

THE GEOLOGICAL SOCIETY OF LONDON

ANNUAL REVIEW 2021

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The
Geological
Society

FROM THE PRESIDENT

A YEAR ago, my letter focused on the Society's resilience and laying new foundations for its future. The 2020 strategic options project underpinned those foundations and drove the impactful 2021 Energy Transition seminar series and briefing on *Geoscience and the Hydrogen Economy*. It also gave context for the spectacular Spacescapes exhibition in the Burlington House Courtyard, which is now exhibited at the Harwell Science and Innovation campus. The new *Geoscientist* magazine format is bold and supported by an interesting new website, geoscientist.online. And the Society's membership count has remained stable for the past three years. In summary, 2021 has been a busy and successful year of delivery for the Society and the executive team. Which brings me to the Burlington House lease.

In August 2020, growing financial pressure and falling income led Council to renew its efforts to secure the Geological Society's future. Council decided to pursue two directions. Firstly, together with the Royal Astronomical Society, Linnean Society, and Society of Antiquaries, a lobbying effort was undertaken to persuade the UK Government to support our continued presence in Burlington House. Secondly, a working group was established to assess the needs of the Society in the 21st century, and develop options for the Society's relocation from, or restructuring within, Burlington House.

The lobbying achieved many successes. Fellows wrote to their MPs, and MP Tim Laughton raised a Westminster Hall debate on 8 June 2021. Over 120 Conservative, Labour and Plaid Cymru MPs supported us, and several spoke about the Courtyard Societies' collective value and encouraged Government to seek a mutually beneficial arrangement for our continued occupation of Burlington House. In addition, a letter from Sir David Attenborough to the Prime Minister and an interview with broadcaster and astronomer Professor Brian Cox on the BBC *Today* programme argued our case. Despite these and other efforts, no fundamental progress was made. This has left the Courtyard Societies with no sense that a solution with the present Government was possible.

Meanwhile, the working group was in action, led by past-President David Shilston and comprising a diverse group of Fellows. After exploring several options thoroughly, the working group presented the



results of its work to Council in February of this year. Their recommended option to Council in the event of a relocation is to move to premises within central London. They also recommended reducing the amount of occupied space and creating a community home for the Society with modern IT capability able to embrace

the world. Council unanimously supported these recommendations. The effort and time required to complete such a move should not be underestimated. However, such a move would provide an opportunity to equip the Society technologically and financially for a sustained and aspirational future.

Finally, I would like to acknowledge the success of the Society's engagement on the world stage of the 26th UN Climate Change Conference of the Parties, held in Glasgow. The Society attended with observer status, led by the Energy Transition Theme Leader. COP itself was a mixed success, with business taking the event seriously for the first time, but serious divisions emerged as India, China and other coal-dependent nations, rejected the "phase out" of coal-fired power, demanding a more open-ended "phasing down" of coal usage. This schism heralded a much bigger uncertainty that is now upon us as I write. The tragic and saddening invasion of the sovereign state of Ukraine is a humanitarian disaster on an unfathomable scale. The world's energy security is a casualty of this event, bringing even greater uncertainty to the velocity and outcome of an energy transition.

Within this context, the Geological Society is in good health and I wish my successor, Ruth Allington, much success as she takes on what will be another interesting two years. Finally, I would like to thank the Society's Council, Executive Secretary, staff and membership for all the support, correspondence and calls I have received while in this role, and for the privilege of serving the Society.

DR MICHAEL DALY

FROM THE EXECUTIVE SECRETARY

CONTINUED DISRUPTION caused by the Covid-19 pandemic delayed a return to normal, in-person operations in early 2021. The Society continued to embrace the new opportunities offered by virtual and hybrid operations, and with great success. Public lectures continued online, with an added series on the geology of the solar system as part of our 2021 Year of Space programme. The online format enabled record attendances, with over 2,500 live viewers and 29,000 more watching on demand via our YouTube channel – a 15-fold increase on viewership in previous years. The Society also hosted its first hybrid meetings in October, and plans to provide a hybrid approach for all meetings going forward.

Virtual connectivity also enabled the launch of a new series of Continuing Professional Development (CPD) courses, marking a step change in the services we provide to support the Fellowship. We will continue to expand the range of courses on offer in the coming years to help support not only professional development, but also career changes.

The Society's new Fellowship categories structure, rolled out in late 2021, is designed to be more inclusive and equitable. The previous, age-based fee structure has been replaced by a simpler career-stage structure and has been welcomed across the Fellowship. I am very pleased to report that total Fellowship numbers stabilised, with the declines of recent years arrested.

2021 was another very successful year for publishing, with the new journal *Earth Science, Systems and Society* launched in January. The superb, new format, quarterly *Geoscientist* magazine, with strengthened science content, has been extremely well received by the readership.

The first major Geological Society exhibition staged in the Burlington House Courtyard was



greeted with much acclaim. Thanks to generous sponsorship, the Spacescapes exhibition enabled several thousand visitors to explore the geology of our solar system through a series of stunning images. The eight plinths towered over visitors from August to October, and played host to several school groups.

The year saw significant progress with the implementation of the recommendations of the 2020 strategic options review. Leaders were appointed for new science themes including the Energy Transition, Geohazards, Geoengineering & Georesilience, and Climate & Ecology. A successful series of Energy Transition workshops was held in the spring and summer, and a conference on Climate Change in the Geological Record in May. The Society's purpose, mission, vision and values statements were overhauled and will be rolled out to the Fellowship in 2022.

This is my last annual report contribution as I will retire towards the end of 2022. It has been a great privilege to serve the Society as Executive Secretary, and I pay tribute to all those who give their own time so generously to improve the Society. Above all, I offer my sincere thanks to the Society's staff, who work tirelessly and with great dedication in pursuit of our vision of being 'An inclusive and thriving Earth science community, advancing knowledge, addressing global challenges, and inspiring future generations'.

DR RICHARD HUGHES

Council is the trustee body of the Society. The following named persons were trustees of the charity on the date this report was approved:

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President: Dr Michael Daly

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Treasurer: Dr Keith Myers

Other members of Council

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Mr Neil Frewin, Dr Jennie Gilbert, Dr Kathryn Goodenough, Mr Martin Griffin, Dr Michael Kehinde (ED Officer), Mr Pete Loader, Mr Andrew Moore, Dr Amanda Owen, Dr John Perry, Mrs Sarah Scott, Ms Gemma Sherwood, Miss Lucy Thomas and Mrs Lucy Williams.

The following named persons also served on Council as trustees during the financial year to which this report relates but stepped down prior to the date this report was approved: Mr Thomas Backhouse, Mr John Booth, Mr Andrew Bloodworth, Mr Graham Goffey, Prof Chris King, Prof Bryne Ngwenya, Dr Helen Smyth

The Society has been engaging in outreach projects to inspire a new generation of geologists



A STRATEGY IN ACTION

From the Year of Space to attendance at COP26, we look back at the Society's activities in 2021

LAST YEAR marked a limited return to Burlington House, but nevertheless saw a wealth of activities designed to support members in their career development, build a more diverse and inclusive geoscience community, and explore the important role Earth science will play in securing a more sustainable future. It was also a year of firsts for the Society, including the first exhibition in the Burlington House Courtyard and the Society's first attendance at the 26th UN Climate Change Conference of the Parties (COP26) in Glasgow as an observer organisation.

Supporting professional development

In January, the Society launched a new series of events dedicated to supporting

continuing professional development (CPD). The first course consisted of 14 sessions exploring the most common geohazards found in the UK, and was attended by over 100 professionals and students. Subsequent courses covered the use of remote sensing and advances in Earthworks. The Society's new Training Course Committee is working to broaden the range of events on offer, and has already added courses in mining and raw materials for 2022. These courses count towards CPD requirements for Chartered Geologists, of which there are currently 2,749 and Chartered Scientists, who number 255.

Remote Library services continued throughout the year, even during periods

of restrictive measures. The use of online resources such as e-books and online journal access through Open Athens remained strong even as the Library reopened safely for visitors in late spring. The number of appointments available for visitors grew steadily throughout the year.

The Society's Publishing House continued to work to disseminate research findings from industry and academia alike. To support a sustainable transition towards open access, the Society is offering transformative Read and Publish agreements that combine access to

“ The requirements recognise the importance of inclusive and accessible field-based teaching ”

the Lyell Collection and unlimited open access publishing in hybrid journals and books. With around 40 institutions signed up globally, and 20 in the UK, eligible authors are encouraged to use and promote this route to publication, which is compliant with the forthcoming UKRI policy on open access. Authors not able to access Read and Publish agreements or other funding for open access remain able to publish in the Society's books and journals under traditional, subscription-based arrangements.

For 2021, the Society launched a new book series, *Geoscience in Practice*. Focussing on the use and application of geological techniques relevant to a subdiscipline, volumes in the series will be field guides, presenting balanced, practical expertise and critical hands-on information from experienced contributors in a way that is clear, straightforward and relevant for a broad audience. The first volume in the series, edited by the Series Editor, Professor Angela Coe (Open University) and created in collaboration with the UK Stratigraphy Commission, is expected for publication in 2022.

The books programme again produced a number of important volumes for both specialist and broad-interest audiences in 2021. Highlights include *A Guide to Forensic Geology* and *Geoethics: Status and Future Perspectives*, both collaborations with IUGS, and a Special Publication entitled *Celebrating 100 Years of Female Fellowship of the Geological Society*.

The review of the degree accreditation scheme concluded at the end of the year, with a final period of consultation in early 2022. The revised scheme offers a streamlined process for departments applying for initial accreditation, and a more straightforward process for re-accreditation. The scheme focuses on ensuring that students are able to attain the behavioural and learning objectives required for entering the workforce or pursuing further study, and is aligned with the revised QAA Subject Benchmark Statement for Earth science, environmental science and environmental studies (ES³).

The requirements also recognise the importance of inclusive and accessible field-based teaching and independent study, and require students to have a sufficient amount of fieldwork to develop competence in field techniques and the ability to operate as a field scientist.

Year of Space

On 18 August, eight pillars were erected in the Burlington House Courtyard. The two tallest pillars reached two metres, and all displayed scenes from our solar system. This exhibit explored the many ways that mountains, lakes, geysers, impact craters and other features can form, whether on rocky planets or icy moons. Several thousand visitors viewed the exhibition during the seven weeks it remained in the Courtyard, and nearly a thousand more accessed a virtual tour. The exhibition was designed with pro bono support from Rogers Stirk Harbour and Partners and sponsored by Bluewater Energy. Additional funding was provided by UK Space Agency, SRK Consulting, Imperial College London, the Michael Davies Charitable Settlement, the Open University and Virgin Galactic.

The funding also allowed the Society to run a programme of outreach aimed at visitors and the wider community. During weekends and school holidays, a team of staff and volunteers crewed an outreach table that introduced young people to the concept of geology, and allowed them to interact with rock samples, including the Society's own meteorite. Members of the scientific team that consulted on the exhibition, including Professor Sanjeev Gupta, also offered guided tours of the installation, including insights into the missions that helped to chart the geology of our planetary neighbours.

To allow those who couldn't make it to London to engage with the exhibition, the Society developed a virtual tour with supporting information. In addition, the education team partnered with The Felix Project to deliver educational materials to students through local London food banks. And over 22,000 people from across the UK and beyond watched a series of ten lectures on the geology of the inner and outer solar

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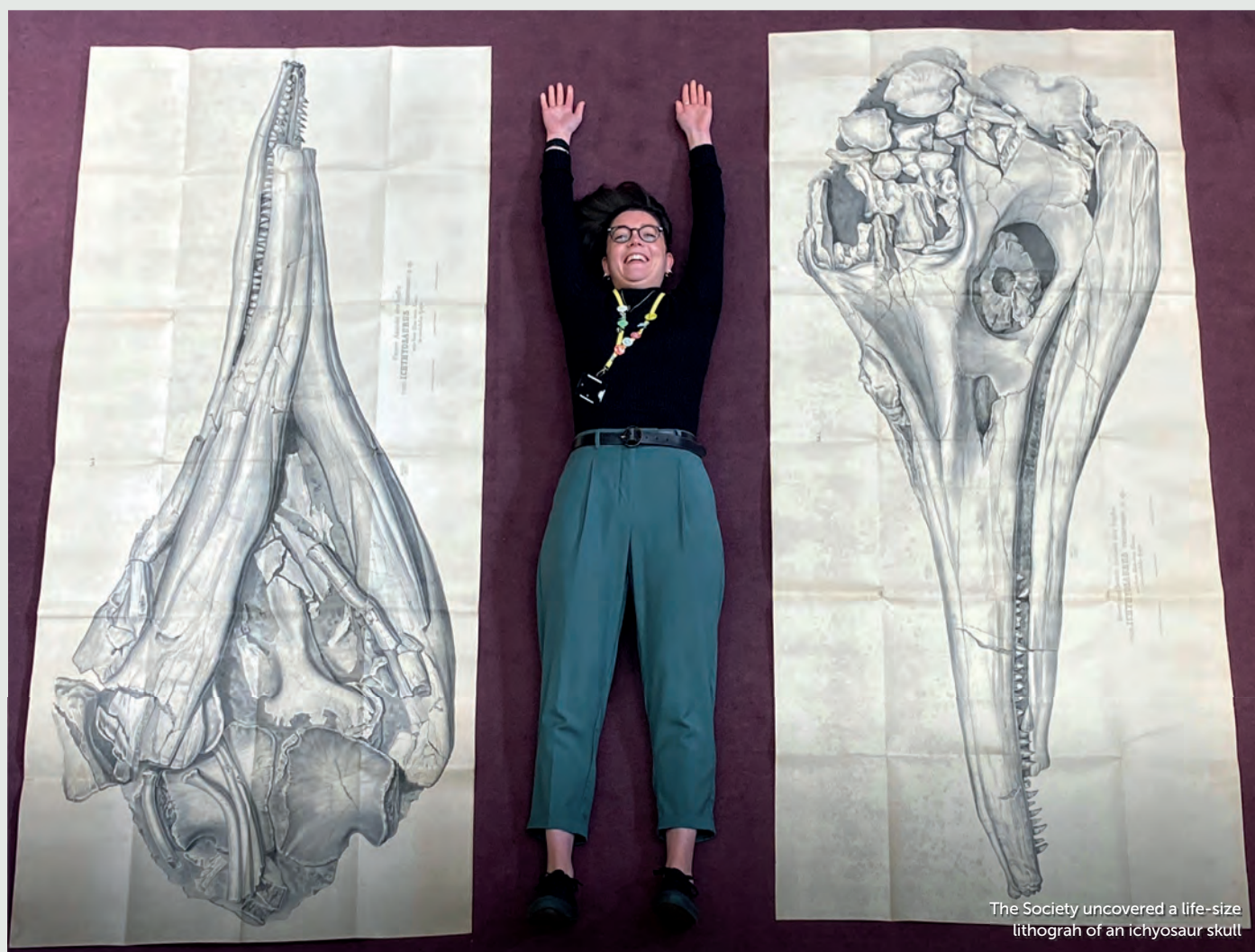
system, with a slight preview of exoplanets as well. Planetary science also featured heavily in the winter issue of the new-look *Geoscientist* magazine, which looked at tectonics on Pluto and the latest findings on Mars and other terrestrial bodies.

Strategic science themes

The Society's receipt of observer status and attendance at COP26 was one highlight of a series of events and resources aimed at demonstrating the importance of the Earth sciences in meeting net zero targets. The Society released a briefing note on *Geoscience and the Hydrogen Economy* in April, which was subsequently translated into French and Spanish in collaboration with the European Federation of Geologists. The hydrogen economy was also the subject of a joint event organised between the Society, European Federation of Geologists and the University of Glasgow, and held during the second week of COP26. →



Planetary science featured heavily in the winter issue of the new-look *Geoscientist*



The Society uncovered a life-size lithograph of an ichthyosaur skull

The Society hosted three webinars in the spring and summer looking at the range of geoscience contributions to decarbonisation, as well as an in-person event in conjunction with the Critical Minerals Association looking specifically at the rapidly growing need for key minerals

A virtual conference based on the Society's statement on Climate Change in the Geological Record had over 200 attendees, and featured expert keynotes, early career talks, and flash talks, followed by a breakout poster session over Zoom. The conference was convened by Professor Dan Lunt, who later took on the role of theme leader for the Climate and Ecology theme.

History of geoscience

The Library continued to explore both the history of the Society and the history of the science, including a popular programme of activities on the work and legacy of Mary Anning. An online exhibition featured a retrospective of her most notable discoveries, as well as an exploration of the impacts her work had on geologists active at the time. The Library also hosted a virtual event on Mary Anning, featuring Tom Sharpe FGS, author of *The Fossil Woman: A Life of Mary Anning*.

Ongoing work in the collections uncovered a number of notable items, including a life-size lithograph of an ichthyosaur skull found in Banz,

Germany circa 1843 by Carl Theodori [1788 – 1857]. The lithograph came from *Beschreibung des kolossalen Ichthyosaurus trigonodon in der Lokal Petrefakten-Sammlung zu Banz* (1854) by Carl Theodori, a part of the Society's collection of rare books.

And the Society was pleased to serve as a partner on three bids to the Hidden Histories joint funding call from the Natural Environment Research Council and the Arts and Humanities Research Council. Two of these proposals were awarded funding, and the Society will be working to support historical research through its archives and to disseminate the findings to the broader geoscience community.

FROM THE TREASURER

2021 WAS another challenging year for the Society, with the Covid-19 pandemic continuing to impact activity. Income for the year was £4.87m (2020: £5.30m) and expenditure was £4.78m* (2020: £5.51m). The impact of the cost savings made in 2020 meant that the Society was able to deliver a small operating surplus in 2021 of £0.09m (2020: -£0.21m) despite lower revenues. The Society's investment portfolio and foreign exchange gains of £0.71m meant that overall net income for the year taken to reserves was £0.33m after the IT impairment charge (see discussion below).

Fellowship income declined only slightly to £1.9m (2020: £2.0m) and was significantly ahead of budget with proactive chasing of Fellowship renewals delivering positive results. Fellowship revenues have proved more resilient than expected, having peaked at £2.1m in 2018/19. The number of Fellows at end 2021 was 11,620 (2020: 11,691). With the revised Fellowship categories implemented in 2021, along with the compelling new strategy for the Society, there is every hope that Fellowship income will continue to be stable with the potential for modest growth into the future.

The Publishing House income was £2.45m (2020: £2.75m) with 2021 the first year that Covid pandemic-related library budget cuts in academic institutions were felt. This led to some churn in Lyell Collection subscription renewals and quickened the decline in individual journal subscriptions. Costs at the Publishing House fell broadly in line with income, resulting in a better-than-anticipated outcome. Significant progress was made in the negotiation of transformative read and publish agreements in key markets through 2021, which migrate subscription revenue to publishing revenue. The transition to open access has quickened in Europe and these are important steps to ensure future sustainability in an increasingly open landscape.



Income from the events programme increased to £0.30m (2020: £0.16) as a limited programme of online and hybrid events recommenced. The delivery of four new CPD courses demonstrated the potential of CPD training as an income growth area for the Society. A business plan is being developed to grow this

income stream. Expenditure of the Science and Education programme was £0.99m, excluding an exceptional IT impairment charge of £0.5m (2020: £1.08m). Science and education spending was supplemented by sponsorship income, as well as pro bono support. Securing further sponsorship income will be a priority for 2022 and onwards.

In 2021, the Society commenced three major IT projects as part of its new digital strategy – a new CRM system to improve efficiency and deliver better Fellowship services, a new lower cost and more flexible online publishing platform for the Publishing House, and a new website for the Society. Capital investment, driven by the IT projects, is planned to increase from £0.25m in 2021 to £0.6m in 2022. After accepting that the current CRM system was not sufficiently suitable to meet future requirements, Council sanctioned a replacement system. Consequently, a non-cash impairment charge of £0.5m will be taken to write off the booked cost of the current CRM system on the balance sheet. Lessons have been learnt and steps have been taken to strengthen IT governance.

Looking at longer-term trends, the Society's annual income in 2021 was £1.1 million (17%) lower than its peak in 2018. Forty-three per cent of this fall has been due to lower publishing income and 19% due to reduced Fellowship income. The Society has responded by cutting annual operating expenditure, which has fallen by £1.2 million (21%) since 2018. Whilst the Society has in most years been able to deliver a small operating surplus, £670k of capital spending means an overall draw on cash of ~£0.6 million in last three years. Meanwhile, growth in the investment portfolio value means financial assets increased by £1.3 million since end-2018 to £11.2 million at end-2021. So, the Society has been shrinking in terms of charitable income and expenditure, while at the same time growing in terms of its financial assets. Looking forward, the Society continues to face a challenge

“ There is every hope that Fellowship income will continue to be stable with potential for modest growth in the future ”

of declining income and it will have no choice but to keep expenditure in check if it is to maintain a cash-neutral budget policy. It does, however, have the cushion of considerable financial reserves and is financially robust. The Finance and Planning Committee and Council have reviewed the Society's free reserves policy in the light of the potential need to fund a Burlington House move and also to invest in the Society's charitable activities to sustain future charitable income flows.

“Despite global uncertainty, the Society is financially robust, and the 2022 budget is targeting a modest increase in income”

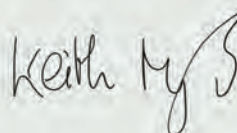
The standard measure used by charities to measure financial flexibility is in 'free reserves', defined as the proportion of its unrestricted funds that a charity is free to spend on its charitable activities. At the end of 2021, the Society's free reserves stood at £5.53m (2020: £4.39m) with an additional £1.62m held in a designated Burlington House Fund. So, the Society had £7.15m of its reserves that it could freely spend on any of its charitable activities, including a move from Burlington House. All charities are, however, expected to hold sufficient reserves to provide for unforeseen loss of income or unforeseen expenditure. A risked-based method has been used to calculate an appropriate free-reserves target to

cover both an unforeseen operational deficit and capital commitments to the end of 2024. For 2022, this is calculated at £2.57m, which leaves £4.59m of reserves at end 2021 free to fund both future Burlington House moving costs and discretionary investment. The free reserves target will now be set annually using a risked-based approach.

The Society has decided to release funds from reserves (initially £0.25m per year) into a Futures Fund primarily focused on investing in membership services and activity that will deliver future income. In addition, Council has decided that £0.5m will be released annually over a three-year period from the £2.2m Fermor Endowment Fund to fund minerals research critical to the energy transition. The Fermor Fund does not count towards free reserves as it is an endowment. These are highly positive decisions that will allow the Society to both invest in its future and increase its impact in academic research.

Despite current global uncertainty, the Society is financially robust, and the 2022 budget is targeting a modest increase in income to around £5m and a small operational surplus. I would like to thank my predecessor Graham Goffey and all the FPC, Audit and Investment committee members for their sterling efforts.

DR KEITH MYERS



The full, audited financial reports can be downloaded at geolsoc.org.uk/annualreview

Source	Income (£s)		Expenditure (£s)	
	2021	2020	2021	2020
Library	5,000	7,000	1,178,000	1,114,000
Trading	24,000	34,000	79,000	72,000
Investments	127,000	142,000	62,000	55,000
Membership	1,878,000	1,998,000	542,000	582,000
Publishing	2,454,000	2,748,000	2,307,000	2,582,000
Science	305,000	161,000	1,108,000	1,109,000
Donations	55,000	47,000		
Other	19,000	166,000		
TOTAL	4,867,000	5,303,000	5,276,000	5,514,000

Figure 1: The Society's income and expenditure for 2020 and 2021



Figure 2: The Society's unrestricted, restricted and endowment funds for 2020 and 2021 in £000s

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