

Innovation: The new rock and roll?

Inventors and innovations from across Europe and beyond were celebrated at the first 'European Inventor of the Year' awards in Brussels on 3 May. This joint initiative between the European Patent Office (EPO) and the European Commission was a glittering event. Alain Pompidou quoted the Duke of Edinburgh in his introductory speech, saying: "Inventors should be treated like pop stars". And for this night they truly were!



Award nominees and winners at the gala.

The award ceremony at Brussels' 'Autoworld' museum was jointly hosted by Alain Pompidou, President of the EPO¹, and Günter Verheugen, Commission Vice-President responsible for Enterprise and Industry. BBC reporter Michael Buerk, running the evening's programme, introduced music, dance and dramatic audio-visual presentations of the nominees.

In his speech, Verheugen noted the clear correlation between the innovation success of enterprises and their patent activity. "Europe needs to innovate more and faster," he said, to maintain its competitiveness through a knowledge-based economy. And to deliver prosperity, "knowledge needs to reach the market". He hoped that this first European Inventor of the Year event "would begin a long tradition" and that the prestige of the awards would eventually rival that of the Nobel Prize.

The award process

For the nomination process, the EPO called on its 3,500 specialist patent examiners to sift through the hundreds of thousands of patents granted by the EPO between

1991 and 2000 and identify a shortlist of remarkable individual researchers or teams who have produced significant innovations.

This list was then whittled down again – to three nominees in each of six categories – by an independent, six-strong jury chaired by Wim Kok, former Dutch Prime Minister. Following further deliberations, the same jury picked the final prizewinners.

The award is unique among innovation prizes because it takes the inventors' circumstances into account: the six categories reflect the different means available to inventors in various sectors.

Life-saving biotech

In the industry category, Zbigniew Janowicz and Cornelius Hollenberg were awarded the prize for a key component in the production of an affordable hepatitis B vaccine. The invention has enabled the introduction of programmes to counter the spread of hepatitis B worldwide, including Unicef projects to vaccinate newborn children and infants. Over 450 million doses of the vaccine have been produced and supplied to 90 countries.

Handing over the award, jury member Robert Peugeot said: "Millions of people owe their good health to the good work of these scientists." Cornelius Hollenberg commented that it was a "great day for biotech".

Further good news for biotechnology came in the prize for the SME category. While working for Dutch company Affymax's US research institute, Stephen Fodor, Michael Pirrung, Leighton Read and Lubert Stryer revolutionised biology and genetics with their very large-scale immobilised polymer syntheses (VLSIPS) technology or the 'DNA chip'.

This invention united semiconductor manufacturing techniques, advances in combinatorial chemistry and biological analysis to allow biologists to carry out huge numbers of experiments simultaneously.

Research institutions

Products such as i-pods and laptop computers would be bulky and impractical without the invention made by Professor Peter Grünberg of Germany's Jülich Research Centre. The winner of the universities and research



Federico Faggin receives his award from jury member Dimitri Dimitriou.

institutions category made a discovery that enabled a 50-fold increase in the data capacity of hard drives. The giant-magnetoresistance effect (GMR) is used in mobile entertainment devices and 90% of all computer hard drives worldwide.

A special category honoured inventors from the ten countries that joined the European Union on 1 May 2004. The winning innovation was that of John Edward Starrett, John Martin, David Tortulari, Joane Bronson and Mutzamil Mansurin for the so-called prodrugs which



Karlheinz Brandenburg

allow scientists to change the building blocks of natural molecules. A prodrug is a drug administered in an inactive form which becomes an active pharmacological agent when it is metabolised in the body. They have novel antiviral properties and the team developed the concept at the Academy of Sciences in Prague.

Of course, innovation is not just restricted to Europe and one prize category awarded inventors who both live and work outside Europe. The winner has significantly improved the quality of life for sufferers of age-related macular degeneration (AMD), the leading cause of blindness in the over-50s. American scientists Larry Gold and Craig Tuerk developed a process that led to the Macugen drug which slows or even halts 'wet' AMD.

"Knowledge needs to reach the market."

Chips with everything

The sixth and final award of the evening was for lifetime achievement. The world we live in today would be quite different if the Italian engineer Federico Faggin had not managed to fit an entire central processing unit (CPU) on to a single silicon chip. This birth of the microprocessor heralded the way for modern computers, calculators and other high-tech applications.

The two other distinguished nominees in this section were Karlheinz Brandenburg who invented the MP3 digital music format, and James Dyson, the British 'serial inventor'.

Receiving his prize, Faggin recalled the "very, very hard work and long hours" that had led to the microchip success and the multinational nature of semiconductor research that demonstrated that it was an invention that "belongs to the whole of mankind".

(1) See 'Better use of patents', page 27.

Contact

Rainer Osterwalder, European Patent Office
Tel. +49 89 2388 1821
press@epo.org
<http://www.european-inventor.org/>