# UKSPA CASE STUDY

# SUSSEX INNOVATION – TWENTY YEARS ON….

A survey of business leaders in the South East has found that almost two-thirds (62%) believe that it has become easier for companies to innovate in the past 20 years. The research was conducted to celebrate two decades of the Sussex Innovation Centre, which opened its doors on the University of Sussex campus in June 1996 – making it one of the first business incubation hubs in the UK.


Main entrance to the Sussex Innovation Centre today

## Celebrating the 20th anniversary of the Sussex Innovation Centre

A survey of business leaders in the South East1 has found that almost two-thirds (62%) believe that it has become easier for companies to innovate in the past 20 years. A similar proportion (60%) agreed that it is easier to access appropriate business support in 2016 than it was in 1996.

The research was conducted to celebrate the 20th anniversary of the Sussex Innovation Centre, which opened its doors on the University of Sussex campus in June 1996 – making it one of the first business incubation hubs in the UK.

The Centre surveyed its network of entrepreneurs, business owners, corporate innovators and academics to find out what developments have had the biggest impact on business and the workplace over the past 20 years.

## Changes in the Workplace: Mobile Working and Improved Connectivity

Participants who were part of the workforce in 1996 were asked to list the five most essential pieces of technology in their office 20 years ago. The most common answers were the desktop computer and landline phone.

By 2016, both the smartphone and laptop had overtaken desktop computers, demonstrating the rise in popularity of mobile working. With the ubiquity of smartphones, the landline is slowly disappearing from today's offices, with just 13% seeing such a device as essential today. Interestingly, only 4% chose tablets such as the iPad in their 5 most essential items, suggesting that such technology is still seen as a luxury rather than necessity by many.

Now, the most essential technology of all is WiFi, with broadband not far behind. Altogether, 96% of people mentioned some form of internet connection as one of their five most essential technologies. By comparison, only 29% remembered using dial-up internet as part of their day-to-day work 20 years ago.

## Changes in Technology: Expanding Internet and Shrinking Hardware

Unsurprisingly, new developments in technology, and the internet in particular, were widely agreed to have had the biggest influence on the way we work since 1996. 85% of all respondents described the internet as having had the greatest impact overall, with 8% citing the rise of remote working, the next most popular option.

Google – now the owner of both the world's most visited website and its most popular web browser – had not even formed 20 years ago, when AOL.com and Netscape Navigator ruled the roost. Only approximately 100,000 websites existed, compared to more than a billion today, while the average internet connection has increased exponentially in speed, from 30Kbps dial-up to widely available 200Mb broadband.

This vast acceleration in technological change is starkly illustrated in the original designs for the Sussex Innovation Centre, as remembered by Executive Director, Mike Herd: "Our specifications for the building were initially based on the requirement for one computer between every two people in the building, which was cutting-edge for the time," he says. "In fact, the corridors in the first phase of the building were built to be wide enough to drive a Landrover through, in order to more easily bring in the bulky computing equipment that several of our tenants needed for their work."

"As well as practical improvements, the cost of technology has rapidly declined. In the early years, several people tried to break into the building in order to steal graphics processor chips from our workstations, which were the very latest tech and could fetch a hefty price. The average person's phone now comes with more RAM than those chips had."

The Centre under construction in 1995

## Predicting the Next 20 Years

Respondents to the survey were also asked to predict which new trends would result in the biggest changes to the workplace over the next 20 years. Nearly 2 in 5 (39%) suggested that forms of artificial intelligence and automation will be ever-present in the offices of 2036, while 31% described new hardware such as 3D printers, robotics and virtual reality systems.

Perhaps influenced by proximity to the EU referendum, one quarter (25%) of participants expected social, demographic or political shifts to have had the biggest impact. Meanwhile, 1 in 5 (20%) expected remote and flexible working to continue playing a bigger part in our lives.

Dr Petros Chamakiotis is a Lecturer in Information Systems at the University of Sussex, and researches the impact of technology on how we interact with each other, in particular in modern, technology-mediated environments. He takes a particular interest in the development of virtual teams - an increasingly common way of working in global organizations.

"It is not an easy job to work collaboratively together with 'online strangers' whom you may never meet face-to-face, and yet be expected to be productive and creative," he says. "Especially in industries in which creativity and innovation matter, it is important that leaders and managers have the necessary skills to unleash their virtual teams' creativity, whilst mitigating the negative effects of virtuality."

Dr Chamakiotis' research also looks at the wider impact of these technologies outside organizations. As he puts it, "the connectivity afforded by smartphones and mobile technology enables people to work from anywhere, anytime. As a result, rather than separating 'work' from 'life', people tend to draw new boundaries between 'online' and 'offline' or between their private and public lives online."

Some of the challenges associated with these wider impacts of technology on work-life boundaries are explored in a multidisciplinary research project conducted by Dr Chamakiotis and colleagues, entitled The Digital Brain Switch.

## Ahead of their Time

The Centre was founded as the flagship development of the 'Sussex Academic Corridor', a unique collaboration between public, academic and business sectors designed to harness the economic potential of the extensive education and research resources available in the region.

An initial £2million of funding was raised in partnership by Brighton Council, East Sussex County Council, the University of Sussex and SEEBOARD plc to establish the project and provide facilities for its first tenants:

• Genpak – in the years leading up to researchers completing the sequencing of the human genome, Genpak developed a new type of re-agent that helped to speed up the sequencing process. The company merged with the biotech plc Genetix Group and floated on the London Stock Exchange in 2000.

• CCNR – the Centre for Computing and Neurorobotics evolved from groundbreaking research work at the University, applying the use of pheromone trails by ants to solve the problem of data traffic routing in the telecoms industry. To support their research, the company housed an ant colony in what is now the Centre's support office!

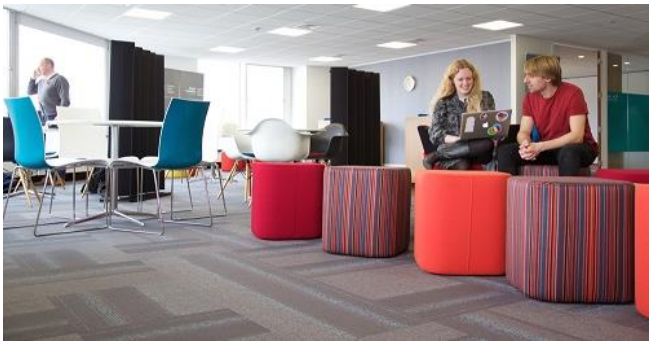
• Wire – a precursor to the huge growth in text analytics in recent years, Wire employed neural networks to create vast indexed databases, in some of the earliest attempts to harness big data. After creating a comprehensive data set relating to property insurance, the business was bought by Willis Reed.

• Thales – one of the Centre's original 'anchor' tenants, Thales used the Sussex Innovation Centre to house their cryptography group, which helped to establish data security protocols for the National Lottery.

• Biotics – with Sussex housing one of the largest plant biology departments in the UK at the time, Professor Bob Thomas recognised the huge potential value of research into rare and newly-discovered species to the drug development industry. To that end, Prof Thomas founded Biotics and travelled the world collecting samples of exotic plants.

• Vega Science Trust – as Executive Director Mike Herd was heard to comment in the Centre's early days, "an innovation centre should have a fountain or a Nobel laureate, and we couldn't afford a fountain". Professor Harry Kroto fulfilled the latter criteria, having won the prestigious prize in 1996 for his proof of the football-shaped molecular structure of C60, otherwise known as buckminsterfullerene.

During that time, he was also working to establish the Vega Science Trust, providing an independent broadcast archive of famous scientists explaining their work. Prof Kroto sadly passed away earlier this year at the age of 76.



Remote working at Sussex Innovation – Croydon

## About Sussex Innovation

The Sussex Innovation Centre has more than doubled in size since its beginnings in 1996, and currently employs a full-time in-house support staff of 20 people, as well as a team of placement students and graduates to deliver projects on its members' behalf.

The organisation became wholly owned by the University of Sussex in 2008, and now supports more than 150 high-growth businesses across the south east through its tenancies and virtual memberships. Sussex Innovation is also responsible for commercial outreach relating to a number of academic research projects underway at the University.

A second incubation hub, Sussex Innovation – Croydon, was formally opened by the Small Business Minister Anna Soubry MP in October 2015, and a third site is currently under construction and due to open in Brighton's city centre next year. Plans are also underway for a new, purpose-built biotech innovation facility on the University campus, which it is hoped will be completed over the next few years.
Find out more at www.sinc.co.uk.