

Worcestershire's Cyber Valley

Think of Worcestershire and what comes to mind? Perhaps Elgar or the Worcester Warriors Rugby team. Maybe Worcestershire Sauce or the now endangered Worcester Black Pear. In years to come, if Worcestershire Local Enterprise Partnership has anything to do with it, Worcestershire will become synonymous with 'Cyber Technology'.

That's because the south west corner of the county is fast becoming the most developed, organised and active cyber security cluster in the country with some of the world's leading experts in the field being located in and around the Malvern Hills area.

The reason for the burgeoning of such sophisticated technology in this picturesque area of the West Midlands has a lot to do with history. It helped that the Government moved their radar technology to Malvern in the Second World War. The defence and technology company QinetiQ is also based here, borne from the Government's former science and research facilities. GCHQ is close by in the neighbouring county of Gloucestershire and the Special Forces are based in Herefordshire. By virtue of these circumstances, cyber security is fast becoming one of the defining features of Worcestershire's economy with an ever growing band of experts. As one senior policy adviser on cyber security in BIS commented, the Malvern cluster is 'light years ahead'.

With the exception of QinetiQ, the 40-50 companies working in cyber security in Worcestershire, predominantly in the Malvern area, are small or micro enterprises. There is a strong focus on research and development, supply chain and spin out opportunities. Typical is 3SDL, a business that started working in the military communications arena but is now expanding into cyber security. Employing around 30 people, the cyber specialists work with selected partners to provide full cyber audits for their customers, identifying the areas of greatest risk for businesses.



Also typical is Titania, based in Worcester city centre. Entrepreneurial founder, Ian Whiting, developed the company's flagship 'Nipper Studio' product initially to aid him with his own job as a penetration tester (basically an 'ethical hacker'). The highly technical nature of his job enthralled him; the report writing however – though essential – is often laborious for the auditor and costly for the organisation. It was this that inspired Ian into developing an automated vulnerability reporting programme. Nipper Studio has rapidly developed into an industry leading tool, enabling experts and novices alike to generate advanced vulnerability reports on their networks in seconds. The result is that Titania now exports to markets all over the world. Sales increased by 80% last year attracting customers from all major US Government Departments and the French Army.



According to Government figures, cyber crime is estimated to cost UK PLC anywhere between £18 and £27 billion a year. Cyber crime is becoming harder to tackle as more sophisticated attacks are developed. In the face of this threat, the Government developed its National Security Strategy in 2010 and in March 2013 launched a 'Cyber Security Information Sharing Partnership' with the aim to develop a broader picture of the cyber threats being faced by business. All of us depend so much on technology in every aspect of our lives. Whether it's in the business world or at home, the risk that our intellectual property, reputation, security and money will be compromised continues to grow.

According to 3SDL, many businesses don't take the risks seriously or don't believe they will become victim to a cyber-attack. Others will spend thousands on cyber security packages only to leave security passwords blue-tacked onto their notice boards or documents in unsecured filing cabinets. In both cases, confidential or sensitive data could be seriously at risk.

Often the greatest threats come from past or present employees. According to Emma Philpott, Founder of the Malvern Cyber Security Group: "Probably half the breaches in security are because of people inside the business." Some of these will be disgruntled current or ex employees. Others are accidental – employees will click on hyperlinks without thinking or insert a thumb drive they've been given as a corporate gift from an exhibition without

first scanning it for viruses. Many companies won't know they've been attacked. Says Emma: "We try to educate companies. A good metaphor is to think of a fence around your garden. That fence won't stop someone climbing over it, but they'll be less likely to just walk into your garden."

For the businesses based in Worcestershire's Cyber Valley, the perceived and real increased risk of cyber attacks present an on-going and increasing demand for their services. New cyber-focused businesses are emerging all the time, offering highly specialised equipment, advice and support. Creative and adaptable, they are headed by entrepreneurs who have seen an opportunity – and gone for it.

This fast growing reputation for excellence is having a snowball effect, encouraging like-minded businesses and supply chain partners to cluster together particularly at the Wyche Innovation Centre and Malvern Hills Science Park. The Park has recently been given the green light for further expansion after Malvern Hills District Council, backed by Worcestershire County Council and supported by Worcestershire Local Enterprise Partnership, gave the Phase IV multi-million pound development scheme planning consent for an additional 25,000 square feet of office space and, potentially, the creation of another 150 jobs. Alan White, Managing Director of the Malvern Hills Science Park, says: "The development will not only safeguard existing jobs within our 23

companies but also provide the right environment for these, and other high-growth technology companies, to flourish and grow new jobs here in Malvern. An economic impact assessment has estimated that Phase 4 will generate an extra £1.3 - £2 million annually for the local economy, which is great news for Malvern and the wider county.”

Cyber-crime is currently attracting attention from many sectors. The Government has identified it as a key policy area and businesses are becoming more aware of the risks. 3SDL are keen that this heightened awareness continues, saying: “It’s so important that cyber security remains as a separate issue for businesses and doesn’t become integrated into other functions. It can’t afford to be something you have to work around or something that you think about after you’ve done everything else. Cyber security has to be embedded throughout any organisation.”



Worcestershire Local Enterprise Partnership has identified cyber security and defence as one of its key sectors for economic growth. At every opportunity, the LEP will be promoting the Malvern Hills as England’s ‘Cyber Valley’. This niche – but ever growing - market will be one of the key defining features of the county, offering many high-tech jobs and opportunities for the future.

Malvern Cyber Security Cluster

The Malvern Cyber Security Cluster was set up around 18 months ago to encourage small cyber security businesses in the three counties of Worcestershire, Gloucestershire and Herefordshire to meet up, collaborate, address the common barriers to SMEs in this market sector and lobby with one voice. Now with more than 40 member companies, the group was quickly able to establish two key issues for their businesses: skills development and their ability to win lucrative government contracts.

The Group Founder, Emma Philpott, is working closely with e-skills UK (the Sector Skills Council for Business and Information Technology) on a large project to develop cyber skills needs. The national project includes a schools’ outreach programme to create interest in cyber security careers, the development of a number of apprenticeships for cyber security roles and plans for a national cyber security professional development centre based in Malvern. All aspects of this project will be piloted in Worcestershire in association with the WLEP. In addition, the siting of a major training centre in the county will only help to secure its reputation as England’s ‘Cyber Valley’.

As far as Government contracts are concerned, small and micro businesses have traditionally struggled to compete with larger organisations. Emma explains: “The Government generally goes to big companies because they like to have the whole solution under one roof – most small companies focus on just one aspect. We’re considering the potential of a consortium for SMEs so that we can win these large Government contracts in the future.” For further information about the Malvern CyberSecurity Cluster, contact: emma@key-iq.com

BBC programme dedicated to Worcestershire's cyber valley

The BBC's Global Business Correspondent, Peter Day, featured Worcestershire's cyber specialism in an episode of Radio 4's 'In Business' programme.

Under the title, 'Unlikely front line in the war on cyber-crime', Day waxed lyrical about Malvern's glorious countryside before focusing on the history of the region and the conditions that had resulted in the district's specialism.

"There is more than the music of Elgar stirring in and around Great Malvern," he said, "the town is also one of the surprising centres of a new and expanding industry ... It's on the front line of the battle against cybercrime."

The programme, broadcast on 19 January, featured contributions from Worcestershire based businesses QinetiQ, Deep Secure, Titania and C31A, as well as interviews with Alan White (Chief Executive of Malvern Hills Science Park) and Emma Philpott (Head of the Malvern Cyber Security Cluster).

