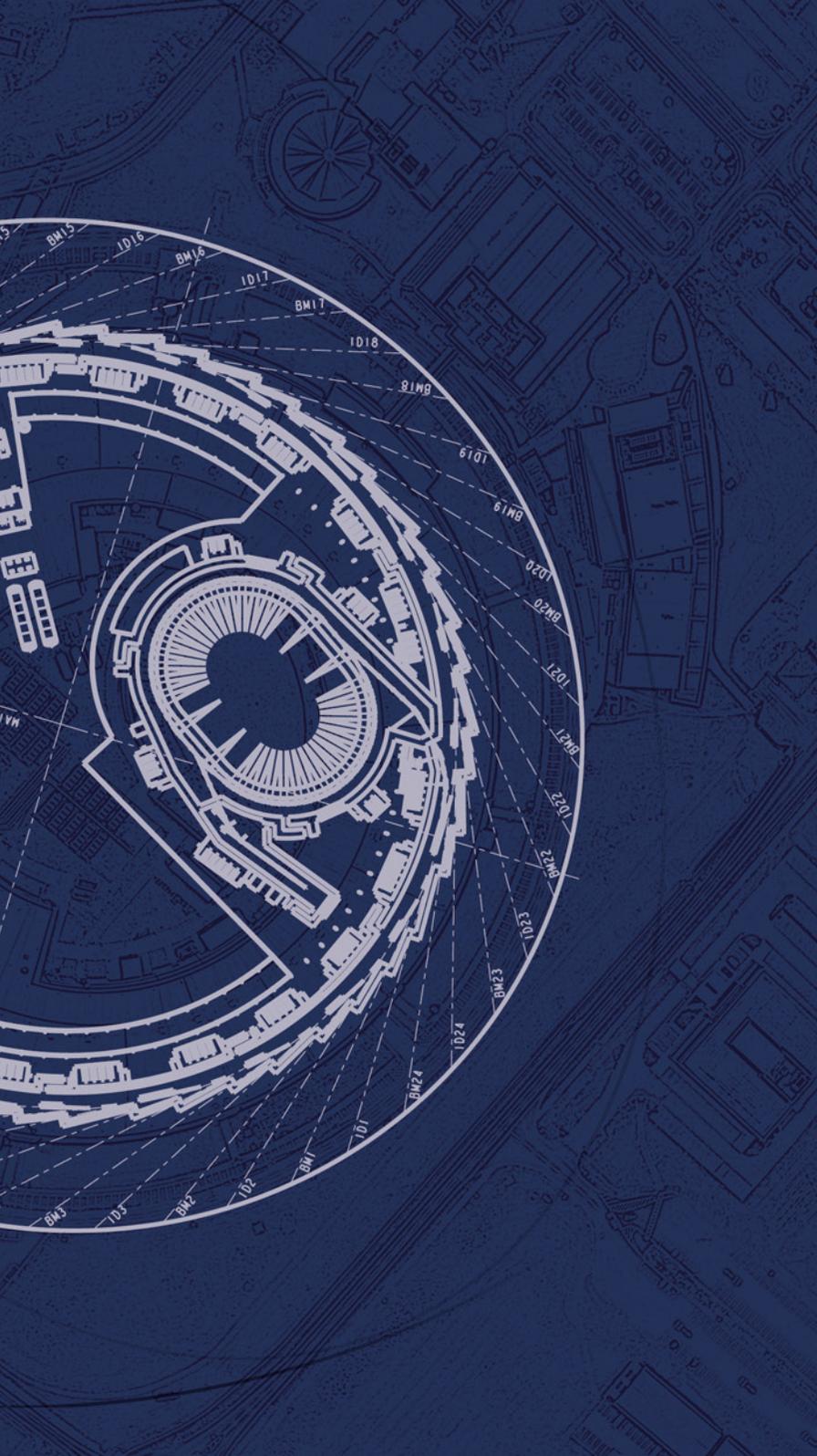




Diamond Light Source

Director of Physical Sciences

October 2021





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Executive Summary

Diamond Light Source is one of the most advanced scientific facilities in the world, and its pioneering capabilities are helping to keep the UK at the forefront of scientific research. The facility is at a turning point with all instruments now fully operational. The Physical Sciences are pivotal to the delivery of the scientific programme, already accounting for 55% of the overall scientific articles delivered by the facility. This is set to grow over the next 5 years with new instruments, including for example our Dual Imaging and Diffraction (DIAD) beamline, which is positioned to deliver first class science. Alongside this growth in scientific outputs, Diamond is planning for a major upgrade to deliver a 4th generation high brilliance synchrotron light source with an increased energy of 3.5 Giga electron volts (GeV) to significantly enhance output in the hard X-ray range. The upgrade of the source will be matched by upgrades to the existing instruments and some completely new instruments, designed to enable scientists and engineers to undertake highly innovative research across a wide range of fields, with a wide variety of potential applications impacting industrial competitiveness and quality of life.

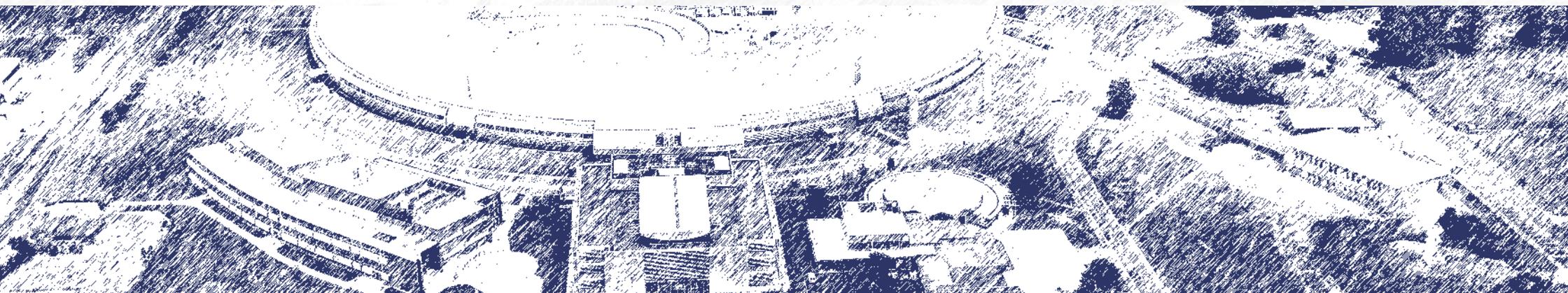
In addition to its synchrotron-based instruments, Diamond also offers complementary access to a range of advanced electron microscopes and other laboratories. One such facility is the electron Physical Sciences

Microscopy Centre (ePSIC) in collaboration with the University of Oxford and the company Johnson Matthey.

Diamond offers its facilities free at the point of use and is available to researchers through a competitive internationally reviewed application process, provided that results are published in the public domain. Over 14,000 researchers from across life and physical sciences from both academia and industry conduct experiments at Diamond.

Diamond is a dynamic organisation employing around 800 people from around the world, and is set-up as a not-for-profit limited company funded as a joint venture between the UK Government through UK Research & Innovation (UKRI) and Wellcome.

We are now seeking a new Director of Physical Sciences. A world-class academic or facility scientist, the successful candidate will have had significant leadership experience within a complex scientific environment and be confident in engaging with diverse stakeholders in academia, industry and government. The Director will provide vision and leadership, will promote a world-class experimental programme, play a key role in the Executive Management team and will be responsible for strong engagement with the user community and the main Diamond Board of Directors.



About Diamond

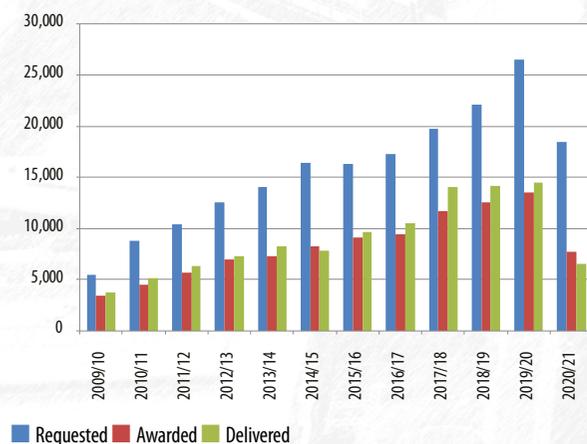
Diamond Light Source, the UK's national synchrotron science facility, is located at the Harwell Science and Innovation campus in South Oxfordshire. This state-of-the-art 3rd generation medium energy synchrotron light source, which was opened to users in 2007, hosts 33 cutting-edge research stations/beamlines supporting the life, physical and environmental sciences, engineering disciplines and other fields.

Diamond now employs approximately 800 scientists, engineers, technicians and support staff from over 40 countries worldwide.

Our fourteenth year of operations (1st April 2020 to 31st March 2021) was affected by the COVID-19 pandemic. With weekly operating hours reduced to four days, there was less experimental time available, and the user programme was adjusted as a result. There was a limited call for proposals, which had an impact on the number of submitted and awarded proposals, as well as the number of awarded shifts.

The graph below demonstrates the supply and demand for access to Diamond over the past decade.

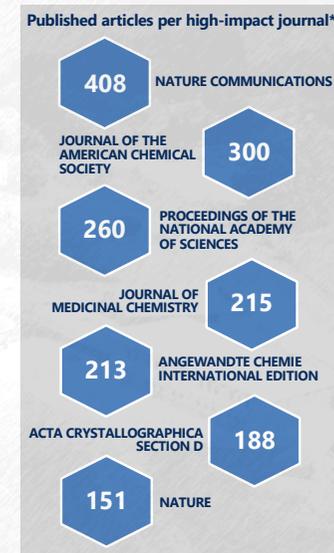
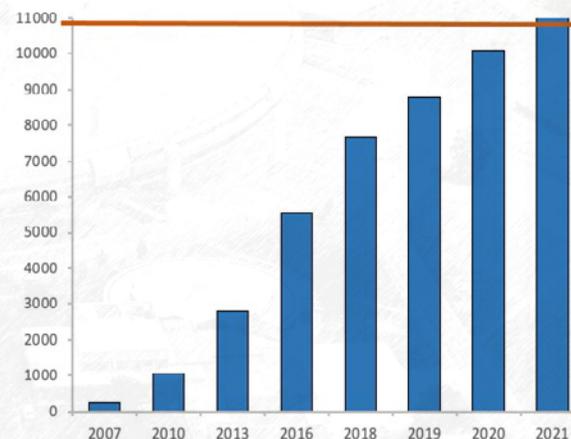
Total user shifts requested, awarded and delivered



Altogether these instruments deliver first-class scientific output in the form of peer-reviewed papers. To date, the facility has delivered over 11,000 peer-reviewed publications and the graph below highlights the increase in outputs linked to the growths of instruments on offer.

Diamond has made a commitment to publishing in Gold open access with now almost 50% of publications delivered by this mechanism. Over 35% of the total published peer-reviewed articles have been published in journals with an impact factor 7* or above.

Cumulative published journal articles



To continue delivering the world-changing science that Diamond enables, [the Diamond-II upgrade](#) is proposed. It is a co-ordinated set of activities that combines a major machine upgrade with new instruments and complementary improvements to optics, sample environment and delivery capabilities, and computing, as well as integrated and correlative methods and services. This will be transformative in speed and spatial resolution and will offer users streamlined access to enhanced instruments for life and physical sciences.

Governance

Diamond Light Source Ltd was established in 2002 as a joint venture limited company funded by the UK Government through the UKRI's Science and Technology Facilities Council (STFC) and by Wellcome, owning 86% and 14% of the shares respectively.

To ensure high standards of operation and research, Diamond engages with several advisory bodies. This page outlines the role each of these bodies plays in safeguarding Diamond's high quality scientific output.

The Scientific Advisory Committee (SAC)

The SAC advises the CEO and the Science Directors on scientific and technical issues. They provide advice on matters relating to:

- The specification, design, commissioning and operation of Diamond Light Source.
- Experimental and user support facilities.
- Opportunities for scientific exploitation of the facility.
- Other matters identified by the management team at Diamond.

Diamond Industrial Science Committee (DISCo)

As part of the process of engaging with the industrial science community, Diamond established the DISCo. The group advise the CEO and Directors of Diamond on all matters relating to industry and industrial users of the facility, including:

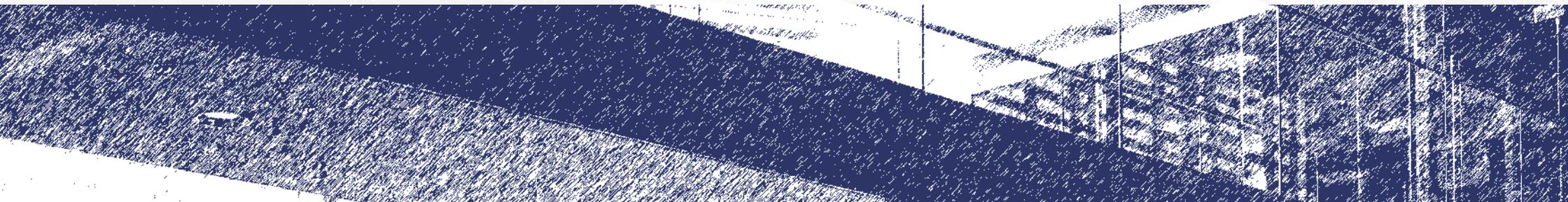
- Opportunities to engage industry.

- Industrial research priorities that will help shape the operational strategy of Diamond – including how best to exploit current beamlines, and how to develop the case for investment in future beamlines.
- Best practice for industrial engagement with Diamond, including research collaboration agreements with industry, the handling of intellectual property and the dissemination of research results.
- Other matters as agreed with the CEO and the Directors of Diamond.

Diamond User Committee (DUC)

Diamond recognises that close interaction with the user community is essential, both to providing a premium service and to reaping the maximum benefit from investment in Diamond. The DUC is a platform for discussion between Diamond and the user community on matters relating to the operation and strategy of the facility. The DUC committee:

- Provides a platform for discussion between Diamond and the user community on operational and strategic matters.
- Advises on instrumentation, software, support facilities and on other strategic issues.
- Represents the views of users within the different science groups.
- Assists with the development and management of user workshops and meetings.
- Works with Diamond to extend the facility's impact to the wider community.



Management Team

The Executive management team comprises, in addition to the Physical Sciences Director:

Professor Andrew Harrison was appointed CEO of Diamond Light Source in 2013. He was previously Director General of the Institut Laue-Langevin (ILL) in Grenoble, France, where he worked since 2006. Professor of Solid-State Chemistry at the University of Edinburgh since 1999 and founding Director of their Centre for Science at Extreme Conditions, Professor Harrison brings a wealth of experience of scientific leadership to the organisation

Professor David Stuart FRS joined Diamond Light Source as Director of Life Sciences in 2008. He retains a position as MRC Professor of Structural Biology at the Department of Clinical Medicine, the University of Oxford. His principal research interests, in addition to methods development, include the structure of viruses and their interaction with cells.

Professor Richard Walker joined Diamond Light Source as Technical Director in January 2002. He was a key member of the Daresbury Laboratory SRS team for over 12 years before joining Sincrotrone Trieste in Italy where, as Director of the Light Sources Division, he was responsible for the development of ELETTRA. Professor Walker is visiting Professor of Physics at the University of Oxford.

Andrea Ward joined Diamond Light Source as Director of Finance and Corporate Services in 2019, with 15 years' experience as a Senior Finance professional. During a 12-year tenure at Vertex Pharmaceuticals, she worked with the Board to lead finance and procurement functions in Europe, later moving to Canada with the business to assist with acquisition and commercialisation opportunities. Andrea has also worked at ResMed and the Ontario Lottery and Gaming corporation.

Board of Directors

Prof Sir Adrian Smith	Chairman
Prof Andrew Harrison	<i>Chief Executive Officer, Diamond Executive Director</i>
Andrea Ward	<i>Director of Finance and Corporate Services, Diamond Executive Director</i>
Anna Curson	<i>Non-Executive Director, representing Wellcome Strategic partnership manager, F1000</i>
Marshall Davies	<i>Non-Executive Director</i>
Prof Michael Fitzpatrick	<i>Pro-Vice-Chancellor (Executive Dean) at Coventry University Non-executive Director</i>
Prof Mark Thomson	<i>Non-executive Director UKRI's STFC</i>
Prof Keith S. Wilson	<i>Professor of Chemistry at the University of York Non-Executive Director</i>



The Divisional Structure

Day-to-day operational management is carried out through a Divisional structure, with four Divisional Directors (the Technical Director, the Life Sciences and Physical Sciences Directors, and the Finance and Corporate Services Director) who are brought together in the Executive team led by the CEO. In addition, there is a CEO Divisional Office. The Executive team meets twice per month.

The science activity is grouped into physical and life science, each led by a Science Director, who work together to deliver the overall programme. There are currently 8 Science Group Leaders representing the various facets of the science delivered at Diamond.

Five of these are within the Physical Sciences Division:

- Imaging and Microscopy
- Structures and Interfaces
- Magnetic Materials
- Crystallography
- Spectroscopy

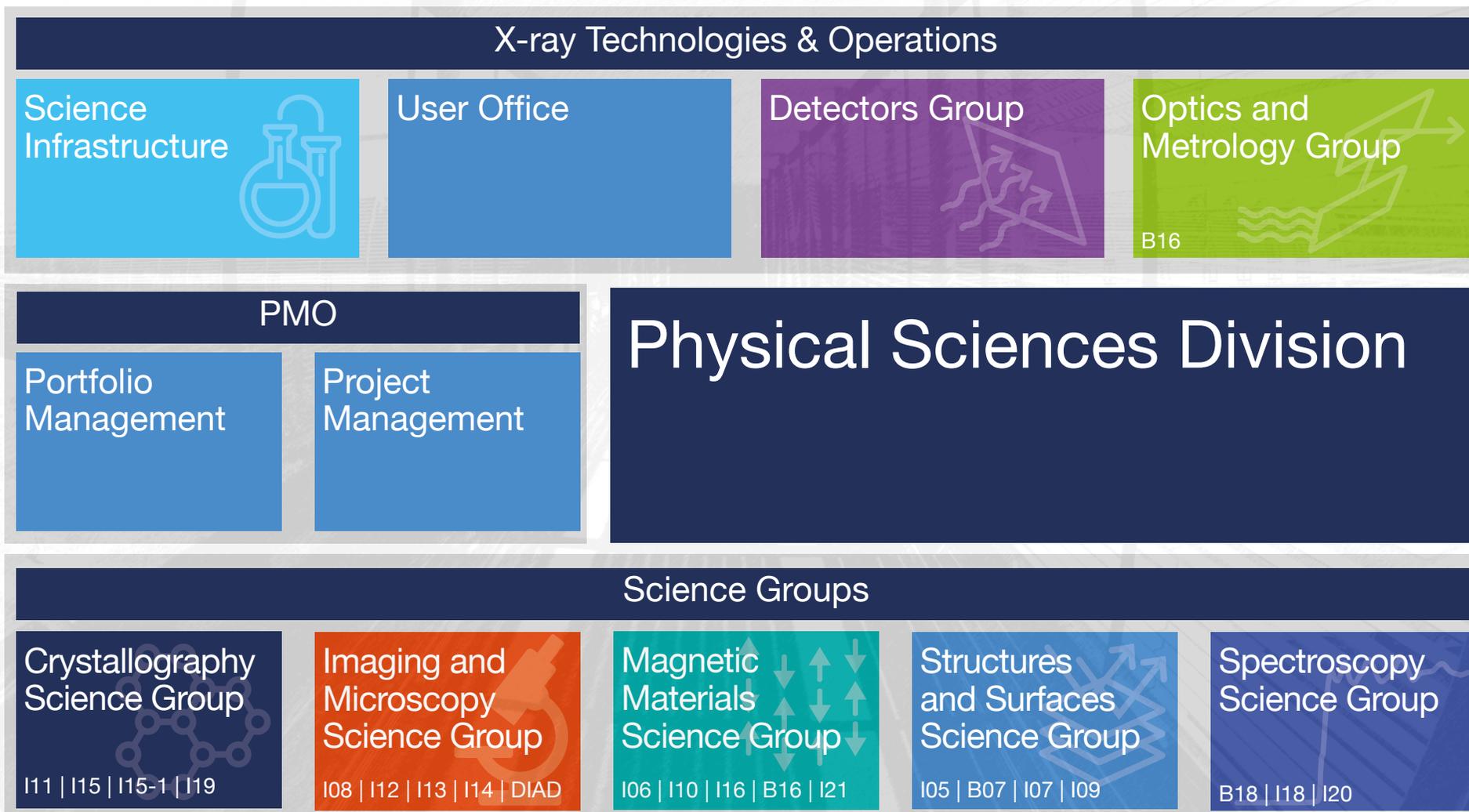
In addition to these scientific areas, the Physical Sciences directorate leads on some of the technology underpinning the instruments on offer. This includes detectors, optics and metrology and the test beamline B16. The Physical Sciences director is also responsible for the project management office, the coordination of scientific infrastructure, and user office.



The Divisional Structure

The 5 Science Group Leaders within Physical Science provide a key link in discussing operations and developing strategy within the Division. The

staffing profile for the Physical Science Division as of 2021 is shown in the attached illustrative organogram below:



The Director of Physical Sciences

The Director will be expected to provide overall strategic leadership, direction and management for the functional areas of the Science Division in the Physical Sciences. You will be responsible for reporting to the Diamond Board on the relevant operational aspects of the company.

As the Physical Sciences Director you will be part of the Executive management team of Diamond along with the Chief Executive Officer, the Technical Director, the Director for Finance and Corporate Services and the Life Sciences Director. You will be expected to contribute to the executive management of the company and to provide strategic leadership and management of assigned functional areas.

Reporting to the Chief Executive Officer, as an innovative and influential Physical Scientist or instrumentation scientist you will be responsible for making Diamond deliver an outstanding Physical Sciences programme. This will include, in collaboration with Life Sciences and Technical Division:

- In consultation with the funding agencies and the user community, define the scope and aims of the research programme and mechanisms for its evaluation.
- Maintain world-class operation of the beamlines and instruments.
- Delivery of a vibrant science programme with the user community.
- Recruit and retain a highly effective team of scientists, technicians and staff.
- Provide scientific leadership to the beamline and technology upgrades as well as new beamlines as part of Diamond-II.
- Oversee the scientific project portfolio.
- Engage closely with stakeholders such as funding agencies and contribute to the strategic vision for the Harwell Campus.



Further Duties and Key Accountabilities

To contribute to the strategic development and executive management of the company and provide advice, information and support as required to the CEO, other Directors and the Board; to lead and manage the Physical Science Division.

Specific duties:

- Definition of the science programme and liaison with the funding agencies.
- Establishment of a procedure for the evaluation of the science programme.
- Ensure optimum performance of all physical sciences instruments (beamlines, microscopes, laboratories etc) and evaluate it periodically.
- Plan for the future technology requirements for all beamlines and facilities.
- Ensure there is a strong and developing scientific team closely engaged in an excellent in-house science programme and science culture as well as a vibrant user research programme.
- In collaboration with the Life Sciences Director, manage and optimise the effectiveness of the Science Advisory Committee.
- Establishment of a programme for the promotion of the research activity and outreach to potential new users and industry.
- Contributing to the overall program of science for the Diamond-II upgrade.

- Scientific leadership of grant funding bids to maximise presence in the Research Complex at Harwell, to foster collaboration with the Faraday Institution, ISIS neutron and muon source and other on Campus facilities.
- Develop scientific synergies with other facilities on the Harwell Campus through joint studentship programmes.
- Progress a financial strategy, manage budgets and control divisional expenditure within agreed budgets

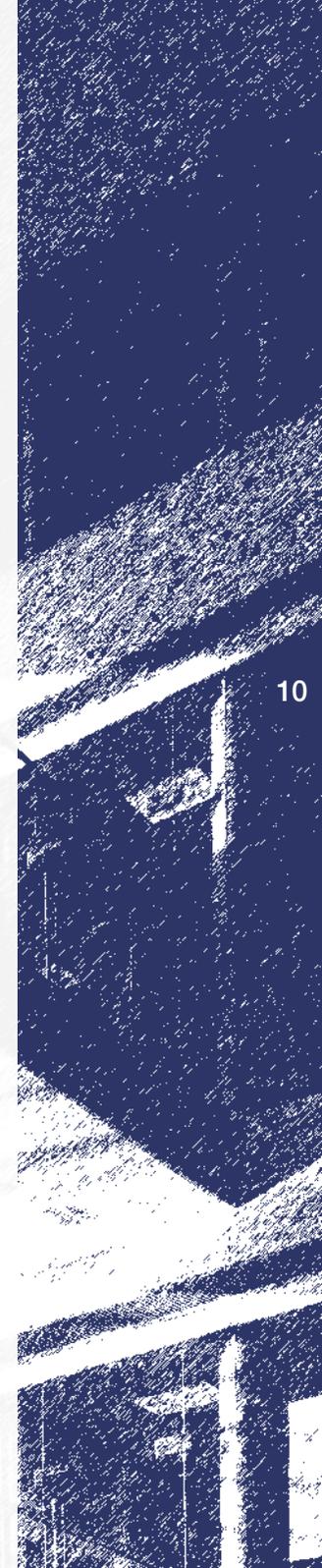
Key Accountabilities:

Managerial:

- Plan, develop and implement a divisional strategy.
- Lead, inspire and develop staff.

Organisational:

- Ensure compliance with quality management, health and safety, legal requirements, environmental policies and a general duty of care.
- Contribute to the development and evaluation of company strategic objectives in co-operation with the executive team.
- Contribute to the management of communications and awareness of corporate direction, mission, aims and activities.



Selection Criteria

The successful candidate will have the following essential qualities:

- Proven record of scientific achievement in Physical Science at international level.
- Experience of synchrotron science research.
- Excellent knowledge of, and standing in, the national and international scientific community with the ability to represent the Division effectively at a high level.
- Experience in developing scientific strategies at scale.
- The ability to work to deadlines and within funding constraints and deal effectively with external bodies, including industry, government, and major national and international research facilities.
- Successful leadership and line management experience of a major scientific project or organisation, with evidence of the vision and leadership.

- Ability to encourage teamwork and innovation and the ability and standing necessary to gain and retain confidence across the division.
- Ability to foster a strong creative, inclusive and honest research culture, to promote science and to communicate with other experts and the wider public
- Demonstrable collaboration and negotiation skills to deal effectively with a range of issues and external stakeholders.
- Ability to plan and manage resources, particularly financial and staff, with attention to detail ensuring capabilities are delivered on time, on budget and to specification.

Desirable

- Appropriate instrument development experience
- UK funding agency experience

Further Information

- The salary will be commensurate with experience and the seniority of the post.
- This opportunity is on a permanent contract basis.
- The extent of the Company's claims to intellectual property and associated issues will be set out in the contract of employment.
- The role holder is required to abide by the terms and conditions of the Company's policies and will be required to make a personal declaration on an annual basis about any potential conflict of interest they may have within their area of responsibility.
- An excellent benefits package is offered to support a positive work/life balance, including a generous leave allowance and Christmas closure, flexible working hours and an exceptional public sector pension scheme. There is also access to a range of amenities on site.
- Assistance with relocation and visa costs will be offered where applicable.

Deadline for applications:

3rd January 2021

Interviews: January 2022

To apply [click here](#)

Please outline your suitability for the role and indicate your salary expectations.

For more information contact
recruitment@diamond.ac.uk

