capital and at 31 March 2023 had invested £1,630k in non-voting share capital of Leaf Expression Systems Limited ("Leaf"). Leaf is a commercial research & development company specialising in the expression and production of proteins, metabolites and complex natural products. JIC had agreed to provide Leaf with a loan facility of £112,500, which was repaid during the year. The loan was provided on an arm's length basis with interest payable on the loan at a rate of 2.5% pa.

BBSRC

BBSRC is a member of the charitable company.

JIC is strategically funded, along with seven other institutes, by BBSRC. BBSRC supports JIC via strategic 5-year funding programmes, competitively won project grants and capital funding for infrastructure and technology investments.

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

John Innes Foundation

The John Innes Foundation ("JIF") is a member of the charitable company. JIC occupies land and buildings which are owned by JIF, with the principal research buildings leased at a peppercorn rent. In addition, JIF also sponsors the training of a number of students. Studentship grants in the year were £471k (2022: £436k). Further details are provided in note 24 to the financial statements.

University of East Anglia

University of East Anglia ("UEA") is a member of the charitable company. The majority of PhD students at JIC are registered with UEA.

Anglia Innovation Partnership LLP

JIC is a member of Anglia Innovation Partnership LLP through its 100% subsidiary, JIC NRP Capital Limited. Anglia Innovation Partnership LLP is responsible for the management and development of the Norwich Research Park (NRP) estate and for the furtherance of the NRP Enterprise Vision.

JIC is entitled to receive a share of certain profits generated by Anglia Innovation Partnership LLP, however it has no liability for losses or in the event of insolvency. Anglia Innovation Partnership LLP has not yet generated any realised profits.

ENERGY AND CARBON REPORTING

GHG emissions and energy use data	Units	2022/23	2021/22
Emissions from combustion of gas (Scope 1)	tCO2e	9,414	9,565
Emissions from other sources I.e. refrigerants (Scope 1)	tCO2e	87	-
Emissions from combustion of fuel for transport purposes (Scope 1)	tCO2e	26	19
Emissions from purchase of electricity (Scope 2). Location based grid factors.	tCO2e	1,299	1,558
Market based electricity Scope 2 emissions (renewable electricity contract)	tCO2e	2,359	-
Emissions from generation of electricity that is consumed in a transmission and distribution system for which the company does not own or control (Scope 3)	tCO2e	119	138
Emissions from business travel in rental cars or employee - owned vehicles where company is responsible for purchasing the fuel (Scope 3)	tCO2e	3.4	2.6
Total gross CO2e based on above	**tCO2e**	**10,948**	**11,282**
Energy consumption used to calculate above emissions	**kWh**	**58,416,079**	**59,643,430**
Intensity Metric	m2 Building area	39,997	39,997
Intensity Ratio	tCO2/m2 Building area	0.274	0.282

Methodology

JIC have followed the 2019 HM Government Environmental Reporting Guidelines. Emissions factors used are tonnes of CO2 equivalent and data has been calculated using the 2022 UK Government's Conversion Factors for Company Reporting (DEFRA).

Scope 1 emissions relate to on-site gas usage, emissions from JIC owned vehicles and refrigerant emissions. Scope 2 emissions relate to on-site imported electricity usage. Scope 3 SECR emissions relate to grey fleet and electricity transmissions and distribution losses.

The primary source for calculating energy consumption are the supplier invoices. Where energy data is not in line with the financial year, a pro rata calculation has been used to estimate the usage for the remainder of the reporting period. Electricity is supplied to other companies on site; this electricity consumption is monitored using sub meter reads and deducted from the total site power usage to calculate JIC electricity consumption only.

JIC operate three CHP engines. The proportion of the JIC power and heat usage generated from the CHP's have been calculated. To be able to do this, the measured heat and power efficiencies of the engines have been used to estimate the fuel input associated to the energy outputs.

JIC have made a start on quantifying part of our Scope 3 emissions, however this is not fully representative of each category as yet. We have carried out initial calculations in 2022/23 reporting for parts of categories 5 -Waste generated in operations, Category 3 - Fuel and energy related activities using the 2022 UK Government's Conversion Factors for Company Reporting (DEFRA). Category 1 Purchased Goods and Services and parts of Category 6 Business travel have been calculated on a spend based methodology, the emissions factors are sourced from the Exiobase EEIO database for GHG emissions in tCO2e per EUR spent. Business travel mainly includes flights, rail and taxis, with limited hotel stay information. Remaining Category 6 emission factors have been sourced from the 2022 DEFRA factors.

Energy management

During the year, JIC have continued to focus on improving monitoring energy usage across the site, particularly in the following areas:

- Improved sub-metering to better understand energy usage across site and identify areas for improvement.
- Continued progress with LED roll out across site including to Controlled Environment Rooms.
- Implementation of a refrigerant replacement strategy for lower global warming alternatives.
- Review of chiller set points to improve efficiency.

JIC have focused on formulising a detailed carbon reduction strategy and pathway to Net Zero for 2050. The work has defined a starting point with a baselining exercise and then plans for our road to Net Zero, with a range of opportunities and potential strategies to reduce our Scope 1 and 2 carbon emissions over the next 30 years. JIC are now starting to get a better understanding of our Scope 3 emissions and focussing on data availability and materiality.

STATEMENT OF RESPONSIBILITIES OF THE TRUSTEES OF JOHN INNES CENTRE 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.

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 of a trustee being proven to have acted fraudulently or dishonestly.

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 JIC to be charitable in nature.

Disclosure of information to auditor

The trustees confirm that:

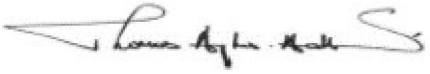
- so far as each trustee is aware, there is no relevant audit information of which the Company's auditor is unaware, and
- the trustees have taken all the steps that they ought to have taken as directors in order to make themselves aware of any relevant audit information and to establish that the Company's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

Independent auditor

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

Approval of the Trustees' report

The Trustees' Report and Strategic Report were approved by Governing Council on 19 October 2023.



Sir Thomas Hughes-Hallett, Chair

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE JOHN INNES CENTRE

Opinion

We have audited the financial statements of John Innes Centre (the 'parent charitable company') and its subsidiaries (the 'group') for the year ended 31 March 2023 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 2023, 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 19, 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

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.

The extent to which the audit was considered capable of detecting irregularities including fraud

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

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 the valuation of leasehold land and buildings; 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.

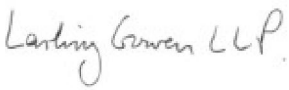
A further description of our responsibilities is available on the Financial Reporting Council's website at:

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.



Anders Rasmussen (Senior Statutory Auditor)

for and on behalf of
Larking Gowen LLP

Chartered Accountants
Statutory Auditors
Norwich

3 November 2023

FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF FINANCIAL ACTIVITIES

FOR THE YEAR ENDED 31 MARCH 2023
INCORPORATING AN INCOME AND EXPENDITURE ACCOUNT

	Note	Unrestricted funds	Restricted general funds	Restricted capital funds	**Total 2023**	Restated Total 2022
		£000	£000	£000	**£000**	£000
Income						
Income from charitable activities						
Grant income		-	36,893	91	**36,984**	34,691
Capital and maintenance grants		-	831	14,093	**14,924**	13,420
Other charitable income		828	-	-	**828**	705
Income from other trading activities						
Trading income		928	-	-	**928**	491
Rental income		255	-	-	**255**	141
Investment income		636	-	-	**636**	118
Share of operating result of associates	12	-	-	-	**-**	261
Other income		3,871	-	-	**3,871**	3,121
Total income	2	6,518	37,724	14,184	**58,426**	52,948
Expenditure						
Charitable activities	3	(5,335)	(38,345)	(8,039)	**(51,719)**	(44,700)
Raising funds	3	(439)	-	-	**(439)**	(370)
Trading expenditure	3	(692)	-	-	**(692)**	(579)
Other resources expended	3	(344)	-	-	**(344)**	(245)
Share of operating result of associates	12	(304)	-	-	**(304)**	-
Total expenditure		(7,114)	(38,345)	(8,039)	**(53,498)**	(45,894)
Net income/(expenditure) for the year		(596)	(621)	6,145	**4,928**	7,054
Transfers and revaluation						
Capital transfers	20	(912)	-	912	**-**	-
Other transfers	20	193	(65)	(128)	**-**	-
Net movement in funds for the year		(1,315)	(686)	6,929	**4,928**	7,054
Total funds brought forward as previously stated		26,168	794	108,648	**135,610**	118,782
Prior year adjustment	21	-	-	(36,100)	**(36,100)**	(26,326)
Funds brought forward as restated		26,168	794	72,548	**99,510**	92,456
Net movement in funds for the year		(1,315)	(686)	6,929	**4,928**	7,054
Funds carried forward	20	24,853	108	79,477	**104,438**	99,510

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

The notes on pages 26 to 42 form part of these financial statements.

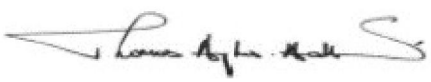
CONSOLIDATED AND CHARITABLE COMPANY BALANCE SHEETS

AS AT 31 MARCH 2023

	Note	**Group 2023**	Restated Group 2022	**Company 2023**	Restated Company 2022
		£000	£000	**£000**	£000
Fixed assets					
Tangible assets	10	**73,815**	66,983	**73,815**	66,983
Intangible assets	11	**-**	-	**-**	-
Investments	12	**-**	-	**1**	1
Investments in associates					
Share of total assets		**1,903**	2,590	**-**	-
Share of total liabilities		**(296)**	(679)	**-**	-
	12	**1,607**	1,911	**-**	-
Total fixed assets		**75,422**	68,894	**73,816**	66,984
Current assets					
Stocks	13	**340**	283	**340**	283
Debtors	14	**12,201**	13,281	**12,067**	13,224
Cash at bank and in hand	15	**37,668**	42,948	**37,444**	42,768
		50,209	56,512	**49,851**	56,275
Current liabilities					
Creditors: amounts falling due within one year	16	**(21,193)**	(25,612)	**(21,096)**	(25,495)
Total net current assets		**29,016**	30,900	**28,755**	30,780
Total assets less current liabilities		**104,438**	99,794	**102,571**	97,764
Provisions for liabilities and charges	18	**-**	(284)	**-**	(284)
Total net assets	19	**104,438**	99,510	**102,571**	97,480
The funds of the charity					
Unrestricted funds					
Fixed assets reserve	20	**6,770**	7,663	**5,163**	5,752
Designated reserves	20	**11,705**	12,118	**11,705**	12,118
General reserve	20	**6,378**	6,387	**6,117**	6,267
Total unrestricted funds		**24,853**	26,168	**22,985**	24,137
Restricted funds					
General reserve	20	**108**	794	**108**	794
Fixed assets reserve	20	**68,652**	61,231	**68,653**	61,232
Designated reserves	20	**10,825**	11,317	**10,825**	11,317
Total restricted funds		**79,585**	73,342	**79,586**	73,343
Total funds	20	**104,438**	99,510	**102,571**	97,480

A separate income and expenditure account has not been presented for JIC as this is exempted by Section 408 of the Companies Act 2006. The surplus after tax of JIC was £5,091k (2022: £6,674k).

The financial statements on pages 26 to 42 were approved by the Governing Council on 19 October 2023 and were signed on its behalf by:



Sir Thomas Hughes-Hallett, Chair

Company registration number: 00511709

CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED 31 MARCH 2023

	Total 2023 £000	Restated Total 2022 £000
Cash flows from operating activities		
Net movement in funds for the year	**4,928**	7,054
Share of operating result of associates	**304**	(261)
Net income/(expenditure) for the year	**5,232**	6,793
Interest receivable	**(636)**	(118)
Depreciation and amortisation	**8,039**	4,799
Capital grants receivable	**(14,184)**	(12,184)
Loss on disposal of tangible assets	**8**	175
Increase in stocks	**(57)**	(25)
Decrease in debtors	**1,080**	4,157
Decrease in creditors	**(4,419)**	(7,801)
Decrease in provisions	**(284)**	-
Net cash used in operating activities	**(5,221)**	(4,204)
Cash flows from investing activities:		
Interest received	**636**	118
Purchase of tangible assets	**(14,879)**	(10,458)
Capital grants received	**14,184**	12,184
Proceeds from sale of tangible assets	**-**	93
Net cash (used in) / provided by investing activities	**(59)**	1,937
Change in cash and cash equivalents in the reporting period	**(5,280)**	(2,267)
Cash and cash equivalents at the beginnning of the period	**42,948**	45,215
Total cash and cash equivalents at the end of the year	**37,668**	42,948

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

The notes on pages 26 to 42 form part of these financial statements.

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 (FRS102)– (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 as follows:

b) Basis of consolidation

The consolidated financial statements incorporate the financial statements of JIC and all its subsidiary undertakings in accordance with Financial Reporting Standard ("FRS") 102 "Accounting for Subsidiary Undertakings", and associated entities which are accounted for using the equity method.

Associates are entities over which JIC has significant influence but not control. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise JIC's share of the profit or loss of the associate after the date of acquisition. JIC's share of post-acquisition operating result is recognised in the statement of financial activities. Determination is made at each balance sheet date whether there is any evidence that the investment in the associate is impaired. If this is the case, the amount of impairment is calculated as the difference between the recoverable amount of the associate and its carrying value, and this amount is recognised adjacent to share of operating result of associates in the statement of financial activities.

JIC is one of four members of NBI 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.

The financial statements of all group undertakings and associates are made up to 31 March 2023.

A separate income and expenditure account has not been presented for JIC as this is exempted by Section 408 of the Companies Act 2006. The surplus of JIC was £5,091k (2022 restated: £6,674k).

c) Going concern

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 on the operations and its financial resources, the Institute will have sufficient funds to meet is liabilities as they fall due for that period.

The Institute is reliant on its strategic programme funding from BBSRC, which was £13.2m in the year (2022: £13.2m). BBSRC has confirmed strategic funding of £14.6m for the year to March 2024 and the Institute expects its strategic programme funding to continue at this level for the 4 years to March 2028.

The Institute has prepared income, reserves and cash flow forecasts to March 2028. The forecasts indicate that the Institute will have significant cash headroom over the period, with cash balances of at least £30m for the 12 months from the signing date of this Annual Report.

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) Income

Charitable grant income represents grants received and receivable in the year from outside granting bodies.

Grants that provide core funding are recognised in the year in which entitlement passes. Grant funding received to train students and 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.

Other charitable income represents non-grant revenue from providing scientific research services to other academic institutions and other services. Revenue is recognised in the year in which the obligation is fulfilled.

Trading income, which includes rent, other letting income and other income, relates to the non-charitable services undertaken by Norwich Biosciences Limited and John Innes Enterprises Limited, subsidiary companies of JIC, and is recognised in accordance with the terms of the contracts entered into, reflecting the point at which the obligations of the companies 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 earnt.

Other income includes site infrastructure charges, UEA tuition fee income and miscellaneous income. Revenue is recognised in the year in which the obligation is fulfilled.

Capital grants are recognised 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.

e) Expenditure

Charitable activity expenditure 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.

Raising funds represents the cost of obtaining funds for research. The cost of obtaining funds includes an estimate of the time/salary cost of project leaders preparing and reviewing grant application forms.

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 allocated to charitable activity expenditure, costs of generating funds and governance costs based upon activity or headcount as indicated in note 4 to the financial statements.

Other expenditure relates to expenditure maintaining capital assets that does not meet the capitalisation policy.

Trading expenditure relates to the costs of undertaking the non-charitable services performed by subsidiary companies of JIC and is recognised in the period in which it is incurred.

f) Restricted funds

Where research at JIC 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.

From April 2018 the strategic programme grants from the UK Research and Innovation - Biotechnology and Biological Sciences Research Council ("BBSRC") are shown as restricted.

A restricted fixed assets reserve has been established representing the net book value of fixed assets purchased from capital grants.

Restricted reserves include a designated capital reserve of £10,825k (2022: £11,317k) in connection with funding received from BBSRC, which is to be used on future capital projects to be agreed with BBSRC.

g) Unrestricted funds

Research grants that do not contain conditions for the final receipt of funds have been treated as unrestricted. Funds received for non-specified purposes have also been included as unrestricted.

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 Governing Council for specific purposes are shown in separate designated reserves.

h) 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.

i) 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.

j) Designated capital transfers

A transfer from the unrestricted general reserve to the unrestricted designated reserve is made in relation to the expenditure which had been designated by Governing Council for use in the financial projections to March 2028.

k) Centre funded capital

Capital expenditure funded from unrestricted reserves is shown as a transfer from the unrestricted designated capital reserve or general reserve to the unrestricted fixed asset reserve.

l) Tangible assets and depreciation

Tangible assets are shown at cost less accumulated depreciation. The cost of tangible assets is their purchase cost, together with any incidental costs of acquisition. Depreciation is calculated using the straight line method to write off the cost or valuation of assets, less any estimated residual value, over their estimated useful lives at the following rates:

Leasehold land and buildings – over lease term or useful life, if shorter;

Freehold land – not depreciated;

Freehold buildings – estimated economic life;

Plant, machinery and equipment – estimated economic life;

Scientific equipment - 5 to 15 years straight line;

Computer equipment – 3 to 5 years straight line;

Motor vehicles – 4 years straight line;

Combined heat and power scheme – 20 years straight line.

The leasehold buildings have been depreciated over their estimated economic life. The Trustees have determined that land is not subject to depreciation. Assets in the course of construction are not depreciated until the asset is in full use.

JIC includes in its financial statements leasehold land and buildings owned by third parties, which it occupies and enjoys through extended peppercorn leases, at their fair value. The Trustees consider that in substance, the risks and rewards of ownership of the assets have passed to the Institute, and as such follow a policy of recognising the assets on the balance sheet that reflects its continuing occupancy of these assets for the foreseeable future.

As a result of the proposed redevelopment outlined in the NGI programme, the useful lives of associated assets have been reviewed based upon the timetable.

m) 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 straight line

Intangible assets under construction are not amortised until the asset is in full use.

n) Fixed asset investments

The consolidated balance sheet includes the group's share of each associate's gross assets and liabilities. The share of each associate's net income is reported in JIC's consolidated statement of financial activities.

o) Stocks

Stocks are stated at the lower of cost and net realisable value. Provision is made, where necessary, for slow moving or obsolete stock.

p) Debtors

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

A loan of £113k provided to Leaf Expression Systems Limited was repaid during the year. The loan was provided on an arm's length basis with interest payable at a rate of 2.5% pa.

q) Cash balances held as grant co-ordinator

Cash balances held in the charitable company's capacity as grant co-ordinator are included within cash on the charitable company's balance sheet, and are disclosed in note 25 to the financial statements.

r) Trade creditors

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

s) Loans

Loans are stated on the balance sheet at amortised cost.

t) 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.

u) Staff and Pensions

JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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.

JIC 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.

v) 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.

w) Operating leases

Rental costs are charged to the statement of financial activities on a straight-line basis over the life of the lease.

x) Foreign currency transactions

The functional and reporting currency 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.

y) 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 such as trade and other accounts receivable and payable.

z) 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 above. The amount of depreciation charged and net book value of the assets is included in Note 10.

NOTES TO THE ACCOUNTS

2. ANALYSIS OF INCOMING RESOURCES

	Research activities	Student activities	Other activities	**Total 2023**	Research activities	Student activities	Other activities	**Total 2022**
	£000	£000	£000	**£000**	£000	£000	£000	£000
Grant income								
BBSRC	25,068	2,953	-	**28,021**	21,445	3,708	-	**25,153**
Other government departments	1,326	-	-	**1,326**	1,515	34	-	**1,549**
European Union	2,540	53	-	**2,593**	3,002	60	-	**3,062**
Industrial partners	224	11	-	**235**	943	84	-	**1,027**
John Innes Foundation	256	451	-	**707**	142	436	-	**578**
Other charities	2,625	211	-	**2,836**	2,343	142	-	**2,485**
Universities	-	47	-	**47**	27	76	-	**103**
Other grants	1,219	-	-	**1,219**	698	36	-	**734**
Total grant income	33,258	3,726	-	**36,984**	30,115	4,576	-	**34,691**
Capital and maintenance grants								
BBSRC								
Capital expenditure	14,917	-	-	**14,917**	13,287	-	-	**13,287**
John Innes Foundation								
Capital expenditure	7	-	-	**7**	133	-	-	**133**
Total capital grants	14,924	-	-	**14,924**	13,420	-	-	**13,420**
Other charitable income								
Scientific services	-	-	686	**686**	-	-	633	**633**
Miscellaneous income	-	-	142	**142**	-	-	72	**72**
Total other charitable income	-	-	828	**828**	-	-	705	**705**
Trading income								
John Innes Enterprises Limited	-	-	916	**916**	-	-	464	**464**
Norwich Biosciences Limited	-	-	12	**12**	-	-	27	**27**
Total trading income	-	-	928	**928**	-	-	491	**491**
Rental income								
Conferencing Facilties	-	-	186	**186**	-	-	64	**64**
Hill House	-	-	69	**69**	-	-	77	**77**
Total rental income	-	-	255	**255**	-	-	141	**141**
Investment income								
Interest receivable on cash deposits	-	-	629	**629**	-	-	111	**111**
Interest receivable on loan to related party	-	-	7	**7**	-	-	7	**7**
Total investment income	-	-	636	**636**	-	-	118	**118**
Income from investment in associates	-	-	-	**-**	-	-	261	**261**
Total associates income	-	-	-	**-**	-	-	261	**261**
Other generated income								
Site infrastructure recharges	-	-	2,005	**2,005**	-	-	1,520	**1,520**
Other	-	-	1,866	**1,866**	-	-	1,601	**1,601**
Total other generated income	-	-	3,871	**3,871**	-	-	3,121	**3,121**
Total income	48,182	3,726	6,518	**58,426**	43,535	4,576	4,837	**52,948**

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

- Of grant income totalling £36,984k (2022: £34,691k), £36,893k (2022: £34,691k) is restricted general funds and £91k (2022: £nil) is restricted capital funds.
- Of capital grants totalling £14,924k (2022: £13,420k), £831k (2022: £1,236k) is restricted general funds and £14,093k (2022: £12,184k) is restricted capital funds.
- Other charitable income of £828k (2022: £705k) is all unrestricted funds.
- In both periods all trading and investment income is unrestricted funds.

NOTES TO THE ACCOUNTS

3. ANALYSIS OF RESOURCES EXPENDED

	Note	Research activities	Student activities	Other activities	**Total 2023**	Research activities	Student activities	Other activities	**Restated Total 2022**
		£000	£000	£000	**£000**	£000	£000	£000	**£000**
Direct charitable expenditure:									
Staff costs		13,116	-	-	**13,116**	13,639	-	-	**13,639**
Direct costs		12,580	4,196	-	**16,776**	11,719	3,764	-	**15,483**
Depreciation and impairment		8,039	-	-	**8,039**	4,799	-	-	**4,799**
Governance costs	4	-	-	105	**105**	-	-	107	**107**
Support costs	4	10,750	2,933	-	**13,683**	8,128	2,544	-	**10,672**
Expenditure on charitable activities		**44,485**	**7,129**	**105**	**51,719**	38,285	6,308	107	**44,700**
Raising funds	4	-	-	439	**439**	-	-	370	**370**
Trading expenditure		-	-	692	**692**	-	-	579	**579**
Other resources expended		-	-	344	**344**	-	-	245	**245**
Share of operating result of associates		-	-	304	**304**	-	-	-	**-**
Total expenditure		**44,485**	**7,129**	**1,884**	**53,498**	38,285	6,308	1,301	45,894

Included within expenditure is restricted general expenditure of £38,345k (2022: £36,532k) and restricted capital resources expended (depreciation) of £8,039k (2022: £4,799k). All other expenditure is unrestricted.

Analysis of governance costs	**Total 2023**	Total 2022
	£000	£000
Staff costs	**46**	35
Travel costs	**12**	2
Other costs	**47**	70
Total governance costs	**105**	107

4. ALLOCATION OF SUPPORT COSTS, GOVERNANCE AND RAISING FUNDS

	Research activities	Student activities	Raising funds	Governance costs	**Total 2023**	Basis of Allocation
	£000	£000	£000	£000	**£000**	
Governing Council and SIAB	-	-	-	60	**60**	Headcount
Lab management	425	116	-	-	**541**	Headcount
Institute management	337	92	-	-	**429**	Headcount
Scientific services	365	100	-	-	**465**	Headcount
Facilities management and utilities*	7,602	2,074	-	-	**9,676**	Headcount
Finance and Purchasing*	538	147	-	-	**685**	Headcount
Computing and Library*	635	173	-	-	**808**	Headcount
Human Resources*	267	73	-	-	**340**	Headcount
Contracts services*	-	-	314	-	**314**	Activity
Other support services	581	158	125	45	**909**	Activity
Total support costs	**10,750**	**2,933**	**439**	**105**	14,227	

	Research activities	Student activities	Raising funds	Governance costs	**Total 2022**	Basis of Allocation
	£000	£000	£000	£000	**£000**	
Governing Council and SIAB	-	-	-	68	**68**	Headcount
Lab management	393	123	-	-	**516**	Headcount
Institute management	382	120	-	-	**502**	Headcount
Scientific services	93	29	-	-	**122**	Headcount
Facilities management and utilities*	5,469	1,711	-	-	**7,180**	Headcount
Finance and Purchasing*	504	158	-	-	**662**	Headcount
Computing and Library*	567	178	-	-	**745**	Headcount
Human Resources*	262	82	-	-	**344**	Headcount
Contracts services*	-	-	277	-	**277**	Activity
Other support services	458	143	93	39	**733**	Activity
Total support costs	**8,128**	**2,544**	**370**	**107**	11,149	

* Includes services supplied by NBI Partnership Limited (see note 23). Scientific services costs are shown net of recharges to science projects.

NOTES TO THE ACCOUNTS

5. TAXATION

John Innes Centre ("JIC") 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 (2022: £nil) tax charge payable.

Unutilised losses of £79k (2022: £79k) have been carried forward within the subsidiary companies for offset against future taxable profits. A deferred tax asset has not been recognised due to uncertainty over utilisation of these losses.

6. OPERATING SURPLUS

Operating surplus is stated after charging/(crediting):

	Total 2023	Restated Total 2022
	£000	£000
Audit services:		
Fees payable to the charitable company's auditors for the audit of charitable company and consolidated financial statements	**31**	29
Fees payable for the audit of the charitable company's subsidiaries pursuant to legislation	**1**	1
Depreciation and amortisation	**8,039**	4,799
Loss on disposal of tangible assets	**8**	175
Hire of plant and equipment	**63**	65
Rent of land and buildings	**41**	33
(Profit) on foreign exchange translations	**(120)**	(18)

7. NET INCOME FROM TRADING ACTIVITIES OF SUBSIDIARIES

Profit and loss account	John Innes Enterprises Limited	Norwich Biosciences Limited	**Total 2023**	John Innes Enterprises Limited	Norwich Biosciences Limited	**Total 2022**
	£000	£000	**£000**	£000	£000	**£000**
Turnover	916	12	**928**	464	27	**491**
Cost of sales	(731)	-	**(731)**	(579)	-	**(579)**
Gross profit/(loss)	185	12	**197**	(115)	27	**(88)**
Administrative expenses	-	-	**-**	-	-	**-**
Operating profit/(loss)	185	12	**197**	(115)	27	**(88)**
Interest received	-	-	**-**	-	-	**-**
Operating profit/(loss) retained in subsidiary	185	12	**197**	(115)	27	**(88)**
Net assets at 31 March	258	-	**258**	73	44	**117**

In addition to the above, £55,828 (2022: £29,155) in Gift Aid was paid to the charitable company in the year.

NOTES TO THE ACCOUNTS

8. REMUNERATION OF MEMBERS OF THE GOVERNING COUNCIL

None of the members of the Governing Council received any remuneration from the group during the current or prior year for their duties as Trustees.

Attendance expenses incurred by 6 (2022: 2) Trustees whilst carrying out their duties amounted to £2,913 during the year (2022: £573).

9. EMPLOYEE INFORMATION

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

Group and charitable company	**2023**	2022
	Number	Number
Scientific	**328**	347
Office management and services	**35**	31
Total	**363**	378

The aggregate payroll costs of these persons were:

Group and charitable company		**2023**	2022
	Note	**£000**	£000
Wages and salaries		**13,664**	13,702
Redundancy costs		**11**	43
Social security costs		**1,463**	1,393
Other pension costs	23	**1,894**	2,007
Total		**17,032**	17,145

An analysis of the number of staff who fall within staff cost bands (excluding pension cost) from £60k upwards is provided below:

Group and charitable company	**2023**	2022
	Number	Number
£60,000 - £69,999	**20**	16
£70,000 - £79,999	**11**	7
£80,000 - £89,999	**4**	9
£90,000 - £99,999	**7**	7
£100,000 - £109,999	**5**	2
£110,000 - £119,999	**2**	3
£120,000 - £129,999	**-**	1
£130,000 - £139,999	**1**	-
£140,000 - £149,999	**1**	1
£150,000 - £159,999	**1**	1
£160,000 - £169,999	**1**	1
£170,000 - £179,999	**1**	-
£220,000 - £229,999	**1**	-
Total	**55**	49

The number of staff with emoluments greater than £60k who were also members of the Research Councils' Pension Schemes was twenty-five (2022: twenty-four). Eighteen staff (2022: Eighteen) with emoluments greater than £60k are members of a defined contribution pension scheme.

Staff that joined prior to 1 October 2011 were employed by BBSRC up to 1 October 2017, when these employees' transferred employment to the Institute under TUPE. Transferred employees retain their membership of the Research Councils Pension Scheme, where applicable, with JIC becoming an admitted employer in the scheme. Staff that joined after 1 October 2011 are employed under JIC terms & conditions.

The key management personnel of the parent charity, JIC, comprise of the Trustees and the members of the Executive Group.

The key management personnel of the group comprise those of the charity and the key management personnel of the wholly owned subsidiaries, John Innes Enterprises Ltd, Norwich Biosciences Ltd, Norwich Research Ltd and JIC NRP Capital Ltd. All the subsidiaries key management personnel are the same as the parent company. No staff costs were recharged in respect of this. The employee costs (salaries, social security costs and pension costs) of the key management personnel for the group and charitable company were £1,541,403 (2022: £1,625,335).

NOTES TO THE ACCOUNTS

10. TANGIBLE ASSETS

Group & Company	Note	Freehold land and buildings	Long leasehold land and buildings	Plant, machinery and equipment	Assets under construction	Restated Total
		£000	£000	£000	£000	**£000**
Cost/Valuation						
Brought forward as previously stated		3,771	72,318	52,972	2,371	**131,432**
Prior year adjustment	21	-	(4,822)	-	-	**(4,822)**
Restated at 1 April 2022		3,771	67,496	52,972	2,371	**126,610**
Transfers		49	118	1,989	(2,156)	**-**
Additions		-	418	7,499	6,962	**14,879**
Disposals		-	-	(797)	(8)	**(805)**
At 31 March 2023		**3,820**	**68,032**	**61,663**	**7,169**	**140,684**
Accumulated Depreciation						
Brought forward as previously stated		824	-	27,525	-	**28,349**
Prior year adjustment	21	-	31,278	-	-	**31,278**
Restated at 1 April 2022		824	31,278	27,525	-	**59,627**
Charge for the year		5	2,622	5,412	-	**8,039**
Disposals		-	-	(797)	-	**(797)**
At 31 March 2023		**829**	**33,900**	**32,140**	**-**	**66,869**
Net book value at 31 March 2023		**2,991**	**34,132**	**29,523**	**7,169**	**73,815**
Restated net book value at 31 March 2022		2,947	36,218	25,447	2,371	66,983

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

JIC includes in its financial statements land and buildings owned by third parties, which it occupies and enjoys through extended peppercorn leases, at their full value. The Trustees consider that in substance, the risks and rewards of ownership of the assets have passed to the Institute, and as such a policy of recognising the assets on the balance sheet reflects its continuing occupancy of these assets for the foreseeable future.

All of the charitable company's assets at 31 March 2023 are used for direct charitable purposes.

The depreciation charge for the year includes an additional £2.2m, resulting from the acceleration of depreciation on assets affected by the NGI programme of redevelopment.

NOTES TO THE ACCOUNTS

11. INTANGIBLE ASSETS

Group and Charitable company	Software development £000	Total £000
Cost		
At 1 April 2022	147	**147**
Additions	-	**-**
At 31 March 2023	**147**	**147**
Accumulated Depreciation		
At 1 April 2022	147	**147**
Charge for the year	-	**-**
At 31 March 2023	**147**	**147**
Net book value at 31 March 2023	**-**	**-**
Net book value at 31 March 2022	-	**-**

12. INVESTMENTS

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
John Innes Enterprises Limited	02549904	England	Contract research	100% ordinary shares
Norwich Biosciences Limited	03076575	England	Management of intellectual property	100% ordinary shares
Norwich Research Limited	02814101	England	Dormant	100% ordinary shares
JIC NRP Capital Limited	06145922	England	Member of Anglia Innovation Partnership LLP	100% ordinary shares

The registered address for all the subsidiaries is John Innes Centre, Norwich Research Park, Colney, Norwich, NR4 7UH.

The charitable company's investment in subsidiary undertakings at cost amounts to £1,248 (2022: £1,248) and accumulated impairment of £244 (2022: £244) has been recognised against cost.

JIC NRP Capital Limited is a member of Anglia Innovation Partnership LLP (formerly Norwich Research Partners 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. The company did not trade during the year.

The net income from trading activities of the subsidiaries during the year is shown in note 7.

Associates

The charitable company has an investment in Plant Bioscience Limited ("PBL"), a company registered in England and Wales, representing 33% (2022: 33%) of the ordinary £1 issued share capital. Plant Bioscience Limited manages the intellectual property rights of the charitable company and other organisations. This company is deemed to be an associate of the group and has therefore been included in the consolidated financial statements on that basis.

The charitable company has a 25% interest in NBI Partnership Limited ("NBIP"). NBIP supplies support and administrative services to JIC and the other Norwich Institutes (Quadram Bioscience Institute, 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.

The charitable company has an investment of 45% voting share capital and £1,630k non-voting share capital in Leaf Expression Systems Limited ("Leaf"). Leaf is a commercial research & development company specialising in the expression and production of proteins, metabolites and complex natural products. The value of JIC's investment in Leaf has been fully written down at March 2023 and March 2022 to reflect the early stage of LSI's development and current trading position.

NOTES TO THE ACCOUNTS

12. INVESTMENTS (CONTINUED)

Investments – Company

The movement in the value of investments during the year was as follows:

	Total 2023	Total 2022
	£000	£000
Valuation		
At beginning of year	**1**	1
Acquisition	**-**	-
Impairment	**-**	-
At end of year	**1**	1
Historical cost		
As at 1 April 2022 and 31 March 2023	**1,631**	1,631

Investments – Group

The Group's share of the operating results of associates was as follows:

Group	Leaf Expression Systems Limited	Plant Bioscience Limited	**Total 2023**	Leaf Expression Systems Limited	Plant Bioscience Limited	Total 2022
	£000	£000	**£000**	£000	£000	£000
Associates, share of:						
Turnover	-	391	**391**	-	1,237	**1,237**
Operating (loss)/profit		(233)	**(233)**		261	**261**
Movement in opening balance	-	(71)	**(71)**	-	-	**-**
Share of result for the year	-	(304)	**(304)**	-	261	**261**

The Group's investment in associates is represented as follows:

Group	Leaf Expression Systems Limited	Plant Bioscience Limited	**Total 2023**	Leaf Expression Systems Limited	Plant Bioscience Limited	**Total 2022**
	£000	£000	**£000**	£000	£000	**£000**
Associates: Share of net assets						
At beginning of year	-	1,911	**1,911**	-	1,650	**1,650**
Additions	-	-	**-**	-	-	**-**
Impairment provision	-	-	**-**	-	-	**-**
Share of result for the year	-	(304)	**(304)**	-	261	**261**
At end of year	-	1,607	**1,607**	-	1,911	**1,911**
Represented by:						
Share of total assets	-	1,903	**1,903**	-	2,590	**2,590**
Share of total liabilities	-	(296)	**(296)**	-	(679)	**(679)**
Share of net assets	-	1,607	**1,607**	-	1,911	**1,911**

The Trustees consider the value of investments included in the financial statements to be supported by their underlying assets. The value of the investment in Leaf Expression Systems Limited has been fully written down, reflecting the net deficit position of the company at 31 March 2022 and 2023. JIC has no liability to contribute to losses in the company.

13. STOCKS

Group and charitable company	**Total 2023**	Total 2022
	£000	£000
Raw materials and consumables	**340**	283
Total	**340**	283

There is no material difference between the valuation of stock and its replacement cost.

NOTES TO THE ACCOUNTS

14. DEBTORS

	Note	**Group 2023** £000	Group 2022 £000	**Company 2023** £000	Company 2022 £000
Grants receivable:					
from government bodies	24	**2,187**	4,219	**2,187**	4,219
from other sources		**2,684**	2,467	**2,684**	2,467
Trade debtors		**2,764**	1,465	**2,418**	1,297
Amounts owed by subsidiary undertakings		**-**	-	**253**	139
Amounts owed by other related parties	24	**951**	1,054	**942**	1,054
Other debtors		**559**	961	**559**	934
Prepayments and accrued income		**3,056**	3,115	**3,024**	3,114
Total amounts falling due within one year		**12,201**	13,281	**12,067**	13,224

Grants receivable from government bodies includes £2,187k in relation to capital funding receivable from BBSRC (2022: £4,219k).

15. CASH AT BANK AND IN HAND

	Group 2023 £000	Group 2022 £000	**Company 2023** £000	Company 2022 £000
Cash at bank	**37,666**	42,945	**37,442**	42,765
Cash in hand	**2**	3	**2**	3
Total	**37,668**	42,948	**37,444**	42,768

16. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	Note	**Group 2023** £000	Group 2022 £000	**Company 2023** £000	Company 2022 £000
Grants received in advance:					
from government bodies	24	**5,345**	6,285	**5,345**	6,285
from other sources		**3,995**	4,576	**3,958**	4,493
Trade creditors		**3,686**	3,475	**3,686**	3,464
Amounts owed to subsidiary undertakings		**-**	-	**1**	-
Amounts owed to other related parties	24	**896**	1,107	**896**	1,107
Other creditors		**1,210**	1,838	**1,148**	1,829
Taxation and social security		**353**	369	**353**	369
Accruals and deferred income		**5,708**	7,962	**5,709**	7,948
Total amounts falling due within one year		**21,193**	25,612	**21,096**	25,495

17. RECONCILIATION OF MOVEMENT IN GRANTS RECEIVABLE

Group and charitable company	Note	**Total 2023** £000	Total 2022 £000
Grants receivable	14	**4,871**	6,686
Grants received in advance	16	**(9,340)**	(10,861)
Net grants received in advance		**(4,469)**	(4,175)
Net grants received in advance at beginning of year		**(4,175)**	(2,722)
Grant monies received during the year		**(52,202)**	(49,564)
Grant money released to SOFA during the year		**51,908**	48,111
Net grants received in advance		**(4,469)**	(4,175)

NOTES TO THE ACCOUNTS

18. PROVISIONS FOR LIABILITIES AND CHARGES

Group and charitable company	**Total 2023 £000**	Total 2022 £000
Restructuring provision at beginning of year	**284**	284
Charge in the year	**-**	-
Released in the year	**(284)**	-
Utilised	**-**	-
Provision at end of year	**-**	284

The restructuring provision related to future compensation payments due under the redundancy scheme in connection with the restructuring of science programmes and the administration and support functions. As no further amounts are payable the remaining provision was released during the year.

19. ANALYSIS OF NET ASSETS BETWEEN FUNDS

	Fixed assets £000	Net current assets £000	**Total 2023 £000**
Group			
Unrestricted:			
Fixed assets reserve	6,770	-	**6,770**
Designated capital reserve	-	11,705	**11,705**
General	-	6,378	**6,378**
Restricted:			
General reserve	-	108	**108**
Fixed assets reserve	68,652	-	**68,652**
Designated capital reserve	-	10,825	**10,825**
Net assets	**75,422**	**29,016**	**104,438**
Charitable company			
Unrestricted:			
Fixed assets reserve	5,163	-	**5,163**
Designated capital reserve	-	11,705	**11,705**
General	-	6,117	**6,117**
Restricted:			
General reserve	-	108	**108**
Fixed assets reserve	68,653	-	**68,653**
Designated capital reserve	-	10,825	**10,825**
Net assets	**73,816**	**28,755**	**102,571**

NOTES TO THE ACCOUNTS

19. ANALYSIS OF NET ASSETS BETWEEN FUNDS (CONTINUED)

	Fixed assets	Net current assets	Creditors over one year and provisions	**Restated Total 2022**
	£000	£000	£000	**£000**
Group				
Unrestricted:				
Fixed assets reserve	7,663	-	-	**7,663**
Designated capital reserve	-	12,118	-	**12,118**
General	-	6,671	(284)	**6,387**
Restricted:				
General reserve	-	794	-	**794**
Fixed assets reserve	61,231	-	-	**61,231**
Designated capital reserve	-	11,317	-	**11,317**
Net assets	**68,894**	**30,900**	**(284)**	**99,510**
Charitable company				
Unrestricted:				
Fixed assets reserve	5,752	-	-	**5,752**
Designated capital reserve	-	12,118	-	**12,118**
General	-	6,551	(284)	**6,267**
Restricted:				
General reserve	-	794	-	**794**
Fixed assets reserve	61,232	-	-	**61,232**
Designated capital reserve	-	11,317	-	**11,317**
Net assets	**66,984**	**30,780**	**(284)**	**97,480**

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 designated capital reserves are not endowment funds. The unrestricted designated capital reserve relates to funds designated by Governing Council for use in relation to planned capital investments in the financial projections to March 2028. The restricted capital reserve relates to funding received from BBSRC to be used in connection with future estates rebuild costs with the agreement of BBSRC.

The restricted general reserve relates to ring fenced strategic funding received from BBSRC. This funding has performance conditions attached and is transferred to the general reserve once the conditions have been met.

NOTES TO THE ACCOUNTS

20. ANALYSIS OF FUNDS MOVEMENTS

	Unrestricted fixed assets	Unrestricted designated	Unrestricted general	Restricted general	Restricted fixed assets	Restricted designated	**Total 2023**
	£000	£000	£000	£000	£000	£000	**£000**
Group							
At 1 April 2022	7,663	12,118	6,387	794	61,231	11,317	**99,510**
Total income and expenditure for the year	-	-	(596)	(621)	6,145	-	**4,928**
Associates	(304)	-	304	-	-	-	**-**
Capital transfers	(920)	-	-	-	1,284	(364)	**-**
Centre funded capital	331	(331)	8	-	(8)	-	**-**
Other transfers	-	(82)	275	(65)	-	(128)	**-**
At 31 March 2023	6,770	11,705	6,378	108	68,652	10,825	**104,438**
Charitable company							
At 1 April 2022	5,752	12,118	6,267	794	61,232	11,317	**97,480**
Total income and expenditure for the year	-	-	(514)	(540)	6,145	-	**5,091**
Capital transfers	(920)	-	-	-	1,284	(364)	**-**
Centre funded capital	331	(331)	8	-	(8)	-	**-**
Other transfers	-	(82)	356	(146)	-	(128)	**-**
At 31 March 2023	5,163	11,705	6,117	108	68,653	10,825	**102,571**

	Unrestricted fixed assets	Unrestricted designated	Unrestricted general	Restricted general	Restricted fixed assets	Restricted designated	**Restated Total 2022**
	£000	£000	£000	£000	£000	£000	**£000**
Group							
At 1 April 2021	7,994	12,645	7,266	48	55,248	9,255	**92,456**
Total income and expenditure for the year	-	-	274	(605)	7,385	-	**7,054**
Associates	261	-	(261)	-	-	-	**-**
Capital transfers	(624)	-	-	(36)	660	-	**-**
Centre funded capital	32	(300)	268	-	(2,062)	2,062	**-**
Other transfers	-	(227)	(1,160)	1,387	-	-	**-**
At 31 March 2022	7,663	12,118	6,387	794	61,231	11,317	**99,510**
Charitable company							
At 1 April 2021	6,344	12,645	7,028	48	55,486	9,255	**90,806**
Total income and expenditure for the year	-	-	159	(633)	7,148	-	**6,674**
Capital transfers	(624)	-	-	(36)	660	-	**-**
Centre funded capital	32	(300)	268	-	(2,062)	2,062	**-**
Other transfers	-	(227)	(1,188)	1,415	-	-	**-**
At 31 March 2022	5,752	12,118	6,267	794	61,232	11,317	**97,480**

Capital transfers relate to fund movements in connection with fixed assets and depreciation; ensuring assets are appropriately reflected in separate reserves.

Centre funded capital transfers relate to capital expenditure funded from the unrestricted designated capital reserve and general reserve.

Where research at JIC is funded by grants with performance conditions attached to them these are shown in the Restricted general fund. When the conditions have been met the remaining contribution to core funding is transferred to general reserves, shown in other transfers above.

NOTES TO THE ACCOUNTS

21. PRIOR YEAR ADJUSTMENT – CHANGE OF ACCOUNTING POLICY

The accounting policy for leasehold land and buildings has been reviewed and changed from valuation to historic cost less accumulated depreciation.

The leasehold land and buildings are of a specialist nature and are used by the Institute in its scientific and associated administrative activities, occupied principally through long leases on a peppercorn rent. During the year John Innes Centre secured UKRI Infrastructure Fund capital investment of £317.7m to develop a new world class research environment. The change in policy has made because it is believed a cost model will provide more reliable and relevant information to the readers of the financial statements with this major change in the site and facilities.

The change in accounting policy has been applied retrospectively, meaning the opening balances at 1 April 2022 and 1 April 2021, and comparatives for the year ended 31 March 2022 have been restated, as if the new accounting policy had always applied.

The impact of the change of accounting policy is to reduce the net book value of tangible assets, total net assets and total funds at 1 April 2022 by £36,100k and at 1 April 2021 by £26,326k.

For the year ended 31 March 2022 depreciation is reduced by £1,131k and the gain on revaluation of tangible fixed assets is reduced from £10,905k to £nil. The net movement in funds for the year ended 31 March 2022 is therefore reduced by £9,774k.

The adjustments are same for the group and the charitable company.

22. COMMITMENTS

Group and charitable company	**Total 2023 £000**	Restated Total 2022 £000
Capital commitments at the end of the financial year for which no provision has been made:		
Contracted	**5,382**	5,031
Amounts due under other operating leases for plant and machinery:		
Expiring in less than one year	**44**	36
Expiring between one and two years	**28**	32
Expiring between two and five years	**13**	16
Expiring over five years	**2**	-
	87	84

23. PENSION SCHEMES

JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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% (2022: 26%).

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

The total pension charge for the year was £1,894,373 (2022: £2,006,968), with outstanding contributions at the year-end of £96,278 (2022: £97,907).

NOTES TO THE ACCOUNTS

24. RELATED PARTY TRANSACTIONS

BBSRC

JIC is strategically funded by BBSRC. Grants received from BBSRC are detailed in note 2. At 31 March 2023, BBSRC owed JIC £2,187,669 (2022: £3,954,455).

Plant Bioscience Limited

PBL is 33% directly owned by JIC. PBL has been accounted for as an associate within the consolidated financial statements. Services provided to JIC by PBL in the year to 31 March 2023 amounted to £32,400 (2022: £43,200). During the year, PBL paid JIC £31,670 (2022: £38,755) in rent and £1,603 (2022: £nil) for other costs. At the end of the year £1,335 was due from PBL (2022: £nil) and no amount was due to PBL (2022: £nil).

Leaf Expression Systems Limited

JIC has invested £1,630,000 in the non-voting share capital of Leaf Expression Systems Limited ("Leaf"). Leaf has been accounted for as an associate within the consolidated financial statements. JIC paid Leaf £129,646 (2022: £nil) for services in the year ended 31 March 2023. At 31 March 2023, JIC owed Leaf £nil (2022: £3,287). JIC provided a short-term loan to Leaf which was repaid during the year. Interest is payable on the loan at a rate of 2.5%. At 31 March 2023, JIC had a loan balance with Leaf of £nil (2022: £112,500).

During the year, Leaf paid JIC £139,882 (2022: £11,796) for costs incurred by JIC on behalf of Leaf. At 31 March 2023, Leaf owed JIC £17,511 (2022: £902).

NBI Partnership Limited

JIC is one of the four guarantors of NBI Partnership Ltd ("NBIP"), a company limited by guarantee. JIC has provided short-term loans to NBIP to enable NBIP to manage its cash requirements. Interest is payable on the loan at 2% and during the year JIC charged £6,748 (2022: £6,760) in respective of interest due. At 31 March 2023, JIC had a loan balance with NBIP of £337,380 (2022: £337,380).

JIC was charged £5,005,881 (2022: £4,579,554) for services by NBIP under a cost sharing agreement. As at 31 March 2023, JIC owed NBIP £507,369 (2022: £555,188). NBIP paid JIC £46,926 (2022: £62,315) for services and, as at 31 March 2023, NBIP owed JIC £1,487 (2022: £53,487).

Anglia Innovation Partnership LLP

JIC is a member of Anglia Innovation Partnership LLP through its 100% subsidiary, JIC NRP Capital Limited. Anglia Innovation Partnership 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, JIC received services totalling £22,325 (2022: £22,535) and was charged £90,640 (2022: £71,595) for estate costs. As at 31 March 2023, JIC owed AIP LLP £9,572 (2022: £30,078). JIC invoiced Anglia Innovation Partnership LLP for services totalling £252,685 (2022: £198,259). As at 31 March 2023 Anglia Innovation Partnership LLP owed JIC £91,705 (2022: £86,937).

University of East Anglia

UEA is a member of the charitable company and it nominates one Governor to the Governing Council.

The majority of PhD students carrying out research at JIC are registered with UEA. During the year UEA provided student services of £867,829 (2022: £386,306) and other services amounting to £327,645 (2022: £233,518) to JIC. At 31 March 2023, JIC owed UEA £242,926, for student fees and other costs (2022: £339,676) and £14,167 for other services (2022: £81,755).

During the year, JIC received £856,347 (2022: £364,215) in student payments from UEA and provided £611,253 (2022: £187,042) of other services and JIE received £18,281. At 31 March 2023, UEA owed JIC £430,717 (2022: £396,012) for student fees and other services and owed JIE £9,452.

NOTES TO THE ACCOUNTS

24. RELATED PARTY TRANSACTIONS (CONTINUED)

John Innes Foundation

JIF is a member of the charitable company and it nominates one Governor to the Governing Council of JIC. The following transactions took place during the year:

	Total 2023	Restated Total 2022
	£000	£000
Paid to JIC:		
Grants for studentships	**471**	436
Grants for research project	**150**	142
Contribution to salary costs	**27**	39
Contribution to other costs	**52**	3
Contribution to capital costs	**7**	133
	707	753

At 31 March 2023, JIF owed JIC £62,434 (2022: £66,533) and JIC owed JIF £122,437 (2022: £96,904).

John Innes Enterprises Ltd

JIE Ltd is the wholly owned trading subsidiary of JIC. JIE undertakes contract research, research services and consultancy.

During the year, JIC invoiced JIE for services and other costs totalling £520,091 (2022: £346,370) and JIE invoiced JIC for costs totalling £1,000 (2022: £11,179). In addition, JIE made a gift aid payment to JIC of £nil (2022: £9,521). As at 31 March 2023, JIE owed JIC £253,485 (2022: £139,120) and JIC owed JIE £1,000 (2022: £nil).

Norwich Biosciences Ltd

Norwich Biosciences Ltd is the wholly owned trading subsidiary of JIC. NBL manages intellectual property on behalf of JIC. During the year NBL paid JIC a gift aid payment of £55,828 (2022: £19,634).

25. CASH HELD AS GRANT CO-ORDINATOR

JIC holds cash of £833,439 (2022: £1,038,116) on behalf of various institutes in its capacity as project co-ordinator on a number of projects. JIC acts as an intermediary only and does not control the risks and rewards associated with the cash. An equal balance is held in other creditors.

26. ULTIMATE PARENT UNDERTAKING AND CONTROLLING PARTY

The Trustees consider that there is no ultimate parent undertaking and controlling party. JIC is the parent undertaking of the smallest and largest group of undertakings to consolidate these financial statements.

27. CONTINGENT LIABILITY

JIC receives grant income from funding bodies, such as the BBSRC and the European Union, that routinely undertake retrospective financial audits of costs claimed. Such audits may from time to time give rise to adjustments to grant income receivable. No general provision is made for such potential audit adjustments in the financial statements.

CHARITY INFORMATION

Directors and Trustees	Sir T Hughes-Hallett (Chair - Governing Council) Mr J H Innes (Chair – Audit Committee) Ms J K Midura (Chair - Remuneration & Nominations Committee) Prof N Talbot Prof J P Armitage (Chair - Science and Impact Advisory Board) Dr J D McCafferty Mr C Maw Dr C A Caulcott Prof M Searcey
Company Secretary	Mr D Foreman
Director of the Institute	Prof G Moore
Key Management Personnel	Prof G Moore Prof A Osbourn Mr D Foreman Ms A O'Halleron Prof A Maxwell
Registered charity number	223852
Registered company number	00511709
Registered and principal office of the charity	Norwich Research Park Colney Norwich NR4 7UH
Independent auditor	Larking Gowen LLP Chartered Accountants and Statutory Auditors Prospect House Rouen Road Norwich NR1 1RE
Bankers	Barclays Bank Plc 54 Lombard Street London EC3V 9EX
Solicitors	Mills and Reeve 1 St James Court Whitefriars Norwich NR3 1RU
	Birketts Kingfisher House 1 Gilders Way St James Place Norwich NR3 1UB

JOHN INNES CENTRE

England & Wales - Charity number 223852

Accounts



John Innes Centre

Unlocking Nature's Diversity

2021 / 2022

ANNUAL REPORT

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Cover image: Developing maize plant – Dr Annis Richardson, John Innes Centre

Message from the Director: Professor Graham Moore



Professor Graham Moore
Director of the John Innes Centre

I am delighted to take on the Directorship of the John Innes Centre at such an exciting time as we develop our plans for our next strategic funding cycle, commence new strategic research programmes and progress our vision for Healthy Plants, Healthy People, Healthy Planet.

The John Innes Centre is well known for its unique interdisciplinary approach, and I look forward to working closely with colleagues to continue to build on our strength in fundamental science as well as applying our knowledge to global challenges such as food security, climate change, and health and well-being.

2021/22 continued to be a challenging period as we faced further disruption from the pandemic, but our return to working in person over the year has been a personal highlight of the year, particularly catching up with colleagues face to face at our Annual Scientific Meeting.

Despite the pandemic, we have continued to make important discoveries and our 2021/22 Annual Report is testament to our committed staff and students. Here we showcase the discoveries, partnerships and successes of the organisation, our staff and students from the period.

We have taken important steps to strengthen relationships with partners, including launching a new collaboration with the International Maize and Wheat Improvement Center (CIMMYT).

Our infrastructure plans include the development of a new home for plant and microbial science on the Norwich Research Park. We continue to make good progress and are working with The Sainsbury Laboratory and BBSRC to secure funding for these new facilities.

Our researchers have had real impact, particularly with policy informing and shaping Defra's plans for the future regulation of precision bred (gene edited) crops in England.

Message from the retired Director: Professor Dale Sanders



Professor Dale Sanders FRS
Retired *Director of the John Innes Centre*

I would like to take this opportunity to thank everyone for their contributions to making the John Innes Centre the amazing place it is.

I retire after more than a decade as Director of the John Innes Centre, and my experience since I started in 2010 has been universally positive. It has been a pleasure to work in such a collegial environment, surrounded by the scientific excellence that makes research such fun.

I wish Graham every success in taking up the post of Director and leading the organisation through the next phase of its journey. He is not only a scientific leader in his field nationally and internationally but also a tremendously collaborative colleague who is hugely valued across the John Innes Centre.

About the John Innes Centre

The John Innes Centre is a world-leading international centre of excellence in plant science and microbiology.

Our mission is to generate knowledge of plants and microbes through fundamental research and to use this knowledge to benefit agriculture, the environment, human health and well-being. We train excellent scientists for the future and engage with policy makers and the public. Our joint strategy with The Sainsbury Laboratory, Healthy Plants, Healthy People, Healthy Planet (HP^3) outlines our vision for delivering a safer, healthier and more sustainable future through the power of plant and microbial science.



We are home to over **40 RESEARCH GROUPS** working on a variety of plant and microbial science research projects.

In collaboration with our **WORLD-LEADING ACADEMIC PARTNERS** we are uniquely positioned to lead the fundamental scientific advances needed to address three intertwined, era-defining challenges:



FEEDING THE WORLD



GLOBAL HEALTH THREATS



CLIMATE CHANGE



We are a diverse organisation with an

INTERNATIONAL WORKFORCE

We have over 350 staff. 58% from the UK, 16% from the EU27 and 26% from the rest of the world. Our staff come from 36 countries around the world.



We provide world-class

POSTGRADUATE EDUCATION

in plant science and microbiology as part of our mission to train the scientific leaders of the future. At any one time, we are training around 100 PhD students.

We are proud to have been the

FIRST INDEPENDENT INSTITUTION

to be awarded the Athena SWAN Gold Award in 2017, in recognition of our work to address equality in science.

We were a founding signatory of the

TECHNICIAN COMMITMENT

and are committed to embedding a culture where all staff across the organisation are supported and developed.

Research and Innovation

#1

The John Innes Centre ranked as the top plant science research organisation worldwide, based on citations between 2008 and 2017.

When assessed by a panel of independent experts, our strategic programmes achieved the highest ranking in BBSRC's Institute Assessment Exercise in 2016, and the mid-term review in 2019.

Since 2014, we've spun out seven companies and attracted four businesses to Norwich.

Funding and Impact

In 2021/22, the John Innes Centre had a total **INCOME OF £52.9 MILLION** and our total expenditure was **£47 MILLION**.

Our expenditure on our charitable activities was **£45.8MILLION, or 97%,** of our total spend. This includes research, research infrastructure, and research support.

FOR EVERY £1 invested in the John Innes Centre, **£14 IS GENERATED** for the wider **UK ECONOMY.**

Celebrating our achievements under Professor Dale Sanders' leadership

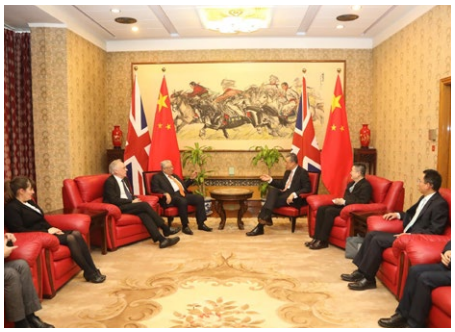
In September 2022, after 12 years leading the institute, Professor Dale Sanders FRS retired from his role as Director.


Professor Dale Sanders

Under his leadership, the John Innes Centre has achieved many scientific and organisational successes, and Professor Sanders has had a lasting positive impact on the organisation, our outward collaborations, and the wider plant science community.

Reflecting on the past 12 years, Professor Graham Moore said, "I would like to warmly thank Dale for his success over the last 12 years in making the John Innes Centre such a wonderful place to work and supporting the delivery of world-class research. We all wish him a very well-deserved, long and happy retirement."

Here, we look back at some of Professor Sanders' organisational achievements since his appointment in 2010.



International Collaborations

Professor Sanders was instrumental in driving forward our international collaborations. Throughout his time here at the John Innes Centre, Professor Sanders was at the forefront of CEPAMS, a major collaborative UK-China project.

In 2018, Professor Sanders supported the formation of a Trilateral alliance in Europe with two leading plant science institutes, which aims to build European networks for early career researchers.

This alliance brings PhD students and post-docs together to discuss science and facilitate their next career steps.

Infrastructure and Vision

In 2019, the John Innes Centre opened the Dorothea de Winton Field station, set in the 110 hectares of Church Farm, Bawburgh. This infrastructure development marked an important point in the development of the institute taking our research from the lab into the field, providing an environment where plant and microbial research provides solutions to global challenges.

To support this ambition, in 2020 the John Innes Centre and The Sainsbury Laboratory launched Healthy Plants, Healthy People, Healthy Planet, a joint vision to secure a safer, healthier and more sustainable future through the power of plant and microbial science.


The Dorothea De Winton field station at Church Farm

People and Culture

During Professor Sanders' tenure, the John Innes Centre became the first independent institution to a be awarded an Athena SWAN Gold Award and became a founding signatory of the Technician Commitment, which aims to ensure visibility, recognition, career development and sustainability for technicians working in higher education and research.

PROUD SUPPORTER OF THE
Technician Commitment

Athena SWAN Gold Award
EU GENDER CHARTER

Delivering the BBSRC Institute Strategy

In July 2021, BBSRC launched a new Institute Strategy, setting out its approach to supporting and working in partnership with the institutes it strategically funds.



The strategy outlines three themes which underpin the principles of its strategic investment:

- Capability
- Connectivity
- Culture

To support this, the John Innes Centre established a programme of new activities structured around these three themes to help deliver the strategy.



Connectivity

We funded nine projects to: (i) strengthen our national and international connectivity via joint strategic research activities, collaborative meetings and staff exchanges; (ii) assess and document this connectivity to provide an evidence base for future collaborations; and (iii) engage our networks to boost connectivity.



Culture

We funded four projects to support inclusivity and diversity initiatives at the JIC, encourage activity and engagement in on-site sustainability issues and promote engagement with the local community. Over 2022/23, we will develop plans to deliver the BBSRC Institute Strategy, as part of the 2023 Institute Assessment Exercise.



Capability

We funded eight projects to strengthen our capabilities, by pump-priming new areas of research supporting our future research strategy and strengthening key areas of JIC scientific capability in cutting-edge technologies and ground-breaking areas of science, to support our position of a National Capability.

Science Highlights

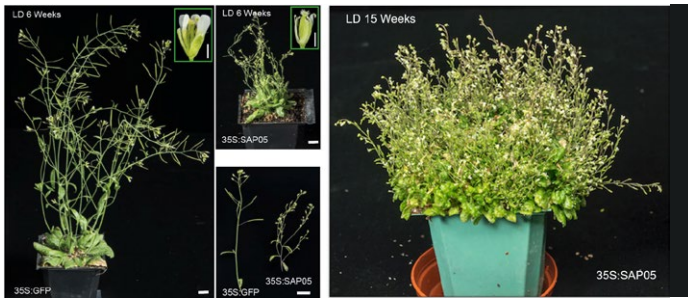
How plants become good neighbours in times of stress

Shade is detected by phytochrome photoreceptors, and causes plants to grow long and tall to outgrow the competition. In the deep gloom of a dense forest or a cramped crop canopy, this strategy doesn't work. It has been discovered that plants that are adapted to grow in deep shade conditions can modify their internal clocks.

The collaborative research from Professor Ant Dodd and the University of Bristol identifies a previously unknown role for the circadian clock in regulating plant development. The findings have implications for both natural plant populations and crops.



'Phytochrome A elevates plant circadian-clock components to suppress shade avoidance in deep-canopy shade', PNAS. ***DOI:*** *10.1073/pnas.2108176118*



The effect of phytoplasma infection on Arabidopsis

A mechanism used by parasitic bacteria to slow down plant ageing may offer new ways to protect disease-threatened food crops. The discovery shows how the bacterial protein, SAP05, manipulates plants by taking advantage of some of the host's own molecular machinery. When inside a plant, SAP05 causes key growth regulators to be broken down, triggering abnormal growth.

Professor Saskia Hogenhout says: "Phytoplasmas are a spectacular example of how the reach of genes can extend beyond the organisms to impact surrounding environments. Our findings cast new light on a molecular mechanism behind this extended phenotype in a way that could help solve a major problem for food production."

'Parasitic modulation of host development by ubiquitin-independent protein degradation', Cell. ***DOI:*** *10.1016/j.cell.2021.08.029*

How information beyond the genetic sequence is encoded in the plant sperm

A molecular mechanism of DNA methylation reprogramming which stops mobile genetic elements, transposons, jumping around in the germ cells has been discovered. This reprogramming protects the integrity of the genome between generations, by adjusting DNA modifications. It explains how some methyl markers are reset, affecting the information passed on to the next generation.

"This discovery changes the way we think about epigenetic inheritance across generations in plants by showing that small RNAs produced by germline nurse cells can determine the DNA methylome in the sperm. The key role played by these small RNAs in determining the inherited DNA methylome indicates convergent functional evolution between plant and animal reproduction," says Dr Xiaoqi Feng.

'Nurse cell-derived small RNAs define paternal epigenetic inheritance in Arabidopsis', Science. ***DOI:*** *10.1126/science.abh0556*



Tapetal cells produce an abundance of small RNA molecules

Scientists solve the grass leaf conundrum

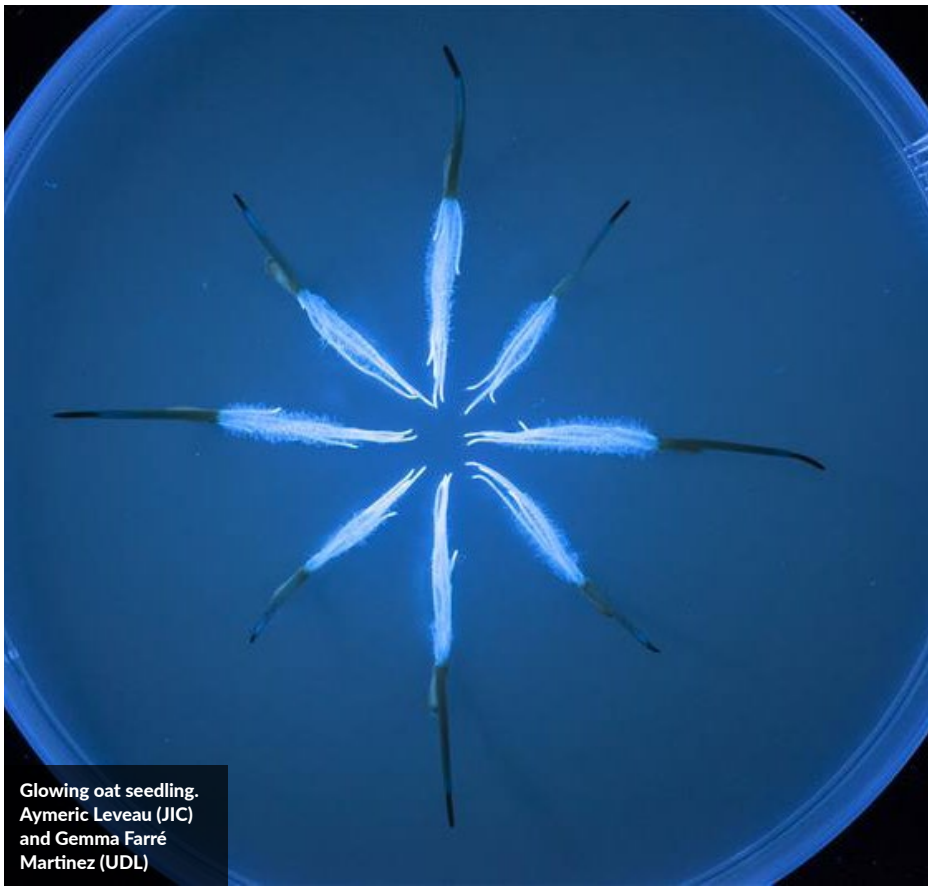
Grass is cut regularly by our mowers and grazed on by cows and sheep yet continues to grow back. The secret to this remarkable regenerative power lies in part in the shape of its leaves, but how that shape arises has been a topic of longstanding debate.

In grasses, the base of the leaf forms a tube-like structure, called the sheath. The sheath allows the plant to increase in height while keeping its growing tip close to the ground, protecting it from lawnmowers and herbivores.

The study shows how simple modulations of growth rules, based on a common pattern of gene activities, can generate a remarkable diversity of different leaf shapes, without which our gardens and dining tables would be much poorer.

+ *'Evolution of the grass leaf by primordium extension and petiole–lamina remodelling', Science.* ***DOI:*** *10.1126/science.abf9407*





Glowing oat seedling. Aymeric Leveau (JIC) and Gemma Farré Martinez (UDL)

Winning gene combination takes all

The remaining steps of the biological pathway that gives oats resistance to the deadly crop disease take-all have been uncovered. The discovery creates opportunities for new ways of defending wheat and other cereals against the soil-borne root disease. The research also delivers fresh insights into the mechanisms that shape genome architecture and adaptive evolution in plants.

The research team found that genes are clustered next to each other in the genome like beads on a string and organised along the chromosome approximately in the same order as the biosynthetic pathway – like a recipe written out in order of ingredients.

+ *'Subtelomeric assembly of a multi-gene pathway for antimicrobial defense compounds in cereals', Nature Communications.* ***DOI:*** *10.1038/s41467-021-22920-8*

How plants flower at different times in different climates

Researchers have uncovered the genetic basis for variations in the vernalization response shown by plants growing in very different climates, linking epigenetic mechanisms with evolutionary change.

Vernalization is a period of prolonged cold that some plants require before they will flower to ensure that they only produce flowers after winter has passed. When sufficient time in the cold has passed, an epigenetic switch silences a flowering-repressor gene called FLC. These epigenetic changes are then passed on to daughter cells during the rest of the plant's developmental cycle. The research team discovered how different plants set the level at which this epigenetic switch is triggered.

+ *'Quantitative Modulation of Polycomb Silencing Underlies Natural Variation in Vernalization', Science.* ***DOI:*** *10.1126/science.1221881*



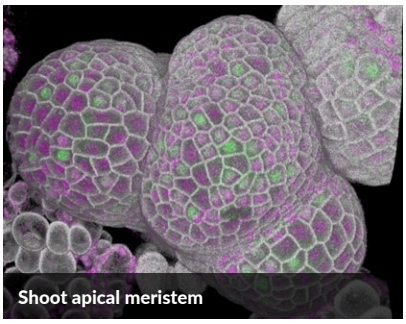
An arabidopsis plant in winter

How cells measure themselves

Ever since scientists discovered cells under the microscope more than 350 years ago, they have noted that each type of cell has a characteristic size. From tiny bacteria to inches-long neurons, size matters for how cells work. The question of how these building blocks of life regulate their own size, however, has remained a mystery.

Now we have an explanation for this long-standing biological question, as research has shown that the cells in the growing tips of plants use their DNA content as an internal gauge to assess and adjust their size.

Professor Robert Sablowski said: "It has been suggested for a long time that DNA could be used as a scale for cell size, but it was unclear how cells could read the scale and use the information. The key is to use the DNA as a template to accumulate the right amount of a protein, which then needs to be diluted before the cell divides. It's exciting to come across such a simple solution to a long-standing problem."



Shoot apical meristem

'Cell size controlled in plants using DNA content as an internal scale', Science. **DOI:** 10.1126/science.abb4348

How legumes give oxygen to symbiotic bacteria in their roots



Root nodules house the bacteria that fix nitrogen from the air in legumes

The genetics inside legumes that control the production of an oxygen-carrying molecule, crucial to the plant's close relationships with nitrogen-fixing bacteria, has been discovered. The finding offers the potential to give other plants the ability to produce ammonia from bacteria – reducing the need for the fossil fuel-dependent and polluting practice of applying synthetic fertiliser to crops.

The research team identified two transcription factors that control how much leghemoglobin is made in legume nodules. Dr Jeremy Murray, CEPAMS Group Leader, Shanghai said: "This gives a key insight into how legume plants create the microaerobic environment needed for nitrogen-fixation. This knowledge could be useful for improving nitrogen-fixation in legumes and would be essential for transfer of nodulation to non-legume crops."

'NIN-like protein transcription factors regulate leghemoglobin genes in legume nodules', Science. **DOI:** 10.1126/science.abg5945



Wheat in the field

Gene-editing discovery yields high promise for wheat fertility in a changing climate

A gene with profound effects on the production of seeds has been identified, ZIP4 is responsible for maintaining 50 per cent of yield in wheat. The researchers used recent developments in wheat research technology to explain the genetic element that has puzzled scientists for more than 60 years. Professor Graham Moore said: "We can now aim to identify variants of the gene that give resilience to climate change."

'A 'separation-of-function' ZIP4 wheat mutant allows crossover between related chromosomes and is meiotically stable', Nature Scientific Reports. **DOI:** 10.1038/s41598-021-01379-z

How bread wheat got its gluten: Tracing the impact of a long-lost relative on modern bread wheat

An obscure ancestor of modern bread wheat has been discovered by researchers who sequenced the DNA from 242 unique accessions of *Aegilops tauschii*, which was gathered over decades from across its native range – from Turkey to Central Asia.

Population genome analysis found the existence of a distinct lineage of *Aegilops tauschii* restricted to present day Georgia, in the Caucuses region – some 500 kilometres from the Fertile Crescent where wheat was first cultivated – an area stretching across modern-day Iraq, Syria, Lebanon, Palestine, Israel, Jordan, and Egypt.

Dr Kumar Gaurav said: "The discovery of this previously unknown contribution to the bread wheat genome is akin to discovering the introgression of Neanderthal DNA into the out of Africa human genome."

'Population genomic analysis of Aegilops tauschii *identifies targets for bread wheat improvement', Nature Biotechnology.* **DOI:** s41587-021-01058-4. *'High molecular weight glutenin gene diversity in* Aegilops tauschii *demonstrates unique origin of superior wheat quality', Communications Biology.* **DOI:** 10.1038/s42003-021-02563-7



On a wild wheat relatives foraging trip. *Ali Mehrabi*

Awards and honours

Rank Prize for Nutrition awarded to Professor Cathie Martin

Professor Cathie Martin was awarded the prestigious Rank Prize for Nutrition 2022 for her globally significant research in making fruit and vegetables more nutritious.

The award recognises those who have made a significant contribution to human and animal nutrition, where their ideas have been carried through to practical applications of benefit to humankind.

Professor Dale Sanders said: "The awarding of this prestigious prize is wonderful recognition for the enormous impact her work has had in the field of metabolic engineering. From fundamental discovery to innovative ways of improving human diet, Cathie's research contributions have been inspirational."

Professor Martin's research into plant genetics and metabolism uses plant science tools to improve human diet and health with emphasis on biofortification and using plant metabolic engineering to enhance foods nutritionally.



Professor Cathie Martin



Professor Saskia Hogenhout

Saskia Hogenhout elected a fellow of the American Phytopathological Society

In recognition of her pioneering career, for distinguished contributions to plant pathology and for paradigm-shifting research, Professor Saskia Hogenhout was elected fellow of the APS.

Professor Hogenhout focuses on understanding the mechanisms that drive interactions between plants and insects and the role of microbes in these interactions.

In a distinguished career, she has pioneered mechanistic molecular research on phytoplasmas – insect-transmitted bacterial parasites that inhabit the vascular tissues of plants.

Her paradigm-changing discovery of SAP effectors helped shift the focus of research from an emphasis on hormone imbalance to protein effectors.

Research on phytoplasma SAP effectors is now flourishing, with dozens of papers being published on the topic.

Lesley Mitchenall recognised with Lifetime Achievement Award



Lesley Mitchenall

Research Assistant Lesley Mitchenall was awarded a Lifetime Achievement Award to mark her achievements over many years at the John Innes Centre.

Lesley said she was "truly amazed" to receive the award and commented, "I have been fortunate to work with so many amazing people over the years. I hope this award helps to highlight the contributions that all Research Assistants make to the science at the John Innes Centre and the support they provide to students and post docs."

Professor Dale Sanders said: "This award brings well-deserved recognition for Lesley's highly successful career. Her achievements have been outstanding. Her commitment and approach are fantastic and she is a talented scientist and colleague."

Organisational achievements



The John Innes Centre has much to celebrate over the year. We announced new strategic research collaborations, took part in influential policy conversations and received awards and honours recognising our achievements.



New strategic collaboration on wheat research

The John Innes Centre launched a strategic collaboration with the International Maize and Wheat Improvement Center (CIMMYT), to further the global effort to develop the future of wheat. An important goal of the collaboration is to expand the impact of the joint research breakthroughs through knowledge sharing and capacity development. Joint research projects will include developing and deploying new molecular markers for yield, resilience and nutritional traits in wheat, pursuing new approaches that increase breeding efficiency and developing improved technologies for rapid disease diagnostics and surveillance.

> Joint research projects will include developing new molecular markers for yield, resilience and nutritional traits in wheat, pursuing new approaches that increase breeding efficiency

Institute Assessment Exercise 2022

The John Innes Centre completed a URKI-BBSRC exercise to assess the institutes performance, across our strategic, national capability and core grants. The Institute Assessment Exercise, or IAE, takes place every five years to allow BBSRC supported institutes to report progress, and present plans, objectives and aims for the next period. Full results of the exercise are yet to be published, however, we have already received favourable feedback from the panel regarding our performance.

Biotechnology and Biological Sciences Research Council

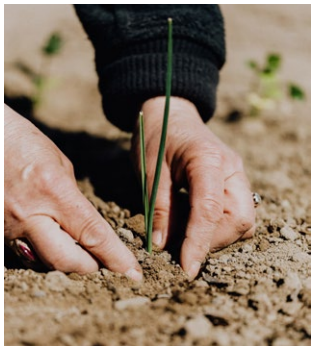


Government recognition of our plant science and agri-food expertise

The John Innes Centre and partners across the Norwich Research Park worked with the Local Enterprise Partnership for Norfolk and Suffolk to achieve 'High Potential Opportunity' Zone status from the Department of International Trade. The prestigious Government recognition marks our cutting-edge plant science and agri-food expertise in the region and helps us to showcase the region's globally-renowned plant science expertise in developing nutritious food products.

norwich research park

John Innes Centre research showcased at major climate conference



Our work was well represented at the COP26 Climate summit, via our partnerships and funders. Professor Dale Sanders attended the event in person to represent the Royal Society, after leading a project on the links between agriculture and climate change. Partners such as UKRI-BBSRC and Science and Advice for Scottish Agriculture also screened videos featuring our researchers and their work at the conference.

UN CLIMATE CHANGE CONFERENCE UK 2021

Technician Commitment Impact Award

The John Innes Centre was awarded the Impact Award from the Technicians Commitment, recognising our work to ensure greater visibility, recognition, career development and sustainability for our technicians (Research and Support Staff). Dr Clare Stevenson, our lead for the Technician Commitment, received the award at the Technician Commitment Signatory meeting.



PROUD SUPPORTER OF THE Technician Commitment

> Our work was well represented at the COP26 Climate Summit, via our partnerships and funders. Professor Dale Sanders attended the event in person to represent the Royal Society, after leading a project on the links between agriculture and climate change

Flexible Talent Mobility Accounts

FTMAs are competitively awarded grants that enable us to support the mobility and training of researchers interested in pursuing careers in, and making links with, industry.

The programme provides an opportunity to learn about a different role, gain new skills, and career-development support without having to step out of their permanent roles.

In the five years leading up to March 2022, we supported thirty-two researchers into UK or International work placements in industry and four tenure track fellows to strengthen links with industrial partners.

So far, 46% of work placement secondees have secured a permanent role in industry as a direct result of the upskilling and experience gained during their placement.

Most placements comprised a three-month work placement in an external company or business, where staff could gain valuable experience, from how to use a business model, to setting up a spin-out company, through to how to peer review and edit research papers.

Recently, the grant was opened up to include technicians and support staff, with 14 people supported to undertake professional qualifications and training.

Joe Sallmen

Science into Policy



During a two-month placement with the Innogen Institute (part of the University of Edinburgh), Joe explored the role of large British corporations in European Framework programmes, and he developed a policy brief for the Engineering Biology Leadership Council.

Joe said, "Learning how to write for different audiences and how to condense a lot of nitty-gritty details into something short and palatable whilst still delivering effective messages to policy makers was invaluable."

On his return to the lab, Joe brings new data management and communications skills, giving him and his groups new ideas of how to present research going forward, including making it more accessible for different audiences.

Sarah Tolland

Coaching



Sarah collaborated with coach and mentor Nikki Wild over a period of two-months and studied for an ILM Level 5 qualification in Coaching and Mentoring. The placement allowed Sarah to be "coached on her own coaching skills" and to explore what the world of a professional coach looked like.

During this placement, Sarah gained new skills that have both strengthened her role as a manager and her outlook on effective coaching. Returning to the office, Sarah was given the opportunity to coach a fellow colleague, which she welcomed as part of her ongoing journey into coaching and mentoring.

Reflecting on the placement, Sarah's said, "My interest in coaching and mentoring others was reaffirmed by the experience, and having the chance to work shadow a professional coach gave me a boost in confidence."



Clare Stevenson

Leadership and Management

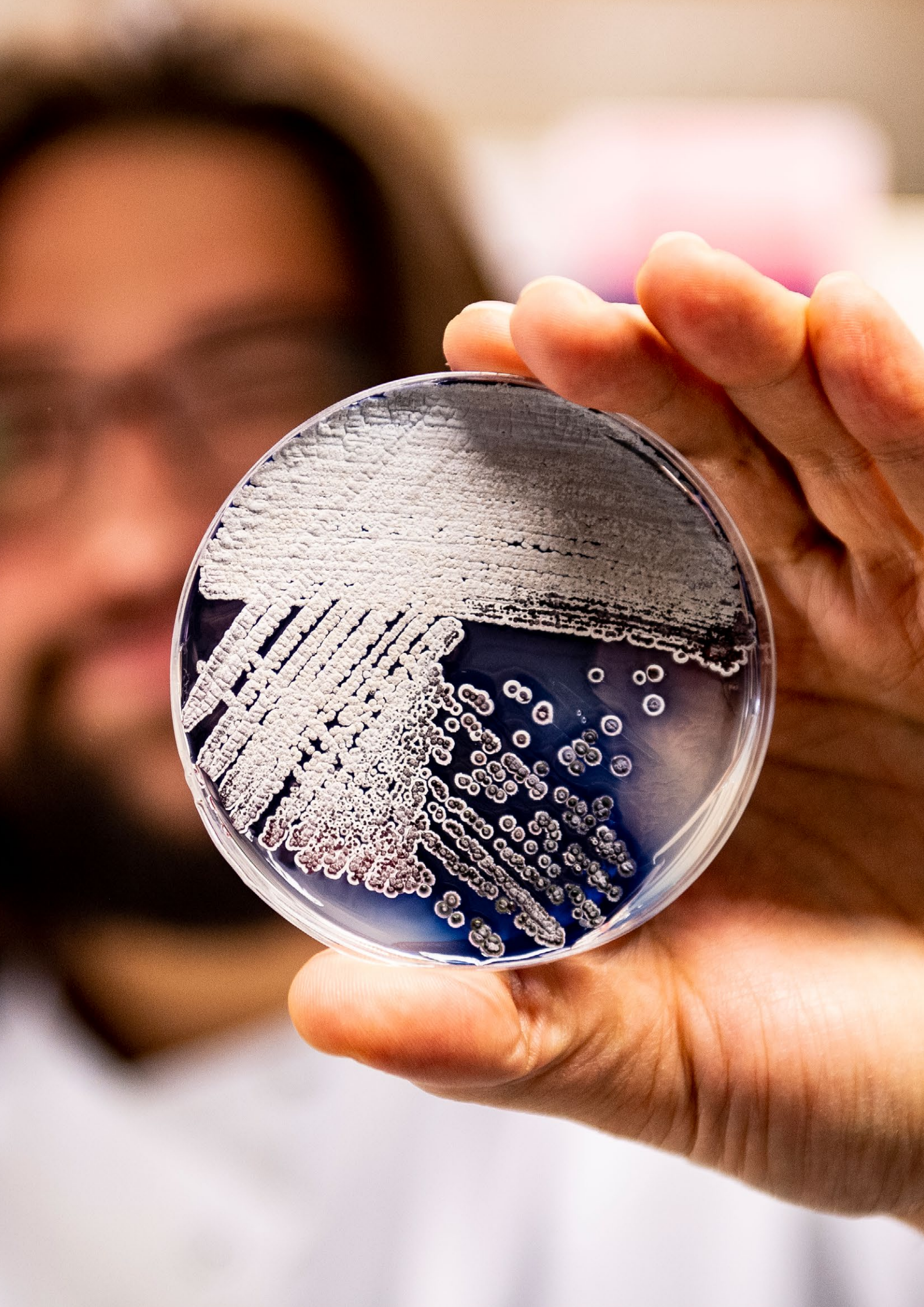
After working at the John Innes Centre for 25 years in structural biology and biophysics, and leading for the Technician Commitment for 5 years, Clare was appointed as Head of Directorate in April 2022.

To support her transition into senior management, the programme funded ten 1:1 leadership coaching and mentorship training sessions with expert coach, Steph Allen at The Training Spa.

The sessions focussed on leadership, management and communication to enable to Clare to navigate the move from lab scientist to senior management smoothly.

As part of the placement, Clare had the opportunity to network and visit two Norwich Research Park colleagues in similar roles.

Reflecting on her experience, Clare said, "I was provided with the support needed for my career change, and it also opened my mind to different styles of leadership and alternative viewpoints."



Church Farm

The John Innes Centre's field trials and experimentation site, Church Farm is located on the outskirts of Norwich, in the village of Bawburgh



The Dorothea De Winton building

This state-of-the-art field trial station opened in May 2019, and provides laboratories, facilities and cold storage for our crop trials. The team of field trial specialists support research to improve crops.

Church Farm is where crops that are initially researched under lab and greenhouse conditions are taken into the field to test how they perform. We also provide opportunities for community engagement for the local residents of Bawburgh, showcasing the facility, research and local opportunities.

Genetically Modified and Gene Edited Crop Trials

In February 2022 we hosted an event for local residents to learn more about the field trial of high-iron wheat, which takes place at Church Farm over the next three years.

On the day, Dr Janneke Balk gave a talk about the field trial and the science behind the wheat, and Professor Wendy Harwood showed GM barley seedlings and information about how we do genetic modification. Professor Cristobal Uauy and Dr Penny Hundleby were on hand to answer questions.

There was a really open atmosphere, and everyone was interested to find out more about the John Innes Centre, field trials and the high-iron wheat.



Visitors learn more about genetically-modified crop trials planted at church farm in 2022



An open event to showcase our research and open new permissive paths

Permissive Paths

During the pandemic lockdowns in 2020, we saw a large increase in people walking through the farm, around the margins of the fields and on the farm paths. This year, we have begun a new programme of engagement with residents and path users to ensure safe access to Church Farm.

The first step was to host an afternoon drop-in session, at the end of October 2021. We welcomed around 40 local residents to the event, where we launched a new permissive path, showcased our research, and encouraged informal discussion with the staff, students and scientists who work at the farm.

Informing policy on gene editing

John Innes Centre research has helped inform new legislation governing field trials of gene edited crops.

At the John Innes Centre we use gene editing to understand and develop crops which are more nutritious and resilient to climate change and diseases.

Gene editing provides an opportunity to revolutionise our food systems. However to benefit fully, we have to address the way we regulate this technology.

To inform new legislation in this area we have focused on engagement with key groups, including responding to consultations, attending Defra policy workshops and advisory committees, presenting webinars to Defra staff, hosting visits from key policy makers to the site, including Defra's Chief Scientific Adviser, the Minister for Agri-innovation and co-hosting a visit from the entire Genetic Resources and GM Team.

In early 2022, Defra published draft regulations which were debated in Parliament. John Innes Centre quotes and research case studies were included in many materials relating to the new legislation in March 2022, including in speeches from Ministers in the Houses of Parliament and accompanying press materials, demonstrating our impact on the debate.

We also provided up-to-date and accurate information including new videos and website content, public engagement events and media briefings and interviews, to make sure the public had access to accurate information about the technology.

In March 2022, we were delighted to see the new legislation for field trials of gene edited crops approved by Parliament and in 2022 we ran the first field trials of gene edited crops under the new system.

Department
for Environment
Food & Rural Affairs







New appointments and Fellowships

Two Researchers awarded BBSRC Discovery Fellowships

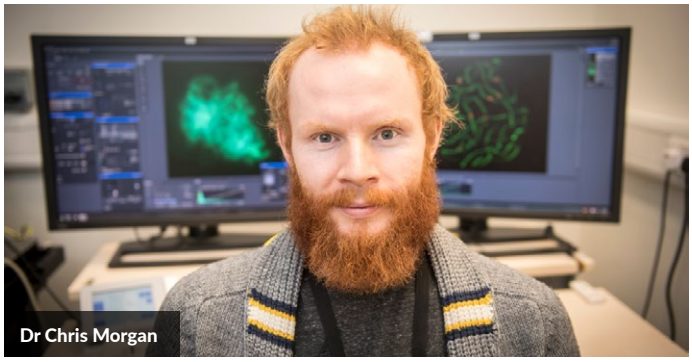
Dr Chris Morgan and Dr Claudio Greco were awarded three-year BBSRC Discovery Fellowships to take forward their innovative work at the John Innes Centre. These prestigious awards are made to early-career post-doctoral researchers who are transitioning towards independence and have demonstrated the potential to become future research leaders.

Dr Morgan's fellowship research, hosted by the lab of Dr Xiaoqi Feng, aims to understand the impact of climate change on plant meiosis.

Dr Greco's fellowship research, hosted by Professor Barrie Wilkinson and Professor Matt Hutchings, will investigate Escovopsis, a fungal pathogen of the nests of leafcutter ants, as a potential source of new antibiotics.

Professor Mark Buttner, the academic lead for the research fellowship programme at the John Innes Centre said, "I'm delighted that the outstanding potential of Chris and Claudio has been recognised by these awards and look forward to their future development with great interest and expectation.

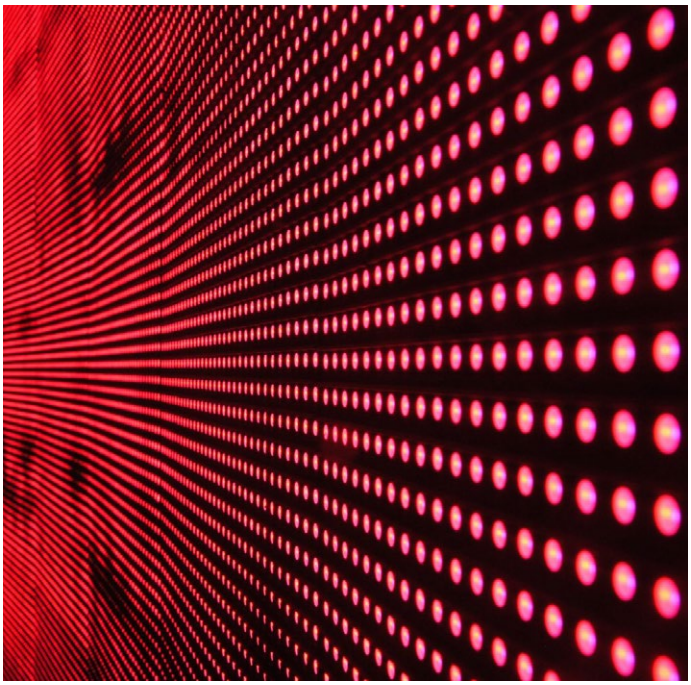
"The fellowship scheme at the John Innes Centre has helped some outstanding scientists who have gone on to exciting and influential research careers."



Dr Chris Morgan



Dr Claudio Greco



The best in AI appointed at Norwich Research Park

Scientists across Norwich Research Park are part of a major integrated UK research-industry programme led by The Alan Turing Institute, seeking out the best talent in AI and data science, developing bioscience leaders and supporting the UK economy.

Data science uses complex machine learning algorithms to build predictive models. With the ever-increasing amount of data being produced from biological research, the projects will help drive forward AI research and innovation in the UK. Developing capability and capacity to bring together industry and academia, the fellowship programme aims for AI practices to be adopted by trades through inter-sector career paths.

The year-long collaborative research projects at the John Innes Centre are:

- Uncovering the cis-regulatory patterns that determine gene expression – James Maas. Investigating plant development by exploiting the vast amount of data at our disposal to uncover patterns in gene regulation that aims to help understand genetic behaviour during flowering time – an adaptive and agronomic trait of major importance for food security.
- In too Deep: Unravelling the links between transcriptome dynamics and phenotypic changes in Brassicas – Bethany Nichols. A major challenge in crop research is to achieve a sufficient understanding of mapping the genotype to phenotype to design crops' behaviour to sync with their environment. This project develops genetic and phenotypic resources in Brassicas through computational approaches to identify genetic regulators that control important developmental transitions.

The Alan Turing Institute



Dr Michael Webster

Dr Michael Webster

Group Leader

Dr Michael Webster joined the John Innes Centre in January 2022. His research focuses on understanding the molecular machines that express photosynthetic genes. They use cryogenic electron microscopy (cryo-EM) to determine structural models of large protein complexes and develop models of their activity using biochemical and biophysical techniques.

This insight will guide efforts to improve the photosynthetic output of crops and establish methods for the use of plastids as expression platforms for valuable proteins.

The recent advent of high-resolution cryo-EM has transformed our capacity to understand dynamic molecular assemblies, and the group recently employed this technique to structurally characterise the gene expression supramolecular assembly called the expressome.

Dr Philippa Borrill

Group Leader

Dr Philippa Borrill joined the John Innes Centre in October 2021 from the University of Birmingham. Her group will be working to understand the genetics controlling the nutritional value of wheat grain.

Working on wheat is challenging because it has a large genome which has multiple copies of most genes, and we currently don't know whether all of the gene copies are important for the characteristics of the wheat plant.

Therefore, her group will also be working to understand whether these gene copies have similar or different roles, and how they interact at a genetic level.



Dr Philippa Borrill



Dr Dmitry Ghilarov

Dr Dmitry Ghilarov

Group Leader

Dr Dmitry Ghilarov, the recipient of a Wellcome fellowship, joined the John Innes Centre in October 2021 from the Malopolska Institute of Biotechnology.

His group will study biosynthesis and the mode of action of bacterial antibiotics (bacteriocins) at the molecular level, to discover, design and develop better antimicrobials. Bacteria compete with each other for access to resources, and this competition is regulated by bacteriocins. Therefore, we can harness them to regulate plant or human microbiomes in a precise way to restrict pathogens and promote growth of beneficial bacteria.

He uses structural biology methods, mostly cryo-electron microscopy, to study how peptide antibiotics are synthesised, transported and how they interact with their targets.

Future Plans

The next 12 months will be an important period for the John Innes Centre as we prepare and plan a range of new initiatives to drive forward our strategy

NEW LEADERSHIP TEAM

Professor Dale Sanders, Director of the John Innes Centre, retired in 2022 after over a decade leading the organisation. The John Innes Centre's Governing Council carried out an extensive international search for a new Director to lead the organisation's ambitious future strategy. World-leading wheat researcher and Deputy Director of the John Innes Centre, Professor Graham Moore, took on the role of Director from September 2022. Over the year we will also recruit a Chief Operating Officer to work closely with the Director to ensuring the operational effectiveness of the institute and to support delivery of JIC's scientific vision. Our new senior leadership team will take on their roles at an exciting point in the John Innes Centre's development as we commence new Institute Strategic Programmes and progress our vision for Healthy Plants, Healthy People, Healthy Planet.

DEVELOPING PLANS AND SUBMITTING THE IAE

We developed detailed plans for our research over the next five years as part of BBSRC's Institute Assessment Exercise (IAE) – a process run every five years to assess the quality of the research and ideas at the institutes it strategically funds. Our application included a statement on the vision and strategic direction of the institute, alongside detailed plans for the strategically funded research in our four Institute Strategic Programmes (ISPs) alongside descriptions of our core capability from our platforms and support services, our collaborative and inclusive culture and plans for institute development, to enable us to address the key principles of the BBSRC Institute Strategy.

PREPARING A BUSINESS CASE FOR MAJOR INFRASTRUCTURE INVESTMENT

We are working with The Sainsbury Laboratory and BBSRC to secure funding for new research facilities to provide a world-class research environment. This will support delivery of our ambitious plans to create a world-leading hub for plant and microbial science on the Norwich Research Park. We prepared an outline business case to HM Government later this year to make the case for Government capital investment. Alongside this we are bringing in private sector funding through a capital fundraising programme towards the costs. If we're successful in our application and we will progress design work for the first stage of the development – which includes the Horticulture and glasshouse areas, our insectary and Germplasm Resources Unit in 2023.

A NEW INCLUSIVITY AND DIVERSITY STRATEGY

We will continue to embed a working environment that promotes excellence, inclusivity, and wellbeing and plan to work with staff and students across the John Innes Centre to refresh our Inclusivity & Diversity Strategy and associated Action Plan. The overall guiding principle for the strategy will be to create an environment where everyone is encouraged, supported, welcomed and has an equal chance to excel.

Trustees' Report including the Strategic Report

The Board of Trustees of the John Innes Centre (Governing Council) presents its Annual Report and Financial Statements for the year ended 31 March 2022. The Annual Report provides details of the John Innes Centre's objectives, achievements, scientific and financial performance in the year, future plans, risk management and its governance and management structure.



Sir Thomas Hughes-Hallett
Chair of the John Innes Centre's Governing Council

About us

The John Innes Centre (JIC) is a world-leading international centre of excellence in plant science and microbiology. Our mission is to generate knowledge of plants and microbes through fundamental research. We use this knowledge to benefit agriculture, the environment, human health and well-being, to train excellent scientists for the future and to engage with policy makers and the public. Find out more about the JIC on pages 4 and 5.

Our strategy

Healthy Plants, Healthy People, Healthy Planet (HP^3) is our strategy for achieving a safer, healthier and more sustainable future through the power of plant and microbial science.

In collaboration with world-leading academic partners we are uniquely positioned to lead the fundamental scientific advances needed to address three intertwined, era-defining challenges: feeding the world; combating global health threats and climate change.

Delivery

To date the knowledge generated by the John Innes Centre has resulted in many innovative and practical solutions to global challenges. This is the result of ground-breaking research, combined with collaboration to develop specific and applied scientific solutions. We have addressed societal problems and aided economic development in the UK and globally.

The task of the Governing Council is to ensure that the John Innes Centre retains its position as the key national and international centre of scientific excellence in plant and microbial science.

A selection of our science highlights are shown on pages 8, 9 and 10, and our recent organisational achievements can be found on pages 12 and 13.



Charitable Objective

The charity's objective is the advancement of education in agriculture, horticulture and biotechnology world-wide by undertaking research and disseminating the results of such research, and training research scientists

Financial Review

Key Performance Indicators

JIC's key performance indicators are:

- submission levels and success rates for research grant proposals;
- publications in relevant scientific journals;
- recruitment and retention of high quality staff and students;
- annual research income vs. budget; and
- unrestricted reserves vs. budget.

Details of publications and recruitment in the year are provided in the Achievements and Highlights section.

Details of grant submissions, success rates, research income and reserves are provided in the Financial Review.

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 £13.2m in the year (2021: £16.8m). BBSRC has confirmed continued strategic funding of £13.2m 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 £14.6m 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 prepared income, reserves and cash flow forecasts to March 2028. The forecasts indicate that the Institute will have significant cash headroom over the period, with cash balances of at least £30m for the 12 months from the signing date of this Annual Report.

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 on a going concern basis.

Income

Total incoming resources for the year were £52.9m (2021: £50.3m). The increase in the year was due to additional BBSRC strategic and capital grant funding. Income excluding capital funds was £39.5m (£40.7m).

An analysis of grant income by principal sponsor is included in the notes to the financial statements. JIC's principal sponsor is the Biotechnology and Biological Sciences Research Council (BBSRC), which contributed 73% of total incoming resources (2021: 76%). Other major sources of funding were the European Union and charitable organisations.

Expenditure

Recurrent expenditure for the year amounted to £47.0m (2021: £46.1m). Staff costs accounted for £17.1m (36%) (2021: £16.8m; 36%) of expenditure.

Fundraising

JIC does not carry out any significant public fundraising activities.

Net Movement in Reserves

JIC recorded a net decrease in unrestricted reserves of £1.7m (2021: increase of £1.8m). Restricted reserves increased by £18.6m (2021: £7.0m) principally due to £13.4m of capital funding (2021: £9.6m) and a gain on revaluation of fixed assets of £10.9m (2021: £4.7m).

Subsidiaries and Related Parties

Subsidiary companies contributed an operating loss of £88,000 (2021: £19,000), while JIC's share of associates' results was a profit of £261,000 (2021: loss of £144,000). The share of associates' results in the year relates to JIC's 33% interest in Plant Bioscience Limited and 45% interest in Leaf Systems International Limited ("LSI").

Capital expenditure

Capital expenditure in the year was £10.5m (2021: £9.4m). Investment has continued from the previous year in state-of-the-art scientific equipment, energy-efficient plant infrastructure, well-found laboratory equipment and enhanced plant growth facilities.

Cash

Group cash at 31 March 2022 was £42.9m (2021: £45.2m). JIC deposits its cash with UK registered financial institutions that meet its credit rating policy and subject to agreed counter-party limits. Investment income from cash deposits in the year was £111,000 (2021: £163,000), down on last year due to lower deposit rates.

Reserves position

Total group reserves increased by £16.8m in the year to £135.6m (2021: £8.9m to £118.8m).

Restricted reserves increased by £18.6m to £109.4m. Reserves of £11.3m relate to restricted designated capital reserves in connection with funding received from BBSRC to be used for future capital projects. Reserves of £0.8m relate to restricted designated general reserves in respect of ring-fenced strategic funding from BBSRC. The remaining £97.3m of restricted reserves relate to the value of fixed assets.

Unrestricted reserves decreased by £1.7m in the year to £26.2m (2021: increased by £1.8m to £27.9m), principally due to lower BBSRC strategic grant funding. Reserves of £12.1m relate to unrestricted designated reserves for planned capital and strategic investments. The remaining unrestricted reserves include general reserves of £6.4m and fixed assets reserves of £7.7m.

Reserves policy

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

- Future operational and capital expenditure requirements in the March 2028 Business Plan;
- 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.

Unrestricted reserves that have been designated by the Governing Council for specific purposes are shown in separate designated reserves. At March 2022, £12.1m of unrestricted reserves were designated for planned capital and strategic investments (2021: £12.6m).

General unrestricted reserves at March 2022 were £6.4m, above the minimum general reserves target of £6.0m set by the Governing Council.

Grant proposals and awards

During the year, JIC researchers submitted grant proposals with a sponsor value of £38.2m (2021: £45.3m) and were awarded grants with a value of £12.7m (2021: £11.4m). The success rate for grant awards in the year was 33% by value (2021: 25%).

Stakeholder Engagement – Section 172 Statement

The Trustee Directors consider that the decisions they have made during the financial year have satisfied the requirements of s172(1) of the Companies Act 2006 and that they have acted in good faith to promote the success of JIC as a whole, and in doing so having regard to the stakeholders and matters outlined in s172(1).

The Governing Council has the ultimate responsibility for the strategy of JIC and delivery of its charitable objectives. The table below sets out JIC's most significant stakeholders, why they are considered important and how the Institute engages.

Stakeholders	Why they are important	How we engage with them
Our staff and students	• We are committed to providing a supportive, inspirational and dynamic environment for our staff and students to meet future scientific and societal challenges. • We value the diversity of our staff, and are committed to the creation of a positive environment which is fair, welcoming and inclusive and where everyone is treated with dignity and respect. • We are committed to the development of all our staff and students and providing equal opportunities that encourage flexible working, career development and work-life balance.	• During the year, regular communications to employees have been provided on matters affecting them, including factors affecting the Charity's progress, and have been consulted on decisions that impact them. • All groups of staff and students have representation on the Inclusivity & Diversity Committee that meets 4 times a year to ensure an inclusive research culture • Students' progress is monitored on a regular basis and employees undertake an annual appraisal where their training needs, work-life balance and career development are discussed.
Our members	• JIC's corporate members are UK Research and Innovation (UKRI); John Innes Foundation (JIF) the University of East Anglia (UEA). Our members are key strategic partners that oversee our delivery against charitable objectives.	• The Members each nominate one Governing Council member and appoint one "observer" to attend Governing Council meetings, enabling them to participate in key decisions. • An Annual Members' meeting is held to review progress against objectives.
Norwich Research Park	• JIC is one of 4 independent, world-class research institutes based at the Norwich Research Park. The Institutes work closely together to create a unique centre of excellence in plant and microbial sciences, big data science and genomics, and food and health.	• The Institute Directors of the 4 institutes meet regularly to discuss common strategic and operational matters. • JIC, the other Institutes, UKRI, UEA, JIF and the N&NU Hospital Trust are members of Anglia Innovation Partnership LLP, an organisation established to promote collaborative solutions to global challenges in food and health.
UK Research and Innovation	• JIC is strategically funded, along with 7 other institutes, by the Biotechnology and Biological Sciences Research Council (BBSRC), part of UKRI. BBSRC supports JIC via strategic 5-year funding programmes, competitively won project grants and capital funding for infrastructure and technology investments.	• UKRI nominates a Governing Council member and appoints an "observer" to attend Governing Council meetings. • JIC holds regular meetings with BBSRC to review progress of the Institute's mission and science programmes, including strategic and financial plans.
Research partners	• JIC is an international centre of plant and microbial research. Our success is built on our collaborations and our international outlook. • JIC is home to a range of state-of-the-art facilities and technology platforms to support scientists across the UK.	• An extensive programme of engagement with our new collaborative vision, Healthy Plants, Healthy People, Healthy Planet (HP3) is ongoing and involves discussion, input and views from stakeholders from industry, government and research partners, locally, nationally and internationally. JIC has strategic partnerships with research and academic institutions in the UK and worldwide, including Europe, China, Africa, Brazil and India.
Industry	• JIC works closely with industry and the private sector to provide access to our capabilities, and to deliver sophisticated interdisciplinary research and product development at pace.	• JIC maintains a dialogue with industry, with regular consultations and knowledge exchange. • JIC supports industry through collaborative and sponsored research and access to its facilities and platform services. JIC is proactive in identifying and responding to industry need. • JIC protects its innovations and promotes their commercialisation and adoption by Industry. • JIF nominates an industry representative as an "observer" to attend Governing Council meetings.
Community & the environment	• Public views are at the heart of our research strategy and engaging with the public is an important part of our mission statement.	• JIC staff and students are trained in public engagement and communications and are supported to attend events, use digital media and to discuss and engage the public with our research. • JIC hosts and attends community events – online, locally and nationally, to showcase, debate and discuss the nature of our research. • JIC scientists are engaged in policy discussions at a national level surrounding the use of genetic technologies for crop improvement. • JIC is investing heavily in more energy efficient facilities to reduce utilities consumption and waste.
Suppliers	• JIC seeks to maintain and develop strong, open, collaborative relationships with our supply chain.	• JIC holds regular meetings with suppliers about purchasing relationships and ethical behaviours such as adherence to Modern Slavery principles.

Risk Assessment and Management

Governing Council 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 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. Governing Council reviews a full risk report annually, including a 'heat map', tracking major risks. The Science and Impact Advisory Board (SIAB) assess the science quality and vision section of the risk register.

Principal risks and uncertainties

Risk area	Description of Risk	Management of Risk
Future BBSRC research funding	• BBSRC strategic funding is reduced as a result of poor performance or public sector spending pressures.	• Regular monitoring of scientific performance, including consideration from the Science and Impact Advisory Board. • Regular communication with BBSRC to report performance and ensure strategic alignment of research programmes. • Monitoring of performance of competitive grant submissions.
Science direction and quality	• The focus of science programmes, or balance between discovery and translational science, does not meet funders' or stakeholders' expectations. • JIC fails to deliver the quality of science that meets internationally expected standards.	• The Science Impact and Advisory Board, comprising independent international experts, regularly reviews the development of strategic programmes and JIC impact. • The executive Research Committee reviews scientific areas of excellence and horizon scans to identify strategically important scientific areas and opportunities.
Staff retention and recruitment	• JIC is unable to retain or attract suitably skilled staff to enable it to sustain its scientific performance. • In addition to scientific impact, this risk area could also have an impact on the level of funding the institute is able to attract.	• Strategy and action plans in place, overseen by Strategic Human Resources Group. • Career development programmes in place to support high potential staff. • Recruitment strategy and processes in place, including attractive support arrangements.
Cost pressures	• 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.	• 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.
Estates	• JIC's ageing estate facilities do not adequately support the delivery of its scientific objectives. • Funding is inadequate to sustain and improve facilities necessary to support scientific objectives. • Estates maintenance and infrastructure costs are too high, threatening long-term financial sustainability and the competitiveness of JIC's science.	• Plans for Next Generation Infrastructure are being developed to replace ageing buildings with flexible research infrastructure capable of integrating multidisciplinary teams and harnessing developments in technology. • Regular communication with BBSRC on Estates Strategy and potential funding requirements. • Facilities management systems enhanced. • Continued investment in energy efficiency.
Technology investment	• JIC is unable to keep pace with developments in technology underpinning its science. • Funding is inadequate to sustain and improve technology facilities.	• 5-year investment plan developed. • Funding opportunities identified and pursued for technology investments.
Compliance with sponsor funding requirements	• JIC fails to comply with sponsor grant requirements resulting in a material financial impact.	• JIC undertakes regular reviews of its grant compliance processes for sponsors and the UKRI internal auditors.
Major site incident	• A major incident disrupts scientific research programmes or administrative systems	• Business Continuity and Disaster recovery plans in place and tested periodically. • Review of compliance with health & safety and relevant regulations from government agencies and internal auditors. • Insurance arrangements in place.
UK does associate with Horizon Europe research programmes	• JIC is not able to access Horizon Europe programme funding or participate in EU research collaborations. • JIC is not able to recruit or retain researchers from EU member countries as a result of loss of access to EU funding programmes.	• Regular dialogue with UKRI and other key stakeholders on risks of non-association and potential mitigations if UK does not associate. • JIC has established strategic collaborations with European partners outside of formal funding frameworks.





Structure, Governance and Management

Members

The Members of JIC are:

- UK Research and Innovation – Biotechnology and Biological Sciences Research Council ("BBSRC");
- John Innes Foundation ("JIF"); and
- University of East Anglia ("UEA").

The Members each have the right to nominate one governing council member and appoint one "observer" to attend Governing Council meetings. Details of member appointments are provided in the table below. The Members are all guarantors of JIC, a company limited by guarantee and a registered charity, of an amount not exceeding £1, and for a year after resignation.

Organisation and governance

JIC is incorporated in England and Wales and is a company limited by guarantee (registered number 00511709) and a registered charity (number 223852). JIC is governed by its Memorandum and Articles of Association, adopted 27 September 2011, and its Institute Grant Agreement with BBSRC by whom it is strategically funded.

Governing Council (Board of Trustees)

The Governing Council comprises of at least the Chair, three science and three non-science Trustees. The Trustees who served during the year and up to the date of signing these financial statements were as follows:

Trustees	Appointment status	Role	Changes during period
At date of Annual Report:			
Sir T Hughes-Hallett	Independent	Chair	Appointed 1 September 2021
Prof J C Murrell	UEA appointment	Science	-
Ms J K Midura	Independent	Non-science	-
Prof N J Talbot	Independent	Science	-
Mr J H Innes	Independent	Non-Science	-
Prof J P Armitage	BBSRC appointment	Science	-
Dr J Vincent	JIF appointment	Science	-
Dr C A Caulcott	Independent	Science	Appointed 12 May 2022
Mr C Maw	Independent	Non-Science	Appointed 21 July 2022
Served during the year:			
Dr D J Keith	Independent	Science	Resigned 11 May 2022
Mr R J Maskell	Independent	Non-Science	Resigned 21 July 2022

The Governing Council has the ultimate responsibility for the strategy of JIC. Strategy is developed under advice from SIAB and the JIC Strategy Committee.

The Governing Council is supported by an Audit Committee to oversee financial management and risk and a Remuneration Committee to consider senior staff remuneration. The full Governing Council meets five times a year, the Audit Committee twice a year and the Remuneration Committee at least once a year and otherwise as required.

The Governing Council is also supported by a Science and Impact Advisory Board which comprises international experts in science and application of science, chaired in the year by Prof Judith Armitage.

The Science and Impact Advisory Board is responsible for providing strategic and scientific advice to the Director of JIC and the Governing Council on issues relevant to the JIC's Mission and Science Programme. This includes ensuring that the JIC Science Programme maximises JIC's potential for knowledge transfer, outreach and engagement with research users, stakeholders and the general public in addition to helping in the identification and development of new scientific funding opportunities to support the development of the JIC Science Programmes.

Recruitment, induction and training of Trustees

Governing Council vacancies are advertised as necessary. The Institute will also approach individuals thought to have the right skills.

New Governing Council members are invited to spend time with members of the Executive Team. This is a chance to learn about the Institute and identify opportunities to get more involved with JIC's work.

In addition to the five formal meetings, all Trustees receive regular presentations from JIC's scientists and briefings on key issues facing the organisation.

Trustee remuneration

None of the Trustees received any remuneration in the year in respect of their role as trustee directors.

Key Management Personnel

The Trustees delegate management of the day to day activities of the charitable company to the Director of the Institute, Prof Graham Moore, and the executive Strategy Committee.

Strategy Committee

JIC's executive Strategy Committee advises the Director at strategic and operational levels on major issues that affect the Institute with respect to research, appointments, new initiatives, business plan and infrastructure, particularly where such issues involve more than one of these areas.

Its membership is as follows:

- Director (Chair);
- Institute Strategic Programme Leaders;
- Heads of Departments Representative;
- Finance Director;
- Head of HR;
- Head of Research Grants & Contracts;
- Head of Commercialisation;
- Head of Strategic Engagement;
- Capital Projects Manager;
- Head of Directorate;
- Faculty Representative Group Leader.

Strategy Committee is supported by a number of other executive committees and groups including: Research Committee; Finance Committee; Heads of Departments Committee; KEC Strategy Committee; Strategic HR Committee; Inclusivity & Diversity Committee; and Health & Safety Committee.

Employees

JIC is a dynamic, multinational community of about 400 scientists and post graduate students. JIC's reputation for scientific excellence is international and it attracts some of the best scientists and brightest students internationally. JIC is committed to the training of the next generation of scientists. Activities include an undergraduate summer school (jointly with The Sainsbury Laboratory and Earlham Institute) that gives students the unique opportunity to spend the summer on site. There are two different routes to a PhD: the prestigious rotation studentships and the NRP Doctoral Training Programme. We host Post-Doctoral scientists and independent Fellows from around the world.

JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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.

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

Equality and Diversity

It is the Charity'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 Charity 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 Charity's policies follow these principles.

JIC is aware of its statutory duty to support the employment of disabled persons where possible, both in recruitment and by retention of employees who become disabled whilst in the employment of the charitable company, as well as generally through training and career development.

In 2017, JIC became the first research institute to be awarded a 'Gold' Athena SWAN award. The Athena SWAN charter recognises and celebrates good practice in recruiting, retaining and promoting women in science, technology, engineering, maths and medicine (STEMM) in higher education.

This award recognises JIC's culture that embraces the principles of flexibility that provide for family-friendly working practices, while at the same time demonstrating a commitment to career advancement for all employees.

JIC's ability to attract the best researchers and students internationally creates a vibrant, dynamic and intellectually nurturing environment for both training and scientific discovery and is a primary driver of our scientific effectiveness. JIC recognises the value of a diverse workforce and, although Athena SWAN is focused on gender equality, we believe that a fair and equitable working environment is key to both a productive workforce and delivery of JIC strategy, and that initiatives put in place to address gender inequality ultimately benefit all staff. JIC is a member of Stonewall Diversity champion programme.

During the year, regular communications to employees have been provided on matters affecting them, including factors affecting the Charity's progress, and they have been consulted on decisions affecting them.

Related Parties

Subsidiaries

JIC's subsidiaries in the year were as follows:

- John Innes Enterprises Limited (contract research);
- Norwich Biosciences Limited (intellectual property management);
- Norwich Research Limited (dormant);
- JIC NRP Capital Limited (dormant).

Associates

JIC's associates in the year were as follows:

- NBI Partnership Limited;
- Plant Bioscience Limited;
- Leaf Systems International Limited.

NBI Partnership Limited

JIC has a 25% interest in NBI Partnership Limited ("NBIP"). NBIP supplies support and administrative services to JIC and the three other research organisations based on the Norwich Research Park (Quadram Bioscience Institute, Earlham Institute and The Sainsbury Laboratory). NBIP fully recharges its costs to the four research organisations and accordingly it generates no profit or loss.

Plant Bioscience Limited

JIC owns one third of the share capital of Plant Bioscience Limited ("PBL"). PBL manages the intellectual property rights of the charitable company and other organisations.

Leaf Systems International Limited

JIC owns 45% of the voting share capital and at 31 March 2022 had invested £1,630,000 in non-voting share capital of Leaf Systems International Limited ("LSI"). LSI is a commercial research & development company specialising in the expression and production of proteins, metabolites and complex natural products.

JIC has agreed to provide LSI with a loan facility of £112,500, which is repayable between December 2020 and December 2022. As at 31 March 2022, £112,500 was drawn down by LSI (2021: £75,000). The loan has been provided on an arm's length basis and interest is payable on the loan at a rate of 2.5% pa.

BBSRC

BBSRC is a member of the charitable company.

JIC is strategically funded, along with seven other institutes, by BBSRC. BBSRC supports JIC via strategic 5-year 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.

John Innes Foundation

The John Innes Foundation ("JIF") is a member of the charitable company. JIC occupies land and buildings which are owned by JIF, with the principal research buildings leased at a peppercorn rent. In addition, JIF also sponsors the training of a number of students. Studentship grants in the year were £436,000 (2021: £390,000). Further details are provided in note 23 to the financial statements.

University of East Anglia

University of East Anglia ("UEA") is a member of the charitable company. The majority of PhD students at JIC are registered with UEA.

Anglia Innovation Partnership LLP

JIC is a member of Anglia Innovation Partnership LLP through its 100% subsidiary, JIC NRP Capital Limited. Anglia Innovation Partnership LLP is responsible for the management and development of the Norwich Research Park (NRP) estate and for the furtherance of the NRP Enterprise Vision.

JIC is entitled to receive a share of certain profits generated by Anglia Innovation Partnership LLP, however it has no liability for losses or in the event of insolvency. Anglia Innovation Partnership LLP has not yet generated any profits.

Energy and Carbon reporting

GHG emissions and energy use data

	Units	2021/22	2020/21
Emissions from combustion of gas (Scope 1)	tCO2e	9,565	8,834
Emissions from combustion of fuel for transport purposes (Scope 1)	tCO2e	19	8
Emissions from purchase of electricity (Scope 2). Location based grid factors.	tCO2e	1,558	1,708
Market based electricity Scope 2 emissions (renewable electricity contract)	tCO2e	0	854
Emissions from generation of electricity that is consumed in a transmission and distribution system for which the company does not own or control (Scope 3)	tCO2e	138	147
Emissions from business travel in rental cars or employee - owned vehicles where company is responsible for purchasing the fuel (Scope 3)	tCO2e	3.0	0.2
Total gross CO2e based on above	**tCO2e**	**11,282**	**10,698**
Energy consumption used to calculate above emissions	kWh	59,643,430	55,415,203
Intensity Metric	m2 Building area	39,997	39,997
Intensity Ratio	tCO2/m2 Building area	0.282	0.267

Methodology

John Innes Centre have followed the 2019 HM Government Environmental Reporting Guidelines. Emissions factors used are tonnes of CO2 equivalent and data has been calculated using the 2021 UK Government's Conversion Factors for Company Reporting.

Scope 1 emissions relate to on-site gas usage and emissions from Company owned vehicles. Scope 2 emissions relate to on-site imported electricity usage. Scope 3 emissions relate to grey fleet and electricity transmissions and distribution losses. The primary source for calculating energy consumption are the supplier invoices. Where energy data is not in line with the financial year, a pro rata calculation has been used to estimate the usage for the remainder of the reporting period. Electricity is supplied to other Companies on site, this electricity consumption is monitored using sub meter reads and deducted from the total site power usage to calculate John Innes Centre electricity consumption only.

John Innes Centre operate 3 x CHP engines. The proportion of the John Innes Centre power and heat usage generated from the CHP's have been calculated. To be able to do this, the measured heat and power efficiencies of the engines have been used to calculate the fuel input associated to the energy outputs.

Energy management

John Innes Centre have continued our focus on operational efficiency and improvements during the last year and continued to be committed to responsible energy consumption.

During the financial year, John Innes Centre have increased our focus on monitoring energy usage across the site, in order to better understand and reduce our energy usage and associated carbon dioxide emissions. Energy and sustainability actions undertaken included replacement of the air handling units to more efficient plant, replacement of High Voltage transformers with new low loss more efficient transformers and installing a rainwater harvesting system.

Due to staff returning to site following the COVID-19 pandemic, there has been more activity on site, which has resulted in an increase in overall site emissions. There has also been an increase in business travel emissions, as expected, with travel restrictions removed and staff starting to attend meetings and off-site visits again.

John Innes Centre have focused on formulising a detailed carbon reduction strategy and pathway to Net Zero for 2050. The work has defined a starting point with a baselining exercise and then plans for our road to Net Zero, with a range of opportunities and potential strategies to reduce our Scope 1 and 2 carbon emissions over the next 30 years.

Statement of responsibilities of the trustees of John Innes Centre in respect of the Trustees' Annual Report and 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.

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.

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 JIC to be charitable in nature.

Disclosure of information to auditor

The trustees confirm that:

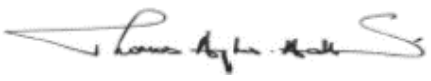
- so far as each trustee is aware, there is no relevant audit information of which the Company's auditor is unaware, and
- the trustees have taken all the steps that they ought to have taken as directors in order to make themselves aware of any relevant audit information and to establish that the Company's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

Independent auditor

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

Approval of the Trustees' report

The Trustees' Report and Strategic Report were approved by Governing Council on 15 December 2022.



Sir Thomas Hughes-Hallett, Chair

Independent Auditor's report
To the Members of John Innes Centre

Opinion
We have audited the financial statements of John Innes Centre (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 34, 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 group's 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 the valuation of leasehold land and buildings; 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

16 December 2022

Consolidated statement of financial activities

For the year ended 31 March 2022

Incorporating an income and expenditure account

	Note	Unrestricted funds £000	Restricted general funds £000	Restricted capital funds £000	**Total 2022 £000**	Total 2021 £000
Income						
Income from charitable activities						
Grant income		-	34,691	-	**34,691**	36,867
Capital and maintenance grants		-	1,236	12,184	**13,420**	9,554
Other charitable income		705	-	-	**705**	829
Income from other trading activities						
Trading income		491	-	-	**491**	462
Rental income		141	-	-	**141**	64
Investment income		118	-	-	**118**	170
Share of operating result of associates	12	261	-	-	**261**	-
Other income		3,121	-	-	**3,121**	2,322
Total income	2	4,837	35,927	12,184	**52,948**	50,268
Expenditure						
Charitable activities	3	(3,369)	(36,532)	(5,930)	**(45,831)**	(44,963)
Raising funds	3	(370)	-	-	**(370)**	(393)
Trading expenditure	3	(579)	-	-	**(579)**	(443)
Other resources expended	3	(245)	-	-	**(245)**	(200)
Share of operating result of associates	12	-	-	-	**-**	(144)
Total expenditure		(4,563)	(36,532)	(5,930)	**(47,025)**	(46,143)
Net income for the year		274	(605)	6,254	**5,923**	4,125
Transfers and revaluation						
Capital transfers	20	(624)	(36)	660	**-**	-
Other transfers	20	(1,387)	1,387	-	**-**	-
Gain on revaluation of tangible fixed assets	10	-	-	10,905	**10,905**	4,730
Net movement in funds for the year		(1,737)	746	17,819	**16,828**	8,855
Funds brought forward		27,905	48	90,829	**118,782**	109,927
Funds carried forward	20	26,168	794	108,648	**135,610**	118,782

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 notes on pages 40 - 57 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
Fixed Assets					
Tangible assets	10	**103,083**	87,918	**103,083**	88,155
Intangible assets	11	**-**	-	**-**	-
Investments	12	**-**	-	**1**	1
Investments in associates					
Share of total assets		**2,590**	3,664	**-**	-
Share of total liabilities		**(679)**	(2,014)	**-**	-
	12	**1,911**	1,650	**-**	-
Total fixed assets		**104,994**	89,568	**103,084**	88,156
Current assets					
Stocks	13	**283**	258	**283**	258
Debtors	14	**13,281**	17,438	**13,224**	17,392
Cash at bank and in hand	15	**42,948**	45,215	**42,768**	45,010
		56,512	62,911	**56,275**	62,660
Current liabilities					
Creditors: amounts falling due within one year	16	**(25,612)**	(33,413)	**(25,495)**	(33,400)
Total net current assets		**30,900**	29,498	**30,780**	29,260
Total assets less current liabilities		**135,894**	119,066	**133,416**	117,416
Provisions for liabilities and charges	18	**(284)**	(284)	**(284)**	(284)
Total net assets	19	**135,610**	118,782	**133,580**	117,132
The funds of the charity					
Unrestricted funds					
Fixed assets reserve	20	**7,663**	7,994	**5,752**	6,344
Designated capital reserve	20	**12,118**	12,645	**12,118**	12,645
General reserve	20	**6,387**	7,266	**6,267**	7,028
Total unrestricted funds		**26,168**	27,905	**24,137**	26,017
Restricted funds					
General reserve	20	**794**	48	**794**	48
Fixed assets reserve	20	**62,607**	57,742	**62,608**	57,980
Designated reserves	20	**11,317**	9,255	**11,317**	9,255
Revaluation reserve	20	**34,724**	23,832	**34,724**	23,832
Total restricted funds		**109,442**	90,877	**109,443**	91,115
Total funds	20	**135,610**	118,782	**133,580**	117,132

A separate income and expenditure account has not been presented for JIC as this is exempted by Section 408 of the Companies Act 2006. The surplus after tax of JIC was £16,448,000 (2021: £8,832,000).

The financial statements on pages 37 to 57 were approved by the Governing Council on 15 December 2022 and were signed on its behalf by:

Sir Thomas Hughes-Hallett, Chair
Company registration number: 00511709

Consolidated statement of cash flows

For the year ended 31 March 2022

	Total 2022	Total 2021
	£000	£000
Cash flows from operating activities		
Net income and net movement in funds for the year	**16,828**	8,855
Net movement in funds for the year	**(261)**	144
Revaluation of tangible fixed assets	**(10,905)**	(4,730)
Net income for the year	**5,662**	4,269
Interest receivable	**(118)**	(170)
Depreciation and amortisation	**5,925**	5,645
Impairment of investment	**-**	(245)
Impairment of land	**5**	819
Capital grants receivable	**(12,184)**	(8,326)
Loss on disposal of tangible assets	**1,175**	1,449
(Increase)/Decrease in stocks	**(25)**	8
Decrease/(Increase) in debtors	**4,157**	(7,574)
(Decrease)/Increase in creditors	**(7,801)**	9,086
Net cash (used in) / provided by operating activities	**(4,204)**	4,961
Cash flows from investing activities:		
Interest received	**118**	170
Purchase of tangible assets	**(10,458)**	(9,381)
Investment in associate	**-**	-
Capital grants received	**12,184**	8,326
Proceeds from sale of tangible assets	**93**	27
Net cash (used in)/ provided by investing activities	**1,937**	(858)
Change in cash and cash equivalents in the reporting period	**(2,267)**	4,103
Cash and cash equivalents at the beginnning of the period	**45,215**	41,112
Total cash and cash equivalents at the end of the year	**42,948**	45,215

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

The notes on pages 40 to 57 form part of these financial statements.

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 (FRS102)– (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 as follows:

b. Basis of consolidation

The consolidated financial statements incorporate the financial statements of JIC and all its subsidiary undertakings in accordance with Financial Reporting Standard ("FRS") 102 "Accounting for Subsidiary Undertakings", and associated entities which are accounted for using the equity method.

Associates are entities over which JIC has significant influence but not control. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise JIC's share of the profit or loss of the associate after the date of acquisition. JIC's share of post-acquisition operating result is recognised in the statement of financial activities. Determination is made at each balance sheet date whether there is any evidence that the investment in the associate is impaired. If this is the case, the amount of impairment is calculated as the difference between the recoverable amount of the associate and its carrying value, and this amount is recognised adjacent to share of operating result of associates in the statement of financial activities.

JIC is one of four members of NBI 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.

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

A separate income and expenditure account has not been presented for JIC as this is exempted by Section 408 of the Companies Act 2006. The surplus of JIC was £16,448,000 (2021: £8,832,000).

c. Going concern

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 is liabilities as they fall due for that period.

The Institute is reliant on its strategic programme funding from BBSRC, which was £13.2m in the year (2021: £16.8m). BBSRC has confirmed continued strategic funding of £13.2m for the year to March 2023. The Institute expects its strategic programme funding for the 5 years to March 2028 to increase to £14.6m pa, subject to confirmation by BBSRC in late 2022.

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 prepared income, reserves and cash flow forecasts to March 2028. The forecasts indicate that the Institute will have significant cash headroom over the period, with cash balances of at least £30m for the 12 months from the signing date of this Annual Report.

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. Income

Charitable grant income represents grants received and receivable in the year from outside granting bodies.

Grants that provide core funding are recognised in the year in which entitlement passes. Grant funding received to train students and 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.

Other charitable income represents non-grant revenue from providing scientific research services to other academic institutions and other services. Revenue is recognised in the year in which the obligation is fulfilled.

Trading income, which includes rent, other letting income and other income, relates to the non-charitable services undertaken by Norwich Biosciences Limited and John Innes Enterprises Limited, subsidiary companies of JIC, and is recognised in accordance with the terms of the contracts entered into, reflecting the point at which the obligations of the companies 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 earnt.

Other income includes site infrastructure charges, UEA tuition fee income and miscellaneous income. Revenue is recognised in the year in which the obligation is fulfilled.

1. Accounting Policies (continued)

Capital grants are recognised 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.

e. Expenditure
Charitable activity expenditure 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.

Raising funds represents the cost of obtaining funds for research. The cost of obtaining funds includes an estimate of the time/salary cost of project leaders preparing and reviewing grant application forms.

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 allocated to charitable activity expenditure, costs of generating funds and governance costs based upon activity or headcount as indicated in note 4 to the financial statements.

Other expenditure relates to expenditure maintaining capital assets that does not meet the capitalisation policy.

Trading expenditure relates to the costs of undertaking the non-charitable services performed by subsidiary companies of JIC, and is recognised in the period in which it is incurred.

f. Restricted funds
Where research at JIC 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.

From April 2018 the strategic programme grants from the UK Research and Innovation - Biotechnology and Biological Sciences Research Council ("BBSRC") are shown as restricted.

A restricted fixed assets reserve has been established representing the net book value of fixed assets purchased from capital grants.

Restricted reserves include a designated capital reserve of £11,317,000 (2021: £9,255,000) in connection with funding received from BBSRC, which is to be used on future capital projects to be agreed with BBSRC.

g. Unrestricted funds
Research grants that do not contain conditions for the final receipt of funds have been treated as unrestricted. Funds received for non-specified purposes have also been included as unrestricted.

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 Governing Council for specific purposes are shown in separate designated reserves.

h. 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.

i. 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.

j. Revalue depreciation transfer
A transfer from the restricted fixed asset reserve to the revaluation reserve is made in relation to the differences in the historic cost and revalued depreciated costs.

k. Designated capital transfers
A transfer from the unrestricted general reserve to the unrestricted designated reserve is made in relation to the expenditure which had been designated by Governing Council for use in the financial projections to March 2026.

l. Centre funded capital
Capital expenditure funded from unrestricted reserves is shown as a transfer from the unrestricted designated capital reserve or general reserve to the unrestricted fixed asset reserve.

m. Tangible 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 using the straight line method to write off the cost or valuation of assets, less any estimated residual value, over their estimated useful lives at the following rates:

Leasehold land and buildings – over lease term or useful life, if shorter;

Freehold land – not depreciated;

Freehold buildings – estimated economic life;

Plant, machinery and equipment –estimated economic life;

Scientific equipment - 5 to 15 years straight line;

Computer equipment – 3 to 5 years straight line;

Motor vehicles – 4 years straight line;

Combined heat and power scheme – 20 years straight line.

The leasehold buildings have been depreciated over their estimated economic life. The Trustees have determined that land is not subject to depreciation. Assets in the course of construction are not depreciated until the asset is in full use.

JIC includes in its financial statements leasehold land and buildings owned by third parties, which it occupies and enjoys through extended peppercorn leases, at their fair value. The Trustees consider that in substance, the risks and rewards of ownership of the assets have passed to the Institute, and as such follow a policy of recognising the assets on the balance sheet reflects its continuing occupancy of these assets for the foreseeable future.

1. Accounting Policies (continued)

n. Revaluation of tangible fixed assets
Leasehold land and buildings are revalued by an external surveyor on a depreciated replacement cost basis every five years. The valuation is updated in the interim period using indexation tables. Gains on revaluation are credited to the revaluation reserve. Losses, except in cases of a clear consumption of economic benefit, are charged to the operating result for the period, to the extent they are not offset by previous gains. In cases of a clear consumption of economic benefit, losses are charged to unrestricted or restricted reserves as applicable, irrespective of whether they are offset by previous gains.

o. 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

Intangible assets under construction are not amortised until the asset is in full use.

p. Fixed asset investments
The consolidated balance sheet includes the group's share of each associate's gross assets and liabilities. The share of each associate's net income is reported in JIC's consolidated statement of financial activities.

q. Stocks
Stocks are stated at the lower of cost and net realisable value. Provision is made, where necessary, for slow moving or obsolete stock.

r. Debtors
Debtors are non-interest bearing and are stated at their nominal value, as reduced by appropriate allowances for estimated irrecoverable amounts.

Included in debtors is a loan (£113k) provided to LSI, which is repayable between December 2020 and December 2022. The loan has been provided on an arm's length basis and interest is payable on the loan at a rate of 2.5% pa.

s. 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 are disclosed in note 24 to the financial statements.

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

u. Loans
Loans are stated on the balance sheet at amortised cost.

v. 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.

w. Staff and Pensions
JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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.

JIC 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.

x. 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.

y. Operating leases
Rental costs are charged to the statement of financial activities on a straight line basis over the life of the lease.

z. Foreign currency transactions
The functional and reporting currency 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.

aa. 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 such as trade and other accounts receivable and payable.

bb. 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 above. The amount of depreciation charged and net book value of the assets is included in Note 10.

- Leasehold land and buildings are held at a revalued amount. The valuation is performed by an external surveyor on a depreciated replacement cost basis every five years. The valuation is updated in the interim period using indexation tables.

2. Analysis of Incoming Resources

	Research activities	Student activities	Other activities	**Total 2022**	Research activities	Student activities	Other activities	**Total 2021**
	£000	£000	£000	**£000**	£000	£000	£000	**£000**
Grant income								
BBSRC	21,445	3,708	-	**25,153**	25,660	3,229	-	**28,889**
Other government departments	1,515	34	-	**1,549**	924	78	-	**1,002**
European Union	3,002	60	-	**3,062**	2,773	63	-	**2,836**
Industrial partners	943	84	-	**1,027**	615	37	-	**652**
John Innes Foundation	142	436	-	**578**	170	390	-	**560**
Other charities	2,343	142	-	**2,485**	1,999	116	-	**2,115**
Universities	27	76	-	**103**	59	7	-	**66**
Other grants	698	36	-	**734**	743	4	-	**747**
Total grant income	30,115	4,576	-	**34,691**	32,943	3,924	-	**36,867**
Capital and maintenance grants								
BBSRC								
Capital expenditure	13,287	-	-	**13,287**	9,554	-	-	**9,554**
John Innes Foundation								
Capital expenditure	133	-	-	**133**	-	-	-	**-**
Total capital grants	13,420	-	-	**13,420**	9,554	-	-	**9,554**
Other charitable income								
Scientific services	-	-	633	**633**	-	-	564	**564**
Miscellaneous income	-	-	72	**72**	-	-	265	**265**
Total other charitable income	-	-	705	**705**	-	-	829	**829**
Trading income								
John Innes Enterprises Limited	-	-	464	**464**	-	-	442	**442**
Norwich Biosciences Limited	-	-	27	**27**	-	-	20	**20**
Total trading income	-	-	491	**491**	-	-	462	**462**
Rental income								
Conferencing Facilties	-	-	64	**64**	-	-	(3)	**(3)**
Hill House	-	-	77	**77**	-	-	67	**67**
Total rental income	-	-	141	**141**	-	-	64	**64**
Investment income								
Interest receivable on cash deposits	-	-	111	**111**	-	-	163	**163**
Interest receivable on loan to related party	-	-	7	**7**	-	-	7	**7**
Total investment income	-	-	118	**118**	-	-	170	**170**
Income from investment in associates	-	-	261	**261**	-	-	-	**-**
Total associates income	-	-	261	**261**	-	-	-	**-**
Other generated income								
Site infrastructure recharges	-	-	1,520	**1,520**	-	-	805	**805**
Other	-	-	1,601	**1,601**	-	-	1,517	**1,517**
Total other generated income	-	-	3,121	**3,121**	-	-	2,322	**2,322**
Total income	43,535	4,576	4,837	**52,948**	42,497	3,924	3,847	**50,268**

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

- Grant income of £34,691k (2021: £36,867k) is all restricted general funds.
- Capital grants of £13,420k (2021: £9,554k), £1,236k (2021: £1,228k) is restricted general funds and £12,184k (2021: £8,326k) is restricted capital funds
- Other charitable income of £705k (2021: £829k), £705k (2021: £829k) is unrestricted funds.
- In both periods all trading and investment income is unrestricted.

3. Analysis of Resources Expended

	Note	Research activities £000	Student activities £000	Other activities £000	**Total 2022 £000**	Research activities £000	Student activities £000	Other activities £000	**Total 2021 £000**
Direct charitable expenditure:									
Staff costs		13,639	-	-	**13,639**	13,490	-	-	**13,490**
Direct costs		11,719	3,764	-	**15,483**	11,925	4,071	-	**15,996**
Depreciation and impairment		5,930	-	-	**5,930**	6,219	-	-	**6,219**
Governance costs	4	-	-	107	**107**	-	-	51	**51**
Support costs	4	8,128	2,544	-	**10,672**	6,947	2,260	-	**9,207**
Expenditure on charitable activities		**39,416**	**6,308**	**107**	**45,831**	38,581	6,331	51	**44,963**
Raising funds	4	-	-	370	**370**	-	-	393	**393**
Trading expenditure		-	-	579	**579**	-	-	443	**443**
Other resources expended		-	-	245	**245**	-	-	200	**200**
Share of operating result of associates		-	-	-	**-**	-	-	144	**144**
Total expenditure		**39,416**	**6,308**	**1,301**	**47,025**	38,581	6,331	1,231	**46,143**

Included within expenditure is restricted general expenditure of £36,532k (2021: £35,169k), and restricted capital resources expended (depreciation) of £5,930k (2021: £6,219k). All other expenditure is unrestricted.

Analysis of governance costs	**Total 2022 £000**	Total 2021 £000
Staff costs	**35**	15
Travel costs	**2**	-
Other costs	**70**	36
Total governance costs	**107**	51
Total governance costs	**59**	**51**

4. Allocation of Support Costs, Governance and Raising Funds

	Research activities £000	Student activities £000	Raising funds £000	Governance costs £000	**Total £000**	Basis of Allocation
Governing Council and SIAB	-	-	-	68	**68**	Headcount
Lab management	393	123	-	-	**516**	Headcount
Institute management	382	120	-	-	**502**	Headcount
Scientific services	93	29	-	-	**122**	Headcount
Facilities management and utilities*	5,469	1,711	-	-	**7,180**	Headcount
Finance and Purchasing*	504	158	-	-	**662**	Headcount
Computing and Library*	567	178	-	-	**745**	Headcount
Human Resources*	262	82	-	-	**344**	Headcount
Contracts services*	-	-	277	-	**277**	Activity
Other support services	458	143	93	39	**733**	Activity
Total support costs 2022	**8,128**	**2,544**	**370**	**107**	**11,149**	
Governing Council and SIAB	-	-	-	15	**15**	Headcount
Lab management	393	128	-	-	**521**	Headcount
Institute management	552	181	-	-	**733**	Headcount
Scientific services	561	183	-	-	**744**	Headcount
Facilities management and utilities*	3,610	1,181	-	-	**4,791**	Headcount
Finance and Purchasing*	502	164	-	-	**666**	Headcount
Computing and Library*	581	190	-	-	**771**	Headcount
Human Resources*	262	86	-	-	**348**	Headcount
Contracts services*	-	-	300	-	**300**	Activity
Other support services	486	147	93	36	**762**	Activity
Total support costs 2021	**6,947**	**2,260**	**393**	**51**	**9,651**	

* includes services supplied by NBI Partnership Limited (see note 23).
Scientific services costs are shown net of recharges to science projects.

5. Taxation

John Innes Centre ("JIC") 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.

Unutilised losses of £79,000 (2021: £79,000) have been carried forward within the subsidiary companies for offset against future taxable profits. A deferred tax asset has not been recognised due to uncertainty over utilisation of these losses.

6. Operating Surplus

Operating surplus is stated after charging/(crediting):	**Total 2022**	Total 2021
	£000	£000
Audit services:		
Fees payable to the charitable company's auditors for the audit of charitable company and consolidated financial statements	**29**	29
Fees payable for the audit of the charitable company's subsidiaries pursuant to legislation	**1**	4
Depreciation and amortisation	**5,930**	6,464
Impairment of investment in associate	**-**	(245)
Loss on disposal of tangible assets	**175**	1,449
Hire of plant and equipment	**65**	64
Rent of land and buildings	**33**	50
(Profit)/Loss on foreign exchange translations	**(18)**	124

7. Net Income from Trading Activities of Subsidiaries

Profit and loss account	John Innes Enterprises Limited	Norwich Biosciences Limited	**Total 2022**	John Innes Enterprises Limited	Norwich Biosciences Limited	**Total 2021**
	£000	£000	**£000**	£000	£000	**£000**
Turnover	464	27	**491**	442	20	**462**
Cost of sales	(579)	-	**(579)**	(443)	-	**(443)**
Gross (loss)/profit	(115)	27	**(88)**	(1)	20	**19**
Administrative expenses	-	-	**-**	-	-	**-**
Operating (loss)/profit	(115)	27	**(88)**	(1)	20	**19**
Interest received	-	-	**-**	-	-	**-**
Operating (loss)/profit retained in subsidiary	(115)	27	**(88)**	(1)	20	**19**
Net assets at 31 March	73	44	**117**	199	37	**236**

In addition to the above, £29,155 (2021: £123,914) in Gift Aid was paid to the charitable company in the year.

8. Remuneration of Members of the Governing Council

None of the members of the Governing Council received any remuneration from the group during the current or prior year for their duties as Trustees.

Attendance expenses incurred by 2 (2021: nil) Trustees whilst carrying out their duties amounted to £573 during the year (2021: nil).

9. Employee Information

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

Group and charitable company	**2022**	2021
	Number	Number
Scientific	**347**	348
Office management and services	**31**	28
Total	**378**	376

The aggregate payroll costs of these persons were:

Group and charitable company		**2022**	2021
	Note	**£000**	£000
Wages and salaries		**13,702**	13,415
Redundancy costs		**43**	14
Social security costs		**1,393**	1,393
Other pension costs	22	**2,007**	2,031
Total		**17,145**	16,853

An analysis of the number of staff who fall within staff cost bands (excluding pension cost) from £60,000 upwards is provided below:

Group and charitable company	**2022**	2021
	Number	Number
£60,000 - £69,999	**16**	14
£70,000 - £79,999	**7**	6
£80,000 - £89,999	**9**	9
£90,000 - £99,999	**7**	8
£100,000 - £109,999	**2**	3
£110,000 - £119,999	**3**	2
£120,000 - £129,999	**1**	2
£130,000 - £139,999	**-**	1
£140,000 - £149,999	**1**	-
£150,000 - £159,999	**1**	1
£160,000 - £169,999	**1**	-
£180,000 - £189,999	**1**	1
Total	**49**	47

The number of staff with emoluments greater than £60,000 who were also members of the Research Councils' Pension Schemes was twenty-four (2021: twenty-five). Eighteen staff (2021: Seventeen) with emoluments greater than £60,000 are members of a defined contribution pension scheme.

Staff that joined prior to 1 October 2011 were employed by BBSRC up to 1 October 2017, when these employees transferred employment to the Institute under TUPE. Transferred employees retain their membership of the Research Councils Pension Scheme, where applicable, with JIC becoming an admitted employer in the scheme.

Staff that joined after 1 October 2011 are employed under JIC terms & conditions.

The key management personnel of the parent charity, JIC, comprise of the Trustees and the members of the strategy committee.

The key management personnel of the group comprise those of the charity and the key management personnel of the wholly owned subsidiaries, John Innes Enterprises Ltd, Norwich Biosciences Ltd, Norwich Research Ltd and JIC NRP Capital Ltd. All the subsidiaries key management personnel are the same as the parent company. No staff costs were recharged in respect of this. The employee costs (salaries, social security costs and pension costs) of the key management personnel for the group and charitable company were £1,625,335 (2021: £1,568,098).

10. Tangible Assets

Group	Freehold land and buildings	Long leasehold land and buildings	Plant, machinery and equipment	Assets under construction	Total
	£000	£000	£000	£000	**£000**
Cost/Valuation					
At 1 April 2021	3,769	60,380	44,778	4,568	**113,495**
Transfers	2	3,372	986	(4,360)	**-**
Additions	-	638	7,474	2,346	**10,458**
Revaluation	-	7,928	-	-	**7,928**
Disposals	-	-	(266)	(183)	**(449)**
At 31 March 2022	**3,771**	**72,318**	**52,972**	**2,371**	**131,432**
Accumulated Depreciation					
At 1 April 2021	819	-	24,758	-	**25,577**
Charge for the year	5	2,977	2,948	-	**5,930**
Revaluation	-	(2,977)	-	-	**(2,977)**
Disposals	-	-	(181)	-	**(181)**
At 31 March 2022	**824**	**-**	**27,525**	**-**	**28,349**
Net book value at 31 March 2022	**2,947**	**72,318**	**25,447**	**2,371**	**103,083**
Net book value at 31 March 2021	2,950	60,380	20,020	4,568	87,918

Charitable company	Freehold land and buildings	Long leasehold land and buildings	Plant, machinery and equipment	Assets under construction	Total
	£000	£000	£000	£000	**£000**
Cost/Valuation					
At 1 April 2021	3,769	60,617	44,778	4,568	**113,732**
Transfers	2	3,372	986	(4,360)	**-**
Additions	-	638	7,474	2,346	**10,458**
Revaluation	-	7,691	-	-	**7,691**
Disposals	-	-	(266)	(183)	**(449)**
At 31 March 2022	**3,771**	**72,318**	**52,972**	**2,371**	**131,432**
Accumulated Depreciation					
At 1 April 2021	819	-	24,758	-	**25,577**
Charge for the year	5	3,214	2,948	-	**6,167**
Revaluation	-	(3,214)	-	-	**(3,214)**
Disposals	-	-	(181)	-	**(181)**
At 31 March 2022	**824**	**-**	**27,525**	**-**	**28,349**
Net book value at 31 March 2022	**2,947**	**72,318**	**25,447**	**2,371**	**103,083**
Net book value at 31 March 2021	2,950	60,617	20,020	4,568	88,155

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

JIC includes in its financial statements land and buildings owned by third parties, which it occupies and enjoys through extended peppercorn leases, at their full value. The Trustees consider that in substance, the risks and rewards of ownership of the assets have passed to the Institute, and as such a policy of recognising the assets on the balance sheet reflects its continuing occupancy of these assets for the foreseeable future.

The group and charitable company's leasehold land and buildings were revalued by an external surveyor (Powis Hughes Chartered Surveyors, RICS) on a depreciated replacement cost basis at 31 March 2021. These values have been updated at 31 March 2022 using indexation tables.

Leasehold land and buildings on an historical cost basis would be recorded at a net book value of £38,976,000 (2021: £36,248,000).

All of the charitable company's assets at 31 March 2022 are used for direct charitable purposes.

11. Intangible Assets

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

12. Investments

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
John Innes Enterprises Limited	02549904	England	Contract research	100% ordinary shares
Norwich Biosciences Limited	03076575	England	Management of intellectual property	100% ordinary shares
Norwich Research Limited	02814101	England	Dormant	100% ordinary shares
JIC NRP Capital Limited	06145922	England	Member of Anglia Innovation Partnership LLP	100% ordinary shares

The registered address for all the subsidiaries is John Innes Centre, Norwich Research Park, Colney, Norwich, NR4 7UH.

The charitable company's investment in subsidiary undertakings at cost amounts to £1,248 (2021: £1,248) and accumulated impairment of £244 (2021: £244) has been recognised against cost.

JIC NRP Capital Limited is a member of Anglia Innovation Partnership LLP (formerly Norwich Research Partners 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. The company did not trade during the year.

The net income from trading activities of the subsidiaries during the year is shown in note 7.

Associates

The charitable company has an investment in Plant Bioscience Limited ("PBL"), a company registered in England and Wales, representing 33% (2021: 33%) of the ordinary £1 issued share capital. Plant Bioscience Limited manages the intellectual property rights of the charitable company and other organisations. This company is deemed to be an associate of the group and has therefore been included in the consolidated financial statements on that basis.

The charitable company has a 25% interest in NBI Partnership Limited ("NBIP"). NBIP supplies support and administrative services to JIC and the other Norwich Institutes (Quadram Institute Bioscience, 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.

The charitable company has an investment of 45% voting share capital and £1,630,000 non-voting share capital in Leaf Systems International Ltd ("LSI"). LSI is a commercial research & development company specialising in the expression and production of proteins, metabolites and complex natural products. The value of JIC's investment in LSI has been fully written down at March 2022 and March 2021 to reflect the early stage of LSI's development and current trading position.

12. Investments (continued)

Investments – Company

The movement in the value of investments during the year was as follows:

	Total 2022	Total 2021
	£000	£000
Valuation		
At beginning of year	**1**	1
Acquisition	**-**	-
Impairment	**-**	-
At end of year	**1**	1
Historical cost		
As at 1 April 2021 and 31 March 2022	**1,631**	1,631

Investments – Group

The Group's share of the operating results of associates was as follows:

Group	Leaf Systems International	Plant Bioscience Limited	**Total 2022**	Leaf Systems International	Plant Bioscience Limited	Total 2021
	£000	£000	**£000**	£000	£000	£000
Associates, share of:						
Turnover	-	1,237	**1,237**	207	1,007	1,214
Operating (loss)/profit	-	261	**261**	(212)	215	3
Movement in opening balance	-	-	**-**	(33)	(114)	(147)
Share of result for the year	-	261	**261**	(245)	101	(144)

The Group's investment in associates is represented as follows:

Group	Leaf Systems International Limited	Plant Bioscience Limited	**Total 2022**	Leaf Systems International Limited	Plant Bioscience Limited	Total 2021
	£000	£000	**£000**	£000	£000	£000
Associates: Share of net assets						
At beginning of year	-	1,650	**1,650**	-	1,549	1,549
Additions	-	-	**-**	-	-	-
Impairment provision	-	-	**-**	245	-	245
Share of result for the year	-	261	**261**	(245)	101	(144)
At end of year	-	1,911	**1,911**	-	1,650	1,650
Represented by:						
Share of total assets	-	2,590	**2,590**	1,503	2,161	3,664
Share of total liabilities	-	(679)	**(679)**	(1,503)	(511)	(2,014)
Share of net assets	-	1,911	**1,911**	-	1,650	1,650

The Trustees consider the value of investments included in the financial statements to be supported by their underlying assets. The value of the investment in Leaf Systems International Limited has been fully written down, reflecting the net deficit position of the company at 31 March 2021 and 2022. JIC has no liability to contribute to losses in the company.

13. Stocks

Group and charitable company	Total 2022 £000	Total 2021 £000
Raw materials and consumables	**283**	258
Total	**283**	258

There is no material difference between the valuation of stock and its replacement cost.

14. Debtors

	Note	Group 2022 £000	Group 2021 £000	Company 2022 £000	Company 2021 £000
Grants receivable:					
from government bodies	23	**4,219**	6,332	**4,219**	6,332
from other sources		**2,467**	2,614	**2,467**	2,614
Trade debtors		**1,465**	873	**1,297**	816
Amounts owed by other related parties	23	**1,054**	1,253	**1,054**	1,253
Other debtors		**961**	467	**934**	436
Prepayments and accrued income		**3,115**	5,899	**3,114**	5,899
Total amounts falling due within one year		**13,281**	17,438	**13,224**	17,392

Grants receivable from government bodies includes £4,219,127 in relation to capital funding receivable from BBSRC (2021: £4,544,189).

15. Cash at Bank and in Hand

	Group 2022 £000	Group 2021 £000	Company 2022 £000	Company 2021 £000
Cash at bank	**42,945**	45,212	**42,765**	45,007
Cash in hand	**3**	3	**3**	3
Total	**42,948**	45,215	**42,768**	45,010

16. Creditors: Amounts Falling Due within One Year

	Note	Group 2022 £000	Group 2021 £000	Company 2022 £000	Company 2021 £000
Grants received in advance:					
from government bodies	23	**6,285**	5,640	**6,285**	5,640
from other sources		**4,576**	6,028	**4,493**	6,016
Trade creditors		**3,475**	4,792	**3,464**	4,791
Amounts owed to subsidiary undertakings		**-**	-	**-**	-
Amounts owed to other related parties	23	**1,107**	1,274	**1,107**	1,274
Other creditors		**1,838**	2,304	**1,829**	2,304
Taxation and social security		**369**	361	**369**	361
Accruals and deferred income		**7,962**	13,014	**7,948**	13,014
Total amounts falling due within one year		**25,612**	33,413	**25,495**	33,400

17. Reconciliation of Movement in Grants Receivable

Group and charitable company	Note	**Total 2022**	Total 2021
		£000	£000
Grants receivable	14	**6,686**	8,946
Grants received in advance	16	**(10,861)**	(11,668)
Net grants received in advance		**(4,175)**	(2,722)
Net grants received in advance at beginning of year		**(2,722)**	(5,809)
Grant monies received during the year		**(49,564)**	(43,334)
Grant money released to SOFA during the year		**48,111**	46,421
Net grants received in advance		**(4,175)**	(2,722)

18. Provisions for liabilities and charges

Group and charitable company	**Total 2022**	Total 2021
	£000	£000
Restructuring provision at beginning of year	**284**	284
Charge in the year	**-**	-
Utilised	**-**	-
Provision at end of year	**284**	284

The restructuring provision relates to future compensation payments due under the redundancy scheme in connection with the restructuring of science programmes and the administration and support functions. Although the restructuring provision has not been discounted, it is stated at the present value of future amounts payable since inflationary increases linked to the redundancy settlements have similarly been excluded from the provision.

19. Analysis of Net Assets Between Funds

	Fixed assets	Net current assets	Creditors over one year and provisions	**Total 2022**
	£000	£000	£000	**£000**
Group				
Unrestricted:				
Fixed assets reserve	7,663	-	-	**7,663**
Designated capital reserve	-	12,118	-	**12,118**
General	-	6,671	(284)	**6,387**
Restricted:				
General reserve	-	794	-	**794**
Fixed assets reserve	62,607	-	-	**62,607**
Designated capital reserve	-	11,317	-	**11,317**
Revaluation reserve	34,724	-	-	**34,724**
Net assets	**104,994**	**30,900**	**(284)**	**135,610**
Charitable company				
Unrestricted:				
Fixed assets reserve	5,752	-	-	**5,752**
Designated reserves	-	12,118	-	**12,118**
General	-	6,551	(284)	**6,267**
Restricted:				
General reserve	-	794	-	**794**
Fixed assets reserve	62,608	-	-	**62,608**
Designated reserves	-	11,317	-	**11,317**
Revaluation reserve	34,724	-	-	**34,724**
Net assets	**103,084**	**30,780**	**(284)**	**133,580**

19. Analysis of Net Assets Between Funds (Continued)

	Fixed assets	Net current assets	Creditors over one year and provisions	**Total 2021**
	£000	£000	£000	**£000**
Group				
Unrestricted:				
Fixed assets reserve	7,994	-	-	**7,994**
Designated capital reserve	-	12,645	-	**12,645**
General	-	7,550	(284)	**7,266**
Restricted:				
General reserve	-	48	-	**48**
Fixed assets reserve	57,742	-	-	**57,742**
Designated capital reserve	-	9,255	-	**9,255**
Revaluation reserve	23,832	-	-	**23,832**
Net assets	**89,568**	**29,498**	**(284)**	**118,782**
Charitable company				
Unrestricted:				
Fixed assets reserve	6,344	-	-	**6,344**
Designated reserves	-	12,645	-	**12,645**
General	-	7,312	(284)	**7,028**
Restricted:				
General reserve	-	48	-	**48**
Fixed assets reserve	57,980	-	-	**57,980**
Designated reserves	-	9,255	-	**9,255**
Revaluation reserve	23,832	-	-	**23,832**
Net assets	**88,156**	**29,260**	**(284)**	**117,132**

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 designated capital reserves are not endowment funds. The unrestricted designated capital reserve relates to funds designated by Governing Council for use in relation to planned capital investments in the financial projections to March 2028. The restricted capital reserve relates to funding received from BBSRC to be used in connection with future estates rebuild costs with the agreement of BBSRC.

The restricted general reserve relates to ring fenced strategic funding received from BBSRC. This funding has performance conditions attached and is transferred to the general reserve once the conditions have been met.

20. Analysis of Funds Movements

	Unrestricted fixed assets	Unrestricted designated capital	Unrestricted general	Restricted general	Restricted fixed assets	Restricted designated capital	Revaluation reserve	**Total 2022**
	£000	£000	£000	£000	£000	£000	£000	**£000**
Group								
At 1 April 2021	7,994	12,645	7,266	48	57,742	9,255	23,832	**118,782**
Total income and expenditure for the year	-	-	274	(605)	6,254	-	-	**5,923**
Associates	261	-	(261)	-	-	-	-	**-**
Revaluation of tangible assets	-	-	-	-	(1,118)	-	12,023	**10,905**
Revalue depreciation transfer	-	-	-	-	1,131	-	(1,131)	**-**
Capital transfers	(624)	-	-	(36)	660	-	-	**-**
Centre funded capital	32	(300)	268	-	(2,062)	2,062	-	**-**
Other transfers	-	(227)	(1,160)	1,387	-	-	-	**-**
At 31 March 2022	7,663	12,118	6,387	794	62,607	11,317	34,724	**135,610**
Charitable company								
At 1 April 2021	6,344	12,645	7,028	48	57,980	9,255	23,832	**117,132**
Total income and expenditure for the year	-	-	159	(633)	6,017	-	-	**5,543**
Revaluation of tangible assets	-	-	-	-	(1,118)	-	12,023	**10,905**
Revalue depreciation transfer	-	-	-	-	1,131	-	(1,131)	**-**
Capital transfers	(624)	-	-	(36)	660	-	-	**-**
Centre funded capital	32	(300)	268	-	(2,062)	2,062	-	**-**
Other transfers	-	(227)	(1,188)	1,415	-	-	-	**-**
At 31 March 2022	5,752	12,118	6,267	794	62,608	11,317	34,724	**133,580**

20. Analysis of Funds Movements (Continued)

	Unrestricted fixed assets	Unrestricted designated capital	Unrestricted general	Restricted general	Restricted fixed assets	Restricted designated capital	Revaluation reserve	**Total 2021**
	£000	£000	£000	£000	£000	£000	£000	**£000**
Group								
At 1 April 2020	9,834	9,488	6,775	344	51,749	10,024	21,713	**109,927**
Total income and expenditure for the year	-	-	(908)	2,926	2,107	-	-	**4,125**
Associates	(144)	-	144	-	-	-	-	**-**
Revaluation of tangible assets	-	-	-	-	-	-	4,730	**4,730**
Revalue depreciation transfer	-	-	-	-	2,611	-	(2,611)	**-**
Capital transfers	(755)	-	-	(111)	866	-	-	**-**
Designated capital transfers	-	360	-	-	(660)	300	-	**-**
Centre funded capital	(941)	(535)	1,476	-	1,069	(1,069)	-	**-**
Other transfers	-	3,332	(221)	(3,111)	-	-	-	**-**
At 31 March 2021	7,994	12,645	7,266	48	57,742	9,255	23,832	**118,782**
Charitable company								
At 1 April 2020	9,305	9,488	6,442	344	50,984	10,024	21,713	**108,300**
Total income and expenditure for the year	-	-	(659)	2,916	1,845	-	-	**4,102**
Revaluation of tangible assets	-	-	-	-	-	-	4,730	**4,730**
Revalue depreciation transfer	-	-	-	-	2,611	-	(2,611)	**-**
Capital transfers	(2,020)	-	-	(111)	2,131	-	-	**-**
Designated capital transfers	-	360	-	-	(660)	300	-	**-**
Centre funded capital	(941)	(535)	1,476	-	1,069	(1,069)	-	**-**
Other transfers	-	3,332	(231)	(3,101)	-	-	-	**-**
At 31 March 2021	6,344	12,645	7,028	48	57,980	9,255	23,832	**117,132**

The revalue depreciation transfers have been made to reflect differences in the historical cost and revalued depreciation costs.

Capital transfers relate to fund movements in connection with fixed assets and depreciation; ensuring assets are appropriately reflected in separate reserves.

Centre funded capital transfers relate to capital expenditure funded from the unrestricted designated capital reserve and general reserve.

Where research at JIC is funded by grants with performance conditions attached to them these are shown in the Restricted general fund. When the conditions have been met the remaining contribution to core funding is transferred to general reserves, shown in other transfers above.

21. Commitments

Group and charitable company	**Total 2022**	Total 2021
	£000	£000
Capital commitments at the end of the financial year for which no provision has been made:		
Contracted	**5,031**	7,388
Amounts due under other operating leases for plant and machinery:		
Expiring in less than one year	**36**	39
Expiring between one and two years	**32**	36
Expiring between two and five years	**16**	51
	84	126

22. Pension Schemes

JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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%).

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

The total pension charge for the year was £1,981,615 (2021: £2,018,661), with outstanding contributions at the year-end of £97,907 (2021: £85,997).

23. Related Party Transactions

BBSRC
JIC is strategically funded by BBSRC. Grants received from BBSRC are detailed in note 2. At 31 March 2022, BBSRC owed JIC £3,954,455 (2021: £1,683,074).

During the year BBSRC paid JIC £nil (2021: £nil) compensation for redundancy and salary costs incurred in restructuring and £nil (2021: £6,447) for other costs.

Plant Bioscience Limited
PBL is 33% directly owned by JIC. PBL has been accounted for as an associate within the consolidated financial statements. Services provided to JIC by PBL in the year to 31 March 2022 amounted to £43,200 (2021: £22,468). During the year, PBL paid JIC £38,755 (2021: £38,194) in rent and £nil (2021: £81) for other costs. At 31 March 2022 and 31 March 2021 no amounts were due to or from PBL.

Leaf Systems International Limited
JIC has invested £1,630,000 in the non-voting share capital of Leaf Systems International Limited. LSI has been accounted for as an associate within the consolidated financial statements. JIC paid LSI £nil (2021: £41,808) for services in the year ended 31 March 2022. At 31 March 2022, JIC owed LSI £3,287 (2021: £nil). JIC has provided a short-term loan to LSI. Interest is payable on the loan at 2.5%. At 31 March 2022, JIC had a loan balance with LSI of £112,500 (2021: £75,000).

During the year, LSI paid JIC £11,796 (2021: £10,529) for costs incurred by JIC on behalf of LSI. At 31 March 2022, LSI owed JIC £902 (2021: £3,049).

NBI Partnership Limited
JIC is one of the four guarantors of NBI Partnership Ltd ("NBIP"), a company limited by guarantee. JIC has provided short-term loans to NBIP to enable NBIP to manage its cash requirements. Interest is payable on the loan at 2% and during the year JIC charged £6,760 (2021: £6,840) in respect of interest due. At 31 March 2022, JIC had a loan balance with NBIP of £338,000 (2021: £342,000).

JIC was charged £4,579,554 (2021: £4,544,642) for services by NBIP under a cost sharing agreement. As at 31 March 2022, JIC owed NBIP £555,188 (2021: £570,160). NBIP paid JIC £62,315 (2021: £57,863) for services and, as at 31 March 2022, NBIP owed JIC £53,487 (2021: £7,804).

Anglia Innovation Partnership LLP
JIC is a member of Anglia Innovation Partnership LLP through its 100% subsidiary, JIC NRP Capital Limited. Anglia Innovation Partnership 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, JIC received services totalling £22,535 (2021: £18,445), and was charged £71,595 (2021: £81,292) for estate costs. As at 31 March 2022, JIC owed AIP LLP £30,078 (2021: £144,253). JIC invoiced Anglia Innovation Partnership LLP for services totalling £198,259 (2021: £76,013). As at 31 March 2022 Anglia Innovation Partnership LLP owed JIC £86,937 (2021: £15,306).

23. Related Party Transactions (continued)

University of East Anglia
UEA is a member of the charitable company and it nominates one Governor to the Governing Council.

The majority of PhD students carrying out research at JIC are registered with UEA. During the year UEA provided student services of £386,306 (2021: £732,359) and other services amounting to £233,518 (2021: £151,194) to JIC. At 31 March 2022, JIC owed UEA £339,676 for student fees and other costs (2021: £490,840) and £81,755 for other services (2021: £66,575).

During the year, JIC received £364,215 (2021: £625,588) in student payments from UEA and provided £187,042 (2021: £344,370) of other services. At 31 March 2022, UEA owed JIC £396,012 (2021: £752,134) for student fees and services.

John Innes Foundation
JIF is a member of the charitable company and it nominates one Governor to the Governing Council of JIC. The following transactions took place during the year:

	Total 2022 £000	Total 2021 £000
Paid to JIC:		
Grants for studentships	**436**	390
Grants for research project	**142**	92
Contribution to salary costs	**39**	12
Contribution to women of the future	**3**	2
Contribution to field trials station	**133**	64
	753	560

At 31 March 2022, JIF owed JIC £66,533 (2021: £57,485) and JIC owed JIF £96,904 (2021: £2,005).

John Innes Enterprises Ltd
JIE Ltd is the wholly owned trading subsidiary of JIC. JIE undertakes contract research, research services and consultancy.

During the year, JIC invoiced JIE for services and other costs totalling £346,370 (2021: £339,149) and JIE invoiced JIC for costs totalling £11,179 (2021: £46,426). In addition, JIE made a gift aid payment to JIC of £30,118 (2020: £198,939). In addition, JIE made a gift aid payment to JIC of £9,521 (2021: £30,118). As at 31 March 2022, JIE owed JIC £139,120 (2021: £41,773).

Norwich Biosciences Ltd
Norwich Biosciences Ltd is the wholly owned trading subsidiary of JIC. NBL manages intellectual property on behalf of JIC. During the year NBL paid JIC a gift aid payment of £19,634 (2021: £93,796).

24. Cash Held as Grant Co-Ordinator

JIC holds cash of £1,038,116 (2021: £1,251,087) on behalf of various institutes in its capacity as project co-ordinator on a number of projects. JIC acts as an intermediary only and does not control the risks and rewards associated with the cash. An equal balance is held in other creditors.

25. Ultimate Parent Undertaking and Controlling Party

The Trustees consider that there is no ultimate parent undertaking and controlling party. JIC is the parent undertaking of the smallest and largest group of undertakings to consolidate these financial statements.

26. Contingent Liability

JIC receives grant income from funding bodies, such as the BBSRC and the European Union, that routinely undertake retrospective financial audits of costs claimed. Such audits may from time to time give rise to adjustments to grant income receivable. No general provision is made for such potential audit adjustments in the financial statements.

Charity information

Directors and Trustees

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Registered charity number 223852

Registered company number 00511709

Registered office and principal office of the charity
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JOHN INNES CENTRE

England & Wales - Charity number 223852

Accounts

John Innes Centre

Unlocking Nature's Diversity



2020 / 2021

ANNUAL REPORT

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Cover image: *Nicotiana benthamiana* by Aymeric Leveau (JIC). Norwich Research Park Image Library, images.norwichresearchpark.ac.uk

Message from our Director

Over the last year, we have lived through a stark demonstration of our collective vulnerability and how interconnected the world is. But this year's events also showed us the power of partnerships, and what can happen when people come together to develop solutions to global challenges.



Professor Dale Sanders FRS
Director of the John Innes Centre

Whether looking at a national scale, at the collaborative research and clinical response from academia and industry, or more locally, at the way organisations such as the John Innes Centre have continued to function throughout the pandemic, we can all be proud of what we can achieve when we all work together.

Despite the challenges, here at the John Innes Centre we have continued to make progress in our efforts to generate fundamental knowledge of plants and microbes and apply this to benefit agriculture, the environment and human health. Indeed, there are some real achievements to celebrate as we look back at the year.

In collaboration with The Sainsbury Laboratory, we launched our new joint vision, Healthy Plants, Healthy People, Healthy Planet, or HP^3. It is an ambitious plan to use the power of plant and microbial science to overcome pressing global challenges.

We also launched new strategic partnerships, including a new collaboration with the Alan Turing Institute to enhance the ways machine-learning and artificial intelligence are applied to life-science research. This is a novel partnership across the Norwich Research Park brings together expertise in plant science and social sciences at the Norwich Institute of Sustainable Development.

In addition, we recruited new Group Leaders studying exciting topics across plant and microbial science, such as the evolution of plant defences and floral scents, antibiotic-producing bacteria and the genetic diversity of peas, and we welcomed our first cohort of students on a new Wellcome-funded PhD programme, which aims to advance understanding of plant-based nutrition from crop to clinic.

But I also want to look beyond our research. I have always been firmly committed to the people at the John Innes Centre, and this year it has been more important than ever to keep our staff healthy and connected during the pandemic and to find ways to support each other. I am proud of our staff and students for the way they came together over the last year. Everyone has given their time and insights to ensure we can keep each other safe, and shown such resilience while our work continued.

It has also been vital to stay connected more widely over this time, and many of our activities moved online. From our busy programme of public engagement activities with schools, to running the first national Xylella Awareness Week, together with a citizen science project to encourage the public to hunt for spittlebugs, we found ways to ensure we remained connected to the wider world.

2020 demonstrated the key role science plays in developing solutions to global challenges. But it also showed us what can be achieved when research is focused on overcoming a global challenge.

> I am proud of our staff and students for the way they came together over the last year

About the John Innes Centre

The John Innes Centre (JIC) is a world-leading international centre of excellence in plant science and microbiology.

Our mission is to generate knowledge of plants and microbes through fundamental research and to use this knowledge to benefit agriculture, the environment, human health and well-being. We train excellent scientists for the future and engage with policy makers and the public.

Our joint strategy with The Sainsbury Laboratory, Healthy Plants, Healthy People, Healthy Planet (HP^3) outlines our vision for delivering a safer, healthier and more sustainable future through the power of plant and microbial science.



We are home to over **40 RESEARCH GROUPS** working on a variety of plant and microbial science research projects.

In collaboration with our **WORLD-LEADING ACADEMIC PARTNERS** we are uniquely positioned to lead the fundamental scientific advances needed to address three intertwined, era-defining challenges:



FEEDING THE WORLD



GLOBAL HEALTH THREATS



CLIMATE CHANGE



We are a diverse organisation with an **INTERNATIONAL WORKFORCE**

58% from the UK, 16% from the EU27 and 26% from the rest of the world. Our staff come from 36 countries around the world.



We provide world-class **POSTGRADUATE EDUCATION** in plant science and microbiology as part of our mission to train the scientific leaders of the future. At any one time, we are training around 100 PhD students.

We are proud to have been the **FIRST INDEPENDENT INSTITUTION** to be awarded the Athena SWAN Gold Award in 2017, in recognition of our work to address equality in science.

We were a founding signatory to the **TECHNICIAN COMMITMENT** and are committed to embedding a culture where all staff across the organisation are supported and developed.

Research and Innovation

#1

The John Innes Centre ranked as the top plant science research organisation worldwide, based on citations between 2008 and 2017.

When assessed by a panel of independent experts, our strategic programmes achieved the highest ranking in BBSRC's Institute Assessment Exercise in 2016, and the mid-term review in 2019.

Since 2014, we've spun out seven companies and attracted four businesses to Norwich.

Funding and Impact

In 2020/21, the John Innes Centre had a total **INCOME OF £50.3 MILLION** and our total expenditure was **£46.1 MILLION**.

Our expenditure on our charitable activities was **£45 MILLION, or 97%,** of our total spend. This includes research, research infrastructure, and research support.

FOR EVERY £1 invested in the John Innes Centre, **£14 IS GENERATED** for the wider **UK ECONOMY.**

Healthy Plants, Healthy People, Healthy Planet

Harnessing the power of plants and microbes for a sustainable future

In June 2020, we launched a joint new vision with The Sainsbury Laboratory: Healthy Plants, Healthy People, Healthy Planet (HP^3). It is an ambitious plan to address three critical challenges facing the planet to secure a safer, healthier and more sustainable future through the power of plant and microbial science.

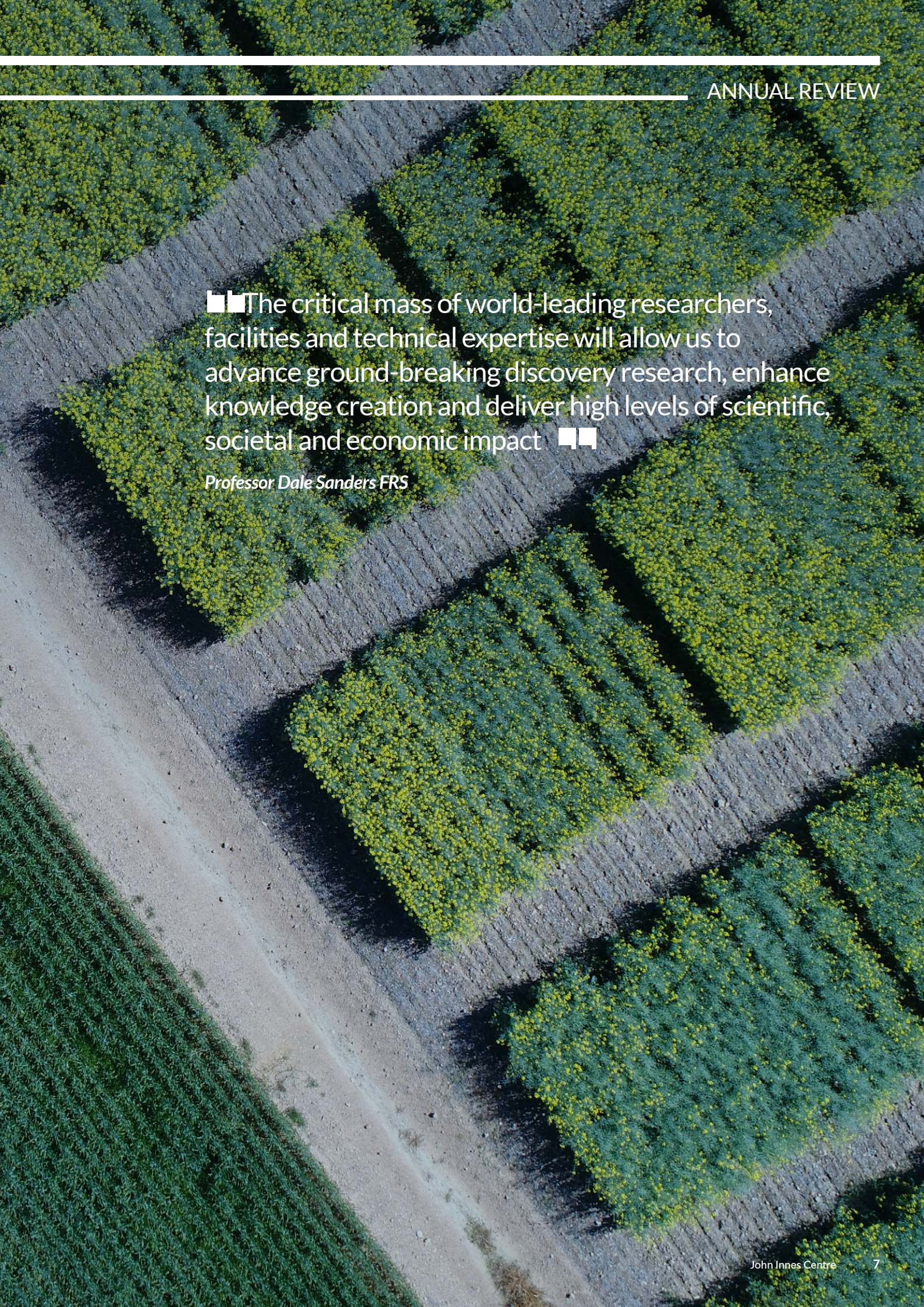
The three challenges are: feeding the world, combatting global health threats and meeting the challenge of climate change.

"HP^3 is a collaborative call to action to start to provide the solutions so desperately needed in a world with a rapidly changing climate, facing massive losses in biodiversity, a growing global population to feed and the urgent need to decarbonise agricultural practices," said Professor Dale Sanders.

HP^3 outlines our plans to establish a world-leading hub for UK plant and microbial science and to accelerate progress in tackling these major global challenges with the very best plant and microbial science laboratory infrastructure anywhere in the world. By integrating advances in genetics, genomics, structural biology, live-cell imaging and computational biology we will unlock new levels of understanding and strengthen the position of the UK as a global leader in plant and microbial science.

We are now working with The Sainsbury Laboratory and UKRI-BBSRC to secure funding for new research facilities to provide the world-class research environment needed to enable us to realise this exciting and ambitious vision for HP^3.

Find out more about our vision at hp3.org



> The critical mass of world-leading researchers, facilities and technical expertise will allow us to advance ground-breaking discovery research, enhance knowledge creation and deliver high levels of scientific, societal and economic impact

Professor Dale Sanders FRS

Science Highlights

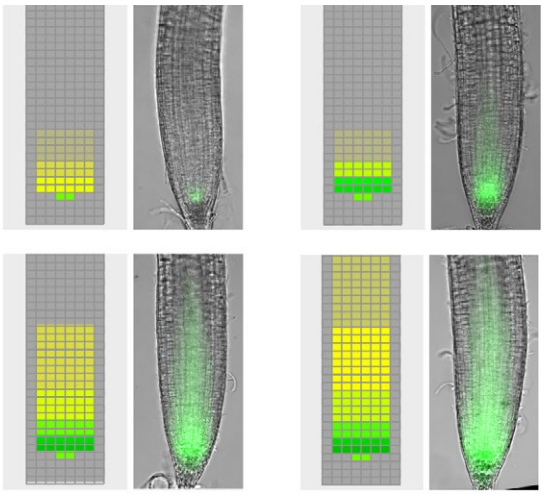
Slow growth is the key to long-term cold sensing

Professor Dame Caroline Dean, Professor Martin Howard and colleagues have discovered a new temperature-sensing mechanism in plants that can hold long-term memory of the cold.

Plants have to interpret temperature fluctuations over time to align their growth and development with the seasons. This study found that in warmer weather when plants grow more quickly, and cells multiply, the amount of a key protein NTL8, becomes diluted. In contrast, in cooler temperatures plants grow more slowly and NTL8 becomes more concentrated, accumulating over time.

The combination of genetic experiments to identify the key proteins involved, and mathematical modelling to show the key role of growth-dependent dilution, highlights the fantastic synergy when experimental approaches are combined with computational modelling. The findings will be useful for understanding how plants, as well as other organisms, sense fluctuating long-term environmental signals.

Nature DOI: 10.1038/s41586-020-2485-4



NTL8 (green and yellow) becomes diluted as plants grow quickly



Parasitoid wasp and cabbage stem flea beetle ***Credit: Anna Jordan (JIC)***

Parasitic wasp discovery could offer chemical-free pest control for farmers

Researchers found that a species of parasitic wasp could provide farmers with a chemical-free way of controlling a major crop pest.

Anna Jordan discovered the wasps in colonies of cabbage stem flea beetles – a prominent UK pest that feeds on oilseed rape. Working with Dr Rachel Wells and Professor Steve Penfield the team discovered that the beetles had been infected by *Microctonus brassicae*, a parasitic wasp that lays eggs within the beetles' bodies, killing them after the wasp larvae emerge.

In controlled conditions, the presence of sufficient numbers of the wasps led to the collapse of the beetle colonies, raising the possibility that *Microctonus brassicae* could be employed to protect a range of crops prone to attack by the cabbage stem flea beetles.

Entomologia Experimentalis et Applicata
DOI: 10.1111/eea.12910

Bacteria can tell the time

Humans have internal daily clocks and so do other animals and plants. Research reveals that non-photosynthetic bacteria also have them, answering a long-standing biological question that could have implications for the timing of drug delivery, biotechnology, and how we develop timely solutions for crop protection.

Biological clocks, or circadian rhythms, are molecular rhythms that allow cells to tell the time of day. Previous studies have shown that photosynthetic bacteria, which require light to make energy, have biological clocks. In this study, the researchers detected free-running circadian rhythms in the non-photosynthetic soil bacterium *Bacillus subtilis*. "Our study opens doors to investigate circadian rhythms across bacteria. Now that we have established that non-photosynthetic bacteria can tell the time, we need to find out the processes that cause these rhythms and understand why having a rhythm provides bacteria with an advantage," said Professor Antony Dodd.

Further studies can build on this to investigate whether time of day could be important for bacterial infection and treatment, and whether industrial biotechnological processes can be optimised by taking the time of day into account.



Soil bacterium ***Bacillus subtilis***

Science Advances
DOI: 10.1126/sciadv.abe2086

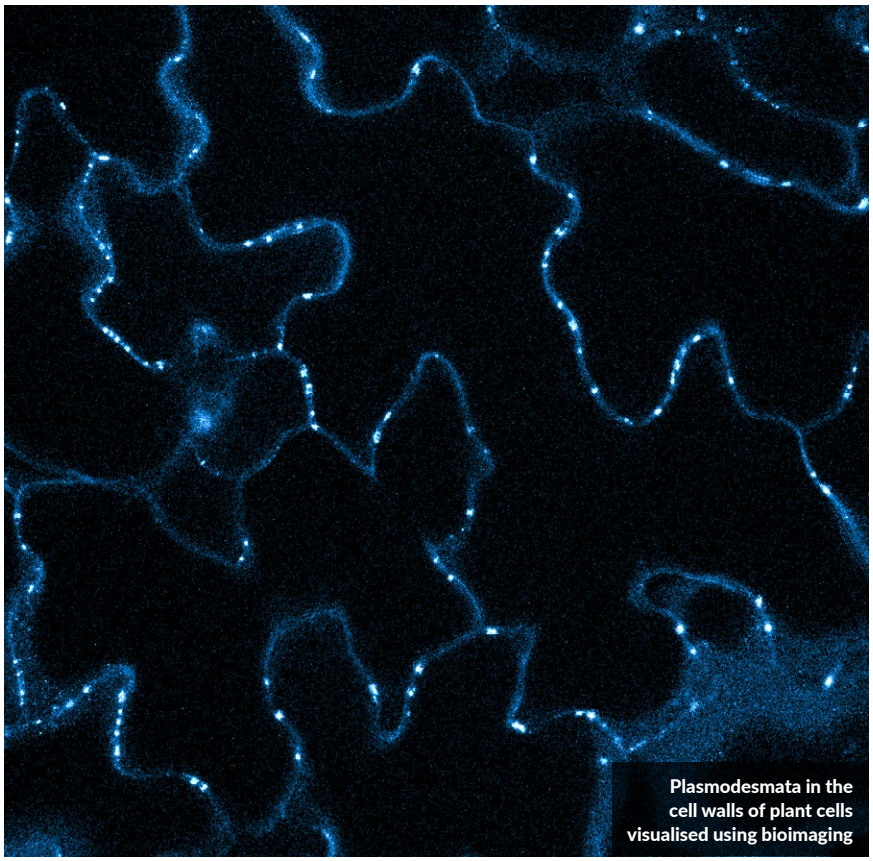
New understanding of how plant cells isolate in response to threat

A team led by Dr Christine Faulkner uncovered more about the mechanism plant cells use to isolate themselves when faced with pathogens. When a cell perceives a threat, such as an invading fungus or bacteria, plasmodesmata – the tunnel-like connections that allow molecules to move between cells – close over and the cells are temporarily isolated.

The team used bioimaging approaches to investigate the proteins involved in this process of cellular self-isolation. They used a material called chitin from the cell wall of fungus to trigger an immune response and found that it triggered a different response in the membranes that line the plasmodesmal tunnels compared to that in the membranes that surround the cell body.

Having specific signalling in the plasmodesmal part of the cell membrane suggests that processes requiring cell-to-cell connectivity are regulated independently of immune response, raising questions over whether there is a critical requirement for cells to balance connectivity and resource exchange with a protective mechanism imposed by isolation.

PNAS DOI:10.1073/pnas.1907799117



Plasmodesmata in the cell walls of plant cells visualised using bioimaging



Wheat has a large complex genome, 6x larger than the human genome

Landmark study generates first genomic atlas for worldwide wheat

A collaborative international research team has created the most comprehensive atlas of wheat genome sequences ever reported. The 10+ Genome Project collaboration, which involved more than 95 scientists, sequenced the genomes of 15 wheat varieties from around the world, detailing where important genes can be found.

Professor Cristobal Uauy and colleagues defined blocks across the genome called haplotypes – blocks of genes that are co-inherited together and selected by breeders in search of new crop lines with desirable traits. The atlas enables scientists and breeders to quickly find influential genes for improved yield, pest resistance and other important traits and could catalyse a new era of wheat discovery.

Nature DOI: 10.1038/s41586-020-2961-x



Tomatoes enriched with Parkinson's disease drug, L-Dopa

GM tomatoes offer affordable source of Parkinson's disease drug

Researchers have developed genetically modified (GM) tomatoes enriched in the Parkinson's disease drug L-DOPA, which could become a new, affordable source of the essential medicine. The team, led by Professor Cathie Martin, modified the tomato fruit by introducing a gene responsible for the synthesis of L-DOPA in beetroot, where it functions in the production of the pigments betalains.

The next step is to create a production pipeline where L-DOPA is extracted and purified into the pharmaceutical product. The work has implications for developing nations, where access to pharmaceuticals is restricted, and may offer benefits for people who suffer adverse effects from chemically synthesised L-DOPA.

Metabolic Engineering DOI: 10.1016/j.ymben.2020.11.011

Gene editing produces tenfold increase in superbug-slaying antibiotics

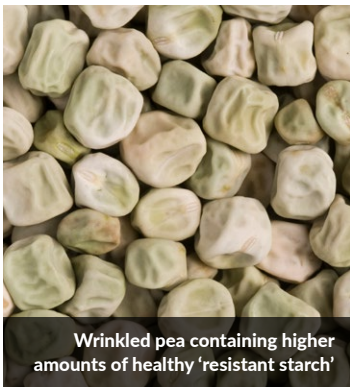
Researchers in Professor Matt Hutchings' and Professor Barrie Wilkinson's groups used genome editing to make a new strain of bacteria that produce high quantities of superbug-targeting antibiotics. Formicamycins are promising and powerful antibiotics and, under laboratory conditions, superbugs like MRSA do not become resistant to them. The bacteria *Streptomyces formicae* produce these antibiotics in small quantities. In this study Dr Rebecca Devine used CRISPR/Cas9 genome-editing technology to create a new strain of *Streptomyces formicae* bacteria that produce ten times more formicamycins.

"We will use the over-producing strain to purify enough formicamycins to figure out their mode of action, how they kill superbugs such as MRSA, and why these superbugs don't become resistant. This is vital to their further development as antibiotics," said Professor Hutchings.



Cell Chemical Biology. DOI: 10.1016/j.chembiol.2020.12.011

Wrinkled 'super pea' could be added to foods to reduce diabetes risk

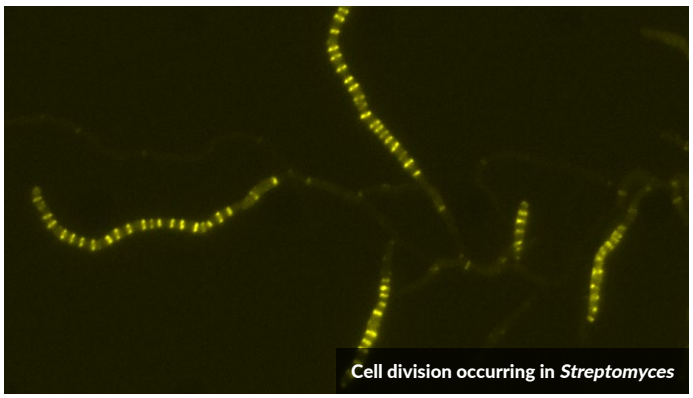


Wrinkled pea containing higher amounts of healthy 'resistant starch'

Professor Claire Domoney and colleagues, in collaboration with Imperial College London and the Quadram Institute, found that a type of wrinkled 'super pea' may help control blood sugar levels and could reduce the risk of developing Type 2 diabetes. Using pea lines from our Germplasm Resource Unit, the researchers found that unlike regular, smooth peas, wrinkled peas contain higher amounts of 'resistant starch', which takes longer for the body to break down. Using healthy volunteers, the researchers found that, compared to eating smooth peas, the wrinkled peas led to significantly lower sugar spikes.

The researchers are now planning further studies involving volunteers with early-stage Type 2 diabetes. This will also involve a major pea-breeding programme with help from industry partners to develop more 'super peas' with the resistant starch.

Nature Food DOI: 10.1038/s43016-020-00159-8



Cell division occurring in *Streptomyces*

Uncovering a critical factor in the assembly of cell-division machinery in bacteria

To grow and proliferate, bacteria must divide. Central to this process is FtsZ, a protein that assembles into a ring-like structure known as the Z-ring. For most bacteria, the Z-ring is essential for building the cell-division machinery and for the synthesis of a dividing wall that allows the bacteria to physically separate.

Previously, there was little understanding of the mechanisms for Z-ring assembly in a group of bacteria that includes several that are medically and industrially relevant, such as *Mycobacterium tuberculosis*, which causes tuberculosis (TB), or the prolific antibiotic producer, *Streptomyces*. Using a combination of biochemical analyses and live-cell imaging, researchers in Dr Susan Schlimpert's group identified a novel cell-division protein called SepH, which directly interacts with the cell-division machinery and regulates the assembly of Z-rings in *Streptomyces*. Further research could identify strategies to inhibit this interaction and prevent cell division, which would be of particular interest in the treatment of TB.

eLife DOI: 10.7554/eLife.63387

An Achilles' heel for wheat rust infection

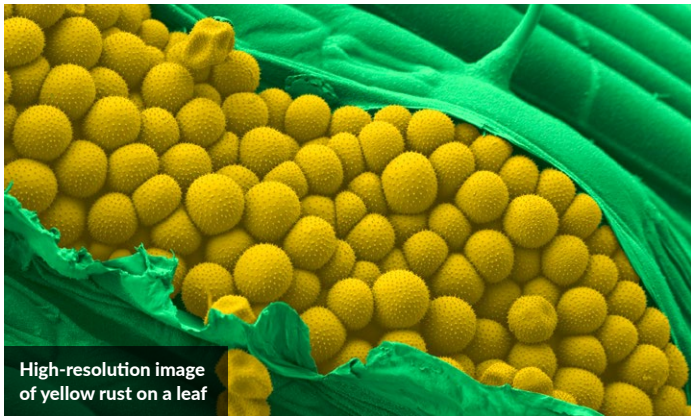
Researchers from the Dr Diane Saunders' group have found a gene in wheat that acts to promote rust fungal infection, and that disrupting it provides resistance to two of the most economically damaging diseases of wheat worldwide – yellow rust and stem rust.

As rust fungi attack, they turn on and off particular genes in wheat to prevent the plant from defending itself. When successful, this stops the plant from killing the invading fungus and ultimately leads to severe plant disease.

Researchers identified one wheat gene they called TaBCAT1 that was turned on early during a successful yellow-rust infection. Deleting this gene in wheat mutants severely reduced infection, suggesting its important role in rust fungi causing disease.

Dr Pilar Corredor-Moreno, said: "We were amazed to see that removing just this one gene in our mutant plants caused them to alert their defence responses even before they were under attack. This likely helped the plants to give a much speedier defence response, curtailing rust infection before it even had a chance to start."

The Plant Cell DOI: 10.1093/plcell/koab049



High-resolution image of yellow rust on a leaf

EDESIA: Plants, Food and Health

In autumn 2020, the first cohort of students started on a new Wellcome-funded PhD programme at the John Innes Centre

The EDESIA: Plants, Food and Health PhD programme will advance understanding of plant-based nutrition from crop to clinic, initiating a step-change in nutritional research in the UK and addressing diet-related illness, which costs billions globally.

Around three million people in the UK are estimated to be malnourished, with two billion worldwide experiencing deficiencies of essential micronutrients deemed 'hidden hunger'. The programme puts plants at the heart of nutrition and aims to create a new generation of nutritionists.

The EDESIA programme pioneers a multidisciplinary approach to plant-based nutritional research, drawing on expertise from across the Norwich Research Park. This pioneering approach also extends to its pledge to provide support post-studentship, helping to bridge the gap between industry and academia.

EDESIA addresses several UN sustainable-development goals in hunger, poverty, inequality, responsible consumption patterns and climate action. The EDESIA students will work to unravel the complex interrelationship between plant-based foods, metabolism, the gut microbiota and health outcomes.



Yvie Morgan is one of five students who started in the autumn of 2020



Funded by Wellcome, 25 EDESIA PhD students will begin projects at the Norwich Research Park over the next five years, part of a Wellcome initiative to support 23 new PhD programmes across health science.

wellcome

Organisational achievements



It has been a big year for the John Innes Centre, and despite the challenges of the pandemic, the institute has much to celebrate. We took a major step forward with the launch of our new research vision, HP^3, with The Sainsbury Laboratory (read more about this on pages 6 and 7). We also announced several new strategic research collaborations, undertook important improvements to our facilities, and have endeavoured to ensure that our staff and students can continue their work safely in the face of the pandemic.



Launch of the Norwich Institute for Sustainable Development

In February 2021, a new UK centre of excellence was set up by partners at the Norwich Research Park to improve global food security, which is threatened by climate change. The Norwich Institute for Sustainable Development (NISD) will focus on developing solutions to enable farmers to build resilience to variable rainfall, drought and extreme weather events.

The NISD is supported by the John Innes Foundation and brings together expertise in plant science at the John Innes Centre and in social sciences at the University of East Anglia's School of International Development.

> The new centre at the Norwich Research Park involves researchers from the John Innes Centre, UEA, Quadram Institute, Earlham Institute and The Sainsbury Laboratory



Major funding award to modernise horticultural facilities

A £5.1m project to modernise our horticultural facilities was funded by UKRI-BBSRC in the autumn of 2020. The investment allowed us to build new Controlled Environment Rooms (CERs) for our plant and microbial experiments, offering precise control of environmental factors such as light, temperature and humidity. The upgrade also improved the containment measures required for experiments that investigate plant pathogens and for growing genetically modified plants.

> The new infrastructure's LED lighting, wastewater treatment and rainwater harvesting will bring a reduction in utility costs of around £116,000 a year

Norwich recognised in UK Plant Science Research Strategy

In March 2021, the UKRI-BBSRC published a new research strategy for plant science, outlining clear goals for research and innovation involving plants and microbes over the next ten years and calling for investment in world-class infrastructure.

The strategy emphasises the unique role that plant science research must play in safeguarding the future of our planet, and in addressing a range of global challenges – including tackling climate change, ensuring a sustainable food supply and protecting biodiversity.

The plant science research strategy recognises real investment opportunities in Norwich by highlighting the critical role HP^3 will play in successfully delivering the strategy and ensuring a world-class research base. By developing a world-leading hub for plant and microbial science, the John Innes Centre and The Sainsbury Laboratory will provide a national resource, helping to accelerate progress in tackling these major global challenges.

Authored by Professor Jane Langdale CBE FRS of the University of Oxford, the strategy follows extensive consultation with members of the research and innovation community.



> This strategy embeds pioneering plant science at the heart of the UK science and innovation landscape. It will be indispensable in guiding the research community as it seeks to address the global challenges that lie ahead

Professor Dale Sanders FRS

Healthy people at the John Innes Centre

Meeting and overcoming challenges like climate change, feeding the world and safeguarding human health relies on creating and nurturing talent, and providing those people with a safe, open, inclusive and welcoming research environment



We strive to increase the diversity of our workforce, and for everyone to feel invested in the science, in themselves and their colleagues. We're committed to the development of all our staff and students and to providing equal opportunities that encourage flexible working, career development and work-life balance.

With the Covid-19 pandemic impacting the way we interact and work together, staff and students across the JIC have adapted remarkably and shown resilience, enabling the institute to remain open and our research to continue. A huge range of staff and students have created and delivered an astonishing number of activities to encourage engagement and to look after our well-being.

Alongside a wide range of people who have contributed to making the institute a safe and inviting place to work, the Wellbeing and Mental Health group has played a key role during this time by providing new resources, regular messages about mental health and training new mental health first aiders.

This group aims to raise awareness and understanding of well-being and mental health issues, as well as engagement in them, and works to promote and develop on-site resources. Ultimately, the group strives to build an inclusive and welcoming community and reminds people that they are not alone.

In 2020, we set up a Racial Equality and Ethnic Diversity (REED) working group. REED is chaired by Dr Ricardo Ramírez González, a post-doctoral scientist and the Race and Ethnicity Equality and Diversity Champion.

Building on the success of the 2018-2020 Technician Commitment action plan, we launched our 2021-23 action plan outlining how we will continue to embed the values of the Technician Commitment in the institute. It outlines actions in eight areas, including continuing to increase awareness of technical roles at the JIC.


Dr Ricardo Ramírez González

There are approximately 200 technical staff at the John Innes Centre

57 technicians have PhDs

Technicians are authors on 45% of scientific papers published

Data: 2018 - 2020

Awards and honours


Professor Dame Caroline Dean FRS

Trio of honours for Professor Dame Caroline Dean FRS

Last year, Professor Dean was presented with some of the world's most prestigious scientific awards, including the Royal Society Royal Medal in recognition of her work over her 30-year career.

Professor Dean and her research group have elucidated molecular mechanisms underlying seasonal timing and the epigenetic basis of vernalisation – the process by which plants delay flowering until they have experienced a period of prolonged cold. The Royal Medals are awarded on behalf of the Queen each year and have been issued annually since 1825. Previous recipients have included Francis Crick, Mary Lyon and Fred Sanger.

The medal was the third major honour received by Professor Dean in 2020. She received the Wolf Prize for Agriculture in January 2020 and was elected to the American Academy for Arts and Sciences as an International Honorary Member in the class of biological sciences.


Professor Dale Sanders FRS

Prestigious Chinese award for collaboration

In January 2021, Director of the John Innes Centre, Professor Dale Sanders FRS, received the Chinese Academy of Science (CAS) International Science and Technology Cooperation Award.

The prestigious annual award rewards outstanding international contributions to long-term cooperation with CAS. Professor Sanders was instrumental in setting up and continuing the development of the Centre of Excellence for Plant and Microbial Science (CEPAMS), a collaboration between the John Innes Centre and CAS.

A leader in the field of plant ion signalling and mineral nutrition, he has obtained important results in the study of calcium channels, membrane transporters, cell signalling and ion homeostasis.

Dr Shannon McKie – Gregory Paul Lenardo Basic Science Award

The Gregory Paul Lenardo Basic Science Award is given once a year for discoveries in fundamental cellular, molecular or genetic processes using model systems that advance scientific understanding of biological processes in higher organisms.


Dr Shannon McKie

In December 2020, Dr McKie received this award for her studies of the biochemical and biophysical characterisation of topoisomerase VI, which functions to detangle DNA, from the archaeal species *Methanosarcina mazei*, to gain a deeper understanding of this enzyme's activity.

Her PhD supervisor, Professor Tony Maxwell, said, "Shannon was a truly outstanding PhD student who worked on fundamental aspects of the archaeal enzyme DNA topoisomerase VI, and, in so doing, revealed key features of its physiological role in plants and plasmodial parasites."

Anna Backhaus – Jeanie Borlaug-Laube Women in Triticum (WIT) Award

Anna Backhaus was one of five early-career scientists selected from around the world to receive the WIT Award for 2020.

Her research is focused on the genetic networks in control of early spike development in wheat, trying to understand how developmental decisions are encoded in the crop's genome. Her PhD supervisor, Professor Cristobal Uauy said: "Anna has a deep-rooted motivation and passion to make an impact in the world through her research. She embodies the next generation of crop scientists."


Anna Backhaus

Working with industry

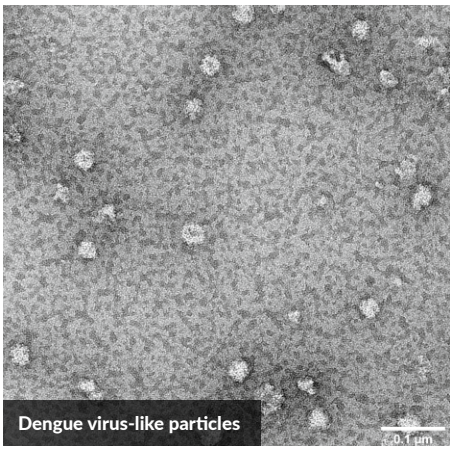
The knowledge generated by the John Innes Centre has led to many innovative and practical solutions to global challenges. This is the result of ground-breaking research, combined with activities to develop specific and applied scientific solutions. Over the past five years we have enhanced translation and application through collaborations, start-ups, spin-outs, licence agreements and inward investment.

A first step to plant-made dengue virus vaccines

John Innes Centre researchers have used plants to produce virus-like particles (VLPs) of the dengue virus, in a first step towards a novel vaccine. Dengue is a pathogenic mosquito-borne virus that causes approximately 390 million infections per year.

The team in Professor George Lomonossoff's group worked in collaboration with Leaf Expression Systems, one of our spin-out companies, to produce VLPs of dengue virus serotype 1, one of four distinct variations of the virus. VLPs are authentic mimics of the virus, containing the protein coat but without the infectious material. This protein coat is enough to train the immune system to respond to the virus without causing an infection. Using plants to produce these valuable molecules could offer an affordable and low-tech solution to vaccine development.

The researchers used a variety of tobacco (*Nicotiana benthamiana*) to transiently express dengue VLPs using technology pioneered at the John Innes Centre by Professor Lomonossoff. After extraction and purification, the VLPs were shown to stimulate an immune response to the virus in experiments on mice. Further work will focus on improvements to the methods and extraction of VLPs and on trying to replicate this for the other serotypes of dengue virus.



Dengue virus-like particles


Infiltrating *Nicotiana benthamiana*

Is vertical farming the future of agriculture?

Vertical farming has the potential to revolutionise agriculture, allowing us to grow crops in a sustainable and less environmentally damaging way.

To make vertical farming more productive and sustainable we have teamed up with Bristol-based start-up LettUs Grow, an indoor vertical agriculture company. It is engineering novel indoor farm hardware and software to grow a variety of crops using aeroponics.

LettUS Grow has recently sponsored a PhD studentship through the UKRI-BBSRC Norwich Research Park Doctoral Training Partnership with John Innes Centre group leader Professor Antony Dodd. This project will study the role of circadian rhythms in regulating crop production in vertical farms. Understanding the interaction between the circadian clock of suitable crops and these artificial growing environments will be a valuable step to boosting productivity while reducing costs.

Early findings are helping LettUs Grow to optimise growing protocols and hardware applications, to reduce energy and water use, and thereby improve the carbon footprint and ultimately lead to more sustainable farms.





New ventures at the John Innes Centre

John Innes Centre launches academic journal, *Quantitative Plant Biology*

In June 2020, we partnered with Cambridge University Press to launch a new open-access journal: *Quantitative Plant Biology* (QPB).

QPB is designed to provide an interdisciplinary forum for high-quality research on ground-breaking discoveries and predictions in plant science, and a dedicated home for research that applies techniques such as data mining and analysis, mathematical modelling and machine learning to plant biology.

The new journal welcomes research from across the spectrum of fundamental, applied and societal plant research; from across all biological scales – molecular through to cellular and organismal though to population; and based on data from laboratories, fieldwork and citizen science.

New Turing Institute collaboration to bring the best in AI to Norwich Research Park


Dr Bethany Nichols, NRP-Turing Fellow

A collaboration with the Alan Turing Institute, launched in September 2020, has a vision to enhance the ways machine learning and artificial intelligence are applied to life-science research. Biological research is increasingly data rich and the collaboration aims to identify new ways to exploit this information and accelerate advances in understanding.

The Norwich Research Park-wide collaboration with the Alan Turing Institute is supporting six year-long research posts, including one based at the John Innes Centre, working together in a cross-institute cohort to expand the application of machine learning and artificial intelligence.

New biobank to preserve UK soil microbial biodiversity

October 2020 marked the launch of a new partnership to establish the UK Crop Microbiome Cryobank. The five-year initiative will use state-of-the-art cryo research techniques to preserve important crop microbiome samples from different soil types across the UK to safeguard future research and facilitate sustainable production of the UK's six major food crops, including barley, oats, oil-seed rape, potato, sugar beet and wheat.

The John Innes Centre joins CABI, which is leading the project, along with researchers from Rothamsted Research and Scotland's Rural College (SRUC). This team will develop a 'Noah's Ark' of UK microbes from crop systems and this will form the first publicly available resource of its kind anywhere in the world.



BRIGIT – stakeholder engagement and citizen science

Funded by UKRI's Strategic Priorities Fund, with support from Defra and the Scottish Government, the BRIGIT programme has delivered some exciting new activities this year.



BRIGIT, a UK-wide consortium of 12 organisations led by the John Innes Centre, builds the UK's capability to prevent the establishment of vector-borne plant pathogens and to increase our preparedness to respond should they be introduced.

The consortium studies *Xylella fastidiosa*, a bacterial pathogen that is not present in the UK but is an emerging threat in southern Europe and has devastated olive trees in Italy.

Over the past two years, though the project, the consortium has worked closely with key stakeholders and the public to share knowledge, collect data and raise awareness of the disease.

We're all going on a bug hunt – citizen science project gathers key data

From 2019 through to 2021, the BRIGIT programme ran a citizen science project to collect information about the frothy blobs of cuckoo spit that appear on plants in late spring. Over three seasons, more than 12,000 spittle sightings were submitted to the project.

Cuckoo-spit is produced by spittlebug nymphs as protection against predators and to prevent them drying out and is associated with the arrival of spring. Spittlebugs, also known as froghoppers, emerge from those frothy protective havens to feed as adults on a wide range of plants and trees.

The data collected during the spittlebug hunt feeds into the BRIGIT programme, aiming to map and understand the distribution of these xylem-feeding insects in the UK. This data also helps scientists to model the spread of *Xylella fastidiosa* in hypothetical situations, supporting the UK Government's planning and preparation for potential incursions of vector-spread plant diseases in the future.





***Xylella*-infected olive trees in Puglia, Italy. Credit: Dr Steven White, CEH**

Xylella Awareness Week – engaging with key stakeholders

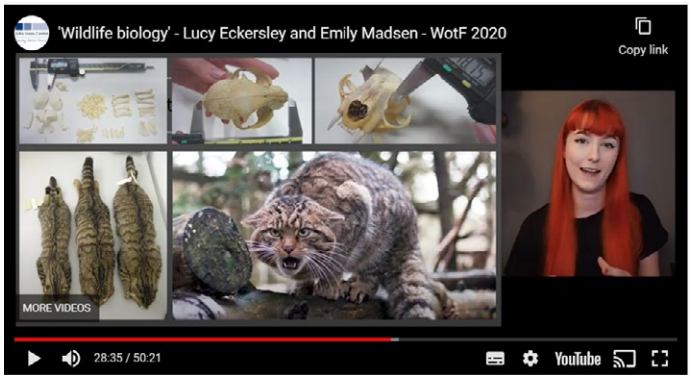
In March 2021, the BRIGIT consortium delivered the UK's first Xylella Awareness Week – a week of activities to engage key stakeholders and the public in the findings and outcomes of the research. The four-day virtual event engaged with key groups of stakeholders, including inspectors from the Plant Health and Seeds Inspectorate (PHSI) of the Animal and Plant Health Agency (APHA), business owners in the horticulture trade sector, professionals and volunteers at botanic gardens and in environmental groups, and members of the public.

Workshops tailored to each group shared information about *Xylella fastidiosa*, its symptoms, host plants and insect vectors, as well as finding out what information would be useful for these groups in the future. Surveys, Q&A sessions and polls indicated that all groups would like access to insect identification and geography databases.

Engagement goes virtual

2020 became the year that events went virtual. We took this as an opportunity to widen participation in our public and school engagement events, inviting schools nationwide to join our Year 10 science camp and Women of the Future events.

In 2020, our flagship event for Year 10 girls moved online and we curated 30 videos from 45 women working in STEMM subjects. This new video directory has proved popular, having had well over 3,000 views. On 27 November, schools joined two one-hour Q&A sessions with women in STEMM.





Innes Lecture 2020: the 1925 Scopes Monkey Trial: why did so many people hate evolution?

The 2020 Innes Lecture told the story of the Scopes Monkey Trial and highlighted key themes in the public reactions. Professor Joe Cain, a historian of science in the 19th and 20th centuries, gave a fantastic virtual talk, which was followed by a lively question and answer session.

In 1925, an American school teacher was put on trial for teaching evolution. This was global news and an important moment in the ever-changing relationship between science and religion. Why have so many people – over two centuries and around the world – hated evolution?

This talk is available on the John Innes Centre YouTube channel at youtube.com/JohnInnesCentre



PHYTOPIA exhibition: 21-30 August 2020

In August 2020, we became a content partner for the Science Gallery Bengaluru's first digital exhibition PHYTOPIA, which explored the past, present and future of plants.

PHYTOPIA was an online exhibition that brought together engineers, scientists, designers, artists, chefs and biohackers to explore plants and experiment beyond the kitchen, the lab and the farm. Scientists from the John Innes Centre took part in the exhibition, giving lab tours and taking part in question and answer sessions online.

To view online, visit *bengaluru.sciencegallery.com/phytopia*

New appointments and Fellowships

Dr Kelsey Byers

Group Leader

Dr Kelsey Byers joined the John Innes Centre in August 2020. She studies the evolution and diversification of floral scent at a wide range of scales, from genus-wide evolutionary patterns to floral-scent evolution of pairs of species with different pollination systems.

She is also investigating how floral scent genes evolve in natural populations. Flowers use many traits to influence animal pollinator visitation, including colour, shape and scent. By making sure that the 'right' pollinators visit in the right way, plants can ensure that their pollen is successfully transferred. At its core, Kelsey's research focuses on the evolution of floral scent in different flowering-plant species.





Dr Philip Carella

Group Leader

Dr Phil Carella joined the John Innes Centre in August 2020. His research aims to better understand how the diversity of land plants defend against pathogen infection. Using evolutionarily insightful model plants, Phil's group will investigate widely conserved and lineage-specific aspects of plant defence that will inform future efforts to protect plants from harmful pathogens.

The overarching theme of their research is to explore and understand the evolution of plant defence – in particular, understanding how the critically important plant defence pathways of crops were first established when plants colonised land, and how these have evolved across distantly related plants.

Professor Matt Hutchings

Group Leader

The Matt Hutchings group joined the John Innes Centre in August 2020. The group works on the specialised metabolites made by *Streptomyces* species and closely related actinomycete bacteria, which are used to produce more than half of all known antibiotics.



Matt's group is particularly interested in the chemical ecology of these bacteria and their natural products. For example, antibiotic-producing actinomycete bacteria interact with insects and plants and protect them against infection by pathogenic bacteria and fungi in return for food and housing.



Dr Sanu Arora

Group Leader

Dr Sanu Arora joined the John Innes Centre as a John Innes Foundation-supported Group Leader in November 2020. Her group will explore the natural diversity of the *Pisum* (pea) species for environmental resilience. The demand for pea protein is expected to grow exponentially in the coming years. This is at odds with the highly volatile yield of pea as a crop.

Sanu's research works to understand the genetic basis underlying the causes of this uncertainty, with the objective of achieving yield stability. Her research will start by looking for genetic sources of resistance to devastating diseases of pea (root rots, powdery and downy mildews), against which the current control strategies are not particularly effective.

Dr Eva Sharpe

Head of Strategic Engagement



In December 2020, Dr Eva Sharpe joined as our Head of Strategic Engagement. This new role, embedded in the directorate, will facilitate and build new and existing relationships with a variety of our external audiences, including funders, policy makers, partners and the public.

A biochemist by background, Eva left lab research to move into science policy and communications. Initially, she will focus on developing our policy and public affairs approach – to help ensure that our research discoveries deliver impact and that policy decisions are informed by scientific evidence. She is also leading our stakeholder engagement activities around our plans to take forward the HP^3 vision.

Dr Jay Biernaskie

Daphne Jackson Fellow



Dr Jay Biernaskie returns to research after a two-year break. His Fellowship project is titled: *Testing alternative designs for cooperative and productive wheat crops*.

The aim of Jay's research is to understand how to shift crops from a competitive state to a more cooperative and productive state. He is interested in special cases where natural selection will have favoured cooperation, especially among the genetically identical components of large individual plants (e.g. multiple stems from the same wheat plant).

CEPAMS link strengthened by Royal Society-Newton Advanced Fellowship

A Chinese-UK collaboration investigating medicinally important compounds in plants has been further strengthened by Royal Society funding awarded in May 2020.

Dr Evangelos Tatsis, CEPAMS Group Leader based in Shanghai, has been awarded a Royal Society-Newton Advanced Fellowship. His group works to determine how plants make structurally diverse chemical compounds. The two-year fellowships allow leading researchers to develop their career through training and collaboration and to establish long-term and sustainable links with UK research institutions.

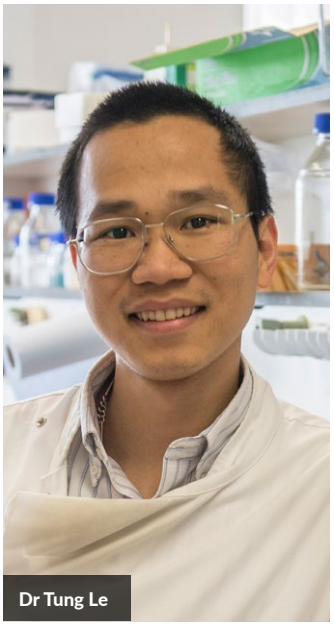
The Advanced Fellowship supports collaboration between Evangelos and Professor Cathie Martin FRS. Their research aims to identify the compounds with anticancer activity from barbed skullcap and how plants synthesise them.



Dr Evangelos Tatsis



Dr Dmitry Ghilarov



Dr Tung Le

John Innes Centre research attracts global health charity funding

Two talented early-career scientists have won £2.5m funding from the global health charity Wellcome, to carry forward their influential research at the John Innes Centre.

Dr Dmitry Ghilarov is the recipient of a five-year Wellcome Sir Henry Dale Fellowship, an award jointly funded by the Royal Society. Dmitry is due to begin the fellowship-funded post at the John Innes Centre in September 2021.

Dr Tung Le receives a Wellcome five-year Investigator Award, designed to support independent researchers addressing some of the most important questions in science. Tung's research focuses on understanding bacterial chromosome structure and its impact on DNA replication and segregation.



Future plans

The next 12 months will be a crucial period for the John Innes Centre as we bring in a new Chair of the Governing Council, complete our quinquennial submission for the BBSRC's Institute Assessment Exercise, and adapt to changes in the workplace following the pandemic

Recruiting a new Chair of Governing Council

In March 2021, Dr Will West reached the end of his tenure as Chair of the JIC's Governing Council. Current Trustee Director Dr Deborah Keith has taken on the role in an interim capacity while a search is underway to appoint a successor. The new Chair will take leadership of the John Innes Centre's governance, working closely with the Director and management to continue to deliver our excellent and impactful research. They will take up this role at an exciting point, as we take forward our ambitious plans to deliver our new research vision, Healthy Plants, Healthy People, Healthy Planet (HP^3) while building on our recovery from the pandemic.

Developing our research strategy in preparation for the next Institute Assessment Exercise

As a BBSRC strategically funded institute, the John Innes Centre takes part in an Institute Assessment Exercise (IAE) every five years as part of our funding renewal. Due to the pandemic, the IAE submission date has been delayed. In preparation for our submission, we are engaging staff in developing detailed plans for our research over the next five years within Institute Strategic Programmes.







> The critical mass of world-leading researchers, facilities and technical expertise will allow us to advance ground-breaking discovery research, enhance knowledge creation and deliver high levels of scientific, societal and economic impact

Bidding for major new infrastructure to become a plant and microbial science hub

We have reached the next stage of our joint application with The Sainsbury Laboratory and and UKRI-BBSRC, which will secure funding for new research facilities to provide a world-class research environment and support delivery of our ambitious scientific vision outlined in HP[3]. In June 2021, the John Innes Centre and The Sainsbury Laboratory were awarded £1m to progress plans to develop a world-leading plant and microbial science hub on the Norwich Research Park. The funding will enable the next stage of design development for the new infrastructure, allowing us to submit our outline business case to HM Treasury later this year.

Supporting people and culture

Working with our staff and students, we will continue to embed a vibrant, inclusive and diverse culture. We plan to refresh our approach to internal communications, engagement and recognition. We also plan to develop new actions to support our Athena Swan Gold Award renewal and to deliver our new Technician Commitment action plan. We will consider what we have learnt from our experiences during the pandemic and how we may need to adapt to long-term changes in the workplace post-Covid-19.

Strategic partnership in wheat research

Over the year we will strengthen our existing partnerships and collaborations, including formalising our strategic collaboration with the International Maize and Wheat Improvement Center (CIMMYT). The new partnership will build on our successful joint-research achievements and aims to harness state-of-the-art technology to find solutions for the world's wheat farmers and consumers. Partnership activities will include collaborative research projects, staff and student exchanges, exchange of materials and data, joint capacity-building programmes and shared connections to the private sector.

Trustees' Report including the Strategic Report

The Board of Trustees of the John Innes Centre (Governing Council) presents its Annual Report and Financial Statements for the year ended 31 March 2021. The Annual Report provides details of the John Innes Centre's objectives, achievements, scientific and financial performance in the year, future plans, risk management and its governance and management structure.



Deborah Keith
Interim Chair – April 2021 to September 2021

About us

The John Innes Centre (JIC) is a world-leading international centre of excellence in plant science and microbiology. Our mission is to generate knowledge of plants and microbes through fundamental research. We use this knowledge to benefit agriculture, the environment, human health and well-being, to train excellent scientists for the future and to engage with policy makers and the public. Find out more about the JIC on pages 4 and 5, and pages 16 to 19 outline a range of our work with industry, public engagement and our new ventures.

Our strategy

Healthy Plants, Healthy People, Healthy Planet (HP^3) is our strategy for achieving a safer, healthier and more sustainable future through the power of plant and microbial science. Read about our vision, HP^3 on pages 6 and 7.

In collaboration with world-leading academic partners we are uniquely positioned to lead the fundamental scientific advances needed to address three intertwined, era-defining challenges: feeding the world; combating global health threats and climate change.

Delivery

To date the knowledge generated by the John Innes Centre has resulted in many innovative and practical solutions to global challenges. This is the result of ground-breaking research, combined with collaboration to develop specific and applied scientific solutions. We have addressed societal problems and aided economic development in the UK and globally.

The task of the Governing Council is to ensure that the John Innes Centre retains its position as the key national and international centre of scientific excellence in plant and microbial science.

A selection of our science highlights are shown on pages 8, 9 and 10, and our recent organisational achievements can be found on pages 12 and 13.

Charitable objective

The charity's object is the advancement of education in agriculture, horticulture and biotechnology world-wide by undertaking research and disseminating the results of such research, and training research scientists.

Key Performance Indicators

JIC's key performance indicators are:

- submission levels and success rates for research grant proposals;
- publications in relevant scientific journals;
- recruitment and retention of high quality staff and students;
- annual research income vs. budget; and
- unrestricted reserves vs. budget.

Details of publications and recruitment in the year are provided in the Achievements and Highlights section.

Details of grant submissions, success rates, research income and reserves are provided in the Financial Review.

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 2026 which indicate that, taking account of reasonable possible downsides and the anticipated impact of COVID-19 on the operations and its financial resources, the Institute will have sufficient funds to meet is liabilities as they fall due for that period.

The Institute is reliant on its strategic programme funding from BBSRC, which was £16.8m in the year (2020: £13.7m). BBSRC has confirmed continued strategic funding of £13.2m for the year to March 2022 plus provisional funding at this level for a further year to March 2023 subject to the next government spending review. The Institute fully expects its funding for the year to March 2023 to be confirmed in late 2021 based on feedback from BBSRC.

Like most research organisations, the Institute's activities have been impacted by Covid-19 measures. From late March 2020 until early-May 2020, the Institute's facilities were closed to all staff and students, except for essential work and activity supporting Covid-19-related testing and research. During this period, JIC staff and students have been able to operate effectively from home and, with facilities being re-opened progressively since then, 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 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.

The Institute has prepared income, reserves and cash flow forecasts to March 2026. The forecasts indicate that the Institute will have significant cash headroom over the period, with cash balances of at least £30m for the 12 months from the signing date of this Annual Report.

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

Income

Total incoming resources for the year were £50.3m (2020: £48.1m). The increase in the year was due to additional BBSRC strategic and capital grant funding. Income excluding capital funds was £40.7m (£40.3m).

An analysis of grant income by principal sponsor is included in the notes to the financial statements. JIC's principal sponsor is the Biotechnology and Biological Sciences Research Council (BBSRC), which contributed 76% of total incoming resources (2020: 74%). Other major sources of funding were the European Union and charitable organisations.

Expenditure

Recurrent expenditure for the year amounted to £46.1m (2020: £44.7m). Staff costs accounted for £16.8m (36%) (2020: £16.7m; 37%) of expenditure.

Fundraising

JIC does not carry out any significant fundraising activities.

Net Movement in Reserves

JIC recorded a net increase in unrestricted reserves of £1.8m (2020: £1.5m). Restricted reserves increased by £7.0m (2020: £1.4m) principally due to £9.6m of capital funding (2020: £7.5m).

Subsidiaries and Related Parties

Subsidiary companies contributed an operating profit of £19,000 (2020: £96,000), while JIC's share of associates' results was a loss of £144,000 (2020: profit of £228,000). The share of associates' results in the year relates to JIC's 33% interest in Plant Bioscience Limited and 45% interest in Leaf Systems International Limited ("LSI").

Capital expenditure

Capital expenditure in the year was £9.4m (2020: £6.0m). Investment has continued from the previous year in state-of-the-art scientific equipment, energy-efficient plant infrastructure, well-found laboratory equipment and enhanced plant growth facilities.

Cash

Group cash at March 2021 was £45.2m (2020: £41.1m). JIC deposits its cash with UK registered financial institutions that meet its credit rating policy and subject to agreed counter-party limits. Investment income from cash deposits in the year was £163,000 (2020: £354,000), down on last year due to lower deposit rates.

Reserves position

Total group reserves increased by £8.9m in the year to £118.8m (2020: £2.9m to £109.9m).

Restricted reserves increased by £7.0m to £90.9m. Reserves of £9.3m relate to restricted designated capital reserves in connection with funding received from BBSRC to be used for future capital projects. Reserves of £0.1m relate to restricted designated general reserves in respect of ring-fenced strategic funding from BBSRC. The remaining £81.5m of restricted reserves relate to the value of fixed assets.

Unrestricted reserves increased by £1.8m in the year to £27.9m (2020: £26.1m), principally due to additional BBSRC strategic grant funding. Reserves of £12.6m relate to unrestricted designated reserves for planned capital and strategic investments. The remaining unrestricted reserves include general reserves of £7.3m and fixed assets reserves of £8.0m.

Reserves policy

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

- Future operational and capital expenditure requirements in the March 2026 Business Plan;
- 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.

Unrestricted reserves that have been designated by the Governing Council for specific purposes are shown in separate designated reserves. At March 2021, £12.6m of unrestricted reserves were designated for planned capital and strategic investments (2020: £9.5m).

General unrestricted reserves at March 2021 were £7.3m, above the minimum general reserves target of £6.0m set by the Governing Council.

Grant proposals and awards

During the year, JIC researchers submitted grant proposals with a sponsor value of £45.3m (2020: £33.7m) and were awarded grants with a value of £11.4m (2020: £13.0m). The success rate for grant awards in the year was 25% by value (2020: 39%).

Stakeholder Engagement – Section 172 Statement

The Trustee Directors consider that the decisions they have made during the financial year have satisfied the requirements of s172(1) of the Companies Act 2006 and that they have acted in good faith to promote the success of JIC as a whole, and in doing so having regard to the stakeholders and matters outlined in s172(1).

The Governing Council has the ultimate responsibility for the strategy of JIC and delivery of its charitable objectives. The table below sets out JIC's most significant stakeholders, why they are considered important and how the Institute engages.

Stakeholders	Why they are important	How we engage with them
Our staff and students	• We are committed to providing a supportive, inspirational and dynamic environment for our staff and students to meet future scientific and societal challenges. • We value the diversity of our staff, and are committed to the creation of a positive environment which is fair, welcoming and inclusive and where everyone is treated with dignity and respect. • We are committed to the development of all our staff and students and providing equal opportunities that encourage flexible working, career development and work-life balance.	• During the year, regular communications to employees have been provided on matters affecting them, including factors affecting the Charity's progress, and have been consulted on decisions that impact them. • All groups of staff and students have representation on the Inclusivity & Diversity Committee that meets 4 times a year to ensure an inclusive research culture • Students' progress is monitored on a regular basis and employees undertake an annual appraisal where their training needs, work-life balance and career development are discussed.
Our members	• JIC's corporate members are UK Research and Innovation (UKRI); John Innes Foundation (JIF) the University of East Anglia (UEA). Our members are key strategic partners that oversee our delivery against charitable objectives.	• The Members each nominate one Governing Council member and appoint one "observer" to attend Governing Council meetings, enabling them to participate in key decisions. • An Annual Members' meeting is held to review progress against objectives.
Norwich Research Park	• JIC is one of 4 independent, world-class research institutes based at the Norwich Research Park. The Institutes work closely together to create a unique centre of excellence in plant and microbial sciences, big data science and genomics, and food and health.	• The Institute Directors of the 4 institutes meet regularly to discuss common strategic and operational matters. • JIC, the other Institutes, UKRI, UEA, JIF and the N&NU Hospital Trust are members of Anglia Innovation Partnership LLP, an organisation established to promote collaborative solutions to global challenges in food and health.
UK Research and Innovation	• JIC is strategically funded, along with 7 other institutes, by the Biotechnology and Biological Sciences Research Council (BBSRC), part of UKRI. BBSRC supports JIC via strategic 5-year funding programmes, competitively won project grants and capital funding for infrastructure and technology investments.	• UKRI nominates a Governing Council member and appoints an "observer" to attend Governing Council meetings. • JIC holds regular meetings with BBSRC to review and progress of the Institute's mission and science programmes, including strategic and financial plans.
Research partners	• JIC is an international centre of plant and microbial research. Our success is built on our collaborations and our international outlook. • JIC is home to a range of state-of-the-art facilities and technology platforms to support scientists across the UK.	• An extensive programme of engagement with our new collaborative vision, Healthy Plants, Healthy People, Healthy Planet (HP3) is ongoing and involves discussion, input and views from stakeholders from industry, government and research partners, locally, nationally and internationally. JIC has strategic partnerships with research and academic institutions in the UK and worldwide, including Europe, China, Africa, Brazil and India.
Industry	• JIC works closely with industry and the private sector to provide access to our capabilities, and to deliver sophisticated interdisciplinary research and product development at pace.	• JIC maintains a dialogue with industry, with regular consultations and knowledge exchange. • JIC supports industry through collaborative and sponsored research and access to its facilities and platform services. JIC is proactive in identifying and responding to industry need. • JIC protects its innovations and promotes their commercialisation and adoption by Industry. • JIF nominates an industry representative as an "observer" to attend Governing Council meetings. • See p16.
Community & the environment	• Public views are at the heart of our research strategy and engaging with the public is an important part of our mission statement.	• JIC staff and students are trained in public engagement and communications and are supported to attend events, use digital media and to discuss and engage the public with our research. Examples of this can be seen on p16-19. • JIC hosts and attends community events – online, locally and nationally, to showcase, debate and discuss the nature of our research. • JIC scientists are engaged in policy discussions at a national level surrounding the use of genetic technologies for crop improvement. • JIC is investing heavily in more energy efficient facilities to reduce utilities consumption and waste.
Suppliers	• JIC seeks to maintain and develop strong, open, collaborative relationships with our supply chain.	• JIC holds regular meetings with suppliers about purchasing relationships and ethical behaviours such as adherence to Modern Slavery principles.

Risk Assessment and Management

Governing Council 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 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. Governing Council reviews a full risk report annually, including a 'heat map' tracking major risks. The Science and Impact Advisory Board (SIAB) assess the science quality and vision section of the risk register.

Principal risks and uncertainties

Risk area	Description of Risk	Management of Risk
Future BBSRC research funding	• BBSRC strategic funding is reduced as a result of poor performance or public sector spending pressures.	• Regular monitoring of scientific performance, including consideration from the Science and Impact Advisory Board. • Regular communication with BBSRC to report performance and ensure strategic alignment of research programmes. • Monitoring of performance of competitive grant submissions.
Staff retention and recruitment	• JIC is unable to retain or attract suitably skilled staff to enable it to sustain its scientific performance. • In addition to scientific impact, this risk area could also have an impact on the level of funding the institute is able to attract.	• Strategy and action plans in place, overseen by Strategic Human Resources Group. • Career development programmes in place to support high potential staff. • Recruitment strategy and processes in place, including attractive support arrangements.
COVID-19	• Loss of research activity due to staff becoming ill, or not being able to attend work due to the COVID-19. • Loss of income or additional costs incurred as a result of the impact of Covid-19 on activity. • Failure of supply chain.	• Building has been reopened subject to strict H&S/risk management protocols. • Business Continuity Group established to implement policies and oversee arrangements. • UKRI funding received to mitigate impact on grants and studentships.
Estates	• JIC's ageing estate facilities do not adequately support the delivery of its scientific objectives. • Funding is inadequate to sustain and improve facilities necessary to support scientific objectives. • Estates maintenance and infrastructure costs are too high, threatening long-term financial sustainability and the competitiveness of JIC's science.	• Plans for Next Generation Infrastructure are being developed to replace ageing buildings with flexible research infrastructure capable of integrating multidisciplinary teams and harnessing developments in technology. • Regular communication with BBSRC on Estates Strategy and potential funding requirements. • Facilities management systems enhanced. • Continued investment in energy efficiency.
Technology investment	• JIC is unable to keep pace with developments in technology underpinning its science. • Funding is inadequate to sustain and improve technology facilities.	• 5-year investment plan developed. • Funding opportunities identified and pursued for technology investments.
Compliance with sponsor funding requirements	• JIC fails to comply with sponsor grant requirements resulting in a material financial impact.	• JIC undertakes regular reviews of its grant compliance processes for sponsors and the UKRI internal auditors.
Major site incident	• A major incident disrupts scientific research programmes or administrative systems	• Business Continuity and Disaster recovery plans in place and tested periodically. • Review of compliance with health & safety and relevant regulations from government agencies and internal auditors. • Insurance arrangements in place.
Impact of leaving EU	• JIC is not able to access EU programme funding or participate in EU research collaborations. • JIC is not able to recruit or retain researchers from EU member countries.	• Regular dialogue with BBSRC and other key stakeholders on risks and emerging issues with respect to potential changes in arrangements. • JIC has established strategic collaborations with European partners outside of formal funding frameworks.

Structure, Governance and Management

Members

The Members of JIC are:

- UK Research and Innovation – Biotechnology and Biological Sciences Research Council ("BBSRC");
- John Innes Foundation ("JIF"); and
- University of East Anglia ("UEA").

The Members each have the right to nominate one governing council member and appoint one "observer" to attend Governing Council meetings. Details of member appointments are provided in the table below. The Members are all guarantors of JIC, a company limited by guarantee and a registered charity, of an amount not exceeding £1, and for a year after resignation.

Organisation and governance

JIC is incorporated in the England and Wales and is a company limited by guarantee (registered number 00511709) and a registered charity (number 223852). JIC is governed by its Memorandum and Articles of Association, adopted 27 September 2011, and its Institute Grant Agreement with BBSRC by whom it is strategically funded.

Governing Council (Board of Trustees)

The Governing Council comprises of at least the Chair, three science and three non-science Trustees. The Trustees who served during the year and up to the date of signing these financial statements were as follows:

Trustees	Appointment status	Role	Changes during period
At date of Annual Report:			
Sir T Hughes-Hallett	Independent	Chair	Appointed 1 September 2021
Prof J C Murrell	UEA appointment	Science	-
Ms J K Midura	Independent	Non-science	-
Dr D J Keith	Independent	Science	-
Mr R J Maskell	Independent	Non-science	-
Prof N J Talbot	Independent	Science	-
Mr J H Innes	Independent	Non-Science	-
Prof J P Armitage	BBSRC appointment	Science	Appointed 20 October 2020
Dr J Vincent	JIF appointment	Science	Appointed 21 July 2020
Served during the year:			
Dr W H L West	Independent	Chair	Resigned 31 March 2021
Mr K R Norman	JIF appointment	Non-science	Resigned 3 June 2020
Prof O Leyser	BBSRC appointment	Science	Resigned 3 June 2020

The Governing Council has the ultimate responsibility for the strategy of JIC. Strategy is developed under advice from SIAB and the JIC Strategy Committee.

The Governing Council is supported by an Audit Committee to oversee financial management and risk and a Remuneration Committee to consider senior staff remuneration. The full Governing Council meets five times a year, the Audit Committee twice a year and the Remuneration Committee at least once a year and otherwise as required.

The Governing Council is also supported by a Science and Impact Advisory Board which comprises international experts in science and application of science, chaired in the year by Prof Judith Armitage.

The Science and Impact Advisory Board is responsible for providing strategic and scientific advice to the Director of JIC and the Governing Council on issues relevant to the JIC's Mission and Science Programme. This includes ensuring that the JIC Science Programme maximises JIC's potential for knowledge transfer, outreach and engagement with research users, stakeholders and the general public in addition to helping in the identification and development of new scientific funding opportunities to support the development of the JIC Science Programmes.

Recruitment, induction and training of Trustees

Governing Council vacancies are advertised as necessary. The Institute will also approach individuals thought to have the right skills.

New Governing Council members are invited to spend time with members of the Executive Team. This is a chance to learn about the Institute and identify opportunities to get more involved with JIC's work.

In addition to the five formal meetings, all Trustees receive regular presentations from JIC's scientists and briefings on key issues facing the organisation.

Trustee remuneration

None of the Trustees received any remuneration in the year in respect of their role as trustee directors.

Key Management Personnel

The Trustees delegate management of the day to day activities of the charitable company to the Director of the Institute, Prof Dale Sanders, and the executive Strategy Committee.

Strategy Committee

JIC's executive Strategy Committee advises the Director at strategic and operational levels on major issues that affect the Institute with respect to research, appointments, new initiatives, business plan and infrastructure, particularly where such issues involve more than one of these areas.

Its membership is as follows:

- Director (Chair);
- Institute Strategic Programme Leaders;
- Heads of Departments Representative;
- Finance Director;
- Head of HR;
- Head of Research Grants & Contracts;
- Head of International Strategy and Partnerships;
- Head of Commercialisation;
- Head of Strategic Engagement;
- Capital Projects Manager;
- Head of Directorate;
- Faculty Representative Group Leader.

Strategy Committee is supported by a number of other executive committees and groups including: Research Committee; Finance Committee; Heads of Departments Committee; KEC Strategy Committee; Strategic HR Committee; Inclusivity & Diversity Committee; and Health & Safety Committee.

Employees

JIC is a dynamic, multinational community of about 400 scientists and post graduate students. JIC's reputation for scientific excellence is international and it attracts some of the best scientists and brightest students internationally. JIC is committed to the training of the next generation of scientists. Activities include an undergraduate summer school (jointly with The Sainsbury Laboratory and Earlham Institute) that gives students the unique opportunity to spend the summer on site. There are two different routes to a PhD: the prestigious rotation studentships and the NRP Doctoral Training Programme. We host Post-Doctoral scientists and independent Fellows from around the world.

JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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.

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

Equality and Diversity

It is the Charity'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 Charity 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 Charity's policies follow these principles.

JIC is aware of its statutory duty to support the employment of disabled persons where possible, both in recruitment and by retention of employees who become disabled whilst in the employment of the charitable company, as well as generally through training and career development.

In 2017, JIC became the first research institute to be awarded a 'Gold' Athena SWAN award. The Athena SWAN charter recognises and celebrates good practice in recruiting, retaining and promoting women in science, technology, engineering, maths and medicine (STEMM) in higher education.

This award recognises JIC's culture that embraces the principles of flexibility that provide for family-friendly working practices, while at the same time demonstrating a commitment to career advancement for all employees.

JIC's ability to attract the best researchers and students internationally creates a vibrant, dynamic and intellectually nurturing environment for both training and scientific discovery and is a primary driver of our scientific effectiveness. JIC recognises the value of a diverse workforce and, although Athena SWAN is focused on gender equality, we believe that a fair and equitable working environment is key to both a productive workforce and delivery of JIC strategy, and that initiatives put in place to address gender inequality ultimately benefit all staff. JIC is a member of Stonewall Diversity champion programme.

During the year, regular communications to employees have been provided on matters affecting them, including factors affecting the Charity's progress, and they have been consulted on decisions affecting them.

Related Parties

Subsidiaries

JIC's subsidiaries in the year were as follows:

- John Innes Enterprises Limited (contract research);
- Norwich Biosciences Limited (intellectual property management);
- Norwich Research Limited (dormant);
- JIC NRP Capital Limited (dormant).

Associates

JIC's associates in the year were as follows:

- NBI Partnership Limited;
- Plant Bioscience Limited;
- Leaf Systems International Limited.

NBI Partnership Limited

JIC has a 25% interest in NBI Partnership Limited ("NBIP"). NBIP supplies support and administrative services to JIC and the three other research organisations based on the Norwich Research Park (Quadram Bioscience Institute, Earlham Institute and The Sainsbury Laboratory). NBIP fully recharges its costs to the four research organisations and accordingly it generates no profit or loss.

Plant Bioscience Limited

JIC owns one third of the share capital of Plant Bioscience Limited ("PBL"). PBL manages the intellectual property rights of the charitable company and other organisations.

Leaf Systems International Limited

JIC owns 45% of the voting share capital and at 31 March 2021 had invested £1,630,000 in non-voting share capital of Leaf Systems International Limited ("LSI"). LSI is a commercial research & development company specialising in the expression and production of proteins, metabolites and complex natural products.

JIC has agreed to provide LSI with a loan facility of £112,500, which is repayable between December 2020 and December 2022. As at 31 March 2021, £75,000 was drawn down by LSI (2020: £nil). The loan has been provided on an arm's length basis and interest is payable on the loan at a rate of 2.5% pa.

BBSRC

BBSRC is a member of the charitable company.

JIC is strategically funded, along with seven other institutes, by BBSRC. BBSRC supports JIC via strategic 5-year 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.

John Innes Foundation

The John Innes Foundation ("JIF") is a member of the charitable company. JIC occupies land and buildings which are owned by JIF, with the principal research buildings leased at a peppercorn rent. In addition, JIF also sponsors the training of a number of students. Studentship grants in the year were £390,000 (2020: £381,000). Further details are provided in note 23 to the financial statements.

Anglia Innovation Partnership LLP

JIC is a member of Anglia Innovation Partnership LLP through its 100% subsidiary, JIC NRP Capital Limited. Anglia Innovation Partnership LLP is responsible for the management and development of the Norwich Research Park (NRP) estate and for the furtherance of the NRP Enterprise Vision.

JIC is entitled to receive a share of certain profits generated by Anglia Innovation Partnership LLP, however it has no liability for losses or in the event of insolvency. Anglia Innovation Partnership LLP has not yet generated any profits.

University of East Anglia

University of East Anglia ("UEA") is a member of the charitable company. The majority of PhD students at JIC are registered with UEA.

Energy and Carbon reporting

GHG emissions and energy use data

	Units	2020/21	2019/20
Emissions from combustion of gas (Scope 1)	tCO2e	8,834	8,923
Emissions from combustion of fuel for transport purposes (Scope 1)	tCO2e	8	22
Emissions from purchase of electricity (Scope 2). Location based grid factors.	tCO2e	1,708	1,849
Market based electricity Scope 2 emissions (renewable electricity contract)	tCO2e	854	1,849
Emissions from generation of electricity that is consumed in a transmission and distribution system for which the company does not own or control (Scope 3)	tCO2e	147	159
Emissions from business travel in rental cars or employee - owned vehicles where company is responsible for purchasing the fuel (Scope 3)	tCO2e	0.2	1
Total gross CO2e based on above	tCO2e	10,698	10,954
Energy consumption used to calculate above emissions	kWh	55,415,203	56,545,069
Intensity Metric	m2 Building area	39,997	39,997
Intensity Ratio	tCO2/m2 Building area	0.267	0.274

Methodology

JIC has followed the 2019 HM Government Environmental Reporting Guidelines. Emissions factors used are tonnes of CO2 equivalent and data has been calculated using the 2020 UK Government's Conversion Factors for Company Reporting.

Scope 1 emissions relate to on-site gas usage and emissions from Company owned vehicles. Scope 2 emissions relate to on-site imported electricity usage. Scope 3 emissions relate to grey fleet and electricity transmissions and distribution losses.

The primary source for calculating energy consumption are the supplier invoices. Electricity is supplied to other companies on site, this electricity consumption is monitored using sub meter readings and deducted from the total site power usage to calculate JIC electricity consumption only.

JIC operates three CHP engines. The proportion of the JIC power and heat usage generated from the CHP's has been calculated. To be able to do this, the measured heat and power efficiencies of the engines have been used to calculate the fuel input associated to the energy outputs.

Energy management

Operational efficiency and improvements are a key part of JIC's strategy in all activities and operations and JIC is committed to responsible energy consumption.

During the financial year, JIC has continued to monitor and reduce its energy usage and associated carbon dioxide emissions and the following are some of the major improvements that have achieved:

- Replacement of the main twin burner boiler installed in 1985 with a new more efficient boiler.
- Ongoing programme to upgrade shell and tube heating calorifiers with plate heat exchangers and upgrading of the associated BMS controls.
- Work has continued to upgrade the BMS controls across the site to improve efficiencies.
- Replacement of two HV 1250KVA transformers each 25 years old, with new modern Wilson Super Low Loss Amorphous Tier 2 2021 ECO Design.

Due to the COVID-19 pandemic, there was less activity on site resulting in a small reduction in electricity usage. There was also less business travel due to travel restrictions in place



Statement of responsibilities of the trustees of John Innes Centre in respect of the Trustees' Annual Report and 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.

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.

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 JIC to be charitable in nature.

Disclosure of information to auditor

The trustees confirm that:

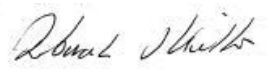
- so far as each trustee is aware, there is no relevant audit information of which the Company's auditor is unaware, and
- the trustees have taken all the steps that they ought to have taken as directors in order to make themselves aware of any relevant audit information and to establish that the Company's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

Independent auditor

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

Approval of the Trustees' report

The Trustees' Report and Strategic Report were approved by Governing Council on 16 December 2021.



Dr D J Keith, Interim Chair

Independent Auditor's report
To the Members of John Innes Centre

Opinion
We have audited the financial statements of John Innes Centre (the 'parent charitable company') and its subsidiaries (the 'group') for the year ended 31 March 2021 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 2021, 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 34, 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 group's 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 the valuation of leasehold land and buildings; 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

16 December 2021

Consolidated statement of financial activities

For the year ended 31 March 2021

Incorporating an income and expenditure account

	Note	Unrestricted funds £000	Restricted general funds £000	Restricted capital funds £000	**Total 2021 £000**	Total 2020 £000
Income						
Income from charitable activities						
Grant income		-	36,867	-	**36,867**	36,241
Capital and maintenance grants		-	1,228	8,326	**9,554**	7,824
Other charitable income		829	-	-	**829**	668
Income from other trading activities						
Trading income		462	-	-	**462**	331
Rental income		64	-	-	**64**	368
Investment income		170	-	-	**170**	361
Share of operating result of associates	12	-	-	-	-	228
Other income		2,322	-	-	**2,322**	2,093
Total income	2	3,847	38,095	8,326	**50,268**	48,114
Expenditure						
Charitable activities	3	(3,575)	(35,169)	(6,219)	**(44,963)**	(43,898)
Raising funds	3	(393)	-	-	**(393)**	(442)
Trading expenditure	3	(443)	-	-	**(443)**	(235)
Other resources expended	3	(200)	-	-	**(200)**	(164)
Share of operating result of associates	12	(144)	-	-	**(144)**	-
Total expenditure		(4,755)	(35,169)	(6,219)	**(46,143)**	(44,739)
Net income for the year		(908)	2,926	2,107	**4,125**	3,375
Transfers and revaluation						
Capital transfers	20	(395)	(111)	506	**-**	-
Other transfers	20	3,111	(3,111)	-	**-**	-
Gains/(Loss) on revaluation of tangible fixed assets	10	-	-	4,730	**4,730**	(504)
Net income and net movement in funds for the year		1,808	(296)	7,343	**8,855**	2,871
Funds brought forward		26,097	344	83,486	**109,927**	107,056
Funds carried forward	20	27,905	48	90,829	**118,782**	109,927

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 notes on pages 40 to 57 form part of these financial statements.

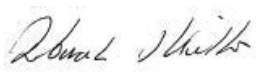
Consolidated and charitable company balance sheets
As at 31 March 2021

	Note	**Group 2021** £000	Group 2020 £000	**Company 2021** £000	Company 2020 £000
Fixed Assets					
Tangible assets	10	**87,918**	81,735	**88,155**	81,989
Intangible assets	11	**-**	12	**-**	12
Investments	12	**-**	-	**1**	1
Investments in associates					
Share of total assets		**3,664**	3,944	**-**	-
Share of total liabilities		**(2,014)**	(2,395)	**-**	-
	12	**1,650**	1,549	**-**	-
Total fixed assets		**89,568**	83,296	**88,156**	82,002
Current assets					
Stocks	13	**258**	266	**258**	266
Debtors	14	**17,438**	9,864	**17,392**	9,765
Cash at bank and in hand	15	**45,215**	41,112	**45,010**	40,821
		62,911	51,242	**62,660**	50,852
Current liabilities					
Creditors: amounts falling due within one year	16	**(33,413)**	(24,327)	**(33,400)**	(24,270)
Total net current assets		**29,498**	26,915	**29,260**	26,582
Total assets less current liabilities		**119,066**	110,211	**117,416**	108,584
Provisions for liabilities and charges	18	**(284)**	(284)	**(284)**	(284)
Total net assets	19	**118,782**	109,927	**117,132**	108,300
The funds of the charity					
Unrestricted funds					
Fixed assets reserve	20	**7,994**	9,834	**6,344**	9,305
Designated capital reserve	20	**12,645**	9,488	**12,645**	9,488
General reserve	20	**7,266**	6,775	**7,028**	6,442
Total unrestricted funds		**27,905**	26,097	**26,017**	25,235
Restricted funds					
General reserve	20	**48**	344	**48**	344
Fixed assets reserve	20	**57,742**	51,749	**57,980**	50,984
Designated reserves	20	**9,255**	10,024	**9,255**	10,024
Revaluation reserve	20	**23,832**	21,713	**23,832**	21,713
Total restricted funds		**90,877**	83,830	**91,115**	83,065
Total Charity funds		**118,782**	109,927	**117,132**	108,300
Capital employed	20	**118,782**	109,927	**117,132**	108,300

A separate income and expenditure account has not been presented for JIC as this is exempted by Section 408 of the Companies Act 2006. The profit after tax of JIC was £8,832,000 (2020: £2,202,000).

The financial statements on pages 37 to 57 were approved by the Governing Council on 16 December 2021 and were signed on its behalf by:

Dr D J Keith, Interim Chair
Company registration number: 00511709



Consolidated statement of cash flows

For the year ended 31 March 2021

	Total 2021	Total 2020
	£000	£000
Cash flows from operating activities		
Net income and net movement in funds for the year	**8,855**	2,871
Share of operating result of associates	**144**	(228)
Revaluation of tangible fixed assets	**(4,730)**	504
Net income for the year	**4,269**	3,147
Interest receivable	**(170)**	(361)
Depreciation and amortisation	**5,645**	5,507
Impairment of investment	**(245)**	1,079
Impairment of land	**819**	-
Capital grants receivable	**(8,326)**	(7,499)
Loss on disposal of tangible assets	**1,449**	13
Decrease/(Increase) in stocks	**8**	(52)
Increase in debtors	**(7,574)**	(2,972)
Increase in creditors	**9,086**	2,229
Net cash provided by operating activities	**4,961**	1,091
Cash flows from investing activities:		
Interest received	**170**	361
Purchase of tangible assets	**(9,381)**	(6,011)
Investment in associate	**-**	(350)
Capital grants received	**8,326**	7,499
Proceeds from sale of tangible assets	**27**	80
Net cash (used in)/ provided by investing activities	**(858)**	1,579
Change in cash and cash equivalents in the reporting period	**4,103**	2,670
Cash and cash equivalents at the beginnning of the period	**41,112**	38,442
Total cash and cash equivalents at the end of the year	**45,215**	41,112

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

The notes on pages 40 to 57 form part of these financial statements.

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 (FRS102)– (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 as follows:

b. Basis of consolidation

The consolidated financial statements incorporate the financial statements of JIC and all its subsidiary undertakings in accordance with Financial Reporting Standard ("FRS") 102 "Accounting for Subsidiary Undertakings", and associated entities which are accounted for using the equity method.

Associates are entities over which JIC has significant influence but not control. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise JIC's share of the profit or loss of the associate after the date of acquisition. JIC's share of post-acquisition operating result is recognised in the statement of financial activities. Determination is made at each balance sheet date whether there is any evidence that the investment in the associate is impaired. If this is the case, the amount of impairment is calculated as the difference between the recoverable amount of the associate and its carrying value, and this amount is recognised adjacent to share of operating result of associates in the statement of financial activities.

JIC is one of four members of NBI 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.

The financial statements of all group undertakings and associates are made up to 31 March 2021.

A separate income and expenditure account has not been presented for JIC as this is exempted by Section 408 of the Companies Act 2006. The surplus of JIC was £8,832,000 (2020: £2,202,000).

c. Going concern

The Trustees have prepared cash flow forecasts for the period to March 2026 which indicate that, taking account of reasonable possible downsides and the anticipated impact of COVID-19 on the operations and its financial resources, the Institute will have sufficient funds to meet is liabilities as they fall due for that period.

The Institute is reliant on its strategic programme funding from BBSRC, which was £16.8m in the year (2020: £13.7m). BBSRC has confirmed continued strategic funding of £13.2m for the year to March 2022 plus provisional funding at this level for a further year to March 2023 subject to the next government spending review. The Institute fully expects its funding for the year to March 2023 to be confirmed in late 2021 based on feedback from BBSRC.

Like most research organisations, the Institute's activities have been impacted by Covid-19 measures. From late March 2020 until early-May 2020, the Institute's facilities were closed to all staff and students, except for essential work and activity supporting Covid-19-related testing and research. During this period, JIC staff and students have been able to operate effectively from home and, with facilities being re-opened progressively since then, 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 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.

The Institute has prepared income, reserves and cash flow forecasts to March 2026. The forecasts indicate that the Institute will have significant cash headroom over the period, with cash balances of at least £30m for the 12 months from the signing date of this Annual Report.

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. Income

Charitable grant income represents grants received and receivable in the year from outside granting bodies.

Grants that provide core funding are recognised in the year in which entitlement passes. Grant funding received to train students and 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.

Other charitable income represents non-grant revenue from providing scientific research services to other academic institutions and other services. Revenue is recognised in the year in which the obligation is fulfilled.

Trading income, which includes rent, other letting income and other income, relates to the non-charitable services undertaken by Norwich Biosciences Limited and John Innes Enterprises Limited, subsidiary companies of JIC, and is recognised in accordance with the terms of the contracts entered into, reflecting the point at which the obligations of the companies 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 earnt.

Other income includes site infrastructure charges, UEA tuition fee income and miscellaneous income. Revenue is recognised in the year in which the obligation is fulfilled.

1. Accounting Policies (continued)

Capital grants are recognised 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.

e. Expenditure
Charitable activity expenditure 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.

Raising funds represents the cost of obtaining funds for research. The cost of obtaining funds includes an estimate of the time/salary cost of project leaders preparing and reviewing grant application forms.

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 allocated to charitable activity expenditure, costs of generating funds and governance costs based upon activity or headcount as indicated in note 4 to the financial statements.

Other expenditure relates to expenditure maintaining capital assets that does not meet the capitalisation policy.

Trading expenditure relates to the costs of undertaking the non-charitable services performed by subsidiary companies of JIC, and is recognised in the period in which it is incurred.

f. Restricted funds
Where research at JIC 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.

From April 2018 the strategic programme grants from the UK Research and Innovation - Biotechnology and Biological Sciences Research Council ("BBSRC") are shown as restricted.

A restricted fixed assets reserve has been established representing the net book value of fixed assets purchased from capital grants.

Restricted reserves include a designated capital reserve of £9,255,000 (2020: £10,024,000) in connection with funding received from BBSRC, which is to be used on future capital projects to be agreed with BBSRC.

g. Unrestricted funds
Research grants that do not contain conditions for the final receipt of funds have been treated as unrestricted. Funds received for non-specified purposes have also been included as unrestricted.

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 Governing Council for specific purposes are shown in separate designated reserves.

h. 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.

i. 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.

j. Revalue depreciation transfer
A transfer from the restricted fixed asset reserve to the revaluation reserve is made in relation to the differences in the historic cost and revalued depreciated costs.

k. Designated capital transfers
A transfer from the unrestricted general reserve to the unrestricted designated reserve is made in relation to the expenditure which had been designated by Governing Council for use in the financial projections to March 2026.

l. Centre funded capital
Capital expenditure funded from unrestricted reserves is shown as a transfer from the unrestricted designated capital reserve or general reserve to the unrestricted fixed asset reserve.

m. Tangible 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 using the straight line method to write off the cost or valuation of assets, less any estimated residual value, over their estimated useful lives at the following rates:

Leasehold land and buildings – over lease term or useful life, if shorter;

Freehold land – not depreciated;

Freehold buildings – estimated economic life;

Plant, machinery and equipment –estimated economic life;

Scientific equipment - 5 to 15 years straight line;

Computer equipment – 3 years straight line;

Motor vehicles – 4 years straight line;

Combined heat and power scheme – 20 years straight line.

The leasehold buildings have been depreciated over their estimated economic life. The Trustees have determined that land is not subject to depreciation. Assets in the course of construction are not depreciated until the asset is in full use.

JIC includes in its financial statements leasehold land and buildings owned by third parties, which it occupies and enjoys through extended peppercorn leases, at their fair value. The Trustees consider that in substance, the risks and rewards of ownership of the assets have passed to the Institute, and as such follow a policy of recognising the assets on the balance sheet reflects its continuing occupancy of these assets for the foreseeable future.

1. Accounting Policies (continued)

n. Revaluation of tangible fixed assets
Leasehold land and buildings are revalued by an external surveyor on a depreciated replacement cost basis every five years. The valuation is updated in the interim period using indexation tables. Gains on revaluation are credited to the revaluation reserve. Losses, except in cases of a clear consumption of economic benefit, are charged to the operating result for the period, to the extent they are not offset by previous gains. In cases of a clear consumption of economic benefit, losses are charged to unrestricted or restricted reserves as applicable, irrespective of whether they are offset by previous gains.

o. 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

Intangible assets under construction are not amortised until the asset is in full use.

p. Fixed asset investments
The consolidated balance sheet includes the group's share of each associate's gross assets and liabilities. The share of each associate's net income is reported in JIC's consolidated statement of financial activities.

q. Stocks
Stocks are stated at the lower of cost and net realisable value. Provision is made, where necessary, for slow moving or obsolete stock.

r. Debtors
Debtors are non-interest bearing and are stated at their nominal value, as reduced by appropriate allowances for estimated irrecoverable amounts.

Included in debtors is a loan (£75k) provided to LSI, which is repayable between December 2020 and December 2022. The loan has been provided on an arm's length basis and interest is payable on the loan at a rate of 2.5% pa.

s. 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 are disclosed in note 24 to the financial statements.

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

u. Loans
Loans are stated on the balance sheet at amortised cost.

v. 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.

w. Staff and Pensions
JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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.

JIC 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.

x. 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.

y. Operating leases
Rental costs are charged to the statement of financial activities on a straight line basis over the life of the lease.

z. Foreign currency transactions
The functional and reporting currency 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.

aa. 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 such as trade and other accounts receivable and payable.

bb. 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 above. The amount of depreciation charged and net book value of the assets is included in Note 10.

- Leasehold land and buildings are held at a revalued amount. The valuation is performed by an external surveyor on a depreciated replacement cost basis every five years. The valuation is updated in the interim period using indexation tables.

2. Analysis of Incoming Resources

	Research activities	Student activities	Other activities	**Total 2021**	Research activities	Student activities	Other activities	**Total 2020**
	£000	£000	£000	**£000**	£000	£000	£000	**£000**
Grant income								
BBSRC	25,660	3,229	-	**28,889**	24,435	3,315	-	**27,750**
Other government departments	924	78	-	**1,002**	959	104	-	**1,063**
European Union	2,773	63	-	**2,836**	2,937	43	-	**2,980**
Industrial partners	615	37	-	**652**	161	169	-	**330**
John Innes Foundation	170	390	-	**560**	136	381	-	**517**
Other charities	1,999	116	-	**2,115**	1,946	505	-	**2,451**
Universities	59	7	-	**66**	23	12	-	**35**
Other grants	743	4	-	**747**	1,063	52	-	**1,115**
Total grant income	32,943	3,924	-	**36,867**	31,660	4,581	-	**36,241**
Capital and maintenance grants								
BBSRC								
Capital expenditure	9,554	-	-	**9,554**	7,824	-	-	**7,824**
Total capital grants	9,554	-	-	**9,554**	7,824	-	-	**7,824**
Other charitable income								
Scientific services	-	-	564	**564**	-	-	449	**449**
Miscellaneous income	-	-	265	**265**	-	-	219	**219**
Total other charitable income	-	-	829	**829**	-	-	668	**668**
Trading income								
John Innes Enterprises Limited	-	-	442	**442**	-	-	253	**253**
Norwich Biosciences Limited	-	-	20	**20**	-	-	78	**78**
Total trading income	-	-	462	**462**	-	-	331	**331**
Rental income								
Conferencing Facilties	-	-	(3)	**(3)**	-	-	241	**241**
Hill House	-	-	67	**67**	-	-	127	**127**
Total rental income	-	-	64	**64**	-	-	368	**368**
Investment income								
Interest receivable on cash deposits	-	-	163	**163**	-	-	354	**354**
Interest receivable on loan to related party	-	-	7	**7**	-	-	7	**7**
Total investment income	-	-	170	**170**	-	-	361	**361**
Income from investment in associates	-	-	_	**-**	-	-	228	**228**
Total associates income	-	-	-	**-**	-	-	228	**228**
Other generated income								
Site infrastructure recharges	-	-	805	**805**	-	-	935	**935**
Other	-	-	1,517	**1,517**	-	-	1,158	**1,158**
Total other generated income	-	-	2,322	**2,322**			2,093	**2,093**
Total income	42,497	3,924	3,847	**50,268**	39,484	4,581	4,049	**48,114**

- Grant income of £36,867k (2020: £36,241) is all restricted general funds.
- Capital grants of £9,554k (2020: £7,824k), £1,228k (2020: £325k) is restricted general funds and £8,326k (2020: £7,499k) is restricted capital funds
- Other charitable income of £829k (2020: £668k), £829k (2020: £668k) is unrestricted funds.
- In both periods all trading and investment income is unrestricted.

3. Analysis of Resources Expended

	Note	Research activities £000	Student activities £000	Other activities £000	**Total 2021 £000**	Research activities £000	Student activities £000	Other activities £000	Total 2020 £000
Direct charitable expenditure:									
Staff costs		13,490	-	-	**13,490**	13,318	-	-	13,318
Direct costs		11,925	4,071	-	**15,996**	11,097	4,534	-	15,631
Depreciation and impairment		6,219	-	-	**6,219**	6,586	-	-	6,586
Governance costs	4	-	-	51	**51**	-	-	59	59
Support costs	4	6,947	2,260	-	**9,207**	6,796	1,508	-	8,304
Expenditure on charitable activities		**38,581**	**6,331**	**51**	**44,963**	**37,797**	**6,042**	**59**	**43,898**
Raising funds	4	-	-	393	**393**	-	-	442	442
Trading expenditure		-	-	443	**443**	-	-	235	235
Other resources expended		-	-	200	**200**	-	-	164	164
Share of operating result of associates		-	-	144	**144**	-	-	-	-
Total expenditure		**38,581**	**6,331**	**1,231**	**46,143**	**37,797**	**6,042**	**900**	**44,739**

Included within expenditure is restricted general expenditure of £35,169k (2020: £35,939k), and restricted capital resources expended (depreciation) of £6,219k (2020: £6,586k). All other expenditure is unrestricted.

Analysis of governance costs	**Total 2021 £000**	Total 2020 £000
Staff costs	**15**	23
Travel costs	-	4
Other costs	**36**	32
Total governance costs	**51**	**59**

4. Allocation of Support Costs, Governance and Raising Funds

	Research activities £000	Student activities £000	Raising funds £000	Governance costs £000	**Total £000**	Basis of Allocation
Governing Council and SIAB	-	-	-	15	**15**	Headcount
Lab management	393	128	-	-	**521**	Headcount
Institute management	552	181	-	-	**733**	Headcount
Scientific services	561	183	-	-	**744**	Headcount
Facilities management and utilities*	3,610	1,181	-	-	**4,791**	Headcount
Finance and Purchasing*	502	164	-	-	**666**	Headcount
Computing and Library*	581	190	-	-	**771**	Headcount
Human Resources*	262	86	-	-	**348**	Headcount
Contracts services*	-	-	300	-	**300**	Activity
Other support services	486	147	93	36	**762**	Activity
Total support costs 2021	**6,947**	**2,260**	**393**	**51**	**9,651**	
Governing Council and SIAB	-	-	-	27	**27**	Headcount
Lab management	410	91	-	-	**501**	Headcount
Institute management	425	94	-	-	**519**	Headcount
Scientific services	3	1	-	-	**4**	Headcount
Facilities management and utilities*	4,005	889	-	-	**4,894**	Headcount
Finance and Purchasing*	545	121	-	-	**666**	Headcount
Computing and Library*	632	140	-	-	**772**	Headcount
Human Resources*	285	63	-	-	**348**	Headcount
Contracts services*	-	-	300	-	**300**	Activity
Other support services	491	109	142	32	**774**	Activity
Total support costs 2020	**6,796**	**1,508**	**442**	**59**	**8,805**	

* includes services supplied by NBI Partnership Limited (see note 23).

5. Taxation

John Innes Centre ("JIC") 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 (2020: £nil) tax charge payable.

Unutilised losses of £79,000 (2020: £79,000) have been carried forward within the subsidiary companies for offset against future taxable profits. A deferred tax asset has not been recognised due to uncertainty over utilisation of these losses.

6. Operating Surplus

Operating surplus is stated after charging/(crediting):	**Total 2021**	Total 2020
	£000	£000
Audit services:		
Fees payable to the charitable company's auditors for the audit of charitable company and consolidated financial statements	**25**	25
Fees payable for the audit of the charitable company's subsidiaries pursuant to legislation	**4**	4
Depreciation and amortisation	**6,464**	5,507
Impairment of investment in associate	**(245)**	1,079
Loss on disposal of tangible assets	**1,449**	13
Hire of plant and equipment	**64**	54
Rent of land and buildings	**50**	21
(Profit)/Loss on foreign exchange translations	**124**	(7)

7. Net Income from Trading Activities of Subsidiaries

Profit and loss account	John Innes Enterprises Limited	Norwich Biosciences Limited	**Total 2021**	John Innes Enterprises Limited	Norwich Biosciences Limited	**Total 2020**
	£000	£000	**£000**	£000	£000	**£000**
Turnover	442	20	**462**	253	78	**331**
Cost of sales	(443)	-	**(443)**	(208)	(27)	**(235)**
Gross profit	(1)	20	**19**	45	51	**96**
Administrative expenses	-	-	**-**	-	-	**-**
Operating profit	(1)	20	**19**	45	51	**96**
Interest received	-	-	**-**	-	-	**-**
Operating profit for the year	(1)	20	**19**	45	51	**96**

In addition to the above, £123,914 (2020: £225,742) in Gift Aid was paid to the charitable company in the year.

8. Remuneration of Members of the Governing Council

None of the members of the Governing Council received any remuneration from the group during the current or prior year for their duties as Trustees.

There were no attendance expenses incurred by trustees whilst carrying out their duties during the year (2020: 3 trustees, £421).

9. Employee Information

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

Group and charitable company	**2021**	2020
	Number	Number
Scientific	**347**	354
Office management and services	**28**	38
Total	**375**	392

The aggregate payroll costs of these persons were:

Group and charitable company		**2021**	2020
	Note	**£000**	£000
Wages and salaries		**13,356**	13,300
Redundancy costs		**14**	95
Social security costs		**1,387**	1,307
Other pension costs	22	**2,019**	2,016
Total		**16,776**	16,718

An analysis of the number of staff who fall within staff cost bands (excluding pension cost) from £60,000 upwards is provided below:

Group and charitable company	**2021**	2020
	Number	Number
£60,000 - £69,999	**14**	14
£70,000 - £79,999	**6**	6
£80,000 - £89,999	**9**	8
£90,000 - £99,999	**8**	5
£100,000 - £109,999	**3**	4
£110,000 - £119,999	**2**	2
£120,000 - £129,999	**2**	1
£130,000 - £139,999	**1**	-
£150,000 - £159,999	**1**	1
£180,000 - £189,999	**1**	1
Total	**47**	42

The number of staff with emoluments greater than £60,000 who were also members of the Research Councils' Pension Schemes was twenty-five (2020: twenty-three). Seventeen staff (2020: Twelve) with emoluments greater than £60,000 are members of a defined contribution pension scheme.

Staff that joined prior to 1 October 2011 were employed by BBSRC up to 1 October 2017, when these employees transferred employment to the Institute under TUPE. Transferred employees retain their membership of the Research Councils Pension Scheme, where applicable, with JIC becoming an admitted employer in the scheme.

Staff that joined after 1 October 2011 are employed under JIC terms & conditions.

The key management personnel of the parent charity, JIC, comprise of the Trustees and the members of the strategy committee.

The key management personnel of the group comprise those of the charity and the key management personnel of the wholly owned subsidiaries, John Innes Enterprises Ltd, Norwich Biosciences Ltd, Norwich Research Ltd and JIC NRP Capital Ltd. All the subsidiaries key management personnel are the same as the parent company. No staff costs were recharged in respect of this. The employee costs (salaries, social security costs and pension costs) of the key management personnel for the group and charitable company were £1,568,098 (2020: £1,487,433).

10. Tangible Assets

Group	Freehold land and buildings	Long leasehold land and buildings	Plant, machinery and equipment	Assets under construction	Total
	£000	£000	£000	£000	**£000**
Cost/Valuation					
At 1 April 2020	3,769	68,902	38,426	3,094	**114,191**
Transfers	-	625	1,969	(2,594)	**-**
Additions	-	597	4,682	4,102	**9,381**
Revaluation	-	(7,548)	-	-	**(7,548)**
Disposals	-	(2,196)	(299)	(34)	**(2,529)**
At 31 March 2021	**3,769**	**60,380**	**44,778**	**4,568**	**113,495**
Accumulated Depreciation					
At 1 April 2020	-	9,938	22,518	-	**32,456**
Charge for the year	819	3,096	2,537	-	**6,452**
Revaluation	-	(12,278)	-	-	**(12,278)**
Disposals	-	(756)	(297)	-	**(1,053)**
At 31 March 2021	**819**	**-**	**24,758**	**-**	**25,577**
Net book value at 31 March 2021	**2,950**	**60,380**	**20,020**	**4,568**	**87,918**
Net book value at 31 March 2020	3,769	58,964	15,908	3,094	81,735

Charitable company	Freehold land and buildings	Long leasehold land and buildings	Plant, machinery and equipment	Assets under construction	Total
	£000	£000	£000	£000	**£000**
Cost/Valuation					
At 1 April 2020	3,769	69,166	38,426	3,094	**114,455**
Transfers	-	625	1,969	(2,594)	**-**
Additions	-	597	4,682	4,102	**9,381**
Revaluation	-	(7,575)	-	-	**(7,575)**
Disposals	-	(2,196)	(299)	(34)	**(2,529)**
At 31 March 2021	**3,769**	**60,617**	**44,778**	**4,568**	**113,732**
Accumulated Depreciation					
At 1 April 2020	-	9,948	22,518	-	**32,466**
Charge for the year	819	3,113	2,537	-	**6,469**
Revaluation	-	(12,305)	-	-	**(12,305)**
Disposals	-	(756)	(297)	-	**(1,053)**
At 31 March 2021	**819**	**-**	**24,758**	**-**	**25,577**
Net book value at 31 March 2021	**2,950**	**60,617**	**20,020**	**4,568**	**88,155**
Net book value at 31 March 2020	3,769	59,218	15,908	3,094	81,989

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

JIC includes in its financial statements land and buildings owned by third parties, which it occupies and enjoys through extended peppercorn leases, at their full value. The Trustees consider that in substance, the risks and rewards of ownership of the assets have passed to the Institute, and as such a policy of recognising the assets on the balance sheet reflects its continuing occupancy of these assets for the foreseeable future.

The group and charitable company's leasehold land and buildings were revalued by an external surveyor (Powis Hughes Chartered Surveyors, RICS) on a depreciated replacement cost basis at 31 March 2021.

Leasehold land and buildings on an historical cost basis would be recorded at a net book value of £36,248,000 (2020: £39,506,000).

All of the charitable company's assets at 31 March 2021 are used for direct charitable purposes.

11. Intangible Assets

Group and Charitable company	Software development	Total
	£000	£000
Cost		
At 1 April 2020	147	**147**
Additions	-	-
At 31 March 2021	**147**	**147**
Accumulated Depreciation		
At 1 April 2020	135	**135**
Charge for the year	12	**12**
At 31 March 2021	**147**	**147**
Net book value at 31 March 2021	**-**	**-**
Net book value at 31 March 2020	12	**12**

12. Investments

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
John Innes Enterprises Limited	02549904	England	Contract research	100% ordinary shares
Norwich Biosciences Limited	03076575	England	Management of intellectual property	100% ordinary shares
Norwich Research Limited	02814101	England	Dormant	100% ordinary shares
JIC NRP Capital Limited	06145922	England	Member of Anglia Innovation Partnership LLP	100% ordinary shares

The registered address for all the subsidiaries is John Innes Centre, Norwich Research Park, Colney, Norwich, NR4 7UH.

The charitable company's investment in subsidiary undertakings at cost amounts to £1,248 (2020: £1,248) and accumulated impairment of £244 (2020: £244) has been recognised against cost.

JIC NRP Capital Limited is a member of Anglia Innovation Partnership LLP (formerly Norwich Research Partners 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. The company did not trade during the year.

The net income from trading activities of the subsidiaries during the year is shown in note 7.

Associates

The charitable company has an investment in Plant Bioscience Limited ("PBL"), a company registered in England and Wales, representing 33% (2020: 33%) of the ordinary £1 issued share capital. Plant Bioscience Limited manages the intellectual property rights of the charitable company and other organisations. This company is deemed to be an associate of the group and has therefore been included in the consolidated financial statements on that basis.

The charitable company has a 25% interest in NBI Partnership Limited ("NBIP"). NBIP supplies support and administrative services to JIC and the other Norwich Institutes (Quadram Bioscience Institute, 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.

The charitable company has an investment of 45% voting share capital and £1,630,000 non-voting share capital in Leaf Systems International Ltd ("LSI"). LSI is a commercial research & development company specialising in the expression and production of proteins, metabolites and complex natural products. The value of JIC's investment in LSI has been fully written down at March 2021 and March 2020 to reflect the early stage of LSI's development and current trading position.

12. Investments (continued)

Investments – Company

The movement in the value of investments during the year was as follows:

	Total 2021	Total 2020
	£000	£000
Valuation		
At beginning of year	**1**	1,281
Acquisition	**-**	350
Impairment	**-**	(1630)
At end of year	**1**	1
Historical cost		
As at 1 April 2020 and 31 March 2021	**1,631**	1,631

Investments – Group

The Group's share of the operating results of associates was as follows:

Group	Leaf Systems International	Plant Bioscience Limited	**Total 2021**	Leaf Systems International	Plant Bioscience Limited	Total 2020
	£000	£000	**£000**	£000	£000	£000
Associates, share of:						
Turnover	207	1,007	**1,214**	205	1,727	**1,932**
Operating (loss)/profit	(212)	215	**3**	(254)	457	**203**
Movement in opening balance	(33)	(114)	**(147)**	69	(44)	**25**
Share of result for the year	(245)	101	**(144)**	(185)	413	**228**

The Group's investment in associates is represented as follows:

Group	Leaf Systems International Limited	Plant Bioscience Limited	**Total 2021**	Leaf Systems International Limited	Plant Bioscience Limited	**Total 2020**
	£000	£000	**£000**	£000	£000	**£000**
Associates: Share of net assets						
At beginning of year	-	1,549	**1,549**	914	1,136	**2,050**
Additions	-	-	**-**	350	-	**350**
Impairment provision	245	-	**245**	(1,079)	-	**(1,079)**
Share of result for the year	(245)	101	**(144)**	(185)	413	**228**
At end of year	-	1,650	**1,650**	-	1,549	**1,549**
Represented by:						
Share of total assets	1,503	2,161	**3,664**	1,486	2,458	**3,944**
Share of total liabilities	(1,503)	(511)	**(2,014)**	(1,486)	(909)	**(2,395)**
Share of net assets	-	1,650	**1,650**	-	1,549	**1,549**

The Trustees consider the value of investments included in the financial statements to be supported by their underlying assets.

13. Stocks

Group and charitable company	Total 2021 £000	Total 2020 £000
Raw materials and consumables	**258**	266
Total	**258**	266

There is no material difference between the valuation of stock and its replacement cost.

14. Debtors

	Note	Group 2021 £000	Group 2020 £000	Company 2021 £000	Company 2020 £000
Grants receivable:					
from government bodies	23	**6,332**	2,049	**6,332**	2,049
from other sources		**2,614**	2,366	**2,614**	2,366
Trade debtors		**873**	1,267	**816**	1,261
Amounts owed by subsidiary undertakings		**-**	-	**42**	32
Amounts owed by other related parties	23	**1,253**	782	**1,253**	782
Other debtors		**467**	1,060	**436**	958
Prepayments and accrued income		**5,899**	2,340	**5,899**	2,317
Total amounts falling due within one year		**17,438**	9,864	**17,392**	9,765

Grants receivable from government bodies includes £4,544,189 in relation to capital funding receivable from BBSRC (2020: £642,509).

15. Cash at Bank and in Hand

	Group 2021 £000	Group 2020 £000	Company 2021 £000	Company 2020 £000
Cash at bank	**45,212**	41,109	**45,007**	40,818
Cash in hand	**3**	3	**3**	3
Total	**45,215**	41,112	**45,010**	40,821

16. Creditors: Amounts Falling Due within One Year

	Note	Group 2021 £000	Group 2020 £000	Company 2021 £000	Company 2020 £000
Grants received in advance:					
from government bodies	23	**5,640**	5,163	**5,640**	5,163
from other sources		**6,028**	5,061	**6,016**	5,038
Trade creditors		**4,792**	3,053	**4,791**	3,052
Amounts owed to subsidiary undertakings		**-**	-	**-**	20
Amounts owed to other related parties	23	**1,274**	1,109	**1,274**	1,109
Other creditors		**2,304**	2,557	**2,304**	2,557
Taxation and social security		**361**	350	**361**	350
Accruals and deferred income		**13,014**	7,034	**13,014**	6,981
Total amounts falling due within one year		**33,413**	24,327	**33,400**	24,270

17. Reconciliation of Movement in Grants Receivable

Group and charitable company	Note	Total 2021	Total 2020
		£000	£000
Grants receivable	14	**8,946**	4,415
Grants received in advance	16	**(11,668)**	(10,224)
Net grants received in advance		**(2,722)**	(5,809)
Net grants received in advance at beginning of year		**(5,809)**	(7,561)
Grant monies received during the year		**(43,334)**	(42,313)
Grant money released to SOFA during the year		**46,421**	44,065
Net grants received in advance		**(2,722)**	(5,809)

18. Provisions for liabilities and charges

Group and charitable company	Total 2021	Total 2020
	£000	£000
Restructuring provision at beginning of year	**284**	284
Charge in the year	**-**	-
Utilised	**-**	-
Provision at end of year	**284**	284

The restructuring provision relates to future compensation payments due under the redundancy scheme in connection with the restructuring of science programmes and the administration and support functions. Although the restructuring provision has not been discounted, it is stated at the present value of future amounts payable since inflationary increases linked to the redundancy settlements have similarly been excluded from the provision.

19. Analysis of Net Assets Between Funds

	Fixed assets	Net current assets	Creditors over one year and provisions	**Total 2021**
	£000	£000	£000	**£000**
Group				
Unrestricted:				
Fixed assets reserve	7,994	-	-	**7,994**
Designated capital reserve	-	12,645	-	**12,645**
General	-	7,550	(284)	**7,266**
Restricted:				
General reserve	-	48	-	**48**
Fixed assets reserve	57,742	-	-	**57,742**
Designated capital reserve	-	9,255	-	**9,255**
Revaluation reserve	23,832	-	-	**23,832**
Net assets	**89,568**	**29,498**	**(284)**	**118,782**
Charitable company				
Unrestricted:				
Fixed assets reserve	6,344	-	-	**6,344**
Designated reserves	-	12,645	-	**12,645**
General	-	7,312	(284)	**7,028**
Restricted:				
General reserve	-	48	-	**48**
Fixed assets reserve	57,980	-	-	**57,980**
Designated reserves	-	9,255	-	**9,255**
Revaluation reserve	23,832	-	-	**23,832**
Net assets	**88,156**	**29,260**	**(284)**	**117,132**

19. Analysis of Net Assets Between Funds (Continued)

	Fixed assets	Net current assets	Creditors over one year and provisions	**Total 2020**
	£000	£000	£000	**£000**
Group				
Unrestricted:				
Fixed assets reserve	9,834	-	-	**9,834**
Designated capital reserve	-	9,488	-	**9,488**
General	-	7,059	(284)	**6,775**
Restricted:				
General reserve	-	344	-	**344**
Fixed assets reserve	51,749	-	-	**51,749**
Designated capital reserve	-	10,024	-	**10,024**
Revaluation reserve	21,713	-	-	**21,713**
Net assets	**83,296**	**26,915**	**(284)**	**109,927**
Charitable company				
Unrestricted:				
Fixed assets reserve	9,305	-	-	**9,305**
Designated reserves	-	9,488	-	**9,488**
General	-	6,726	(284)	**6,442**
Restricted:				
General reserve	-	344	-	**344**
Fixed assets reserve	50,984	-	-	**50,984**
Designated reserves	-	10,024	-	**10,024**
Revaluation reserve	21,713	-	-	**21,713**
Net assets	**82,002**	**26,582**	**(284)**	**108,300**

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 designated capital reserves are not endowment funds. The unrestricted designated capital reserve relates to funds designated by Governing Council for use in relation to planned capital investments in the financial projections to March 2022. The restricted capital reserve relates to funding received from BBSRC to be used in connection with future estates rebuild costs with the agreement of BBSRC.

The restricted general reserve relates to ring fenced strategic funding received from BBSRC. This funding has performance conditions attached and is transferred to the general reserve once the conditions have been met.

20. Analysis of Funds Movements

	Unrestricted fixed assets	Unrestricted designated capital	Unrestricted general	Restricted general	Restricted fixed assets	Restricted designated capital	Revaluation reserve	**Total 2021**
	£000	£000	£000	£000	£000	£000	£000	**£000**
Group								
At 1 April 2020	9,834	9,488	6,775	344	51,749	10,024	21,713	**109,927**
Total income and expenditure for the year	-	-	(908)	2,926	2,107	-	-	**4,125**
Associates	(144)	-	144	-	-	-	-	**-**
Revaluation of tangible assets	-	-	-	-	-	-	4,730	**4,730**
Revalue depreciation transfer	-	-	-	-	2,611	-	(2,611)	**-**
Capital transfers	(755)	-	-	(111)	866	-	-	**-**
Designated capital transfers	-	360	-	-	(660)	300	-	**-**
Centre funded capital	(941)	(535)	1,476	-	1,069	(1,069)	-	**-**
Other transfers	-	3,332	(221)	(3,111)	-	-	-	**-**
At 31 March 2021	7,994	12,645	7,266	48	57,742	9,255	23,832	**118,782**
Charitable company								
At 1 April 2020	9,305	9,488	6,442	344	50,984	10,024	21,713	**108,300**
Total income and expenditure for the year	-	-	(659)	2,916	1,845	-	-	**4,102**
Revaluation of tangible assets	-	-	-	-	-	-	4,730	**4,730**
Revalue depreciation transfer	-	-	-	-	2,611	-	(2,611)	**-**
Capital transfers	(2,020)	-	-	(111)	2,131	-	-	**-**
Designated capital transfers	-	360	-	-	(660)	300	-	**-**
Centre funded capital	(941)	(535)	1,476	-	1,069	(1,069)	-	**-**
Other transfers	-	3,332	(231)	(3,101)	-	-	-	**-**
At 31 March 2021	6,344	12,645	7,028	48	57,980	9,255	23,832	**117,132**

20. Analysis of Funds Movements (Continued)

	Unrestricted fixed assets	Unrestricted designated capital	Unrestricted general	Restricted general	Restricted fixed assets	Restricted designated capital	Revaluation reserve	**Total 2020**
	£000	£000	£000	£000	£000	£000	£000	**£000**
Group								
At 1 April 2019	9,693	8,344	6,554	230	52,871	8,038	21,326	**107,056**
Total income and expenditure for the year	-	-	1,607	627	913	-	-	**3,147**
Associates	228	-	-	-	-	-	-	**228**
Revaluation of tangible assets	-	-	-	-	-	-	(504)	**(504)**
Revalue depreciation transfer	-	-	-	-	(891)	-	891	**-**
Capital transfers	(842)	-	-	-	842	-	-	**-**
Designated capital transfers	-	-	-	-	-	-	-	**-**
Centre funded capital	755	(674)	(81)	-	-	-	-	**-**
Other transfers	-	1,818	(1,305)	(513)	(1,986)	1,986	-	**-**
At 31 March 2020	9,834	9,488	6,775	344	51,749	10,024	21,713	**109,927**
Charitable company								
At 1 April 2019	9,389	8,344	6,104	230	52,667	8,038	21,326	**106,098**
Total income and expenditure for the year	-	-	1,727	627	352	-	-	**2,706**
Revaluation of tangible assets	-	-	-	-	-	-	(504)	**(504)**
Revalue depreciation transfer	-	-	-	-	(891)	-	891	**-**
Capital transfers	(842)	-	-	-	842	-	-	**-**
Designated capital transfers	-	-	-	-	-	-	-	**-**
Centre funded capital	758	(674)	(84)	-	-	-	-	**-**
Other transfers	-	1,818	(1,305)	(513)	(1,986)	1,986	-	**-**
At 31 March 2020	9,305	9,488	6,442	344	50,984	10,024	21,713	**108,300**

The revalue depreciation transfers have been made to reflect differences in the historical cost and revalued depreciation costs.

Capital transfers relate to fund movements in connection with fixed assets and depreciation; ensuring assets are appropriately reflected in separate reserves.

The designated reserve transfer relates to costs incurred in the year that have been set against the designated strategic reserve.

Centre funded capital transfers relate to capital expenditure funded from the unrestricted designated capital reserve and general reserve.

Where research at JIC is funded by grants with performance conditions attached to them these are shown in the Restricted general fund. When the conditions have been met the remaining contribution to core funding is transferred to general reserves, shown in other transfers above.

21. Commitments

Group and charitable company	**Total 2021**	Total 2020
	£000	£000
Capital commitments at the end of the financial year for which no provision has been made:		
Contracted	**7,388**	2,231
Amounts due under other operating leases for plant and machinery:		
Expiring in less than one year	**39**	41
Expiring between one and two years	**36**	36
Expiring between two and five years	**51**	80
	126	157

22. Pension Schemes

JIC 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 JIC 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 JIC is unable to identify its share of the underlying assets and liabilities. JIC 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% (2020: 26%).

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

The total pension charge for the year was £2,018,661 (2020: £2,016,424), with outstanding contributions at the year-end of £85,997 (2020: £83,849).

23. Related Party Transactions

BBSRC
JIC is strategically funded by BBSRC. Grants received from BBSRC are detailed in note 2. At 31 March 2021, BBSRC owed JIC £1,683,074 (2020: £1,830,332).

During the year BBSRC paid JIC £nil (2020: £232,155) compensation for redundancy and salary costs incurred in restructuring and £6,447 (2020: £182,586) for other costs.

In April 2018, BBSRC became part of UK Research and Innovation (UKRI), a new organisation that brings together the UK's seven research councils, Innovate UK and Research England.

Plant Bioscience Limited
PBL is 33% directly owned by JIC. PBL has been accounted for as an associate within the consolidated financial statements. Services provided to JIC by PBL in the year to 31 March 2021 amounted to £22,468 (2020: £60,771). During the year, PBL paid JIC £38,194 (2020: £37,215) in rent and £81 (2020: £567) for other costs. At 31 March 2021, PBL owed JIC £nil (2020: £nil) and JIC owed PBL £nil (2010: £6,134).

Leaf Systems International Limited
JIC has invested £1,630,000 in the non-voting share capital of Leaf Systems International Limited. LSI has been accounted for as an associate within the consolidated financial statements. JIC paid LSI £41,808 (2020: £89,556) for services in the year ended 31 March 2021. JIC has provided a short-term loan to LSI. Interest is payable on the loan at 2.5%. At 31 March 2021, JIC had a loan balance with LSI of £75,000 (2020: £nil).

During the year, LSI paid JIC £10,529 (2020: £21,714) for costs incurred by JIC on behalf of LSI. At 31 March 2021, LSI owed JIC £3,049 (2020: £2,758).

NBI Partnership Limited
JIC is one of the four guarantors of NBI Partnership Ltd ("NBIP"), a company limited by guarantee. JIC has provided short-term loans to NBIP to enable NBIP to manage its cash requirements. Interest is payable on the loan at 2% and during the year JIC charged £6,840 (2020: £6,980) in respect of interest due. At 31 March 2021, JIC had a loan balance with NBIP of £342,000 (2020: £349,000).

JIC was charged £4,544,642 (2020: £4,495,308) for services by NBIP under a cost sharing agreement. As at 31 March 2021, JIC owed NBIP £570,160 (2020: £406,676). NBIP paid JIC £57,863 (2020: £53,858) for services and, as at 31 March 2021, NBIP owed JIC £7,804 (2020: £8,538).

Anglia Innovation Partnership LLP (formerly NRP LLP)
JIC is a member of Anglia Innovation Partnership LLP through its 100% subsidiary, JIC NRP Capital Limited. Anglia Innovation Partnership 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, JIC received services totalling £18,445 (2020: £1,046), and was charged £81,292 (2020: £144,253) for estate costs. As at 31 March 2021, JIC owed AIP LLP £144,253 (2020: £81,292).

JIC invoiced Anglia Innovation Partnership LLP for services totalling £76,013 (2020: £129,202). As at 31 March 2021 Anglia Innovation Partnership LLP owed JIC £15,306 (2020: £nil).

23. Related Party Transactions (continued)

University of East Anglia
UEA is a member of the charitable company and it nominates one Governor to the Governing Council.

The majority of PhD students carrying out research at JIC are registered with UEA. During the year UEA provided student services of £732,359 (2020: £452,186) and other services amounting to £151,194 (2020: £56,835) to JIC. At 31 March 2021, JIC owed UEA £490,840 for student fees and other costs (2020: £548,259) and £66,575 for other services (2020: £65,769).

During the year, JIC received £625,588 (2020: £417,811) in student payments from UEA and provided £344,370 (2020: £182,881) of other services. At 31 March 2021, UEA owed JIC £752,134 (2020: £391,152) for student fees and services.

John Innes Foundation
JIF is a member of the charitable company and it nominates one Governor to the Governing Council of JIC. The following transactions took place during the year:

	Total 2021	Total 2020
	£000	£000
Paid to JIC:		
Grants for studentships	**390**	381
Grants for research project	**92**	107
Contribution to salary costs	**12**	19
Contribution to women of the future	**2**	2
Contribution to field trials station	**64**	8
	560	517

At 31 March 2021, JIF owed JIC £57,485 (2020: £30,692) and JIC owed JIF £2,005 (2020: £nil).

John Innes Enterprises Ltd
JIE Ltd is the wholly owned trading subsidiary of JIC. JIE undertakes contract research, research services and consultancy.

During the year, JIC invoiced JIE for services and other costs totalling £339,149 (2020: £139,300) and JIE invoiced JIC for costs totalling £46,426 (2020: £50,181). In addition, JIE made a gift aid payment to JIC of £30,118 (2020: £198,939). As at 31 March 2021, JIE owed JIC £41,773 (2020: £32,402).

Norwich Biosciences Ltd
Norwich Biosciences Ltd is the wholly owned trading subsidiary of JIC. NBL manages intellectual property on behalf of JIC. During the year NBL paid JIC a gift aid payment of £93,796 (2020: £26,803).

24. Cash Held as Grant Co-Ordinator

JIC holds cash of £1,251,087 (2020: £1,157,004) on behalf of various institutes in its capacity as project co-ordinator on a number of projects. JIC acts as an intermediary only and does not control the risks and rewards associated with the cash. An equal balance is held in other creditors.

25. Ultimate Parent Undertaking and Controlling Party

The Trustees consider that there is no ultimate parent undertaking and controlling party. JIC is the parent undertaking of the smallest and largest group of undertakings to consolidate these financial statements.

26. Contingent Liability

JIC receives grant income from funding bodies, such as the BBSRC and the European Union, that routinely undertake retrospective financial audits of costs claimed. Such audits may from time to time give rise to adjustments to grant income receivable. No general provision is made for such potential audit adjustments in the financial statements.

Charity information

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Registered company number 00511709

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