

# Trustees and Strategic Report

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2019/2020

# Legal and administrative information

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## Trustees

P B Littlewood	J Chamberlain	J Green	S M Spearing
S Heidari-Robinson	A Docter (Appointed 16 March 2020)	J Maxton	P A Thomas (Resigned 11 September 2020)
S Berger (Resigned 16 March 2020)	E K Edstrom	A E Nelson (Resigned 23 July 2019)	M van Tol (Appointed 6 July 2020)
		J P Pikunic	

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## Secretary

S M Robertson

## Charity number

1176500

Registered in England  
and Wales

## Company number

10959095

Registered in England  
and Wales

## Registered office

Suite 4  
2nd floor  
Quad One  
Becquerel Avenue  
Harwell Campus  
Didcot  
Oxfordshire OX11 0RA

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## Auditor

Crowe U.K. LLP  
Carrick House  
Lypiatt Road  
Cheltenham GL50 2QJ

## Bankers

Barclays Bank  
Marcham Road  
Abingdon  
Oxfordshire OX14 1UB

## Solicitors

DAC Beachcroft  
100 Fetter Lane  
London EC4A 1BN

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## Key Management

### Chief Executive Officer

Pam Thomas  
(Appointed 7 September 2020)

Neil Morris  
(Resigned 7 April 2020)

Susan Robertson / Matthew Howard  
(Joint Interim CEO Apr-Sep 2020)

### Chief Financial Officer

Susan Robertson

### Chief Scientist

Professor Peter Bruce

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## Website

[www.faraday.ac.uk](http://www.faraday.ac.uk)

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The trustees are pleased to present the annual report and financial statements for the Faraday Institution for the period ending 31 March 2020. The document has been prepared to meet the requirements for a strategic and a directors' report and accounts for Companies Act purposes as well as to meet the reporting requirements of the Charity Commission.

The financial statements have been prepared in line with the accounting policies set out in note 1 to the financial statements and comply with the Charities Act 2011, the Companies Act 2006, Articles of Association of the company, and Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable to the UK and Republic of Ireland (FRS102) as amended for accounting periods commencing from 1 January 2016.

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# Objective and activities

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The objectives of the organisation, as set out in the Faraday Institution's Articles of Association, are:

*'The advancement of science and education and the advancement of environmental protection or improvement for the public benefit by engaging in, encouraging, supporting and exploiting, by whatever means, high-quality research, and related training and policy advice, in energy capture, conversion and storage, with a view to securing outcomes which will add to scientific knowledge, deliver environmental benefits in terms of decarbonisation and improved air quality and benefit the life, health and well-being of humankind'.*

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## **The Faraday Institution carries out these objects through:**

- Funding of battery research through collaborative, university-led programmes
- Development of early career scientists, PhD researchers and undergraduates through financing and skills training to lead successful battery research careers
- Conducting independent economic analysis on energy storage related topics important to policymakers, industry, and the UK public

- Engagement activities designed to attract diverse applicants to the multiple fields of energy storage research and to educate general and specific audiences

The trustees have considered the guidance issued by the Charity Commission on public benefit when reviewing the organisations aims and planning its future activities and believe that these activities fulfil this requirement.

# Strategic report

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The Faraday Institution is the UK's independent institute for electrochemical energy storage science and technology, supporting research, training, and analysis.

Bringing together expertise from universities and industry, and predominantly funded by the ISCF Faraday Battery Challenge, the Faraday Institution endeavours to make the UK the go-to place for the research, development, manufacture and production of new electrical storage technologies for both the automotive and the wider relevant sectors.

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The Faraday Institution funds application-inspired fundamental research in electrochemical energy storage through university-based research programmes delivered at scale. The most promising research coming out of the Institution will be developed for real-world use through the pipeline of innovation and application established through the Faraday Battery Challenge. This model will discover new innovations and materials, leading to game-changing technology breakthroughs.

The Faraday Institution brings together scientists, industry partners, and government funding with a common goal. The organisation invests in collaborative research to reduce battery cost, weight, and volume; to improve performance and reliability; to develop scalable designs; to improve our manufacturing; to develop whole-life strategies from mining to recycling to second use; and to accelerate commercialisation.

With the UK transitioning to fully electric, the Faraday Institution has key roles to play in other areas to ensure this transition goes smoothly and maximises the impact for the UK. These include our efforts to inform policy through the publication of commissioned studies and Faraday Insights briefs; STEM outreach and educational programmes to bring

up the next generations of energy storage researchers; and broad reskilling efforts to identify and rectify the effects of electrification on the workforce in the auto sector and its wider value chain.

The organisation does not work alone in these efforts. Through strategic partnerships and alliances with government, the Auto Council, NGOs, charities, industry and academia, the Faraday Institution will take part in organising a directory of courses in energy storage science and technology education to invigorate regional and national workforce development. This will provide new models of education and training for skilled workers while creating new and expanded employment opportunities.

In addition to these UK activities, the Faraday Institution participates in international collaborations and engagements. The Faraday Institution also received funding from the Foreign, Commonwealth and Development Office to enable research into energy storage for emerging economies as well as participation in various international activities such as the World Economic Forum's Global Battery Alliance.

Details of these activities are set out in Part I of this annual report, which is available on our website.

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## Principal risks and mitigations

The Faraday Institution has adopted a formal risk management policy and maintains a risk register that is reviewed in detail with the Audit, Risk and Finance Committee, and that is further reviewed by the trustees. The process includes an annual workshop plus regular reviews. These workshops include participation from members of EPSRC and the Faraday Battery Challenge (FBC) as well as Faraday Institution management. Regular updates of the risk register are provided to the Board and Audit, Finance and Risk Committee.

### Key risks for the Faraday Institution

A significant risk for the Faraday Institution during 2019/20 was financial continuation beyond its initial funding date of 31 March 2021. This risk has been reduced post year end following the announcement of an extension of its current funding to 31 March 2022. Whilst this provides some reduction in risk, funding continues to remain a risk due to the delay in the Government's Comprehensive Spending Review in 2020 and the uncertainty of availability of government funding due to the Covid-19 crisis. Living with this risk is something that the organisation will manage through careful management of its finances and commitments and appropriate communication across the research community which it funds.

An ongoing risk for the organisation is its ability to deliver successful research programmes that meet its aims. The mission-based model of research is a new one and is addressed through the Faraday Institution Management Plan. The organisation actively engages with industry to identify key challenges that should be addressed in its work programmes, has a defined process for the management of the research programmes, and engages with its Expert Panel of leading industry and academic experts who review the progress of the research programmes and advise the trustees accordingly.

Recruitment and retention of sufficient researchers to meet the programme requirements is also considered a risk. Most

of the posts required for the major research projects are now recruited however so this risk is less than in the prior year. The Covid-19 lockdown post year end created some difficulties around recruitment for new researchers, particularly those from overseas. However, ability to work remotely and subsequent easing of lockdown has alleviated this risk.

In addition to recruitment difficulties, post-year end, the Covid-19 lockdown from end of March to July 2020 placed some considerable restrictions on the experimental side of the Faraday Institution's research. Most of the University laboratories were closed and unable to resume experimental work until June or later. Whilst all researchers were able to use the time productively in activities such as writing papers, analysing results, training, sharing learnings and planning, there was some delay on the experimental side which revised plans are addressing. In addition, the projects have put together contingency plans for the event of a future lockdown having looked at critical dependencies and mitigations to the disruption that may be caused. Modified working practices allow the experimental work to continue effectively under current Covid-safe conditions.

Financial risk is managed by having robust planning and budgetary control processes that are reviewed by the Audit, Finance and Risk Committee. The trustees review the financial position of the organisation at each board meeting and ensure that commitments for future expenditure are made prudently with due consideration of the financial resources available.

The Faraday Institution has designed its key processes and controls to be fit for purpose and efficient whilst providing appropriate financial controls and sound management processes that are consistent with the principles of the Government's 'Managing Public Money' and value for money. The organisation continues to monitor these and update them as necessary.

# Achievements, performance and success criteria in 2019/20

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In its second full year of operations, the Faraday Institution has built on its early foundations and continued to gain momentum to deliver on our mission to enable breakthroughs in energy storage for the UK. During the year, five new major research projects commenced in the autumn of 2019. This research programme now covers work that will advance existing lithium-ion technology – which is, we believe, the likely continued battery choice for electric vehicles in the near- to mid-term future – as well as projects that aim to put the UK at the forefront of next generation battery technologies: solid state, lithium sulfur, and sodium ion.

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The Faraday Institution has created a community of over 400 researchers across multiple disciplines and institutions who are working collaboratively to generate a stream of innovations and breakthroughs in battery technologies that would place the UK at the forefront of this global race.

During the year, the Faraday Institution strengthened its commercialisation team to evaluate work being done in the research projects and to identify a pathway to commercialisation for each of these. This work will be a continuous process. However, a methodology for evaluating the competitive landscape and the commercial priorities from within the research portfolio has been developed and the work has started to identify potential industrial partners for several projects.

At date of signing this report, over 150 high quality papers have been published as a result of Faraday Institution research. In addition, 10 innovations have been identified where patents have either been filed or are being considered.

Where potential quick wins have been identified, *Sprint Projects* have been funded designed to target real-world solutions with industrial partners. To-date, four of these have been funded.

Three new battery characterisation projects were started to provide UK researchers with world-class analytical techniques that will help to accelerate advancements in our understanding of battery science.

Our entrepreneurial fellowships programme has demonstrated successes. The initial four fellowships funded have all progressed substantially and been able to secure additional funding either through non-Faraday Institution grants, customer contracts, partnerships and equity funding or some combination of these. All four have employed additional employees and exist as separate spin-out companies. A fifth fellowship awarded after the end of the year has also progressed well despite the Covid-19 lockdown.

Our series of Faraday Insights was launched during the year to build knowledge across industry, academia and government. These insights provide an evidence-based assessment of the market, economics, technology and capabilities for energy storage technologies and the transition to a fully electric UK. Five were published during the year covering a range of topics.

During the year, the Faraday Institution awarded grants for a second cohort of PhD researchers making 30 in total across the first two cohorts and developed a mini-MBA programme for the second-year researchers from cohort one.

A range of successful engagement activities have included media interviews, speaking engagements at conferences, a prestigious series of lectures at the Royal Institution. In addition, a STEM outreach programme has delivered a classroom teaching tool, the *Fully Charged Battery Box* which has to-date been delivered to over 7,500 primary school children

## Aims, objectives and success criteria for 2020/21

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The initial four research projects which commenced in 2018 will reach the end of their original term in 2020/21. These projects were always intended to be longer term and it is the intention of the Faraday Institution to review these projects with the project teams, its own expert panel and with independent experts to identify how and in what form these projects will continue. The intention will be to take the most promising areas, focussing on impacts and particular paths to commercialisation. By the end of March 2021, these reshared projects will have been determined and new grant awards agreed with the research teams.

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For the projects started in 2019, the projects will be aiming to be fully staffed and delivering against their stated aims, notwithstanding any disruptions caused by Covid-19. The new upgrade to *Michael*, the high-performance supercomputer which serves the needs of the Faraday Institution research projects will be up and running at full capacity.

The programme of industrial fellowships will commence with the initial award holders in place and further awards planned.

The commercialisation team will have conducted a commercial analysis of all the research programmes with an initial commercialisation pathway considered for each of them. Discussions with industrial partners to support these will have progressed.

The training programme will have progressed including the development of a National Skills Framework for electrification to support the automotive industry.



# Financial review

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Income for the year was £22.8 million (2019: £15.6 million), primarily from grants. Of this, £22.2 million came from the government via EPSRC as part of an initial £78 million award being made available for the period to March 2021. This grant is paid quarterly, and income is recognised in line with the Faraday Institution's grant income recognition policy. A further £0.5 million (2019: £0) is income recognised in the year from a new £3 million grant awarded by the DfID (now Foreign, Commonwealth and Development Office, FCDO). This grant covers the period to 31 March 2023. The remaining income of £0.1 million (2019: £0.1 million) is investment income being interest on liquid funds.

Expenditure for the period comprises direct costs totalling £1.7 million (2019: £1.4 million) and grant awards of £21.5 million (2019: £11.1 million) and support costs of £0.7 million (2019: £0.8 million).

During the year, the Faraday Institution awarded five large research grants in addition to its initial four projects. The total commitment on these grants is £55 million over four years. However, there is a breakpoint at the end of March 2021 and continuation beyond this date is subject to the Faraday Institution being awarded continued funding from the EPSRC. Additional grants awarded during the year included awards for a second cohort of PhD students and various smaller grants. Payments for these grants are scheduled over the period of the award. In most cases payments are made quarterly in arrears on receipt of invoice of actual costs. According to the Faraday Institution's accounting policy, expenditure is recognised when committed.

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## Going Concern

The trustees have prepared the accounts on a going concern basis. In making this assumption, the Trustees have considered forecasts of income, expenditure and cashflow over future periods and believe that the organisation has sufficient funds to continue its activities for the foreseeable future. In particular, they have incorporated into the forecasts additional funding of £27.9 million which was announced by the Government in September 2020 as part of overall funding for the Faraday Battery Challenge. This funding is will support the organisation's activities until 31 March 2022.

## Reserves Policy

The Faraday Institution is funded currently through grants from the Engineering and Physical Sciences Research Council (EPSRC) and through the Foreign, Commonwealth and Development Office (FCDO). The charity intends that all of this funding will be spent on awarding grants or other of its charitable activities in order to ensure it reaches the fullest amount of public benefit achievable with the funds available. The trustees recognise however that it is necessary to have access to reserves to meet unexpected costs and variations in its expenditure. The EPSRC funding provided an advance payment of £2.3 million to provide reserves for this purpose. Based on the risk profile of the charity, the Trustees believe this sum provides sufficient reserves to manage the risk and have set this as the minimum reserve level. At the 31 March 2020, the actual reserves were £3.5million which was in excess of the minimum reserve limit. The excess arose due to timing differences.

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### **Fundraising**

All the funding for the Faraday Institution is derived from government grants. The organisation does not carry out any fundraising activities with the general public and no donations are sought from the public. The charity had no fundraising activities requiring disclosure under S162A of the Charities Act 2011.

### **Investment policy**

Investment policy only relates to the short-term management of liquid funds as the organisation does not have long-term funds for investment. All funds are managed on a prudent basis and policies ensure that funds are only held with counterparties with a high level of credit worthiness, that sufficient liquidity is maintained at all times and that risk is spread across more than one institution.

### **Grant awarding policy**

The processes for award of grants are defined beforehand by the trustees or in the case of smaller awards by management of the Faraday Institution and are based on principles of fairness, transparency and good use of public money whilst being proportionate to the level of awards being considered. Details of the process followed to award grants for large projects are available in the Faraday Institution Management Plan on the organisation's website.

# Structure, governance and management

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## Structure, governance and management

The Faraday Institution is a company limited by guarantee and is a registered charity. It is governed by its Articles of Association. The trustees, who are also directors and members of the Faraday Institution for the purpose of company law, and who served up to the date of signature of the financial statements, are listed in the legal and administrative information provided at the start of this report.

Trustees are responsible for setting strategy for the Faraday Institution and ensuring that its long-term aims are met. They decide its priorities and direction, monitor risk and develop policies.

Trustees are appointed by the Board of Trustees with an initial term of three years. Trustees may then stand for reappointment with a maximum term of 10 years. On appointment, trustees are provided with briefing on the duties of trustees and on the mission and operations of the Faraday Institution to equip them to fulfil their duties as directors. Trustee meetings are held no less than three times per year. A process for recruitment of future trustees has been set and will be overseen by the People Committee who will be responsible for conducting the recruitment process and making recommendations to the Board. Evaluation of Board processes and performance is conducted in order to provide feedback to the Chair and trustees and enable continuous improvement.

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The following committees report to the Board of Trustees:

### Audit, Risk and Finance Committee

This committee reviews and reports back to the trustees on issues relating to audit, financial management and oversight, and risk.

### People Committee

This committee reviews and advises the trustees on issues relating to nominations, remuneration, equality and diversity, recruitment and overall HR policies for the Faraday Institution.

### Business Impact Committee

This committee looks at industry's requirements of the Faraday Institution; for example, scientific research areas, understanding strategic challenges for the battery technology industry and developing and delivering active two-way links with industry.

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### **Key Management**

The key managers of the Faraday Institution, who are appointed by the trustees, are the Chief Executive, the Chief Financial Officer and the Chief Scientist (who also acts as Chair of the Expert Panel). Day-to-day management of the organisation is delegated to the Chief Executive Officer, who has executive responsibility for decisions under the direction of the trustees. The Chief Financial Officer is responsible to the trustees for managing the financial risks of the organisation, for financial planning and for financial reporting to the Chief Executive Officer and the trustees. The Chief Executive Officer and the Chief Scientist, working together, are responsible for leading the organisation's research programme, drawing upon the advice of the Expert Panel as a whole.

### **Remuneration**

Remuneration for key managers is determined at the time of appointment based on market assessment and external advice (for example from search companies). The remuneration package is designed to reflect the fact that the organisation is a charity and publicly funded whilst still being sufficient to attract suitably qualified candidates. Pay is reviewed annually. Pay increases for the CEO are determined by the Chairman of the Board of Trustees following a review of the CEO's performance. Pay increases for other staff are determined by the CEO based on individual performance reviews and determined within an overall limit determined by the Board of Trustees following a review and recommendation by the People Committee. In determining this for 2019/20, the People Committee considered general pay review published information as well as pay increases for similar organisations.

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### **Changes to the Board of Trustees**

During the year, Alan Nelson and Stefan Berger stepped down as Trustees. The Faraday Institution would like to thank both Alan and Stefan for their contributions to the board and as members of its Business Impact Committee.

Andreas Docter, Director of Electric Powertrain at Jaguar Land Rover was appointed as a trustee on 16th March 2020 and after the year end in July 2020, Maurits van Tol, Chief Technology Officer of Johnson Matthey, was also appointed as trustee.

In addition, after the year end, in September 2020, Pam Thomas stepped down as trustee in order to accept the position of Chief Executive Officer of the Faraday Institution.

# Statement of trustees' responsibilities

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The trustees, who are also the directors of the Faraday Institution for the purpose of company law, are responsible for preparing the trustees' report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Company law requires the trustees to prepare financial statements for each financial year that give a true and fair view of the state of affairs of the charity and of the incoming resources and application of resources, including the income and expenditure, of the charitable company for that period.

In preparing these financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charities statement of recommended practice;

- 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
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue in operation.

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

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Crowe U.K. LLP were reappointed as auditors during the year. Crowe U.K. LLP has indicated its willingness to be reappointed as statutory auditor. The trustees' report was approved by the Board of Trustees.



P B Littlewood  
Trustee

Dated: 15th December 2020

# Independent auditor's report to the members of the Faraday Institution

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## Opinion

We have audited the financial statements of the Faraday Institution for the year ended 31 March 2020 which comprise the Statement of Financial Activities (including the income and expenditure accounts), Statement of Financial Position and Statement of Cash Flows and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including 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 charitable company's affairs as at 31 March 2020 and of its 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 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

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

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

## Other information

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

In connection with our audit of the financial statements, 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 audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

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### **Opinions on other matters prescribed by the Companies Act 2006**

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

- the information given in the trustees' report, which includes the directors' report and the strategic report prepared for the purposes of company law, 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 included within the trustees' report have been prepared in accordance with applicable legal requirements.

### **Matters on which we are required to report by exception**

In light of the knowledge and understanding of the charitable company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the directors' report included within the trustees' report. We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

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

### **Responsibilities of trustees**

As explained more fully in the trustees' responsibilities statement set out on page 16, the trustees (who are also the directors of the 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 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 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.

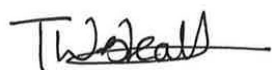
A further description of our responsibilities for the audit of the financial statements is located on the

Financial Reporting Council's website at: [www.frc.org.uk/auditorsresponsibilities](http://www.frc.org.uk/auditorsresponsibilities). This description forms part of our auditor's report.

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### **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.



Tara Westcott  
Senior Statutory Auditor For and on behalf of  
Crowe U.K. LLP  
Statutory Auditor  
Cheltenham

Dated: 16 December 2020



# Financial Report

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# Statement of financial activities

including income and expenditure account for the year ended 31 March 2020

	Notes	Unrestricted funds £	Restricted funds £	Total 2020 £	Unrestricted funds £	Restricted funds £	Total 2019 £
<b>Income from:</b>							
Charitable activities from EPSRC	3	17,897,578	4,283,149	22,180,727	15,176,280	338,449	15,514,729
Charitable activities from FCDO			523,724	523,724			
Investments	4	79,617		79,617	62,527		62,527
Total income		17,977,195	4,806,873	22,784,068	15,238,807	338,449	15,577,256
<b>Expenditure on:</b>							
Charitable activities	5	19,453,083	4,213,496	23,666,579	13,354,576	335,730	13,690,306
Charitable activities- FCDO			321,089	321,089			
Total Expenditure		19,453,083	4,534,585	23,987,668	13,354,576	335,730	13,690,306
Net (expenditure)/ income for the year/ Net movements in funds		(1,475,888)	272,288	(1,203,600)	1,884,211	2,719	1,886,930
Fund balances at 31 March 2019		4,603,978	85,537	4,689,515	2,719,767	82,818	2,802,585
Fund balances at 31 March 2020		3,128,090	357,825	3,485,915	4,603,978	85,537	4,689,515

The statement of financial activities includes all gains and losses recognised in the period.  
All income and expenditure derive from continuing activities.

The notes on page 25 to 39 form part of these financial statements

# Statement of financial position

for the year ended 31 March 2020

		2020	2019
	Notes	£	£
<b>Fixed assets</b>			
Tangible assets	11	197,469	258,203
<b>Current assets</b>			
Debtors	14	646,132	83,940
Cash at bank and in hand	13	19,727,682	17,423,634
		<b>20,373,814</b>	17,507,574
<b>Creditors: amounts falling due within one year</b>	15	<b>17,065,426</b>	13,051,742
Net current assets		<b>3,308,388</b>	4,455,832
<b>Total assets less current liabilities</b>		<b>3,505,857</b>	4,714,035
<b>Creditors: Amounts falling after more than one year</b>		<b>19,942</b>	24,820
		<b>3,485,915</b>	4,689,515
<b>Funds</b>			
Restricted funds	16	357,825	85,537
Unrestricted funds		<b>3,128,090</b>	4,603,978
	17	<b>3,485,915</b>	4,689,515

The financial statements were approved by the Trustees on 15th December 2020 and signed on its behalf by



**P B Littlewood**

Trustee

Company Registration No. 10959095

# Statement of cash flows

for the year ended 31 March 2020

		2020	2019
	Notes	£	£
<b>Cash flows from operating activities</b>			
Cash generated by operations	20	<b>2,226,496</b>	3,712,074
<b>Investing activities</b>			
Purchase of tangible fixed assets		<b>(2,065)</b>	(65,955)
Interest received		<b>79,617</b>	62,527
<b>Net cash used in investing activities</b>		<b>77,552</b>	(3,428)
<b>Net increase in cash and cash equivalents</b>		<b>2,304,048</b>	3,708,646
Cash and cash equivalents at beginning of period		<b>17,423,634</b>	13,714,988
<b>Cash and cash equivalents at end of period</b>		<b>19,727,682</b>	17,423,634

# Notes to the financial statements

for the year ended 31 March 2020

## 1 Accounting policies

### Charity information

The Faraday Institution is a private company limited by guarantee incorporated in England and Wales (company number 10959095). The registered office is Suite 4 2nd floor, Quad One, Becquerel Avenue, Harwell Campus, Didcot, Oxfordshire, OX11 0RA. The Faraday Institution is also a charity registered in England and Wales; charity number 1176500.

### 1.1 Accounting convention

The financial statements have been prepared under the historical cost convention in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Companies Act 2006. The Charitable Company is a public benefit entity for the purposes of FRS 102 and therefore the Charity prepared its financial statements in accordance with the Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102).

The financial statements are presented in sterling, which is the functional currency of the charity. Monetary amounts in these financial statements are rounded to the nearest £1.

The financial statements have been prepared under the historical cost convention. The principal accounting policies adopted are set out below.

### 1.2 Going concern

At the time of approving the financial statements, the trustees have a reasonable expectation that the charity has adequate resources to continue in operational existence for the foreseeable future. The Charity's income mainly arises from grant funding from the Engineering and Physical Sciences

Research Council with a small percentage coming from the Foreign, Commonwealth & Development Office. This funding is due to end on 31 March 2022 and March 2023 respectively. The Trustees believe that funding will continue beyond this date and therefore has adopted the going concern basis of accounting in preparing the financial statements.

### 1.3 Charitable funds

Unrestricted funds are available for use at the discretion of the trustees in furtherance of the Charity's objectives unless the funds have been designated for other purposes.

Restricted funds are subject to specific conditions by donors as to how they may be used. The purposes and uses of the restricted funds are set out in the notes to the financial statements.

### 1.4 Income

Income is recognised when the Charity is legally entitled to it after any performance conditions have been met, the amounts can be measured reliably, and it is probable that income will be received.

Grant funding is included within *Charitable activities*. Grant funding may include terms and conditions that must be met before the Charity can receive the grant and may have flexible arrangements that mean that the amount to be received by the Charity cannot be fully determined at the date of award. In such cases, the income will be recognised at the sooner of receipt of funds or when the event triggering unconditional entitlement occurs and the Charity can reliably measure the income.

Interest on funds held on deposit is included when receivable and the amount can be measured reliably by the charity; this is normally upon notification of the interest paid or payable by the Bank.

# Notes to the financial statements

## 1.5 Expenditure

All expenditure is recognised inclusive of irrecoverable VAT on an accruals basis once there is a legal or constructive obligation to make a payment to a third party, it is probable that settlement will be required, and the amount of the obligation can be reliably measured. Expenditure is categorised under the following headings:

Expenditure on charitable activities includes the costs of activities undertaken to further the purpose of The Faraday Institution.

Grants payable are recognised when the Charity has a constructive obligation according to the terms of the grant award (this may be before the payment is due).

Support costs are those costs incurred during activities that assist the work of the charity but are not directly associated with the purpose of The Faraday Institution. Support costs include all or a proportion of back office costs, finance, personnel, payroll and governance costs which support The Faraday Institution's programmes and activities. These are split based on the estimated time spent by staff on the programmes and activities.

## 1.6 Tangible fixed assets

Tangible fixed assets costing more than £500 or which form part of a group of assets which collectively cost more than £500 are capitalised at initial cost and subsequently measured at cost or valuation, net of depreciation and any impairment losses. Depreciation is applied from the start of the month following the date at which assets are brought into use and is recognised so as to write off the cost or valuation of assets less their residual values over their useful lives as follows:

Leasehold improvements	Over the life of the lease of ten years
Computers	3 Years straight line
Office furniture	3 Years straight line
Pool car	3 Years straight line

The gain or loss arising on the disposal of an asset is determined as the difference between the sale proceeds and the carrying value of the asset and is recognised in net income/(expenditure) for the year.

## 1.7 Impairment of fixed assets

At each reporting end date, the charity reviews the carrying amounts of its tangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any).

## 1.8 Cash and cash equivalents

Cash and cash equivalents include cash in hand, deposits held at call with banks, other short-term liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities.

## 1.9 Financial instruments

### Basic financial assets

Basic financial assets, which include debtors and cash and bank balances, are initially measured at transaction price including transaction costs and are subsequently carried at amortised cost using the effective interest method unless the arrangement constitutes a financing transaction, where the transaction is measured at the present value of the future receipts discounted at a market rate of interest. Financial assets classified as receivable within one year are not amortised.

### Basic financial liabilities

Basic financial liabilities, including creditors and bank loans are initially recognised at transaction price unless the arrangement constitutes a financing transaction, where the debt instrument is measured at the present value of the future payments discounted at a market rate of interest. Financial liabilities classified as payable within one year are not amortised.

Debt instruments are subsequently carried at amortised cost, using the effective interest rate method.

## 1.10 Employee benefits

The cost of any unused holiday entitlement is recognised in the period in which the employee's services are received.

## 1.11 Retirement benefits

Payments to defined contribution retirement benefit schemes are charged as an expense as they fall due.

## 1.11 Leases

Operating Lease: rentals are charged and credited to the statement of financial activities.

## 2 Critical accounting estimates and judgements

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In the application of the charity's accounting policies, the trustees are required to make judgements, estimates and assumptions about the carrying amount of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

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

### Critical judgements

#### Performance related grants

Income on performance related grants is recognised on a receivable basis, to the extent that income has been received, or is receivable due to the grants expected becoming unconditional and their receipt probable in the foreseeable future.

Grants that are expected but not yet receivable on the basis that certain performance related criteria must be achieved have been excluded from these financial statements. The expected income on which conditions are attached has been disclosed in note 3 to state a true and fair view of the expected income over a period of 3 and half years. Such grants include conditions which may not be certain of being met due to requirements for meeting criteria beyond the control of the charity thereby creating the possibility of the reduction or withdrawal of the expected fund.

# Notes to the financial statements

## 3 Charitable activities - Income

	2020	2019
	£	£
Performance related grants - FCDO	<b>£523,724</b>	
Performance related grants - EPSRC	<b>£22,180,727</b>	15,514,729

All income from charitable activities has come from grants awarded by either the Engineering and Physical Sciences Research Council (EPSRC) as part of the Industrial Strategy Challenge Fund (ISCF) Faraday Battery Challenge or from the Foreign, Commonwealth and Development Office, (FCDO). The funding from EPSRC has been awarded for a four-year period ended 31 March 2021. This funding has several specific streams as set out below. EPSRC have announced that the total amount available for the Faraday Institution over this period is up to £78 million.

The head office grant was awarded for the purposes of supporting the setup costs of The Faraday Institution and to support an application inspired fundamental research programme to develop expertise in battery science and technology research.

The research projects grant was awarded for the 9 main research projects and associated projects and HQ costs, including monies for equipment associated with these projects. The equipment and training elements of this award have separate conditions attached and have been identified as restricted funds.

The terms of the grant awards from EPSRC include provision that the ISCF Challenge Directors may flex the funding split

between research, innovation and scale up based on market conditions and to ensure the optimal balance overtime.

Since the Faraday Institution represents the research element of the Faraday Battery Challenge, this means that the possibility of flexing of this funding leads to uncertainty over the amount of funds that may be available to the Faraday Institution over the period of the grant award. Grant payments are scheduled to be made quarterly to the Faraday Institution according to a profile pre-agreed by EPSRC. Given the uncertainty around future funding, in line with the charity's accounting policy on revenue recognition, income from grants has been recognised when it is considered to be unconditional. This is on receipt of the quarterly payment.

The FCDO grant is for a total of £3m over the period to 31 March 2023. Payments on this grant are quarterly based on a forecast spend adjusting for actual expenditure in the previous quarter. In line with the charity's accounting policy, income is recognised when it becomes unconditional.

As at 31 March 2020, a cumulative total of £53.1m (2019: £30.4m) has been recognised as income against the total of grants awarded of £80.3m (2019: £58.4m). The recognised amounts as at year end are shown below:



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2020	Total recognised £	Restricted £	Unrestricted £
Start-up grant	-	-	-
Head office grant	1,796,841	-	1,796,841
Equipment grant	3,519,399	3,519,399	-
Research grant	13,626,605	-	13,626,605
Training Grant	763,750	763,750	-
2nd Wave Research Grant	2,474,132	-	2,474,132
FCDO Grant	523,724	523,724	-
	<u>22,704,451</u>	<u>4,806,873</u>	<u>17,897,578</u>

2019	Total recognised £	Restricted £	Unrestricted £
Start-up grant	-	-	-
Head office grant	2,849,976	-	2,849,976
Equipment grant	-	-	-
Research grant	12,326,304	-	12,326,304
Training Grant	338,449	338,449	-
	<u>15,514,729</u>	<u>338,449</u>	<u>15,176,280</u>

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# Notes to the financial statements

## 4 Investment income

	2020	2019
	£	£
Interest receivable	<u>79,617</u>	<u>62,527</u>

## 5 Charitable activities - expenditure

2020	Grants	Direct costs	Support Costs	Total
	£	£	£	£
	Note		(note 7)	2020
Research Projects	20,696,627	741,178	354,909	21,792,714
Training	846,133	118,272	86,361	1,050,766
Engagement & Reports	-	784,968	282,195	1,067,163
Governance	8	77,025	-	77,025
Total	<u>21,542,760</u>	<u>1,721,443</u>	<u>723,465</u>	<u>23,987,668</u>

2019	Grants	Direct costs	Support Costs	Total
	£	£	£	£
			(note 7)	2019
Research Projects	11,128,739	762,909	411,025	12,302,674
Training	420,730	98,774	106,236	625,740
Engagement & Reports	-	428,198	262,025	690,223
Governance	8	71,669	-	71,669
Total	<u>11,549,469</u>	<u>1,361,551</u>	<u>779,285</u>	<u>13,690,306</u>

## 6 Grants payable

	2020	2019
	£	£
<b>Grants to lead institutions</b>		
University of Cambridge	3,853,730	2,315,687
Imperial College London	3,200,598	2,851,167
University of Birmingham	3,431,394	2,886,525
University of Oxford	4,238,153	2,907,888
University of St Andrews	1,504,830	-
University of Sheffield	1,013,251	-
University College London	2,294,915	-
University of Bath	1,005,543	-
Entrepreneur Fellows	250,000	197,372
Smaller grant	750,346	390,829
	<b>21,542,760</b>	<b>11,549,469</b>

At the period end, the Charity had awarded the following grants. There are nine large grants, Four initial projects and five subsequent projects all are collaborative research programmes involving a number of universities based on a hub and spoke model with one university taking the lead for each project. The grant funding is awarded subject to a number of terms and conditions and with the ability of the Faraday Institution to withdraw, reduce or reallocate on reasonable notice to better maximise the impact of the Faraday Institution research portfolio or in response to any variation in the funding to the charity. For this reason, grant awards are only recognised when they are considered to be unconditional. These grants included

amounts specified for capital equipment. This amount has been recognised in full as expenditure. The remaining grant is for expenditure expected to be committed over a period to 28 February 2021 for the four initial projects and 30th September 2023 in the Wave 2. This expenditure is expected to be paid quarterly in arrears. Expenditure is recognised in the quarter in which expenditure commences.

The PhD training grants are made to various institutions to fund PhD positions for four years. As the four-year term is beyond the current funding available to the Charity, EPSRC has underwritten amounts that would fall due beyond the 31 March 2021 on these grants.

# Notes to the financial statements

## 7 Support costs & set up costs

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	2020	2019
	£	£
Salaries and other staff costs	257,366	408,109
Recruitment	101,360	48,991
Legal and professional	32,918	26,020
Office costs	329,241	292,703
Travel	2,580	3,464
Total	<u>723,465</u>	<u>779,285</u>

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## 8 Governance

	2020	2019
	£	£
Trustee Costs	53,343	44,960
Accounting and Audit	23,682	26,709
	<u>77,025</u>	<u>71,669</u>

Governance costs includes payments to the auditors of £12,750 (2019: £12,500) excluding VAT in respect of statutory audit fees. There were no other fees payable to the statutory auditor.

## 9 Trustees

None of the Trustees (or any persons connected with them) received any remuneration or benefits from the Company during the period for their work as Trustees. Six Trustees were reimbursed for travel expenses during the period. These reimbursements totalled £43,406 (2019: Nine Trustees £32,879)

For part of the prior financial year (2018/19) two Trustees, Professor Peter Littlewood and Mr Stephen Heidari-Robinson undertook executive duties on a part time basis during the period January 2018 to July 2018 as interim director and interim deputy director, respectively, as a temporary measure whilst the Charity sought a full-time employee for the role. Their appointment in this

temporary role and the terms of their remuneration for these roles were agreed by the Board of Trustees at a Board meeting on 22 January 2018, as stipulated in the charity's constitutional document. Professor Littlewood and Mr Heidari-Robinson were themselves absent from this part of the Board discussion and the vote of approval. For the period April 2018 to July 2018, Professor Littlewood was paid fees of £29,308 and Mr Heidari-Robinson, via Simorgh Limited was paid £38,207. The Faraday Institution full time CEO joined in July 2018, at which point Professor Peter Littlewood and Mr Stephen Heidari-Robinson ceased their executive roles. No remuneration was received in 2019/2020.

# Notes to the financial statements

## 10 Employees

	2020	2019
<b>Number of employees</b>		

The average monthly number employees (including directors) during the period	12	10
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	2020	2019
<b>Employment costs</b>	<b>£</b>	<b>£</b>
Interim staff salaries	15,419	251,417
Wages and salaries	964,444	648,268
Social security costs	117,194	81,419
Defined contribution pension costs	19,393	11,778
	<b>1,116,450</b>	<b>992,882</b>

At year end there were 12 permanent members of staff and 1 interim staff member (2019: 10 permanent, 3 interim)

	2020	2019
<b>Remuneration of key management personnel</b>	<b>£</b>	<b>£</b>

The remuneration of key management personnel, including employer's national insurance and pension contributions, is as follows:

Aggregate compensation	392,530	364,322
Number of Key Management Personnel	3	4

	2020	2019
<b>Number of employees whose annual remuneration was £60,000 or more</b>	<b>£</b>	<b>£</b>
£60,001 to £70,000	-	1
£80,001 to £90,000	-	1
£90,001 to £100,000	3	1
£100,000 to £110,001	1	-
£130,001 to £140,000	-	1
£140,001 to £150,000	1	1
£210,001 to £220,000	1	-

## 11 Tangible fixed assets

	Leasehold improvements £	Computers £	Office furniture £	Pool Car £	Total £
<b>Cost</b>					
Balance at 1 April 2019	168,312	39,848	77,406	30085.45	315,651
Additions	-	2,065	-	-	2,065
<b>Balance at 31 March 2020</b>	<b>168,312</b>	<b>41,912</b>	<b>77,406</b>	<b>30,085</b>	<b>317,716</b>
<b>Accumulated Depreciation</b>					
Balance at 1 April 2019	(16,612)	(12,895)	(24,232)	(3,709)	(57,448)
Charge for the year	(16,612)	(13,454)	(25,802)	(6,711)	(62,798)
<b>Balance at 31 March 2020</b>	<b>(33,443)</b>	<b>(26,349)</b>	<b>(50,034)</b>	<b>(10,420)</b>	<b>(120,247)</b>
<b>Net book value at 31 March 2020</b>	<b>134,868</b>	<b>15,564</b>	<b>27,372</b>	<b>19,665</b>	<b>197,469</b>
<b>Net book value at 31 March 2019</b>	<b>151,700</b>	<b>26,953</b>	<b>53,174</b>	<b>26,376</b>	<b>258,203</b>

## 12 Financial instruments

	2020 £	2019 £
Financial assets measured at amortised cost (a)	<b>20,299,023</b>	17,438,232
Financial liabilities measured at amortised cost (b)	<b>17,045,973</b>	13,046,139

(a) Financial assets measured at amortised cost include cash, other debtors and accrued income

(b) Financial liabilities measured at amortised cost include other creditors, all accruals and finance leases

# Notes to the financial statements

## 13 Cash and cash equivalents

	2020	2019
	£	£
Cash	12,655,321	10,402,337
Short-term bank deposits	7,072,361	7,021,297
Total	<u>19,727,682</u>	<u>17,423,634</u>

## 14 Debtors

	2020	2019
Amounts falling due within one year	£	£
Other debtors	523,725	7,500
Prepayments and accrued income	122,407	76,440
Total	<u>646,132</u>	<u>83,940</u>

## 15 Creditors

	2020	2019
Amounts falling due within one year	£	£
Taxation and social security	43,197	33,030
Other creditors	97,227	1,520,152
General accruals	118,685	70,363
Accruals for grants payable	16,806,317	11,428,197
Total	<u>17,065,426</u>	<u>13,051,742</u>



## 16 Restricted funds

	EPSRC Equipment grant	EPSRC Training Grant	FCD0 Grant	Total
<b>Opening balance 1 April 2018</b>	82,818	-	-	82,818
Incoming resources		338,449	-	338,449
Resources expended		(335,730)	-	(335,730)
Balance at 31 March 2019	82,818	2,719	-	85,537
<b>Opening balance 1 April 2019</b>	82,818	2,719	-	85,537
Incoming resources	3,519,399	763,750	523,724	4,806,873
Resources expended	(3,529,299)	(684,197)	(321,089)	(4,534,585)
Balance at 31 March 2020	72,918	82,272	202,635	357,825

## 17 Analysis of net assets between funds

	Unrestricted £	Restricted £	Total £
<b>Fund balances at 31 March 2019 are represented by:</b>			
Tangible assets	258,203	-	258,203
Current assets/(liabilities)	4,603,978	85,537	4,689,515
C/Over	4,862,181	85,537	4,947,718
<b>Fund balances at 31 March 2020 are represented by:</b>			
Tangible assets	197,469	-	197,469
Current assets/(liabilities)	2,930,621	357,825	3,288,446
	3,128,090	357,825	3,485,915

# Notes to the financial statements

## 18 Operating lease commitments

At the reporting date the charity had outstanding commitments for future minimum lease payments under non-cancellable operating leases, which fall due as follows:

	2020	2019 (restated)
	£	£
Within one year	154,433	150,719
Between two and five years	134,658	289,091
In over five years	-	-
	<u>289,091</u>	<u>439,810</u>

Lease payments recognised as an expense during the year totalled £149,020 (2019:£129,075)

The operating lease in respect of the rental of Quad 1, Harwell is a 10-year lease ending January 2028 with a break clause at January 2022 and January 2025. The rentals increase each year using the RPI index.

## 19 Related party transactions

### Other related parties

Professor Peter Bruce was appointed as Chief Scientist of the Faraday Institution on 22 January 2018 for a term of three years. In this role, he serves as chairman of the expert panel.

In addition to his role as Chief Scientist, Professor Bruce is the Wolfson Professor of Materials at the University of Oxford. In this capacity, he is the grant holder for the solid-state batteries research project awarded by the Faraday Institution in February 2018. This grant is for up to £10,901,879 of which £2,968,185 was recognised in 2018, £2,664,372 in 2019 and £2,868,993 in 2020. The unrecognised portion of this grant at 31 March 2020 was £2,400,329. The funding for this grant currently ends March 2021. This grant was awarded through a competitive process whereby bids were assessed and selected by an independent panel.

## 20 Reconciliation of cash flow from operating activities

	2020	2019
	£	£
Net income	(1,203,600)	1,886,930
<b>Adjustments for:</b>		
Depreciation of fixed assets	62,798	57,448
Interest received	(79,617)	(62,527)
Decrease/ (Increase) in debtors	(562,192)	369,784
Increase in creditors	4,009,107	1,460,439
<b>Cash generated by operations</b>	<b>2,226,496</b>	<b>3,712,074</b>

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