

Dr John O’Sullivan:

Dr O’Sullivan was awarded a Bachelor of Science in 1967, a Bachelor of Engineering with Honours in 1969 and a PhD in Electrical Engineering in 1974. After completing his PhD, he was appointed to the Foundation for Radio Astronomy in the Netherlands (now ASTRON). He went on to become the Head of its Engineering group, making major contributions in the electronics and signal and imaging areas.

In 1983, Dr O’Sullivan returned to Australia and the CSIRO where he played an important role in the conception of the Australia Telescope receiving systems. This work led to the group, together with various commercial partners and customers, making significant contributions in areas such as image processing for medical and geophysical applications, underground mine safety, communications systems and radar processing systems. After his development of the Wireless LAN system, he left the CSIRO in 1995 to join News Ltd as Australian Director of Technology where he presided over and personally contributed to a number of significant technical developments.

Dr O’Sullivan is one of Australia's most brilliant research scientists and a world changing technological innovator. He led the team that invented WiFi, a technology that made the wireless LAN fast and robust, allowing mobile phones, laptops and printers to connect to the internet through a high-speed wireless network. This technology stems from his earlier work in detecting the radio whispers of exploding black holes. This breakthrough provided the CSIRO with its most lucrative patent ever and earned Dr O’Sullivan Australia’s highest scientific honour in 2009 – The Prime Minister’s Prize for Science.

Among other accolades, Dr O'Sullivan has the distinction of having received the Australian Academy of Technological Sciences and Engineering Clunies Ross Award in 2010, CSIRO Chairman's Medal in 2009, CSIRO Medal for Research Achievement in 2000 and the University of Sydney Medal in 1969.

Dr O’Sullivan also has exceptional accomplishments in the field of advanced signal processing techniques for radioastronomy. His achievements in this area are internationally renowned, and his work on one of the world’s leading radio telescopes, the Australian Square Kilometre Array Pathfinder, will provide Australian and international astronomers with another world-leading radio astronomy observatory and may lead to the next phase of transformational personal communication technology.

Dr O’Sullivan’s innovations have had a world changing impact on technology resulting in tangible benefits to our society. For transforming the way the world connects, communicates and works every day, we are delighted to take this opportunity to recognise his immense contributions.

Dr Terry Percival, AO

Dr Percival holds a Bachelor of Engineering and PhD from University of Sydney, is a member of the Order of Australia, a Fellow of the Academy of Technological Sciences and Engineering and is a Graduate Member of the Australian Institute of Company Directors.

He has a distinguished ICT research career spanning more than 30 years, and is currently Director of the Broadband and Digital Economy Business Team of Data61 (previously known as NICTA), guiding successful spin-out companies and promoting research outcomes to government and industry. Terry commenced his career designing and constructing microwave receiving systems for radio telescopes. He also led R&D groups working on the development of submarine optical fibre communications systems and thin-route satellite communications systems. Prior to joining NICTA, he was Chief Research Scientist at CSIRO's Telecommunication Division, developing next generation broadband applications. In 2001 he established the Centre for Networking Technologies for the Information Economy (CeNTIE), which developed optical fibre broadband communications services and applications for the delivery of health, education and business services. One project led to the creation of the world's first Virtual Critical Care Unit which used optical fibre to deliver high quality emergency care between Katoomba and Sydney hospitals. The project received the Don Walker Tele-health Award and the Australian Information Industry Association's iAward.

Along with Dr John O'Sullivan, Terry's most high profile achievement was leading the creation and patenting of technologies that underpin high speed Wi-Fi, resulting in more than 450 million dollars in royalties for CSIRO. In recognition of this work he received numerous awards including the prestigious 2012 European Inventors Award.