

BUSINESS ENGAGEMENT CASE STUDY

BP

Working together to keep BP's highly skilled workforce at the top of its game, inspire the next generation of scientists and engineers and drive innovation in sustainable energy.

Photographs provided by BP p.l.c.

The University of Manchester has been collaborating with BP for more than five years, helping to ensure the company has the technical capability and strong leadership to stay at the leading edge of its field.

Like many others, the partnership began with a number of individual research and graduate recruitment activities. Over time this has evolved into a strategic alliance that has a major impact on both organisations, and is helping to put innovation and research at the heart of economic growth in the UK.

Today, BP and The University of Manchester work together across a number of key areas:

EXECUTIVE EDUCATION

In 2008 BP selected The University of Manchester to host its prestigious Projects and Engineering College. We now support BP's education agenda through two professional development programmes designed to boost high-level engineering management and project skills. To date more than 600 senior staff have completed the courses, which bring together internationally recognised academic research and teaching with the practical knowledge and experience of BP's chief engineers.

RESEARCH

We are working with BP on a range of research projects across the University. Among these is a collaborative research programme, with the University's School of Materials and Massachusetts Institute of Technology (MIT), to investigate corrosion science and technology for oilfield exploration and production. Launched in 2012, the collaboration benefits from a BP funded research laboratory in corrosion, a new Engineering Chair in Materials and Corrosion, plus the support of more than 70 students and research workers and 11 academic staff. In 2012 our research links were strengthened further by the establishment of a \$100m International Centre for Advanced Materials (BP-ICAM) – more details overleaf.

RECRUITMENT

Science and engineering education is critical to the UK's long-term future and we are working in partnership with BP to promote careers in the energy sector throughout the University. Our joint campus team works across departments to raise awareness of graduate opportunities at BP and give students the chance to meet BP staff, while our Early Engagement programme offers 1st and 2nd year undergraduates practical insights into working for the company.

SCHOLARSHIPS AND INTERNSHIPS

BP has made a significant investment in undergraduate and postgraduate scholarships to support the next generation of engineers and scientists. It is also nurturing its own future leaders through a programme of internships and scholarships specifically for students who want to work with BP.

APPLICATION OF SCIENTIFIC KNOWLEDGE

BP shares its expertise and experience with staff and students through additional activities ranging from guest lectures and case studies for science and engineering courses, to sitting on advisory boards and developing the curriculum.

WHAT DOES BP GET FROM THE PARTNERSHIP?

- * INTELLECTUAL INSIGHTS FROM WORLD-LEADING RESEARCHERS
- * SHARING OF MATERIALS, EQUIPMENT, KNOWLEDGE AND PRACTICE
- * ACCESS TO A POOL OF TALENTED STUDENTS AND GRADUATES
- * STRATEGIC RELATIONSHIP WITH AN INTERNATIONALLY RENOWNED UNIVERSITY

WHAT DO WE GET FROM THE PARTNERSHIP?

- * COMMERCIAL INSIGHT THAT INFORMS AND DIRECTS OUR RESEARCH
- * INDUSTRY INPUT INTO CURRICULUM DEVELOPMENT
- * ENHANCED TEACHING AND LEARNING ENVIRONMENT
- * PUTTING OUR RESEARCH ACTIVITY IN AN INDUSTRIAL CONTEXT

Manchester has world-leading capabilities and facilities in materials and was chosen after a global search to act as the 'hub' of the centre. We look forward to deepening further the very productive partnership that already exists between our professionals in BP and the academic team at Manchester.

BOB DUDLEY,
GROUP CHIEF EXECUTIVE,
BP



INTERNATIONAL CENTRE FOR ADVANCED MATERIALS (BP-ICAM)

THE BACKGROUND

BP operates in highly aggressive environments using complex chemical mixtures. Advanced materials and coatings will be vital in finding, producing and processing energy safely and efficiently in the years ahead, as energy producers work at unprecedented depths, pressures and temperatures, and as refineries, manufacturing plants and pipeline operators seek ever better ways to combat corrosion and improve their operations.

THE CHALLENGE

To develop advanced materials with superior toughness, hardness, durability and elasticity, and find new and more efficient ways of using and generating power with a paramount regard for the impact on the environment.

THE SOLUTION

BP has established a \$100m International Centre for Advanced Materials (BP-ICAM), based at The University of Manchester, to support fundamental science and the engineering application of advanced materials for use in the energy sector. The ten-year investment will see Manchester acting as the 'hub' of the Centre, with 'spokes' in three world-leading universities – University of Cambridge, Imperial College London and University of Illinois at Urbana-Champaign – which have specific areas of expertise.

Our initial focus at Manchester will be on developing smart coatings to increase protection from the elements and improve a structure's usable life, and protect pipelines and offshore platforms from corrosion.

THE IMPACT

ON BP:

The ability to apply cutting edge research from around the world to finding new ways to build, operate and maintain equipment; manufacture cleaner and more efficient products; develop imaginative energy sources and then store that energy for when it is needed most; and increase the use of lighter metals and composites for structures and products.

ON THE UNIVERSITY PARTNERS:

The BP-ICAM will create 25 new academic posts, at least 100 PhDs and 80 post-Docs, raise the global profile of each partner university and maintain the world-leading status of the UK in the research and development of advanced materials.

ON SOCIETY:

The BP-ICAM will help the UK to meet its targets for cleaner, more sustainable energy production, and ensure that lower carbon fuels, such as gas, continue to play an important role in the nation's energy mix. It will also help Britain maintain its competitive edge in science and promote itself as a great place for energy companies to do business.

