

# Financial Report & Accounts

For the year ended  
31 March 2018



ROYAL  
ACADEMY OF  
**ENGINEERING**

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# Chair of the Finance Committee's statement



## RESULTS FOR THE YEAR

The Academy has produced group accounts for the year, having consolidated its accounts with those of its two subsidiaries: the Queen Elizabeth Prize for Engineering (QEPrize) Foundation and RAE Trading Limited. The group accounts were prepared under the new *Statement of Recommended Practice 2015* as defined in the *Financial Reporting Standard 102*.

Group income for the year was £31.5 million. Group expenditure on charitable activities was £30.2 million. The cost of generating funds across the group was £1.6 million. The carrying value of the group's net assets was £64.0 million.

## ROYAL ACADEMY OF ENGINEERING

Total income for the year was £29.9 million. The largest element, core grants from the Department for Business, Energy and Industrial Strategy, was £11.4 million.

Income from other grants and contracts increased to £15.6 million.

Expenditure on charitable activities was £29.5 million compared to £26.2 million in the previous year. An analysis based upon the principal objective of each activity shows that, of the total charitable expenditure of £29.5 million: 75% on enhancing engineering capacity; 8% on inspiring

young people; 13% on promotion of and leadership in engineering; and 5% on leading and shaping engineering policy. Employment costs increased from the previous year by 13% to £5.7 million due to additional recruitment to deliver programmes such as the Global Challenges Research Fund and Investment in Research Talent.

## THE QUEEN ELIZABETH PRIZE FOR ENGINEERING FOUNDATION

Total income for the year was £0.8 million. Expenditure on charitable activities was £0.8 million. The Queen Elizabeth Prize for Engineering is awarded biennially and an award was made in 2017. The Foundation pays a management fee to the Academy for services, which includes staff employed and office space.

## RAE TRADING LIMITED

The commercial activity undertaken by the company during the year was the provision of rooms and catering services within Prince Philip House, primarily to corporate customers. Catering services are also provided to the Academy at cost. Revenue for the year was £1.1 million and operating expenditure, including the cost of providing a service to the Academy, was £1.0 million. The net profit for the year before gift aid was £74,000. Trading resumed in January 2017 after refurbishment work, including new kitchens, took place in Prince Philip House.

## GROUP ASSET VALUE

The carrying value of the group's net assets was £64.0 million. Investments were valued at £47.4 million, with the Academy holding £23.6 million and the Foundation holding £23.8 million. Tangible fixed assets valued at £25.1 million included the £11.3 million value of the Carlton House Terrace lease and the £12.8 million of

leasehold improvements to Prince Philip House. The main liability was a bank loan of £11.5 million, which funded the extension of the Academy's property lease secured in 2017. The loan also funded part of the lower ground floor extension and settled the previous loan with NatWest. The value of the group's restricted funds increased over the year by £0.4 million. The Academy's general fund value decreased over the year by £0.9 million.

## INVESTMENTS

The value of the Academy's investment portfolio decreased over the year by £1.0 million to £23.6 million. Realised and unrealised investment losses during the year were £0.3 million. 100% of the Academy's investment portfolio is held in UK equities. Income to the Academy from dividends decreased by 2% during the year to £886,000 while bank interest decreased to £9,000 from £22,000. Group investment income increased by £29,000 to £1.6 million, of which £636,000 was income from the Foundation's investments, which are managed separately from those of the Academy.

## FINANCE COMMITTEE

The Finance Committee meets at least four times during each financial year. Included in the items considered by the Committee during the year were the Academy's investment strategy and the performance of RAE Trading Ltd.

**Dr Robert Joyce FEng,  
Chair of the Finance Committee**

# Report of Trustee Board

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## Reference and administrative details

**NAME AND  
REGISTERED OFFICE**

The Royal Academy of Engineering is a registered charity No. 293074. It is a corporate body governed by Royal Charter. The registered office is Prince Philip House, 3 Carlton House Terrace, London SW1Y 5DG.

**PROFESSIONAL  
ADVISERS**

**Bankers**

National Westminster Bank plc  
Charing Cross, London Branch  
PO Box 113, Cavell House  
2a Charing Cross Road  
London WC2H 0NN

**Solicitors**

Bristows  
100 Victoria Embankment  
London EC4Y 0DH

Womble Bond Dickinson  
4 More London Riverside  
London SE1 2AU

**Auditor**

BDO LLP  
55 Baker Street  
London W1U 7EU

**Investment advisers**

OLIM Limited  
Pollen House  
10-12 Cork Street  
London W1X 1PD

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## Structure, governance and management

### TRUSTEE BOARD MEMBERS

The Academy's Trustee Board comprises 13 members elected by and from the Fellowship with the discretion to co-opt up to two additional members. Trustee Board members are the trustees of the Academy as defined under its status as a registered charity. The Trustee Board will meet six times a year and it is responsible for the governance of the Academy. At these meetings, the Trustee Board will discuss issues of strategy and policy and also matters referred to it by the governance committees for Finance, Audit and Risk, Membership, Nominations and Remuneration. During the year a review of the election of chairs of Governance Committees was completed and passed by an Extraordinary General Meeting in February 2018.

All Trustee Board members and other Fellows who take part in Academy activities give their time freely; no remuneration was paid in the year beyond the reimbursement of reasonable expenses. The majority of Academy activities are controlled by committees composed of Fellows. The members of the Trustee Board during the year were:

### OFFICERS

#### President

Dame Ann Dowling OM DBE FEng FRS

#### Vice-Presidents

Professor Iain Gray CBE FEng FRSE  
Vice-President for Committee Coordination

Professor Richard Williams OBE FEng  
Vice-President for Fellowship Engagement

### TRUSTEE BOARD

#### Chair Finance Committee

Dr Robert Joyce FEng

#### Trustee Board members

Professor Dame Ann Dowling  
OM DBE FEng FRS  
Professor Iain Gray CBE FEng FRSE  
Professor Richard Williams OBE FEng  
Professor Colin Bailey FEng  
Naomi Climer CBE FEng  
Norman Haste OBE FEng  
Dr David Hughes FEng

Dr Robert Joyce FEng  
Professor Elaine Martin OBE FEng  
Professor Geoffrey Maitland FEng  
Dr Frances Saunders CB FEng  
Professor Liz Tanner OBE FEng FRSE  
Paul Westbury CBE FEng  
Professor Stephen Young FEng

## Election to the Trustee Board

Trustee Board members are elected for a term of three years with the exception of the President who is elected for a term of up to five years. The trustee election is by a ballot of Fellows each year. The Nominations Committee meets annually to draw up a list of candidates willing to stand in the trustee election and, if elected, to serve as either a Vice-President or a chair of a governance committee.

## Induction and training of Trustee Board members

Following election, trustees are provided with an information pack comprising the Charter, Statutes and Regulations of the Academy, a Charity Commission publication on the responsibilities of charity trustees and the strategic plan. Trustee Board members are encouraged to attend recommended external training courses for charity trustees.

The Academy is working towards the the governance standards as set out in the new Charity Governance Code.

# Report of Trustee Board

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## Internal control

The Finance Committee is mandated by and reports to the Trustee Board on the following issues:

- Setting a budget prior to each financial year for approval by the Trustee Board.
- Appointing and monitoring the performance of independent investment advisers.
- Approving authorised signatories and setting limits on delegated financial authorities.
- Monitoring actual financial performance against budget.
- Reviewing the reserves policy annually.
- Ensuring that accounting rules are followed.

Detailed management accounts are prepared monthly within 10 working days of the month end and submitted quarterly to the Finance Committee. Summarised accounts are submitted at each Trustee Board meeting.

### MEMBERS OF THE FINANCE COMMITTEE

Dr Robert Joyce FREng (Chair)  
Naomi Climer CBE FREng  
Norman Haste OBE FREng  
Graeme Hobbs FREng

Professor David Lane CBE FREng FRSE  
Professor Stephen Young FREng FRSA  
Dr David Hughes FREng

### INVESTMENT POWERS

The Academy's constitution stipulates that the Chair of the Finance Committee must be a trustee of the Academy.

### RISK ASSESSMENT

The major risks to which the Academy is perceived to be exposed have been identified and mechanisms are in place to mitigate and monitor those risks. As part of this process, the Chief Executive reports to the Audit and Risk Committee twice per year on the status of perceived risks and the actions taken or about to be taken to reduce the risks of greatest concern. A review of the Academy's risk management processes and controls was completed during the year and a new Risk Management Policy is currently being implemented.

This work has identified that financial sustainability is a significant risk for the Academy. The impact of the UK's withdrawal from the European Union upon the Academy's income, including from government grants and fundraising activities, is as yet uncertain. These risks are managed by only implementing programme activities when funding is available.

The Queen Elizabeth Prize for Engineering Foundation has yet to raise all the funds required to sustain the prize in perpetuity. This risk is managed by regular monitoring of QEPrize fundraising by internal management and the Academy's trustees. A new Development Director has been appointed to manage QEPrize and Academy fundraising in parallel.

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## SENIOR MANAGEMENT TEAM

Day-to-day management of the Academy is the responsibility of the Chief Executive who with the directors comprise the Senior Leadership Team, which meets weekly. Strategy is set by the Trustee Board, implemented by the Senior Leadership Team and oversight is provided by Academy Committees. The remuneration of the Chief Executive and directors is set annually by the Remuneration Committee. In setting appropriate levels of senior management pay, the Remuneration Committee considered the skills, experience and competencies required for each role, and the remuneration level for those roles in sectors where suitable candidates would be found.

The directors are as follows:

Chief Executive	Dr Hayaatun Sillem
Director, Finance and Corporate Services	Mr Stuart Anthony
Director, Programmes	Mr Andrew Clark
Director, Engineering and Education	Dr Rhys Morgan
Director, Policy	Dr Nick Starkey
Director, Development	Ms Samantha Bagchi
Director, Queen Elizabeth Prize for Engineering	Ms Keshini Navaratnam

# Report of Trustee Board

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## Objectives and activities for the public benefit

### Charitable activities

The Academy focuses its efforts on four areas of activity for the public benefit:

- Supporting engineering innovation.
- Inspiring young people and nurturing education and skills.
- Engaging the public with engineering.
- Leading and shaping engineering policy.

In pursuing its objectives, the Academy aims to position engineering at the centre of society, and to demonstrate the contribution made by engineers and engineering to society in the UK and beyond. The Trustee Board confirms that it has referred to the guidance contained in the Charity Commission's general guidance on public benefit, both when reviewing the Academy's aims and objectives and also in planning future activities.

### Activities, achievements and performance

#### *"Supporting engineering innovation"*

Main public benefits:

- Improving the wealth generation of the UK economy by supporting high-quality engineering and technology research and encouraging entrepreneurs and innovators to develop ideas and grow businesses.
- Facilitating links between industry and universities to translate innovative research into economic success.
- Enhancing the links between UK and international engineers and encouraging cross-country collaboration to address global challenges.

#### Main achievements

The Enterprise Hub celebrates its fifth anniversary in 2018. The Hub's vision is to increase the number and quality of high-growth engineering and technology companies that solve some of society's most pressing challenges, fostering a culture of entrepreneurship, innovation and success among engineers in the UK, and creating more jobs and economic growth. To date, there are 73 Hub members who have started 57 companies, creating more than 270 jobs. With the Hub's support, the startups, spin-outs and SMEs have attracted £62 million in additional funding and four have been acquired by larger, established companies. Hub members' innovations span

sectors including healthcare and medicine, robotics and AI, and clean energy.

In 2017, the Academy received additional government funding as part of Investment in Research Talent, from the National Productivity Investment Fund. This funding allowed the Academy to support an additional 43 awards that began in 2017-18. This includes support for 10 Chairs in Emerging Technologies over a 10-year period, bringing the number of researchers supported to 12. This long-term support enables the chairs to lead on developing emerging technology areas that have high potential to deliver economic and social benefit to the UK. For every £1 that the Academy invested in Research Chairs, over £17 was attracted in support from other sources, including industry and UK and EU government funders.

In 2017, the third Africa Prize for Engineering Innovation was awarded to Godwin Benson, a Nigerian systems engineer who developed an online platform that links students to qualified tutors in their area, who are within their budget. He and three other finalists each received prize money, support and business training. The 15 engineers shortlisted for the prize are invited to take part in Pitch@Palace Africa, a collaboration between the Academy and Pitch@Palace, an initiative founded by HRH The Duke of York in 2014 to amplify and accelerate the work of entrepreneurs. In March, Shafik Sekitto and the team behind Uganda-based startup Matibabu, which was shortlisted for the 2018 Africa Prize, won Pitch@Palace Africa 2.0 for a device that can test for malaria without drawing blood.

Achievements in programmes funded by the government grant included: more than 60 Research Chairs and Senior Research Fellows were in post during the year, the latter being funded by an industry co-sponsor; two Research Chairs in Emerging Technologies were in post; 72 Research Fellows (including RAEng/Leverhulme Trust Senior Research Fellowships, RAEng Research Fellowships, RAEng/Daphne Jackson Trust Fellowships, RAEng/Engineering for Development Research Fellowships, RAEng/Lloyd's Register Foundation Fellowships, and UK Intelligence Community Postdoctoral Research Fellowships) were in post; 21 fellowships were awarded under the Industrial Fellowships scheme, which facilitates knowledge transfer between academia and industry by placing an engineering researcher in an

industrial setting; six researchers were awarded APEX Awards (Academies Partnership in Supporting Excellence in cross-disciplinary (x) research) for interdisciplinary proposals, which are funded in partnership with the Royal Society and the British Academy, with support from the Leverhulme Trust; Frontiers of Engineering for Development symposia led to funding for more than 20 projects between researchers across several countries; nine universities were supported as part of the Higher Education Programmes in sub-Saharan Africa programme; eight engineering institutions were supported under the Africa Catalyst programme; under the Newton Fund, 210 researchers from 15 Newton Fund partner countries were trained under the Leaders in Innovation Fellowships scheme, 51 bilateral collaborations with six countries funded as part of the Industry-Academia Partnership Programme, 28 Distinguished Visiting Fellowships were awarded, and seven research projects were funded via the UK-China Urban Flooding Research Impact Programme.

### ***“Inspiring young people and nurturing educational skills”***

Main public benefits:

- Meeting the needs of the UK economy and society by encouraging young people to study engineering.
- Promoting diversity and enabling underrepresented groups to take up a career in engineering.
- Enhancing teaching and learning in STEM subjects.

Main achievements

In January 2018, the Academy launched *This is Engineering* with EngineeringUK and industry partners. The multi-year perception-change campaign aims to rebrand engineering for young people and their influencers to encourage them to take up careers in engineering. It centres on an online and social media advertising campaign, complemented by a programme of PR activity that highlights the critical role that engineering plays in shaping the future. The UK’s impending departure from the EU and the development of a new industrial strategy present both an imperative and a unique opportunity to refocus efforts of boosting the supply of UK homegrown talent. The campaign films were watched 13 million times in 15 weeks, by an audience of teenagers with an even gender split. The launch came shortly after the government’s Year of Engineering began, and *This is Engineering* will provide a legacy for the Year, building on its success and delivering the sustained engagement needed.

In March, the Academy launched its fourth engineering education programme in the Welsh Valleys. The programme is building on the region’s engineering heritage, enabling students in the area to build skills that will support many of the engineering companies that are investing in South Wales. As well as providing STEM enhancement and enrichment opportunities for students, the project enables continued professional development for teachers. Funded by The Panasonic Trust, the programme will reach eight secondary schools and five primary schools across five years. A further grant from the Waterloo Foundation is supporting primary schools in the area for two years, helping to deliver an engaging STEM curriculum, buy equipment for after-school STEM clubs, and provide teachers with extra training and support. The Academy’s existing engineering education projects in Barrow-in-Furness, Stoke-on-Trent and Lowestoft have provided over 100,000 STEM learning opportunities since their launch.

The Academy’s education projects have also worked with hundreds of schools and colleges to strengthen the quality of engineering education. The *Connecting STEM Teachers* programme has a total of 45 teacher coordinators who support more than 1,000 teachers at nearly 700 schools across the UK. A new teaching resource and a set of posters, *Aiming for Awesome*, were developed in collaboration with the Royal Air Force (RAF) to highlight the key engineering innovations that have enabled the RAF to shape the modern world and protect UK skies for 100 years. To date, over 1,500 free resource boxes, on a range of subjects, have been given out to schools

A total of 35 students were in receipt of Engineering Leaders Scholarships (ELS), a three-year programme of career development activities, annual networking weekends, and access to advice and mentorship from Academy Fellows, Sainsbury Management Fellows and ELS alumni. To date, more than 105 undergraduates have been supported through the scheme. In addition, 10 Sainsbury Management Fellowships were awarded; and 10 new Visiting Professors were appointed, bringing the total on the scheme to 78 across 45 different UK universities.

In late 2017, the Academy hosted around 200 students at three engineering fast-track workshops as part of the Engineering Engagement Programme pilot project, which works with 14 engineering employers to

# Report of Trustee Board

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attract undergraduates from diverse backgrounds into employment. The pilot ended in March 2018 and findings are being evaluated. It is expected that the programme will continue and the number of employers that the Academy works with will increase. Over the three years, the pilot project delivered 11 events and engaged with more than 450 engineering students and recent graduates, who were 30% female, 91% from Black, Asian and ethnic minority backgrounds, and 74% from newer universities or socioeconomically disadvantaged backgrounds.

## ***“Engaging the public with engineering”***

Main public benefits:

- Engaging the public in debate on engineering and its impact on society.
- Communicating the excitement and diversity of engineering to varied audiences.
- Recognising great engineering through prizes and awards.

Main achievements

The MacRobert Award for innovation in UK engineering for 2017 was awarded to Raspberry Pi, a low-cost, pocket-sized computer that is inspiring young people in schools to learn coding and study computer science, as well as funding hundreds of outreach activities across the world through the Raspberry Pi Foundation.

Other awards in 2017 were:

- Sir Frank Whittle Medal – awarded to Professor Andrew Schofield FREng FRS, Emeritus Professor at the University of Cambridge, for his transformational research in soil mechanics and geotechnical engineering.
- Sir George Macfarlane Medal – awarded to Dr Ruth Misener, lecturer and Royal Academy of Engineering Research Fellow in the Department of Computing at Imperial College London, for her innovative approaches to process systems engineering.
- Colin Campbell Mitchell Award – awarded to Oxehealth for its world-leading, contactless health-monitoring technology.
- Silver Medals – awarded to: Rob Bishop and Dr Zehan Wang, Magic Pony Technology; Billy Boyle, CEO, Owlstone Medical; Professor Constantin Coussios, Co-Founder, OrganOx; Dr David Silver, Principal Research Scientist, DeepMind.

- Major Project Award – awarded to a team from Arup for the SSE Hydro Arena in Glasgow.
- President’s Medal – awarded to Ian Shott CBE FREng for his many contributions to the work of the Academy, particularly his instrumental role in the creation of the Enterprise Hub.
- Rooke Award – awarded to Roma Agrawal, associate director at AECOM, in recognition of her tireless efforts to promote careers in engineering.
- RAEng Armourers and Brasiers Company Prize – awarded to Professor Mohan Edirisinghe FREng, from UCL’s Department of Mechanical Engineering, for his work developing new materials for use in healthcare.

A number of significant events were held throughout the year, including the annual Academy Awards Dinner, *In conversation with MacRobert Award 2017 winner: Raspberry Pi, Ingenia* live!, and a number of lectures and meetings. Over the past two years, the Academy has hosted a series of events with former Rooke Award winner Professor Danielle George MBE, touring the UK with her Robot Orchestra. School groups and members of the public watched live demonstrations of around 50 robots built from recycled electronics and junk, while Professor George explained how everyday devices can be adapted and transformed to do extraordinary things.

In 2017, the *Ingenious* public engagement grant scheme awarded funding to 17 projects, which were chosen to represent the diversity of the engineering profession in the UK, with particular consideration given to proposals that reached underserved audiences. Over 12 years, the scheme has funded more than 200 projects and provided opportunities for more than 5,000 engineers to take part in public engagement activities that have reached over 2.5 million members of the public.

The Academy participated in public engagement activity at science festivals. It sponsored two events at Cheltenham Science Festival, as well as funding the MakerShack space at the festival through the *Ingenious* programme. For the first time, it also took part in Manchester Science Festival with an event titled *What’s engineering got to do with it?*, which attracted almost 1,300 visitors who interacted with a variety of engineering activities, such as using technology to extract DNA from a strawberry and turning their voice into a musical instrument. The Academy partnered with Disney for the second time at *New Scientist Live* to present

a stand demonstrating 'Engineering inspired by *Star Wars*'. The four-day festival attracted over 30,000 visitors, which meant that the Academy's stand was always busy.

In December, HRH The Prince of Wales presented three of the winners of the 2017 Queen Elizabeth Prize for Engineering (QEPrize) with their trophies at a ceremony held at Buckingham Palace. The winners, Eric Fossum, Nobukazu Teranishi, Michael Tompsett and George Smith (who was not in attendance) were honoured for their combined contribution to the creation of digital image sensors. Their three innovations created over three decades have revolutionised the way that visual information is captured and shared. Attendees at the prize-giving included representatives from QEPrize donor companies and leading young engineers from the QEPrize Global Engineering Ambassadors' Network. Ambassadors and High Commissioners from around the world were also in attendance, including His Excellency Koji Tsuruoka, Japanese Ambassador to the UK, and His Excellency Robert Wood Johnson, US Ambassador.

QEPrize also published the second *Create the Future* report, an international survey on perceptions of engineering, based on the responses of more than 10,000 people across 10 global centres of engineering, including the US, Japan, Turkey, India and Brazil. Key findings suggest that engineering is entering a new era, where technology-related innovations are seen to have the greatest impact on our way of life. The study also highlighted that people see engineers as being as influential as politicians in solving major world challenges. Overall, the industry is recognised as a respectable, prestigious and highly trusted career choice. However, 8 in 10 respondents agreed that there is an urgent need for more visible, leading female role models.

### ***"Leading and shaping engineering policy"***

Main public benefits:

- Acting as a leadership body and harnessing the strengths of the engineering organisations to promote engineering's value.
- Working with the other national academies on a range of policy issues.
- Providing written responses and advice to parliamentary, governmental and other national bodies on a range of engineering topics.

Main achievements

In April 2017, the Academy led a response, on behalf of the

engineering profession, to the government's Green Paper on industrial strategy. The report, *Engineering an economy that works for all*, represented a collaboration of all 38 professional engineering organisations representing over 450,000 engineers, and benefited from an unprecedented level of engagement by the engineering community. It called on government to ensure that any proposals build on existing successful policies and suggested a focus on a long-term vision that harnesses the UK's international reputation for engineering excellence, presenting Britain as a top destination for inward investment and global talent.

In July, the Academy published a report on the sustainability of liquid biofuels, which was produced at the request of the Department for Business, Energy and Industrial Strategy and the Department for Transport. It attracted significant attention in the media and on social media, with news stories from *The Times*, the *Guardian*, *New Scientist* and the BBC, in addition to local press, specialist websites, and mentions on national radio news.

At the end of September, the *Engineering better care* report explored how an engineering systems approach could be applied to health and care. Produced with the Academy of Medical Sciences and the Royal College of Physicians (RCP), it presented a new framework to support healthcare design and improvement.

Also in September, the Academy launched *Creating cultures where all engineers thrive*, a unique study of culture and inclusion across the engineering profession based on the responses of 7,000 engineers. The research confirmed that there is a strong business case for inclusion across the profession. Of the respondents to the survey who said they felt included, 80% said they felt more motivated, 68% said they performed better and 52% said it increased their commitment to the organisation. The responses showed that the more included engineers feel in an organisation, the more likely they are to understand business priorities, see a future for themselves in the profession and be confident about speaking up about improvements, mistakes or safety concerns.

Since the beginning of 2018, work has begun to establish a new Engineering Policy Centre at the Academy, in collaboration with partners across the profession. The centre aims to increase the impact of engineering on society by informing policy and building the capacity and ability of engineers and policymakers to work productively with each other.

# Report of Trustee Board

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Along with the professional engineering institutions and science professional bodies, the Academy took part in a diversity and inclusion (D&I) benchmarking exercise based on the *D&I Progression Framework* that was published in December 2016, which the Academy created with the Science Council to help science and engineering professional bodies plan and prioritise their D&I activities. The benchmarking exercise showed that governance and leadership is an area of strength in D&I, with women well represented by scientific bodies and black, Asian and minority ethnic (BAME) people are represented better on the boards of professional engineering institutions (PEIs). A steering group of PEIs and Science Council members will take forward the implementation of recommendations.

All employers with more than 250 employees were required by law to report their gender pay gap by 4 April 2018. The Academy D&I Programme has begun work to identify the engineering gender pay gap and early indications are that it is likely to be higher than average. The analysis will be used to identify trends in the data and produce an engineering-wide gender equality action plan to address the recruitment, retention and career progression of women in engineering. Although organisations with fewer than 250 employees are not legally required to reveal their gender pay gap, the Academy voluntarily reported its own in March. The Academy's workforce is 62% female, and the results showed a mean hourly pay gap in favour of women at -2.19% and a median hourly pay gap of 9.19% in favour of men.

## **Fundraising statement**

Section 162a of the Charities Act 2011 requires charities to make a statement regarding fundraising activities. Although the Academy does not undertake widespread fundraising from the general public, the legislation defines fundraising as "soliciting or otherwise procuring money or other property for charitable purposes". Such amounts receivable are presented in the Academy's accounts as "voluntary income" and includes legacies and grants.

In relation to the above, the Academy confirms that all solicitations are managed internally, without involvement of commercial participators or professional fundraisers, or third parties. The day-to-day management of all income generation is delegated to the Senior Leadership Team, who are accountable to the trustees.

The charity adheres to the Institute of Fundraising Code of Fundraising Practice.

The Academy has received no complaints in relation to fundraising activities. Its terms of employment require staff to behave reasonably at all times.

## **Financial review**

### **Review of transactions for the year**

The financial statements are presented in the format required by the Statement of Recommended Practice (SORP 2015). The Statement of Financial Activities shows the gross income from all sources and the split of activity between restricted and unrestricted funds. Total group income for the year was £31.5 million. Total income increased by £4.1 million over the previous year.

### **GOVERNMENT GRANT**

The Academy is grateful to the Department for Business, Energy and Industrial Strategy for providing government core grant to support activities aimed primarily at promoting engineering research in the UK. Government core grant at £11.4 million was the largest contribution to funds and represented 36% of total group incoming resources. The Department for Business, Energy and Industrial Strategy made an additional grant of £5.5 million to the Newton Fund programme, £3.9 million to the Global Challenges Research Fund and £3.0 million to the Investment in Research Talent fund.

### **ENGINEERING EDUCATION PROGRAMMES**

The Academy's engineering education programmes aim to improve engineering education from school through to postgraduate education and professional development. The Department for Business, Energy and Industrial Strategy and a group of aerospace sector companies donated £0.2 million to the MSc Aerospace Bursary programme.

### **DONATIONS AND LEGACIES**

During the year, donations totalled £1.5 million, of which £0.2 million was to the Queen Elizabeth Prize for Engineering Foundation.

### **OTHER INCOME**

Other major sources of income during the year were: investments, subscriptions, events and facilities hire income at a total of £3.1 million.

## CHARITABLE ACTIVITIES

Expenditure on charitable activities was £30.2 million during the year or 95% of total resources expended. Of this total, £26.2 million represented charitable activities and grants paid under various programmes and £4.0 million represented the costs of operating those programmes.

## RAISING FUNDS

The cost of generating funds consists of fees paid to investment managers, facilities hire and catering, and the staff costs and expenses associated with fundraising. These costs totalled £1.5 million or 5% of total group resources expended. The Academy is continuing with major fundraising activity aimed at obtaining funds for the enhancement and expansion of the Academy's educational programmes and public engagement activities.

## INVESTMENTS

The Academy's investments are held in a general fund portfolio and a designated charity income fund. The Queen Elizabeth Prize for Engineering Foundation's investments are held in a managed investments fund. The general fund portfolio has the objective of generating income to spend on activities in support of the Academy's strategic objectives while preserving the capital value of the fund in real terms. The structure of the Academy's portfolio is currently 100% UK equities; this allocation is reviewed regularly. During the year, the general fund generated £890,000 of income and had an investment loss of £151,000.

## FIXED ASSETS

Capital expenditure during the year amounted to £0.6 million, which was almost entirely on computer systems and equipment and office fixtures and fittings.

## Academy's reserves policy

The Finance Committee has considered the level of Academy's general reserves as part of the twice-yearly risk assessment review procedure. The Committee has concluded that the required level of reserves is such as would enable the Academy to continue as a going concern in the event of a major reduction in income from existing sources. The Trustee Board, taking into account the recommendation of the Committee, has agreed the following reserves policy:

*The Academy should maintain a minimum level of free reserves of £6 million. The Academy's free reserves should not exceed a maximum level of £40 million.*

The reserves policy will continue to be monitored and reviewed by the Finance Committee who forward recommendations to the Trustee Board for their consideration should any amendments be required to the policy.

The free reserves of the Academy are made up as follows:

<b>Year ended 31 March</b>	<b>2018</b>	<b>2017</b>
	<b>£000</b>	<b>£000</b>
Total funds as per group balance sheet	63,975	64,421
Exclude:		
Restricted funds	33,102	32,655
Unrestricted funds tied up in		
tangible fixed assets	12,300	11,918
Designated and special funds	390	339
<b>Free reserves</b>	<b>18,183</b>	<b>19,508</b>

The Trustees of the Queen Elizabeth Prize for Engineering Foundation consider the level of the Foundation's reserves as part of their risk assessment review process. These reserves are restricted within the group balance sheet. There are no reserves held by RAE Trading Limited as all profit arising is gift aided to the Academy.

The specific uses and needs of the restricted and designated funds held by the Academy are detailed separately in the notes to the accounts referred to above. The Academy's reserves are available and adequate to fulfil the current obligations of the Academy.

# Report of Trustee Board

## Recipients of Academy grants

The Academy made over 1,000 grants and awards to organisations and individuals in 2017/18 totalling £16.0 million. The first 50 organisations, in order of total amount of cash paid to recipients, are listed below.

	Amount in £	Visiting Professors and other programmes			Total
		Research	Industrial secondments		
1	Imperial College London	1,016,514	64,080	18,000	1,098,595
2	University of Oxford	786,481	11,256	-	797,737
3	University College London	625,014	40,250	-	665,264
4	University of Southampton	480,580	71,476	6,800	558,856
5	University of Sheffield	353,649	87,077	29,629	470,355
6	University of Leeds	276,246	172,307	-	448,554
7	University of Bristol	416,509	13,826	18,000	448,335
8	University of Manchester	290,166	29,713	-	319,879
9	University of Glasgow	239,679	46,892	12,700	299,271
10	University of Cambridge	274,585	18,700	-	293,285
11	University of Bath	230,143	40,625	7,625	278,392
12	University of Birmingham	238,388	11,204	17,073	266,665
13	University of Strathclyde	225,818	21,334	17,192	264,344
14	University of Exeter	162,694	68,900	-	231,594
15	City, University of London	204,802	11,167	-	215,968
16	Queen's University Belfast	181,917	29,166	-	211,083
17	Heriot Watt University	160,450	42,775	6,424	209,648
18	University of Edinburgh	99,790	52,765	18,000	170,555
19	University of Liverpool	99,271	44,500	6,800	150,571
20	Tongji University	-	139,348	-	139,348
21	Swansea University	20,752	106,196	12,000	138,948
22	Aston University	123,667	15,000	-	138,667
23	University of Nottingham	46,882	79,233	-	126,115
24	University of Warwick	25,610	91,175	-	116,785
25	University of Kent	90,000	17,280	5,305	112,585
26	Queen Mary, University of London	83,933	4,752	18,000	106,685
27	University of Newcastle	41,418	60,037	-	101,455
28	Cardiff University	8,493	90,980	724	100,198
29	University of West England, Bristol	23,659	68,081	-	91,740
30	Cranfield University	5,000	77,788	-	82,788
31	Brunel University	17,259	63,703	-	80,962
32	University of York	51,357	25,367	-	76,724
33	Loughborough University	38,014	19,318	15,495	72,828

Amount in £	Visiting Professors and other programmes			Industrial secondments	Total
	Research				
34 Uganda Institution of Professional Engineers (UIPE)	72,459			-	72,459
35 Coventry University	13,528	58,690		-	72,218
36 University of Botswana	-	70,012		-	70,012
37 Makerere University College of Engineering	-	70,000		-	70,000
38 College of Engineering & Technology	-	70,000		-	70,000
39 University of Namibia (UNAM)	-	70,000		-	70,000
40 Moi University	-	70,000		-	70,000
41 Tsinghua University	-	69,934		-	69,934
42 University of Zambia - School of Engineering	-	69,808		-	69,808
43 University of Port Harcourt	-	69,321		-	69,321
44 University of Malawi - The Polytechnic	-	68,782		-	68,782
45 National University of Science and Technology	-	67,000		-	67,000
46 The Royal Society	60,183	-		-	60,183
47 Engineering UK	-	60,000		-	60,000
48 Lancaster University	54,000	5,400		-	59,400
49 Open University	9,748	44,912		-	54,660
50 University of Ulster	43,757	5,498		-	49,254
<b>Total</b>	<b>7,192,413</b>	<b>2,605,628</b>		<b>209,766</b>	<b>10,007,807</b>

Notes:

1. Research comprises personal Research Chairs, Senior Research Fellowships, Research Fellowships, Distinguished Visiting Fellowships, Public Engagement Awards, Newton International Fellowships, Research Exchanges with China and India, and Engineering Enterprise Fellowships.
2. Visiting Professorships and other programmes include Visiting Professorships in areas such as sustainable development and systems design, Visiting Teaching Fellowships and other engagement and education programmes.

## Grant-making policy

The grant and award programmes are run by committees or steering groups of Fellows of the Academy. There is a policy of strict impartiality and no Fellow may participate in a grant/award decision if there is a conflict of interest. The role of Academy staff is solely one of administration of programmes.

## Remuneration policy

The Academy's policy is to pay staff salaries at the market mid-point. Salaries are reviewed in alternate years following a market benchmarking exercise conducted by an independent consultancy. The next review will be effective as from 1 April 2019.

# Report of Trustee Board

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## Plans for future periods

As set out in its strategic plan, the Academy will focus on the following strategic challenges.

### **Strategic challenge 1: *make the UK the leading nation for engineering innovation and businesses***

**Our aim** is to support the development of successful engineering research, innovation and businesses in the UK in order to create wealth, employment and societal benefit.

#### **We will achieve this by:**

- marshalling the expertise in our Fellowship and networks to deliver substantial improvement in the environment for the creation of successful, innovative, wealth-creating UK businesses at scale
- growing our investment in research that brings together industry and the best engineering researchers
- developing our Enterprise Hub as an engine for a vibrant, well-networked and supportive community for growing innovative businesses, and as an exemplar of support for innovation and entrepreneurship in engineering and technology
- encouraging international engineering collaborations, supporting the expansion of international networks, and allowing researchers to gain international experience and access world-class expertise
- deploying our Fellows and networks to bring a strong engineering influence to bear on EU, national, regional and local industrial policy.

### **Strategic challenge 2: *address the engineering skills and diversity challenge***

**Our aim** is to develop an education and skills system that inspires people from all backgrounds and promotes UK engineering excellence, and engage the next generation in the opportunities presented by a career in engineering, to increase the number of young people joining the profession.

#### **We will achieve this by:**

- working with partners to recruit many more women and other underrepresented groups to engineering
- influencing positive structural change and innovation in education, training, recruitment and retention of engineers and technicians
- working with partners to transform the effectiveness of engagement activities that bring an understanding of and aspiration for engineering to young people
- helping teachers to embed engineering in schools

and colleges through programmes that support teaching and learning, and bring real-world engineering into all stages of the formation of engineers

- promoting the importance of environmental, economic and social sustainability in engineering practice and education
- recognising and nurturing future engineering leaders.

### **Strategic challenge 3: *position engineering at the heart of society***

**Our aim** is to improve public awareness and recognition of the crucial role of engineers everywhere.

#### **We will achieve this by:**

- engaging with the public and other professions and sharing the value of engineering
- increasing the media profile and impact of the Academy and engineering
- undertaking communications and engagement activities that create a cultural shift in how engineers are perceived across the whole of society
- convening the most influential people for debate and discussion to find and shape engineering solutions, and provide a clear and consistent voice for engineering
- developing our network of engineers into powerful advocates for the profession
- advising UK and EU governments in all areas of policy that have an engineering dimension to delivery
- recognising, celebrating and promoting excellence through awards and prizes
- supporting the Queen Elizabeth Prize for Engineering in raising its profile to the level of a Nobel Prize.

## Statement of Trustee Board's responsibilities

The Trustee Board, as charity trustees, are responsible for preparing the Report of Trustee Board and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Charity 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 group and parent charity and of the incoming resources and application of resources of the group for the year. In preparing those financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently

# Auditor's report

- observe the methods and principles in the charities SORP
- make judgements and accounting estimates that are reasonable and prudent
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue in business.

The trustees are responsible for the maintenance and integrity of the financial information included on the charity's website. Legislation in the United Kingdom governing the preparation and dissemination of the financial statements and other information included in annual reports may differ from legislation in other jurisdictions.

Signed under delegated authority on behalf of Trustee Board on 23 July 2018.

**Professor Dame Ann Dowling OM DBE FEng FRS,  
President**

**Dr Robert Joyce FEng,  
Chair of Finance Committee**

## Independent auditor's report to the Trustee Board of the Royal Academy of Engineering

### OPINION

We have audited the financial statements of the Royal Academy of Engineering ("the Parent Charity") and its subsidiaries ("the Group") for the year ended 31 March 2018, which comprise the consolidated statement of financial activities, the consolidated and charity balance sheets, the consolidated 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 Group's and of the Parent Charity's affairs as at 31 March 2018 and of the Group's incoming resources and application of resources for the year then ended;

- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Charities Act 2011.

### OPINION ON OTHER MATTER AS REQUIRED BY BEIS GRANT LETTERS

In our opinion, in all material aspects, the grant payments received from the Department for Business, Energy and Industrial Strategy (BEIS) have been applied for the purposes set out in the Grant Letters and in accordance with the terms and conditions of the agreements.

### 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 the Parent Charity in accordance with the ethical requirements relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (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 RELATED 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 Group or the Parent Charity'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 other information comprises the information included in the Financial Report, other than the financial statements and our auditor's report thereon. The other information comprises the Chair of the Finance Committee's statement and the Report of Trustee Board. The Trustees are responsible for the other information.

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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.

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

We have nothing to report in respect of the following matters in relation to which the Charities Act 2011 requires us to report to you if, in our opinion;

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

#### **RESPONSIBILITIES OF TRUSTEES**

As explained more fully in the Statement of Trustees Board's responsibilities, the Trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Trustees determines 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 the Parent Charity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Trustees either

intend to liquidate the Group or the Parent Charity 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 as auditor under section 144 of the Charities Act 2011 and report in accordance with the Act[s] and relevant regulations made or having effect thereunder.

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 at the FRC's website at: [www.frc.org.uk/auditscopeukprivate](http://www.frc.org.uk/auditscopeukprivate) This description forms part of our auditor's report.

#### **USE OF OUR REPORT**

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

**Donald Bawtree (Senior Statutory Auditor)  
For and on behalf of BDO LLP, Statutory Auditor  
London**

**Date: 23 July 2018**

BDO LLP is eligible for appointment as auditor of the charity by virtue of its eligibility for appointment as auditor of a company under section 1212 of the Companies Act 2006.

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127).

# Consolidated statement of financial activities

Year ended 31 March 2018	Notes	Unrestricted funds £	Restricted funds £	Total 31 March 2018 £	Total 31 March 2017 £
<b>Income from:</b>					
Charitable activities	2, 3, 4	-	27,007,607	27,007,607	22,979,068
Donations and legacies	5	78,397	1,378,795	1,457,192	1,941,084
Other trading activities	6a	1,452,583	-	1,452,583	912,148
Investments	6	889,586	718,021	1,607,607	1,578,124
<b>Total income</b>		<b>2,420,566</b>	<b>29,104,423</b>	<b>31,524,989</b>	<b>27,410,424</b>
<b>Expenditure on:</b>					
Raising funds		1,370,164	155,697	1,525,861	1,114,681
Charitable activities	7	2,434,863	27,752,445	30,187,308	26,215,974
Other	8	72,151	17,298	89,449	40,332
<b>Total expenditure</b>		<b>3,877,178</b>	<b>27,925,440</b>	<b>31,802,618</b>	<b>27,370,987</b>
Net gains/(losses) on investment	11	(150,578)	(17,773)	(168,351)	5,916,111
<b>Net income /(expenditure)</b>		<b>(1,607,190)</b>	<b>1,161,210</b>	<b>(445,980)</b>	<b>4,576,280</b>
<b>Transfer between funds</b>	16	<b>713,884</b>	<b>(713,884)</b>	-	-
<b>Net movement in funds</b>		<b>(893,306)</b>	<b>447,326</b>	<b>(445,980)</b>	<b>5,955,548</b>
<b>Fund balances brought forward 1 April</b>		<b>31,765,854</b>	<b>32,654,908</b>	<b>64,420,762</b>	<b>58,465,214</b>
<b>Fund balances carried forward 31 March</b>	16, 17	<b>30,872,548</b>	<b>33,102,234</b>	<b>63,974,782</b>	<b>64,420,762</b>

All the above results are derived from continuing activities. There are no gains and losses other than those stated above.

# Balance sheets

At 31 March 2018		Group		Charity	
	Notes	2018	2017	2018	2017
		£	£	£	£
<b>Tangible fixed assets</b>	10	25,076,616	24,925,780	25,076,616	24,925,780
<b>Investments</b>	11	47,418,565	47,867,821	23,606,216	24,602,451
<b>Total fixed assets</b>		<b>72,495,181</b>	<b>72,793,601</b>	<b>48,682,832</b>	<b>49,528,231</b>
<b>Current assets:</b>					
Debtors	12	5,843,700	4,901,907	5,894,261	4,862,799
Stock	13	1,341	2,309	1,343	2,309
Cash at bank		2,496,390	3,876,765	1,719,693	2,068,299
Short term deposits		1,755,090	876,578	1,239,088	506,240
		<b>10,096,521</b>	<b>9,657,559</b>	<b>8,854,385</b>	<b>7,439,647</b>
<b>Liabilities</b>					
Creditors (amounts falling due within one year)	14a	(7,116,920)	(6,530,398)	(6,740,265)	(5,767,548)
<b>Net current assets</b>		<b>2,979,601</b>	<b>3,127,161</b>	<b>2,103,120</b>	<b>1,672,099</b>
Total assets less current liabilities		75,474,782	75,920,762	50,796,952	51,200,330
Creditors (amounts falling due beyond one year)	14b	(11,500,000)	(11,500,000)	(11,500,000)	(11,500,000)
<b>Total net assets</b>		<b>63,974,782</b>	<b>64,420,762</b>	<b>39,296,952</b>	<b>39,700,330</b>
<b>The funds of the charity:</b>					
<b>Restricted income funds</b>	16	33,102,234	32,654,908	8,433,683	7,841,602
<b>Unrestricted funds</b>					
Special funds		78,639	41,204	41,204	41,204
Designated fund		311,300	298,186	298,186	298,186
General fund		30,482,609	31,426,464	30,523,879	31,519,338
<b>Total unrestricted funds</b>		<b>30,872,548</b>	<b>31,765,854</b>	<b>30,863,269</b>	<b>31,858,728</b>
<b>Total charitable funds</b>		<b>63,974,782</b>	<b>64,420,762</b>	<b>39,296,952</b>	<b>39,700,330</b>

These financial statements were approved and authorised for issue by the President and Chair of the Finance Committee under delegated authority from the Trustee Board.

Signed on behalf of the Trustee Board on 23 July 2018

**Professor Dame Ann Dowling OM DBE FEng FRS,**  
President

**Dr Robert Joyce FEng,**  
Chair of Finance Committee

# Consolidated statement of cash flows

Year ended 31 March 2018

	2018 £	2017 £
<b>Cash flows from operating activities:</b>		
Net cash provided by operating activities	(1,770,062)	(930,457)
Cash flows from investing activities:		
Dividends, interest and rents from investments	1,607,608	1,578,125
Purchase of property, plants and equipment	(620,313)	(13,099,036)
Proceeds from the sale of investments	3,329,414	3,780,960
Purchase of investments	(3,048,509)	(4,773,243)
Net cash provided by investing activities	1,268,200	(12,513,194)
Cash flows used in financing activities:		
Repayments of borrowing	-	(976,397)
Cash inflows from new borrowing	-	11,500,000
Net cash used in financing activities	-	10,523,603
Change in cash and cash equivalents in the reporting period	(501,862)	(2,920,049)
Cash and cash equivalents at 1 April	4,753,342	7,673,391
<b>Cash and cash equivalents at 31 March</b>	<b>4,251,480</b>	<b>4,753,342</b>
<b>Reconciliation of net income/(expenditure) to net cash flow from operating activities</b>		
Net income for the reporting periods (as per the statement of financial activities)	(445,980)	5,955,548
Net losses/(gains) on investments	168,351	(5,916,111)
Adjustments for:		
Depreciation charges	469,476	349,540
Dividends, interest and rents from investments	(1,607,608)	(1,578,125)
Decrease in stocks	966	394
(Increase)/decrease in debtors	(948,715)	1,439,769
(Increase)/decrease in creditors	593,448	(1,181,473)
<b>Net cash provided by operating activities</b>	<b>(1,770,062)</b>	<b>(930,457)</b>
<b>Analysis of cash and cash equivalents</b>		
Cash in hand	2,496,390	3,876,765
Notice deposits	1,755,090	876,578
<b>Total cash and cash equivalents</b>	<b>4,251,480</b>	<b>4,753,342</b>

# Notes to the accounts

## For the year ended 31 March 2018

### Note 1 - Accounting policies

#### (a) Basis of preparation of the accounts

The annual report, incorporating the financial statements for the year ended 31 March 2018, has been prepared in accordance with the Academy's Royal Charter, and in compliance 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) (effective 1 January 2015) - (Charities SORP (FRS102)), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS102). The Academy meets the definition of public benefit entity under FRS102. These financial statements are prepared under FRS102.

#### (b) Historical cost convention

The financial statements have been prepared under the historical cost convention, as modified for the inclusion of investment assets at market value.

#### (c) Consolidation

The financial statements consolidate the results of the Academy and its own wholly owned subsidiaries, RAE Trading Limited and the Queen Elizabeth Prize for Engineering Foundation, on a line-by-line basis. Transactions and balances between the Academy and its subsidiaries have been eliminated from the consolidated financial statements. Balances between the Academy and the subsidiaries are disclosed in the notes of the Academy's balance sheet. A separate statement of Financial Activities and Income and Expenditure Account for the

Academy has not been presented because the Academy has taken advantage of the exemption afforded by section 408 of the Companies Act 2006.

#### (d) Income

The specific bases for accounting for income are described below. In general terms, income is accounted for on a receivable basis, gross of related expenditure. Income is only recognised where there is evidence of entitlement, where it is probable that income will be received and recognised only when income can be measured.

- Grants receivable are recognised when entitlement to the grant is confirmed, and also include returned grants that are accounted for on receipt.
- Gifts and donations and legacies are included in full in the statement of financial activities when receivable.
- For legacies, entitlements is taken as the earlier of the date on which either: the Academy is aware that probate has been granted, the estate has been finalised and notification has been made by the executor(s) to the Academy that a distribution will be made; or when a distribution is received from the estate. Receipt of a legacy, in whole or in part, is only considered probable when the amount can be measured reliably and the Academy has been notified to the executor's intention to make a distribution.
- Income from sales of goods or contracts for services is recognised when the goods and services are delivered.
- Investment income is included in the Statement of Financial Activities in the year in which it is receivable.

- Other incoming resources consist of subscriptions, including income tax recoverable.

#### (e) Donated services and facilities

Donated professional services and donated facilities are recognised as income when the Academy has control over the item, any condition associated with the donated item has been met, the receipt of economic benefit from the use by the Academy of the item is probable and that economic benefit can be measured reliably. On receipt, donated professional services and donated facilities are recognised on the basis of the value of the gift to the Academy, which is the amount the Academy would have been willing to pay to obtain services or facilities of equivalent economic benefit on the open market; a corresponding amount is then recognised in expenditure in the period of receipt.

#### (f) Expenditure

Expenditure is recognised on an accruals basis, gross of any related income. Costs are allocated to activities as described below. Indirect costs are apportioned to activities on a basis consistent with the use of the resources.

- Costs of raising funds comprise direct costs and expense of staff involved with fundraising, fees paid to investment fund managers, and trading costs.
- Charitable activities - grants. Grants payable are charged in the year in which the commitments to pay the grants are made.
- Charitable activities - other. Other charitable expenditure includes all direct expenditure, including staff costs, which is directly attributable to activities. Indirect costs are allocated to each charitable activity based

- on the number of staff directly supporting the activity.
- (g) Support costs**  
Support costs are those functions that assist the work of the Academy and mainly comprise of staff costs and overheads. Support costs are assigned to the Academy's charitable objectives in line with the direct expenditure under each heading.
- (h) Operating leases**  
Rental costs under operating leases are charged to the Statement of Financial Activities evenly over the term of the lease.
- (i) Tangible fixed assets**  
Depreciation is provided on all tangible fixed assets at rates calculated to write off the cost of each asset over its expected useful life, as follows:  
**Office fixtures and fittings** - *over five years*  
**Computer equipment** - *over three years*  
**Leasehold cost** - *over term of lease*  
**Carlton House Terrace** - *over the term of lease.*
- (j) Investments**  
Listed investments are included in the financial statements at market value at the balance sheet date. Gains/losses on disposal of investments and revaluation of investments are recognised in the year of gain or loss and are allocated to the funds to which the investments relate. Investments in subsidiaries are included in the financial statements at cost.
- (k) Pensions**  
The Academy operates a defined contribution pension scheme. The assets of the scheme are held separately from those of the Academy in independently administered funds. The pensions cost charge represents contributions payable to the scheme in the year. The Academy has no liability under the scheme other than the payment of those contributions.
- (l) Funds**  
General funds are those that are available for use at the Council's discretion in the furtherance of the Academy's objectives. Designated funds are unrestricted funds set aside for unrestricted purposes and which would otherwise form part of general funds. Details of the nature and purpose of each designated fund are set out in note 16. Restricted funds are funds that are subject to restrictions imposed by donors and are applied in accordance with these restrictions. Details of the nature and purpose of each restricted fund are set out in note 16.
- (m) Debtors**  
Trade and other debtors are recognised at the settlement amount due after any trade discount offered. Prepayments are valued at the amount prepaid net of any trade discounts due.
- (n) Stock**  
Stock is included at the lower of cost or net realisable value.
- (o) Cash and cash equivalents at bank**  
Cash and cash equivalents at bank includes cash and short term highly liquid investments obtainable within three months.
- (p) Creditors**  
Creditors are recognised where the Academy has a present obligation resulting from a past event that will probably result in the transfer of funds to a third party and the amount due to settle the obligation can be measured or estimated reliably. Creditors are normally recognised at their settlement amount after allowing for any trade discounts due.
- (q) Financial instruments**  
The Academy only has financial assets and financial liabilities of a kind that qualify as basic financial instruments. Basic financial instruments are initially recognised at transaction value and subsequently measured at their settlement value with the exception of bank loans, which are subsequently measured at amortised cost using the effective interest method.
- (r) Corporation taxation**  
The Academy is exempt from tax on income and gains falling within section 505 of the Taxes Act 1988 or section 252 of the Taxation of Chargeable Gains Act 1992 to the extent that these are applied to its charitable objectives.
- (s) Going concern**  
The Academy's accounts have been prepared on the basis of being a going concern. The trustees have made their own assessment of the Academy's ability to continue as a going concern and assured themselves of the validity of this assumption. In making this assessment, the Academy's trustees have taken into account all available information about the future for at least, but not limited to, 12 months from the date the accounts are approved. Sufficient reserves and funding is secured for the Academy to continue to fulfil its charitable objectives.
- (t) Government grants**  
Government grants are recognised in the year in which they are committed to.

# Notes to the accounts

Year ended 31 March 2018	Unrestricted funds	Restricted funds	Totals 31 March 2018	Unrestricted funds	Restricted funds	Totals 31 March 2017
	£	£	£			£
<b>Note 2 - Grants</b>						
Government grant (See note 3)	-	(11,418,047)	(11,418,047)	-	(11,738,894)	(11,738,894)
<b>Note 3 - Government grant</b>						
Grant was expended on:						
External projects	-	(10,491,000)	(10,491,000)	-	(10,491,000)	(10,491,000)
Cost of managing external projects	-	(927,047)	(927,047)	-	(1,247,894)	(1,247,894)
	-	(11,418,047)	(11,418,047)	-	(11,738,894)	(11,738,894)
<b>Note 4 - Other grants and contracts</b>						
Newton Fund	-	(5,493,678)	(5,493,678)	-	(4,822,593)	(4,822,593)
Global Challenges Research Fund	-	(3,923,633)	(3,923,633)	-	(3,059,363)	(3,059,363)
Investment in Research Talent	-	(2,967,080)	(2,967,080)	-	-	-
UK Intelligence Community (IC) Postdoctoral Research Fellowships	-	(557,000)	(557,000)	-	(105,000)	(105,000)
Connecting STEM Teachers	-	(488,646)	(488,646)	-	(389,785)	(389,785)
Leverhulme Fellowships	-	(346,966)	(346,966)	-	(284,261)	(284,261)
Sainsbury Management Fellowships	-	(319,755)	(319,755)	-	(290,117)	(290,117)
MSc Aerospace Bursary Programme	-	(159,668)	(159,668)	-	(486,358)	(486,358)
Africa Prize for Engineering Innovation	-	(104,625)	(104,625)	-	(606,135)	(606,135)
RAEng/EPSRC Research Fellowships	-	(157,332)	(157,332)	-	(87,086)	(87,086)
Engineering FE	-	(29,561)	(29,561)	-	(39,279)	(39,279)
KS2 STEM Resources & CPD Programme	-	(152,370)	(152,370)	-	-	-
Industrial Secondment	-	(11,622)	(11,622)	-	(53,654)	(53,654)
Enterprise Hub	-	(142,253)	(142,253)	-	(237,271)	(237,271)
Stoke Engineering Programme	-	-	-	-	(13,200)	(13,200)
Enriching Engineering Education Programme	-	(234,666)	(234,666)	-	(234,667)	(234,667)
Petrofac Fellowships	-	-	-	-	-	-
MacRobert Award	-	(26,000)	(26,000)	-	(26,000)	(26,000)
Other awards and contracts	-	(37,000)	(37,000)	-	-	-
Barrow Engineering Programme	-	(50,254)	(50,254)	-	(23,300)	(23,300)
Education Studies and Support	-	(2,250)	(2,250)	-	-	-
Lowestoft Engineering Programme	-	(25,942)	(25,942)	-	(48,600)	(48,600)
RAEng/WCE Awards	-	(17,750)	(17,750)	-	(17,809)	(17,809)

Year ended 31 March 2018	Unrestricted funds	Restricted funds	Totals 31 March 2018	Unrestricted funds	Restricted funds	Totals 31 March 2017
	£	£	£			£
Executive Engineers Programme	-	-	-	-	(3,270)	(3,270)
Biomedical Engineering	-	(29,000)	(29,000)	-	(22,000)	(22,000)
1851 Royal Commission						
Enterprise Fellowships	-	(159,522)	(159,522)	-	(194,500)	(194,500)
Tier 1 Visa Applications	-	(63,200)	(63,200)	-	(46,900)	(46,900)
Biofuels	-	-	-	-	(49,918)	(49,918)
Visiting Professors	-	(12,831)	(12,831)	-	(12,839)	(12,839)
RAF Centenary Programme	-	(74,567)	(74,567)	-	(23,500)	(23,500)
Sir Angus Paton Bequest Fund	-	-	-	-	(2,500)	(2,500)
Computing In Schools	-	-	-	-	(17,121)	(17,121)
Ms Morag Campbell-Nelder	-	-	-	-	(3,148)	(3,148)
FE Entrepreneurship - CET	-	(2,390)	(2,390)	-	-	-
History of the Royal Academy of Engineering	-	-	-	-	(40,000)	(40,000)
	-	(15,578,560)	(15,578,560)	-	(11,240,175)	(11,240,175)
<b>Total charitable activities</b>	<b>-(27,007,607)</b>	<b>(27,007,607)</b>	<b>(27,007,607)</b>	<b>-(22,979,068)</b>	<b>(22,979,068)</b>	<b>(22,979,068)</b>

#### Note 5 - Donations and legacies

Development appeal	431	-	431	500	-	500
Annual appeal	26,537	-	26,537	48,011	-	48,011
Enterprise Hub capital project	-	10,000	10,000	-	408,282	408,282
Engineering Talent Project	-	1,168,795	1,168,795	-	175,000	175,000
Queen Elizabeth Prize for Engineering	-	200,000	200,000	-	1,300,000	1,300,000
Other	51,429	-	51,429	9,292	-	9,292
	78,397	1,378,795	1,457,192	57,802	1,883,282	1,941,084

#### Note 6 - Investment income

Dividends and income from equity investments and fixed interest bonds	886,284	717,794	1,604,079	906,219	656,034	1,562,253
Interest on bank deposits	3,302	227	3,529	9,227	6,644	15,871
	889,586	718,021	1,607,607	915,446	662,678	1,578,125

#### Note 6a - Other income

Sponsorship and events	256,821	-	256,821	343,551	-	343,551
Subscription income	313,492	-	313,492	232,580	-	232,580
Advertising income and merchandising	52,557	-	52,557	49,059	-	49,059
Conferencing business	829,712	-	829,712	286,958	-	286,958
	1,452,583	-	1,452,583	912,148	-	912,148

# Notes to the accounts

	Promotion of, and leadership in engineering	Leading and shaping engineering policy	Enhancing engineering capacity	Inspiring young people and nurturing educational skills	Queen Elizabeth Prize for Engineering Foundation	Total 31 March 2018	Total 31 March 2017
	£	£	£	£	£	£	£
<b>Note 7 - Charitable activities</b>							
<b>Unrestricted</b>							
Charitable activities	101,937	-	-	-	-	101,937	89,073
Charitable grants	42,104	-	-	-	-	42,104	10,295
Direct salaries	438,191	-	5,910	-	-	444,101	363,890
Support costs	1,833,887	-	12,835	-	-	1,846,722	910,302
	2,416,118	-	18,745	-	-	2,434,863	1,373,559
<b>Restricted</b>							
Charitable activities	301,102	187,075	4,610,313	977,481	329,973	6,405,944	4,911,797
Charitable grants	481,423	281,450	14,446,718	756,690	-	15,966,282	14,562,227
Direct salaries	490,094	766,058	1,366,181	342,792	260,110	3,225,236	2,784,411
Support costs	127,469	103,117	1,705,831	173,477	45,090	2,154,985	2,583,981
	1,400,088	1,337,700	22,129,045	2,250,440	635,173	27,752,446	24,842,416
<b>Total charitable activities</b>	<b>3,816,206</b>	<b>1,337,700</b>	<b>22,147,790</b>	<b>2,250,440</b>	<b>635,173</b>	<b>30,187,308</b>	<b>26,215,975</b>
Total support costs of £4,001,706 are made up of indirect staff costs totalling £1,423,674 and accommodation costs and overheads totalling £2,578,032.							
<b>2017 Total charitable activities</b>	<b>2,723,464</b>	<b>1,367,178</b>	<b>18,664,568</b>	<b>1,813,660</b>	<b>1,647,105</b>		<b>26,215,975</b>
In 2017 £1,373,559 of charitable activities expenditure related to unrestricted funds and £24,842,415 related to restricted funds.							

	2018 £	2017 £
<b>Note 8 - Other costs</b>		
Auditor's fees:		
- Audit	18,503	14,191
- Other services	14,120	-
Legal and professional fees	56,826	26,141
	89,449	40,332
£5,225 was charged to the Academy in relation to operating leases		

### Note 9 - Staff and pensions costs

Gross salaries	4,084,226	3,581,916
Employer's National Insurance less NI Allowance	457,680	404,067
Benefits in kind	31,073	28,874
Pension charge	386,947	306,530
Other costs	749,101	747,945
	5,709,027	5,069,333

Average number of staff in the year by activity:	Number	Number
- Engineering and education	15	13
- Programmes and fellowship	33	26
- Policy and external affairs	11	14
- Executive, development, finance and administration	27	24
- Queen Elizabeth Prize for Engineering Foundation	6	5
	92	83

No remuneration is paid to the President or members of the Trustee Board of the Academy. Travelling expenses to attend Trustee Board meetings were reimbursed to five board members in 2017/18 amounting to £5,473 (2016/17 £14,955 - 10 members).

	2018	2017
The emoluments of higher paid staff within the following scales were:	Number	Number
£70,001-£80,000	1*	1
£80,001-£90,000	-	2
£90,001-£100,000	2	1
£100,001-£110,000	1	-
£110,001-£120,000	2	-
£120,001-£130,000	-	1
£130,001-£140,000	-	2*
£150,001-£160,000	1	-
£180,001-£190,000	1*	1*

Emoluments include salary, bonuses and benefits in kind but exclude pension scheme contributions. Staff numbers are based on full-time equivalent.

The senior management team comprises of a chief executive, deputy chief executive and five directors who manage the day-to-day operations of the charity. Their aggregate remuneration in the year was £1,004,828 (2016/17 £1,070,275).

Note: There were resignations and appointments among higher paid staff during the year.

\* One member of staff from each of these payment scales did not benefit from pension scheme contributions.

# Notes to the accounts

## Note 9(b) - Pensions

The Academy operates a defined contribution pension scheme for staff that joined after 1 January 2000 that is compliant with auto-enrolment legislation. The assets of the scheme are held separately from those of the Academy in independently administered funds. The Academy has no liability under the scheme other than the payment of contributions.

Note 10	Computer systems and equipment	Office fixtures and fittings	Leasehold	Carlton House Terrace improvement	Loan finance costs	Total
	£	£	£	£		£
<b>Tangible fixed assets (group and charity)</b>						
<b>Cost</b>						
At 1 April 2017	928,069	299,009	12,509,165	13,563,002	218,015	27,517,260
Additions	221,148	310,750	625	87,790	-	620,313
At 31 March 2018	1,149,217	609,759	12,509,790	13,650,792	218,015	28,137,573
<b>Depreciation</b>						
At 1 April 2017	(550,526)	(164,852)	(1,102,643)	(769,825)	(3,634)	(2,591,480)
Charge for year	(185,595)	(66,944)	(91,257)	(103,879)	(21,802)	(469,477)
At 31 March 2018	(736,121)	(231,796)	(1,193,900)	(873,704)	(25,436)	(3,060,957)
<b>Net book value</b>						
At 31 March 2018	413,096	377,963	11,315,890	12,777,088	192,579	25,076,616
At 31 March 2017	377,543	134,157	11,406,522	12,793,177	214,381	24,925,780

All assets are used for charitable purposes.

## Medal collections

- The Whittle Medals Collection is on loan from the family of Sir Frank Whittle, who patented the jet propulsion engine in 1930. The medals relate to his achievements in engineering and celebrate his successes.
- The Warner Medals Collection was a personal gift by Professor Sir Frederick Warner after his death in 2010. The medals relate to his achievements in engineering and celebrate his successes.

These medal collections are not held on the balance sheet, the Trustees consider that it is not practicable to obtain a valuation, but are satisfied that the value of the medals collections is not material.

### Note 11 - Investments (group and charity)

Investments held in the general fund portfolio represent those held by the Royal Academy of Engineering with the objective of generating income for the Academy's charitable object while preserving the capital value of the portfolio.

Investments held in the restricted fund portfolio represent those held by the Queen Elizabeth Prize for Engineering Foundation with the objective of generating income for the Foundation's charitable object.

	2018 General fund (Charity)	2018 Designated income funds (Charity)	2018 Total funds (Charity)	2018 Restricted fund (Subsidiary)	2018 Total Portfolio (Group)
Market value at 1 April	22,759,868	1,842,484	24,602,352	23,265,472	47,867,824
Add acquisitions at cost	408,199	-	408,199	2,640,309	3,048,508
Less: sales proceeds	(1,153,147)	-	(1,153,147)	(2,176,269)	(3,329,416)
Net investment (losses)/gains for the year	(150,577)	(100,711)	(251,288)	82,937	(168,351)
Market value at 31 March	21,864,343	1,741,773	23,606,116	23,812,449	47,418,565

*All investments consist of securities listed on the London Stock Exchange of which fixed interest bonds amount to approximately £3.36 million in value.*

*The restricted income funds consists of funds invested in a charity common investment fund to support the MacRobert and the Colin Campbell-Mitchell Awards.*

	UK Equities £	UK Bonds £	2018 Total £	2017 Total £
Market value at 1 April	45,690,080	2,177,744	47,867,824	40,959,431
Market value at 31 March	44,056,951	3,361,614	47,418,565	47,867,824
Cost at 31 March 2014	27,107,355	3,648,556	30,755,911	30,755,911

# Notes to the accounts

	Group		Charity	
	2018	2017	2018	2017
	£	£	£	£
<b>Note 12 - Debtors</b>				
Grants and sponsorship receivable	4,769,765	3,728,908	4,769,765	3,728,908
Prepayments	179,228	186,463	179,228	186,463
Other debtors	894,706	889,242	640,072	614,286
Gift aid receivable from RAE Trading Limited	-	-	74,372	-
Amounts due for subsidiary undertakings	-	-	230,824	235,848
Other taxes and social security costs	-	97,294	-	97,294
	5,843,700	4,901,907	5,894,261	4,862,799
<b>Note 13 - Stocks (Group and Charity)</b>				
Publications, Academy ties, presentation plates and medals	1,343	2,309	1,343	2,309
<b>Note 14a - Creditors (amounts falling due within one year)</b>				
Committed grants and prizes	4,906,745	3,747,736	4,906,746	3,747,736
Deferred income	1,345,871	965,552	1,345,871	965,552
Subscriptions in advance	176,006	162,167	176,006	162,167
Other creditors	688,298	1,650,958	305,290	862,286
Amounts due to subsidiary undertakings	-	-	6,352	25,822
Social security and other costs	-	3,985	-	3,985
Bank loan	-	-	-	-
	7,116,920	6,530,398	6,740,265	5,767,548
<b>Note 14b - Deferred income</b>				
Deferred income comprises of advance funding for the provision of the MSc Aerospace Bursary Programme, sponsorship of the Academy Awards ceremony, Connecting STEM Teachers programme and Research Fellowships.				
Balance at 1 April	965,552	801,390	965,552	801,390
Amount released to income earned from charitable activities	(403,969)	(612,471)	(403,969)	(612,471)
Amount deferred in year	784,288	776,632	784,288	776,632
Balance as at 31 March	1,345,871	965,552	1,345,871	965,552
<b>Note 14c - Creditors (amounts falling beyond one year)</b>				
Bank loan*				
- Due one to two years	-	-	-	-
- Due within two to five years	-	-	-	-
- Due after five years	11,500,000	11,500,000	11,500,000	11,500,000
	11,500,000	11,500,000	11,500,000	11,500,000
*The Academy has a secured loan of £11.5 million with Aviva, the capital sum is repayable in 10 years, an interest rate of 3.11% fixed being applied. The loan is secured against 3 Carlton House Terrace, which was valued at £29.5 million on 7 November 2016. There is currently a 39% loan to value ratio. There is a maximum 45% loan to value ratio set out in the terms of the loan.				
<b>Note 15 - Future commitments</b>				
<b>Total minimum commitments under operating leases</b>				
Maturing between one and five years (equipment)	1,908	7,768	1,908	7,768
	1,908	7,768	1,908	7,768

## Note 16 - Statement of changes in reserves

### (a) Restricted funds

The Academy's restricted funds consist of the monies received under grants, corporate donations and contracts to support specific schemes as follows:

- **Department for Business, Energy and Industrial Strategy (BEIS)** provides a government grant to fund programmes in the areas of engineering research and promoting the public understanding of engineering.
- **Investment in Research Talent** recognises the importance of engineering research to the UK. The government has provided the Royal Academy of Engineering with a significant increase in funding over the next four years to attract the best research talent to the UK and support their work.
- **Gatsby Charitable Foundation** supports Sainsbury Management Fellowships.
- **RAEng/EPSRC Research Fellowships** are administered by the Academy and funded jointly by the Academy and the Engineering and Physical Sciences Research Council.
- **Leverhulme Trust** supports Senior Research Fellowships of one-year duration.
- **ExxonMobil** provides funds for Engineering Teaching Fellowships, which support able young university engineering lecturers.
- **Engineering Leadership Scheme** assists undergraduate engineering students to realise their full potential and achieve their career goals.
- **Connecting STEM Teachers programme** is building a national network of support for STEM leaders in secondary schools and is supported by BG Group and Petrofac.
- **Further Education Fund** is made up of various donations that are used to support the development of new and the extension of existing programmes in further education.
- **MSc Aerospace Bursary Programme** for students studying for MSc degrees in aerospace engineering is funded by BEIS and delivered in collaboration with the Royal Aeronautical Society.
- **Barrow Engineering Programme** is a regional programme to enhance and enrich STEM teaching and learning in a network of primary schools, secondary schools and further education colleges.
- **KS2 STEM resources and CPD programme** is funded by BAE Systems and supports the development and dissemination of contextualised resource boxes for use in primary and secondary schools.
- **The Enterprise Hub** harnesses the expertise, insight and networks of Academy Fellows, who include some of the UK's most successful entrepreneurs and business leaders, to support the country's most promising engineering entrepreneurs.
- **Africa Prize for Engineering Innovation** aims to stimulate, celebrate and reward innovation and entrepreneurship in sub-Saharan Africa.
- **Carlton House Terrace Fund** will be used to develop 3 Carlton House Terrace into a national forum of engineering excellence.
- **Ms Morag Campbell Nelder Legacy** is to be used to fund an award for an individual or group of outstanding engineers.
- **Newton Fund** schemes promote research and innovation intended to have a direct and long-term impact on the economic development and social welfare of countries participating with the UK in the Newton Fund.
- **The Enterprise Hub capital project** funding will be used to create a base for the Academy's enterprise activities and contribute to the development of the lower ground floors of Prince Philip House.
- **Engineering Talent Project** is the working title of a major project designed to address the engineering skills gap over the next 10 years. The project involves detailed analysis of the engineering skills landscape and the development of a strategy to ensure that the UK has the engineers and technicians it needs.
- **Enriching Engineering Education Programme** is centred on a combination of two-way secondments and collaborative workshops. These secondments and workshops lead to improved industry-academia links and result in wide-ranging benefits for both parties.
- **The Sir Angus Paton Bequest Fund** is used to provide a bursary for a postgraduate student to undertake a full-time MSc course in a subject related to environmental engineering.
- **The Hinton Bequest Fund** is used to contribute towards the cost of the annual Hinton Lecture.
- Other awards and contracts are donations and contracts by a number of companies for specific programmes each year.

# Notes to the accounts

- **Stoke Engineering Programme** is a regional programme to enhance and enrich STEM teaching and learning in a network of secondary schools and further education colleges.
- **Global Challenges Research Fund** is a £1.5 billion UK Government fund to support cutting-edge research that addresses the challenges faced by developing countries through collaborative research and innovation, and research and innovation capacity building within both the UK and developing countries.
- **UK Intelligence Community (IC) Postdoctoral Research Fellowships** are offered by the Government Office for Science with the Academy acting as academic engagement partner, support outstanding early-career science or engineering researchers to promote unclassified basic research in areas of interest to the intelligence, security and defence community.

## (b) Designated funds

- **The Building Maintenance Fund** is used for major items of building repair and redecoration.
- **The Education Support Fund** is a gift from the Gatsby Charitable Foundation to support education and engagement activities.
- Other designated funds represent general funds earmarked for specific activities such as awards and engagement activities.

	Balance at 1 April 2017	Incoming resources	Resources expended	Transfers between funds	Net investment gains/ (losses)	Balance at 31 March 2018
	£	£	£	£	£	£
Restricted funds						
Government grant	-	11,725,429	(11,725,429)	-	-	-
Investment in Research Talent	-	2,967,080	(2,967,080)	-	-	-
Sainsbury Management Fellowships	-	319,755	(319,755)	-	-	-
RAEng/EPSRC Research Fellowships	-	157,332	(157,332)	-	-	-
Leverhulme Fellowships	-	346,966	(346,966)	-	-	-
ExxonMobil Fellowships	75,495	-	(75,495)	-	-	-
Engineering Leadership Scheme	260,915	-	(37,269)	-	-	223,646
Connecting STEM Teachers	208,428	488,646	(488,646)	-	-	208,429
Engineering FE	279,153	29,561	(93,678)	-	-	215,035
MSc Aerospace Bursary Programme	-	159,668	(159,668)	-	-	-
Barrow Engineering Programme	9,100	50,254	(32,710)	-	-	26,644
KS2 STEM Resources & CPD Programme	18,949	152,370	(100,100)	-	-	71,219
Enterprise Hub	362,608	142,253	(169,735)	-	-	335,126
Africa Prize for Engineering Innovation	57,186	104,624	(13,837)	-	-	147,973
Carlton House Terrace Fund	152,703	-	-	(152,703)	-	-
Ms Morag Campbell-Nelder	471,822	19,948	(19,948)	-	(24,414)	447,408
Newton Fund	-	5,493,678	(5,493,677)	-	-	-
Enterprise Hub capital project	3,995,182	10,000	-	(467,610)	-	3,537,572
Engineering Talent Project	140,225	1,168,795	(639,266)	-	-	669,755
Industrial Secondment	-	11,622	(11,622)	-	-	-
Lowestoft Engineering Programme	-	25,942	(25,942)	-	-	-
Enriching Engineering Education Programme	197,217	234,666	(319)	-	-	431,564
Sir Angus Paton Bequest Fund	56,648	-	(45)	-	-	56,603

	Balance at 1 April 2017	Incoming resources	Resources expended	Transfers between funds	Net investment gains/ (losses)	Balance at 31 March 2018
	£	£	£	£	£	£
Hinton Bequest Fund	5,051	-	(5,051)	-	-	-
MacRobert Award	1,345,923	88,338	(69,078)	57,393	(76,295)	1,346,280
MacFarlane Award	18,038	-	-	-	-	18,038
Other awards and contracts	44,459	37,000	(26,000)	-	-	55,459
Stoke Engineering Programme	7,026	-	(7,026)	-	-	-
RAEng/WCE Awards	-	17,750	(17,750)	-	-	-
Biomedical Engineering	-	29,000	(29,000)	-	-	-
1851 Royal Commission Enterprise Fellowships	21,271	159,522	(180,793)	-	-	-
Global Challenge Research Fund	-	3,616,250	(3,616,250)	-	-	-
Tier 1 Visa Applications	-	63,200	(63,200)	-	-	-
Visiting Professors	-	12,831	(12,831)	-	-	-
UK Intelligence Community (IC) Postdoctoral Research Fellowships	101,985	557,000	(115,309)	-	-	543,676
RAF Centenary Programme	-	74,567	(74,567)	-	-	-
Computing In Schools	-	-	(14,621)	14,621	-	-
History of the Royal Academy of Engineering	40,000	-	(15,116)	-	-	24,884
Queen Elizabeth Prize for Engineering	24,785,524	835,736	(795,688)	(165,585)	82,937	24,742,923
<b>Total restricted funds</b>	<b>32,654,908</b>	<b>29,104,423</b>	<b>(27,925,121)</b>	<b>(713,884)</b>	<b>(17,773)</b>	<b>33,102,234</b>
Designated funds						
Special funds						
- Building Maintenance Fund	41,204	37,435	-	-	-	78,639
<b>Total special funds</b>	<b>41,204</b>	<b>37,435</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>78,639</b>
Education Support Designated Fund	26,017	-	-	(20,486)	-	5,531
External Education Designated Fund	105,122	-	-	-	-	105,122
Ingenia Designated Fund	6,400	51,801	(58,201)	-	-	-
Forum Partnerships Programme Designated Fund	160,647	40,000	-	-	-	200,647
<b>Total designated and special funds</b>	<b>339,390</b>	<b>129,236</b>	<b>(58,201)</b>	<b>(20,486)</b>	<b>-</b>	<b>389,939</b>
<b>General fund</b>	<b>31,426,464</b>	<b>2,291,330</b>	<b>(3,818,977)</b>	<b>734,370</b>	<b>(150,578)</b>	<b>30,482,609</b>
<b>Total funds</b>	<b>64,420,762</b>	<b>31,524,989</b>	<b>(31,802,618)</b>	<b>-</b>	<b>(168,350)</b>	<b>63,974,782</b>

The general fund deficit of £1,527,647 is the difference between incoming resources of £2,291,330 and resources expended of £3,818,977.

All other funds, other than the Queen Elizabeth Prize for Engineering, are funds of the parent charity.

# Notes to the accounts

	Balance at 1 April 2016	Incoming resources	Resources expended	Transfers between funds	Net investment losses	Balance at 31 March 2017
	£	£	£	£	£	£
Restricted funds						
Government grant	-	11,738,894	(11,738,894)	-	-	-
Sainsbury Management Fellowships	-	290,117	(290,117)	-	-	-
RAEng/EPSRC Research Fellowships	-	87,086	(87,086)	-	-	-
Leverhulme Fellowships	-	284,261	(284,261)	-	-	-
ExxonMobil Fellowships	75,495	-	-	-	-	75,495
Engineering Leadership Scheme	295,462	-	(34,547)	-	-	260,915
Connecting STEM Teachers	208,428	389,785	(389,785)	-	-	208,428
Engineering FE	345,514	39,279	(105,640)	-	-	279,153
MSc Aerospace Bursary Programme	-	486,358	(486,358)	-	-	-
Barrow Engineering Programme	3,814	23,300	(18,014)	-	-	9,100
KS2 STEM Resources & CPD Programme	66,026	-	(47,077)	-	-	18,949
Enterprise Hub	327,629	237,271	(202,292)	-	-	362,608
Africa Prize for Engineering Innovation	55,931	606,134	(604,879)	-	-	57,186
Carlton House Terrace Fund	6,424,033	-	-	(6,271,330)	-	152,703
Ms Morag Campbell-Nelder	433,202	19,081	(15,933)	-	35,472	471,822
Newton Fund	-	4,822,593	(4,822,593)	-	-	-
Enterprise Hub capital project	3,586,900	408,282	-	-	-	3,995,182
Engineering Talent Project	355,137	175,000	(389,912)	-	-	140,225
Industrial Secondment	-	53,654	(53,654)	-	-	-
Lowestoft Engineering Programme	-	48,600	(48,600)	-	-	-
Enriching Engineering Education Programme	-	234,667	(37,450)	-	-	197,217
Sir Angus Paton Bequest Fund	55,648	2,500	(1,500)	-	-	56,648
Hinton Bequest Fund	8,400	-	(3,349)	-	-	5,051
MacRobert Award	1,247,673	85,628	(98,231)	-	110,854	1,345,923
MacFarlane Award	18,038	-	-	-	-	18,038
Other awards and contracts	44,459	-	-	-	-	44,459
Stoke Engineering Programme	-	13,200	(6,174)	-	-	7,026
RAEng/WCE Awards	-	17,809	(17,809)	-	-	-
Executive Engineers Programme	-	3,270	(3,270)	-	-	-
Biomedical Engineering	-	22,000	(22,000)	-	-	-
1851 Royal Commission Enterprise Fellowships	-	194,500	(173,229)	-	-	21,271
Global Challenge Research Fund	-	3,059,363	(3,059,363)	-	-	-
Tier 1 Visa Applications	-	46,900	(46,900)	-	-	-
Biofuels	-	49,918	(49,918)	-	-	-
Visiting Professors	-	12,839	(12,839)	-	-	-
UK Intelligence Community (IC) Postdoctoral Research Fellowships	-	105,000	(3,015)	-	-	101,985
RAF Centenary Programme	-	23,500	(23,500)	-	-	-

	Balance at 1 April 2016	Incoming resources	Resources expended	Transfers between funds	Net investment losses	Balance at 31 March 2017
	£	£	£	£	£	£
Computing In Schools	-	17,121	(17,121)	-	-	-
History of the Royal Academy of Engineering	-	40,000	-	-	-	40,000
Queen Elizabeth Prize for Engineering	21,340,866	1,887,118	(1,810,463)	(142,184)	3,510,186	24,785,524
<b>Total restricted funds</b>	<b>34,892,655</b>	<b>25,525,028</b>	<b>(25,005,773)</b>	<b>(6,413,514)</b>	<b>3,656,512</b>	<b>32,654,908</b>
Designated funds						
Special funds						
- Building Maintenance Fund	205,351	-	(164,147)	-	-	41,204
<b>Total special funds</b>	<b>205,351</b>	<b>-</b>	<b>(164,147)</b>	<b>-</b>	<b>-</b>	<b>41,204</b>
Education Support Designated Fund	26,017	-	-	-	-	26,017
External Education Designated Fund	105,122	-	-	-	-	105,122
Ingenia Designated fund	6,400	47,507	(47,507)	-	-	6,400
Forum Partnerships Programme Designated Fund	162,047	43,600	(45,000)	-	-	160,647
<b>Total designated and special funds</b>	<b>504,937</b>	<b>91,107</b>	<b>(256,654)</b>	<b>-</b>	<b>-</b>	<b>339,390</b>
<b>General fund</b>	<b>23,067,622</b>	<b>1,794,289</b>	<b>(2,108,560)</b>	<b>6,413,514</b>	<b>2,259,599</b>	<b>31,426,464</b>
<b>Total funds</b>	<b>58,465,214</b>	<b>27,410,424</b>	<b>(27,370,987)</b>	<b>-</b>	<b>5,916,112</b>	<b>64,420,762</b>

The general fund deficit of £314,272 is the difference between incoming resources of £1,794,290 and resources expended of £2,108,562

All other funds, other than the Queen Elizabeth Prize for Engineering, are funds of the parent charity.

#### Note 17 - Analysis of net assets between funds

	Tangible fixed assets	Investments	Current assets	Liabilities	Total net assets
	£	£	£	£	£
Restricted funds	12,777,088	23,812,449	8,043,566	(138,083)	44,495,020
Special and designated funds		1,741,773	389,939	(1,741,773)	389,939
General funds	12,299,528	21,864,343	1,663,018	(16,737,064)	19,089,825
<b>Total funds</b>	<b>25,076,616</b>	<b>47,418,565</b>	<b>10,096,523</b>	<b>(18,616,920)</b>	<b>63,974,784</b>

#### Note 18 - Subsidiary activities

The Academy has one wholly owned subsidiary, RAE Trading Limited (registered company number 08038360) and a charitable subsidiary company, the Queen Elizabeth Prize for Engineering Foundation (registered charity number 1147743, registered company number 8077332). RAE Trading Limited was formed in April 2012 and manages a conferencing business at Prince Philip House; all available trading profits are gift-aided to the charity.

The Academy owns all 100 £1 shares in RAE Trading Limited.

The Queen Elizabeth Prize for Engineering Foundation was formed in May 2012 and advances the education of the public in the subject of engineering by awarding biennially a high-profile and internationally recognised prize for engineering.

All activities have been consolidated on a line-by-line basis in the statement of financial activities and these results have been adjusted to eliminate income and expenditure relating to conferencing activities to the Academy and the Queen Elizabeth Prize for Engineering, and management fees payable to the Academy.

# Notes to the accounts

At 31 March 2018	RAE Trading Ltd		Queen Elizabeth Prize for Engineering Foundation	
	2018 £	2017 £	2018 £	2017 £
Total incoming resources	1,079,219	492,246	835,736	1,887,118
Total resources expended	(1,004,847)	(557,338)	(961,273)	(1,952,647)
	74,372	(65,092)	(125,538)	(65,529)
Total investment (losses)/gains		-	82,937	3,510,186
Net funds before gift aid	74,372	(65,092)	(42,601)	3,444,658
Gift aid to Royal Academy of Engineering	-	-	-	-
Retained net funds for the year	74,372	(65,092)	(42,601)	3,444,658
The aggregate of the assets, liabilities and funds was:				
Assets	486,854	321,283	25,294,825	25,294,825
Liabilities	(477,474)	(380,577)	(582,421)	(582,421)
Funds	9,380	(59,294)	24,712,405	24,712,405

The parent charity's results for the year are disclosed as follows:

	Academy	
	2018 £	2017 £
Gross income	28,632,337	25,025,477
Retained net funds for the year	(548,988)	172,960

## Note 19 - Related party transactions

The Academy has the following transactions within its subsidiaries during the year:

	Sales £	Salary recharges £	Management charges £	Debtors £	Creditors £
Queen Elizabeth Prize for Engineering Foundation	-	295,548	165,585	57,248	1,061
RAE Trading Limited	249,507	-	155,177	247,947	5,291

All transactions in respect of trustees is provided for in Note 9.