



The Economic Impact of SETsquared Partnership



FINAL REPORT
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A report produced for



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1. Introduction

- 1.1. The SETsquared Partnership (<http://www.setsquared.co.uk>) is a business incubation and start-up growth acceleration network based on collaboration between five research-intensive universities in England: Bath, Bristol, Exeter, Southampton and Surrey. Established in 2002 and originally funded by the Higher Education Innovation Fund (HEIF)¹, SETsquared represents a long-standing partnership between the five institutions focused on nurturing technology-based businesses throughout their lifecycle from idea through to investment and scale-up.
- 1.2. SETsquared operates five Business Acceleration Centres, based on, or, near each partner university's campus. The aims of the SETsquared Partnership are:
 - To accelerate the growth of high-tech start-up companies through the five business incubation centres;
 - To develop the entrepreneurial talents of the students at the five partner Universities; and
 - To help academic researchers realise the commercial impact of their work.
- 1.3. Higher education institutions contribute to economic growth in many ways. In particular, university-enterprise collaborations can provide a wide range of benefits to both sides of the partnership. In terms of research, academics can apply their research and see tangible impacts, along with potentially having access to new skills, data or equipment. Businesses can improve performance through deployment and application of new techniques or technologies developed by researchers, reduce the risk of investment in research and extend the resources available to the business. Investment in collaborative R&D also delivers real benefits to the UK, driving growth and productivity improvements for firms and high quality research outputs.²
- 1.4. In the Industrial Strategy (November 2017), the government set out five foundations of productivity that align to the ambition of creating an economy that boosts productivity and earning power throughout the UK: Ideas, People, Infrastructure, Business Environment, and Places. Under the foundation 'Ideas' (to be the world's most innovative economy), the Strategy states that the UK is a global leader in science and research. However, more needs to be done to ensure excellence in discovery translates into its application in industrial and commercial practices, and so into increasing productivity.
- 1.5. A key challenge is improving the ability to turn research and ideas into commercial products and services. This has led to government prioritising improving the incentives, processes and skills that support the flow of knowledge and ideas around society and increasing the opportunities for research commercialisation. One key aspect of this has been the Higher Education Innovation Funding (HEIF) in England, enabling universities to engage with businesses and improve the commercial skills of their staff.

¹ <https://re.ukri.org/knowledge-exchange/the-higher-education-innovation-fund-heif/>

² The Dowling Review of Business-University Research Collaborations, July 2015, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/440927/bis_15_352_The_dowling_review_of_business-university_research_collaborations_2.pdf

- 1.6. A report from CBI³ shows that strengthening links between universities and businesses has great potential to enhance economic growth. Businesses look to higher education for the next generation of people to meet future skills needs, as well as expertise and research from university academics. On the other hand universities need links with businesses to ensure relevance of course offerings and to provide real-world applications, through new products and services, for academic research.
- 1.7. A Centre for Entrepreneurs (CFE) report⁴ aimed to bridge the gap between university student and recent graduates and entrepreneurship by focusing on accessible university incubation. It states that if universities play a larger role in supporting graduate entrepreneurs, they can drive economic growth and innovation, boost local graduate retention, contribute to the government's policy agenda in higher education and industrial strategy, bolster student recruitment and, most importantly, help more young people fulfil their aspirations.
- 1.8. Business incubators in particular are making a sizeable contribution to the UK economy. Business incubators support businesses through early stages of growth. This in turn can boost job creation, regional development, innovation and economic growth. They typically offer affordable workspace and meeting rooms, with one of the most important aspects being the business support offered through business mentors, 'in-house' entrepreneurs, workshops, and investor networks.
- 1.9. In April 2017, the Department for Business, Energy and Industrial Strategy (BEIS) published a research paper⁵ describing the landscape of business incubators and accelerators in the UK. Findings indicate that there are currently 205 incubators, 163 accelerators, 11 pre-accelerators, 7 virtual accelerators and 4 virtual incubators active in the UK. The 205 active incubators in the UK support around 3,450 new businesses a year or 6,900 businesses at any one time.
- 1.10. In February 2018, SETsquared was ranked the world's leading business incubator managed by a University for its outstanding contribution to developing the next generation of UK tech entrepreneurs⁶. The ranking is by UBI Global⁷, according to which, *'a top university-linked incubation program is a business incubator or accelerator connected to an institution of higher education that achieves outstanding impact and performance relative to its global peers. The program outperforms its global peers with regard to the value it provides to its innovation ecosystem and its client startups, as well as the attractiveness of the program itself'*.

³ Inspiring Growth: CBI/Pearson education and skills survey 2015, http://www.cbi.org.uk/index.cfm/_api/render/file/?method=inline&fileID=g2095A98-3A90-4FBD-9AF891997B103F50

⁴ Putting the Uni in Unicorn – The role of universities in supporting high-growth graduate startups, Centre for Entrepreneurs, April 2017, <https://centreforentrepreneurs.org/wp-content/uploads/2017/08/CFE-University-Entrepreneurs-Report-WEB.pdf>

⁵ Business Incubators and Accelerators: The National Picture, BEIS research paper number 7, Nesta, April 2017, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/608409/business-incubators-accelerators-uk-report.pdf

⁶ 1,370 programmes were assessed and 259 programs were benchmarked, <http://ubi-global.com/wbs1718/>

⁷ UBI Global is a Swedish-based data and advisory firm specialising in mapping and connecting the world of business incubation. They provide comprehensive data-driven research analysis of business incubation performance based on a study of over 600 incubators around the world (ubi-global.com/services/incubators/)

- 1.11. Commenting on this, Greg Clark, Secretary of State for Business, Energy and Industrial Strategy, said⁸:

"The SETsquared partnership has not only helped nurture and grow British technology businesses, but it has also contributed nearly £4 billion to the UK economy which is an incredible achievement.

Being recognised as one of the world's leading business incubators is fantastic news and testament to the hard work and dedication of the team at SETsquared and the universities they work with.

Through our modern Industrial Strategy, we're calling on businesses to invest in the latest technology trends, and through our Sector Deals and Grand Challenges, we want the UK to be at the forefront of the technology revolution and make Britain fit for the future."

- 1.12. In June 2018, SETsquared was also awarded the Times Higher Education Leadership and Management Award (THELMA) for Knowledge Exchange/Transfer Initiative of the Year.⁹
- 1.13. Research undertaken by Warwick Economics & Development (WECD, www.w-eed.com) in 2014 showed that companies that have benefitted from incubation by SETsquared (approximately 1,000 companies) contributed an estimated £3.8 billion in GVA to the UK economy since 2002. The study also showed that, within the same period, companies incubated by SETsquared created 9,000 jobs. Within the same period SETsquared helped more than 1,000 businesses raise over £1 billion in investment.
- 1.14. The key aim of this study is to provide up-to-date figures of the economic impacts of SETsquared partnership. Section 2 of the report provides an overview of the enterprise support provided by the partnership and Section 3 presents estimates of economic impacts both, to 2017 (end of financial year) and into the future (to 2030).

⁸ <http://www.setsquared.co.uk/news/201802/setsquared-partnership-ranked-world%E2%80%99s-top-business-incubator>

⁹ <http://www.setsquared.co.uk/news/201805/success-after-success-setsquared-shortlisted-thelma-award>

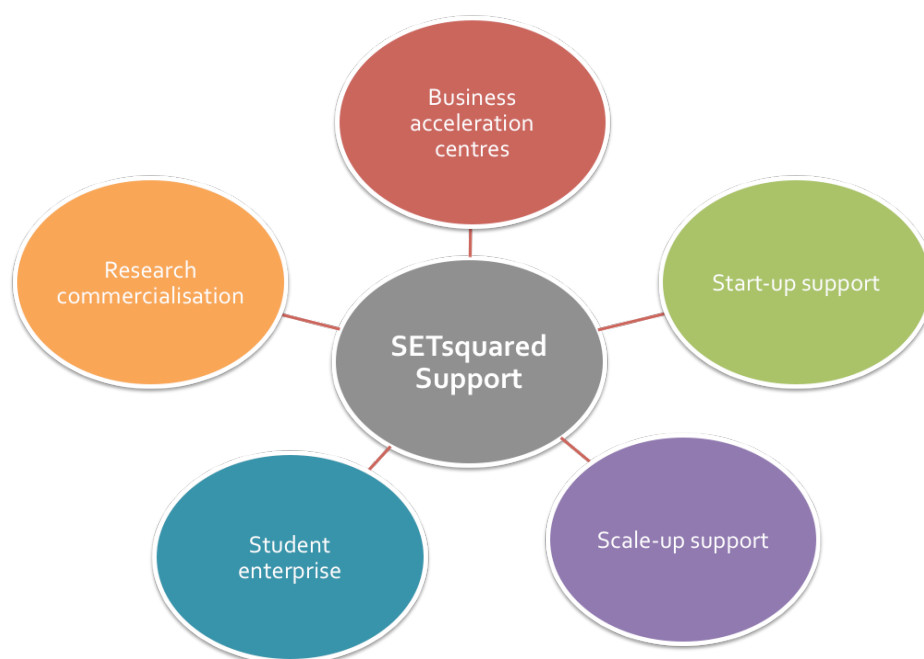
2. Overview of the SETsquared Partnership Enterprise Support

- 2.1. This section provides an overview of the SETsquared partnership and the support provided by the partner centres. It also presents examples of businesses that have benefitted from the different types of support provided by SETsquared.

SETsquared Key Services

- 2.2. A range of support services is provided by SETsquared and these are summarised in Figure 2.1. The partnership supports the growth and success of new business opportunities through spinouts, licensing, incubation and education. The partnership also works with industry through research collaboration and consultancy. The individual centres provide space and support for early-stage, high-growth potential technology ventures to help them develop into viable trading businesses.

Figure 2.1: SETsquared Key Support Programmes



- 2.3. Clients of SETsquared also have access to a web portal, enabling account management through which businesses are able to update their information displayed on the SETsquared website, update their contact details, post progress and any current news. Events and programmes are also displayed within the portal, along with commercial partner offers.
- 2.4. A summary of what each partner's Business Acceleration Centres offers is shown in Figure 2.2 and more detail on each of the centres is below.
- The **Bath SETsquared Innovation Centre** is in the heart of the city near the train and bus stations, and offers virtual and residential memberships as well as business acceleration support programmes that align with the university's research strengths (advanced engineering, digital innovation, health technology, sustainable technology and social

enterprise). The Centre has a co-working space for members, meeting and seminar rooms, and a number of offices for early stage and growth companies.

- The **Bristol SETsquared centre** is based at Engine Shed in the heart of the Enterprise Zone. It is the largest of the SETsquared centres offering 91 desks in incubation space across 16 dedicated offices, 12 desks in the pre-incubation shared office space, and 3 free of charge meeting rooms. Through the centre, entrepreneurs can access coaching, mentoring, workshops, networking events, investor readiness programmes, advisor in residence clinics, and business review panels.
- SETsquared operates programmes at two prime locations on either side of **Exeter**: the **University of Exeter Innovation Centre** on the Streatham campus and the **Exeter Science Park Centre** at Exeter Science Park, providing 3,440 m² and 1,750 m² respectively of office and laboratory space. The centres have dedicated business and technology support staff, Experts in Residence, business mentors, and a range of events, workshops and seminars.
- The Southampton SETsquared Centre is located at the University of Southampton Science Park. The centre offers desks within an open plan office space, access to meeting and conference rooms, and high performance internet. The Science Park can offer a full range of accommodation from single offices all the way to part or whole buildings and laboratory space. The SETsquared centre provides business coaches and mentors, access to support from professional services firms, and seminars and workshops on a range of business topics.
- SETsquared Surrey located at the Surrey Incubation Centre, is hosted by the Surrey Research Park, a major centre of excellence in technology, science, health and engineering. The Surrey Incubation Centre offers 40 desks in a shared incubation space as well as access to grow on space within the Surrey Technology Centre. Other benefits include regular access to in-house entrepreneurs in residence, one-to-one mentoring, support from professional service firms, and strong links into the University of Surrey.

Figure 2.2: Business Acceleration Centres Offer

	Workstations / Hot desk services	Office Space / Serviced offices	Meeting Rooms	Conference facilities	Events/ Seminars/ Workshops	Virtual Services	Business Mentors	'Entrepreneurs in Residence'
University of Bath	✓	✓	✓	✓	✓	✓	✓	
University of Bristol	✓	✓	✓		✓	✓	✓	✓
University of Exeter	✓	✓	✓	✓	✓	✓	✓	✓
University of Southampton	✓	✓	✓	✓	✓	✓	✓	✓
University of Surrey	✓	✓	✓		✓	✓	✓	✓

Examples of Support Provided

- 2.5. One of the main offerings through the partnership is start-up support. Each start-up that comes through the centres are given a bespoke package of support, including:
 - Matching each venture with mentors who can provide specialist and expert advice;
 - Regular business review panels, made up of experienced business people and SETsquared staff, where ventures can present their business plan along with a progress update and key issues they are facing; and,
 - Physical office space and facilities if required or virtual membership for start-ups who wish to access services without the desk space.
- 2.6. The partnership enables research commercialisation by putting in place a number of schemes and programmes which not only help researchers to work more innovatively but also to ensure external businesses are able to access and utilise the resources and expertise available within universities. An opportunity within this area of SETsquared is licensable intellectual property (IP) under which businesses can access a large portfolio of IP through licensing agreements, to enhance their own products and technology.
- 2.7. The SETsquared Entrepreneur's Programme enables aspiring entrepreneurs to 'stress test' their business model quickly with experts who know how to bring products to market, raise investment and grow a business. The programme's workshops help entrepreneurs with the preparation of an executive summary, a pitch deck, a business model and a basic financial plan.
- 2.8. SETsquared also encourage student entrepreneurship and provide opportunities for student to gain hands-on business skills and entrepreneurial training across the five Universities. The student enterprise aspect of SETsquared offers a range of activities including the Student Enterprise Awards and the Researcher to Innovator Programme, which introduces participants to what it is like to be an entrepreneur and how to commercialise ideas. Students are also able to apply for the Entrepreneurs Programme.
- 2.9. Investment support is also available through the partnership, in the form of investment events where start-ups can present their innovations to an audience of venture capitalists and angel investors – the **Open Innovation Programme and Showcases**. The aim of these events is to enable SETsquared member companies, researchers/academics and student enterprises to showcase their technologies or licensing opportunities to Corporate Venturing and Innovation Search teams.
- 2.10. The following case study is from **an alumnus of SETsquared** supported through a range of services. Crowdcube, established in 2010, is now a world-leading equity crowdfunding platform with 65 employees.



Established in 2010



Exeter



65 employees



Investment raised of £20M

"Knowing that we were stable and supported at the Innovation Centre, and that we don't have to think about finding new premises as we expand, has been a big help. Start-ups have enough worries."

Darren Westlake, CEO
Luke Land, CMO

Crowdcube is an innovative way to fund start-ups and business expansion by crowdfunding and is the world's first equity-based crowdfunding platform. Since its launch in 2011 Crowdcube has successfully secured more than £350 million investment. This revolutionary model for raising business finance empowers entrepreneurs to bypass traditional business angel networks, venture capital firms and banks to secure funding by connecting them directly with members of the public in return for equity.

Type of support received by SETsquared includes:

- | | |
|----------------|-------------------------------|
| ✓ Office space | ✓ Investor readiness training |
| ✓ Networking | ✓ Mentoring |
| ✓ Events | ✓ Graduate placements |

2.11. The following case study is an example of a high-growth business being supported by the partnership. In just over a year the business grew from 9 employees to 44. Verv has benefitted from a number of SETsquared initiatives including being part of the Open Innovation Programme and Showcase in 2017.



Established in 2010



Bath and London



44 employees



Investment raised of £3.15M


"SETsquared is the best incubator that I've come across in the UK. The way they support and encourage companies is second to none. The centre director and entrepreneur in residence motivate and drive you forward even in the bad times."

Peter Davies, CEO

Verv has developed technology that uses cutting-edge Artificial Intelligence to help businesses and homes monitor, analyse and manage their energy consumption. The machine learning system provides real time bill breakdown and usage information at an individual appliance level by just monitoring at a single point on the mains, unlocking more and more features over time. Support received by SETsquared includes:

- | | |
|-----------------------|-------------------------------|
| ✓ Investment showcase | ✓ Business review panels |
| ✓ Open innovation | ✓ Investor readiness training |
| ✓ Mentoring | |

- 2.12. SETsquared also offer an investment readiness programme that provides a range of activities including business planning, investment strategy, and preparing an elevator pitch. Milkalyser, a business currently being supported by SETsquared, has benefitted from investment events such as, investment readiness and investment showcasing. To date the total investment raised has been £1.4 million.



Established in 2016

Exeter

8 employees

Investment raised of £1.4M

"SETsquared are really good identifying new technology companies like ours and promoting them to investors."

Toby Mottran, CEO

Milkalyser is an agricultural technology start-up. Its technology provides an integrated system allowing the inline analysis of progesterone concentration in milk to understand the ovulation cycle of each cow. Milkalyser technology can predict ovulation, allowing for optimal timing of artificial insemination. A typical farm could benefit by a net value of £150 per cow because of this innovation, enhancing productivity and efficiency dramatically. Support received by SETsquared includes:

- ✓ Pitch training
- ✓ Business concept validation
- ✓ Investment readiness
- ✓ Investment showcase

- 2.13. SETsquared conducted a piece of research¹⁰ towards the end of 2017 looking at the challenges faced by scale-up companies and what kind of support was needed to help overcome these challenges. The research found that often the support offered to scale-ups was generic or too resource-intensive to make it worth their while engaging.
- 2.14. In October 2017, SETsquared was awarded £5 million by Research England (the then Higher Education Funding Council) to launch this new programme for scale-up businesses from the most innovative sectors across the South of England. The award is part of the £20 million allocation first round of HEFCE's Connecting Capability Fund competition. The SETsquared Scale-Up Programme, launched in May 2018, is intended for companies with 10 or more employees, focused on the following sectors:
- Advanced Engineering & Manufacturing
 - Digital Innovation
 - Environmental, Sustainable and Marine/Maritime
 - Health and Wellbeing
- 2.15. The programme helps scale-ups to secure funded R&D projects with the SETsquared universities, make introductions to investors, corporates, customers and partners and access talent. It is expected to generate over £25 billion by 2030, also creating an additional 30,000 high-skilled jobs in the tech sector.

¹⁰ What do scale-up businesses need? SETsquared, October 2017 (<http://www.setsquared.co.uk/scale-report>).

- 2.16. SETsquared supports business technology businesses in sectors of the economy that are at the heart of the UK Industrial Strategy. For example, in December 2016, the Bristol SETsquared Business Acceleration Centre, partnered with High Tech Bristol and Bath, Engine Shed and the University of the West of England (UWE, Bristol), was selected by UK Digital Catapult as one of six IoT Boost delivery partners in the UK.¹¹ As part of this programme, a cohort of 10 companies (Cohort 1) joined SETsquared in March 2017 for a year. A second cohort (Cohort 2) consisting of 6 more companies joined the programme in April 2018.¹²
- 2.17. The following case shows how Symetrica has benefitted from multiple forms of SETsquared support to date including, investor readiness, investment showcases, networking and business review panels. The business has demonstrated impressive year on year growth to date and exports its UK developed and patented technology around the globe.



-  Established in 2002
-  Southampton and USA
-  60 employees
-  Investment raised of £7M

"SETsquared provides a supportive but challenging environment to somebody starting a small business. It makes the management of the company think carefully about what they're going to do and how they're going to do it, and enables them to have that critiqued by experienced mentors. Through involvement in SETsquared's showcase events, Symetrica was able to attract investors who have continued to support the business through its growth."

Heddwyn Davies, CEO


Symetrica is a global leader in nuclear radiation detection and identification, providing real world solutions for real world challenges. The range of detectors, from handheld devices to mobile solutions and portal monitors, serve customs and border protection, law enforcement and military, emergency services and first responders. Support received by SETsquared includes:

✓ Investor Readiness training	✓ Business Review Panels
✓ Networking	✓ Investor Showcase

- 2.18. SETsquared is also one of fifteen members of the UK Space Incubator Network. The network is dedicated to identifying and accelerating start-ups and scale-ups that are leveraging space technology as a critical asset in their businesses, with the aim to share best practice and engage in collective action. The case study below describes support offered to a company leveraging space technology.


¹¹ IoTUK Boost is an innovation support programme for SMEs that are looking to utilise a low power wide area network (LPWAN) to develop and prototype their internet of things (IoT) product or service (<https://iotuk.org.uk/iotuk-boost-2017/>)


¹² <http://www.setsquared.co.uk/news/201801/setsquared-bristol-announces-second-internet-things-boost-call>





"SETsquared has helped me develop my commercial understanding which is essential in running a business however good the technology is. Notably SETsquared managed funding support for TISICS leading to the development of satellite pressure vessel technology and over £2m in contracted work since 2011."

Stephen Kyle-Henney, CEO

 Established in 2005

 Surrey

 16 employees

 Investment raised of £1.2M

TISICS develops and manufactures fibre reinforced metal composites for high performance aerospace, space and energy system components. The technology allows 30% to 70% weight savings that can be exploited by customers for reduced fuel consumption, increased performance or higher payloads in marine, land, air and space environments. Support received by SETsquared includes:

✓ Premises	✓ Investor Readiness training
✓ Networking with policy and industry primes	✓ Investor Presentations training

- 2.19. Another sector with particular focus through SETsquared is Healthcare, having teamed up with the Academic Health Science Networks to boost innovation within and coming out of the National Health Service (NHS) with a new training programme for healthcare innovators.
- 2.20. For example, the Innovation to Commercialisation of University Research (ICURE) is a collaboration of the SETsquared Partnership, Innovate UK and BEIS, designed to move ideas and innovation out of universities and into the marketplace, where they will have the greatest impact. The ICURE Innovation-to-Commercialisation programme offers university researchers with commercially promising ideas up to £50,000 to 'get out of the lab' and validate their ideas in the market place. The fund helps researchers validate whether there is a market for products or services that utilise their work (see case study overleaf by Azul Optics).
- 2.21. In 2017, Innovate UK commissioned Ipsos MORI to carry out an evaluation of the ICURE pilot programme¹³. The evaluation found that:
- 78 teams benefitted from the first 6 rounds of the programme at an approximate cost of £8.9 million;
 - At the time of evaluation, an estimated 24 spin-outs had been created, raising a total of £6.9 million in private equity finance;
 - Spin-outs employed an average of 3 workers and generated £86,000 in revenue by January 2017;
 - The total present value of licensing agreements signed was £8.7 million; and,
 - An estimated £3.94 of economic benefit was created for every £1 invested.

¹³ <https://www.gov.uk/government/publications/icure-evaluation-of-pilot-programme>



Established in 2015



Bristol



3 employees



Investment raised of
£800K

'The ICURe Programme drives you to develop a business plan at an early stage. This is so useful, as it accelerates your thinking beyond academia, which is mainly based around the technology. This is combined with the intensive market research; over the course of four months I spoke to 105 people from across five countries, which enables you to quickly understand if there is a market for your product.'

Dr Shelby Temple, CEO

Azul Optics has developed a new technology to assess the amount of macular pigment present in the eye. A low level of macular pigment can indicate a higher risk of blindness from Age-related Macular Degeneration (AMD). In the UK alone, AMD affects more than 600,000 people and is estimated to cost the healthcare system £1.6 billion annually. The earlier the condition is identified, the more opportunity there is to take preventative measures such as modifying diet, reducing alcohol intake, cessation of smoking and taking supplements. Support received by SETsquared includes:



ICURe grant



Events



Market Research



Networking

3. Assessment of the Current and Potential Economic Impact

- 3.1. In this assessment, the economic contribution of the businesses has been calculated building on the assumptions and figures provided by the SETsquared partnership, in particular in relation to the number of companies supported to date, survival rates, an estimate of the number that are operational each year and the average number of employees per business. Economic impacts have been estimated for two key economic indicators, Gross Value Added (GVA) and Employment.
- 3.2. The key findings of this assessment are summarised below and more detail about the assumptions made is presented in the next pages.

- It is estimated that there were **965 businesses** supported by SETsquared operational in 2017 - these were either receiving support from SETsquared or had received support in the past.
- It is also estimated SETsquared has provided **3,645 business assists** since 2002.
- Summing up the estimate GVA contribution of supported businesses each year indicates that they have directly contributed a total of **£5.8 billion** to the economy between 2002-17.
- Projecting the impact forwards indicates that assuming the level of support continues at the current rate, supported businesses could contribute **a further £12.4 billion** to the economy between 2018-2030.
- The level of employment supported by these businesses **is estimated at 10,900 jobs in 2017 and projected to rise to 22,200 by 2030.**
- By including an estimate of the supply chain impacts of the businesses, the cumulated direct and indirect impacts on the UK economy are estimated to be **£8.6 billion by 2017** and a further **£18.3 billion by 2030.**


- 3.3. WECD was provided with details of businesses that either have been supported or are currently being supported by SETsquared. On the basis of this information, it has been estimated that support is distributed between various types of support as described in Figure 3.1. This dataset provided the basis for estimating the economic impacts of all support provided up to 2017.





Figure 3.1: Baseline Information

Type of businesses supported	Baseline
High Growth Alumni (with more than 20 employees)	13%
Other Alumni	25%
Residential	27%
Virtual	35%

- 3.4. Within this broad picture, there are businesses that have experienced exceptional growth. For example, Ultrahaptics as presented in the case study below. Ultrahaptics specialises in haptic technology and virtual reality, the business currently benefits from office support, mentoring

and training events among other things. Established in 2013, the business now operates in 3 countries and employs around 88 people.



-  Established in 2013
-  Locations in Bristol, US (California), South Korea (Seoul)
-  88 employees
-  Investment raised of £31M

"SETsquared has been our home since the early days of the business. Not only have they provided a literal home, in the form of our first office space, but they've also provided everything else we all need from a home: support, advice, connections, guidance, and training."

Steve Cliffe, CEO

Tom Carter, CTO

Ultrahaptics has created a truly exceptional technology that uses ultrasound to enable people to feel virtual objects in mid-air with their bare hands. The business has enjoyed phenomenal growth across markets from automotive to Virtual Reality (VR). Support received by SETsquared includes::

- ✓ Mentoring
- ✓ Office Support
- ✓ Training events
- ✓ Investor readiness training
- ✓ Investment showcase

3.5. In fact, more recent data (gathered in 2017) on 30 companies that are among the top 50 companies supported by SETsquared and the 10 to watch for the future indicate significant growth and potential in terms of both, turnover and employment (as shown in Figure 3.2). This data has been used to provide estimates of the GVA and employment of high growth Alumni supported since 2014.

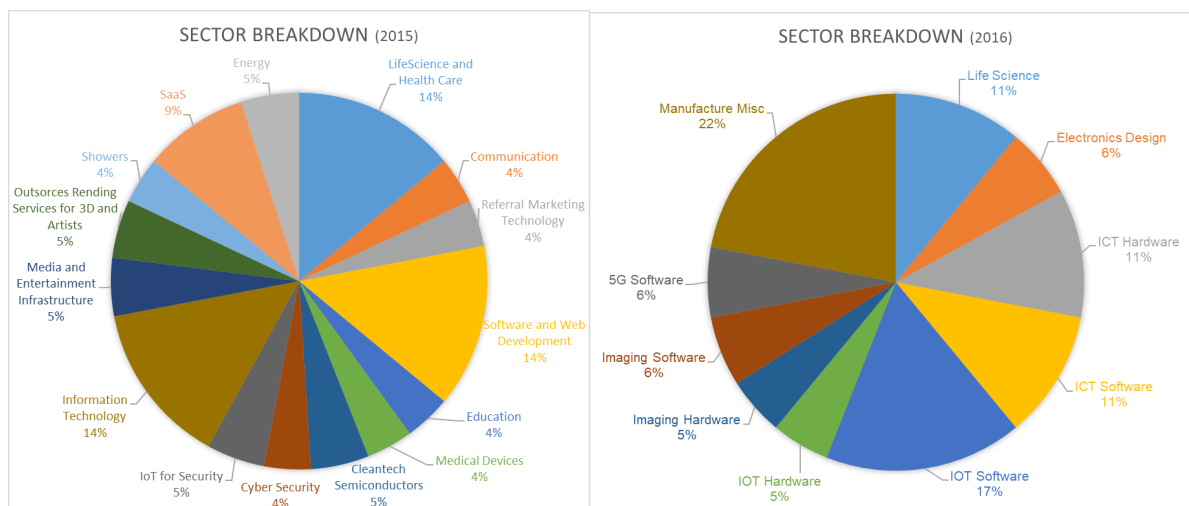
Figure 3.2: Top 50 Average Employment and Revenue

	Current (2017)	Projected for coming year	Anticipated Annual Growth
Average revenue	£1.2M	£2.6M	113%
Average employment	21	28	35%
Employment (businesses with at least 10 employees)	25	34	34%


Additional Data








- 3.6. Businesses in a variety of economic sectors have been supported by SETsquared. Figure 3.3 illustrates the range of sectors and businesses supported in 2015 and 2016.

Figure 3.3: Sector Profile of Supported Businesses



- 3.7. Total investment raised by businesses supported by SETsquared has been increasing year on year. For example:
- In 2015, £90 million was raised;
 - This was £166.7 million in 2016; and
 - In 2017, the figure was £218 million.
- 3.8. Overall, SETsquared has helped companies raise £1.5 billion of investment since 2002 – in some cases supporting companies to raise funding significantly higher than their turnover as illustrated by the case study of Ubiquisys below.
- 3.9. Ubiquisys is an alumnus of SETsquared. The founders started out as mentors for SETsquared going on to set-up the business with support from the partnership. Having benefitted from support such as physical office space, networking, and investor access the business went on to operate in four countries with around 150 employees and an annual turnover of £14 million, with the total investment raised being £86 million, before being acquired by Cisco in 2013.



-  Established in 2004
-  Bath
-  Operating in UK, Europe, US, Japan
-  150 employees
-  Turnover of £14M (2012/13)
-  Investment raised of £86M
-  Exit of \$310M

"The Innovation Centre gave us a cost-effective place to meet investors and potential recruits. It was a supportive environment, with people around us who were also in start-ups. We could give each other moral support and sometimes practical assistance: getting off the ground is a tough process, and an incubator environment means you help each other to surmount the various problems that come your way."

Pete Keevill, VP Engineering
Will Franks, CTO

In May 2013, Cisco completed the acquisition of Ubiquisys for \$310M. Prior to the acquisition Ubiquisys, was a leader in intelligent 3G and LTE small cells, providing seamless connectivity across mobile heterogeneous networks for service providers.

Type of support received by SETsquared includes:

<ul style="list-style-type: none"> ✓ Premises ✓ Investor access ✓ Mentor/talent access 	<ul style="list-style-type: none"> ✓ Networking ✓ Entrepreneurial environment
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Economic Impact Estimates

- 3.10. GVA has been calculated in constant prices using two approaches. For high growth Alumni, annual average turnover has been estimated and converted to GVA using the average ratio of turnover to GVA for the sectors supported. For other Alumni and businesses supported, GVA has been calculated by multiplying the number of employees by an estimated average GVA per employee based on the profile of businesses and the industry average GVA data from the Annual Business Survey (ABS).
- 3.11. The two methods have been used because the high growth Alumni appear to have a lower correlation between GVA and employment than other businesses.
- 3.12. The GVA estimates provided in Figure 3.4 include a cumulative total i.e. summing each year of GVA impact.
- 3.13. Future GVA impacts have been calculated assuming that support continues at the current level, with all other assumptions as specified for the historic impact.
- 3.14. Estimates of employment impacts are presented in Figure 3.5 and assumptions made in Figure 3.6.

Figure 3.4: Estimates of GVA Generated by Businesses to 2017 and in the future

	Estimate of GVA (2002-14)	Additional GVA to date (2015-17)	Future GVA (2018-2030)
Direct Cumulative GVA (NPV)	£3,783 million	£1,967 million	£12,403 million
Direct + Indirect Cumulative GVA (NPV)	£5,748 million	£2,899 million	£18,285 million

Figure 3.5: Estimates of Employment Generated by Businesses to 2017 and in the future

	Estimate of employment (2014)	Estimate of employment (2017)	Estimate of future employment (2030)
Total Employment (by end of period) - FTE	8,900	10,900	22,200

3.15. Overall assumptions made leading to these impacts are summarised in Figure 3.6.

Figure 3.6: Summary of Assumptions for Economic Impact Assessment

Key Variables	Businesses supported up to 2014	Businesses supported post 2014
Number of businesses in residential support p.a. ¹	85	85
Number of businesses receiving virtual support p.a. ¹	170	385
Proportion graduating from support per annum ¹	33%	33%
Proportion high growth alumni ¹	13%	13%
3 year survival rate for those in support ¹	72%	72%
Annual survival rate for alumni ²	95%	95%
Ratio of GVA to Turnover ³	50%	50%
R&D GVA per employee ³	£46,955	£34,700
Blended GVA per employee ³	£71,584	£76,081
Discount Rate for NPV calculations ⁴	3.5%	3.5%
Supply chain multiplier ⁵	1.52	1.47

Sources:

¹ Provided by SETsquared Partnership

² WECD estimate

³ Derived from ABS weighted by business sector of sample businesses

⁴ HM Treasury Green Book discount rate

⁵ UK Input-Output Tables – blended rate based on sector profile of businesses