

New tech teams to protect dolphins and create next generation of super strong aluminium

New pioneering technologies set to be developed in the UK as part of 4 new partnerships between businesses and universities.

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- Ground-breaking new technologies to help tackle global challenges – from noise reduction equipment that protects marine life to recyclable high strength alloys for vehicles – will be developed in the UK as part of new university-industry partnerships
- the government is investing £12 million in 4 new partnerships between companies such as GlaxoSmithKline, BAE Systems and Dyson and universities in England and Scotland
- programme has secured £17.5 million of industry-backing and projects will support the government's aim through its modern Industrial Strategy's to raise public and private R&D spend to 2.4% of GDP by 2027

New pioneering technologies to develop super-strong alloys in vehicles, cut noise from boats and speed up the manufacturing of medicines are set to be developed in the UK as part of 4 new partnerships between businesses and universities.

The news comes ahead of a landmark speech by the Science Minister Chris Skidmore at the Institute of Chemical Engineering. Later today the Minister will stress the importance of both government and industry contributing to the Industrial Strategy ambition of raising public and private investment in research and development to 2.4% of GDP by 2027.

Projects announced today help ensure it is UK industry and academia that lead the way in bringing new products to market that contribute to tackling some of the biggest challenges of a generation, with products to address climate change and others to help meet the needs of an ageing society.

Welcoming the news, Science and Innovation Minister Chris Skidmore said:

The UK is home to world-beating businesses and researchers and these partnerships will grow that reputation, bringing together the best minds from industry and academia to create technologies that address generational challenges facing the globe.

Research and development is the cornerstone of our modern Industrial Strategy and we are spending record amounts to build on the strengths of this research base. Through it we are committed to making sure the UK blazes a trail in innovating and capitalising on the opportunities presented by the global transition to cleaner, greener economies. The partnerships we've unveiled today will help us do just that.

The new projects are being led by R&D intensive companies and include involvement from five leading universities in England and Scotland. They include:

- developing new materials that do not make noise underwater, led by BAE Systems with the University of Southampton, the University of Nottingham and Lloyd's Register. Noise pollution can cut the life-expectancy of fish, dolphins and other marine life, while also affecting human health, and these new materials will help protect vulnerable marine life
- using AI and machine learning to speed up production of new medicines from vaccines to tablets in order to get them from the lab to the clinic faster, led by GlaxoSmithKline with the University of Strathclyde with University of Nottingham
- developing a new range of fully recyclable ultra-high strength aluminum alloys for the automotive industry, led by Constellium and Brunel University
- creating the next generation of household products using AI to pave the way for robots to complete advanced household tasks, led by Dyson and Imperial

The projects, which join the 11 earlier collaborations announced in 2018, will be funded with £12 million from the Engineering and Physical Sciences Research Council (EPSRC), part of UKRI, and have leveraged £17.5 million in cash or in-kind contributions from industry.

The partnerships are an important step towards meeting the commitment of boosting private and public sector investment in R&D by 2.4% of GDP by 2027, as set out in the government's modern Industrial Strategy.

Professor Lynn Gladden, EPSRC's Executive Chair, said:

These 4 Prosperity Partnership projects link the UK's world-class research base to some of the country's most successful industries. As these proposals were advanced by business, they will address challenges that are relevant to industry's need but will also advance science and engineering.

The value industry places on these collaborations is evident from the level of finance and resource committed in each of the partnerships.

The government's modern Industrial Strategy sets out a long-term plan to boost the productivity and earning power of people throughout the UK. It sets out how we are building a Britain fit for the future – how we will help businesses create better, higher-paying jobs in every part of the UK with investment in skills, industries and infrastructure.