

Engineering and the Environment Making history for over 120 years For over 120 years we've been using sound science and creative engineering to shape the world you know today

**1882:** Frederick Lanchester studied at the Hartley Institute (now the University of Southampton), before designing and building one of the first petrol-driven fourwheeled cars

**1950:** Elfyn Richards, Chief Aerodynamicist and a designer of the Vickers Viscount aircraft, introduced research on the environmental and industrial effects of noise and vibration

1952: The University of

its Royal Charter

Southampton was granted

**1959:** Our researchers developed modelling techniques to analyse and improve the design of the conic Sydney Opera House **1961:** Aeronautical engineering students flew the world's first human-powered aircraft

**1970S:** The first moving ground in a UK university was installed in our wind tunnel, revolutionising car design **1981:** The RJ Mitchell Wind Tunnel was presented to the University by the Royal Aircraft Establishment (RAE) to support Formula One and IndyCar work

orld's first unnel was onstrated before the d by NASA

**1979:** The world's first cryogenic wind tunnel was designed and demonstrated at the University, before the technique was adopted by NASA

AIR FRANCE

**1964:** Geoffrey Lilley, leader of the Concorde technical team and the Father of Aeroacoustics, joined the University

**1963:** The Institute of Sound and Vibration Research (ISVR) was established

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**1988:** Flight trials of an active noise control system were carried out with British Aerospace; audible inflight entertainment was born

**1990:** The ISVR Hearing and Balance Centre, now the University of Southampton Auditory Implant Service, fitted their first cochlear implant device **1998:** Academics working on bubble acoustics co-authored the current guidelines for every foetal scan in the world — that's over 700 million births to date

**1996:** We began work on European Union funded projects to reduce railway noise, with the rail dampers we developed now implemented in 16 countries



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**2001:** Tests conducted by our researchers were used to design the Kingfisher yacht, sailed by Ellen MacArthur during the Vendee Globe race

**1999:** Our research led to the first commercial implementation of adaptive cruise control in Jaguar vehicles

2005: The ISVR was awarded a Queen's Anniversary Prize for improving the quality of life for the profoundly deaf and reducing noise pollution



**2007:** Our engineers completed the first fully-turbulent aerofoil flow simulations using high performance computers

2008: Our research led to the first ceramic-on-ceramic total hip replacement surgery



**2012:** The University was awarded a Queen's Anniversary Prize for innovation and world-leading expertise in performance

2011: We designed and flew the world's first 3D-printed unmanned aircraft

2010: StarStream® was invented, a device with the clean medical equipment

potential to clear leaves from railway tracks, fight against antimicrobial resistance, and

2008: Our engineers worked with the British Cycling team helping them win Gold at the Beijing Olympic Games Our researchers began work on the world's first 100% fossil fu free cargo ship



sports engineering



**2015:** The state-of-the-art Innovation Campus was ope v HRH The Princess Royal

We designed a biodegradable stent to open blocked coronary arteries with Arterius Ltd



Be a part of our evolving story as we continue to work at the forefront of innovation