



CRANFIELD UNIVERSITY
ROYAL CHARTER NUMBER 000151
FINANCIAL STATEMENTS
for the year ended 31st July, 2019

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CRANFIELD UNIVERSITY

HIGHLIGHTS REPORT

FOR THE YEAR ENDED 31ST JULY, 2019

The year 2018/2019 saw a number of highlights in the University's development including:

- The further development of Cranfield's global research airport with a new Digital Air Traffic Control Centre officially opened by the then Aviation Minister, Baroness Liz Sugg. The airport is the first in the UK to have an operational digital air traffic control centre. Alongside the control centre, a partnership with Barclays saw a 'AvTech' Eagle Lab open on campus. The Eagle Lab is supporting SME and start-up businesses in the aerospace sector grow through access to specialist equipment and expertise.
- A partnership with Purdue University in the United States to offer a suite of graduate-level education programmes for the US Department of Defence (DOD). The first offering will be a dual Master's degree in Defence Engineering and Technology with a specialisation in expeditionary warfare – the deployment of a country's military forces to fight abroad.
- An international academic partnership with the Mohammed VI Polytechnic University (UM6P), in Morocco, and Rothamsted Research in the UK. The partnership is being supported by OCP Group, which is one of the largest exporters of phosphate fertilisers in the world. The initial phase of the partnership is focussing on the delivery of seven agricultural research projects and the creation of a Centre for Doctoral Training, supporting the development of the next generation of Moroccan scientists and engineers.
- Halo X-ray Technologies Ltd (HXT), a next-generation X-ray security scanner which was developed using technology produced at Cranfield and Nottingham Trent Universities, was awarded \$1.6 million by the US Department of Homeland Security (DHS). The award will allow HXT to develop and implement an automatic threat resolution system for the X-ray imaging of carry-on and checked baggage at airports.
- Cranfield having been selected by Milton Keynes Council to be the academic provider for MK:U has been working with industrial partners to develop the organisation. Santander announced its backing for MK:U, the UK's first university focused on digital skills, providing £30 million of funding to help establish the university and further strengthen Milton Keynes' position as Europe's leading Smart City.
- Leading Cranfield School of Management research was published revealing that FTSE 100 companies may be appointing women for symbolic value. The Female FTSE Board Report, produced annually by Cranfield University's School of Management, reveals that women serve shorter tenures than men (on average, female non-executive directors serve 3.8 years – with men serving 5 years) and are less likely to get promoted into senior roles.

One of the University's greatest strengths is its people, its staff and its students, and 2018/2019 saw outside recognition of their expertise, below are just some of the recognitions in the last year:

- Dr Filomeno Martina, a lecturer in additive manufacture has received The Richard Dolby – Rolls-Royce biennial award from The Welding Institute for his early career successes and ongoing enthusiasm for research in the welding and joining industry.
- Guy Kirk, Professor of Soil Systems, was awarded a £1 million research project grant to overcome a soil health problem affecting rice production in sub-Saharan Africa, The funding was awarded from BBSRC, part of UK Research and Innovation, through the Global Challenges Research Fund.

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- Sue Vinnicombe CBE, Professor of Women and Leadership, was named one of the most influential thinkers by HR Magazine.
- Professor Ron Corstanje and Associate Professor Steve Hallett were co-appointed to the role of Constructing a Digital Environment Champion by the National Environment Research Council (NERC).
- Janet Manning, a Cranfield alumna with extensive experience in water science and engineering roles and a keen interest in domestic gardening, became the UK's first garden water scientist, through a joint appointment between the University and the Royal Horticultural Society (RHS).
- Natalia Jawiarczyk, an Engineering Doctorate student in the School of Water, Energy and Environment, won the 'weird and wonderful' category in the Engineering and Physical Sciences Research Council's annual science photography competition, with an unusual image of fatberg deposits.
- A team of students, Jackson Makanga, Ibifubara Tamunoibi Green, Francisco Aura-Camarena and Maryamsadat Mohaddes won the inaugural Bombora Wave Power Challenge Cup, following a weekend of both technical engineering and sporting challenges.
- Professor Lynette Ryals was awarded an OBE, for services to Higher Education, in the 2019 New Year's Honours List.

CRANFIELD UNIVERSITY
OPERATING AND FINANCIAL REVIEW
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Cranfield University is a research intensive, postgraduate university with a mission to create leaders in technology and management, unlocking the potential of people and organisations by partnering with business and governments to deliver transformational research, postgraduate education and professional development.

The activities of the University include teaching, research, design and development work in the themes of Aerospace, Defence and Security, Energy and Power, Environment and Agrifood, Management, Manufacturing, Transport Systems and Water. Operations are primarily carried out on campus at Cranfield in Bedfordshire and the facility at Shrivenham in Oxfordshire. The University is an exempt charity subject to the Charities Act 2011.

The financial statements comprise the consolidated results of the University and its subsidiaries. Subsidiary companies undertake activities which, for legal and commercial reasons, are more appropriately channelled through a limited company and include the development of activities emanating from Cranfield University.

Results for the year and position at year end

Operating income for the year (excluding donations and endowments) grew by 6.7% as summarised below:-

| | 2019 | 2018 |
|--------------------------------------|-------------|-------------|
| | £'000 | £'000 |
| Funding Council grants | 21,100 | 19,609 |
| Tuition fees and education contracts | 76,700 | 70,461 |
| Research grants and contracts | 42,217 | 36,727 |
| Other income | 36,359 | 38,530 |
| Investment income | 140 | 139 |
| | 176,516 | 165,466 |

The total comprehensive loss for the year was £23,547,000 (2018 – comprehensive loss £4,551,000) as reported on page 41. Of this comprehensive loss, £30,509,000 related to an increase in the University share of the scheme deficits in the defined benefit pension schemes and £8,258,000 profit related to the tri-annual revaluation of land owned by the University. It is pleasing to report that the University's Corporate Plan surplus, which measures the underlying operating position has been assessed by management to be a surplus of £3,777,000 (2018 – surplus £837,000) an improvement of £2,940,000 in the position for the year. The table on page 5 shows the reconciliation between the comprehensive loss and the underlying operating position. The adjustments relate to the removal of non-cash items that fall outside of management control. Included in the underlying position is the removal of one off donations in the year and the re-introduction of deferred capital grants which spreads the one off donations over the life of the assets that they have constructed as required under the previous Statement of Recommended Accounting Practice.

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(continued...)

Results for the year and position at year end *(continued...)*

OPERATING SURPLUS RECONCILIATION

| | 2019 | | 2018 | |
|--|---------|--------------|---------|--------------|
| | £'000 | £'000 | £'000 | £'000 |
| Group comprehensive (deficit)/ surplus | | (23,547) | | (4,551) |
| Adjustments | | | | |
| <i>Pensions</i> | | | | |
| <i>LGPS</i> | | | | |
| Add actuarial loss/(gain) | 8,753 | | (6,066) | |
| Add net interest charge on pension scheme | 1,270 | | 1,406 | |
| Add additional deficit repayment | 2,081 | | 1,774 | |
| | | 12,104 | | (2,886) |
| <i>USS</i> | | | | |
| Add actuarial loss | 21,249 | | 1,319 | |
| Add net interest charge on pension scheme | 283 | | 268 | |
| Less other pension adjustments | (628) | | 0 | |
| | | 20,904 | | 1,587 |
| <i>Other</i> | | | | |
| Less donations | (6,000) | | (3,000) | |
| Add deferred capital grants | 6,032 | | 5,831 | |
| Add staff restructuring | 837 | | 4,209 | |
| Add foreign exchange loss/(gain) | 97 | | (12) | |
| Add corporation tax | 389 | | 111 | |
| Less revaluation reserve movement | (8,258) | | 0 | |
| Add provision movement | 500 | | 328 | |
| | | (6,403) | | 7,467 |
| Operating surplus | | 3,058 | | 1,617 |
| Cranfield Group Holdings Group deficit/(surplus) | | 719 | | (780) |
| Corporate plan surplus | | 3,777 | | 837 |

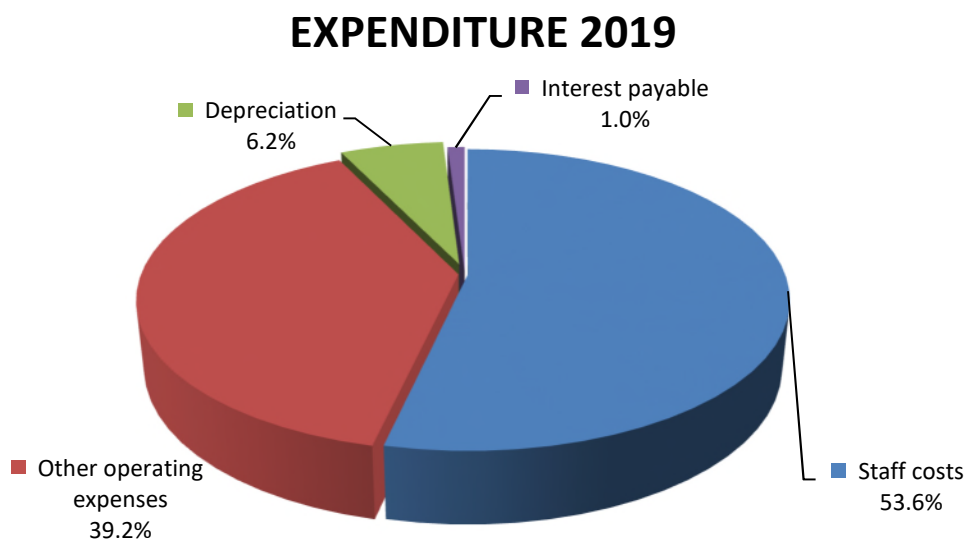
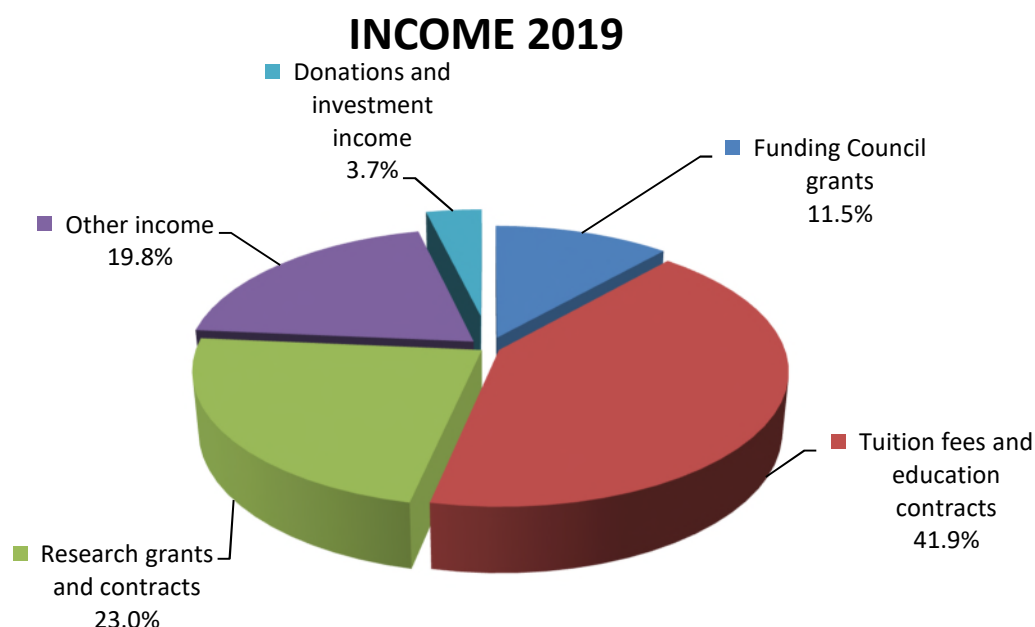
Capital expenditure in the year amounted to £18,514,000 (2018 - £15,933,000). This continues to reflect Cranfield's success in winning and delivering a number of key infrastructure projects, including the first Digital Air Traffic Control centre in the UK and a new research Pilot Hall which were completed and became operational during the year. Both projects were significantly funded by external parties with this income now included within donations in the year.

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 (continued...)

Results for the year and position at year end *(continued...)*

The statement of consolidated cash flow shows an increase in cash of £11,645,000. Net cash inflows from operating activities were £9,399,000. This was generated by changes in the working capital profile as shown on page 45. The University is looking to obtain a private bond during 2019/20 in excess of £100 million to enable the development of additional student residential accommodation and facilities. The University has historically had very low borrowings and gearing compared to the sector and so has borrowing capacity to enable this facility to be taken out.

Consolidated total reserves decreased by £23,547,000 (2018 – decreased by £4,551,000) as explained in the statement of changes in reserves on page 42.



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Key Performance Indicators (KPI's):-

The University benchmarks its performance against key indicators that measure whether it is on track to deliver the 2021 Corporate Plan which is identified as 415i. This represents towards 400 staff being submitted in the 2020 Research Excellence Framework, being a top 10 University for the student experience, a 5% operating surplus and what is the University's impact and influence both nationally and internationally.

| Goal | Measure (indicator) | 2017/18 actual | 2018/19 target | 2018/19 actual |
|------|---|----------------|----------------|----------------|
| H&S | Maintain OHSAS18001 | Maintain | Maintain | Maintain |
| 400 | Research volume (Annual research income/academic+research Level 6-8 FTE benchmarked [£ '000]) | 79 | 82 | 82 |
| 400 | Ready for REF2021 (Academic staff with at least one 1IFQ1 paper) | 292 | 312 | 303 |
| 10 | Strengthen Cranfield's home student cohort | 889 | 1104 | 1141 |
| 10 | Advocacy (PTES feedback % prepared to recommend Cranfield) | 92% | 95% | 89% |
| 5 | Income growth [£million] (Total income) | 164 | 173 | 175 |
| 5 | Financial performance (Operating surplus as % of total income) | 0.5% | 2.2% | 2.2% |
| i | Industry engagement (Total income from industry [£million]) | 42 | 43 | 45 |
| i | International impact (All fee paying EU/RoW students) | 1578 | 1889 | 1813 |

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Principal risks and uncertainties

The principal risks and uncertainties include the following key risks measured on a four point scale for impact (I) and likelihood (L):

| No. | RISK AREA | RISK IMPROVEMENT POLICY | |
|-----|---|--|--|
| | | COUNTER MEASURES AND CONTROLS | RISK MONITORED THROUGH: |
| 1. | Adverse impact of external environment, including implications of Brexit, on income growth and cost inflation, including pensions, to enable delivery of the Corporate Plan I = 4 L = 4 | University Operating Plan School and Professional Service Operating Plans | University KPIs and PIs KPIs and PIs |
| 2. | Current business model and organisational size impacts adversely on the University's ability to capitalise on major growth opportunities and future investment I = 4 L = 4 | University Operating Plan Strategic partnership opportunities (e.g. MK:U) | Monthly monitoring against plan Progress on delivery of opportunities |
| 3. | Changing nature of education including government led changes to UG and PG regime, e.g. Apprenticeships] I = 4 L = 4 | Strong interaction with government, OfS/UKRI | Government/OfS/UKRI contacts programme Financial performance |
| | | Masterships programme | Masterships Steering Group |
| | | Education and Digital Learning strategy | University KPIs and PIs including student recruitment |
| 4. | Poor recruitment, retention and performance management of staff particularly through periods of change and the need to enhance customer satisfaction I = 4 L = 3 | HR Strategy inc: • Staff and Talent Development | University Performance Indicators Staff turnover Appraisals |
| | | • Reward strategy | Remuneration Committee Salary and Pension Review |
| | | • Training, development and internal communication programmes. | Training programmes feedback, Pulse surveys |
| | | • Diversity monitoring • Flexible working policy | Athena Swan Aurora programme HR Excellence in Research |

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Pensions

The University implemented the provisions of FRS 102 in 2015 and therefore continues to take onto the consolidated balance sheet the actuarial valuation of the pension liability in respect of its share of the Bedfordshire County Council Pension Fund. It also has to recognise on balance sheet the obligation for its share of the University Superannuation Scheme (USS). The USS has deficit recovery plans in place covering the period following each triennial valuation which include additional employer contributions to correct the shortfall in the scheme.

The total USS pension deficit across the sector has been calculated by the USS Actuaries. The University share of the deficit has been estimated as at 31 July, 2019 and there is a net pension liability of £32,688,000 (2018 - £11,785,000) applicable to the University. Details are provided in Note 23.

The share of underlying assets and liabilities of the Local Government Pension Scheme (LGPS) is able to be identified as at 31st July, 2019 and there is a net pension liability of £58,776,000 (2018 - £49,170,000) applicable to the University. Details are provided in Note 23.

Trading activities of subsidiaries

The venture companies are financially independent from the University and are administered through Cranfield Group Holdings Ltd. In addition to these companies, there are other subsidiaries undertaking certain teaching, research and residential activities for the University. A full list of subsidiaries are provided in note 12.

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Public Benefit report

The University is an exempt charity under the terms of the Charities Act 2011. The objects of the University are to:

- advance, disseminate and apply learning, knowledge and understanding with particular emphasis on the disciplines of the Sciences, Technology, Engineering and Management; and
- promote and encourage the transformation and application of that wisdom, knowledge and learning for the benefit of industry, the public services, and individuals and for the public benefit.

In reviewing the University's activities, Council has had due regard to the Charity Commission's guidance on the reporting of public benefit as amended in 2014. Cranfield makes a significant contribution to the majority of the specific examples of charitable activities highlighted in section 3 of the 2011 Act. These include:

- *the advancement of education;*
for example, through our developing suite of Level 7 postgraduate apprenticeship courses, known as Masterships™. In 2018/19, Master's courses in Logistics and Supply Chain Management, Management and Leadership, and Retail and Digital Banking were among those to become eligible for enrolment using the Apprenticeship Levy;
- *the prevention or relief of poverty;*
e.g. through our research and MScs in Future Food Sustainability and Food Chain Systems. SAFAD, a charity run by students at Cranfield, helps to improve the lives of people overseas - especially in the developing world. SAFAD celebrated its 50th anniversary in 2019 and, since its inception, it has sent hundreds of graduate and postgraduate volunteers to nearly 40 countries. The volunteers have used their expertise developed at the University to help local projects to enhance agricultural yield, build and strengthen social enterprises, and improve health, the environment, sanitation, and access to water.
- *the advancement of health or the saving of lives;*
In 2018, Cranfield's Nano Membrane Toilet was recognised at the International Water Association (IWA) Project Innovation Awards and was named as one of the UK's 100 best breakthroughs for its significant impact on people's everyday lives. The toilet is being developed in response to the Bill & Melinda Gates Foundation's 'Reinvent the Toilet Challenge'. The innovative, affordable and sustainable toilet can be used without the need for connection to water, power or sewage supplies and has no waste collection requirement.
- *the advancement of citizenship or community development;*
We also take into account the social, community and environmental consequences of all our activities. The University organises, sponsors and supports a variety of public engagement events in which staff are actively encouraged to participate. In addition, many of our staff are also engaged in a wide range of public engagement and outreach activities on an individual basis.

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- *the advancement of the arts, culture, heritage or science;*
notably through over 70 years at the forefront of aerospace research and education. Our history and heritage in aircraft research and design is extending into the future with specialisation in aircraft electrification, autonomous vehicle technology and urban mobility, along with groundbreaking manufacturing techniques and research into the wider transportation ecosystem. Our global research airport is also home to a range of unique aerospace start-ups and SMEs. The Cranfield Eagle Lab, developed in partnership with Barclays and dedicated to supporting entrepreneurs working in aviation technology, opened in 2019. In May 2019, L3 Commercial Aviation announced that it is expanding its UK Airline Academy operations with a new site at Cranfield Airport.
- *the advancement of human rights, conflict resolution or reconciliation or the promotion of religious or racial harmony or equality and diversity;*
e.g. through the University's work on diplomacy and conflict resolution, including the MSc in International Defence and Security;
- *the advancement of environmental protection or improvement;*
as exemplified by the MScs in Environmental Water Management and Land Restoration and Reclamation; we are recognised worldwide by industry, government and academe for our research and teaching in plants, soil, water and air. We believe that environmental problems can be alleviated through technological innovation and risk management. Cranfield experts are using our unique soil datasets and sensor-based diagnostics to provide new solutions for improving precision agriculture and soil health. We lead strategic thinking to help identify risks and opportunities in our environment and across food supply chains.
- *the promotion of the efficiency of the armed forces of the Crown, or of the efficiency of the police, fire and rescue services or ambulance services;*
for example, through Cranfield's suite of MScs, executive education programmes on forensics and research and consultancy support for law enforcement; we continue to support the Defence Academy of the UK with the Managing Defence in the Wider Security Context (MDWSC) and Strategic Leadership Programme (SLP) courses in countries around the world, enhancing the knowledge, professional understanding and analytical skills of leaders and those who work in the wider security sector to improve and transform the governance and management of defence and security systems, thereby advancing the defence and security interests of the UK. In May 2019, we partnered with The Alan Turing Institute jointly to appoint a Professor of Cyber Security and we are now working with the Institute to align our research and education agendas in artificial intelligence for defence, security and cyber security.

Cranfield's mission is to create leaders through our education and research in technology and management.

Our activities are undertaken in support of the University's aims, as referenced in our Charter, and the strategic direction, as outlined in our Corporate Plan.

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Cranfield's Corporate Plan outlines our four strategic priorities:

- To provide a premier learning experience that enhances the capabilities of individuals and their organisations.
- To be recognised for outstanding transformational research that meets the needs of business, government and wider society.
- To grow an efficient, effective and sustainable enterprise.
- To be renowned for our impact and influence - regionally, nationally and internationally.

During 2018/2019, 2,700 students graduated from our unique postgraduate institution, their learning experience giving them the opportunity to join some of our distinguished alumni as leaders in their fields.

Our alumni include Warren East, CEO of Rolls-Royce; John McFarlane, Chairman of Barclays; Omobola Johnson, Partner at TLcom Capital and formerly Minister for Communication Technology in Nigeria; Sarah Willingham, Entrepreneur; Sir Charlie Mayfield, Chairman, John Lewis Partnership; Dr Andy Palmer, Chief Executive, Aston Martin Lagonda; and Dr Gareth Williams, Vice President, Head of Plant Quality, Broughton/Filton, Airbus.

Throughout 2018/2019, we have continued to develop new facilities that will further enhance the delivery of our mission:

- Construction has started on the new £65 million Digital Aviation Research and Technology Centre (DARTeC), due to open in 2020, which will spearhead the UK's research into digital aviation technology. Co-investment support for DARTeC is being provided through a consortium of leading aerospace and aviation companies including Aveillant, BOXARR, the IVHM Centre, Saab and Thales – as well as Research England and Cranfield University. We are the only university in Europe that brings together major aerospace research facilities, such as DARTeC and the £35 million Aerospace Integration Research Centre (AIRC), opened in 2017, with an operational airport and runway on one connected site.
- In December 2018, our airport became the first in the UK to have an operational digital air traffic control centre. The cutting-edge technology replicates what can be seen through the windows of a traditional air traffic control tower via a live feed of panoramic views across the airfield using HD cameras and sensors.
- In August 2018, we announced plans to create the NBEC (National Beyond visual line of sight Experimentation Corridor) to provide a safe, managed environment for drone and unmanned aircraft experimentation, working towards their integration in controlled and uncontrolled airspace. The corridor stretches across Bedfordshire from founding partner Blue Bear Systems Research Ltd headquarters in Oakley to Cranfield Airport. The first test flights in the corridor took place in February 2019 and Thales and Vodafone have also now joined the NBEC partnership.
- As part of a major national consortium, the UK Collaboratorium for Research in Infrastructure and Cities (UKCRIC), we are enhancing and extending existing on-site industrial-scale water and wastewater test facilities, including the National Water and Wastewater Treatment Test Facility and new water science laboratories, due to open in 2019 and 2020.
- Construction continues on a new £3.2 million agri-informatics facility. The new facility will provide the UK with a centre of excellence in data science related to precision agriculture. The new facility will be the home of the National Reference Centre for Soils and associated Land Information System, LandIS. Construction will be completed in late 2019.

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- Work has started on the Cranfield Urban Observatory, part of the UK's largest urban research programme, looking at how our cities could be managed and developed in the future for human wellbeing. At the heart of the Observatory is a £1 million state-of-the-art, campus-wide sensor network which can monitor factors such as air and noise pollution, ecosystem dynamics and resource flows.

Planning and preparatory work has also been continuing for a new university in Milton Keynes (currently known as MK:U) after it was announced that Cranfield had been chosen to be the lead higher education provider for the project in March 2018. The university is being designed as an education institution for the 21st century, delivering a distinctive STEM-focused (science, technology, engineering and mathematics) undergraduate curriculum in key areas including digital, cyber, autonomy, robotics and artificial intelligence. Architects have now been chosen to create the new university following an international design competition in early 2019.

Further afield, the inaugural graduation ceremony for Muscat University was held in Oman in February 2019. The new university has partnered with Cranfield, and Aston University, to draw on our academics' expertise and deliver courses in air transport, supply chain logistics, energy systems, finance and entrepreneurship.

None of what we achieve as a University would be possible without the dedication and commitment of our staff to realising the ambitions of our institution:

- At the beginning of 2019, we began a University-wide conversation about what we value as an organisation and together with staff developed four shared, stated corporate values, launched in the summer of 2019: Ambition, Impact, Respect, Community.
- Cranfield has joined the Business Disability Forum, a not-for-profit organisation that helps other organisations become fully accessible to disabled customers and employees, by providing pragmatic support, sharing expertise, giving advice, providing training and facilitating networking opportunities.
- We received an award in recognition of our Technician's Commitment action plan. The award was presented by Lord Sainsbury at an event where the impact of the sector-wide Technician's Commitment was showcased.
- The team involved in excavating and analysing 19th century burials from Rat Island in Gosport harbour won the prestigious MOD Sanctuary Award for Best Heritage Project 2017.
- A team won The Engineer's *Collaborate to Innovate* Award in the energy and environment category for their Balanced Energy Networks (BEN) project. Their award recognises the very best in UK collaborations and innovations in engineering.
- We launched the Female FTSE Board Report 2018, in partnership with Aviva.
- In September 2018, Dr Sarah Morris, Lecturer in Forensic Computing at Cranfield Defence and Security, was shortlisted in the Outstanding Contribution category of the Women in Defence UK Awards. Dr Morris, who is Head of the Digital Forensics Unit (DFU), was the only shortlisted nominee from a university alongside military personnel and staff from civil service, intelligence and industry organisations.

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As an institution, we aim to spread knowledge and learning not just to our learners and research partners but to the wider public:

- As a sponsor of International Women in Engineering Day 2019, we play a strong role in promoting STEM careers to women. In April 2019, we hosted an interactive event at our Cranfield campus, encouraging young female students to 'Aim High' and consider a career in engineering. Female Year 7 students from local schools visited the University and had the opportunity to interact with leading female engineers and to attend talks and practical demonstrations with Boeing UK and other exhibiting companies.
- Our academics visited local primary schools to give pupils an insight into some of the STEM (Science, Technology, Engineering and Mathematics) research conducted at Cranfield.
- We partnered with the Royal Horticultural Society (RHS) to recruit the UK's first garden water scientist. Janet Manning, a Cranfield alumna with extensive experience in water science and engineering roles, was appointed in a role that aims to find the best watering products and techniques available, and to promote their benefits to RHS members, businesses and the wider public.

Employment of disabled persons

Applications by disabled persons for employment and for admission to courses of study or research are always fully considered, bearing in mind the aptitudes of the applicant concerned. In the event of existing staff and students becoming disabled every effort is made to ensure that their employment or study with the University continues and that appropriate training and support is arranged. It is the policy of the University that the training, career development and promotion and opportunities to undertake study and research should, as far as possible, be identical for all staff and students.

Employee involvement

The University places considerable value on the involvement of its employees and on good communication with them. A regular newsletter is made available to all staff and separate supplements are published when the need arises. Staff are encouraged to participate in formal and informal consultation at University and School levels, sometimes through the membership of formal committees. In addition, information for staff is included on an intranet site.

Environmental issues

The University is committed to sustainable development by integrating environmental issues into all aspects of its work and management processes. Environmental responsibilities are met through the management of

the University's campuses and premises, through its dealings with client groups and trading partners, through the design and delivery of its academic, research and professional services and through its interaction with the local community.

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Carbon Management Plan

The University has a target to reduce its Carbon emissions by 50% by 2020 compared with a 2005 baseline. From 2005 Carbon emissions were growing; however since the implementation of the plan in 2009 emissions have generally reduced and are now 38% lower than the 2005 level. Our carbon footprint has been restated for previous years in accordance with DEFRA Greenhouse Gas reporting guidelines which take account of changes in our estate and also national conversion factors.

| Year | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 |
|------------|---------|---------|---------|---------|---------|---------|---------|
| Tonnes CO2 | 18,700 | 18,800 | 20,400 | 20,400 | 18,700 | 17,600 | 15,300 |

| Year | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 |
|------------|---------|---------|---------|---------|---------|---------|---------|
| Tonnes CO2 | 16,100 | 14,500 | 14,900 | 13,400 | 12,800 | 12,300 | 11,600 |

The decrease since 2007/2008 reflects the significant investment the University has put into energy saving initiatives such as a large Combined Heat and Power unit, a new Biomass boiler, improvements to the district heating system, a solar farm and energy efficient refurbishments to the real estate. This goes alongside significant efforts from "Green Teams" within the staff and student bodies to ensure sector best practice is employed wherever possible.

The emissions reported above include electricity, heating, process fuels and on site vehicle fuels for the whole University estate but excluding Shrivenham Campus. Reporting years are from August to July. Other transport emissions and emissions associated with waste and water are not included at present although there are plans to include these within the footprint for future reports. Further information on the Carbon Management Plan can be found on the University website.

Health and Safety

The University is committed to providing a safe and healthy environment by taking effective means to manage our risks and protect people from being harmed. There is a process of continuous improvement through a programme connected to the University having OHSAS 18001 Health and Safety Management accreditation across the University in all areas of work and study. The University achieved full accreditation under OHSAS 18001 in July 2016.

Modern Slavery and Human Trafficking

The University is committed to improving practices to combat slavery and human trafficking and supports the UK Government's approach to implementing the UN Guiding Principles on Business and Human Rights.

In implementing this approach the University supports the Base Code of the Ethical Trading Initiative. This Base Code is an internationally recognised code of labour practice requiring that:

- Employment is freely chosen
- Freedom of association and the right to collective bargaining are respected
- Working conditions are safe and hygienic
- Child labour shall not be used
- Working hours are not excessive
- No discrimination is practiced
- Regular employment is provided
- No harsh or inhumane treatment is allowed

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Payment of creditors

It is the University's policy to obtain the optimum terms for all business and, thus, there is no single policy as to the terms used. The University looks to use small and local suppliers where appropriate and looks to pay them within two weeks of invoice wherever possible. In agreements negotiated with other suppliers, the University endeavours to include and abide by specific payment terms in accordance with best commercial practice.

Trade Union Facility Time

Background

Our Trade Union Facility Time data, shown below, has been prepared in accordance with our duty under Section 13 of the Trade Union Act 2016. The data has been collated and extracted from our HR & Payroll database and covers the 12 month "relevant period", which is the 12 months from 1 April to 31 March every year, with the current period being from 1 April 2018 to 31 March 2019.

At Cranfield there are three Unions who are recognised for consultation and negotiation purposes, these being UCU, Unite and Unison.

Table 1 - Relevant union officials

Total number of our employees who were relevant union officials during the relevant period?

| | |
|--|--------------------------------------|
| Number of employees who were relevant union officials during the relevant period | Full-time equivalent employee number |
| 20 | 16.8 |

Table 2 - Percentage of time spent on facility time

Number of employees who were relevant union officials employed during the relevant period spent a) 0%, b) 1%-50%, c) 51%-99% or d) 100% of their working hours on facility time?

| <i>Percentage of time</i> | <i>Number of employees</i> |
|---------------------------|----------------------------|
| 0% | 7 |
| 1-50% | 13 |
| 51%-99% | 0 |
| 100% | 0 |

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(continued...)

Table 3 - Percentage of pay bill spent on facility time

Figures determining the percentage of the total pay bill spent on paying employees who were relevant union officials for facility time during the relevant period.

| | |
|---|--------------------|
| Provide the total cost of facility time | £16,726 |
| Provide the total pay bill | £79,402,000 |
| Provide the percentage of the total pay bill spent on facility time, calculated as: (total cost of facility time ÷ total pay bill) x 100 | 0.02% |

Table 4 - Paid trade union activities

As a percentage of total paid facility time hours, the number of hours spent by employees who were relevant union officials during the relevant period on paid trade union activities?

| | |
|--|-------------|
| <i>Time spent on paid trade union activities as a percentage of total paid facility time hours calculated as: (total hours spent on paid trade union activities by relevant union officials during the relevant period ÷ total paid facility time hours) x 100</i> | 100% |
|--|-------------|

Outlook for 2019/2020

Cranfield will continue to develop around its thematic offerings in Aerospace, Defence and Security, Energy and Power, Environment and Agrifood, Management, Manufacturing, Transport Systems and Water, supported by the professional service units.

The budgeted operating surplus for 2019/20 is based on increasing the numbers of international students and the underlying net fee income as evidenced by the significant increases in acceptances from students for the 2019/20 academic year. Costs will continue to be managed carefully. These activities are forecast to enable the University to continue to move towards the operating surplus targeted in the five year corporate plan.

New educational initiatives continuing in 2019/20 include the further development MK:U, a subsidiary of Cranfield University that would be based in Central Milton Keynes and provide undergraduate courses in business and STEM subjects aligned to both Milton Keynes and Cranfield. At this stage MK:U is planned to open in new facilities in September 2023. The suite of Masterships™ programmes utilising the Apprenticeship Levy continues to grow, with Masterships™ being available in all of the Schools from 2019/20. Cranfield are continuing to work with Muscat University to grow a suite of MSc courses in Oman.

With regard to capital expenditure, Cranfield has continued to be successful in winning high profile investment bids for the development of facilities and should see both the UKRIC Urban Water facility and the Digital Airport of the Future facility become operational during the year.

CRANFIELD UNIVERSITY
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(continued...)

Conclusion

The University has enjoyed a more successful financial year with the operating surplus being in line with the budget for the year. This has been achieved by the significant efforts of staff to grow the number of fee paying international students along with continued growth in Masterships™ and in the research order book.

There have continued to be some challenges with the continuing reduction in income from the MoD teaching contract following changes to the contractual requirements in 2018. There remains uncertainty across the sector around European student numbers and European Commission research income following the BREXIT vote and any changes by the Government to the apprenticeship levy would need to be considered carefully.

The University has had further success with its infrastructure funding bids to support its Estates strategy and the Corporate Plan and is confident that, through its thematic approach to research, education and executive development, it will continue to add significant value for its students, business and government partners and for the wider public benefit.

C P Fairweather MA FCA
Chair of Finance Committee

28th November, 2019

CRANFIELD UNIVERSITY

CORPORATE GOVERNANCE

The University is committed to following best practice in all aspects of corporate governance and is in full compliance with the CUC Higher Education Code of Governance. The following statement is given to enable readers of the financial statements to obtain a better understanding of the legal structure of the University and the governance procedures applied by the University's Council.

In March 2013, Her Majesty The Queen in Council approved revisions to the University's Charter and Statutes. The primary impact of these revisions on governance was to make the University Council the unambiguous governing body for the University, in line with the governance guidelines of the Higher Education Funding Council for England. Following the approval of the Charter and Statutes, Council approved a revised set of Ordinances and Senate approved new Regulations; together, the Charter, Statutes, Ordinances and regulations make up the University Laws.

Council's functions, as articulated in the Charter, are to: be ultimately responsible for the affairs of the University; determine the strategic direction of the University; ensure the effective management and control of the University's affairs, property and finances; determine the structure, staffing and overall composition of the University; appoint the Pro-Chancellor; and appoint and dismiss the Vice-Chancellor.

The principal academic and administrative officer of the University is the Chief Executive and Vice-Chancellor who has a general responsibility to the Council for maintaining and promoting the efficiency and good order of the University. Under the terms of the formal Financial Memorandum between the University and the Office for Students terms and conditions of funding, the Vice-Chancellor is the accountable officer of the University and in that capacity can be summoned to appear before the Public Accounts Committee of the House of Commons.

The matters specially reserved to the Council for decision are defined by the University Laws and by custom in line with the Financial Memorandum with the Office for Students terms and conditions of funding.

The Council has a majority of members from outside the University, (described as independent members), from whom the Chair and Deputy Chair must be drawn. Also included in its membership are staff of the University and a member nominated by the student body. The composition of the Council and the procedures for appointment of members, their tenure and removal from office, are determined by the Statutes of the University.

The Council meets at least four times a year and has four standing Committees, Finance, Nominations, Remuneration and Audit. Each of these Committees is formally constituted with terms of reference and comprises mainly independent members of the Council.

CRANFIELD UNIVERSITY

CORPORATE GOVERNANCE

(continued ...)

- **Finance Committee** - meets at least four times a year and, inter alia, recommends to the Council the University's annual revenue and capital budgets and monitors performance quarterly in relation to the approved budgets. The Committee also reviews the University's annual financial statements for reporting to the Council.

Attendance of members during the year is outlined below:

| | No. Of Meetings Entitled to Attend | No. of Meetings Attended |
|-----------------------------|---------------------------------------|-----------------------------|
| Miss Caroline Carter | 4 | 4 |
| Mrs Lesley Chen Davison+ | 1 | 1 |
| Mr Colin Day | 4 | 4 |
| Mr Paul Fairweather | 4 | 4 |
| Mr Iain Ferguson* | 3 | 3 |
| Professor Sir Peter Gregson | 4 | 4 |
| Mr Dougie Hunter* | 2 | 2 |

*Mr Iain Ferguson and Mr Dougie Hunter retired from Finance Committee on 31 May 2019.

+Mrs Lesley Chen Davison was appointed to Finance Committee on 1st June 2019.

- **Nominations Committee** - considers nominations for vacancies in the independent membership of Council under the relevant Statute and makes recommendations to the Council for such appointments.
- **Remuneration Committee**

Terms of Reference for the Remuneration Committee

The Remuneration Committee at Cranfield, established by Council, has delegated responsibility to determine the Executive Reward Strategy, setting and reviewing the salaries and other emoluments, terms and conditions and where appropriate, severance payments of the Executive, to include the following members of staff:

- a. The Vice-Chancellor and Chief Executive;
- b. Members of the University Executive;
- c. Such other members of staff as decided by Council.

The Remuneration Committee also have oversight of the remuneration of all staff earning £100,000 or more.

The primary focus of the Remuneration Committee is the needs of the University, but it will take note of comparable information on salaries and emoluments and conditions of service in the University sector and wider market data.

CRANFIELD UNIVERSITY
CORPORATE GOVERNANCE
(continued ...)

Remuneration Committee Membership

The membership of the Remuneration Committee as at 25 July 2019 comprise the following members of Council:

- The Deputy Chair of Council (Chair) - Mr Iain Ferguson (from 1 August 2019, Mr Ferguson will be Pro-Chancellor and in attendance only at Remuneration Committee).
- The Chair of the Finance Committee - Mr Paul Fairweather - Former Partner of PricewaterhouseCoopers LLP and Business Fellow, The Honourable Society of Gray's Inn.
- Miss Caroline Carter, former partner of Ashurst LLP (from 1 August 2019, Miss Carter will become Chair of Remuneration Committee).
- Miss Alice Hynes, Director of APC Futures Ltd and former University Registrar and Clerk to the Board (from 1 August 2019, Miss Hynes will no longer be a member of Remuneration Committee).
- Dr Jaz Saggu, Chief Operating Officer, MD Insurance Services Ltd. (from July 2019)

Advisory and secretarial services for the Committee are provided by the Director of Human Resources and their nominated representative.

Remuneration Committee meets at least twice a year and any three members present will constitute a quorum.

The Pro-Chancellor is in attendance at the Remuneration Committee meeting, but is not a member (from 1 August 2019, Dame Deirdre Hutton completed her term of office for Council as Pro-Chancellor and will no longer attend Remuneration Committee).

The Chief Executive and Vice-Chancellor is in attendance at the Remuneration Committee for consideration of remuneration for his/her direct reports, but is not present for the discussion of his/her remuneration.

Attendance of members between July 2018 and July 2019 is detailed below:

| | No. Of Meetings Entitled to Attend | No. of Meetings Attended |
|----------------------|---|---|
| Mr Paul Fairweather | 3 | 3 |
| Mr Iain Ferguson | 3 | 3 |
| Dame Deirdre Hutton | 3 | 3 |
| Miss Caroline Carter | 3 | 3 |
| Miss Alice Hynes | 3 | 3 |
| Dr Jaz Saggu | 1 | 1 |

Key decisions taken by the Remuneration Committee from July 2018 to July 2019

October 2018

The Remuneration Committee reviewed progress towards agreed corporate and individual objectives for the Executive. Performance against the corporate scorecard was agreed by the Committee at 70%. Where individual performance merited it, a number of bonuses and two basic salary increases were agreed.

CRANFIELD UNIVERSITY

CORPORATE GOVERNANCE

(continued ...)

The Remuneration Committee decide on an annual basis whether it is appropriate to adjust Executive salaries in line with the agreed 'cost of living' increase received by other staff, based on the performance of the University. The Committee discussed the significant business turnaround of the University and the need to maintain the pay differentials with other senior staff and agreed that it was appropriate for the Executive to receive the cost of living increase to base salary effective from 1 October, with no backdated payments.

Pay arrangements in line with all other staff, were agreed for the Vice-Chancellor & Chief Executive.

To assist the above decision-making, the Committee received the following background documents:

- Summary salary report on the Vice-Chancellor and Chief Executive and other members of Executive detailing basic salary and other emoluments.
- Performance and development review documentation from the Vice-Chancellor on members of the Executive, detailing individual and corporate scorecards and a qualitative performance assessment against wider behavioural characteristics.
- Performance and development review documentation for the Vice-Chancellor and Chief Executive undertaken by the Pro-Chancellor and Chair of Council.
- A report from Human Resources providing benchmark pay data (this includes a summary of the Committee of University Chairs report on Vice-Chancellors pay, the Universities and Colleges Association Senior Staff Remuneration Survey).
- Summary report on basic salary and other emoluments for the senior management team and staff earning over £100,000.

April 2019

The Remuneration Committee set the date to review and agree the Executive's individual objectives for the forthcoming financial year.

A review of the current incentive pay process for the Executive was undertaken and it was agreed the scheme remained fit for purposes and no structural changes were required.

The Committee were provided with an update on the proposed 2020 Professorial Pay Review.

The proposed annual agenda, showing tasks and timeframes was reviewed by the Committee and agreed as follows:

- ❖ The April Remuneration Committee meeting allows for strategy and policy decisions together with an overview of progress towards the plan for next year and whether the plans for the Schools support this, alongside any other business.
- ❖ The July Remuneration Committee meeting will focus on target setting, following the sign off of the budget by Council. In addition it was agreed that benchmarking data (UCEA) will be provided at the July meeting to assess the landscape we are operating within.
- ❖ The October meeting will concentrate on the review of performance and the resulting agreement of pay increases and bonus payments.

July 2019

The Committee reviewed and agreed the strategic targets and the Executive Team's objectives for the forthcoming financial year (to include new diversity related objectives aligned to our Athena Swan Action Plan).

CRANFIELD UNIVERSITY

CORPORATE GOVERNANCE

(continued ...)

Approach to Remuneration

Reward Strategy

The University's reward strategy has been developed through consultation and takes into account a range of information from Cranfield, the HEI sector and wider market practice, and aligns to our core values. It will be kept under review and may be adjusted, depending on the University's strategy and circumstances, the state of the market, the requirements of key stakeholders and the Regulator (Office for Students (OfS)).

Definition of reward

Reward is a combination of different elements. Cranfield's reward offer includes:

- A package of pay and benefits which is competitive in the market and which reflects everyone's role and contribution.
- The opportunity to carry out interesting work which makes an impact – on students, the institution, industry and society.
- Access to development and support for all our people.
- Access to career opportunities.
- A culture and community where we respect everyone and we value diversity and support wellbeing.
- The opportunity to work alongside colleagues and with an organisation that recognises and celebrates ambition and success.

Purpose

The purpose of the reward strategy is to:

- Enable the recruitment and retention of people with the talent, skills and commitment the University needs.
- Support the delivery of the University's strategy, priorities and targets, and demonstrate and underpin our core values.
- Provide an environment where everyone can achieve their full potential and contribute at their best.

Principles

We will:

1. Reward our people for the work they do and how well they do it, celebrating and recognising success.
2. Ensure rewards are competitive in the sector and where relevant in the wider market.
3. Ensure reward arrangements reflect the nature of the work and the market for the skills concerned.
4. Ensure rewards are fair and equitable.
5. Provide the opportunity for everyone to develop and progress in their career.
6. Promote a culture which values diversity, supports wellbeing and embodies our core values.
7. Communicate the full value of pay and benefits as part of our total reward offer.

CRANFIELD UNIVERSITY
CORPORATE GOVERNANCE
(continued ...)

Taking principles into practice

The table below summarises how we will put our principles into practice.

| Principle | What we will do |
|--|--|
| 1. Reward people for the work they do and how well they do it | Maintain our pay and benefits structures to match the level and type of role and provide the mechanisms for performance to be recognised and rewarded. |
| 2. Ensure rewards are competitive | Undertake regular monitoring on external market practice – in the higher education sector and beyond – and consider internal indicators, such as recruitment, retention and staff opinion. |
| 3. Ensure rewards reflect the nature of the work and the market for the skills concerned | Have distinct policies for different groups of roles but founded on the same principles (see below). Allow for pay differences where they are well justified by market evidence. |
| 4. Ensure rewards are fair and equitable | Create and maintain policies and governance structures, which promote fairness and conduct and where appropriate, undertake reviews of their impact (e.g. biennial equal pay review, annual gender pay reporting and workforce audits). |
| 5. Provide the opportunity to develop and progress | Offer programmes of training and development and provide the opportunity to discuss job and career development with line managers and HR. |
| 6. Promote a culture which values diversity, supports wellbeing and embodies our core values | Embed our shared values within the university, to support the University's transition to becoming a modern inclusive employer and enhancing our Employee Value Proposition. Delivering on our key targets in our Diversity and Inclusion Plan, Athena Swan Action Plan and other related initiatives and providing an environment, which looks after everyone's wellbeing. |
| 7. Celebrate and recognise success | Promote and keep under review all forms of recognition, ranging from 'thank you' to a formal salary adjustment, bonus or use of the recognition scheme, to ensure appropriateness to the role and its setting. |
| 8. Communicate the full value of pay and benefits | When we have the supporting systems in place, provide an annual statement of the value of the pay and benefits package, in the context of the total reward offer. |

Policies

In keeping with our third principle, the approach to pay and rewards will reflect the character of each job family. There are differences in: whether salaries are a spot rate or sit within a range; the markets used for benchmarking pay and reward practices; and how performance is recognised and rewarded (although all staff are subject to a performance and development review on an annual basis).

All policies take account of:

- The distinctive character of Cranfield, as a postgraduate institution, which has close links to, and partnerships with industry.
- Governance requirements, including those set out by the Office for Students and the Committee of University Chairs.
- The need to secure value for money.

CRANFIELD UNIVERSITY

CORPORATE GOVERNANCE

(continued ...)

a) University Executive

Rewards for members of the University Executive are determined and reviewed by the Remuneration Committee, who have full delegated authority for the salaries and other emoluments, terms and conditions and, where appropriate, severance payments of:

- the Vice-Chancellor & Chief Executive;
- full members of the University Executive;
- and such other senior members of staff as decided by Council.

Our Executive reward reflects the need for competitive spot salaries and includes an incentive scheme, which is appropriate for jobs at this level and provides a strong link to performance. The package includes USS pension or a payment in lieu (PILP) for those who have reached their Lifetime Allowance, plus an optional USS Life Assurance cost of 2.1% of basic salary.

b) Senior managers

Rewards for senior managers are determined by the Vice Chancellor & Chief Executive and the Executive Team. The Remuneration Committee has oversight of the remuneration of all members of the Senior Management Team and any other staff earning £100,000 per annum, or above.

The policy for this group provides for spot salaries to reflect the role, the market and the value of the individual to the University. Amounts are benchmarked mainly against other universities, with a check on other markets where appropriate. Performance can be rewarded with a non-consolidated annual bonus, linked to the achievement of agreed performance indicators aligned to the delivery of the Corporate Plan and a qualitative assessment of individual contribution and wider contribution to the Executive Team.

Senior managers are also eligible to receive the annual negotiated pay settlement with the Trade Unions (normally taking effect from 1 August).

The package includes USS pension provision or a payment in lieu (PILP) for those who have reached their Lifetime Allowance, plus an optional USS Life Assurance cost of 2.1% of basic salary.

c) Professors

Rewards for Professors are determined by the Vice Chancellor & Chief Executive and Executive Team through the annual review and the Professorial Pay Review processes, within a policy agreed and assured by the Remuneration Committee. The Cranfield University Professorial Salary Review Scheme was established to provide a transparent framework for competitive performance-related remuneration of the professoriate.

Professors are recruited and retained in a distinctive national and international market, in which identifying, benchmarking and rewarding different levels of professorial contribution has become common. Cranfield's policy provides for four levels of professor, each with a standard pay range. Performance is recognised by remuneration within the level and exceptionally by change of level. Variations in market rate are handled through evidence-based market supplements.

On an annual basis, the overall performance of Professors is assessed against generic academic standards tailored to individual targets established through annual Performance and Development Reviews together with the annual assessment of the individual's contribution to the School by the relevant Pro-Vice-Chancellor. There is also the opportunity for advancement via exceptional management-led recommendations for outstanding performance.

CRANFIELD UNIVERSITY

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The Professoriate are also eligible to receive the annual negotiated pay settlement with the Trade Unions (normally taking effect from 1 August).

The Professorial Pay Review, undertaken on a triennial basis, supports the review of all professorial salaries, providing consistency of approach across the University and is informed and benchmarked against relevant peer groups within the higher education sector and beyond.

The package includes USS pension or a payment in lieu (PILP) for those who have reached their Lifetime Allowance, plus an optional USS Life Assurance cost of 2.1% of basic salary.

d) Staff within Salary Level 1 to 7

Rewards for staff within salary levels 2 to 7 are determined through both an annual negotiated pay settlement with the Trade Unions (normally taking effect from 1 August) and a governed annual review management process (normally taking effect from October of every year). The salary structure has strong parallels with the nationally negotiated Pay Framework Agreement for university staff, but recognises the distinctive nature of Cranfield.

Each salary level has related pay ranges, which are determined and reviewed taking account of practice in the sector. The salary levels have a core of increments, through which staff move, subject to satisfactory performance, on an annual basis. Once an individual reaches the top of the incremental range, performance over time can be recognised through use of a high performance zone (salary levels 2 to 7).

Exceptional performance or one off achievements can be recognised through a non-consolidated Recognition Award Scheme.

The package includes pension provision linked to the level and type of role, where appropriate a payment in lieu for those who have reached their Lifetime Allowance, plus for those in the USS, an optional USS Life Assurance cost of 2.1% of basic salary.

Some staff in Level 1 are covered by the Statutory National Minimum/Living Wage requirements. The University reviews and forecasts the impact of changes in the minimum rate, to ensure all staff are properly rewarded and they are compensated for additional responsibility.

Remuneration of the Chief Executive and Vice-Chancellor

Details of the remuneration for the CEO and VC are summarised in note 6 of the Financial Statement.

The remuneration received by the CEO and VC in 2018/19 included a base salary of £290,000. Following consideration of corporate and individual targets, a decision was made by Remuneration Committee to award a performance related payment of £38,000.

The CEO and VC is in receipt of a PILP allowance on the same terms as other members of staff. This payment does not attract bonus or other benefits based on basic salary.

The CEO and VC is required to reside in Cayley Lodge, which is regularly used for VIP business and regional engagement.

Pay multiple calculation:

| Cranfield University | 2019 | 2018 | 2017 |
|---|------|------|------|
| Vice-Chancellor basic salary multiplier | 7.99 | 7.85 | 7.72 |
| Vice-Chancellor total remuneration multiplier | 8.56 | 7.71 | 8.78 |

CRANFIELD UNIVERSITY
CORPORATE GOVERNANCE
(continued ...)

Severance Payments

The University's principle is to manage all departing staff fairly and equitably, taking into account the circumstances of their departure. Where restructurings occur, impact assessments are undertaken to ensure there are no biases on any protected characteristic.

Members of the Executive, as for all other staff, are entitled to be paid their contractual base salary and contractual benefits, during any notice period. In exceptional circumstances, the University has the discretion to make a lump sum payment, as pay in lieu of notice (PILON).

All Executive members (including the CEO and VC) have permanent contracts and have notice periods of 6 months.

Typically, no additional enhanced payments are made to compensate members of the Executive when their employment terminates, unless the employment ends by means of redundancy. In exceptional circumstances, a settlement agreement may be put in place and the University may make payments it considers reasonable in settlement of any potential litigation.

During 2018/19, no severance payments were made to members of the Executive.

Payment of Directorships, Consultancies and Outside Work

The University recognises the benefits that outside work whether voluntary or remunerated can bring to both employees and the University.

All employees (to include the Executive) must seek written approval from the relevant Senior Line Manager (PVC, COO or CEO and VC). For the CEO and VC approval is sought from the Pro-Chancellor. The treatment of remuneration received from such activities is considered on a case-by-case basis as part of the approval process. It is the responsibility of those undertaking external work to ensure that it is fully declared in the Register of Interest.

- **Audit Committee** - meets on at least three occasions annually to review the work of the internal and external auditors. The Committee considers detailed audit reports, together with recommendations, for the improvement of the University's systems of internal control, governance, risk management and value for money, as well as management's responses and implementation plans.

Attendance of members during the year is outlined below:

| | No. Of Meetings Entitled to Attend | No. of Meetings Attended |
|------------------|---|-------------------------------------|
| Mr Anthony Carey | 4 | 4 |
| Dr Maxine Mayhew | 4 | 3 |
| Miss Alice Hynes | 4 | 4 |
| Mr Jaz Saggu+ | 1 | 1 |
| Mr Bill Thomas* | 2 | 0 |

* Mr Bill Thomas retired from Council and Audit Committee on 31 March 2019.

+ Mr Jaz Saggu was appointed to Council and Audit Committee on 1 June 2019

Most independent members of the Council do not receive any payment, apart from the reimbursement of expenses, for the work they undertake for the University. However, certain members are remunerated for specific responsibilities other than those of the Council membership.

CRANFIELD UNIVERSITY

CORPORATE GOVERNANCE

(continued ...)

The report of the Chair of Finance Committee is given on pages 4 to 18 and the responsibilities of the Council are outlined on page 29. The annual financial statements are presented in a format which is in accordance with applicable Accounting Standards and the 2019 Statement of Recommended Practice - Accounting for Further and Higher Education.

The Council is also responsible for the University's internal control system and for monitoring its effectiveness. Such a system is designed to manage rather than eliminate the risk of failure to achieve the University's overall objective and mission, as well as its annual strategic aims. It can only provide reasonable, but not absolute, assurance against any material misstatement or loss. The key features of the control system are:-

- **Risk management** – whilst it is neither possible nor desirable to eliminate risk from the University's activities, there is an on-going process for the recognition, assessment and management of all significant opportunities and risks. This process has been in place for the year and up to the date of approval of the annual financial statements. The process is reviewed annually by the Audit Committee on behalf of the Council. The Audit Committee reports annually to the Council on its review. Exposure and control analyses, including mitigating factors and counter measures, are prepared annually and are monitored by key performance indicators and controls. The results from these reviews inform the planning, reporting and budgetary control processes. The management of each significant risk is assigned to one or more individuals and built into personal objectives as part of the staff development and appraisal procedures, which identify training needs. Staff generally are asked to report perceived significant risks.
- **Control environment** – clear definitions of the responsibilities of, and the authority delegated to, heads of academic and administrative departments are established. There is a Financial Manual, detailing financial controls and procedures which is approved by the Council as well as other management policies. Compliance with the Financial Manual is a requirement included in contracts of employment. The approach to internal control is risk based and embedded in effective management systems.
- **Information and control systems** – the University has a comprehensive medium and short-term planning process, supplemented by detailed annual revenue, capital and cash flow budgets. There are clearly defined and formalised requirements for approval and control of expenditure with investment decisions involving capital or revenue expenditure being subject to formal detailed appraisal and review according to approval levels set by the Council. There are regular reviews of operating results involving variance reporting and updates of estimated out-turns. In relation to academic information and control systems, the University's Senate, Education Committee, Research Committee and Directors of Education and Research in the Schools oversee detailed processes to maintain and control the quality and standards of the University's academic work.
- **Monitoring system** – the effectiveness of the information and internal control systems and control environment are monitored by management review, the internal audit function and the Audit Committee, on behalf of the Council. As part of their audit responsibilities, the external auditors also provide reports to the Audit Committee on the operation of aspects of the University's internal control system.

On the basis of the above control system, procedures have been in place for the whole financial year to enable a full statement on internal control to be made for the year and up to the date of the approval of the Financial Statements.

CRANFIELD UNIVERSITY

PRIMARY RESPONSIBILITIES OF COUNCIL

The Council is the supreme governing body of the University. Its principal responsibilities are based on the Model Statement taken from the Committee of University Chairs(CUC) Higher Education Code of Governance (2014), adapted to reflect the powers and responsibilities that Council derives from the University Laws. These responsibilities are to:

- approve the mission and strategic vision of the University, the long-term strategic and business plans including key performance indicators, and to ensure that these meet the interests of stakeholders;
- appoint, on the recommendation of a Joint Appointing Committee of Council and Senate, the Vice-Chancellor as Chief Executive of the University and to establish the conditions of appointment and the arrangements for monitoring their performance;
- be responsible for the removal of the Vice Chancellor for good cause in accordance with the University Laws;
- delegate authority to the Vice-Chancellor for the academic, corporate, financial, estate and human resource management of the institution;
- establish and keep under regular review the policies, procedures and limits within such management functions as will be undertaken by and under the authority of the Vice-Chancellor;
- ensure the establishment and monitoring of systems of control and accountability, including financial and operational controls and risk assessment, and procedures for handling internal grievances and for managing conflicts of interest;
- ensure that processes are in place to monitor and evaluate the performance and effectiveness of Cranfield University against the plans and approved key performance indicators, which will, where possible and appropriate, be benchmarked against other comparable institutions;
- establish processes to monitor and evaluate the performance and effectiveness of the Council;
- conduct its business in accordance with best practice in higher education corporate governance and with the principles of public life drawn up by the Committee on Standards in Public Life;
- safeguard the good name and values of the institution;
- appoint a Secretary to Council, on the recommendation of a Joint Appointing Committee of Council and Senate and to ensure that if the person appointed has managerial responsibilities in the University, there is an appropriate separation in the lines of accountability;
- be the employing authority for all staff in the University and to be responsible for ensuring the establishment of a human resources strategy;
- be the principal financial and business authority of the University, to ensure that proper books of account are kept, to approve the annual budget and financial statements, and to have overall responsibility for the University's assets, property and estate;
- be the University's legal authority and, as such, to ensure that systems are in place for meeting all the University's legal obligations, including those arising from contracts and other legal commitments made in the University's name;

CRANFIELD UNIVERSITY

PRIMARY RESPONSIBILITIES OF THE COUNCIL

(continued ...)

- receive assurance that adequate provision has been made for the general welfare of students;
- act as trustee for any property, legacy, endowment, bequest or gift in support of the work and welfare of the University; and
- ensure that the University's Laws are followed at all times and that appropriate advice is available to enable this to happen.

Members of Council

The following members served throughout the period from 1st August 2018 to 28th November 2019 unless otherwise stated:

| Name | Sub-Cttee Mbrship [#] | Position | Period |
|------------------------------|-----------------------------------|--|--|
| Dame Deirdre Hutton* | | Pro-Chancellor & Chair of Council | until 31 July 2019 |
| Baroness Young of Old Scone* | | Chancellor | |
| Professor Sir Peter Gregson* | F, N | Chief Executive & Vice-Chancellor | |
| Professor Helen Atkinson | | | from 1 October 2019 |
| Professor Graham Braithwaite | | | until 30 September 2019 |
| Mr Anthony Carey | A | Chair of Audit Committee | |
| Miss Caroline Carter | F, R | | |
| Mrs Lesley Chen Davison | F, N | | from 1 June 2019 |
| Mr Colin Day | F | | |
| Mr Osas Ehigiator | | | from 1 July 2019 |
| Mr Paul Fairweather | F, R | Chair of Finance Committee | |
| Mr Iain Ferguson | N, R | Deputy Chair of Council Pro-Chancellor & Chair of Council | until 31 July 2019 from 1 August 2019 |
| Mr James Hill | | | from 1 October 2019 |
| Mr Dougie Hunter | | | until 31 May 2019 |
| Miss Alice Hynes | A, N | | |
| Mrs Moni Mannings | | | until 31 May 2019 |
| Dr Maxine Mayhew | A, N | | |
| Mr Simon Rowlands | F, R | | from 24 October 2019 |
| Professor Lynette Ryals | | | until 30 September 2019 |
| Dr Jaz Saggu | A, R | | from 1 June 2019 |
| Professor Emma Sparks | | | |
| Miss Nithya Subramanian | | | until 30 June 2019 |
| Mr Bill Thomas | | | until 31 March 2019 |
| Dr Christine Thompson | | | |

*ex-officio members

[#]A=Audit, F=Finance, R=Remuneration, N=Nomination

The Council is required to present audited financial statements for each financial year and for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the University and to ensure that the financial statements are prepared in accordance with the Statutes of the University, the 2019 Statement of Recommended Practice - Accounting for Further and Higher Education and other relevant Accounting Standards. In addition, within the terms and conditions of a Financial Memorandum agreed between the Higher Education Funding Council for England and the Council of Cranfield University, the Council, through its designated office holder, is required to prepare financial statements for each financial year which give a true and fair view of

CRANFIELD UNIVERSITY

PRIMARY RESPONSIBILITIES OF THE COUNCIL

(continued ...)

the state of affairs of the University and the Group and of the surplus or deficit and cash flows for that year.

In causing the financial statements to be prepared, Council has ensured that:

- suitable accounting policies are selected and applied consistently;
- judgements and estimates are made that are reasonable and prudent;
- applicable Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- financial statements are prepared on the going concern basis unless it is inappropriate to presume that the University will continue in operation. The Council is satisfied that the University has adequate resources to continue in operation for the foreseeable future: for this reason the going concern basis continues to be adopted in the preparation of the financial statements.

The Council has taken reasonable steps to:

- ensure that funds from the Higher Education Funding Council for England & Office for Students are used only for the purposes for which they have been given and in accordance with the Financial Memorandum with the Funding Council and the new Office for Students terms and conditions of funding and any other conditions which the Funding Council of Office for Students may from time to time prescribe;
- ensure that there are appropriate financial and management controls in place to safeguard public funds and funds from other sources;
- safeguard the assets of the University and the Group and prevent and detect fraud; and
- secure the economical, efficient and effective management of the University's resources and expenditure.

CRANFIELD UNIVERSITY

Independent auditors' report to the Council of Cranfield University (the "institution")

Report on the audit of the financial statements

Opinion

In our opinion, Cranfield University's group financial statements and parent institution financial statements (the "financial statements"):

- give a true and fair view of the state of the group's and of the parent institution's affairs as at 31 July 2019 and of the group's and of the parent institution's income and expenditure, gains and losses and changes in reserves, and of the group's cash flows for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland", and applicable law); and
- have been properly prepared in accordance with the requirements of the Statement of Recommended Practice – Accounting for Further and Higher Education and the requirements of the Office for Students' Accounts direction (OfS 2018.26).

We have audited the financial statements, included within the Financial Statements (the "Annual Report"), which comprise the consolidated and parent institution Statement of Financial Positions as at 31 July 2019; the consolidated and parent institution Statement of Comprehensive Income and Expenditure, the consolidated and parent institution Statement of Changes in Reserves, and the Statement of Consolidated Cash Flows for the year then ended; the Accounting Policies; and the notes to the financial statements.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

Conclusions relating to going concern

ISAs (UK) require us to report to you when:

- the Council's use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the Council has not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the group's and parent institution'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.

We have nothing to report in respect of the above matters.

However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the group and parent institution's ability to continue as a going concern. For example, the terms on which the United Kingdom may withdraw from the European Union are not

CRANFIELD UNIVERSITY

Independent auditors' report to the Council of Cranfield University (the "institution")

(continued ...)

clear, and it is difficult to evaluate all of the potential implications on the group's and parent institution's activities, students, suppliers and the wider economy.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The Council is responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or any form of assurance 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 an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of 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 based on these responsibilities.

Responsibilities for the financial statements and the audit

Responsibilities of the Council for the financial statements

As explained more fully in the Primary Responsibilities of Council set out on page 29, the Council is responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The Council is also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Council is responsible for assessing the group and parent institution'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 Council either intends to liquidate the group and parent institution or to cease operations, or has no realistic alternative but to do so.

Auditors' responsibilities for the audit of the financial statements

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

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinions, has been prepared for and only for the Council as a body in accordance with section 5 of the Statutes of the institution and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person

CRANFIELD UNIVERSITY

Independent auditors' report to the Council of Cranfield University (the "institution")

(continued ...)

to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Opinions on other matters prescribed in the Office for Students' and Research England's Audit Code of Practice issued under the Further and Higher Education Act 1992 (as amended)

In our opinion, in all material respects:

- funds from whatever source administered by the institution for specific purposes have been properly applied to those purposes and, if relevant, managed in accordance with relevant legislation; and
- funds provided by the OfS and Research England have been applied in accordance with the relevant terms and conditions, and any other terms and conditions attached to them.

PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
East Midlands
November 2019

CRANFIELD UNIVERSITY
PRINCIPAL ACCOUNTING POLICIES

1. Basis of accounting and preparation

These financial statements have been prepared in accordance with the Statement of Recommended Practice (SORP): Accounting for Further and Higher Education 2019 and in accordance with Financial Reporting Standards (FRS 102). They have also been prepared in accordance with the 'carried forward' powers and duties of previous legislation (Further and Higher Education Act 1992 and the Higher Education Act 2004) and the new powers of the higher Education and Research Act 2018 during the transition period to 31 July 2019, the Royal Charter, the Accounts Direction issued by the Office for Students (OfS), the Terms and conditions of funding for higher education institutions issued by the OfS and the Terms and conditions of Research England Grant. The University is a public benefit entity and therefore has applied the relevant public benefit requirements of FRS 102. The financial statements are prepared in accordance with the historical cost convention (modified by the revaluation of land fixed assets). The following exemption available under FRS 102 has been applied to these financial statements:

- Disclosures in respect of transactions with wholly owned subsidiaries.

2. Basis of consolidation

The consolidated financial statements include the financial statements of the University and all its subsidiaries prepared up to the end of the financial year. They do not include the financial statements of student associations as it is considered the University has limited financial interest and no control or significant influence over policy decisions.

3. Foreign currencies

Transactions denominated in foreign currencies are recorded at the rate of exchange ruling at the dates of the transactions. Monetary assets and liabilities in foreign currencies are translated into sterling at the rate of exchange ruling at the balance sheet date. The resulting exchange differences are reflected in the income and expenditure account for the financial year.

4. Recognition of income

Income from the sale of goods and services is credited to the Consolidated Statement of Comprehensive Income and Expenditure when the goods or services are supplied to the external customers or the terms of the contract have been satisfied. Other income received in relation to the utilisation of the university estate is recognised in accordance with the terms of the underlying transaction.

1) Tuition fee income

Tuition fee income is stated gross of any expenditure over the period in which the students are studying. Bursaries and scholarships are accounted for gross as expenditure and not deducted from income. Fee discounts are treated as a fee bursary. Tuition fee refunds would be charged to tuition fee income.

2) Grant Funding

Grant funding including Funding Council block grant, research grants from government sources, grants (including research grants) from non government sources are recognised as income when the University is entitled to the income and performance related conditions have been met. Income received in advance of performance related conditions being met is recognised as deferred income within creditors on the balance sheet and released to income as the conditions are met.

CRANFIELD UNIVERSITY

PRINCIPAL ACCOUNTING POLICIES

(continued...)

3) Donations and endowments

Non exchange transactions without performance related conditions are donations and endowments. Donations and endowments with donor imposed restrictions are recognised in income when the University is entitled to the funds. Income is retained within the restricted reserve until such time that it is utilised in line with such restrictions at which point the income is released to general reserves through a reserve transfer.

Donations with no restrictions are recognised in income when the University is entitled to the funds.

Investment income and appreciation of endowments is recorded in income in the year in which it arises and as either restricted or unrestricted income according to the terms applied to the individual endowment fund.

There are four main types of donations and endowments identified in reserves:

1. Restricted donations – the donor has specified that the donation must be used for a particular objective.
2. Unrestricted permanent endowments – the donor has specified that the fund is to be permanently invested to generate an income stream for the general benefit of the University.
3. Restricted expendable endowments – the donor has specified a particular objective other than the purchase or construction of tangible fixed assets, and the University has the power to use the capital
4. Restricted permanent endowments – the donor has specified that the fund is to be permanently invested to generate an income stream to be applied to a particular objective.

4) Capital grants

Capital grants are recognised in income when the University is entitled to the funds subject to any performance related conditions being met.

5) Investment income

Investment income is credited to the Consolidated Statement of Comprehensive Income and Expenditure on a receivable basis.

5. Research and development

Expenditure on research and development is charged to the income and expenditure account in the year in which it is incurred

6. Tangible fixed assets

(1) Land and buildings

Land is stated at valuation and is revalued triennially. The basis of valuation is open market value for existing use, and in the case of the technology park, open market value with vacant possession. The most recent valuation was carried out as at 31st July, 2019 by Gerald Eve LLP. Freehold land is not depreciated as it is considered to have an indefinite useful life. Where land is held for resale and a conditional sale agreement is in place at the year end the land is revalued to the anticipated net proceeds and retained in fixed assets.

Freehold and leasehold buildings are stated at cost and depreciated over their expected useful lives or the life of the lease, whichever is shorter. Where there is a permanent reduction in value, provision is made in the financial statements.

CRANFIELD UNIVERSITY

PRINCIPAL ACCOUNTING POLICIES

(continued...)

Where buildings are acquired with the aid of specific grants, they are capitalised and depreciated as above.

(2) *Equipment*

Equipment, plant and machinery and fixtures and fittings costing less than £5,000 per individual item or group of related items is written off in the year of acquisition. All other equipment is capitalised at cost and depreciated over its expected useful life.

Where equipment is acquired with the aid of specific grants or gifts, it is capitalised and depreciated as above.

(3) *Depreciation*

Depreciation is calculated on the original cost of the assets at the following rates:-

| | |
|-----------------------|-------------------------|
| Buildings | 2% - 5% per annum |
| Fixtures and fittings | 10% per annum |
| Equipment | 20% - 33.33 % per annum |
| Plant and machinery | 5% - 25% per annum |

7. **Leases**

Leasing agreements that transfer to the University substantially all the benefits and risks of ownership are considered to be finance leases. All other leases are operating leases.

Fixed assets held under finance leases and the related lease obligations are recorded in the balance sheet at the fair value of the leased assets at the inception of the lease. The excess of lease payments over recorded lease obligations is treated as finance charges which is amortised over each lease term to give a constant rate of charge on the remaining balance of the obligations.

Rental costs under operating leases are charged to expenditure over the periods of the leases.

8. **Investments**

(1) Non current asset investments that are classified as basic financial instruments are held on the Balance Sheet at amortised cost less impairment.

(2) Complex financial instruments and are initially measured at fair value, which is normally the transaction price. These are subsequently carried at fair value and the changes in fair value are recognised in the statement of comprehensive income and expenditure.

(2) Investment in subsidiaries is included in the balance sheet at cost, less any provisions for impairment.

9. **Stock**

Stock is valued at the lower of cost and net realisable value. Provision is made for obsolete or surplus material.

CRANFIELD UNIVERSITY
PRINCIPAL ACCOUNTING POLICIES
(continued...)

10. Work in progress

Work in progress is stated at cost plus attributable overheads less provisions for any known or anticipated deficits and payments on account receivable.

11. Taxation status

The University is an exempt charity within the meaning of Schedule 3 of the Charities Act 2011 and as such is listed as a charity within the meaning of Paragraph 1 of Schedule 6 to the Finance Act 2010. Accordingly, the University is potentially exempt from taxation in respect of income or capital gains received within categories covered by Sections 472–488 of the Corporation Tax Act 2010 and Section 256 of the Taxation of Chargeable are applied to exclusively charitable purposes.

Most of the University's principal activities are exempt from Value Added Tax ('VAT'), but certain activities and other ancillary supplies and services are liable to VAT at various rates. Expenditure includes VAT charged by suppliers to the University where it is not recoverable and is likewise included in the cost of fixed assets.

Commercial trading activities undertaken by the University are operated through its subsidiary companies. This income will attract applicable VAT and the profits are liable to Corporation Tax. However, the taxable profits made by these companies are covenanted to the University and paid under Gift Aid, to the extent that the companies have distributable reserves, which negates that liability.

12. Deferred taxation

Deferred taxation is recognised as a liability or asset if transactions or events have occurred by the balance sheet date that give rise to an obligation to pay more taxation, or a right to pay less taxation, in future. An asset is not recognised to the extent that the transfer of economic benefits in future is uncertain. Deferred tax assets and liabilities recognised are not discounted.

13. Maintenance of premises

The cost of all maintenance is charged to the income and expenditure account as incurred. Provisions are made for dilapidation of leasehold property where an appropriate obligation exists.

14. Pension schemes

The two principal pension schemes of the University's employees are the Universities Superannuation Scheme (USS) and the Local Government Pension Scheme (LGPS) administered by Bedfordshire County Council. The USS scheme is a multi-employer scheme as defined by FRS 102.

Details of the schemes are included in Note 23. For defined benefit schemes, pension costs are assessed on the latest actuarial valuations of the schemes and are accounted for on the basis of charging the cost of providing pensions over the period during which the University benefits from the employees' services.

15. Provisions

Provisions are recognised when the University has a present legal or constructive obligation as a result of a past event and it is probable that a transfer of economic benefit will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

CRANFIELD UNIVERSITY

PRINCIPAL ACCOUNTING POLICIES

(continued...)

16. Going concern

The University considers that it has sufficient financial resources and is confident that its future income streams will maintain these resources. Council believe that the University is well placed to effectively manage its business risks, despite the current uncertain economic situation.

Council have a reasonable expectation that the University has adequate resources to continue operating in existence for the foreseeable future. Thus, they continue to adopt the going concern basis in preparing the financial statements.

17. Significant accounting estimates and judgements

In the process of applying these accounting policies, the University is required to make certain estimates, judgements and assumptions that management believe are reasonable based on the information available. These are reviewed on a regular basis by the University's senior management team. Significant estimates and material judgements used in the preparation of the financial statements are as follows:

Estimates:

Recoverability of debtors

The provision for doubtful debts is based on our estimate of the expected recoverability of those debts. Assumptions are made based on the level of debtors which have defaulted historically, coupled with current economic knowledge. The provision is based on the current situation of the customer, the age profile of the debt and the nature of the amount due.

Valuation of land

Valuations are undertaken every three years by an independent external team of chartered surveyors. This is then updated annually by senior management based on the current economic developments and other factors that may be considered to have an impact on the rental yield going forward.

Retirement benefit obligations

The University contributes to the Local Government Pension Scheme (LGPS) administered by Bedfordshire County Council which is accounted for as a defined benefit scheme. The recognised liability is based on the valuation provided by professionally qualified independent actuaries which is based on a number of assumptions. These include the future cash flows of the scheme, the discount rate used, the pensionable salary growth going forward and proposed price inflation. Further details can be found in note 23. Management reviews the assumptions made to derive the provisions recorded in the balance sheet to ensure that they are reasonable. The University also operates within the Universities Superannuation Scheme ('USS') which is accounted for as a defined contribution scheme since insufficient information is available to identify the University's share of the underlying assets and liabilities. As the University is contractually bound to make deficit recovery payments to USS, this is recognised as a liability on the balance sheet. The USS deficit recovery plan defines the deficit payment required as a percentage of future salaries until 2031. These contributions will be reassessed within each triennial valuation of the scheme. The provision is based on management's estimate of expected future salary inflation, changes in staff numbers and the prevailing rate of discount.

Provisions

Management apply judgement to arrive at the best estimate for any obligation required. The amount recognised as a provision is management's best estimate of the present value of the amount required to settle the obligation. To arrive at this amount management assess the likelihood and extent of any future settlement and make judgements based on these.

CRANFIELD UNIVERSITY

PRINCIPAL ACCOUNTING POLICIES

(continued...)

Judgements:

Revenue recognition

Revenues are subject to judgement over when and by how much revenues should be recognised in the financial statements. This includes determining when performance criteria have been met, recognising research and other funding revenues in line with expenditure once a right to the funding is deemed to have arisen, and determining the revenues associated with partially delivered courses and training where the activities have not been fully completed at the reporting date.

18. Changes in Accounting Policy

Following the 2017 triennial review of FRS 102, the Institution is preparing its financial statements in accordance with the revised provisions of FRS 102 and the 2019 edition of the Statement of Recommended Practice (SORP) from the previous 2015 version, for the first time in 2018/19.

CRANFIELD UNIVERSITY

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME AND EXPENDITURE

FOR THE YEAR ENDED 31ST JULY, 2019

| | | CONSOLIDATED | | UNIVERSITY | |
|---|-------|-----------------|-----------------|-----------------|-----------------|
| | | 2019 | 2018 | 2019 | 2018 |
| | Notes | £'000 | £'000 | £'000 | £'000 |
| Income | | | | | |
| Tuition fees and education contracts | 1 | 76,700 | 70,461 | 65,180 | 58,563 |
| Funding Council grants | 2 | 21,100 | 19,609 | 21,100 | 19,609 |
| Research grants and contracts | | 42,217 | 36,727 | 38,472 | 34,662 |
| Other income | 3 | 36,359 | 38,530 | 31,964 | 35,069 |
| Investment income | 4 | 140 | 139 | 132 | 139 |
| Operating income | | 176,516 | 165,466 | 156,848 | 148,042 |
| Donations and endowments | 5 | 6,693 | 3,271 | 6,693 | 3,271 |
| Total income | | 183,209 | 168,737 | 163,541 | 151,313 |
| Expenditure | | | | | |
| Staff costs | | | | | |
| Operating staff costs | 6 | 90,345 | 92,592 | 78,589 | 81,154 |
| USS pension provision movement | 23 | 20,621 | 335 | 20,554 | 335 |
| Total staff costs | | 110,966 | 92,927 | 99,143 | 81,489 |
| Other operating expenses | | 81,268 | 71,222 | 72,898 | 66,686 |
| Depreciation | 10 | 12,791 | 13,074 | 12,180 | 12,421 |
| Interest and other finance costs | 8 | 2,092 | 2,029 | 2,093 | 2,033 |
| Total expenditure | 7 | 207,117 | 179,252 | 186,314 | 162,629 |
| Deficit before other gains and losses | | (23,908) | (10,515) | (22,773) | (11,316) |
| Result on disposal of assets | | - | - | - | - |
| Gain on investments | | 805 | 9 | 805 | 9 |
| Deficit before tax | | (23,103) | (10,506) | (21,968) | (11,307) |
| Taxation | 9 | 51 | (111) | (374) | (100) |
| Deficit for the year | | (23,052) | (10,617) | (22,342) | (11,407) |
| Unrealised surplus on revaluation of land | | 8,258 | - | 8,258 | - |
| Actuarial (loss)/gain in respect of pension schemes | 23 | (8,753) | 6,066 | (8,753) | 6,066 |
| Total comprehensive loss for the year | | (23,547) | (4,551) | (22,837) | (5,341) |
| Represented by: | | | | | |
| Endowment comprehensive income for the year | | 398 | 16 | 398 | 16 |
| Unrestricted comprehensive (loss)/income for the year | | (23,945) | (4,567) | (23,235) | (5,357) |
| | | (23,547) | (4,551) | (22,837) | (5,341) |

The notes on pages 46 to 66 form part of these accounts.

CRANFIELD UNIVERSITY

STATEMENT OF CHANGES IN RESERVES
FOR THE YEAR ENDED 31ST JULY, 2019

| Consolidated | Income and expenditure account | | | Revaluation reserve | Total |
|---|--------------------------------|------------|-----------------|---------------------|-----------------|
| | Endowment | Restricted | Unrestricted | | |
| | £'000 | £'000 | £'000 | £'000 | £'000 |
| Balance at 1 August 2017 | 6,116 | - | 44,640 | 53,031 | 103,787 |
| Surplus/(deficit) from the income and expenditure statement | 16 | - | (10,633) | - | (10,617) |
| Other comprehensive income | - | - | 6,066 | - | 6,066 |
| Total comprehensive income/(loss) for the year | 16 | - | (4,567) | - | (4,551) |
| Balance at 31 July 2018 | 6,132 | - | 40,073 | 53,031 | 99,236 |
| Surplus/(deficit) from the income and expenditure statement | 398 | - | (15,192) | - | (14,794) |
| Transfer between revaluation reserve and income and expenditure reserve | - | - | (8,258) | 8,258 | - |
| Other comprehensive income | - | - | (8,753) | - | (8,753) |
| Total comprehensive income/(loss) for the year | 398 | - | (32,203) | 8,258 | (23,547) |
| Balance at 31 July 2019 | 6,530 | - | 7,870 | 61,289 | 75,689 |

| University | Income and expenditure account | | | Revaluation reserve | Total |
|---|--------------------------------|-------------------|---------------------|---------------------|-----------------|
| | <i>Endowment</i> | <i>Restricted</i> | <i>Unrestricted</i> | | |
| | £'000 | £'000 | £'000 | £'000 | £'000 |
| Balance at 1 August 2017 | 6,116 | - | 43,327 | 53,031 | 102,474 |
| Surplus/(deficit) from the income and expenditure statement | 16 | - | (11,423) | - | (11,407) |
| Other comprehensive income | - | - | 6,066 | - | 6,066 |
| Total comprehensive income/(loss) for the year | 16 | - | (5,357) | - | (5,341) |
| Balance at 31 July 2018 | 6,132 | - | 37,970 | 53,031 | 97,133 |
| Surplus/(deficit) from the income and expenditure statement | 398 | - | (14,482) | - | (14,084) |
| Transfer between revaluation reserve and income and expenditure reserve | - | - | (8,258) | 8,258 | - |
| Other comprehensive income | - | - | (8,753) | - | (8,753) |
| Total comprehensive income/(loss) for the year | 398 | - | (31,493) | 8,258 | (22,837) |
| Balance at 31 July 2019 | 6,530 | - | 6,477 | 61,289 | 74,296 |

The notes on pages 46 to 66 form part of these accounts.

CRANFIELD UNIVERSITY
STATEMENT OF FINANCIAL POSITION AT 31ST JULY, 2019

| | Notes | CONSOLIDATED | | UNIVERSITY | |
|---|-------|-----------------|-----------------|-----------------|-----------------|
| | | 2019 | 2018 | 2019 | 2018 |
| | | £'000 | £'000 | £'000 | £'000 |
| Non-current assets | | | | | |
| Fixed assets | 10 | 219,535 | 205,687 | 214,602 | 200,419 |
| Investments | 11 | 3,681 | 3,366 | 3,625 | 3,366 |
| Investments in subsidiaries | 12 | - | - | 5,186 | 5,186 |
| | | <u>223,216</u> | <u>209,053</u> | <u>223,413</u> | <u>208,971</u> |
| Current assets | | | | | |
| Stock | | 238 | 329 | 180 | 196 |
| Trade and other receivables | 13 | 41,163 | 36,018 | 37,875 | 33,340 |
| Cash and cash equivalents | | 2,939 | 5,878 | 2,065 | 1,802 |
| | | <u>44,340</u> | <u>42,225</u> | <u>40,120</u> | <u>35,338</u> |
| Current liabilities | | | | | |
| Creditors: amounts falling due within one year | 14 | (62,408) | (70,096) | (59,924) | (65,524) |
| Net current liabilities | | <u>(18,068)</u> | <u>(27,871)</u> | <u>(19,804)</u> | <u>(30,186)</u> |
| Total assets less current liabilities | | <u>205,148</u> | <u>181,182</u> | <u>203,609</u> | <u>178,785</u> |
| Creditors: amounts falling due after more than one year | 15 | (37,948) | (20,729) | (37,948) | (20,729) |
| Provisions | | | | | |
| Pension provisions | 16 | (91,464) | (60,955) | (91,365) | (60,923) |
| Other provisions | 17 | (47) | (262) | - | - |
| Total net assets | | <u>75,689</u> | <u>99,236</u> | <u>74,296</u> | <u>97,133</u> |
| Financed by:- | | | | | |
| Restricted Reserves | | | | | |
| Income and expenditure reserve – endowment reserve | 18 | 6,530 | 6,132 | 6,530 | 6,132 |
| Unrestricted Reserves | | | | | |
| Income and expenditure reserve - unrestricted | | 7,870 | 40,073 | 6,477 | 37,970 |
| Revaluation reserve | | 61,289 | 53,031 | 61,289 | 53,031 |
| Total Reserves | | <u>75,689</u> | <u>99,236</u> | <u>74,296</u> | <u>97,133</u> |

The financial statements on pages 35 to 66 were approved by the Council on 28th November, 2019 and signed on its behalf by:-

C P FAIRWEATHER MA FCA
CHAIR OF FINANCE COMMITTEE

PROFESSOR SIR PETER GREGSON FREng
 MRIA
CHIEF EXECUTIVE & VICE-CHANCELLOR

I SIBBALD FCA
DIRECTOR OF FINANCE

The notes on pages 46 to 66 form part of these accounts.

CRANFIELD UNIVERSITY
STATEMENT OF CONSOLIDATED CASH FLOWS
FOR THE YEAR ENDED 31ST JULY, 2019

| | Notes | 2019 £'000 | 2018 £'000 |
|---|-------|----------------------|----------------------|
| Cash flows from operating activities | | | |
| Deficit for the year | | (23,052) | (10,617) |
| Adjustment for non-cash items | | | |
| Depreciation | 10 | 12,791 | 13,074 |
| Gain on investments | | (805) | (9) |
| Exchange loss/(gain) | | 97 | (22) |
| Decrease/(increase) in stock | | 91 | (90) |
| Decrease/(increase) in debtors | | (5,142) | 1,568 |
| Increase in creditors | | 10,172 | 2,147 |
| Increase/(decrease) in pension provision | | 20,203 | (239) |
| (Decrease)/increase in other provisions | | (215) | 102 |
| Adjustment for investing or financing activities | | | |
| Investment income | 4 | (140) | (139) |
| Interest payable | 8 | 2,092 | 2,029 |
| Result on the sale of fixed assets | | - | - |
| Capital grant income | 5 | <u>(6,693)</u> | <u>(3,271)</u> |
| Net Cash inflow from operating activities | | <u>9,399</u> | <u>4,533</u> |
| Cash flows from investing activities | | | |
| Proceeds from sale of fixed assets | | - | - |
| Capital grants receipts | | 6,000 | 3,000 |
| Disposal of non-current asset investments | | 667 | 650 |
| Investment income | | 132 | 139 |
| Payments made to acquire fixed assets | | (19,764) | (14,956) |
| New non-current asset investments | | (864) | (412) |
| Total cash outflow from investing activities | | <u>(13,829)</u> | <u>(11,579)</u> |
| Cash flows from financing activities | | | |
| Interest paid | | (465) | (375) |
| Interest element of finance lease | | (4) | (4) |
| Endowment cash received | | 693 | 271 |
| New unsecured loans | | 32,500 | 1,602 |
| Repayments of amounts borrowed | | (16,553) | (2,223) |
| Capital element of finance lease and service concession payments | | <u>(96)</u> | <u>221</u> |
| Total cash inflow/(outflow) from financing activity | | <u>16,075</u> | <u>(508)</u> |
| Increase/(Decrease) in cash and cash equivalents in the year | | <u>11,645</u> | <u>(7,554)</u> |
| Cash and cash equivalents at beginning of the year | 19 | (8,706) | (1,152) |
| Cash and cash equivalents at end of the year | 19 | 2,939 | (8,706) |
| Movement in cash | | <u>11,645</u> | <u>(7,554)</u> |

The notes on pages 46 to 66 form part of these accounts.

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019

| | CONSOLIDATED | | UNIVERSITY | |
|---|---------------|---------------|---------------|---------------|
| | 2019 | 2018 | 2019 | 2018 |
| | £'000 | £'000 | £'000 | £'000 |
| 1. Tuition fees and education contracts | | | | |
| Long course fees | 47,611 | 40,044 | 47,667 | 40,174 |
| Professional development courses | 18,125 | 18,413 | 6,549 | 6,385 |
| Teaching contract | 10,964 | 12,004 | 10,964 | 12,004 |
| | <u>76,700</u> | <u>70,461</u> | <u>65,180</u> | <u>58,563</u> |
| 2. Funding Council grants | | | | |
| Recurrent grant | 14,005 | 13,557 | 14,005 | 13,557 |
| Special initiatives | 7,095 | 6,052 | 7,095 | 6,052 |
| | <u>21,100</u> | <u>19,609</u> | <u>21,100</u> | <u>19,609</u> |
| <p>Grants are receivable from Research England and the Office for Students for 2018 and from the Higher Education Funding Council, Research England and the Office for Students for 2018,</p> | | | | |
| 3. Other income | | | | |
| Residences and conference centres | 12,574 | 12,391 | 10,441 | 9,997 |
| Rents from tenant organisations | 972 | 1,057 | 1,663 | 1,733 |
| Other | 22,813 | 25,082 | 19,860 | 23,339 |
| | <u>36,359</u> | <u>38,530</u> | <u>31,964</u> | <u>35,069</u> |
| 4. Investment income | | | | |
| Investment income from endowments | 94 | 91 | 94 | 91 |
| Other investment income | 46 | 48 | 38 | 48 |
| | <u>140</u> | <u>139</u> | <u>132</u> | <u>139</u> |

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

| | CONSOLIDATED | | UNIVERSITY | |
|---|--------------|--------|------------|--------|
| | 2019 | 2018 | 2019 | 2018 |
| | £'000 | £'000 | £'000 | £'000 |
| 5. Donations and endowments | | | | |
| New endowments (<i>Note 18</i>) | 693 | 271 | 693 | 271 |
| Donations without restrictions | 6,000 | 3,000 | 6,000 | 3,000 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| | 6,693 | 3,271 | 6,693 | 3,271 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| 6. Staff | | | | |
| a. Staff costs | | | | |
| Wages and salaries | 71,379 | 71,570 | 61,527 | 62,254 |
| Social security costs | 7,405 | 7,508 | 6,505 | 6,615 |
| Other pension costs | 31,257 | 10,914 | 30,273 | 10,022 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| | 110,041 | 89,992 | 98,305 | 78,891 |
| Staff restructuring | 925 | 2,935 | 838 | 2,598 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| | 110,966 | 92,927 | 99,143 | 81,489 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| Number of staff receiving payment for loss of office | 35 | 133 | 34 | 118 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| Emoluments of the Vice-Chancellor (as detailed in the Remuneration Committee report on page 26) | | | | |
| Base salary | 290 | 286 | 290 | 286 |
| Cost of pension opt-out | 41 | 40 | 41 | 40 |
| Performance related pay | 38 | - | 38 | - |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| | 369 | 326 | 369 | 326 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| <p>In addition, the Vice-Chancellor is required to reside in Cayley Lodge, a property owned by the University, which is regularly used for VIP business and regional engagement. This non-taxable benefit is valued at £14,000 (2018 £14,000) based on the rental value opportunity cost.</p> | | | | |
| <p>The Vice-Chancellors salary and total remuneration expressed as a multiple of median salary and total remuneration of all other staff was:</p> | | | | |
| Vice-Chancellor basic salary multiplier | 7.99 | 9.24 | 7.99 | 7.85 |
| Vice-Chancellor total remuneration multiplier | 8.81 | 7.85 | 8.56 | 7.71 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| b. The average number of employees during the year, expressed as full-time equivalents, was as follows:- | Number | Number | Number | Number |
| Academic | 411 | 458 | 398 | 442 |
| Research | 272 | 262 | 229 | 223 |
| Technical | 126 | 118 | 109 | 115 |
| Other | 863 | 879 | 665 | 669 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| | 1,672 | 1,717 | 1,401 | 1,449 |
| | <hr/> | <hr/> | <hr/> | <hr/> |

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

6. **Staff** *(continued...)*

| | CONSOLIDATED | | UNIVERSITY | |
|---|---------------------|-------------|-------------------|-------------|
| | 2019 | 2018 | 2019 | 2018 |
| | Number | Number | Number | Number |
| c. Remuneration of other higher paid staff, excluding employer's pension contributions, were as follows:- | | | | |
| £100,000 - £104,999 | 8 | 8 | 8 | 8 |
| £105,000 - £109,999 | 3 | 8 | 3 | 5 |
| £110,000 - £114,999 | 6 | 7 | 4 | 6 |
| £115,000 - £119,999 | 4 | 2 | 4 | 2 |
| £120,000 - £124,999 | 4 | 6 | 3 | 6 |
| £125,000 - £129,999 | 1 | 2 | 1 | 2 |
| £130,000 - £134,999 | 3 | 1 | 3 | 1 |
| £135,000 - £139,999 | 2 | 2 | 2 | 2 |
| £140,000 - £144,999 | 1 | - | 1 | - |
| £145,000 - £149,999 | 1 | 1 | 1 | 1 |
| £150,000 - £154,999 | - | - | - | - |
| £155,000 - £159,999 | 1 | 1 | 1 | 1 |
| £160,000 - £164,999 | 2 | 1 | 2 | 1 |
| £165,000 - £169,999 | 1 | - | 1 | - |
| £170,000 - £174,999 | - | 2 | - | 1 |
| £175,000 - £179,999 | 4 | - | 3 | - |
| £200,000 - £204,999 | - | 1 | - | 1 |
| £230,000 - £234,999 | 1 | - | 1 | - |

Key Management personnel

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the University (10 members of the Executive each year).

| | CONSOLIDATED & UNIVERSITY | |
|---------------------------------------|--|-------------|
| | 2019 | 2018 |
| | £'000 | £'000 |
| Key management personnel compensation | 1,819 | 1,732 |

Council Members

The University's council members are the trustees for charitable law purposes. Due to the nature of the University's operations and the compositions of the Council, it is inevitable that transactions will take place with organisations in which a member of the Council may have an interest. All transactions involving organisations in which a member of Council may have an interest are conducted at arm's length and in accordance with the University's Financial Regulations and usual procurement procedures.

No Council member received any payment for their role as a trustee. Mr P Fairweather has provided consultancy services in the year and was paid, including expenses, £13,199 (2018 £12,627).

The total expenses paid to or on behalf of four council members was £1,857 (2018 £2,114 to five council members). This represents travel and subsistence expenses incurred in attending Council, Committee meetings and Charity events in their official capacity.

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

| | CONSOLIDATED | | UNIVERSITY | |
|---|--------------|-------|------------|-------|
| | 2019 | 2018 | 2019 | 2018 |
| | £'000 | £'000 | £'000 | £'000 |
| 7. Other operating amounts charged include:- | | | | |
| Equipment expensed | 5,014 | 3,041 | 4,937 | 2,985 |
| Operating lease rentals | 305 | 344 | 264 | 264 |
| Auditor's remuneration:- | | | | |
| - external audit | 148 | 124 | 81 | 76 |
| - other services including tax | - | 72 | - | 51 |
| Council members' expenses | 2 | 2 | 2 | 2 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| 8. Interest and other finance costs | | | | |
| Loan interest | 429 | 373 | 431 | 377 |
| Finance leases | 4 | 4 | 4 | 4 |
| Exchange differences | 106 | (22) | 106 | (22) |
| Net charge on Pension schemes | 1,553 | 1,674 | 1,552 | 1,674 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| | 2,092 | 2,029 | 2,093 | 2,033 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| 9. Taxation | | | | |
| Recognised in the statement of comprehensive income:- | | | | |
| Current tax expense | 33 | 23 | - | 12 |
| Overseas tax | 374 | 88 | 374 | 88 |
| R&D tax credits | (458) | - | - | - |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| Total tax expense | (51) | 111 | 374 | 100 |
| | <hr/> | <hr/> | <hr/> | <hr/> |

The tax assessed for the year is higher than (2018 higher than) the standard rate of corporation tax in the UK. The differences are explained below:

| | | | | |
|--|----------|----------|----------|----------|
| Deficit on ordinary activities before taxation | (23,103) | (10,506) | (21,968) | (11,307) |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| Tax on deficit on ordinary activities multiplied by the lower rate of corporation tax in the UK of 19% (2018 – 23.67%) | (4,390) | (2,486) | (4,174) | (2,676) |
| Factors affecting charge: | | | | |
| Tax losses | 4,423 | 2,497 | 4,174 | 2,676 |
| University surplus exempt from corporation tax | - | - | - | - |
| RDEC tax charge | - | 12 | - | 12 |
| R&D tax credits | (458) | - | - | - |
| Overseas tax | 374 | 88 | 374 | 88 |
| Other permanent differences | - | - | - | - |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| Corporation tax charged in the year | (51) | 111 | 374 | 100 |
| | <hr/> | <hr/> | <hr/> | <hr/> |

CRANFIELD UNIVERSITY
 NOTES TO THE ACCOUNTS
 FOR THE YEAR ENDED 31ST JULY, 2019
 (continued...)

| | Land & Buildings | | Equipment | Fixtures, Plant & Machinery | Total |
|--------------------------------|------------------|-----------|-----------|-----------------------------------|---------|
| | Freehold | Leasehold | | | |
| 10. Fixed assets | | | | | |
| <i>a. Consolidated</i> | | | | | |
| Cost/valuation | | | | | |
| At beginning of year | 182,952 | 7,437 | 49,985 | 106,135 | 346,509 |
| Additions | 3,250 | - | 4,180 | 11,084 | 18,514 |
| Revaluation | 8,258 | - | - | - | 8,258 |
| Disposals | - | - | (1,051) | (505) | (1,556) |
| At end of year | 194,460 | 7,437 | 53,114 | 116,714 | 371,725 |
| Consisting of valuation as at: | | | | | |
| 31 July 2019 | 61,289 | - | - | - | 61,289 |
| Cost | 133,171 | 7,437 | 53,114 | 116,714 | 310,436 |
| Depreciation | | | | | |
| At beginning of year | 29,235 | 5,349 | 39,354 | 66,884 | 140,822 |
| Charge for year | 2,504 | 230 | 3,601 | 6,456 | 12,791 |
| Disposals | - | - | (1,051) | (372) | (1,423) |
| At end of year | 31,739 | 5,579 | 41,904 | 72,968 | 152,190 |
| Net book amount | | | | | |
| At end of year | 162,721 | 1,858 | 11,210 | 43,746 | 219,535 |
| At beginning of year | 153,717 | 2,088 | 10,631 | 39,251 | 205,687 |

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

| | Land & Buildings | | Equipment | Fixtures, Plant & Machinery | Total |
|--|------------------|-----------|-----------|-----------------------------------|---------|
| | Freehold | Leasehold | | | |
| | £'000 | £'000 | | | |
| 10. Fixed assets <i>(continued ...)</i> | | | | | |
| <i>b. University</i> | | | | | |
| Cost/valuation | | | | | |
| At beginning of year | 176,903 | 7,437 | 49,324 | 98,420 | 332,084 |
| Additions | 3,250 | - | 4,161 | 10,694 | 18,105 |
| Revaluation | 8,258 | - | - | - | 8,258 |
| Disposals | - | - | (1,051) | (108) | (1,159) |
| | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
| At end of year | 188,411 | 7,437 | 52,434 | 109,006 | 357,288 |
| Consisting of valuation as at: | | | | | |
| 31 July 2019 | 61,289 | - | - | - | 61,289 |
| Cost | 127,122 | 7,437 | 52,434 | 109,006 | 295,999 |
| | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
| Depreciation | | | | | |
| At beginning of year | 26,775 | 5,349 | 38,824 | 60,717 | 131,665 |
| Charge for year | 2,377 | 230 | 3,542 | 6,031 | 12,180 |
| Disposals | - | - | (1,051) | (108) | (1,159) |
| | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
| At end of year | 29,152 | 5,579 | 41,315 | 66,640 | 142,686 |
| Net book amount | | | | | |
| At end of year | 159,259 | 1,858 | 11,119 | 42,366 | 214,602 |
| | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
| At beginning of year | 150,128 | 2,088 | 10,500 | 37,703 | 200,419 |
| | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |

At 31 July, 2019, freehold land and buildings included £61,289,000 (2018 £53,370,000) in respect of freehold land at valuation and is not depreciated.

The net book amounts of tangible fixed assets include £2,105,000 (2018 - £2,399,000) in respect of assets held under finance leases in the consolidated and University accounts respectively. The related depreciation charge for the year was £294,000 (2018 - £237,000). At 31st July 2019, buildings, fixtures and plant included £10,320,000 (2018 - £6,693,000) in respect of assets under construction in the consolidated accounts. In the University assets under construction amounted to £10,141,000 (2018 - £6,693,000).

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

| | CONSOLIDATED | | UNIVERSITY | |
|----------------------------------|--------------|-------|------------|-------|
| | 2019 | 2018 | 2019 | 2018 |
| | £'000 | £'000 | £'000 | £'000 |
| 11. Investments | | | | |
| Investments at beginning of year | 3,366 | 3,472 | 3,366 | 3,472 |
| Additions | 864 | 412 | 808 | 412 |
| Gains in year | 118 | 132 | 118 | 132 |
| Disposals | (667) | (650) | (667) | (650) |
| At end of year | 3,681 | 3,366 | 3,625 | 3,366 |

Investments are predominantly in the Prodigy Student Loans scheme which enables the University to invest into bonds that will finance Cranfield students tuition and maintenance loans. These investments are valued at market value as at 31 July each year.

| | UNIVERSITY | |
|---------------------------------------|---------------|---------------|
| | 2019 £'000 | 2018 £'000 |
| 12. Investment in subsidiaries | | |
| At beginning of year | 5,186 | 5,186 |
| Additions | - | - |
| Disposals | - | - |
| At end of year | 5,186 | 5,186 |

At 31st July, 2019 the group's principal subsidiaries, all of which were wholly owned and registered in England and Wales, comprised:-

| COMPANY | NATURE OF BUSINESS |
|---|---|
| Cranfield Group Holdings Limited | Holding company |
| Cranfield Airport Operations Limited Cranfield Aerospace Solutions Limited | Provision of air traffic control services Aerospace research and development |
| Cranfield Conference Centre Limited | Provision of conference and accommodation services |
| Cranfield Quality Services Limited | Provision of residential support services |
| Cranfield Regatta Limited | Organisation of an annual sailing event |
| Cranfield Innovative Manufacturing Limited | Consultancy and development programmes in manufacturing |
| Cranfield Management Development Limited | Provision of executive development programmes |
| Cranfield Defence and Security Services Limited | During the year Cranfield Engineering Innovations Limited changed its name and is now providing defence and security services |
| MK:U Limited | Dormant company |

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

| | CONSOLIDATED | | UNIVERSITY | |
|---|--------------|--------|------------|--------|
| | 2019 | 2018 | 2019 | 2018 |
| | £'000 | £'000 | £'000 | £'000 |
| 13. Trade and Other receivables | | | | |
| Work in progress | 10,435 | 11,129 | 9,820 | 10,774 |
| Other trade debtors | 24,704 | 20,862 | 20,504 | 17,589 |
| Prepayments and accrued income | 6,021 | 4,027 | 4,750 | 2,834 |
| Other taxes | 3 | - | - | - |
| Amounts receivable from subsidiary undertakings | - | - | 2,801 | 2,143 |
| | 41,163 | 36,018 | 37,875 | 33,340 |

Included in amounts receivable from subsidiary undertakings is £Nil (2018 - £Nil) which is recoverable after more than one year.

14. Creditors: amounts falling due within one year

| | | | | |
|--|--------|--------|--------|--------|
| Bank overdraft | - | 14,584 | - | 14,584 |
| Secured loans | 297 | 273 | 297 | 273 |
| Unsecured loans | 835 | 2,121 | 835 | 2,121 |
| Finance lease obligations | 96 | 96 | 96 | 96 |
| Amounts owed to subsidiary undertakings | - | - | 4,248 | 882 |
| Trade creditors | 27,675 | 23,174 | 24,009 | 20,372 |
| Social security costs and other taxation payable | 2,419 | 2,777 | 2,269 | 2,230 |
| Accruals and deferred income | 31,086 | 27,071 | 28,170 | 24,966 |
| | 62,408 | 70,096 | 59,924 | 65,524 |

15. Creditors: amounts falling due after more than one year

| | | | | |
|---------------------------|--------|--------|--------|--------|
| Finance lease obligations | 171 | 267 | 171 | 267 |
| Secured loans | 586 | 883 | 586 | 883 |
| Unsecured loans | 37,191 | 19,579 | 37,191 | 19,579 |
| | 37,948 | 20,729 | 37,948 | 20,729 |

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

| | CONSOLIDATED | | UNIVERSITY | |
|--|---------------|---------------|---------------|---------------|
| | 2019 | 2018 | 2019 | 2018 |
| | £'000 | £'000 | £'000 | £'000 |
| 15. Creditors: amounts falling due after more than one year <i>(continued ...)</i> | | | | |
| <i>Analysis of secured and unsecured loans</i> | | | | |
| due within one year or on demand (note 14) | 1,132 | 2,394 | 1,132 | 2,394 |
| Between one and two years | 1,159 | 2,263 | 1,159 | 2,263 |
| Between two and five years | 34,946 | 6,486 | 34,946 | 6,486 |
| Five years or more | 1,672 | 11,713 | 1,672 | 11,713 |
| Due after more than one year | 37,777 | 20,462 | 37,777 | 20,462 |
| Total secured and unsecured loans | 38,909 | 22,856 | 38,909 | 22,856 |
| <i>The net finance lease obligations</i> | | | | |
| Due within one year or on demand (note 14) | 96 | 96 | 96 | 96 |
| Between one and two years | 96 | 97 | 96 | 97 |
| Between two and five years | 75 | 170 | 75 | 170 |
| Five years or more | - | - | - | - |
| Due after more than one year | 171 | 267 | 171 | 267 |
| Total net finance lease obligations | 267 | 363 | 267 | 363 |

The Group had the following bank loans at 31st July, 2019:-

| | Interest Rate | Loan Type | Security | Final Repayment | Loan Outstanding £'000 |
|----|-----------------------|-----------------|--------------------|----------------------------|---------------------------|
| 1. | Euro base + 0.18% | Floating(Euros) | None | 15th August 2027 | 4,245 |
| 2. | 8.71% | Fixed | Land and buildings | 14th March 2022 | 883 |
| 3. | Interest Free | Salix Fixed | None | 1st April 2023 | 1,281 |
| 4. | Sterling LIBOR +0.94% | RCF | None | 27 th May 2022 | 27,500 |
| 5. | Sterling LIBOR +0.94% | RCF | None | 17 th June 2022 | 5,000 |
| | | | | | 38,909 |

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

16. **Pension provisions**

| Consolidated | Obligation to fund deficit on USS pension £'000 | Defined Benefit Obligations (Note 23) £'000 | Total Pensions Provisions £'000 |
|------------------------|---|---|---|
| At 1 August 2018 | 11,785 | 49,170 | 60,955 |
| Utilised in year | (625) | 853 | 228 |
| Increase in provision | 21,528 | 8,753 | 30,281 |
| At 31 July 2019 | 32,688 | 58,776 | 91,464 |

| University | Obligation to fund deficit on USS pension £'000 | Defined Benefit Obligations (Note 23) £'000 | Total Pensions Provisions £'000 |
|------------------------|---|---|---|
| At 1 August 2018 | 11,753 | 49,170 | 60,923 |
| Utilised in year | (626) | 853 | 227 |
| Increase in provisions | 21,462 | 8,753 | 30,215 |
| At 31 July 2019 | 32,589 | 58,776 | 91,365 |

Pension enhancement

The assumptions for calculating the provision for pension enhancements on termination under FRS 102 are as follows:

| | Consolidated |
|---------------|---------------------|
| Discount rate | 2.05 |
| Inflation | 2.70 |

USS deficit

The obligation to fund the past deficit on the University's Superannuation Scheme (USS) arises from the contractual obligation with the pension scheme for total payments relating to benefits arising from past performance. Management have assessed future employees within the USS scheme and salary payment over the period of the contracted obligation in assessing the value of this provision.

CRANFIELD UNIVERSITY
 NOTES TO THE ACCOUNTS
 FOR THE YEAR ENDED 31ST JULY, 2019
 (continued...)

| | Staff restructuring | Other | Total |
|---|------------------------|-------|-------|
| | £'000 | £'000 | £'000 |
| 17. Provisions for liabilities and charges | | | |
| <i>a. Consolidated</i> | | | |
| At beginning of year | - | 262 | 262 |
| Utilised | - | - | - |
| Released | - | (215) | (215) |
| Charged to income and expenditure account | - | - | - |
| | <hr/> | <hr/> | <hr/> |
| At end of year | - | 47 | 47 |
| | <hr/> | <hr/> | <hr/> |
| <i>b. University</i> | | | |
| At beginning of year | - | - | - |
| Utilised | - | - | - |
| Released | - | - | - |
| Charged to income and expenditure account | - | - | - |
| | <hr/> | <hr/> | <hr/> |
| At end of year | - | - | - |
| | <hr/> | <hr/> | <hr/> |

Other relates to a warranty provision in place over a five year period.

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

18. Endowment reserves

| | Expendable endowments | 2019 Total | 2018 Total |
|--|--------------------------|---------------|---------------|
| | £'000 | £'000 | £'000 |
| Balances at 1 August 2018 | | | |
| Capital | 5,953 | 5,953 | 5,984 |
| Accumulated income | 179 | 179 | 132 |
| | <hr/> | <hr/> | <hr/> |
| | 6,132 | 6,132 | 6,116 |
| New endowments | 693 | 693 | 271 |
| Investment income | 94 | 94 | 90 |
| Expenditure | (389) | (389) | (354) |
| Increase/(decrease) in market value of investments | - | - | 9 |
| | <hr/> | <hr/> | <hr/> |
| Total endowment comprehensive income for the year | 398 | 398 | 16 |
| | <hr/> | <hr/> | <hr/> |
| At 31 July 2019 | 6,530 | 6,530 | 6,132 |
| | <hr/> | <hr/> | <hr/> |
| Represented by: | | | |
| Capital | 6,421 | 6,421 | 5,953 |
| Accumulated income | 109 | 109 | 179 |
| | <hr/> | <hr/> | <hr/> |
| | 6,530 | 6,530 | 6,132 |
| | <hr/> | <hr/> | <hr/> |
| Analysis by type of purpose: | | | |
| Lectureships | 834 | 834 | 840 |
| Scholarships and bursaries | 1,165 | 1,165 | 1,064 |
| Research support | 656 | 656 | 709 |
| Prize funds | 173 | 173 | 172 |
| General | 3,702 | 3,702 | 3,347 |
| | <hr/> | <hr/> | <hr/> |
| | 6,530 | 6,530 | 6,132 |
| | <hr/> | <hr/> | <hr/> |
| Analysis by asset | | | |
| Fixed assets | 339 | 339 | 339 |
| Current and non-current asset investments | 2,810 | 2,810 | 3,052 |
| Cash & cash equivalents | 3,381 | 3,381 | 2,741 |
| | <hr/> | <hr/> | <hr/> |
| | 6,530 | 6,530 | 6,132 |
| | <hr/> | <hr/> | <hr/> |

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

19. Cash and cash equivalents

| Consolidated | Notes | At 1st August 2018 £'000 | Cash Flows £'000 | 31st July 2019 £'000 |
|---------------------------|-------|-----------------------------------|------------------------|----------------------------|
| Cash and cash equivalents | | 5,878 | (2,939) | 2,939 |
| Bank overdraft | 14 | (14,584) | 14,584 | - |
| | | <u>(8,706)</u> | <u>11,645</u> | <u>2,939</u> |

20. Consolidated reconciliation of net debt

| | 2019 £'000 | 2018 £'000 |
|--|---------------|---------------|
| Net debt 1 August 2018 | 37,803 | |
| Movement in cash and cash equivalents | (2,939) | |
| Other non-cash changes | 4,206 | |
| Changes in market value and exchange rates | 106 | |
| Net debt 31 July 2019 | <u>39,176</u> | |
| Change in net debt | <u>1,373</u> | |
| Analysis of net debt: | 2019 £'000 | 2018 £'000 |
| Cash and cash equivalents | | |
| Borrowings: amounts falling due within one year | | |
| Secured loans | 297 | 273 |
| Unsecured loans | 835 | 2,121 |
| Bank overdraft | - | 14,584 |
| Obligations under finance leases | <u>96</u> | <u>96</u> |
| | 1,228 | 17,074 |
| Borrowings: amounts falling due after more than one year | | |
| Service concession liabilities due after one year | | |
| Obligations under finance lease | 171 | 267 |
| Secured loans | 586 | 883 |
| Unsecured loans | <u>37,191</u> | <u>19,579</u> |
| | 37,948 | 20,729 |
| Net debt | <u>39,176</u> | <u>37,803</u> |

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

| | CONSOLIDATED | | UNIVERSITY | |
|---|---------------------|-------------|-------------------|-------------|
| | 2019 | 2018 | 2019 | 2018 |
| | £'000 | £'000 | £'000 | £'000 |
| 21. Lease obligations | | | | |
| Non-cancellable operating lease rentals are payable as follows: | | | | |
| Land and buildings | | | | |
| Within one year | 240 | 264 | 240 | 264 |
| Between two and five years | 268 | 508 | 268 | 508 |
| In more than five years | - | - | - | - |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| | 508 | 772 | 508 | 772 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| Other | | | | |
| Within one year | 149 | 56 | - | - |
| Between two and five years | 57 | 86 | - | - |
| In more than five years | - | - | - | - |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| | 206 | 142 | - | - |
| | <hr/> | <hr/> | <hr/> | <hr/> |

During the year £320,000 was recognised as an expense in the profit and loss account in respect of operating leases (2018 £324,000).

22. Capital and other commitments

| | | | | |
|--|---------|--------|---------|--------|
| a. Commitments contracted but not provided in the accounts | 9,830 | 15,183 | 8,619 | 15,183 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| b. Commitments authorised but not Contracted for | 160,835 | 52,051 | 160,835 | 50,651 |
| | <hr/> | <hr/> | <hr/> | <hr/> |

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

23. Pensions

The two pension schemes for the University's staff are the Universities Superannuation Scheme (USS) and the Local Government Pension Scheme (LGPS) administered by Bedfordshire County Council. The assets of the USS are held in a separate trustee-administered fund and a Pension Fund Investment Advisory Panel is responsible for the investment arrangements of the assets of the LGPS. Both schemes are defined benefit schemes, which are externally funded, valued every three years by actuaries using the projected unit method and are contracted out of the State Earnings Related Pensions Scheme. In the intervening years, the actuaries review the progress of the schemes.

Between October 2011 and March 2016 USS provided two schemes, the first for existing members of staff at 30th September 2011 who were existing members of USS, this scheme had benefits based on final pensionable salary for academic and related employees of all universities in the United Kingdom and some other employers, the second for new entrants (other than in some specific, limited circumstances) were provided on a career re-valued benefit basis. From 1 April 2016 one revised career re-valued benefit scheme has been introduced for all academic and related employees.

LGPS provides similar benefits for other staff of the University, based on their final salary.

Pension costs are assessed, in accordance with the advice of the actuary, based on the latest actuarial valuation of the schemes and are accounted for on the basis of charging the cost of providing pensions over the period during which the University benefits from the employees' services.

USS

The institution participates in Universities Superannuation Scheme. The scheme is a hybrid pension scheme, providing defined benefits (for all members), as well as defined contribution benefits. The assets of the scheme are held in a separate trustee-administered fund. Because of the mutual nature of the scheme, the assets are not attributed to individual institutions and a scheme-wide contribution rate is set. The institution is therefore exposed to actuarial risks associated with other institutions' employees and is unable to identify its share of the underlying assets and liabilities of the scheme on a consistent and reasonable basis. As required by Section 28 of FRS 102 "Employee benefits", the institution therefore accounts for the scheme as if it were a wholly defined contribution scheme. As a result, the amount charged to the profit and loss account represents the contributions payable to the scheme. Since the institution has entered into an agreement (the Recovery Plan) that determines how each employer within the scheme will fund the overall deficit, the institution recognises a liability for the contributions payable that arise from the agreement (to the extent that they relate to the deficit) and therefore an expense is recognised.

FRS 102 makes the distinction between a group plan and a multi-employer scheme. A group plan consists of a collection of entities under common control typically with a sponsoring employer. A multi-employer scheme is a scheme for entities not under common control and represents (typically) an industry-wide scheme such as Universities Superannuation Scheme. The accounting for a multi-employer scheme where the employer has entered into an agreement with the scheme that determines how the employer will fund a deficit results in the recognition of a liability for the contributions payable that arise from the agreement (to the extent that they relate to the deficit) and the resulting expense in profit or loss in accordance with section 28 of FRS 102. The directors are satisfied that Universities Superannuation Scheme meets the definition of a multi-employer scheme and has therefore recognised the discounted fair value of the contractual contributions under the recovery plan in existence at the date of approving the financial statements.

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

23. **Pensions** *(continued...)*

The latest available complete actuarial valuation of the Retirement Income Builder is at 31 March 2017 (the valuation date), which was carried out using the projected unit method. A valuation as at 31 March 2018 is underway but not yet complete.

Since the institution cannot identify its share of USS Retirement Income Builder assets and liabilities, the following disclosures reflect those relevant for those assets and liabilities as a whole.

The 2017 valuation was the fourth valuation for the scheme under the scheme-specific funding regime introduced by the Pensions Act 2004, which requires schemes to adopt a statutory funding objective, which is to have sufficient and appropriate assets to cover their technical provisions. At the valuation date, the value of the assets of the scheme was £60.0 billion and the value of the scheme's technical provisions was £67.5 billion indicating a shortfall of £7.5 billion and a funding ratio of 89%.

The key financial assumptions used in the 2017 valuation are described below. More detail is set out in the Statement of Funding Principles.

| | |
|----------------------------------|---|
| Pension increases (CPI) | Term dependent rates in line with the difference between the Fixed Interest and Index Linked yield curves, less 1.3% p.a. |
| Discount rate (forward rates) | Years 1-10: CPI – 0.53% reducing linearly to CPI – 1.32% Years 11-20: CPI + 2.56% reducing linearly to CPI + 1.7% by year 21 Years 21 +: CPI + 1.7% |

The main demographic assumption used relates to the mortality assumptions. These assumptions are based on analysis of the scheme's experience carried out as part of the 2017 actuarial valuation. The mortality assumptions used in these figures are as follows:

| | |
|----------------------------------|---|
| Mortality base table | 2017 valuation Pre-retirement: 71% of AMC00 (duration 0) for males and 112% of AFC00 (duration 0) for females Post retirement: 96.5% of SAPS S1NMA "light" for males and 101.3% of RFV00 for females |
| Future improvements to mortality | CMI_2016 with a smoothing parameter of 8.5 and a long term improvement rate of 1.8% pa for males and 1.6% pa for females |

CRANFIELD UNIVERSITY
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FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

23. **Pensions** *(continued...)*

The current life expectancies on retirement at age 65 are:

| | 2019 | 2018 |
|-----------------------------------|-------------|-------------|
| Males currently aged 65 (years) | 24.6 | 24.5 |
| Females currently aged 65 (years) | 26.1 | 26.0 |
| Males currently aged 45 (years) | 26.6 | 26.5 |
| Females currently aged 45 (years) | 27.9 | 27.8 |

A new deficit recovery plan was put in place as part of the 2017 valuation, which requires payment of 5% of salaries over the period 1 April 2020 to 30 June 2034. The 2019 pension liability provision reflects this plan. The provision figures have been produced using the following assumptions as at 31 March 2018 and 2019.

| | 2019 | 2018 |
|---------------------------|-------------|-------------|
| Discount rate | 2.44% | 2.64% |
| Pensionable salary growth | n/a | n/a |
| Pension increases (CPI) | 2.11% | 2.02% |

| | | CONSOLIDATED | |
|------------------------------------|----|---------------------|---------------|
| | | 2019 | 2018 |
| | | £'000 | £'000 |
| USS pension provision | | | |
| At beginning of the year | 16 | 11,785 | 11,182 |
| Interest payable | | 282 | 268 |
| Contributions paid against deficit | | (628) | (984) |
| Charged/(credited) in the year | | 21,249 | 1,319 |
| At end of the year | | <u>32,688</u> | <u>11,785</u> |

LGPS

The rate of the University's employer's contributions for LGPS is determined by the actuaries and is presently 19.2% of pensionable salaries. Employee rates for LGPS are statutorily prescribed. Variations from regular cost are spread over the expected average remaining working lifetime of members of the scheme after making allowances for future withdrawals.

The figures disclosed below estimated by the actuary as at 31st July, 2019 have been derived by suitable approximation methods from the full actuarial valuation as at 31st March, 2016. Surpluses or deficits that arise may impact on the University's future contribution commitment.

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
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(continued...)

23. **Pensions** *(continued...)*

The major assumptions used by the actuary as at 31st July, 2019 are as follows:-

| | 2019 | 2018 | 2017 |
|---|------|------|------|
| | % | % | % |
| Salary scale increases per annum | 2.7 | 2.7 | 2.7 |
| Pension increases per annum | 2.4 | 2.4 | 2.4 |
| Discount rate per annum | 2.05 | 2.7 | 2.6 |
| Members opting for enhanced commutation pre 2008 service | 50.0 | 50.0 | 50.0 |
| Members opting for enhanced commutation post 2008 service | 75.0 | 75.0 | 75.0 |

The assumed life expectations on retirement at age 65 are:-

| | 2019 | 2018 | 2017 |
|----------------------|------|------|------|
| Retiring today | | | |
| Males | 20.7 | 22.4 | 22.4 |
| Females | 23.2 | 24.5 | 24.5 |
| Retiring in 25 years | | | |
| Males | 21.7 | 24.0 | 24.0 |
| Females | 24.7 | 26.2 | 26.2 |

The estimated University share of the assets in the scheme and the expected rates of return were:-

| | 2019 | | 2018 | | 2017 | |
|----------|---------------------------------|--------|---------------------------------|--------|---------------------------------|--------|
| | Long term return expected | Assets | Long term return expected | Assets | Long term return expected | Assets |
| | % | £'000 | % | £'000 | % | £'000 |
| Equities | 5.00 | 66,673 | 2.7 | 52,778 | 2.6 | 49,071 |
| Property | 5.00 | 9,416 | 2.7 | 8,190 | 2.6 | 7,614 |
| Bonds | 5.00 | 15,203 | 2.7 | 12,739 | 2.6 | 11,845 |
| Cash | 5.00 | 4,377 | 2.7 | 17,289 | 2.6 | 16,075 |
| | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
| | 5.00 | 95,669 | 2.7 | 90,996 | 2.6 | 84,605 |
| | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |

There is no provision for unitising the assets of a Fund under LGPS. The asset of the scheme, as a whole, is allocated to participating bodies on a consistent and reasonable basis.

CRANFIELD UNIVERSITY
NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

23. Pensions (continued ...)

The University's share of the underlying assets and liabilities are as follows:-

| | 2019 £'000 | 2018 £'000 |
|---|-----------------|-----------------|
| Market value of assets | 95,669 | 90,996 |
| Present value of liabilities | (154,445) | (140,166) |
| Deficit in the scheme – net pension liability recorded within pension provisions (note 16) | (58,776) | (49,170) |
| Current service cost | 3,909 | 3,712 |
| Loss due to curtailments | - | 82 |
| Past service cost | - | - |
| Total operating charge | 3,909 | 3,794 |
| Analysis of the amount charged to interest payable | | |
| Interest on pension scheme liabilities | 3,737 | 3,613 |
| Expected return on pension scheme assets | (2,467) | (2,207) |
| Net charge to other finance costs | 1,270 | 1,406 |
| Total income and expenditure account charge | 5,179 | 5,200 |
| Analysis of other comprehensive income | | |
| Gain on assets | 1,760 | 3,537 |
| Change in demographic assumptions | 6,189 | - |
| Change in financial assumptions | (16,702) | - |
| Experience loss on liabilities | - | - |
| Gain/(loss) on liabilities | - | 2,529 |
| Total other comprehensive income before deduction for tax | (8,753) | 6,066 |
| Cumulative actuarial loss recognised as other comprehensive income for LGPS Scheme | | |
| Cumulative actuarial losses recognised at the start of the year | 1,533 | 7,599 |
| Cumulative actuarial losses recognised at the end of the year | 10,286 | 1,533 |
| Analysis of movement in deficit during the year: | | |
| Deficit in scheme at beginning of the year | (49,170) | (54,404) |
| Movement in year: | | |
| Current service cost | (3,909) | (3,712) |
| Contributions | 4,326 | 4,368 |
| Past service cost | - | - |
| Curtailment cost | - | (82) |
| Other finance charge | (1,270) | (1,406) |
| Actuarial (loss)/gain | (8,753) | 6,066 |
| Deficit in scheme at end of the year | (58,776) | (49,170) |

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NOTES TO THE ACCOUNTS
FOR THE YEAR ENDED 31ST JULY, 2019
(continued...)

23. **Pensions** *(continued ...)*

| | 2019 | 2018 |
|---|---------|---------|
| | £'000 | £'000 |
| Analysis of movements in the present value of the scheme liabilities:- | | |
| Present value at beginning of year | 140,166 | 139,009 |
| Current service cost (net of member contributions) | 3,572 | 3,712 |
| Interest cost | 3,737 | 3,613 |
| Contributions by members (including notional contributions) | 609 | 602 |
| Actuarial losses/(gains) | 10,513 | (2,529) |
| Losses on curtailments | - | 82 |
| Actual benefits paid | (4,152) | (4,323) |
| | 154,445 | 140,166 |
| Analysis of movement in the fair value of the scheme assets:- | | |
| Fair value at beginning of year | 90,996 | 84,605 |
| Expected return on assets | 2,467 | 2,207 |
| Contributions by members | 609 | 602 |
| Contributions by the employer | 4,326 | 4,368 |
| Actuarial gains | 1,760 | 3,537 |
| Actual benefits paid | (4,152) | (4,323) |
| Administration expenses | (337) | - |
| | 95,669 | 90,996 |

Estimated contributions for LGPS in the Financial year 2020 is £4,381,000 (Financial Year 2019 £4,316,000).

In addition to the main schemes described above, some of the subsidiaries operate their own pension schemes, details of which can be found in the individual company accounts.

| | £'000 | £'000 |
|-------------------------|-------|-------|
| 24. Access funds | | |
| Funding Council grants | - | - |
| Disbursed to students | - | - |
| | 9 | 9 |

Funding Council grants are available solely for students: the University acts only as paying agent. The grants and related disbursements are therefore excluded from the income and expenditure account.

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NOTES TO THE ACCOUNTS
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(continued...)

25. Related party transactions

The following exemptions available under FRS 102 have been applied to these financial statements:

- Disclosures in respect of transactions with wholly owned subsidiaries

| | CONSOLIDATED | | UNIVERSITY | |
|---|--------------|----------|------------|----------|
| | 2019 | 2018 | 2019 | 2018 |
| | £'000 | £'000 | £'000 | £'000 |
| 26. Financial instruments | | | | |
| Financial assets at fair value through the comprehensive income account | 3,263 | 2,965 | 3,207 | 2,965 |
| Financial assets that are debt instruments measured at amortised cost: | | | | |
| Other investments measured at amortised costs | 418 | 401 | 418 | 401 |
| Trade debtors | 24,704 | 20,862 | 23,305 | 19,732 |
| Other debtors | 6,024 | 4,027 | 4,750 | 2,834 |
| | 34,409 | 28,255 | 31,680 | 25,932 |
| Financial liabilities measured at amortised cost: | | | | |
| Secured loans | (883) | (1,156) | (883) | (1,156) |
| Unsecured loans | (38,026) | (21,700) | (38,026) | (21,700) |
| Trade creditors | (27,675) | (23,174) | (28,257) | (21,254) |
| Accruals | (10,577) | (11,158) | (9,165) | (9,719) |
| Social security and other tax payable | (2,419) | (2,777) | (2,269) | (2,230) |
| | (79,580) | (59,965) | (78,600) | (56,059) |

27. Post balance sheet events

Since the year end, following the completion of the 2018 actuarial valuation, a new deficit recovery plan has been agreed. As at 31 July 2019 and with all other assumptions used to calculate the provision unchanged, this would have resulted in a revised provision of £19,323,000, a decrease of £13,365,000 from the current year end provision. This is being funded by increasing the employers contribution rate from the 1st October 2019 from 19.5% to 21.1% and the employees contribution rate from 8.8% to 9.6%.