Science & Society

In an increasingly short-term world, philanthropy has a vital role to play in maintaining freedom of long-term scientific enquiry at the world's leading universities, in expanding the frontiers of knowledge and nurturing the next generation of scientific pioneers and Nobel laureates. The University has a proud tradition of delivering a 'public good' through its leadership in science. Today's University, which houses some of the top scientific research teams in the UK, continues to understand the vital importance of maintaining an appropriate balance between basic, strategic and applied scientific research. The University is central to new approaches and partnerships in several vital sectors, including:

Sustainable Energy: Manchester is committed to playing its full part in developing new energy sources and solutions for future generations through its own technological research as well as through evolving national and international partnerships. The Dalton Nuclear Institute is at the forefront of research and development in nuclear science and engineering, with strong interests in disposal, decommissioning, safety and imaging. The University's Energy Systems team covers internationally-recognised work on fuel cells, electrical power engineering, plasma chemistry, power conversion and control systems, and links this research into new discoveries in the fields of environmental genomics and environmental geochemistry. Manchester is also at the forefront of renewable energy technologies, including the 'Manchester Bobber', a unique and patented wave energy device.

Aerospace: The University's standing in this field is evidenced by its partnership with the University of Washington at Seattle, supported by a £1.5 million grant to develop new composite technologies and materials for future aircraft design. A major focus is to develop more fuel-efficient aircraft in order to reduce carbon emissions.

Biosciences: The £35 million Manchester Interdisciplinary Biocentre (MIB), opened in 2006, seeks to understand living systems in terms of the properties of their constituent molecules. Quantitative and integrative approaches draw on skills, expertise and instrumentation from the physical sciences, engineering, mathematics and computer science, working with colleagues from life sciences in new cross-cutting research groupings.

Photon Science - or 'light for science': The £40 million Photon Science Institute encompasses the application of light in many diverse fields. Research focuses on the development and application of new and existing laser technologies and systems spanning medicine, pharmaceuticals, the life sciences and the physical sciences.

The University is also committed to enhancing the public understanding of science and runs the most widely-recognised science facility in the UK – the Jodrell Bank Observatory (part of University's School of Physics and Astronomy). The Observatory is home to the Lovell Radio Telescope and the MERLIN/VLBI National Facility. It first caught public imagination in 1957 when it was able to track the launch rocket of the first Russian Sputnik – the only place in the world able to do so. The Observatory has since become known for its work in a broad range of astronomy and remains a place of learning, teaching and research. The University is committed to building a new Science Discovery Centre at Jodrell to provide a new type of cultural space within which people can engage with science, seeking to inspire the scientists of the future.