



One-stop wireless

Researchers develop future-proof wireless technology for large buildings

- **Future-proof wireless systems for large buildings such as stadiums and airports**
- **Supports reliable coverage throughout buildings, even underground**
- **The resulting, award-winning spin out company now employs over 40 people worldwide; 2014 sales revenue over \$6.7 million USD**

Wireless coverage inside buildings is often poor because the building materials absorb much of the signal. Traditional cable based systems can overcome this problem but their weight and cost make them uneconomical.

In 2002, EPSRC-supported researchers at University College London (UCL) and the University of Cambridge formed the spin-out company, Zinwave, to commercialise technology that makes it possible to carry multiple wireless services (such as cellular and Wi-Fi) over a single optical fibre.

The technology is future proof and can accommodate rapid upgrades, such as to 4G and 5G, with no need to install new hardware in the building. Verizon, the US's largest mobile operator, selected Zinwave to support its 4G network rollout across the US.

By the end of 2014 Zinwave was employing over 40 people worldwide. The company's revenue has grown tenfold since 2008, the sales revenue from 2014 alone was \$6.7 Million USD.

Has your mobile phone signal ever dropped out as you walked into a building? Or your Wi-Fi disconnected as you moved between rooms?



Find out more

Zinwave's systems have since been implemented globally, and the company has offices in Europe, the USA, Australia, China and the Middle East. Clients range from hospitals and airports to sports stadia, power stations and conference centres.

Zinwave was the supplier of choice at the UEFA European Football Championships in Poland and Ukraine, where its technology was installed at Ukraine's Olympic Stadium, which hosted the final between Italy and Spain.

Zinwave's systems have also provided coverage for the complex wireless needs of hospitals: they were, for example, installed in the Netherlands' largest hospital complex in 2012.

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During the opening ceremony it became apparent that our installation was the only one that provided reliable coverage underground. Zinwave's system therefore played an important role during the tournament - acting as the 'lifebuoy' for all critical radio and public safety communications.

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Konstantyn Lubenec, CEO of Dolya & Co, which installed Zinwave technology at the Olympic Stadium, Ukraine, host of 2012 UEFA European Football Tournament final

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The technological breakthrough provided by UCL and Cambridge University was fundamental to Zinwave's successful entry into this highly competitive market. The on-going support of these Universities and their staff has contributed significantly to the further development of Zinwave's products underpinning our strong revenue growth.

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Andy Bell, CTO of Zinwave

Information and Communication Technologies programme

Information and Communication Technologies (ICT) play a critical role in all aspects of our society. EPSRC's ICT Theme supports core capability in this area by investing in the delivery of high quality research, supporting excellent researchers at all stages of their careers. The Theme's investment is at the heart of UK efforts to contribute to a world-leading capability in ICT research and research training to meet the future needs of the UK.