

Delivering Impact

Impact is the demonstrable contribution that excellent research makes to society and the economy

Metamaterials

Original work by Professor John Pendry, Imperial College, inspired by consultancy for Marconi to provide a theoretical understanding of materials absorbing radar

New field of materials which control electromagnetic properties through their structure rather than chemistry; applications in optics, data storage, radar and MRI scanning

“Having great ideas doesn't involve excessive time. But what does take time is working them through.”

EPSRC grants and senior fellowship 2003-08

Working with business can inspire great research

Ultra precision manufacturing

SERC funding to produce mirrors for X-ray space telescopes in the late 1970s led to the Cranfield-led ultra precision facility

Between 2007 and 2013 EPSRC funded the UPS² Innovation and Knowledge Centre (IKC) led by Professor Paul Shore

14 projects tackled issues and opportunities in ultra precision and structured surfaces

Led to a unique manufacturing capability with customers including NASA, NPL, RAL and European Southern Observatory in Chile

Innovation and Knowledge Centres support emerging technologies and industries

Verified systems

University of Oxford researchers, led by Professor Bill Roscoe pioneered Failures Divergence Refinement (FDR); a tool which verifies mathematically that systems perform as they should

Fundamental research into verified systems was led by Professor Sir Tony Hoare and supported by EPSRC since 1989

FDR has been used by QinetiQ in the Eurofighter Typhoon aircraft

Two graduates from Oxford set up Verum, which markets a tool based on FDR, allowing developers to create 'right first time' code

Used in the world's fastest pathology scanner made by Philips Health Care

iStockphoto

We provide flexible funding to develop opportunities for impact

Rheology of blood

Professor Rhodri Williams was a rheology engineer working on motor oils until a serendipitous meeting with a clinician

EPSRC support and other funding from Welsh Government, NISCHR and commercial sources over an eight year period for research into the little understood rheology of blood and blood clots

Research led to potential uses in disease screening and therapeutic monitoring

New spin out company created and relocation of existing company to Swansea to work with the group

Professor Williams received IChemE Industry award and Royal Society Brian Mercer Award

We ask all our researchers to think widely about potential beneficiaries