

INTERNET AND WEB PIONEERS WIN THE INAUGURAL QUEEN ELIZABETH PRIZE FOR ENGINEERING



On 18 March 2013, the first Queen Elizabeth Prize for Engineering (QEPrize) was awarded to five pioneering individuals who collectively created one of the most complex and exceptional systems: the Internet, the World Wide Web and the Mosaic web browser.

The announcement of the winners was made by Lord Browne, in the presence of Princess Anne and politicians of all parties: Rt. Hon Oliver Letwin, Rt. Hon Vince Cable, Chuka Umunna, as well as other Members of the Commons and the Lords. The formal prize ceremony will take place on 25 June 2013, when Her Majesty the Queen will present the award to Dr Robert Kahn, Dr Vinton Cerf, Louis Pouzin, Sir Tim Berners-Lee FREng and Marc Andreessen.

The distinguished panel of international judges made their decision in a dramatic final meeting a few days before the announcement. This followed a long and detailed judging process over the preceding months involving two groups of Royal Academy of Engineering fellows, one which solicited nominations and the other which sifted through them. The quality and range of entries was extremely high and were received from all over the world.

The judging panel for the inaugural cycle comprised: Professor Frances Arnold, Lord Broers (Chair), Professor Brian Cox, Madam Deng Nan, Professor Lynn Gladden, Diane Greene, Professor John Hennessy, Professor Dr Dr h.c. Reinhard Hüttel, Professor Calestous

Juma, Professor Hiroshi Komiyama, Dr Dan Mote, Narayana Murthy, Dr Nathan Myhrvold, Professor Choon Fong Shih and Paul Westbury.

The QEPrize was launched in November 2011 to identify, reward and celebrate an outstanding advance in engineering, for up to three individuals, which has proved of global benefit to humanity. All three party political leaders attended and addressed the launch and there has been Cross-Party consensus in the prize's goals. Awarded every other year, the winners, of any nationality, will have been responsible for advancing the application of engineering knowledge that has produced tangible and widespread public benefit. In exceptional circumstances, the prize can be awarded to more than three individuals and in reviewing the nominations the international team of judges concluded that just such an exception should be made.

The Internet and the World Wide Web, integral to the lives of over 2bn people worldwide, have revolutionised the way we communicate and access information. Kahn, Cerf and Pouzin developed the Internet and protocol standards, which provide the fundamental infrastructure needed to connect billions of computers to each other. Berners-Lee's Web builds on this, allowing access to a huge amount of information. Andreessen made this information infinitely easier to access, with the creation of a user-friendly browser and made it available to everyone. Lord Broers, Chairman of the Judging Panel, described the achievement as the "biggest piece of hardware ever built... these five visionary engineers, never before honoured as a group, led the key developments that shaped the Internet and Web as a coherent system and brought them into public use."

The judges considered that the technical prowess of the winning group of five engineers was equalled by their generosity in sharing their work freely. Their approach allowed the Internet and the Web to be adopted rapidly around the world and to grow organically thanks to open and universal standards. Together these technologies led to the information revolution, of as much significance as the industrial and agricultural revolutions were in their day and are now used by over a third of the world's population. The Prime Minister, David Cameron, said of the winners; "The Internet and the World Wide Web... are engineering innovations that have given rise to new industries, and a huge number of jobs. They have enabled the world to access information and knowledge as never before."



The Internet and the Web have grown from modest beginnings to hosting over 50 billion pages of information today. All five winners have been instrumental in guiding this process, technically and politically.

This award was created to raise the profile of engineering and to emphasize its importance to society, celebrating achievement along the way. Vint Cerf described this succinctly; "The Queen Elizabeth Prize for Engineering is a stunning and welcomed recognition of the power of engineering to effect change."

With this award, the next stages will be equally important; encouraging young people to think deeply about engineering, and society to appreciate its breadth and scope. "I firmly believe our field's best days are ahead of us," said Andreessen, "and I can't wait to see what the next generation of engineers will accomplish."

SET FOR BRITAIN 2013

On Monday 18th March SET for Britain 2013, the annual poster competition and exhibition, was held in the House of Commons Terrace Marquee. Andrew Miller MP, Chairman of the Parliamentary and Scientific Committee, acted as host to early-career researchers from all over the country who brought their posters to Westminster to take part in the competition and to present their research to their local Members of Parliament. During the course of the day the SET for Britain organisers were delighted to welcome 77 Parliamentarians from both Houses.

The competition was divided into three sections: Physical Sciences (Chemistry and Physics), Engineering, and Biological and Biomedical Sciences. The posters in each section were judged by experts from the Royal Society of

Chemistry, the Institute of Physics, the Royal Academy of Engineering, the Society of Biology and The Physiological Society.

The judges' difficult task had begun two months earlier with

the selection of 180 posters (60 in each section) for the exhibition from a field of over 500 high quality entries.

Medals were awarded to the winners in each discipline, together with Gold, Silver and

Bronze Awards of cash prizes. These awards were made possible by generous donations from INEOS Group, BP, EADS, Airbus, AgChemAccess, Essar, GAMBICA, WMG and the Institute of Biomedical Science.

Finally, the winners of the four Gold awards were judged on the strength of their skill in communicating the scientific concept in their poster by Dr David Dent, Dr Doug Naysmith and Andrew Miller MP. The Westminster Medal, donated by the SCI in memory of Dr Eric Wharton, who established SET for Britain, and ran the events for many years with his wife Sue, was presented to Dr Valeska Ting, winner of the Gold award in the Engineering session.

