



PRESS RELEASE
23/04/07

EA Technology's beer mat brainwave wins Queen's Award for Innovation

EA Technology's UltraTEV Detector was born on the back of a beer mat in a Dublin pub. Now it has become a world-beating product and won the Queen's Award for Innovation 2007 – one of Britain's highest industrial honours, described by one recipient as 'a corporate knighthood'.

EA Technology Instruments Director Neil Davies and Instruments Manager Colin Vickers were waiting for a ferry back to Britain in 2002 after visiting Irish utility ESB, when they used a beer mat to draw up the specification for a new type of hand held instrument to measure partial discharge activity in HV assets.

They called it the UltraTEV Detector, because it was the first instrument to combine sensors for both ultrasonic and transient earth voltage (TEV) effects in a single hand-held unit. It has gone on to win sales worth millions of pounds and advance the case for condition-based asset management with every power company in Britain – and with network operators from California to China.

Neil explained: "The UltraTEV Detector is a bit like the iPod, because there was nothing else like it on the market before and it uses the latest technology to do things in a new way. Like the iPod, it has created its own market, because it's exactly what customers were looking for – but they didn't realise that until we invented it.

"The specifications we scribbled down over a few beers turned out to be right first time, but it took months of investment, development and testing to come up with the finished product."

The UltraTEV Detector is the world's first dual sensor instrument which accurately measures partial discharge activity in HV assets, long before the effects can be detected by human senses. A single button turns it on and a simple traffic light LED system indicates whether assets are working satisfactorily, require further tests or urgent investigation.

Calibration of the instrument is based on EA Technology's unique database of working with HV assets for more than 30 years and understanding patterns of deterioration.

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“The UltraTEV Detector is easier to use than a TV remote control and requires very little training, but it is extremely effective as a first pass method of measuring asset condition, whether on individual HV assets or whole plants and networks,” Neil said. “Engineers previously had to use several pieces of complex and expensive equipment to do the same job – or trust to guesswork, using sight, sound and smell.

“Just as importantly, it’s also a world first as a warning device when equipment is dangerous for people to approach and may be about to fail catastrophically. When this happens, HV equipment can explode with the force of a bomb, so companies are increasingly issuing UltraTEV Detectors to all staff as personal safety monitors.

“The bottom line is that UltraTEV Detectors save money by making asset management more efficient – and they save lives.”

UltraTEV Detectors are now used across the power industry worldwide and by other operators of HV equipment, including petrochemicals and manufacturing companies.

More details on www.eatechnology.com.



Caption: (from left) Managing Director Robert Davis and co-inventors Colin Vickers and Neil Davies, with the award-winning UltraTEV Detector.

Hi res JPEG of this photo is available from [John Hutchinson](#).

Background: EA Technology's culture of innovation

Managing Director Robert Davis said: "The Queen's Award recognises what EA Technology is really good at – developing original ideas and bringing them quickly to market, as successful products and services which deliver tangible business benefits for our customers.

"We are now at an advanced stage in developing an Energy Innovation Centre here in Capenhurst, specifically designed to attract even more innovations from both inside and outside the company and incubate them to become working commercial technologies..

"We believe Britain has some of the most inventive minds in the world. Our mission is to turn their ideas into business success stories – just as we have done with the UltraTEV Detector."

- The Queen's Award for Innovation is truly shared by all of EA Technology's 101 staff at Capenhurst - because they have owned the company since a management and employee buy-out in 1997.
- EA Technology was originally established in 1966 as the research and development arm of the then nationalised UK electricity industry. In that role, it was responsible for many of the innovations which have created modern, efficient and reliable power networks in the UK and worldwide.
- The company won a Queen's Award in the early 1990s for the development of ohmic heating – a highly efficient technology used in many industrial processes.
- Since 1997, EA Technology has rapidly evolved as an independent, employee-owned, commercially successful enterprise, with customers worldwide. Particular growth areas are China, the Far East, Middle East and North America.
- Another EA Technology innovation which has become a world leader is the CableSniffer – a unique instrument which rapidly and accurately locates faults in underground cables, without having to dig exploratory holes.
- EA Technology is a market leader in the management and maintenance of power assets, based on assessment of their actual condition (the development of the UltraTEV detector is part of this capability).
- The company is organised into businesses – Instruments, Services, Consulting, International and New Ventures. Each business is tasked with developing several innovations every year.
- The company is active in many areas of power technology, including network design, management and maintenance, energy efficiency, micro-generation, energy storage and renewables. Many EA Technology personnel are acknowledged worldwide as leading experts in their specialist fields.
- EA Technology has world-class research and development facilities, including materials testing and forensic investigations laboratories.

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