

# UK Cyber Security Sectoral Analysis 2021

**Research report for the Department for  
Digital, Culture, Media and Sport**

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# Contents

|  |    |
|--|----|
| Foreword.....  | 5  |
| Executive Summary .....  | 6  |
| 1. Introduction.....   | 9  |
| 1.1 Methodology and Sources .....  | 9  |
| 1.2 Consistency with the 2020 Cyber Security Sectoral Analysis .....     | 12 |
| 1.3 Interpretation of the Data.....                                      | 12 |
| 1.4 Acknowledgements .....   | 13 |
| 2. Profile of the UK Cyber Security Sector.....                          | 14 |
| 2.1 Defining the UK Cyber Security Sector .....                          | 14 |
| 2.2 Number of Cyber Security Firms Active in the UK .....                | 15 |
| 2.3 Products and Services Provided by the UK Cyber Security Sector ..... | 20 |
| 3. Location of Cyber Security Firms in the UK .....                      | 23 |
| 3.1 Introduction.....  | 23 |
| 3.2 Location of UK Cyber Security Firms .....                            | 23 |
| 3.3 UK Cyber Security Heatmap.....                                       | 25 |
| 3.4 Role of Cyber Security Clusters.....                                 | 26 |
| 3.5 International Activity.....  | 26 |
| 4. Economic Contribution of the UK Cyber Security Sector .....           | 29 |
| 4.1 Estimated Revenue .....  | 29 |
| 4.2 Estimated Employment .....   | 32 |
| 4.3 Estimated Gross Value Added (GVA) .....                              | 35 |
| 4.4 Summary of Economic Contribution .....                               | 37 |
| 5. Investment in the UK Cyber Security Sector .....                      | 38 |
| 5.1 Introduction.....  | 38 |
| 5.2 Investment to Date .....   | 38 |
| 5.3 Investment by Location .....   | 41 |
| 5.4 Investment by Size.....  | 42 |
| 5.5 Investment by Company Offer .....                                    | 43 |
| 5.6 Sectoral Valuation.....  | 44 |
| 5.7 Investors and Sources of Funding .....                               | 44 |
| 5.8 What are investors seeking to invest in?.....                        | 45 |
| 6. Sector Performance (2020).....  | 49 |
| 6.1 Introduction.....  | 49 |
| 6.2 Tracking Sector Performance .....                                    | 49 |
| 6.3 The impact of COVID-19 .....   | 50 |
| 6.4 Cyber Security Exports .....   | 53 |
| 6.5 Public Procurement .....   | 55 |
| 7. Government Support for the Cyber Security Sector.....                 | 56 |

|   |           |
|---|-----------|
| <b>7.1 Introduction</b> .....                         | <b>56</b> |
| <b>7.2 Overview of Sectoral Support</b> .....         | <b>56</b> |
| <b>Key Findings</b> .....                             | <b>59</b> |
| <b>Regional Snapshots</b> .....                       | <b>61</b> |
| <b>Introduction</b> .....                             | <b>61</b> |
| <b>East Midlands</b> .....                            | <b>61</b> |
| <b>East of England</b> .....                          | <b>62</b> |
| <b>Greater London</b> .....                           | <b>63</b> |
| <b>North East</b> .....                               | <b>64</b> |
| <b>North West</b> .....                               | <b>65</b> |
| <b>South East</b> .....                               | <b>66</b> |
| <b>South West</b> .....                               | <b>67</b> |
| <b>West Midlands</b> .....                            | <b>68</b> |
| <b>Yorkshire and the Humber</b> .....                 | <b>69</b> |
| <b>Northern Ireland</b> .....                         | <b>70</b> |
| <b>Scotland</b> .....                                 | <b>71</b> |
| <b>Wales</b> .....                                    | <b>72</b> |
| <b>Appendices</b> .....                               | <b>73</b> |
| <b>A: Report References</b> .....                     | <b>73</b> |
| <b>B: Overview of Sources</b> .....                   | <b>73</b> |
| <b>C: Taxonomy and Definitions</b> .....              | <b>74</b> |
| <b>D: Survey Methodology and Interpretation</b> ..... | <b>74</b> |
| <b>E: Investment Definitions</b> .....                | <b>75</b> |

# Foreword: Matt Warman MP



The need for cyber security products and services has never been greater, and supporting this sector to grow has been a key objective of our strategy for the last five years. To allow us to make the right policy decision we need a strong evidence base. This is our third UK Cyber Sectoral Analysis report since 2018 detailing recent developments in our cyber security sector and demonstrating the crucial role the industry plays in securing our digital way of life.

COVID-19 has impacted all of our lives in one way or another. People are concerned about the wellbeing of their friends and family, and businesses in all sectors worry about their ability to weather the storm and protect their livelihoods.

Against this backdrop, I have been greatly impressed by the resilience of our cyber security sector - and also by its capacity to do good and support others during tough times. The pandemic has compelled us to rapidly adopt new technology and everyone working in cyber security has therefore played a crucial role in keeping us secure, as we talk, shop and work online more than ever before.

This year's survey of cyber security firms found that whilst nine in ten businesses (89%) felt COVID-19 had impacted their business, many of these firms have quickly adjusted and innovated within the current economic climate. Many have also found the capacity to offer vital technical support to the NHS, and other critical national services, often on a pro-bono basis.

Our sector is growing and diversifying, solidifying its status as a jewel in the UK's economic crown. Within this year's study, we are now tracking 1,483 firms offering cyber security products or services in the UK - an increase of 21% from our last analysis. The sector has also added over 3,800 jobs, and revenues have grown by 7% to £8.9bn. 2020 was a record year in terms of external investment into the sector - at

£821m - though we must continue working to ensure this success is spread right across the country to all regions and businesses of all sizes.

It is also clear that the sector continues to evolve and innovate. This year's research has highlighted particular growth in firms offering solutions for industrial control systems and IoT security, demonstrating the sector's ability to adapt and meet emerging challenges, such as the need to secure smart cities.

As we reflect on the progress made within the National Cyber Security Strategy (2016-21), we will use the findings from this report and our extensive engagement with industry to inform future government interventions to ensure this growth story continues.

Our work is far from done. As this report shows, whilst there is encouraging growth in the sector across the UK, this must be accelerated, as part of the Levelling Up agenda, to ensure regions beyond London and the South East get the support they need. Now, more than ever, we must continue to support promising start-ups and SMEs in the sector, to ensure that those creating innovative products can access the investment they need to expand, create jobs, find customers, and boost growth.

This is an exciting time for cyber security and a chance for the sector to continue helping the nation as we build back better and safer. The continued take up of new technology by businesses, the rapid proliferation of internet-connected IoT devices and the government's work to drive up cyber resilience across the economy all represent opportunities for the sector to grow and innovate.

I'd like to thank everyone working in cyber security for their contribution over the past year and I look forward to continuing our work to make the UK the safest place to live and work online.

Matt Warman MP  
Parliamentary Under Secretary of State  
Minister for Digital Infrastructure

# Executive Summary

## Introduction

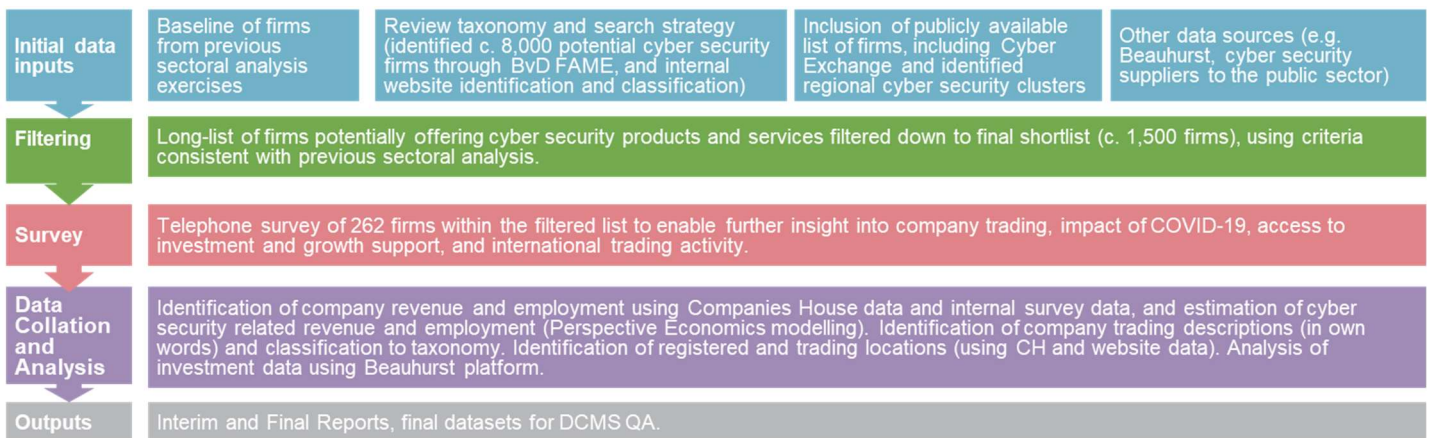
Ipsos MORI, in conjunction with Perspective Economics and the Centre for Secure Information Technologies (CSIT) at Queen's University Belfast were commissioned by the Department for Digital, Culture, Media and Sport (DCMS) in February 2020 to undertake an updated analysis of the UK's cyber security sector.

This analysis builds upon the previous UK Cyber Security Sectoral Analysis<sup>1</sup> (published in January 2020) that provides a recent estimate of the size and scale of the UK's cyber security industry. This provided an assessment of the number of businesses in the UK supplying cyber security products or services; the sector's contribution to the UK economy (measured through revenue and GVA); the number employed in the cyber security sector; and an overview of the products and services offered by these firms.

The UK's National Cyber Security Strategy (NCSS) 2016-2021 has been implemented over the last five years, and this analysis provides a welcome opportunity to explore how the sector has developed over that time, and set out a vision for future growth of the sector.

## Project Scope and Summary of Methodology

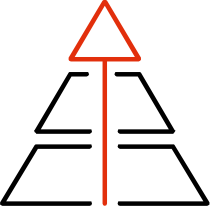


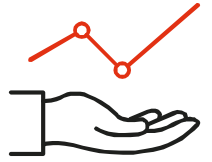

The diagram below sets out a summary of the research methodology used. This is consistent with previous studies to support a time-series analysis of the sector's performance to date.

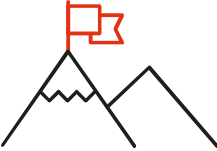

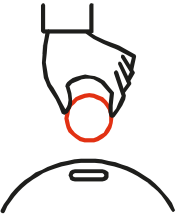
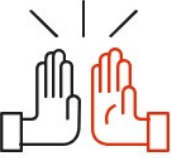


Source: Ipsos MORI, Perspective Economics, and the Centre for Secure Information Technologies (2020)

<sup>1</sup> Ipsos MORI, Perspective Economics, CSIT (2020), 'UK Cyber Security Sectoral Analysis'. Available at: <https://www.gov.uk/government/publications/cyber-security-sectoral-analysis-2020>

## Key Findings:

|   |  |
|---|--|
|    | <h3>Number of Companies</h3> <p>We estimate that there are 1,483 firms active within the UK providing cyber security products and services.</p> <p>↑ This reflects an increase of 21% since last year's (2020) report (1,221 firms), and a 75% since the baseline report in 2017/18 (846 firms).</p> <p>The majority of firms are SMEs, but there are many providers of scale operating within the UK market, i.e. 22% of businesses offering cyber security products and services to market are medium or large, compared to 4% of all businesses in the UK.</p>  |
|    | <h3>Sectoral Employment</h3> <p>We estimate there are approximately 46,700 Full Time Equivalents (FTEs) working in a cyber security related role across the cyber security firms identified.</p> <p>↑ This reflects an estimated increase of 9% (from 43,000) in employee jobs within the last twelve months.</p> <p>The majority (65%) of cyber security employment remains based within large firms (250+ employees).</p>  |
|  | <h3>Sectoral Revenue</h3> <p>We estimate that total annual revenue within the sector has reached £8.9bn within the most recent financial year.</p> <p>↑ This reflects an increase of 7% since last year's study (i.e. revenue has increased by £0.6bn from £8.3bn). Whilst positive, this rate of growth is slower than set out within previous analysis.</p> <p>On average, we estimate that revenue per employee has fallen slightly from c. £193,500 to c. £190,000 within the last year (a decrease of 2%).</p> <p>Just under three-quarters (£6.6bn, 74%) of all UK cyber security revenue is earned by large firms (250+ employees).</p> |
|  | <h3>Gross Value Added</h3> <p>We estimate that total Gross Value Added (GVA) for the sector has reached c. £4bn.</p> <p>↑ This means total GVA has increased by 6% in the last year (from £3.77bn).</p> <p>We estimate that GVA per employee has fallen slightly from £88,000 to £85,700 within the last year (a decrease of 3%).</p>  |
|  | <h3>Products and Services</h3> <p>The most commonly provided cyber security products and services (see Section 2) by the sector include:</p> <ul style="list-style-type: none"> <li>▪ Cyber Professional Services (provided by 72% of firms)</li> <li>▪ Threat Intelligence, Monitoring, Detection and Analysis (43%)</li> </ul>   |

|   |  |
|---|--|
|   | <ul style="list-style-type: none"> <li>▪ Endpoint Security (including Mobile Security (33%))</li> </ul> <p>↑ SCADA and ICS (7% of firms vs 4% last year), and IoT Security (3% of firms vs 2% last year).</p> <p>We have also segmented companies by whether their main provision is a product (29%), service (54%), managed services (16%), or reseller activities (1%).</p>  |
|    | <p><b>Market Sentiment</b></p> <p>The cyber security sector has grown by 7% since last year’s study.</p> <p>However, this reflects company accounts data typically reported pre-COVID-19 (e.g. in financial year ending March 2020). Despite this, consultees are optimistic about the UK cyber security sector’s growth potential in future years.</p>  |
|   | <p><b>COVID-19</b></p> <p>The COVID-19 pandemic, whilst challenging, has demonstrated that there is a strong resilience within the sector, with the number of cyber security firms continuing to grow. However, this report does find that there is a sustained need to ensure that small and medium-sized scale-ups can access support to grow in the years ahead.</p> <p>Further, there is potential that the wider economic environment could exert downwards pressure on information security expenditure, which could result in more restrained growth in the sector in future.</p>                       |
|  | <p><b>Investment</b></p> <p>Despite the prevailing economic conditions, 2020 was a new record year for cyber security investment, with over £821m raised in 2020 by dedicated cyber security firms across 73 deals – more than twice than raised in 2019.</p> <p>However, this investment is primarily driven by large scale investments in a number of more mature cyber security firms, and there were very few deals led by early-stage cyber security start-ups in the last twelve months.</p>   |
|  | <p><b>Industry Support</b></p> <p>The UK Government has invested in a range of initiatives to help cyber security start-ups, early-stage companies, and high growth companies develop market-leading products and secure external investment. There have now been over 200 firms through a cyber security initiative supported by government.</p> <p>Further, in 2020, the provision of government support to UK businesses through the COVID-19 pandemic has been welcomed by a number of cyber security start-ups, in helping them to adjust to new ways of working, and support investments in R&amp;D.</p> |



# 1. Introduction

This analysis builds upon the previous UK Cyber Security Sectoral Analysis<sup>2</sup> (published in January 2020) that provides a recent estimate of the size and scale of the UK's cyber security industry. This provided an assessment of the number of businesses in the UK supplying cyber security products or services; the sector's contribution to the UK economy (measured through revenue and GVA); the number employed in the cyber security sector; and an overview of the products and services offered by these firms.

As set out with last year's Cyber Security Sectoral Analysis, the NCSS sets out the UK's ambitions for strong growth in the UK cyber sector year on year, alongside significant increases in investment in early-stage companies, and the adoption of innovative and effective cyber security technologies across the private and public sectors.

|  |   |   |
|--|---|---|
|  | <p><b>Setting the Scene:</b> <i>"A burgeoning and innovative cyber security sector is a necessity for our modern, digital economy. UK cyber security firms provide world-leading technologies, training and advice to industry and government. But whilst the UK is a leading player, it faces fierce competition to stay ahead..."</i></p>   |   |
|  | <p><b>Objective:</b> <i>The Government will support the creation of a growing, innovative and thriving cyber security sector in the UK in order to create an ecosystem where:</i></p> <ul style="list-style-type: none"> <li>▪ <i>security companies prosper, and get the investment they need to grow</i></li> <li>▪ <i>the best minds from government, academia and the private sector collaborate closely to spur innovation</i></li> <li>▪ <i>customers of the Government and industry are sufficiently confident and prepared to adopt cutting-edge services.</i></li> </ul> | <p><b>Measuring Success:</b> <i>The Government will measure its success in stimulating growth in the cyber security sector by assessing progress towards the following outcomes:</i></p> <ul style="list-style-type: none"> <li>▪ <i>greater than average global growth in the size of the UK cyber sector year on year</i></li> <li>▪ <i>a significant increase in investment in early stage companies</i></li> <li>▪ <i>adoption of more innovative and effective cyber security technologies in Government.</i></li> </ul> |

## 1.1 Methodology and Sources

The UK Cyber Security sector does not have a formal Standard Industrial Classification (SIC) code, and this study therefore closely aligns itself to that of the baseline analysis, in order to provide a time-series analysis of how the sector has progressed since baseline (2017).

The following methodology and research sources were used to provide an overarching shortlist of UK cyber security businesses, and to estimate their economic contribution related to the sale of cyber security products or services.

<sup>2</sup> Ipsos MORI, Perspective Economics, CSIT (2020), 'UK Cyber Security Sectoral Analysis'. Available at: <https://www.gov.uk/government/publications/cyber-security-sectoral-analysis-2020>

The process by which we identify and measure the economic contribution of cyber security activity reflects a best estimate by the Ipsos MORI and Perspective Economics team, using agreed parameters for the inclusion of respective firms considered to be active in the field.

The key stages below are consistent with the 2017 and 2020 Cyber Security Sectoral Analysis exercises to enable a time-series comparison.

### **Stage 1: Desk Research**

The research team conducted initial desk research to explore how the cyber security market had changed within the last twelve months. This included:

- Engagement with UK cyber security regional networks and clusters, to gather local level sectoral intelligence
- Review of published reports regarding the output or activities of the sector (e.g. UK Cyber Security Exports Strategy and associated annual export statistics)
- Recent investments or initiatives in the cyber security sector (including review of investments and acquisitions, and identification of new industry initiatives and cohorts e.g. Tech Nation Cyber)
- Any emerging trends in the market (including supply-side and demand-side) e.g. enhanced demand attributable to cloud security or working-from-home, or new product innovations requiring specific cyber security requirements (e.g. IoT security)

### **Stage 2: Initial Data Collection & Gap Analysis**

The research team subsequently sought to identify potential active cyber security firms in the UK through:

- A review of the baseline firms (identifying the current status and determining inclusion in the updated set)
- A review of company participation within clusters, networks, and/or government supported initiatives
- A revised search strategy (using BvD FAME and wider search strategy). A long-list was subsequently tested and refined to a final working list for the sectoral analysis

This list was then subject to extensive data gathering to identify metrics including (but not limited to):

- Company name, registered number, company status, and date of incorporation
- Registered and trading locations
- Company website and contact details
- Core description of company activities related to cyber security
- Company size (large / medium / small / micro)
- Participation within government supported initiatives (e.g. NCSC Cyber Accelerator) to support the cyber security sector was also flagged at this stage

### **Stage 3: Cyber Security Sectoral Survey**

Ipsos MORI carried out a representative survey of 262 cyber security firms from 12 May to 20 July 2020. The survey used the list of firms established in Stage 2 of this study as a sample frame. The purpose of the survey was to collect data directly from the firms that could not be found in Stage 2 of this study.

It covered the following topics:

- The categories of products and services offered across firms
- The client sectors that cyber security firms work across
- Revenue estimates (to supplement the other published data found in Stage 2)
- Extent of export activity, or international collaboration
- Perceived impact of COVID-19
- Perceived barriers to growth

Appendix D provides the full technical details for the survey, including the data collection approaches and response rate.

#### **Stage 4: Consultations**

This research has also been supported through 20 one-to-one consultations with cyber security firms, buyers of cyber security products and services, and investors in the cyber security sector (see breakdown below). Participants were purposively sampled to reflect variation in size, location, product or service focus, and maturity, with participating cyber security firms being recruited from the Ipsos MORI survey recontact sample. Larger cyber buyers were purposively sampled to capture feedback on how demand was evolving to address new challenges.

The breakdown of the 20 one-to-one consultations is as follows:

- Cyber security firms: 8
- Cyber buyers: 5
- Cyber investors: 7

#### **Stage 5: Data Blending**

In August 2020, the results of the cyber security sector survey were utilised to inform gaps within the initial long-list of cyber security sector firms e.g. the extent to which a firm provided cyber security products or services and attributed revenues accordingly, or indeed, where a firm had received support from an initiative intended to help the sector – this includes their views on how support has helped them to grow. This stage involved thorough data cleaning and joining to provide a final dataset of cyber security firms, and a granular (known and/estimated) profile of which firms are involved in cyber security, to what extent (to attribute employment, revenue, GVA etc), what firms offer to the market (within the taxonomy i.e. sub-sectors of the market), and where firms have secured investment.

#### **Stage 6: Data Analysis and Reporting**

The final stage involved analysis of the final shortlist of firms to provide estimates of total number of firms, products and services offered, whether firms are 'dedicated or diversified' with respect to how much of their activity related to cyber security provision, revenue/GVA/employment estimates, locations (registered, trading and international presence), investment and survey feedback (anonymised at an individual level). The analysis within this report is consistent with the baseline.

The data sources used to underpin the sectoral analysis included:

- **Bureau van Dijk FAME** (and Companies House Data Product): This platform collates Companies House data and financial statements from all registered businesses within the UK

- **Beauhurst:** Beauhurst is a leading investment analysis platform, that enables users to discover, track and understand some of the UK's high-growth companies e.g. identify investment, accelerator participation, and key information
- **Tussell:** Tussell provides market insight into public sector procurement through identifying key contracts, spend, buyers and suppliers
- **Cyber Exchange:** TechUK's Cyber Exchange directory enables cyber security providers to register an account and set out the products and services they provide to the market
- **Web scraping:** Our team has utilised web scraping<sup>3</sup> to extract and parse key company descriptions, locations and contact details from identified company websites
- **Representative survey of cyber security firms:** in Summer 2019, Ipsos MORI conducted a representative survey of cyber security firms. The feedback from 262 providers has been highly useful to understand the financial performance, growth drivers, and challenges for firms within the market
- **One-to-one consultations:** Further, the team has also conducted 20 one-to-one consultations with investors and market providers, to gather feedback on the growth and performance of the cyber security sector in the UK

## 1.2 Consistency with the 2020 Cyber Security Sectoral Analysis

Our approach remains consistent with the baseline and last year's report. As per the previous studies, this report also explores firms that:

- Have a clear presence within the UK market, through a UK registered business that reports to Companies House on an annual basis
- Demonstrate an active provision of commercial activity related to cyber security (e.g. through the presence of a website / social media)
- Provide cyber security products or services to the market (i.e. sell or enable the selling of cyber solutions to other customers)
- Have identifiable revenue or employment within the UK
- Appear to be active at the time of writing (i.e. have not, or are not in the process of dissolution)
- Are not charities, universities, networks, or individual contractors (non-registered) – all excluded for analysis purposes

It also draws upon consistent sources i.e. BvD FAME for company data, and Beauhurst for investment data. The financial analysis of firms is also consistent, as it utilises company information from the most recent financial year of accounts (analysis undertaken in late 2020, with FY19/20 as the modal year for published accounts) and the underpinning dataset sets out where employment, revenue, GVA and investment are either known or estimated (and the rationale underpinning this).

## 1.3 Interpretation of the Data

Across this report, percentages from the quantitative data may not add to 100%. This is because:

- We have rounded percentage results to the nearest whole number
- At certain questions, survey respondents could give multiple answers

It is also important to note that the survey data are based on a sample of cyber sector firms rather than the entire population. Therefore, they are subject to sampling tolerances. The overall margin of error for

<sup>3</sup> Note: web scraping has observed robots.txt – i.e. where access is permitted.

the sample of 262 firms (within a population of 1,483 firms) is between c.3 and c.6 percentage points. The lower end of this range (3 percentage points) is used for survey estimates closer to 10% or 90%. The higher end (6 percentage points) is used for survey estimates around 50%. For example, for a survey result of 50%, the true value, if we had surveyed the whole population, is extremely likely to be in the range of 44% to 56%.<sup>4</sup>

## 1.4 Acknowledgements

The authors would like to thank the DCMS team for their support across the study. DCMS and the report authors would also like to thank those that participated within this research, including those that participated within the industry survey, the regional cyber security clusters, consultations, and shared data, knowledge, and feedback to help underpin this study.

**Note: The cyber security sector continues to increase in size, scope, and specialisms. We are happy to receive comments and feedback regarding the methodology or findings herein, through contacting [dcmscybersector@ipsos-mori.com](mailto:dcmscybersector@ipsos-mori.com).**

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<sup>4</sup> Based on 95% confidence intervals.

## 2. Profile of the UK Cyber Security Sector

### 2.1 Defining the UK Cyber Security Sector

Within the National Cyber Security Strategy (2016-21)<sup>5</sup>, cyber security is defined as:

The protection of internet connected systems (to include hardware, software, and associated infrastructure), the data on them, and the services they provide, from unauthorised access, harm or misuse. This includes harm caused intentionally by the operator of the system, or accidentally, as a result of failing to follow security procedures or being manipulated into doing so.

Therefore, this sectoral analysis seeks to identify businesses active within the UK that provide products or services that enable the protection of internet connected systems and their users.

In line with previous studies, this analysis is focused upon organisations that:

- Have a clear presence within the UK market, through a UK registered business that reports to Companies House on an annual basis
- Demonstrate an active provision of commercial activity (e.g. through the presence of an active website / social media presence)
- Provide cyber security products or services to the market (i.e. sell or enable the selling of cyber solutions to other customers) – aligned to the taxonomy set out below
- Have identifiable revenue or employment within the UK related to cyber security
- Appear to be active at the time of writing (i.e. have not, or are not in the process of dissolution)
- Are not charities, universities, networks, and individual contractors (non-registered) – which are all excluded for analysis purposes

The businesses included within this analysis are considered to provide one or more of the following products or services:

- **Cyber professional services**, i.e. providing trusted contractors or consultants to advise on, or implement, products, solutions, or services for others
- **Endpoint and mobile security**, i.e. hardware or software that protects devices when accessing networks
- **Identification, authentication, and access controls**, i.e. products or services that control user access, for example with passwords, biometrics, or multi-factor authentication
- **Incident response and management**, i.e. helping other organisations react, respond or recover from cyber attacks
- **Information risk assessment and management**, i.e. products or services that support other organisations to manage cyber risks, for example around security compliance or data leakage
- **Internet of Things (IoT Security)**, i.e. products or services to embed or retrofit security for Internet of Things devices or networks

<sup>5</sup> UK Government (2016) *National Cyber Security Strategy 2016 to 2021*. Available at: <https://www.gov.uk/government/publications/national-cyber-security-strategy-2016-to-2021>

- **Network security**, i.e. hardware or software designed to protect the usability and integrity of a network
- **SCADA and Information Control Systems**, i.e. cyber security specifically for industrial control systems, critical national infrastructure, and operational technologies
- **Threat intelligence, monitoring, detection, and analysis**, i.e. monitoring or detection of varying forms of threats to networks and systems
- **Awareness, training, and education**, i.e. products or services in relation to cyber awareness, training, or education

Section 2.3 sets out the type of cyber security products and services in further detail.

## 2.2 Number of Cyber Security Firms Active in the UK

We estimate that there are currently 1,483 firms active within the UK providing cyber security products and services. This reflects an increase of 21% since last year's report (n = 1,221).

Whilst the increase in the number of firms offering cyber security products and services reflects a positive trend, this is one metric among many to gauge the health of the sector. For example, this increase includes:

- Newly registered companies offering cyber security products and services (often very early / small start-ups)
- Previously registered companies that did not previously offer such services, but have established a product or team to do so recently (e.g. consultancies offering IT risk services)
- Businesses now identified as providing a relevant cyber security product or service (e.g. identified through provision of an accredited scheme such as Cyber Essentials)

Throughout this study, the report authors have utilised both a wide range of existing sources, alongside the development and deployment of a cyber security taxonomy against Companies House data and analysis of relevant website domains.

Within the process, a 'long-list' of over 8,000 businesses in the UK was identified as potentially relevant to the cyber security sector. However, this long-list was subsequently filtered to ensure each business demonstrated sufficient alignment to the research parameters and the market taxonomy mentioned previously. This yielded the 1,483 firms in scope, and the research team considers this list to be an appropriate one to gauge the health and composition of the sector whilst ensuring consistency with previous analysis.

We do however note, that as with all emerging sectors, subtle differences in definition can result in varying interpretations of the size and composition of activity. In this respect, there may be other relevant cyber security use cases, that could in future meet the short-list requirements (i.e. the six conditions set out on the previous page) and could therefore be included in future analysis. This might include, for example, firms involved in areas such as FinTech, RegTech or SafetyTech.

There are also businesses operating with the UK that may, for example, resell cyber security solutions (anti-virus, anti-malware, spam filtering etc) through a broader package of managed IT support. As this cyber security spend should be reflected in the revenues of those providing rather than reselling these solutions, we place less focus on the role of resellers within the sectoral analysis (although do include a small number of larger resellers that offer cyber security advisory services and implementation support).



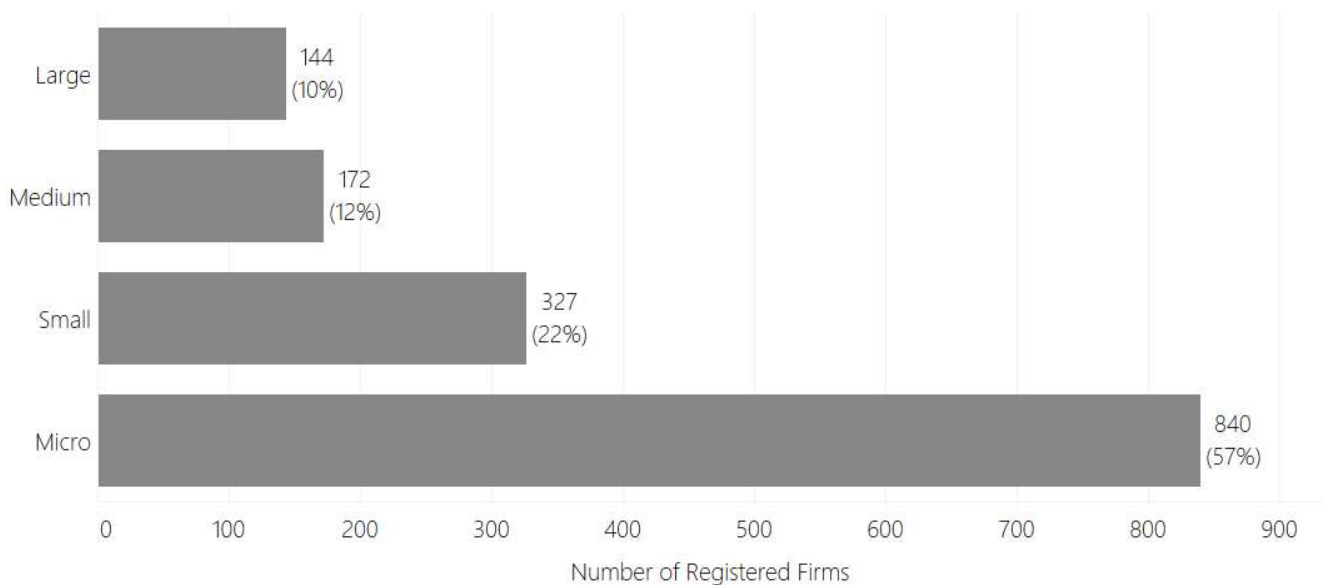
Overall, this process means that the 1,483 firms for analysis within this report have been tested and verified as providers of cyber security products and solutions. We provide a high-level breakdown of this provision in subsequent chapters. Given the breadth of ‘cyber security’ as a term, we endeavour to be clear regarding what is in scope, what is being measured, and why this matters for the sector and for the wider economy and society.

The following sub-sections set out an overview of the number of companies by size; the breakdown between companies that appear dedicated or diversified; and the products and or services provided by each company.

### Number of Registered Firms by Size:

For the 1,483 cyber security firms identified, Figure 2.1 and the table overleaf demonstrate the breakdown by size.

**Figure 2.1 Number of Registered Cyber Security Firms by Size**



Source: *Perspective Economics* (n = 1,483)

Within the UK, the vast majority of all businesses are SMEs, and it is therefore to be expected that the majority of registered businesses within the cyber security sector are small (22%) or micro (57%) in size.

As this study focuses upon businesses with at least one member of staff, the following comparison is noted between the UK’s cyber security sector, and the broader UK business population. This highlights that, despite the cyber security sector containing a large proportion of micro and small businesses, there are many providers of scale operating within the UK market (i.e. 22% of businesses offering cyber security products and services to market are medium or large, compared to 4% of all businesses in the UK).



## Comparison of the Size of Cyber Security Firms and Wider Business Population

| Size <sup>6</sup>                              | UK Business Population Estimates (2019) <sup>7</sup> | Percentage | Cyber Security Sectoral Analysis | Percentage <sup>8</sup> |
|--|--|------------|----------------------------------|-------------------------|
| Large (250+ employees)                         | 7,685  | 1%         | 144                              | 10%                     |
| Medium (50-249)                                | 35,585   | 3%         | 172                              | 12%                     |
| Small (10-49)                                  | 211,295  | 15%        | 327                              | 22%                     |
| Micro (1-9)                                    | 1,155,385  | 82%        | 840                              | 57%                     |
| <b>All Businesses with at least 1 employee</b> | <b>1,409,950</b>                                     |            | <b>1,483</b>                     |                         |

### Change in Size:

Following last year's sectoral analysis, we have tracked the performance of each firm (n = 1,221 in the previous study) to understand how the size of cyber security firms has changed (where applicable) in the last twelve months.

The left side of the Sankey diagram (Figure 2.2 overleaf) shows the size of cyber security firms as identified in the 2020 study, with the right side showing their updated size currently. As this is a relatively short time period, the size composition of firms remains fairly static. However, this does highlight that 4.6% of firms<sup>9</sup> appear to have closed or are no longer fully trading within the last twelve months. However, in the UK, the business death rate was 11.2% in 2019.<sup>10</sup> This highlights that, as discussed in last year's report, the cyber security sector is comparatively resilient. Further sections of this year's report discuss the impact of COVID-19 on the sector.

<sup>6</sup> Full size definitions: **Large:** Employees  $\geq 250$  and Turnover  $> \text{€}50\text{m}$  or Balance sheet total  $> \text{€}43\text{m}$  // **Medium:** Employees  $> 50$  and  $< 250$  And Turnover  $\leq \text{€}50\text{m}$  or Balance sheet total  $\leq \text{€}43\text{m}$  // **Small:** Employees  $> 10$  and  $< 50$  And Turnover  $\leq \text{€}10\text{m}$  or Balance sheet total  $\leq \text{€}43\text{m}$  // **Micro** Employees  $< 10$  And Turnover  $\leq \text{€}2\text{m}$  or Balance sheet total  $\leq \text{€}2\text{m}$

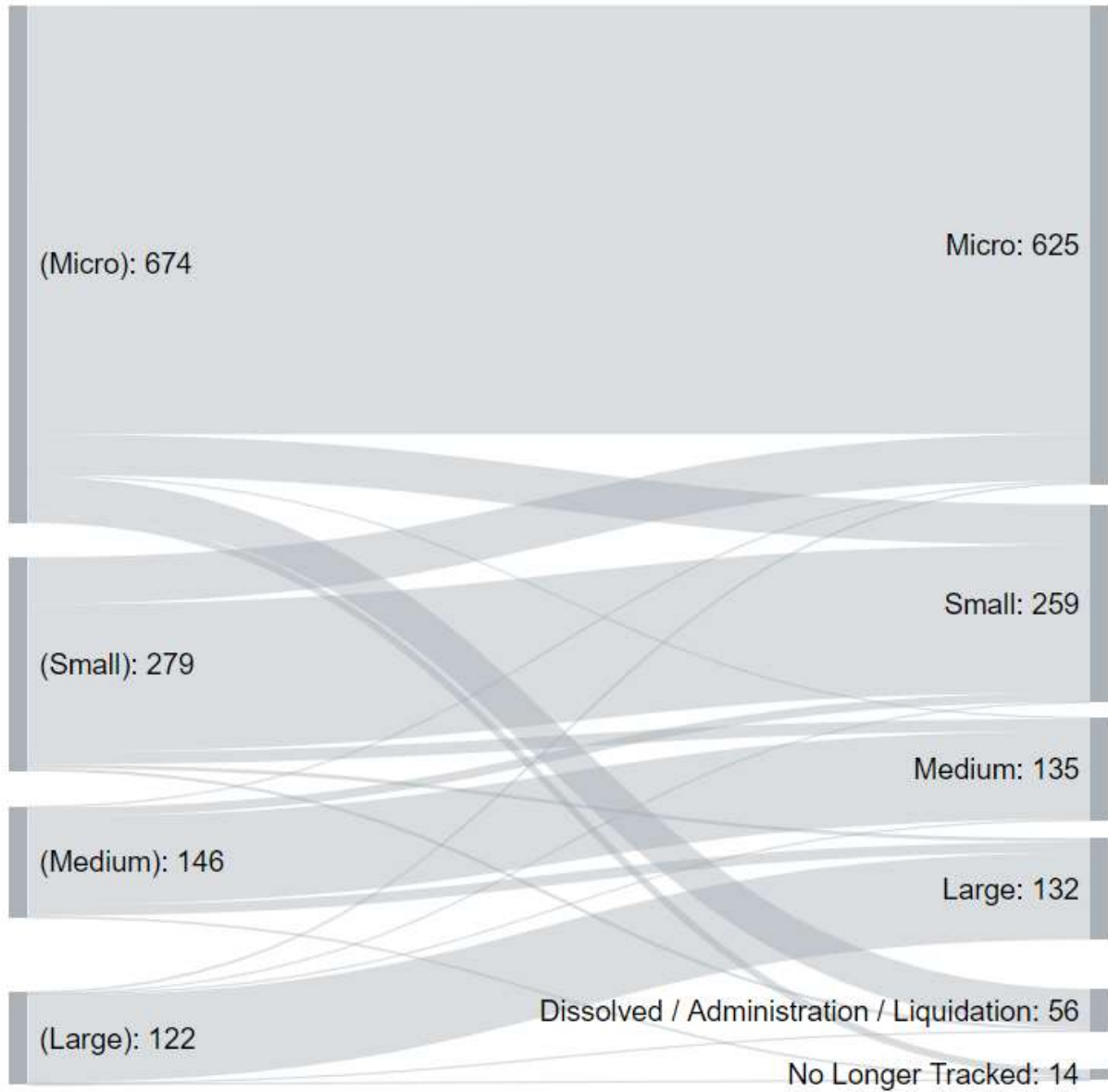
<sup>7</sup> BEIS (2020) 'Business Population Estimates for the UK and Regions' Available at: <https://www.gov.uk/government/publications/business-population-estimates-2019/business-population-estimates-for-the-uk-and-regions-2019-statistical-release-html>

<sup>8</sup> Figures may not sum due to rounding

<sup>9</sup> Number of firms dissolved, in administration, or liquidation (56 / 1,221) = 4.6%

<sup>10</sup> ONS (2020) 'Business Demography – UK 2019' Available at: <https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/bulletins/businessdemography/2019>

**Figure 2.2 Sankey Flow Chart – Size (2019 – 2020)**

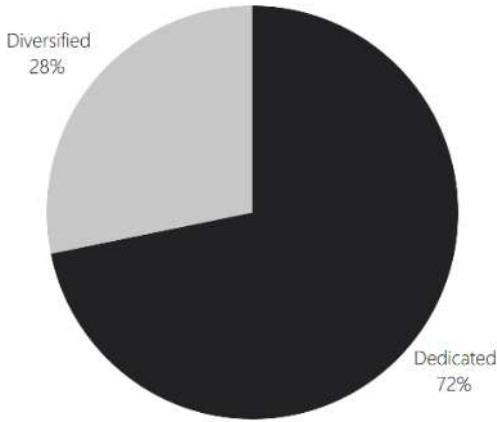


Source: Perspective Economics, (n = 1,221)

### Dedicated and Diversified Providers of Cyber Security Products and Services

Within this research, we attempt to categorise firms by whether they are either:

**Figure 2.3 Dedicated and Diversified Providers**



- **Dedicated** i.e. most (>75%) of the business' revenue or employment can be attributed to the provision of cyber security products or services

- **Diversified** i.e. less than 75% of the business' revenue or employment can be attributed to the provision of cyber security products or services

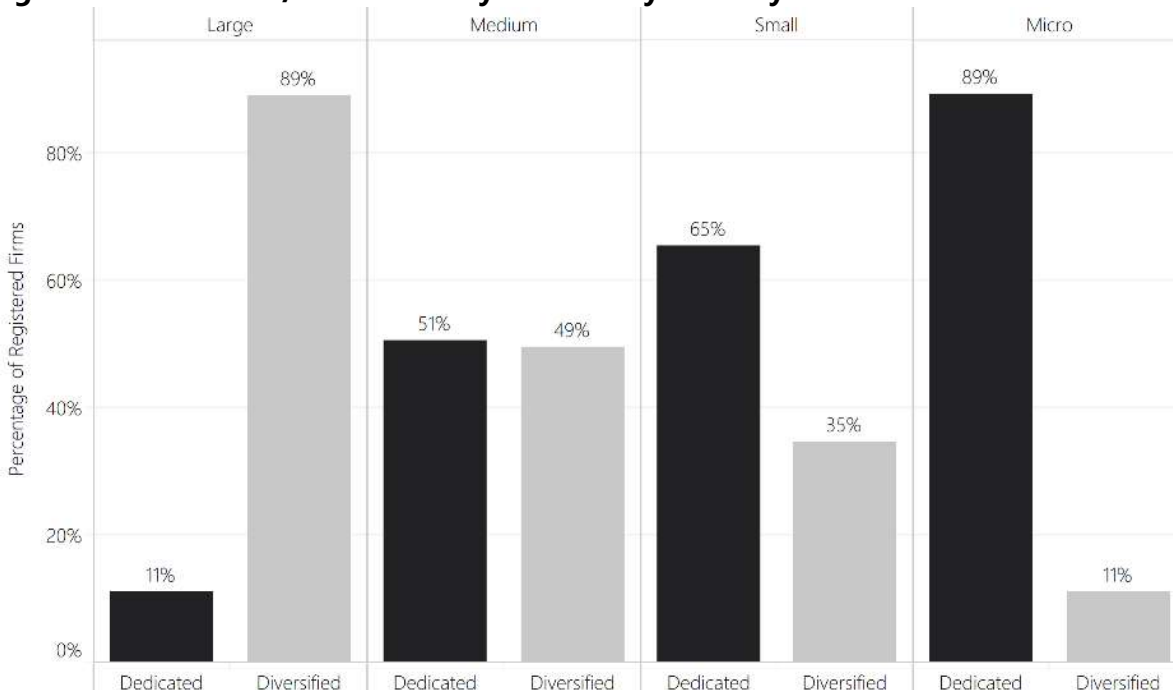
The rationale underpinning the need to provide this distinction is attributable to seeking to understand how firms either set up to solely provide cyber security, or

firms that provide cyber security as one product or service among others vary with respect to size, scale, growth, and market activity.

Within the current dataset, almost three-quarters (72%) of firms are dedicated providers of cyber security products and services. Disaggregating of these firms by size (as below in Figure 2.4) also highlights that micro and small firms within this analysis are much more likely to be dedicated (89% and 65% respectively), whereas there are relatively few large dedicated cyber security firms (11%).

In other words, this reflects the decision of several large and medium sized companies in the UK to establish cyber security practices to complement existing provision e.g. management consultancies, managed service providers, or telecoms firms developing a cyber security division that sells to the market.

**Figure 2.4 Dedicated / Diversified Cyber Security Firms by Size**



Source: Perspective Economics, n = 1,483

## 2.3 Products and Services Provided by the UK Cyber Security Sector

In order to understand the products and services provided by the UK cyber security sector, DCMS and the research team utilise a taxonomy (as summarised below) to categorise each of the products and services offered. This provides a high-level overview of the UK's cyber security product and service offer.

### Taxonomy Definitions:

| Taxonomy Category  | Agreed Definition (Short)  |
|--|--|
| Cyber professional services                              | Providing trusted contractors or consultants to advise on, or implement, cyber security products, solutions, or services for others. |
| Endpoint and mobile security                             | Hardware or software that protects devices when accessing networks.  |
| Identification, authentication, and access controls      | Products or services that control user access, for example with passwords, biometrics, or multi-factor authentication.               |
| Incident response and management                         | Helping other organisations react, respond, or recover from cyber-attacks.   |
| Information risk assessment and management               | Products or services that support other organisations to manage cyber risks, for example around security compliance or data leakage  |
| Internet of Things                                       | Products or services to embed or retrofit security for Internet of Things devices or networks  |
| Network security   | Hardware or software designed to protect the usability and integrity of a network.   |
| SCADA and Information Control Systems                    | Cyber security specifically for industrial control systems, critical national infrastructure, and operational technologies           |
| Threat intelligence, monitoring, detection, and analysis | Monitoring or detection of varying forms of threats to networks and systems.   |
| Awareness, training, and education                       | Products or services in relation to cyber awareness, training or education.  |

Source: Ipsos MORI, Perspective Economics and Centre for Secure Information Technologies

Further, we also classify each company by whether they provide (as their main cyber security offering) products, services, managed security services, or act as a cyber security specific reseller.

- Cyber security product(s) i.e. the business has developed and sells a bespoke product (hardware or software solution) to the market
- Cyber security service(s) i.e. the business sells a service to the market e.g. cyber security advisory services, penetration testing etc
- Provide Managed (Security) Services: i.e. the business offers other organisations some degree of cyber security support e.g. establishes security protocols, monitoring, management, threat detection etc – typically for a monthly or annual fee

- Reseller i.e. the business packages and resells cyber security solutions (usually through licencing agreements)

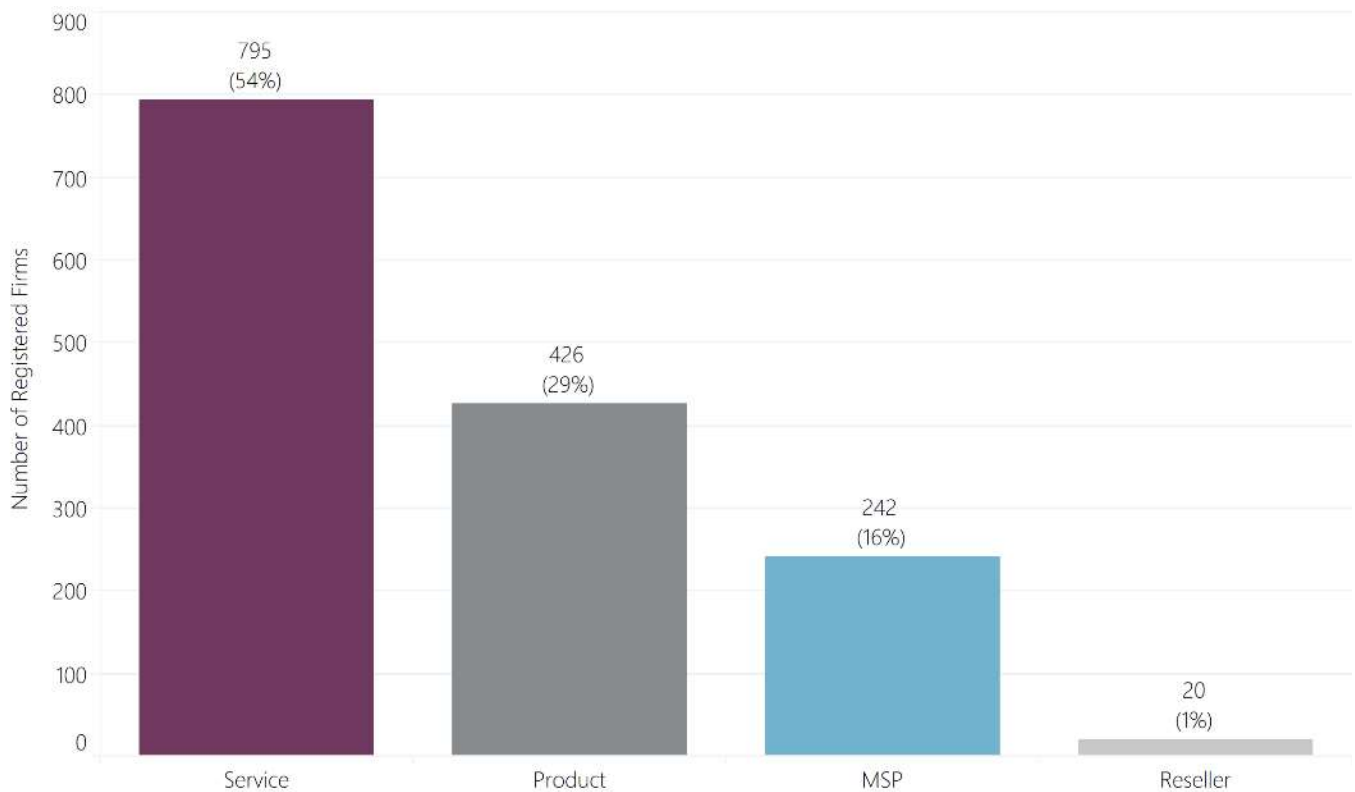
This approach helps policymakers, industry, and investors understand how many companies there are focusing on a particular subsector of the market, or offering new products or solutions accordingly.

### Product and Service Provision

Figure 2.5 sets out an analysis of how many companies appear to be focused upon product or service provision. It is worth noting that in reality there will be some overlap where firms provide both products and services; however, this approach selects one category per firm.

Overall, analysis of company trading descriptions suggests that over two-thirds (71%) of firms are mainly involved in service provision (including managed services and reselling<sup>11</sup>), and just under a third (29%) are mainly involved in cyber security product development.

**Figure 2.5 Number of Registered Cyber Security Firms by Product/Service Focus**



Source: *Perspective Economics*,  $n = 1,483$

### Taxonomy Breakdown

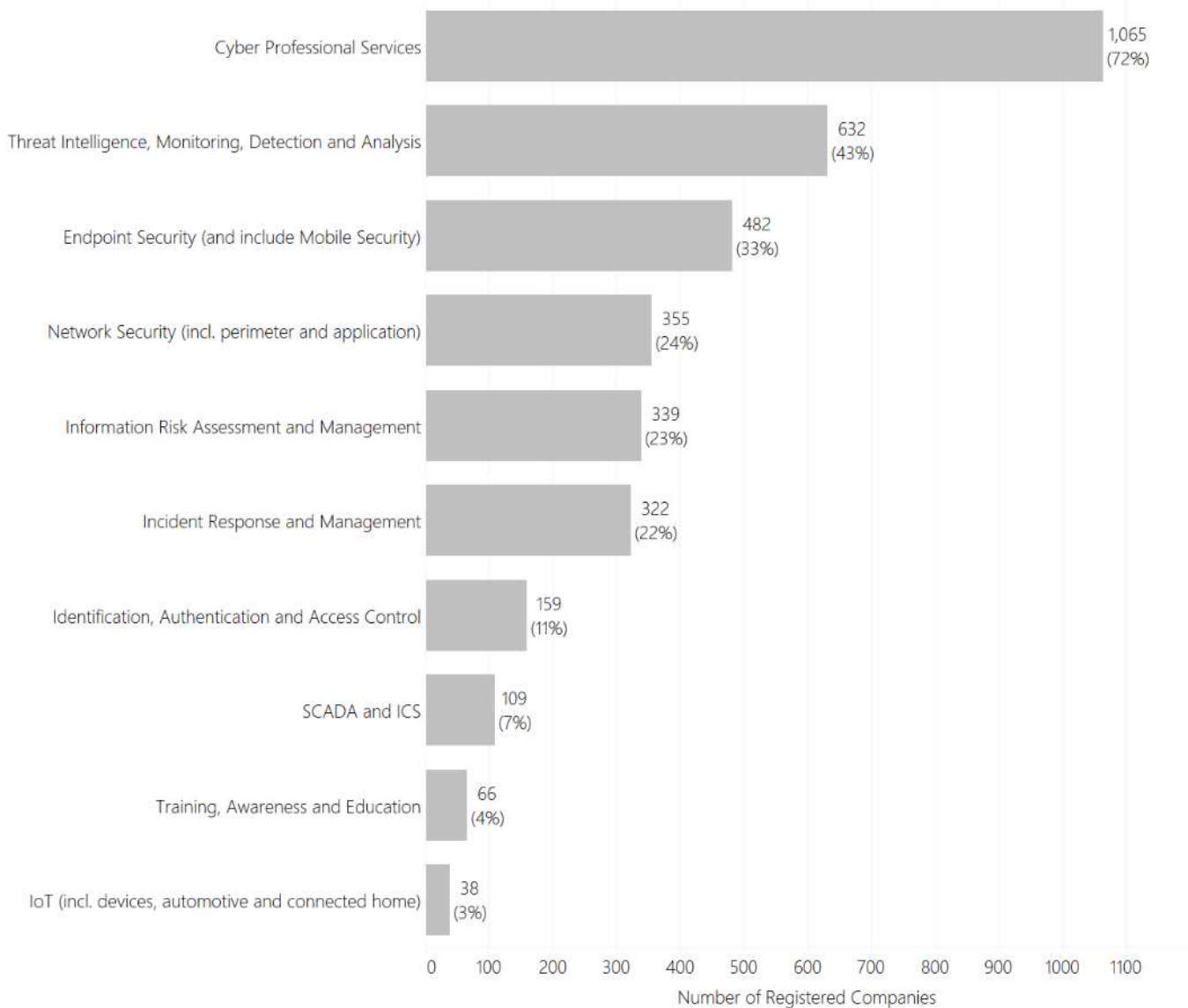
Within this study, we have matched company descriptions (in their own words through website analysis) with the key terms within each taxonomy category, followed by a manual check to assign companies to one (or more) taxonomy categories with respect to their product and service provision.

<sup>11</sup> Note only a small number of resellers are included – whereby they also appear to offer other services aligned to the agreed cyber security taxonomy e.g. advisory support with implementation of cyber security products or services. We do not include, for example, high street or online retailers.

On this basis, Figure 2.6 is based upon our analysis of trading descriptions. It demonstrates that 'Cyber Professional Services' remains the most commonly provided taxonomy category (72% of businesses), which reflects both the breadth of the taxonomy category as well as the often lower barriers to entry in establishing an advisory business compared to creating and bringing a cyber security product to market.

In the last twelve months, the number of businesses offering SCADA and ICS has increased (from 4% of firms to 7%), as well as IoT focused cyber security companies (2% to 3%) are meeting bespoke market requirements, and we expect this will continue to increase in future as firms align their offering to embed 'Secure by Design standards or meet regulatory requirements for their clients.

**Figure 2.6 Number of Registered Cyber Security Firms by Taxonomy Offering**



Source: Perspective Economics (n = 1,483)

# 3. Location of Cyber Security Firms in the UK

## 3.1 Introduction

This chapter explores the registered location (i.e. where each business has located its registered address with Companies House), and the active office locations (i.e. where each business has a trading presence or office across the UK) of cyber security firms.

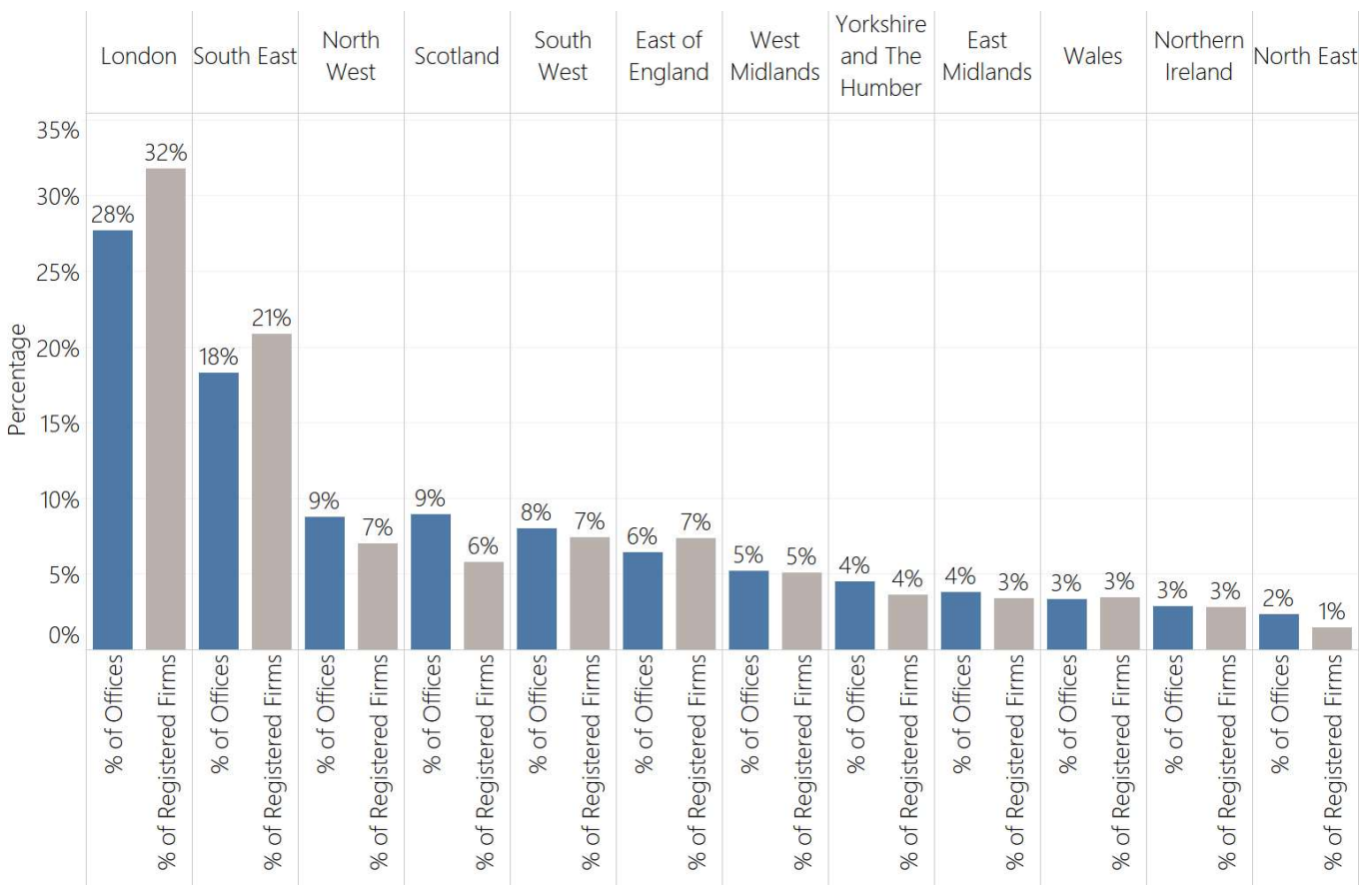
Understanding the registered and trading addresses of cyber security firms in the UK enables regional analysis and supports the evidence-based identification of notable clusters or hotspots of activity.

Within this chapter, we have identified 1,483 registered addresses covering 3,161 local offices within the UK.

## 3.2 Location of UK Cyber Security Firms

Figure 3.1 sets out the breakdown of how firms by number of UK office locations identified (n = 3,161) and registered offices (n = 1,483). In other words, on average, each firm has over two office locations across the UK. This highlights that registered office data may overestimate the extent of activity in London and the South East, and underestimate the extent of cyber security activity across all regions in the UK.

**Figure 3.1 Percentage of Cyber Security Firms by Location**



Source: Perspective Economics, n = 1,483 and n = 3,161

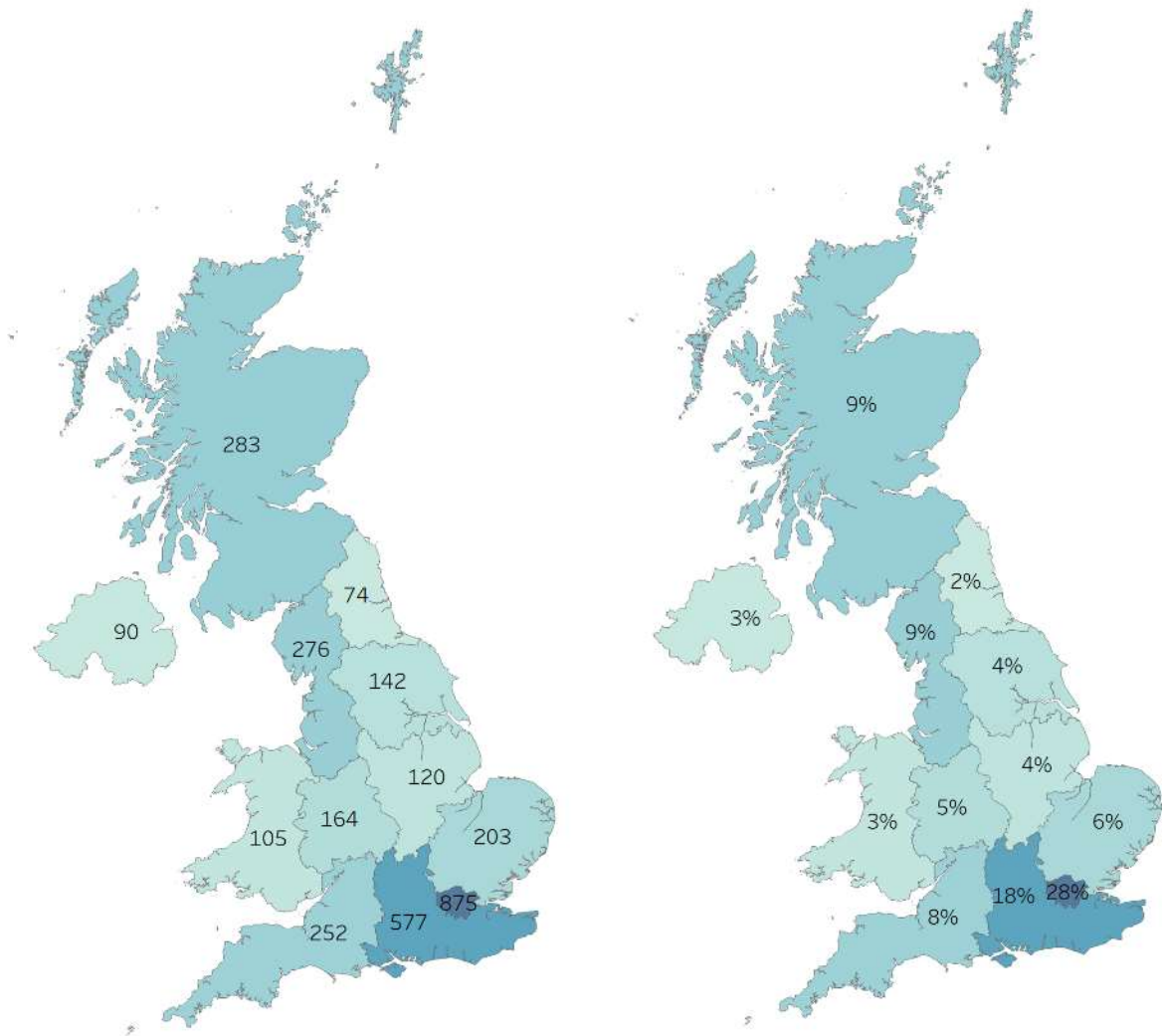


Figure 3.2 sets out the number of active offices identified within this study by UK region. Overall, the data now suggests that a slight majority of firms (54%) are now based outside of London and the South East regions (compared to 50% last year).

It may be interesting to further track this data with respect to active office locations, and proportion of staff working within these in the months ahead, given the recent shift to working-from-home practices as a result of the COVID-19 pandemic. This may help to test how mobile the workforce is perceived to be as a result.

Active (Local Offices)

**Figure 3.2 Active Cyber Security Offices by Region**



Source: Perspective Economics, n = 3,161

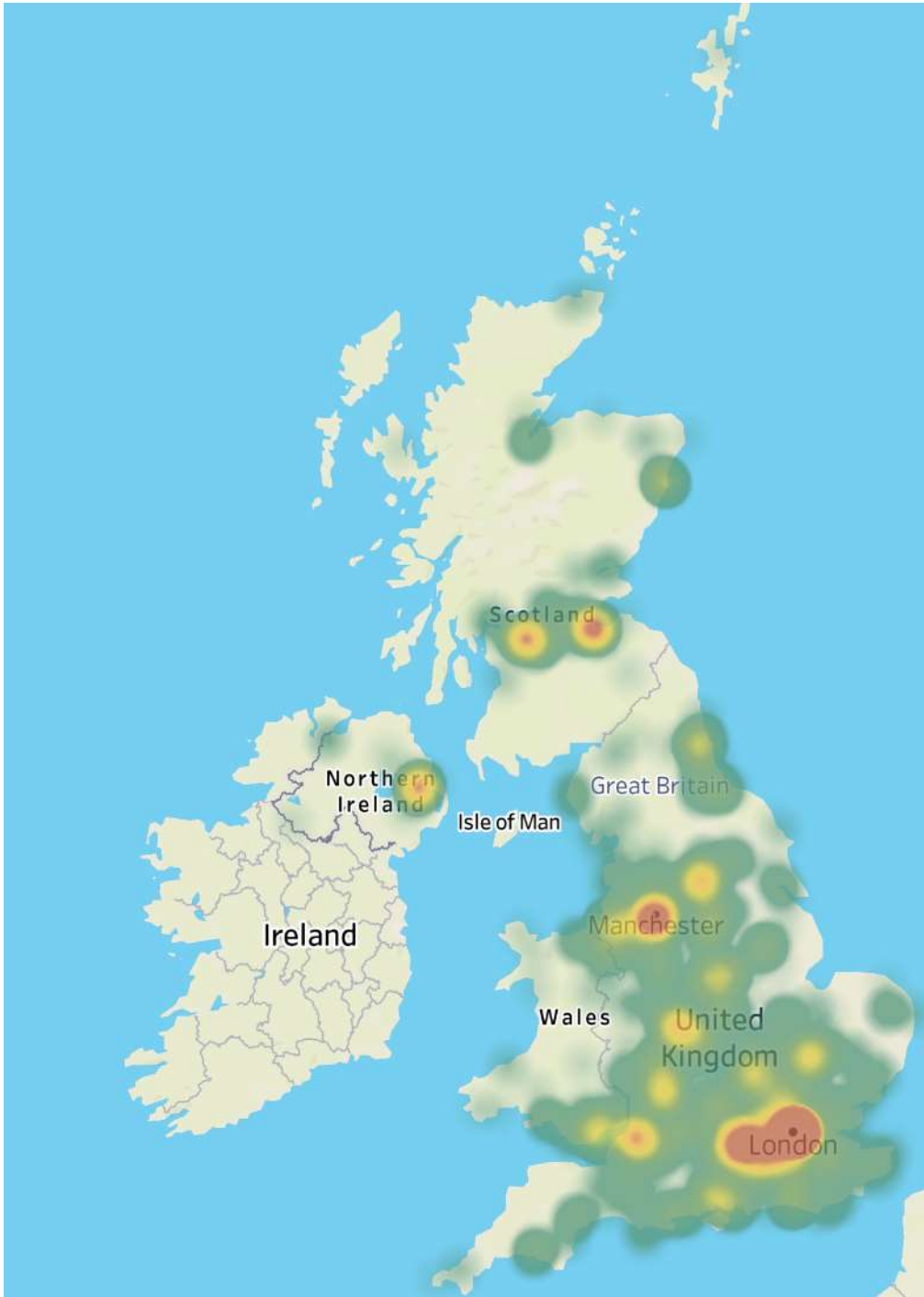


### 3.3 UK Cyber Security Heatmap

In addition to understanding the number of offices across the UK for cyber security businesses, the research has identified the latitude and longitude of each office, and identified commercial clusters emerging. Whilst some of the main cities in the UK contain some of the larger volumes of cyber security practices, the business location data suggests further agglomeration of cyber security businesses in cities such as Manchester, Leeds, Belfast, Bristol, and the Milton Keynes/Oxford/Cambridge corridor.

Heatmaps for each UK region are set out within the report annex.

**Figure 3.3 Cyber Security Firm Level Heatmap**



Source: Perspective Economics (Green = Low, Yellow = Mid, Red = High Concentration of Activity)

### 3.4 Role of Cyber Security Clusters

DCMS work closely with regional cyber security clusters, supporting their development and improving reach and insight into local and regional cyber security sector ecosystems and opportunities for growth. There are now over twenty established and emerging cyber security cluster organisations in the UK, in addition to a rich set of meetups and events. Many of these cluster organisations are also supported by devolved organisations and Local Enterprise Partnerships. These include (in alphabetical order):

- Bath and Bristol
- Cambridge
- CyNam (Cheltenham and Gloucestershire)
- East Midlands
- Malvern
- NI Cyber (Northern Ireland)
- Norfolk and Suffolk
- North East (Dynamo Cyber Cluster)
- North Somerset
- North Wales Cyber Security Cluster
- North West
- Oxford
- ScotlandIS
- Solent (Southampton)
- South East
- South Wales Cyber Security Cluster
- South West
- Thames Valley
- West Midlands
- West of England
- Yorkshire

Each of these clusters, and a regional snapshot is included within the annex of this report.

### 3.5 International Activity

This section outlines where UK registered cyber security firms have an established physical presence in another country. This helps to inform a further understanding of where firms are exporting, are engaged in international markets, or where multinational firms have a presence in the UK.

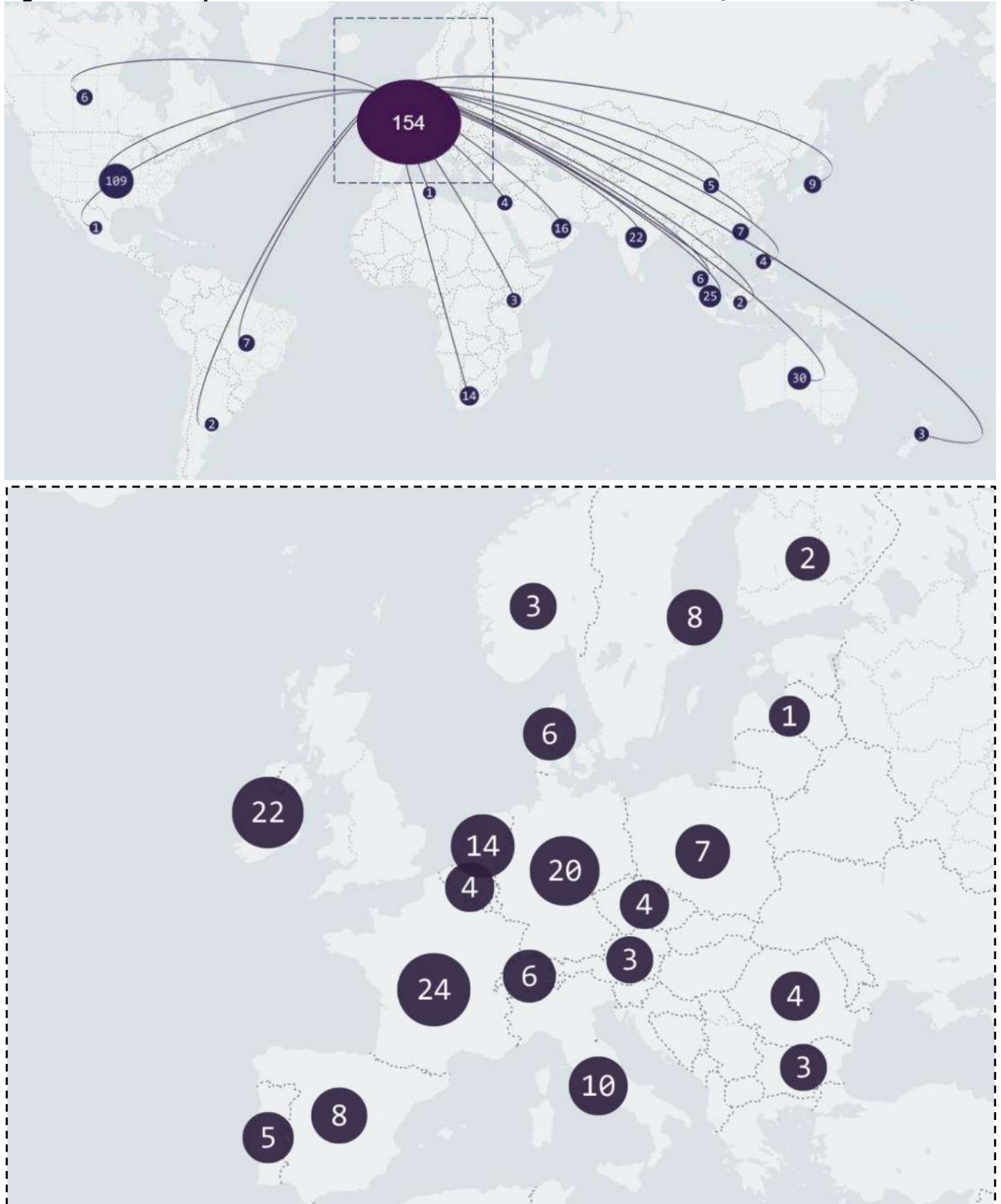
Within this study, we have identified 308 UK firms (21%) with a physical international presence (as set out in Figure 3.4 below). This is similar to last year's study where 21% (192) UK firms were noted to have an international presence.

The European Union remains a key market, and 154 UK headquartered businesses have offices present across the European Union. The United States is also highly important, and 109 UK headquartered businesses have offices in the United States. In the last twelve months, there has also been increased activity by UK firms in Australia, Singapore, India, and UAE.

In recent years, the UK has also been a clear international destination for foreign direct investment (FDI) in cyber security. We have mapped where internationally headquartered firms (n = 259) have set up a presence in the UK in Figure 3.5.

In total, we have identified 167 firms from the United States that have set up an office in the UK (an increase from 139 last year). This accounts for 11% of all cyber security firms in the UK. This is followed by 46 firms from across the European Union (3% of firms in the UK) as well as Israel (16), Canada (6) and Australia (6).

Figure 3.4 UK Headquartered Businesses with an International Presence (i.e. Office Location)



Source: Perspective Economics (n = 308 companies)

**Figure 3.5 Country of Origin (Number of Companies established outside of the UK, but have a current UK presence)**



Source: Perspective Economics (n= 259 companies headquartered outside of the UK, but active within the UK market)

# 4. Economic Contribution of the UK Cyber Security Sector

## 4.1 Estimated Revenue

In the most recent financial year, annual cyber security revenue within the sector is estimated at £8,878m (rounded to £8.9bn).

This figure is estimated using:

- Revenue figures available for dedicated (100%) cyber security firms that publish annual accounts
- Revenue figures available for diversified cyber security firms (multiplied by the estimate of the proportion of the firm's activity related to cyber security)
- Reported cyber security revenue estimated (for the most recent financial year) through the cyber sector survey held in Summer 2020
- Where gaps exist, employment has been sourced or estimated, with revenue estimated using 'revenue per employee' (estimated by size using known data) multiplied by 'number of employees' to provide an estimated revenue figure on a firm-by-firm basis

This revenue estimate relates to revenue attributable to cyber security activity only. The following subsections set out revenue by size, revenue by size and dedicated/diversified categorisation, and revenue by key company offer.

Please note that as the analysis was undertaken in late 2020, and as we use the most recent financial year reporting data where possible, this means that much of the revenue will have been achieved through work delivered and billed in 2019 (e.g. if a company has a financial year ending March 2020, those accounts will reflect billed work from April 2019 – March 2020). In this respect, these figures should not be considered real-time with respect to the financial impact of COVID-19, which would not be confirmed until next year's accounting period.

### Revenue by Firm Size

Just under three-quarters (£6.6bn, 74%) of all UK cyber security revenue is earned by large firms (which further demonstrates the earning power of these firms given that they reflect 10% of all market providers, as identified in last year's report). This includes several very large providers of telecommunications, aerospace, defence and security, and consultancies for which the size and scale of their respective cyber security product and service divisions reflect a considerable proportion of the wider market.

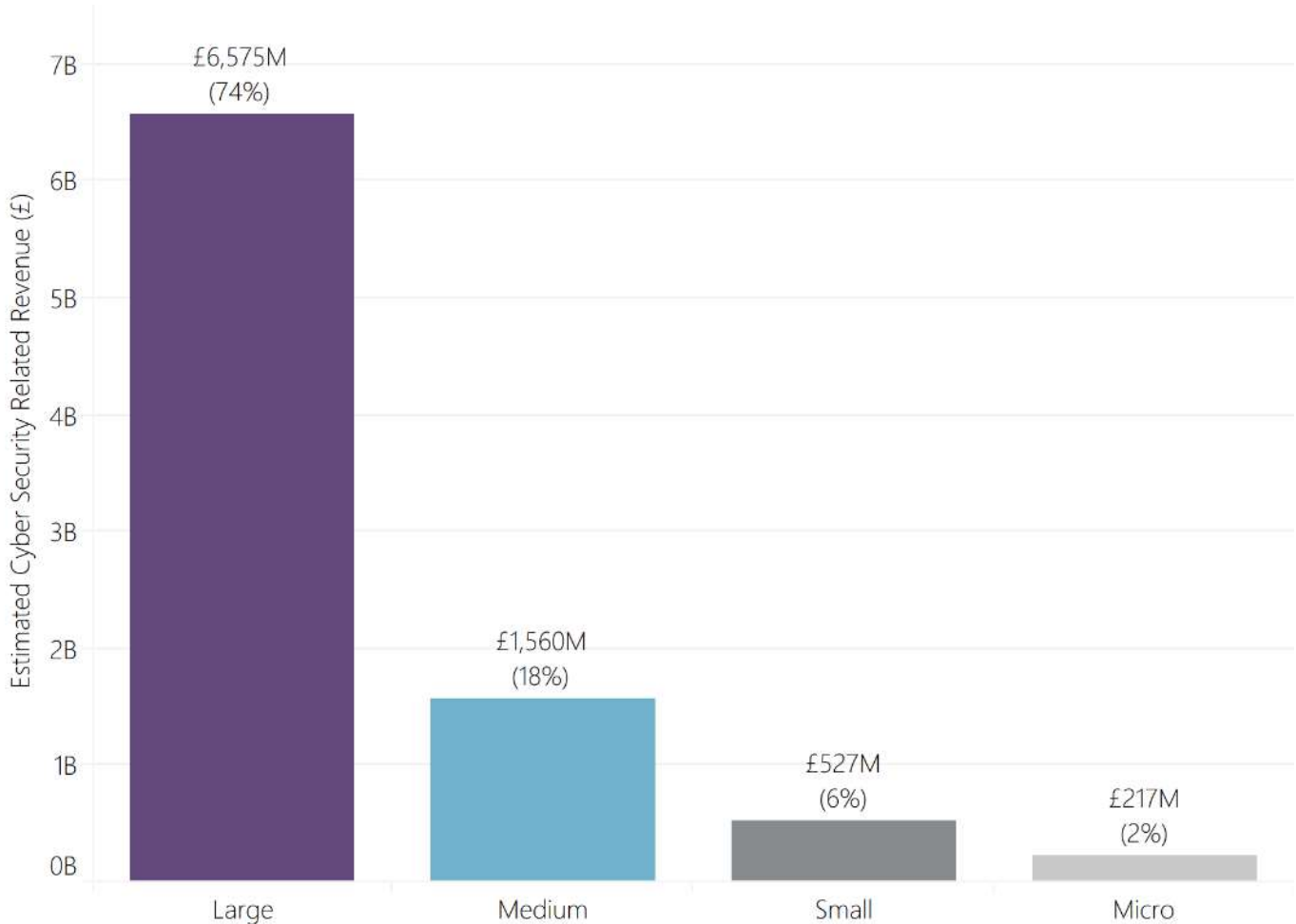
Medium firms have increased their annual estimated cyber security revenues in the last year from £1.26bn (15% of the sector's revenues) to £1.56bn (18%). This suggests a competitive mid-market is in place, particularly where firms in receipt of external investment have been able to scale and service the market accordingly.

Within last year's study, the research team noted that there were 674 micro firms with combined estimated cyber security revenues of £109m (i.e. average revenues of c. £160k per annum). The analysis noted that several of these firms were pre-revenue, and that a proliferation of micro cyber security firms and start-ups would take time to fully establish their presence in the market. In this year's analysis, whilst the number of micro firms in scope has increased by 25% (i.e. grown from 674 to 840),



the combined estimated cyber security revenues for the most recent financial year has grown to £217m (average revenues of £260k), potentially reflecting emerging maturity and rapid growth among some of the UK's cyber start-ups.

**Figure 4.1 Total Cyber Security Revenue by Size of Firm**



Source: Perspective Economics, BvD FAME, Ipsos MORI<sup>12</sup>

Segmentation of revenue by both size and by whether the firm is understood to be 'dedicated' or 'diversified' also provides an interesting overview of which firms are driving the revenue within the sector.

Of the larger firms, 'diversified' firms are generating significant revenues through their cyber security offer. However, the reverse holds for SMEs – whereby dedicated firms generate the greatest proportional revenue (e.g. 86% of revenues for medium firms, 88% for small, and 94% for micro firms).

<sup>12</sup> Analysis of Companies House / BvD FAME data supplemented by extrapolated survey estimates (Ipsos MORI).

**Figure 4.2 Total Cyber Security Revenue by Size by Dedicated/Diversified Status**

Source: Perspective Economics, n = 1,483

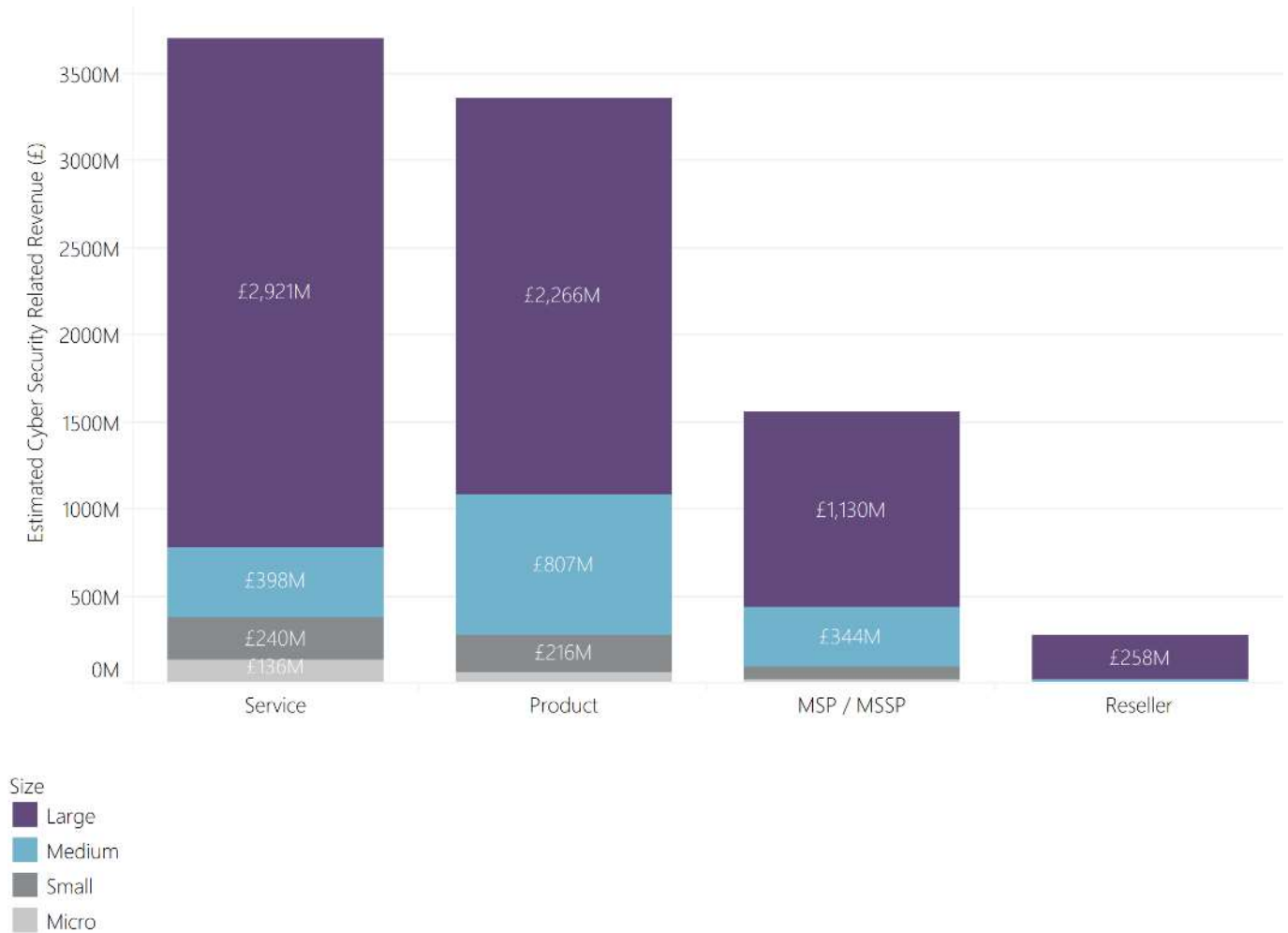
This suggests that the UK market remains home to:

- Approximately twenty 'anchor' large and diversified firms, which are estimated to generate over £50m each in cyber security revenues. This can often be a very small proportion of the firm's revenues (often in billions) but reflects a significant proportion of the UK's cyber sector
- A significant 'dedicated' and growing middle market: There are now 72 (increase from 65 last year) firms that we have identified as dedicated providers of cyber security with over £10m in annual revenues

Finally, segmentation of revenues by size and by those companies that either provide (as a core role) cyber security products, services, managed security services, or resell (set out in Fig 4.3) also provides some useful insight.

Whilst large firms dominate most of the categories with respect to revenue, Figure 4.3 highlights that total revenue within the sector is mostly generated by cyber professional services and managed security services (consisting of an estimated £5.2bn in revenues, an increase of c. 10% from last year's study). As the revenue in scope was generated in the year where GDPR compliance was a significant demand factor, this may explain much of the resultant growth.

However, product companies appear to have performed strongly in the last twelve months, with respective revenues increasing from just over £2.5bn last year to approximately £3.4bn. This may suggest that revenues within the sector are somewhat shifting from advisory services towards provision of dedicated products or cloud security infrastructure, and will be worth tracking in the months ahead.

**Figure 4.3 Total Cyber Security Revenue by Size and by Offering**

Source: Perspective Economics, n = 1,483<sup>13</sup>

## 4.2 Estimated Employment

We estimate that there are 46,683 Full Time Equivalents (FTEs) working in a cyber security related role across the 1,483 cyber security firms identified. This reflects an increase of 9% (up from 42,855 last year) in employee jobs within the last twelve months.

Please note that this figure only relates to the number of estimated FTE cyber security professionals working within cyber security sector firms.

Company level employment is initially estimated at the registered level (i.e. this suggests concentrated employment within London, the South East, and the East of England (84% combined). However, as this reflects employment at a registered level, this has the effect of underestimating employment for the other regions. For example, firms registered in Northern Ireland hire an estimated 500 people within cyber security, but the region is home to c. 2,000 cyber security professionals.<sup>14</sup>

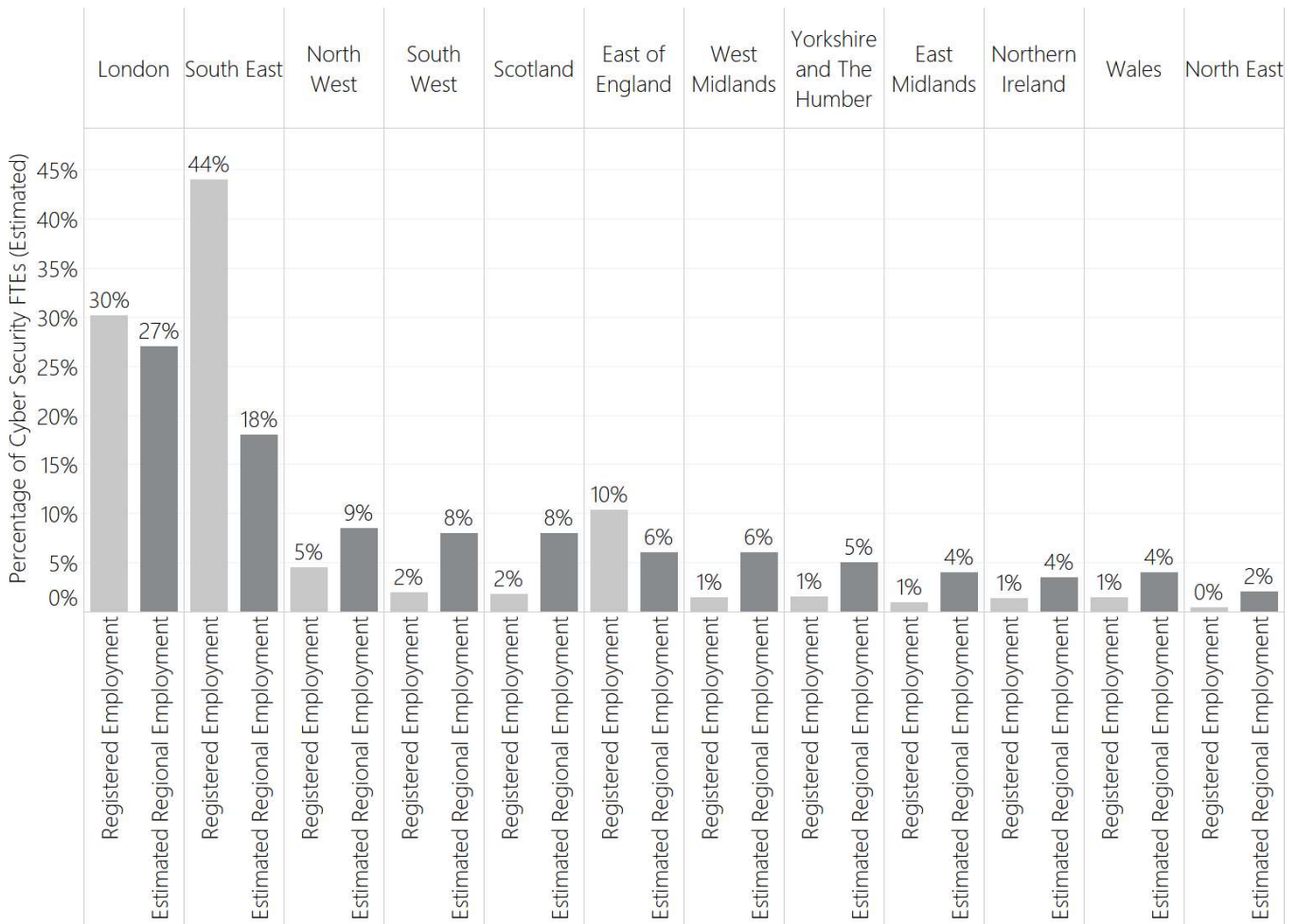
<sup>13</sup> Note: Smaller values include: **Product, Micro** = £60m / **MSP/MSSP, Micro**, £20m, **MSP/MSSP, Small**, £60m

<sup>14</sup> CyNation (2019) 'Growth Ambitions for Northern Ireland cyber security industry'. Available at: <https://cynation.com/growth-ambitions-for-northern-ireland-cyber-security-industry/>



As such, in Figure 4.4, we provide the registered and estimated actual employment breakdown by region. This estimate draws upon Perspective Economics modelling of key regional employers.

**Figure 4.4 Estimated Cyber Security Employment by Region**



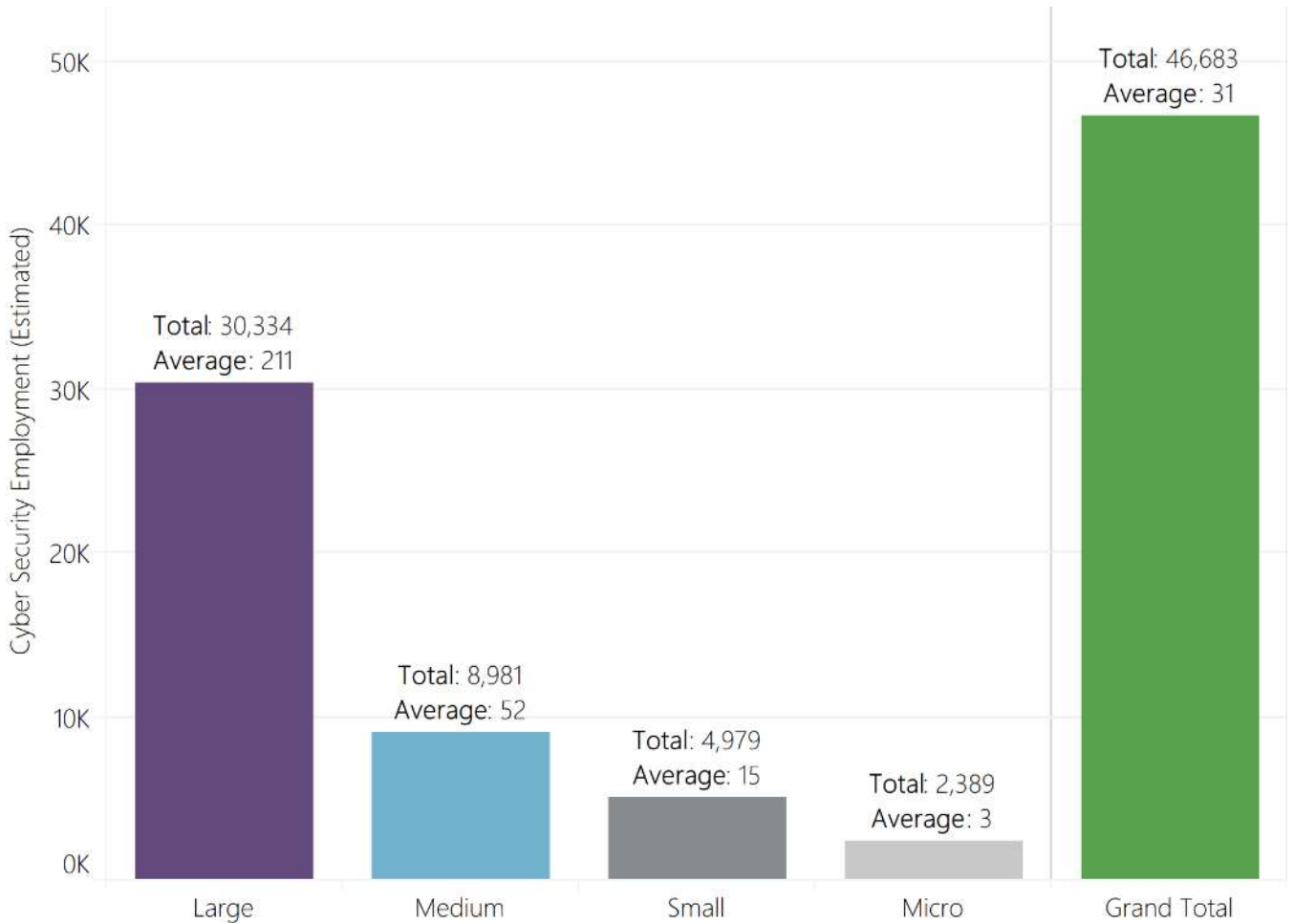
Source: Perspective Economics

Analysis of estimated cyber security employment by company size (Figure 4.5) demonstrates that, in line with last year’s findings, most of the cyber security employment is based within large firms (65%).

The average size of a cyber security team has fallen slightly this year from 35 staff to 31 staff. Indeed, across the size brackets, average team size has decreased slightly (from 227 to 211 for large firms, 57 to 52 for medium firms, 18 to 15 for small firms, and remained at 3 staff for micro firms).

This suggests that whilst the total workforce has increased, there may be a tightening labour pool and enhanced competition among employers for new talent.

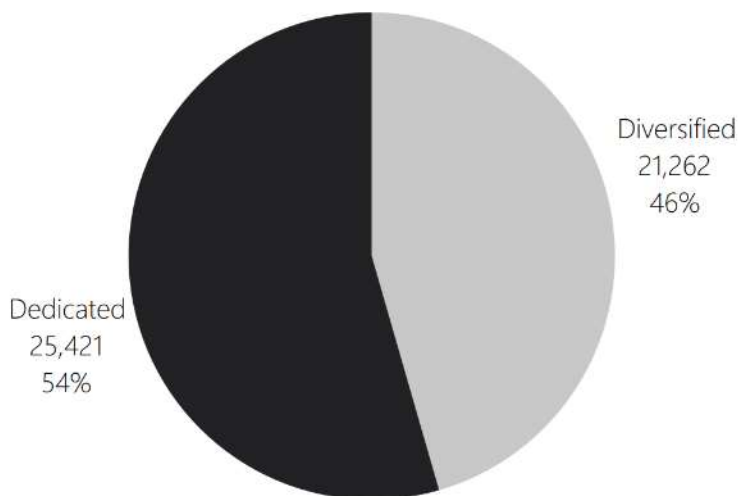
**Figure 4.5 Estimated Cyber Security Employment by Size of Firm**



Source: Perspective Economics

Figure 4.6 sets out employment segmented by ‘Dedicated’ and ‘Diversified’ firms, whereby employment is, in line with the baseline and last year’s study, relatively evenly split (46% and 54% respectively).

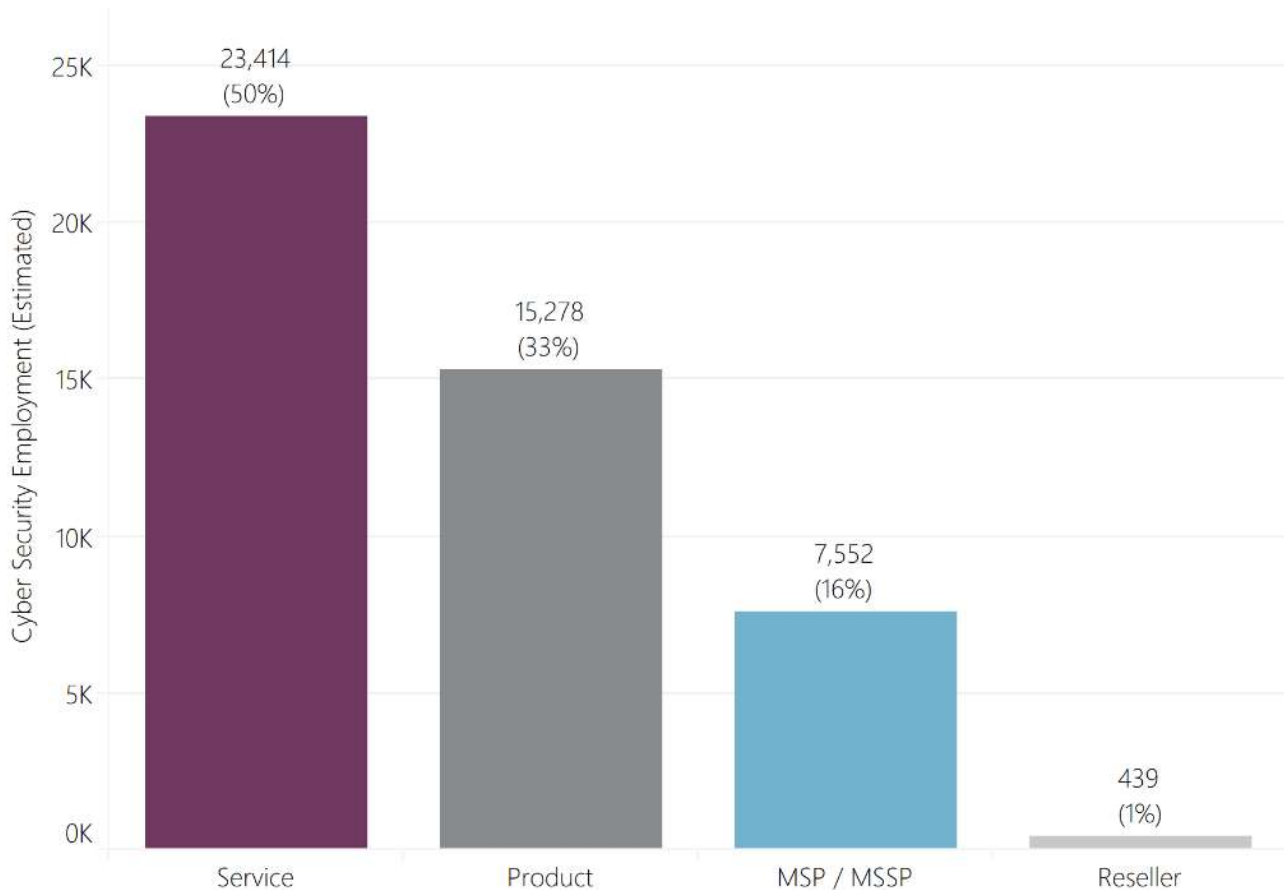
**Figure 4.6 Estimated Cyber Security Employment by Dedicated / Diversified**



Source: Perspective Economics

Finally, Figure 4.7 sets out employment segmented by company core offering. Approximately two-thirds (66%) of employees work within a company that primarily offers cyber security services or managed services, compared to 33% that work primarily within a product environment. The number of staff working within product companies has increased from 11,620 last year (27% of all staff) to 15,278 (33% of this year's employment figure) which may suggest an increased demand for staff within product companies.

**Figure 4.7 Estimated Cyber Security Employment by Offering**



Source: Perspective Economics

### 4.3 Estimated Gross Value Added (GVA)

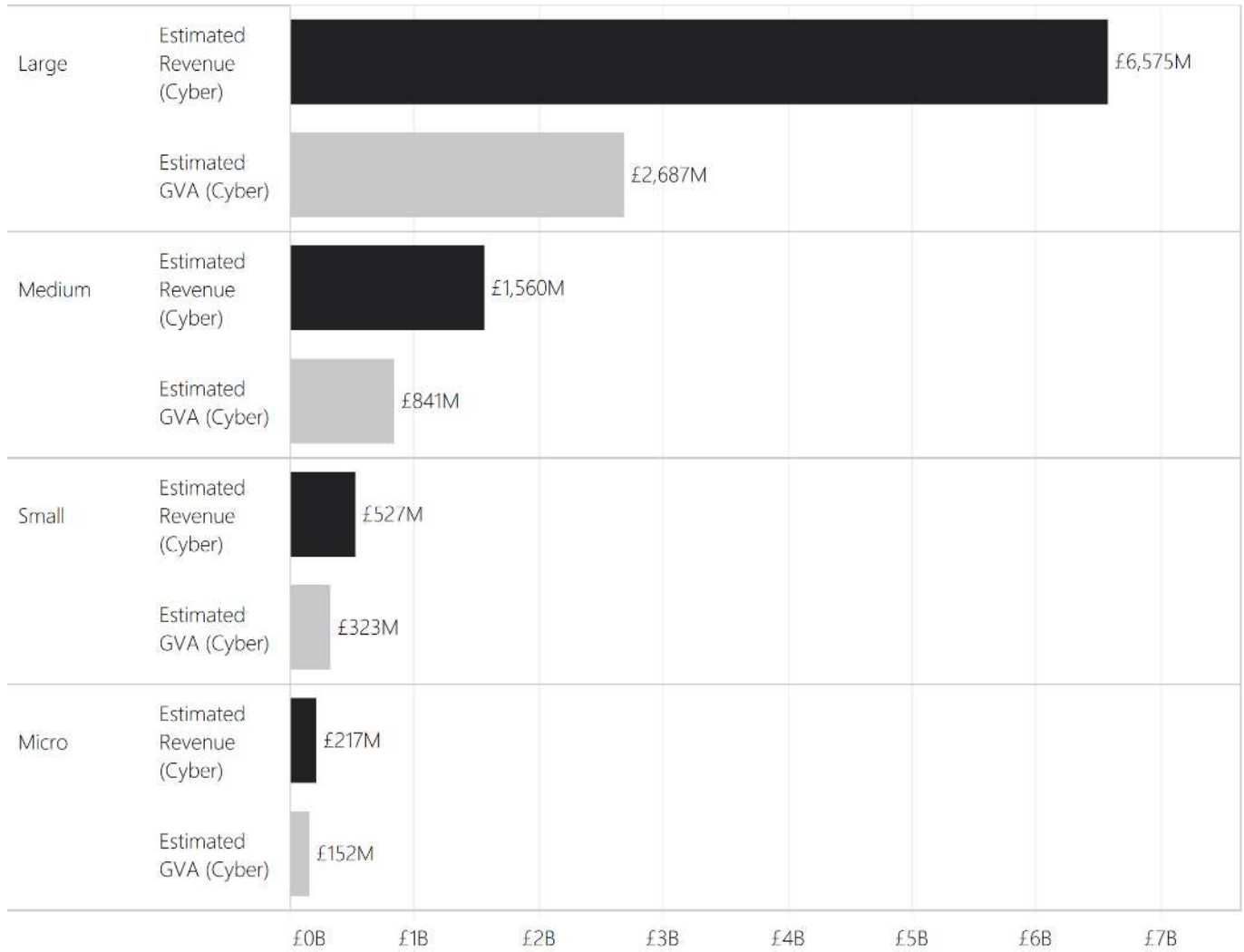
Gross Value Added (GVA) is used as a measure of productivity (at a firm level, or above). It captures the sum of a firm's Gross Profit, Employee Remuneration, Amortisation and Depreciation. In this respect, any increase in GVA can highlight an improvement in the performance of a firm or a sector, as evidenced through higher profitability or enhanced earnings.

**We estimate that within the most recent financial year, cyber security related GVA (for the 1,483 firms) has reached £4bn (up from £3.77bn last year, i.e. an increase of 6%)**

Figure 4.8 sets out an overview of GVA (compared to revenue) by size of firm.

Overall, this data suggests a GVA-to-turnover ratio of 0.45:1 (i.e. for every £1 of revenue the sector generates, 45p in direct GVA is generated). This is similar to last year's study (0.46:1).

**Figure 4.8 Total Cyber Security Revenue and GVA by Size of Firm**



Source: Perspective Economics

## 4.4 Summary of Economic Contribution

The table below sets out the key findings regarding the economic contribution of the UK's cyber security sector.

**Figure 4.9 Summary Table**

| Size               | Number of Firms | Estimated Revenue (Cyber Security Related) | Estimated GVA (Cyber Security Related) | Estimated Employment (FTE) (Cyber Security Related) | Estimated Revenue per employee | Estimated GVA per employee |
|--------------------|-----------------|--|--|---|--------------------------------|----------------------------|
| Large              | 144             | £6,575m                                    | £2,687m                                | 30,334  | £216,756                       | £88,588                    |
| Medium             | 172             | £1,560m                                    | £841m                                  | 8,981   | £173,698                       | £93,642                    |
| Small              | 327             | £527m                                      | £323m                                  | 4,979   | £105,810                       | £64,782                    |
| Micro              | 840             | £217m                                      | £152m                                  | 2,389   | £90,654                        | £63,492                    |
| <b>Grand Total</b> | <b>1,483</b>    | <b>£8,878m</b>                             | <b>£4,002m</b>                         | <b>46,683</b>                                       | <b>£190,186</b>                | <b>£85,737</b>             |

Source: Perspective Economics

Overall, since last year's study, the following changes to the key metrics are noted:

- The number of active cyber security firms (tracked in this study) has increased from 1,221 to 1,483 (an increase of 21%)
- Cyber security related revenues for these firms has increased from £8.3bn to £8.9bn (an increase of 7%)
- Cyber security related GVA for these firms has increased from £3.8bn to £4bn (an increase of 6%)
- Estimated revenue per employee has fallen slightly, from c. £194k to c. £190k (a decrease of 2%)
- Estimated GVA per employee has fallen slightly, from c. £88k to c. £86k (a decrease of 3%). This is lower than the current estimated GVA per employee for the DCMS Digital Sector (DCMS Economic Estimates) of £95,000 per employee<sup>151617</sup>

<sup>15</sup> Digital GVA (£147.5bn) / Employment (1,557,000) = £95,000 (Sources in footnotes 15 and 16 below)

<sup>16</sup> DCMS (2020) 'DCMS Economic Estimates 2019: Gross Value Added'. Available at: <https://www.gov.uk/government/statistics/dcms-economic-estimates-2019-gross-value-added>

<sup>17</sup> DCMS (2020) 'DCMS Economic Estimates 2019: Employment'. Available at: <https://www.gov.uk/government/statistics/dcms-sectors-economic-estimates-2019-employment>

# 5. Investment in the UK Cyber Security Sector

## 5.1 Introduction

This section draws upon the Beauhurst platform<sup>18</sup> which tracks announced and unannounced investments in high-growth companies from across the UK.

Our team has matched Company Registration Numbers and Company Names identified within this current analysis with the platform to identify **737 investments in 248 companies** since 2006 (to December 2020). In other words, approximately one in every six firms identified within our analysis has received some form of external investment.

The previous sectoral analysis explored investment between 2016 and 2019. This chapter focuses on investment activity within the full year of 2020 (1st January – 31st December).

## 5.2 Investment to Date

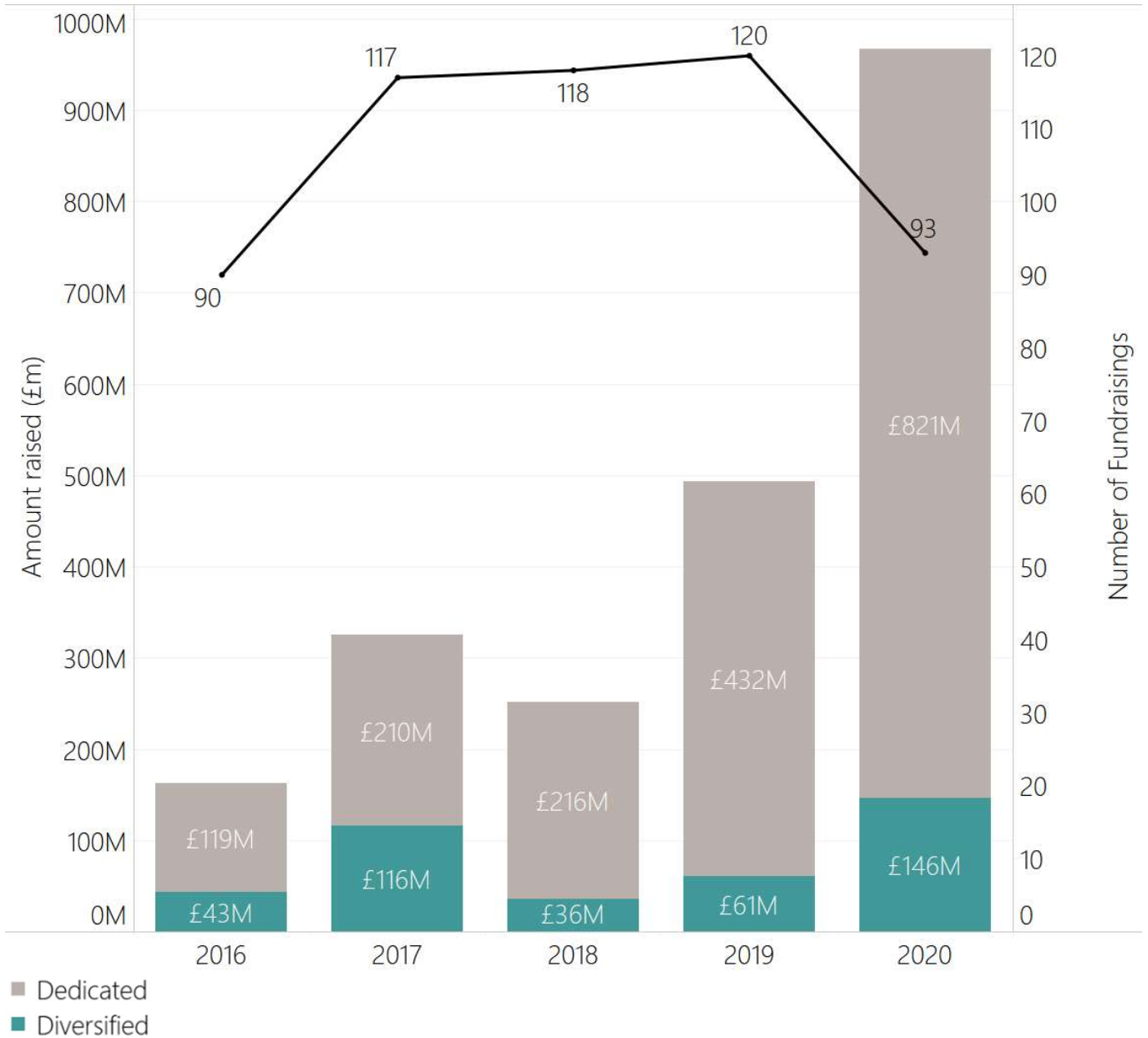
The investment timeline below (Figure 5.1) demonstrates that, despite the uncertainty caused by COVID-19, 2020 has been a new record year for cyber security investment, with over £967m raised in 2020 across 93 deals. This includes £821m raised across 73 deals within dedicated cyber security firms.

Further, the total amount raised by the sector has almost doubled in 2020 compared to 2019 for dedicated cyber security firms (£821m in 2020 and £432m in 2019). Please note all following analysis focuses upon investment in dedicated cyber security firms.

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<sup>18</sup> See [www.beauhurst.com](http://www.beauhurst.com)

**Figure 5.1 Investment Timeline**



Source: *Beauhurst*

However, the number of investments made in cyber security firms has fallen by 23% in the same year, from 120 (2019) to 93 (2020), reflecting that whilst the volume of investment has increased, this is skewed by a small number of large-scale investments made within the sector in 2020.

These larger investments include firms such as:

- OneTrust, which raised £162m in Q1 2020 and a further £224m in Q4 2020
- Snyk, which raised £115m in Q1 2020 and a further £154m in Q4 2020
- Privitar, which raised £71m in Q2 2020

Indeed, these three firms alone reflect £727m of investment funding alone in the UK in 2020 (i.e. 89% of dedicated cyber security investment). Whilst these are positive outcomes, we must be careful in the

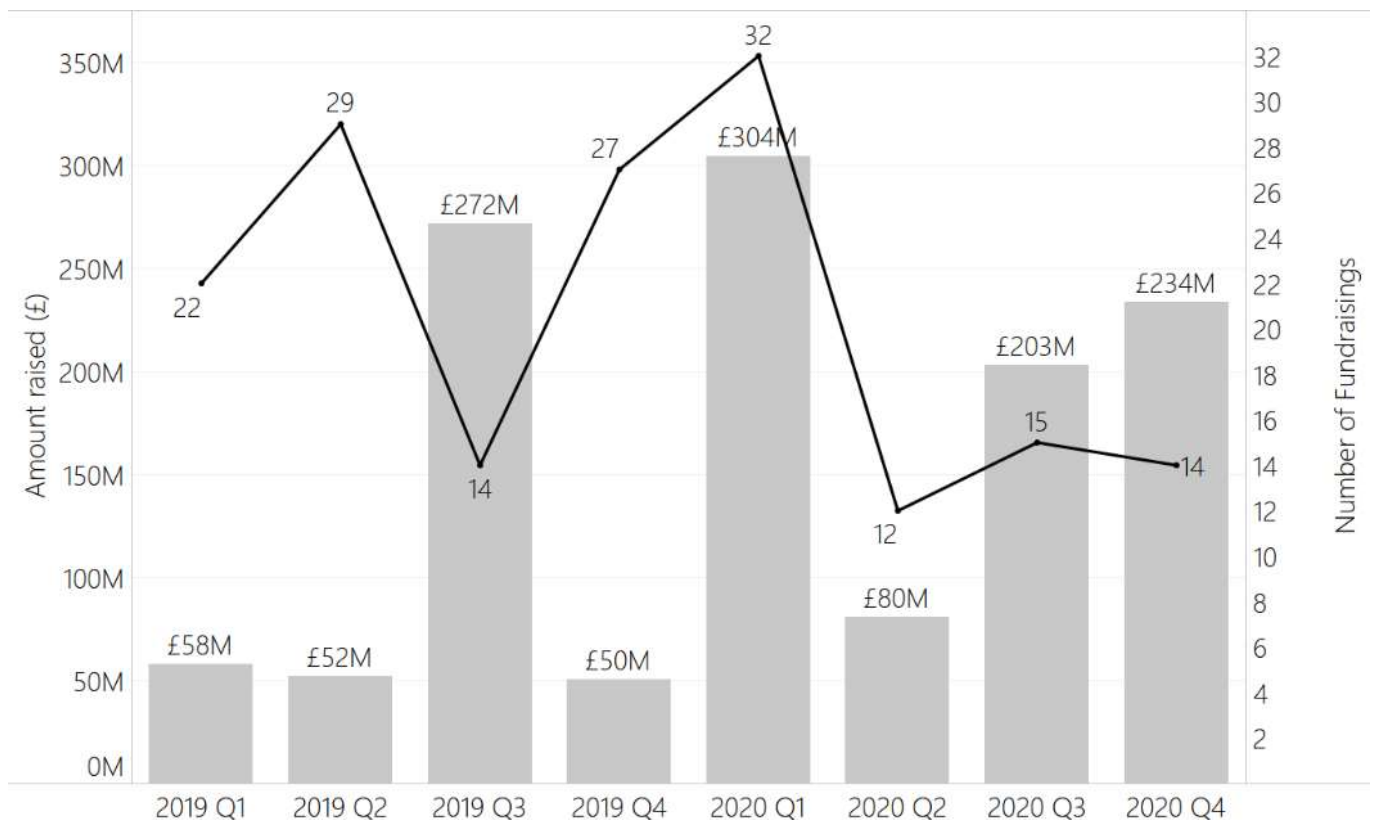
analysis of the investment statistics, as this suggests that whilst aggregate investment is strong, cyber start-ups have found the investment landscape much more challenging in recent months.

However, there have been notable investment success stories for UK cyber start-ups and high growth firms such as:

- Ripjar, which raised £28m in Q3 2020
- CyberSmart, which raised £5.5m in Q3 2020
- Quorum Cyber, which raised £2.7m in Q3 2020
- PQShield, £5.5m which raised in Q3 2020
- Nu Quantum, £2.1m which raised Q4 2020
- CyberOwl, £1.8m which raised Q2 2020

Figure 5.2 demonstrates the value and volume of investments made within the last two years. Whilst Q1 2020 was particularly strong (£304m raised over 32 deals), there was a notable fall in Q2 2020 with investment falling to £80m across 12 deals. Whilst this may be partially attributable to initial changes in working arrangements and investment uncertainty following the March 2020 lockdowns, there has been a resumption of investment confidence in Q3 and Q4 2020, albeit the number of deals remains somewhat lower (15 and 14 deals respectively).

**Figure 5.2 Investment Timeline (Quarterly, Dedicated Cyber Security Investment)**



Source: Beauhurst



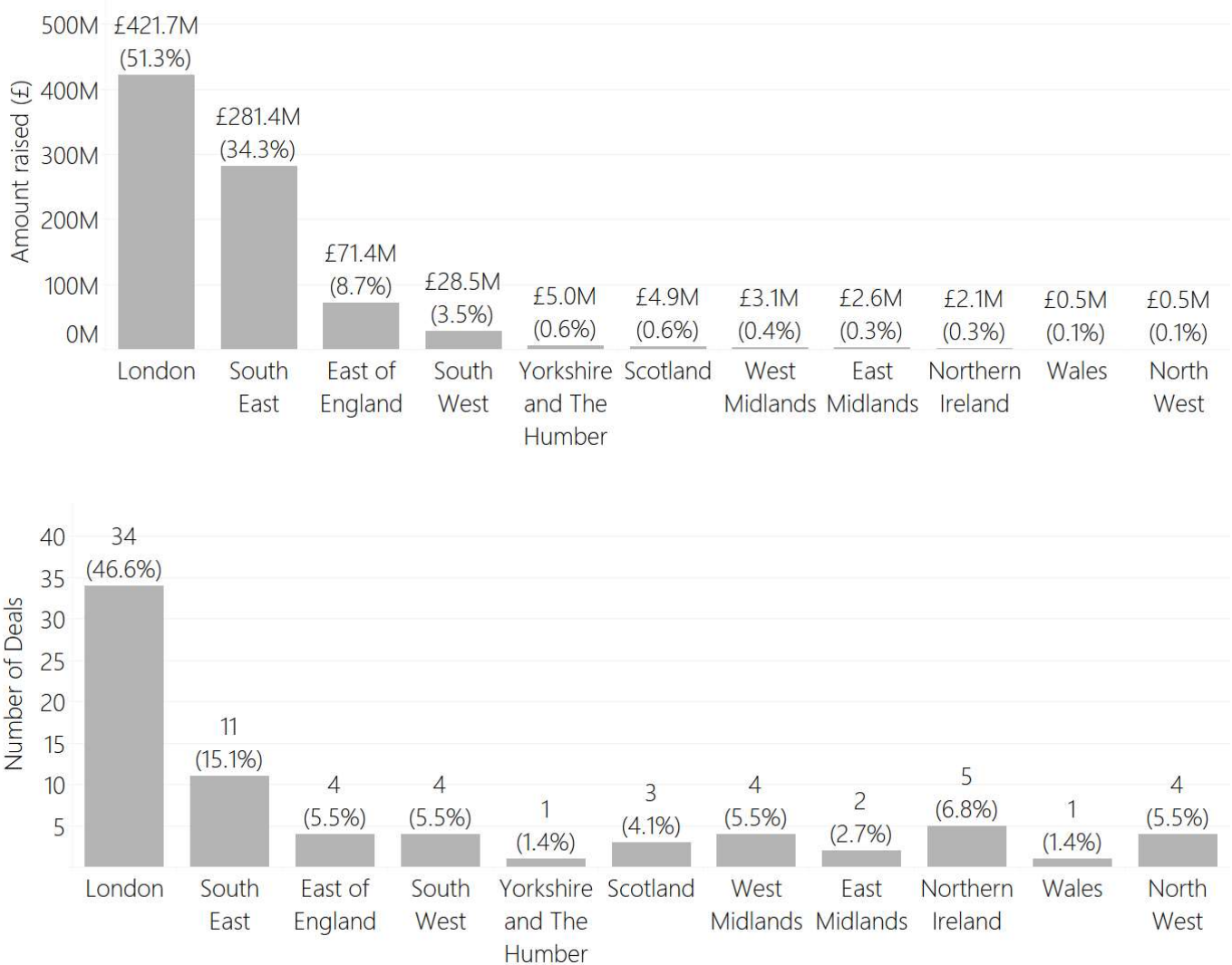
### 5.3 Investment by Location

There is continued interest from policy-makers and regions as to where external investment is located, as this investment can help businesses across regions to build their platforms, secure talent, and continue to grow thereby helping to level-up regional prosperity.

Figure 5.3 sets out an overview of investment performance within cyber security by UK region, with respect to value and volume of investment.

This highlights that most investment is concentrated within London and the South East (85% combined in 2020), with eight UK regions generating less than 1% of the UK total each. This does suggest a regional disparity with respect to large scale investments. However, some of the regions do demonstrate signs of multiple early-stage cyber security deals in their area, suggesting more can be done to incubate and support these cyber security start-ups in the years ahead.

**Figure 5.3 Total Investment (Value and Volume) in 2020**



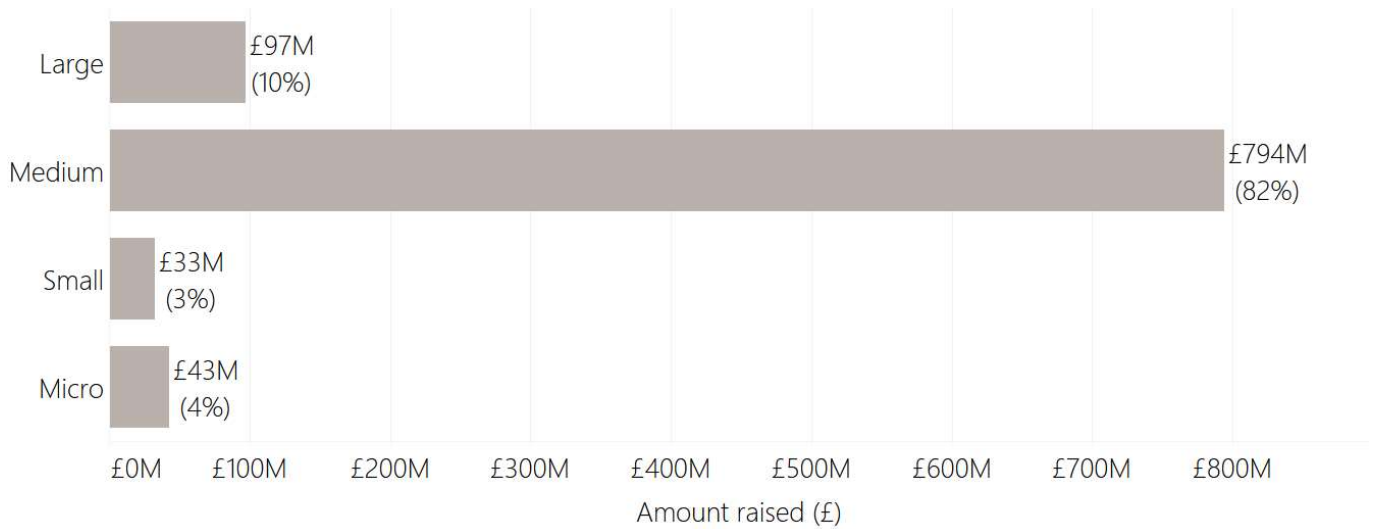
Source: Perspective Economics, Beauhurst

## 5.4 Investment by Size

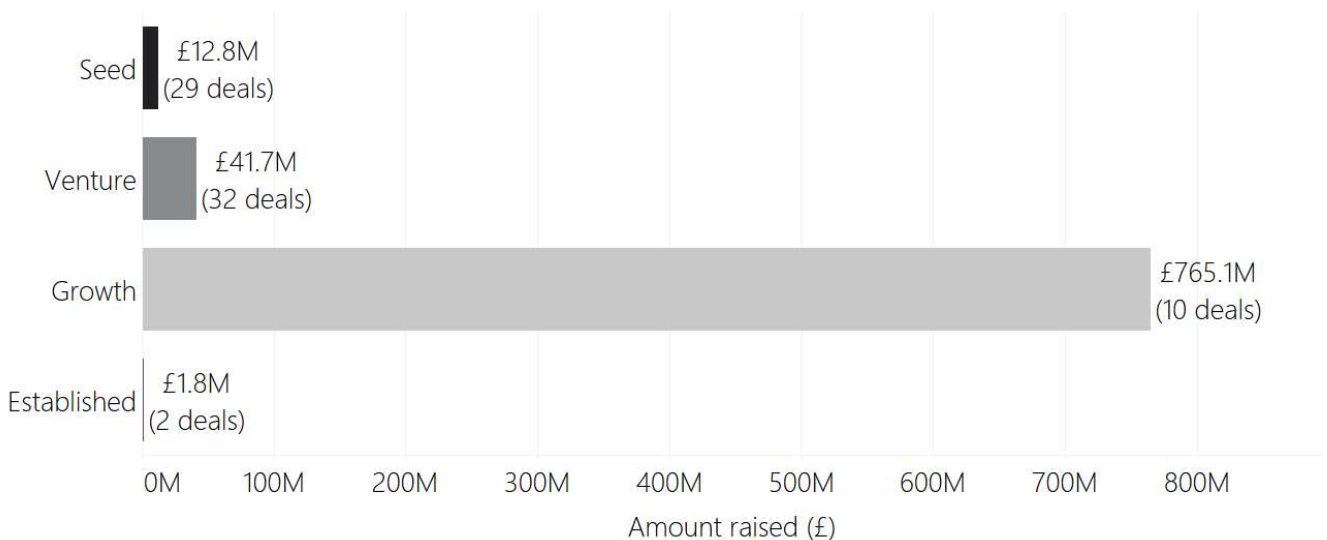
Figure 5.4 sets out the volume of investment by (current) company size within the cyber security sector in 2020. As highlighted previously, this demonstrates that investments in small and micro cyber security firms are considerably lower than those in large and particularly medium firms.

This is further highlighted in Figure 5.5, which highlights that seed companies (early-stage cyber start-ups) were only able to raise £12.8m across 29 deals in 2020, suggesting a challenging investment landscape. However, investment for growth-stage firms (typically more mature Series A or higher investments) reached £765.1m in 2020, a new record for cyber security investment.

**Figure 5.4 Total Investment by Company Size (2020)**



**Figure 5.5 Total Investment by Stage of Evolution<sup>19</sup> (2020)**



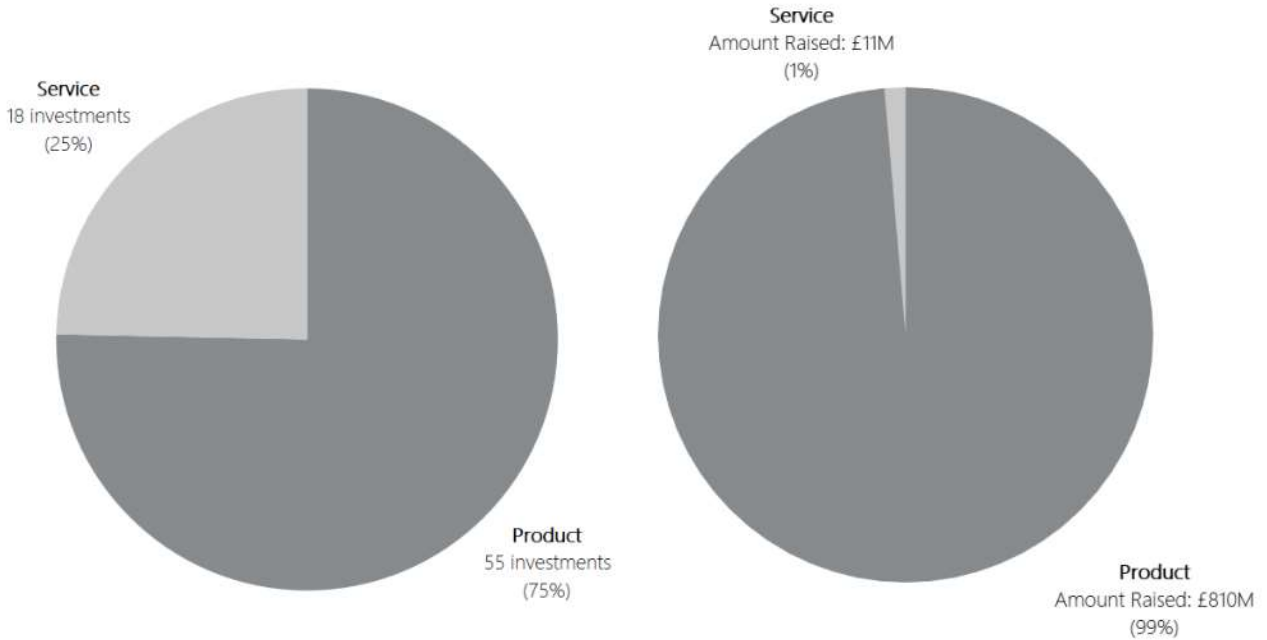
Source: *Beauhurst*

<sup>19</sup> The definitions for seed, venture, growth, and established categories are set out in Appendix E.

### 5.5 Investment by Company Offer

Figure 5.6 highlights how investment preference for companies that primarily offer cyber security products has continued in 2020, with 75% (55) of the volume of investments, and 99% (£810m) of the respective investment value.

**Figure 5.6 Investment by Product / Service Offer (2020)**



Source: Beauhurst

## 5.6 Sectoral Valuation

Of the 196 companies identified within the Beauhurst investment data, the total (most recent) post-money valuation (following an investment made) is estimated at £5.1bn. This is an increase of £1.1bn (+28%) since last year's combined valuation figure.

The most significantly valued company is Snyk, with a most recent post-money valuation of £1.7bn, which has overtaken last year's highest valuation firm Darktrace, which was most recently valued at £1.2bn.

Further exploration of the data also shows that, of the 92 companies incorporated since 2015 (i.e. within the last five years) that have received some form of investment, the majority (72%, n = 66) of these are valued at over £1m (at the most recent investment), and almost a quarter (24%, n = 22) are valued at more than £5m.

## 5.7 Investors and Sources of Funding

Overall, looking at the investments secured by the identified cyber security companies, Beauhurst data indicates that:

- Within all of the historic cyber security fundraising data, there have been 283 funds involved, of which 85% are still active. This is an increase from the baseline (whereby 68 funds were identified)
- Further, within the baseline, there were only 10 funds that could provide more than £25m (based upon typical investment activity or known sector / investment restrictions). This has since increased to 24 funds reflecting ongoing maturity within the investment landscape

Within the UK, some of the most significant investors include (by value / volume<sup>20</sup>)

- 24Haymarket
- Accel
- Amadeus Capital Partners
- IQ Capital
- KKR Private Equity
- Mercia Asset Management
- Octopus Ventures
- Scottish Co-Investment Fund managed by Scottish Enterprise
- TenEleven Ventures

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<sup>20</sup> Granular figures not provided due to disclosive nature.

## 5.8 What are investors seeking to invest in?

Within Autumn 2020, the research team held a series of qualitative consultations with a range of industry investors to gather views about what investors are looking for in UK cyber, and how investment could be further supported and promoted in promising UK start-ups.

### Promoting the sector:

Initiatives such as LORCA, CyLon, NCSC Cyber Accelerator and Tech Nation make it clear to investors about new opportunities and engage with the community. The role of supporting events and opportunities for collaboration is welcomed:

***“There is a broad network of entrepreneurs in the cyber sector who will refer opportunities. Conferences and other cyber events (e.g. InfoSec, BlackHat Europe, other broad tech conferences like Slush and WebComet) [are highly important].”***

*Investor with UK and Europe focus*

It was suggested that the government could actively endorse or adopt innovative technologies from the UK cyber sector:

***“The UK government should also continue to look for ways to leverage that technology themselves. There are a number of programmes and things they’re trying to do to bring those technologies in-house. The US does that in a great way - they leverage a lot of the technologies that are being developed. The government can be an early adopter and validator of those technologies and can really support them.”***

*Investor with US and Europe focus*

Investors felt the UK was very good at promoting innovation and development, but that UK companies lagged behind their counterparts in the USA and Israel in terms of sales and marketing, and ambitions for global reach.

***“UK companies often overweight the importance of technology and underweight the importance of commercial and go-to-market acumen. I see a lot of UK companies founded with promising innovation and IP, but they fail to succeed as a large stand-alone company because they do not excel at sales and marketing.”***

*Investor with Europe and Israel focus*

## Factors driving investment:

Within many of the interviews, investors cited the need for a well-rounded team, with key comments including:

***“We look for a team that has a good plan and can execute on it; ideally with experience growing and scaling in the past; or new entrepreneurs that at least have the technical background. Team is over and above the technologies and the product.”***

*Investor with UK and Europe focus*

Further, investors were also highly focused on the market opportunity, and the related tech stack:

***“It’s all about the market opportunity. How big and how growing is the demand? How differentiated is the technology? Sometimes it’s really interesting tech but the market is not ready for it yet or too small in terms of the subset of sectors that would be interested.”***

*Investor with US and Europe focus*

Investors were also asked about which type of firms and technologies they were particularly interested in, or thought would be important in the years ahead.

## Business Maturity:

Typically, investors within the consultations reported that they focused on early-stage and subsequent Series A investments, with the view that they could take on initial risk and identify the promising companies at earlier stages, and add most value at the early stage with their networks and mentoring. This would be backed by follow-on rounds.

However, it was viewed by many consultees that there is arguably a gap in the UK market, as below:

***“We will typically invest in late seed companies that have some initial customers and a product out of the market. However, the UK is home to many interesting companies that are just out of a university or just out of an incubator without any customers, and this is the most difficult time for a company. These are good ideas but need traction and they are looking for a few hundred thousand pounds to get to the next stage. Anything the UK government could do to support these companies would be welcome as they are higher risk.”***

*Investor with UK and Europe focus*

## Emerging Interests:

Within the consultations, investors were asked which cyber security solutions they viewed as particularly promising or important. Key areas included securing cloud infrastructure, securing IoT solutions, promoting Security by Design (e.g. next generation platforms and tools where cyber security isn’t the value proposition but is the technical tool that was built to be security focused- such as a health diagnostic tool designed with security in mind.

Quantum cryptography was also cited as a key emerging area, given what quantum could mean to existing security processes. There is sustained interest in how cyber security firms can support the transition to providing tools accordingly.

Technical solutions regarding the perceived cyber security skills shortage was also cited, with companies that are doing online based training as a focus area (from broad employee awareness raising through to developer and programmer training).

### **Views of the UK as an investment landscape for cyber security:**

Within the consultations, investors were asked their thoughts about the strengths and weaknesses of the UK as an investment location for cyber security (both nationally and regionally). Key feedback included:

***“The UK is uniquely positioned with high quality universities, a financial centre in London – it’s well positioned to be a global leader in tech and venture.”***

*Investor with UK and Europe focus*

***“The UK is still a relatively small market [for us] compared to the US and Israel (where there is a known strong venture capital ecosystem). However, in Europe, the UK is the biggest market for us.”***

*Investor with UK and Europe focus, but a global portfolio*

Investors, whilst welcoming initiatives to encourage regional investment, did raise that London remains the key location for cyber security investment. This suggests more could be done to further stimulate regional access to investment:

***“Regionally, we disproportionately see a lot of opportunity in London. We do see opportunities in areas such as Edinburgh and Belfast, but most investment remains in London because of the high conglomeration of customers in London – this is the big draw for investors.”***

*Investor with UK and Europe focus*

***“There is early-stage opportunity outside London (c. £500k investments) which could be very promising.”***

*Generalist technology investor with UK focus*

### **Changes within the last twelve months:**

Investors were asked, given the COVID-19 pandemic in particular, what the key changes were in the UK cyber security investment landscape.

Several of the respondents felt that the investment landscape has not changed substantially or long-term as a result of COVID-19, and felt that whilst there were interim adjustments, investment is starting to return.



***“COVID-19 has not had any impact whatsoever on tech industry – small blip and slowing down but just to take stock; companies were very resilient in this sector to the crisis.”***

*Investor with US and Europe focus*

### **Supporting the sector:**

Investors were also asked what could be done by government or industry to further increase investment in the UK cyber security landscape. Key feedback included:

***“Further supporting commercial referees within accelerator schemes - academics can validate tech but not commercial demand. These commercial referees could be more involved in regional incubators and accelerators, and could be incentivised to do this ... [Also] subsidising R&D in the sector alongside corporates so cyber companies are risking less capital to work with large businesses.”***

*Generalist technology investor with UK focus*

***“UK firms are trusted internationally. Export missions and initiatives to encourage international spend on UK cyber security products would be welcome.”***

*Investor with Europe and Israel focus*

Investors also raised the importance of less formal means of support, but that cyber companies are not always aware that such support is available.

***“The most useful support that investors can typically give to founders is by acting as a strategic sounding board ... We do our best to make it known to our founders that we have support available to them. In some ways, the strongest founders require the more limited support, so we try to be on demand rather than pushing anything down people’s throats.”***

*Investor with Europe and Israel focus*

## 6. Sector Performance (2020)

### 6.1 Introduction

This section explores the performance of the cyber security sector in the UK since the baseline, and last year's analysis. It also provides an overview of some of the recent determinants and barriers to market growth.

### 6.2 Tracking Sector Performance

The table below sets out how the key metrics underpinning the cyber security sector have changed in recent years.

| Metric                                   | 2017<br>(Baseline) | 2019     | 2020     | Absolute<br>Change (19-<br>20) | Percentage<br>Change<br>(19-20) |
|--|--------------------|----------|----------|--------------------------------|---------------------------------|
| All Companies                            |                    |          |          |                                |                                 |
| Number of Companies                      | 846                | 1,221    | 1,483    | +262                           | +21%                            |
| Estimated Revenue                        | £5.7bn             | £8.3bn   | £8.9bn   | + £585m                        | +7%                             |
| Estimated GVA                            | £2.35bn            | £3.77bn  | £4bn     | + £230m                        | +6%                             |
| Estimated Employment<br>(Cyber Security) | 31,339             | 42,855   | 46,683   | + 3,828                        | +9%                             |
| Estimated Revenue per<br>employee        | £181,298           | £193,519 | £190,186 | - £3,333                       | -2%                             |
| Estimated GVA per<br>employee            | £74,965            | £88,069  | £85,737  | - £2,332                       | -3%                             |

Source: *Perspective Economics*

Between 2017 – 2019, the analysis identified double-digit growth across the metrics, illustrating the high-growth nature of the sector. In the last twelve months, whilst the number of companies in scope has increased by 21%, the growth in revenue (7%), GVA (6%), and employment (9%) suggests that even prior to the COVID-19 pandemic, whilst growth remains strong, it has softened somewhat to 'single-digits'.

Further, whilst the number of employees has grown by 9%, revenue and GVA have grown at a slower rate meaning that estimated revenue and GVA per employee has reduced in the last twelve months (by 2% and 3% respectively).

Overall, whilst the data is derived from company accounts and therefore pre-dates the COVID-19 pandemic, this suggests the rapid growth experienced in recent years may be slowing. This is echoed by recent Gartner (2020)<sup>21</sup> analysis suggesting that worldwide spending on cyber security is estimated to only grow by 2.4% in 2020 – considerably below the 8.7% estimated prior to COVID-19. However, whilst

<sup>21</sup> TEISS (reporting on Gartner findings) (2020) 'Worldwide cyber security spending to grow by only 2.8% in 2020', Available at: <https://www.teiss.co.uk/worldwide-cyber-security-spending-2020/>

these figures do suggest softer growth, it is worth noting that these figures still outperform wider UK growth estimates (e.g. 1.5% GDP growth in the UK in 2019).

### 6.3 The impact of COVID-19

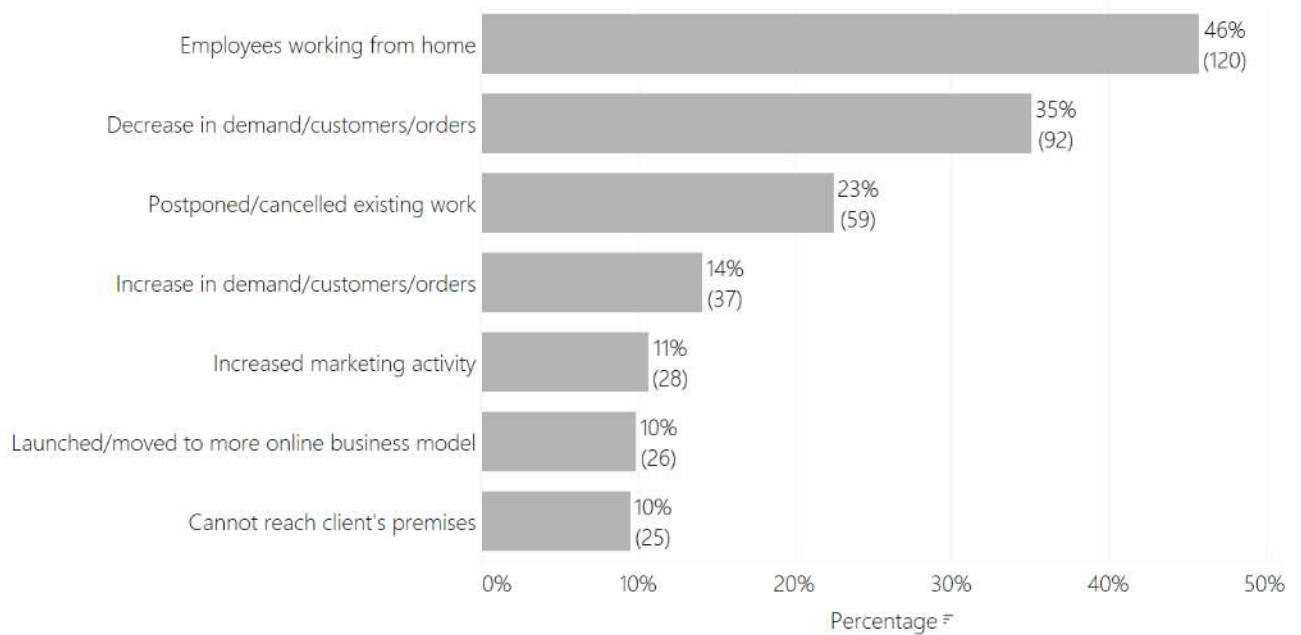
Throughout the consultations, several respondents noted that there appears to be a ‘tale of two sectors’ when considering the impact of COVID-19. Whilst total investment reached a new high in 2020, for example, it is evident that cyber security start-ups struggled to raise investment.

Within the cyber security sectoral survey, we asked businesses (typically SMEs given the range of responses), how COVID-19 has impacted their business (if at all), and what actions they had taken to mitigate these impacts.

Within the survey, nine in ten businesses (89%) reported some kind of impact from COVID-19 on their business, or said that they had to take action as a result of COVID-19.

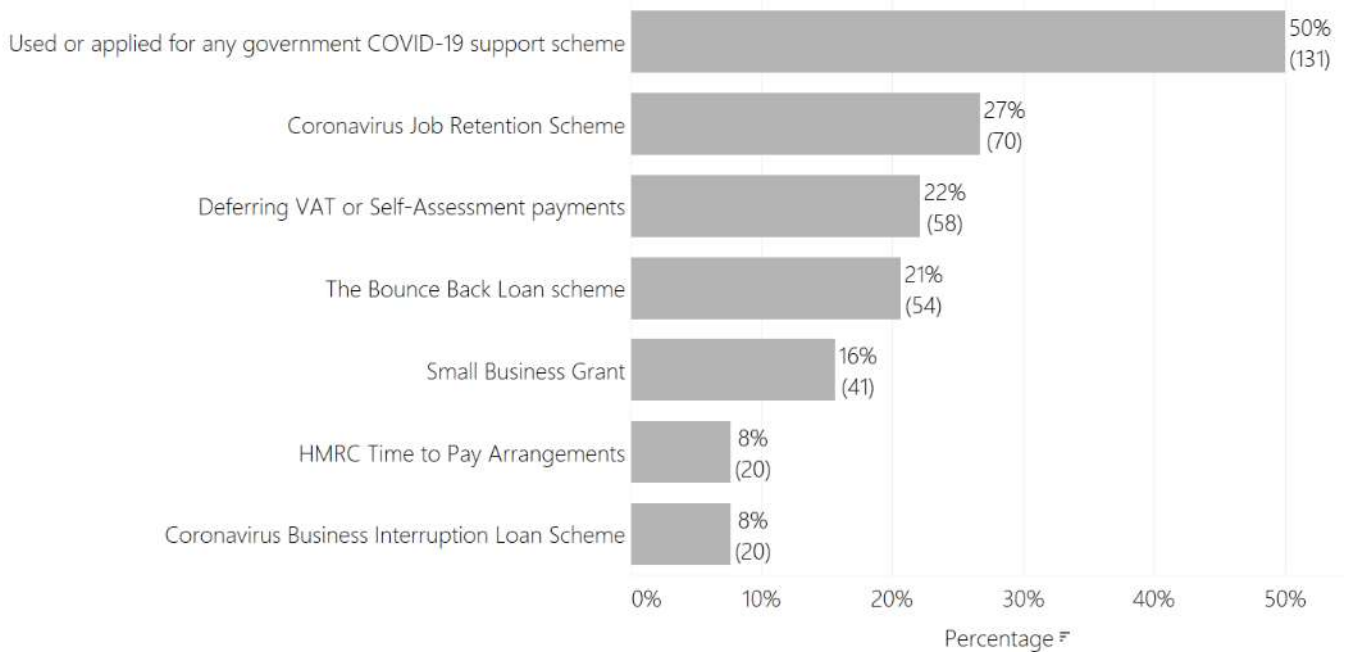
The following breakdown was provided in Figure 6.1. Notably, 35% of respondents reported a decrease in demand, customers, or orders, and 23% said existing work was postponed or cancelled. However, 14% of respondents did report that they had actually increased their demand and customer base.

**Figure 6.1 Business reported impacts of COVID-19: Top unprompted responses**



Source: Ipsos MORI Survey (n = 262, i.e. all cyber sector respondents)

Further, Figure 6.2 sets out, of those that applied for some form of Government support (n = 131), over a quarter of all businesses in the sector (27%) used the Coronavirus Job Retention Scheme (i.e. they have furloughed staff), 22% deferred taxation, and 21% used the Bounce Back Loan scheme.

**Figure 6.2 Government support schemes that firms received or applied for: Top responses**

Source: Ipsos MORI Survey (n = 262)

In the qualitative consultations with cyber businesses, differences in the impact of COVID-19 emerged between R&D intensive cyber security firms and those firms less engaged in R&D or product innovation. Cyber businesses also reported differences between short-term and long-term impacts. R&D intensive firms reported that COVID-19 had caused clients to shift away from R&D towards delivery, which they felt was likely to continue in the long-term. Pre-revenue R&D intensive firms also found it particularly difficult to apply for government support.

***“Programmes have been cancelled, budgets have been slashed, loss potential clients, focus of clients has just been on delivering ... Cash flow has been an absolute nightmare ... the impact will continue for quite some time, for R&D in particular.”***

*Small R&D intensive cyber security lead*

Firms less engaged in R&D or product innovation reported largely temporary impacts on demand. There were firms that said demand dried up during the first UK lockdown, but had returned to more normal levels after a few months, while others reported an immediate increase in demand, attributed to clients moving to remote working. These firms noted that the already-virtual nature of many of their key activities reduced the impact of COVID-19 when moving to remote working setups. Grant funding, e.g. from Innovate UK, was reported as helping firms to pivot or shape their product for COVID-19 specific demands.

***“We’ve actually grown our team significantly in the last twelve months – in fact, March 2020 was our largest month for sales.”***

*Large cyber consultancy*

***“The reason we’ve weathered the storm reasonably well is that we can deliver pretty much all of our services remotely.”***

*Medium cyber professional services firm*

In the medium to long-term, firms less engaged in R&D or product innovation expressed at least cautious optimism that COVID-19 would offer opportunities. They felt these opportunities would be fed by greater client demand and accelerated moves towards digitisation, cloud-based services, and remote-access infrastructure. They also felt that their marketing strategies would shift away from tradeshow-based marketing to more webinar-based marketing. However, there was also some anxiety about future uncertainty caused by COVID-19:

***“The data-driven answer is that there has been no major impact ... COVID-19 hasn’t had a hugely detrimental impact on our finances; sales were strong. The more emotional answer is that it’s difficult to provide medium- to long-term planning.”***

*Medium cyber professional services firm*

Optimism in the cyber sector was also reflected in consultations with buyers and procurers of cyber security products and services. In the short term, they reported that COVID-19 threat intelligence was driving activity in the sector. However, they felt that, in the longer term, the overall impact of COVID-19 would be to facilitate and accelerate the changes that are already happening, e.g. faster decisions on risk, and transformations in digital technology and security. In addition, there were buyers who reported pausing short-term ‘tactical’ procurements, while continuing with larger ‘strategic’ procurements.

***“A lot of measures and methods of secure remote access were already in place, just being used more now.”***

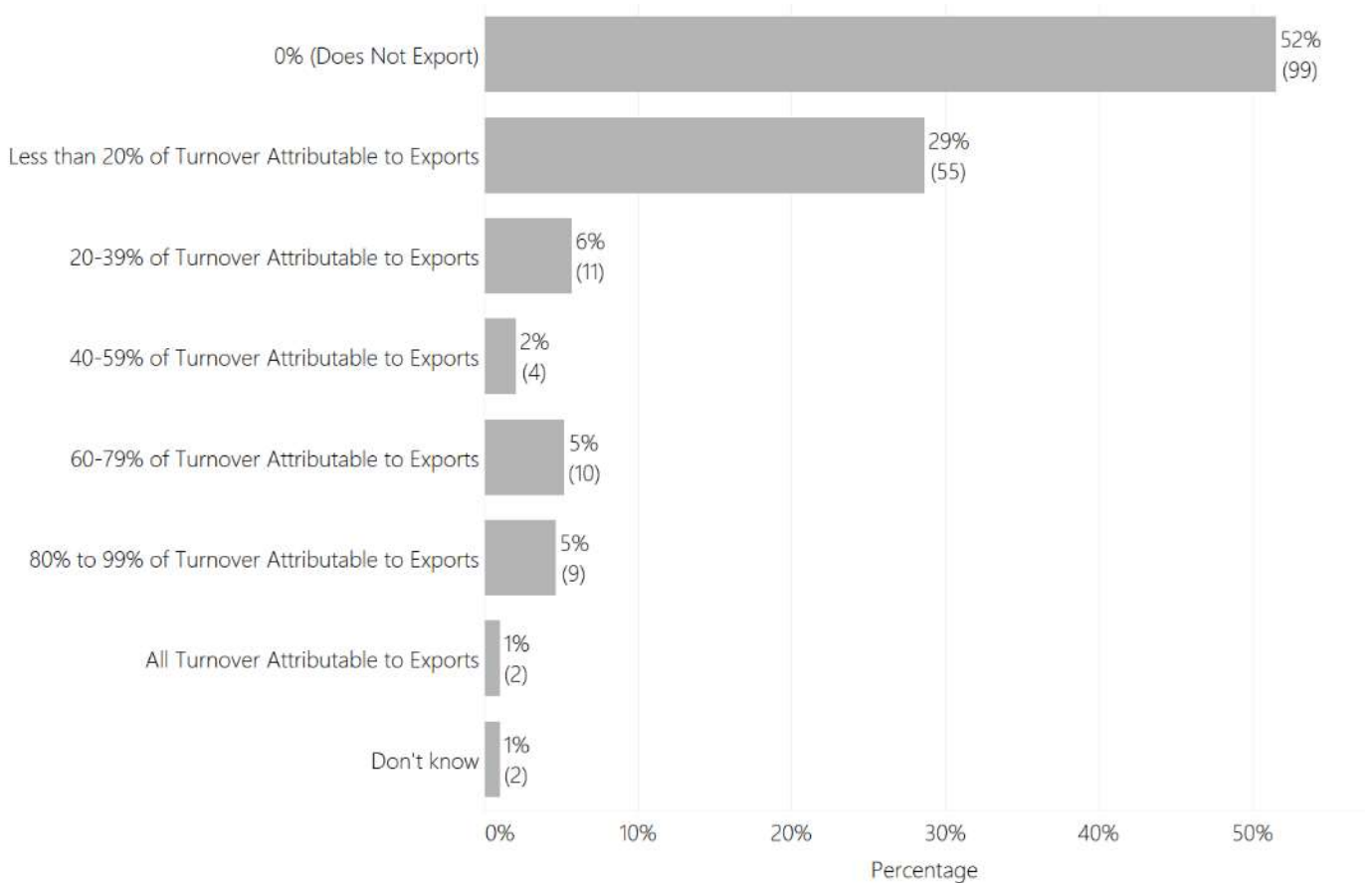
*Large cyber security procurement lead*

## 6.4 Cyber Security Exports

In October 2020, the Department for International Trade published updated UK Defence and Security Export Statistics<sup>22</sup> for 2019. This suggested that UK cyber security exports had grown significantly from approximately £2bn in 2018 to £3.96bn<sup>23</sup> in 2019.

Within this year's survey, cyber security businesses were asked if they exported, and if so, what proportion of their turnover could be attributable to export activity. In Figure 6.3, just under half of businesses (48%) reported that they exported products or services, of which most respondents (29% of all respondents, and 60% of those who do export) reported that less than 20% of their turnover was attributable to exports.

**Figure 6.3 Proportion of Turnover Attributable to Exports for UK Cyber Security Firms (that export products or services outside of the UK) – Survey Estimates<sup>24</sup>**



Source: Ipsos MORI Survey (n = 190)

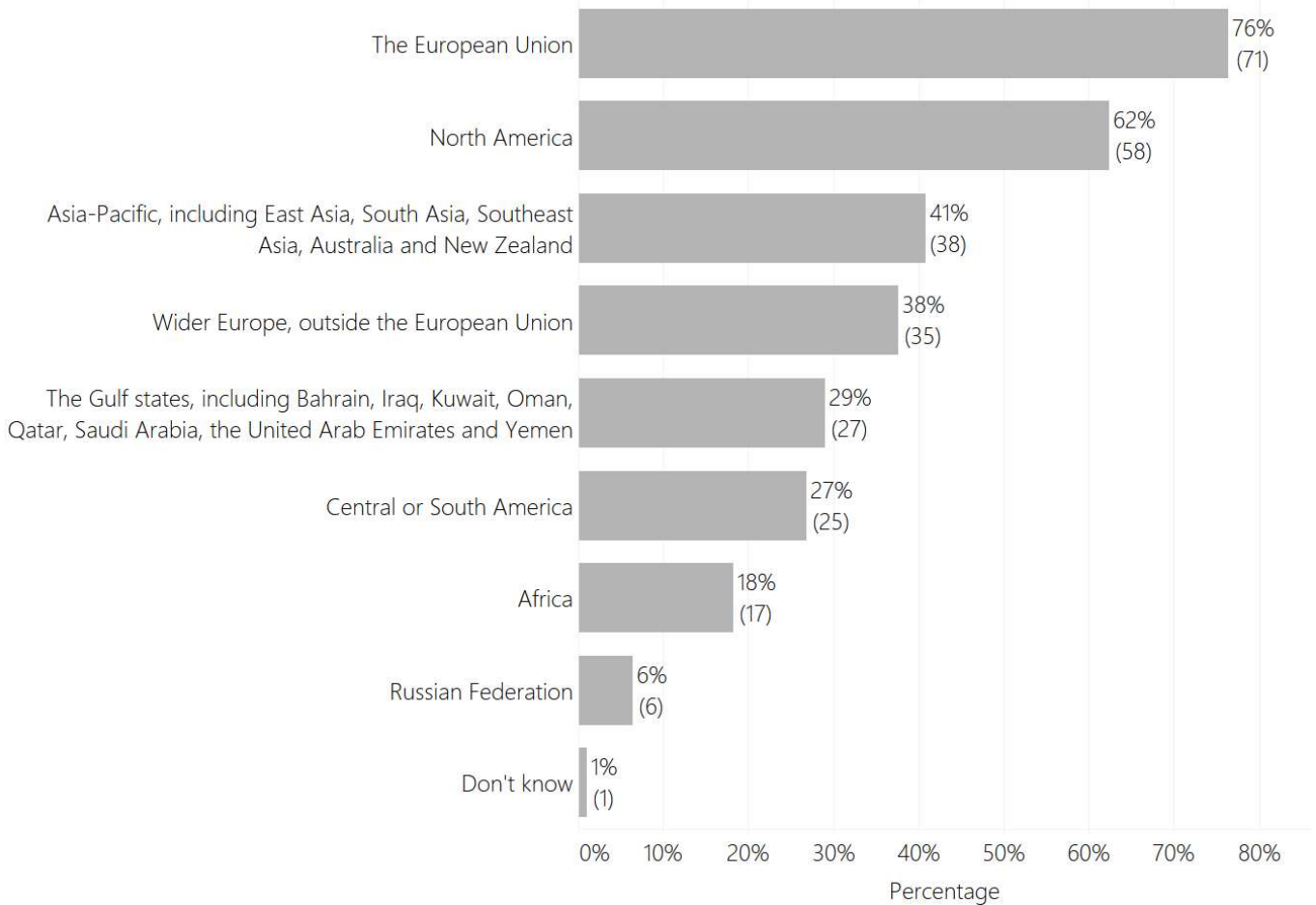
<sup>22</sup> DIT, DSO (2020) 'UK Defence and Security Export Statistics for 2019' Available at: <https://www.gov.uk/government/publications/uk-defence-and-security-export-statistics-for-2019/uk-defence-and-security-export-statistics-for-2019>

<sup>23</sup> It should be noted that part of the increase in cyber security exports can be attributed to the new registration of UK subsidiaries of US companies (such as McAfee Security UK Ltd) and the channelling of a proportion of their global revenues through their UK accounts or the better reporting of the proportion of overall turnover that represented exports.

<sup>24</sup> Approximately what percentage of your turnover is attributable to exports? By exports, we mean where products or services are purchased and used overseas by non-UK customers or clients.

The businesses that export were also asked in which global regions did they provide cyber security products or services. Within Figure 6.4, over three-quarters (76%) of cyber security exports sold to countries within the European Union, followed by North America (61%), and Asia-Pacific (41%).

**Figure 6.4 Percentage of Companies that Export to the Following Regions (Among the 48% that Export) – Survey Estimates**



Source: Ipsos MORI survey (n = 93)



### 6.5 Public Procurement

The National Cyber Security Strategy (2016-21) emphasises the role of government procurement in supporting growth for the cyber security sector and improving public sector engagement with new innovative cyber security start-ups.

Following on from last year’s analysis, Figure 6.5 sets out Tussell data for the last three years relating to cyber security contract awards. For transparency, this measures the number and value of public contracts awarded to UK registered firms related to cyber security. It excludes the award of framework contracts as these can be difficult to identify exact government spending, where the contract value is the same as the framework maximum budget.

However, this demonstrates that in 2020, public procurement remained an important mechanism for UK cyber security firms to win new work, with £218m awarded across 425 contract awards.

**Figure 6.5 Cyber Security Contracts (Value and Volume)**



Source: Tussell<sup>25</sup> (data source on UK government spend and contracts).

<sup>25</sup> See [www.tussell.com](http://www.tussell.com)

# 7. Government Support for the Cyber Security Sector

## 7.1 Introduction

The National Cyber Security Strategy (NCSS) sets out that government will help to facilitate an ecosystem which, at its heart, will include a *‘programme of initiatives to give start-ups the support they need to get their first customers and attract further investment’*.

There are a wide range of initiatives, incubators and accelerators targeted towards cyber security firms in the UK, which are backed by a mix of government, industry and academic support. These include initiatives to support early-stage ideas and individuals start and grow their own cyber security companies (e.g. HutZero, Cyber 101, CyberASAP), as well as those intended to support and scale-up high-potential high-growth companies (e.g. the NCSC Cyber Accelerator, the London Office for Rapid Cybersecurity Advancement (LORCA)). There are also a range of well-established initiatives and communities such as CyLon, Level39, SetSquared, and Tech Nation Cyber.

Building on last year’s research, this chapter explores the role of government support for the cyber security sector, including the role of support initiatives, grants and public funding support, and the role of government support during the COVID-19 pandemic.

## 7.2 Overview of Sectoral Support

To date, the government has supported a wide range of initiatives to encourage cyber security start-ups and scale-ups in the UK, summarised below:

### Supporting Cyber Security Ideas, Innovations, and Start-Ups

As the NCSS sets out:

***“The most ground-breaking products and services, that offer the potential to keep us ahead of the [cyber] threat, struggle to find customers who are willing to act as early adopters.”***

It is therefore important to support businesses involved in cyber security that may have ideas that could materialise into world-leading products but need time to enter and convince the market to adopt and implement.

In order to support early-stage ideas and start-ups, DCMS has funded three key initiatives, namely:

**HutZero:** HutZero is a collaboration between Cylon and Centre for Secure Information Technologies (CSIT) (Queen’s University Belfast), It offers a three-month programme designed to help entrepreneurs at the start of their journey. The programme starts with a five-day bootcamp to develop team working skills as well as business and technical knowledge. HutZero staff are then available to participants for advice and support for the remainder of the programme. Over the last three years, HutZero has supported almost one hundred individuals, and helped to create ten new registered companies within the cyber security ecosystem.

**Cyber 101:** Delivered in a partnership between the Digital Catapult, The Accelerator Network, Centre for Secure Information Technologies (CSIT) (Queen’s University Belfast) and Inogesis. Cyber 101 offers a

three-stage series of face-to-face events known as Bootcamps, Deep Dives and Demo-days. They provide expert advice and industry representatives to support the development of critical business skills, contacts and commercial opportunities. It has supported over 160 businesses within the last three years and works across various regions.

**Cyber Security Academic Start-Up Accelerator Programme (CyberASAP):** Innovate UK & Knowledge Transfer Network collaborate to help academics in UK universities commercialise their cyber security ideas. They offer a year-long programme divided into three phases: the first focused on developing a value proposition, the second on market validation of the proposition and the third on development of a Minimum Viable Product (MVP) to be presented to funders and industry representatives.

### Accelerating High-Growth Companies

Further, DCMS has also supported initiatives that are tailored towards companies that are demonstrating high potential or high-growth and could feasibly be supported to receive further investment and to grow their customer base. These include:

**National Cyber Security Centre (NCSC) Cyber Accelerator:** The National Cyber Security Centre, GCHQ and Wayra have partnered to deliver a programme of support for start-up cyber security businesses who aim to bring ‘better, faster and cheaper’ security products to market. Those participating receive corporate development support as well as mentoring and technical support from the NCSC itself.

**The London Office for Rapid Cybersecurity Advancement (LORCA)** is a collaboration between Plexal, Centre for Secure Information Technologies (CSIT) and Deloitte. They offer a bespoke, 12-month package of support for successful cohort applicants to scale and grow solutions. Support includes dedicated office space, access to technical and entrepreneurial expertise as well as events to support connections with finance and industry contacts.

LORCA’s ambition is to stimulate the growth of at least 72 high-potential companies, grow up to 2,000 jobs, secure £40 million in investment, and ultimately “Maximise the commercial opportunity”, “Minimise barriers to scale” and “Get solutions to market more quickly”.

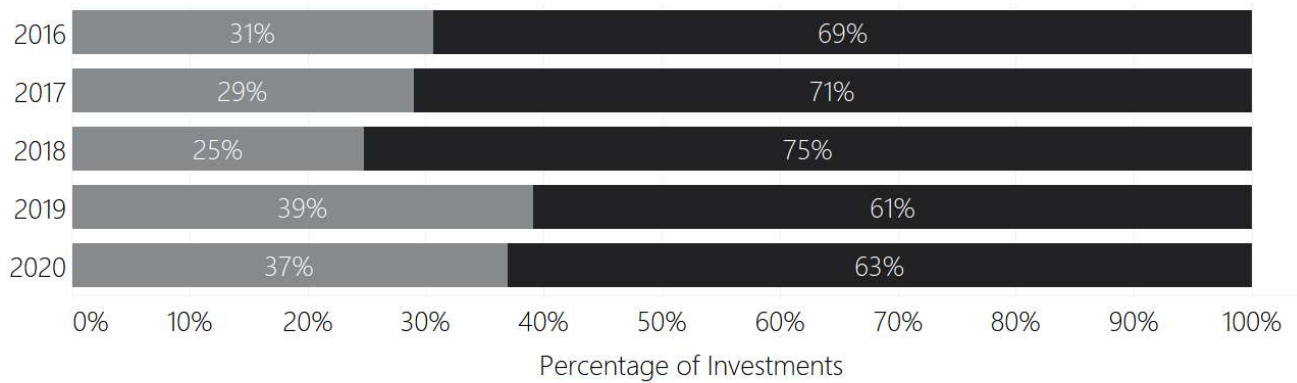
**Tech Nation Cyber** is a six-month national scale-up programme for high-growth, ambitious cyber security firms. It offers peer-to-peer learning, masterclasses led by expert scale coaches, meetups and an international trip organised in conjunction with the Department of International Trade (DIT). This year Tech Nation supported 22 cyber security firms through its Cyber 2.0 Cohort.

### Supporting Access to Investment:

Within the cyber security sectoral analysis, we have tracked almost two hundred companies that have participated within one or more of these initiatives (of which 165 are currently tracked as part of the sectoral analysis). These initiatives are intended to increase the number of cyber security start-ups, as well as increase investment, R&D expenditure / grant participation, revenue, GVA and employment.

Figure 7.1 sets out the percentage of deals made each year in dedicated cyber security companies that have participated in at least one of the mentioned initiatives since 2016. This demonstrates, that in 2020, *37% of investments were made within firms that had participated within one or more of the initiatives mentioned*, and this figure has steadily increased over time – potentially reflecting early-stage success by such firms in being able to meet investors and secure funding.

**Figure 7.1 Investment by Participation in an Accelerator / Support Initiative**

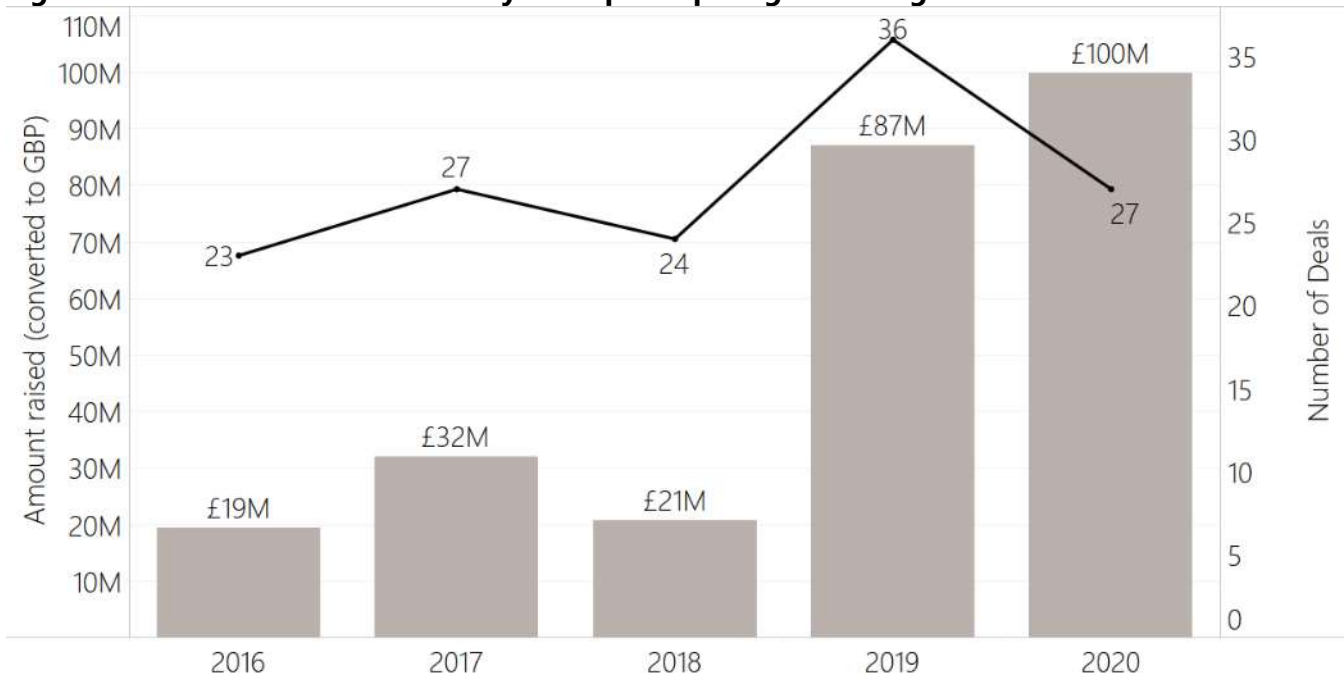


Involved in Govt Initiative  
 ■ No  
 ■ Yes

Source: Perspective Economics, Beauhurst (n = 165)

Further, Figure 7.2 sets out the total investment raised by firms participating within at least one of the initiatives mentioned. Whilst the number of schemes has grown, and firms have become more mature over time, this does highlight growth in the total investment raised by these early-stage firms, potentially reflecting the benefit of such initiatives to connect high potential cyber start-ups with the investment community. In 2020, these firms raised a total of £100m in investment across 27 deals.

**Figure 7.2 Total investment raised by firms participating within a government initiative**

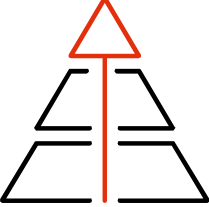
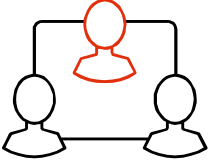

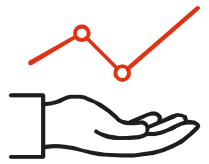



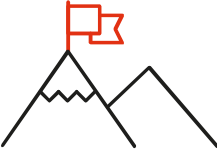

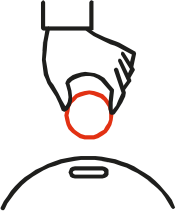
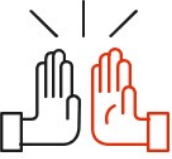
Measure Names  
 ■ Amount raised (converted to GBP)  
 ■ Number of Deals

Source: Beauhurst

# Key Findings

The table below sets out the key findings from this year's Cyber Security Sectoral Analysis.

|   |   |
|---|---|
|    | <p><b>Number of Companies</b></p> <p>We estimate that there are 1,483 firms active within the UK providing cyber security products and services.</p> <p>↑ This reflects an increase of 21% since last year's (2020) report (1,221 firms), and a 75% since the baseline report in 2017/18 (846 firms).</p> <p>The majority of firms are SMEs, but there are many providers of scale operating within the UK market, i.e. 22% of businesses offering cyber security products and services to market are medium or large, compared to 4% of all businesses in the UK.</p>  |
|   | <p><b>Sectoral Employment</b></p> <p>We estimate there are approximately 46,700 Full Time Equivalents (FTEs) working in a cyber security related role across the cyber security firms identified.</p> <p>↑ This reflects an estimated increase of 9% (from 43,000) in employee jobs within the last twelve months.</p> <p>The majority (65%) of cyber security employment remains based within large firms (250+ employees).</p>  |
|  | <p><b>Sectoral Revenue</b></p> <p>We estimate that total annual revenue within the sector has reached £8.9bn within the most recent financial year.</p> <p>↑ This reflects an increase of 7% since last year's study (i.e. revenue has increased by £0.6bn from £8.3bn). Whilst positive, this rate of growth is slower than set out within previous analysis.</p> <p>On average, we estimate that revenue per employee has fallen slightly from c. £193,500 to c. £190,000 within the last year (a decrease of 2%).</p> <p>Just under three-quarters (£6.6bn, 74%) of all UK cyber security revenue is earned by large firms (250+ employees).</p> |
|  | <p><b>Gross Value Added</b></p> <p>We estimate that total Gross Value Added (GVA) for the sector has reached c. £4bn.</p> <p>↑ This means total GVA has increased by 6% in the last year (from £3.77bn).</p> <p>We estimate that GVA per employee has fallen slightly from £88,000 to £85,700 within the last year (a decrease of 3%).</p>  |
|  | <p><b>Products and Services</b></p> <p>The most commonly provided cyber security products and services (see Section 2) by the sector include:</p>   |

|   |  |
|---|--|
|   | <ul style="list-style-type: none"> <li>▪ Cyber Professional Services (provided by 72% of firms)</li> <li>▪ Threat Intelligence, Monitoring, Detection and Analysis (43%)</li> <li>▪ Endpoint Security (including Mobile Security (33%))</li> </ul> <p>↑ SCADA and ICS (7% of firms vs 4% last year), and IoT Security (3% of firms vs 2% last year).</p> <p>We have also segmented companies by whether their main provision is a product (29%), service (54%), managed services (16%), or reseller activities (1%).</p>   |
|    | <p><b>Market Sentiment</b></p> <p>The cyber security sector has grown by 7% since last year’s study.</p> <p>However, this reflects company accounts data typically reported pre-COVID-19 (e.g. in financial year ending March 2020). Despite this, consultees are optimistic about the UK cyber security sector’s growth potential in future years.</p>  |
|   | <p><b>COVID-19</b></p> <p>The COVID-19 pandemic, whilst challenging, has demonstrated that there is a strong resilience within the sector, with the number of cyber security firms continuing to grow. However, this report does find that there is a sustained need to ensure that small and medium-sized scale-ups can access support to grow in the years ahead.</p> <p>Further, there is potential that the wider economic environment could exert downwards pressure on information security expenditure, which could result in more restrained growth in the sector in future.</p>                       |
|  | <p><b>Investment</b></p> <p>Despite the prevailing economic conditions, 2020 was a new record year for cyber security investment, with over £821m raised in 2020 by dedicated cyber security firms across 73 deals – more than twice than raised in 2019.</p> <p>However, this investment is primarily driven by large scale investments in a number of more mature cyber security firms, and there were very few deals led by early-stage cyber security start-ups in the last twelve months.</p>   |
|  | <p><b>Industry Support</b></p> <p>The UK Government has invested in a range of initiatives to help cyber security start-ups, early-stage companies, and high growth companies develop market-leading products and secure external investment. There have now been over 200 firms through a cyber security initiative supported by government.</p> <p>Further, in 2020, the provision of government support to UK businesses through the COVID-19 pandemic has been welcomed by a number of cyber security start-ups, in helping them to adjust to new ways of working, and support investments in R&amp;D.</p> |

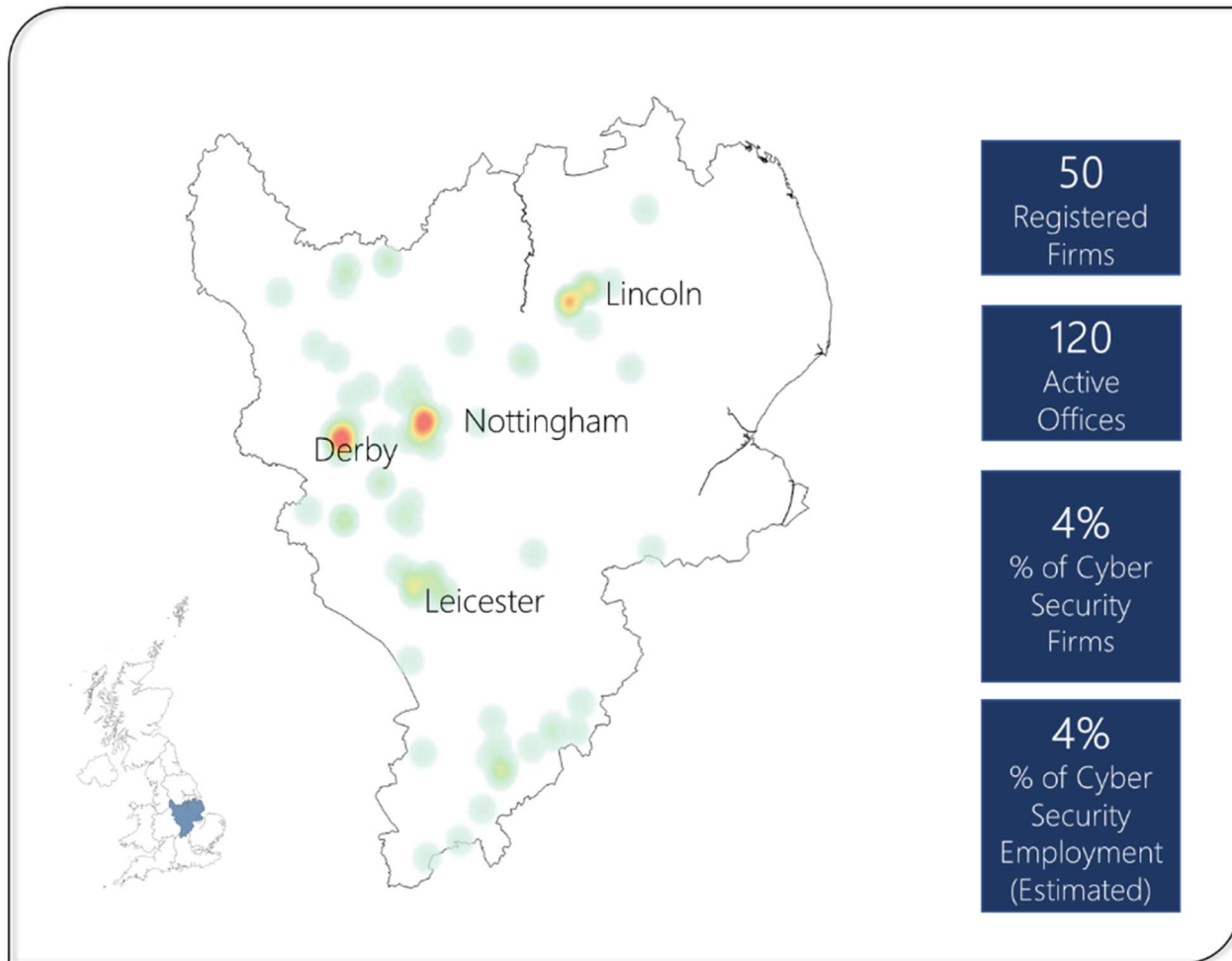


# Regional Snapshots

## Introduction

Whilst this report focuses upon the cyber security sector across the entire UK, we set out snapshots<sup>26</sup> of the number of cyber security firms, offices, and estimated share of UK activity (weighted for revenue, employment, and number of firms).

## East Midlands



Source: *Perspective Economics*

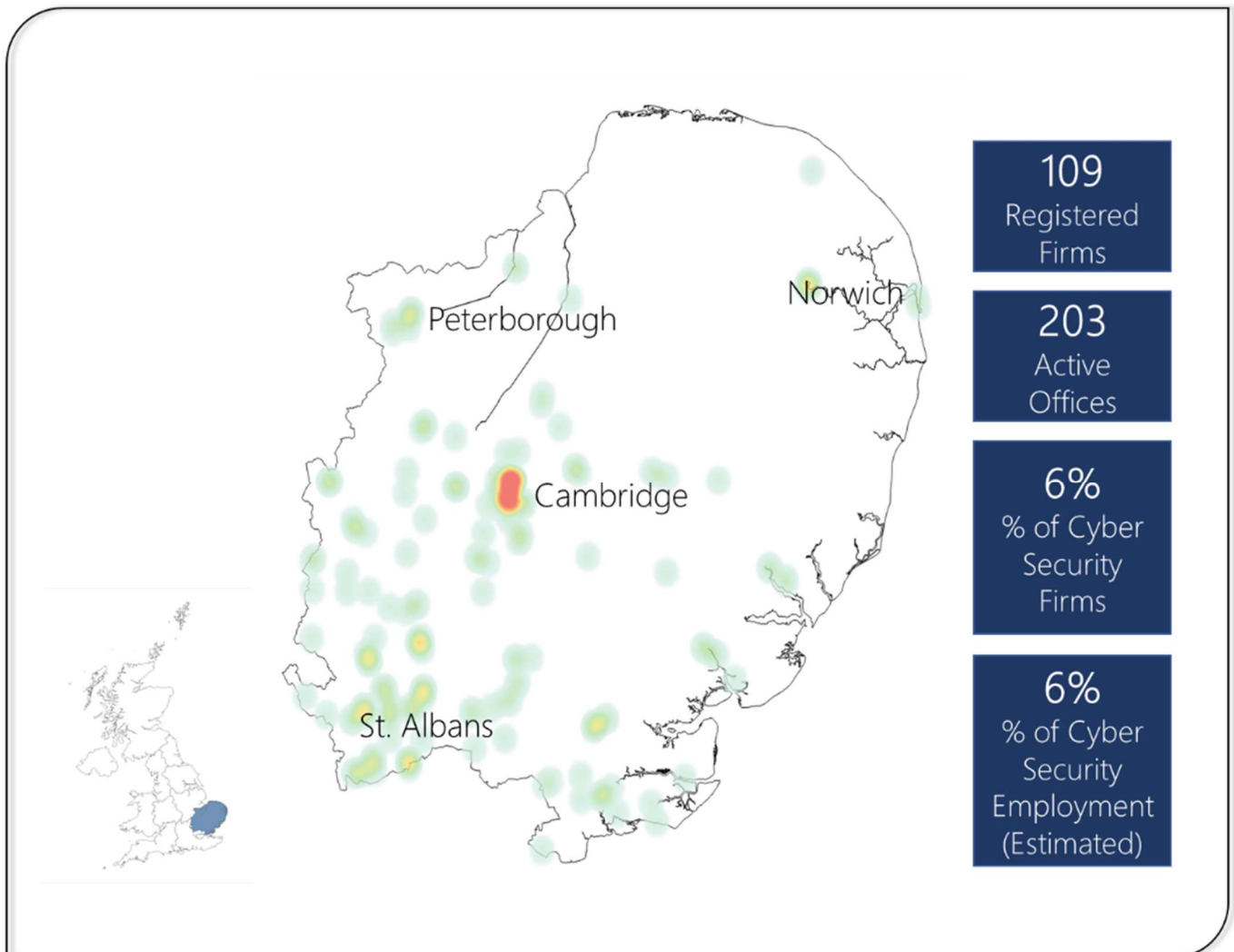
Within the East Midlands, we have identified 50 registered cyber security businesses, and 120 offices in the region related to the cyber security sector. The heatmap demonstrates that Nottingham, Derby, Lincoln, and Leicester are among some of the key towns and cities in the region. We estimate the East Midlands is home to c. 4% of the UK cyber security sector's employment, with employers including firms

<sup>26</sup> Each of the sections below set out a **heatmap of the active offices** within each region (darker red intensity signals a cluster of firms), count of registered cyber firms, count of active cyber offices in the region, percentage of active UK cyber security offices within the region (i.e. number of active offices in the region divided by the total number of active cyber offices in the UK), and an estimated percentage of UK cyber security sectoral employment within the region.



such as Intercede, Nexor, Secure Key Warrior, 4Secure, and Redscan Cyber Security. The region is also home to the East Midlands Cyber Security Cluster.

## East of England



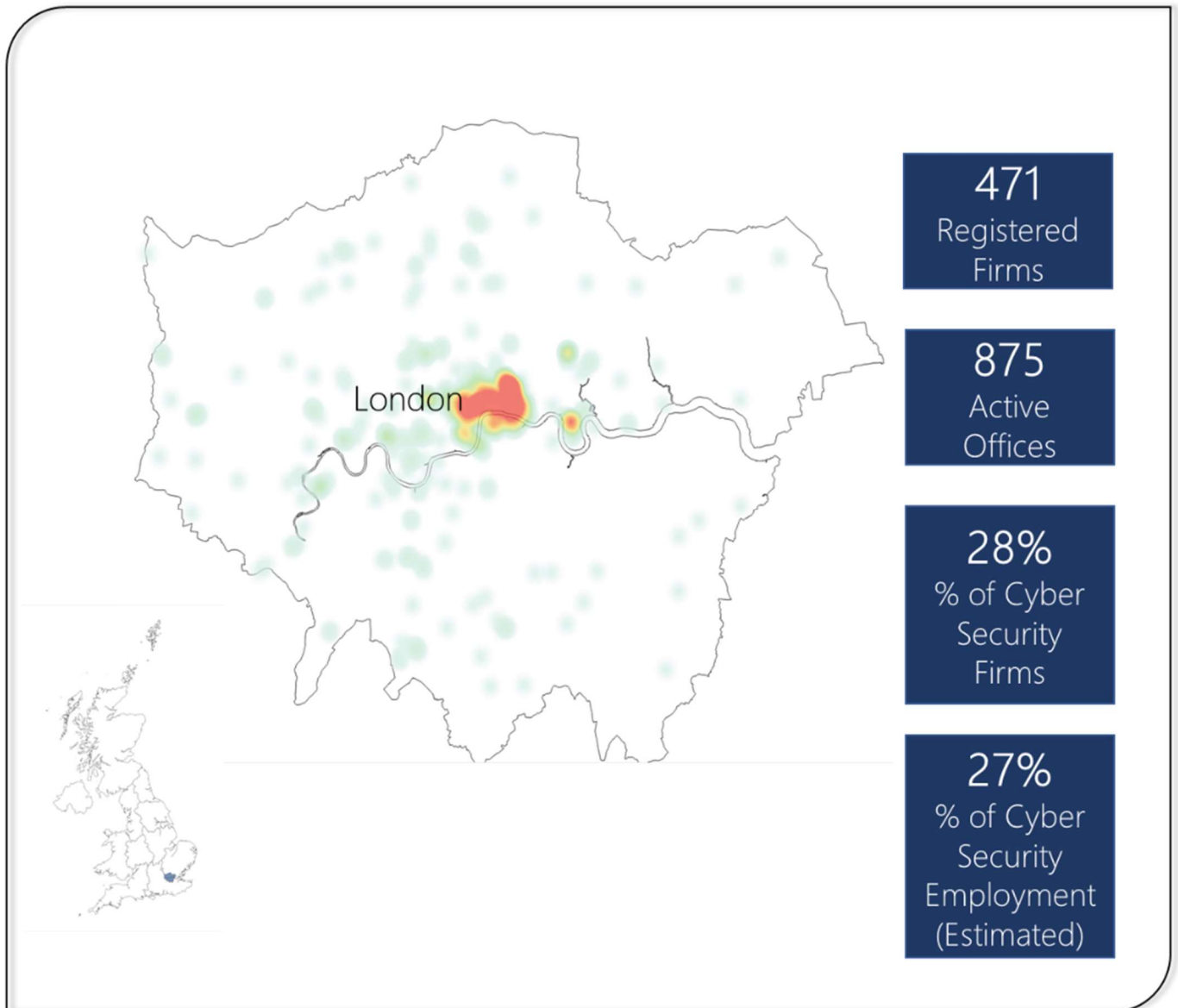
Source: *Perspective Economics*

Within the East of England, we have identified 109 registered cyber security businesses, and 203 offices in the region related to the cyber security sector. The heatmap demonstrates that Cambridge is the main cluster of activity, with further activity in Norwich, Peterborough, and St Albans.

We estimate the East of England is home to c. 6% of the UK cyber security sector's employment, with employers including firms such as Darktrace, Privitar, and Trustonic.

The region is also home to the Norfolk and Suffolk Cyber Security Cluster, and the Cambridge Cyber Security Cluster.

## Greater London

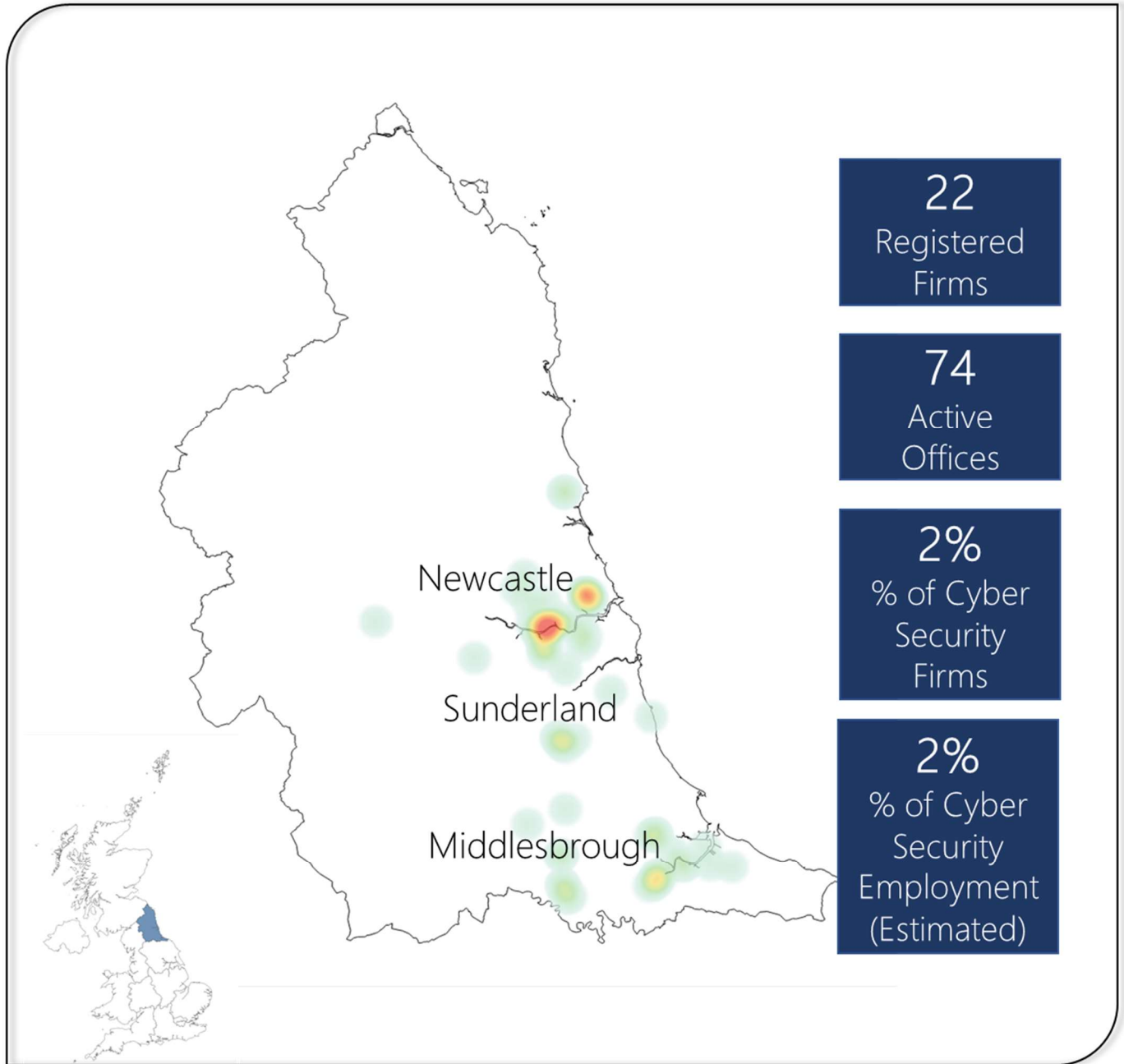


Source: *Perspective Economics*

Within Greater London, we have identified 471 registered cyber security businesses, and 875 offices in the region related to the cyber security sector.

We estimate the East of England is home to c. 27% of the UK cyber security sector's employment, with employers including firms such as Mimecast, Cloudflare, Palo Alto Networks, Egress, and Nettitude.

## North East



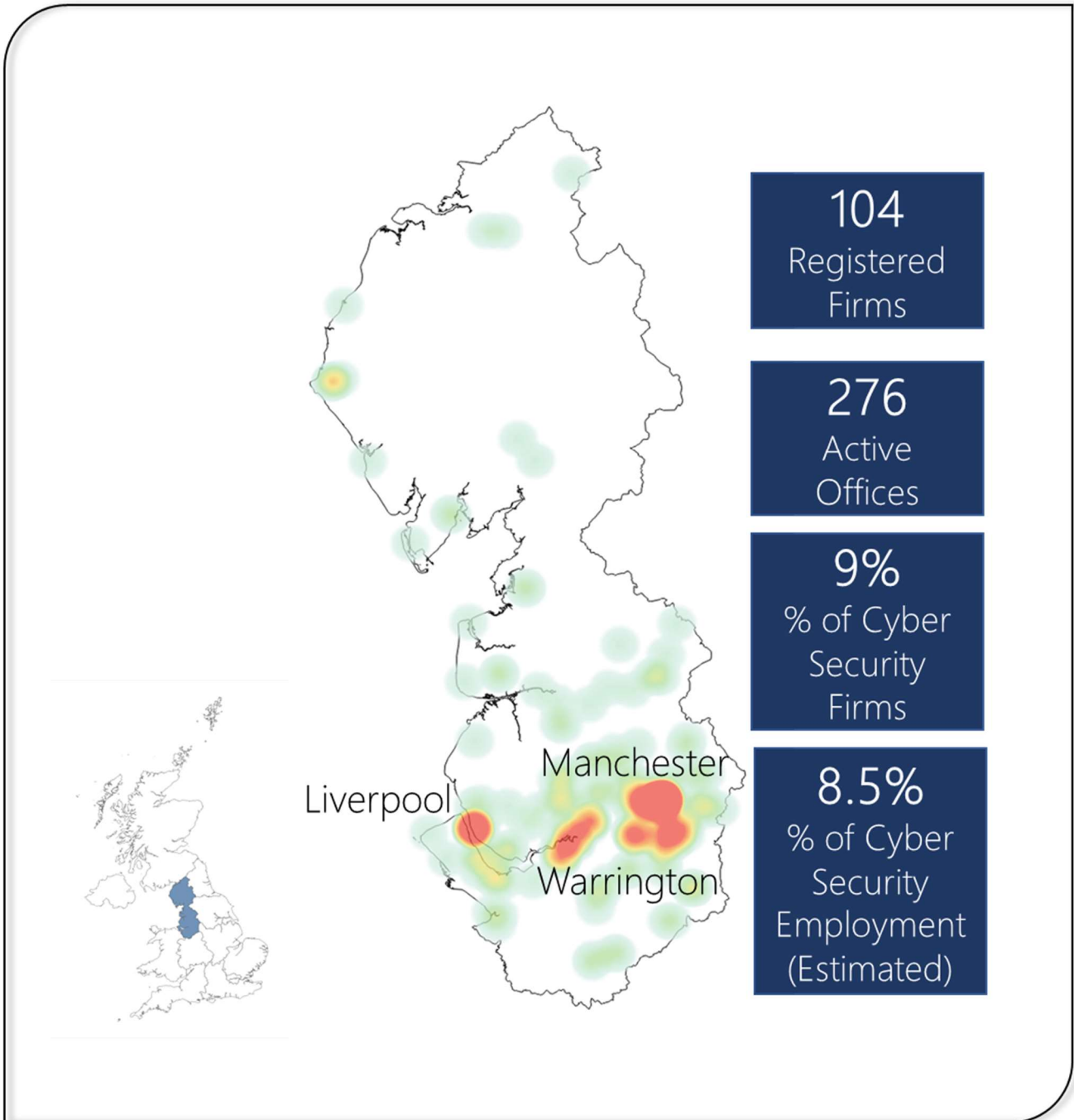
Source: *Perspective Economics*

Within the North East, we have identified 22 registered cyber security businesses, and 74 offices in the region related to the cyber security sector. The heatmap demonstrates that Newcastle is the main cluster of activity, with further activity in Sunderland and Middlesbrough.

We estimate the North East is home to c. 2% of the UK cyber security sector's employment, with employers including firms such as Accenture, Security Risk Management, and Waterstons.

The region is also home to the Dynamo North East, and Tees Valley and County Durham Cyber Security clusters.

## North West



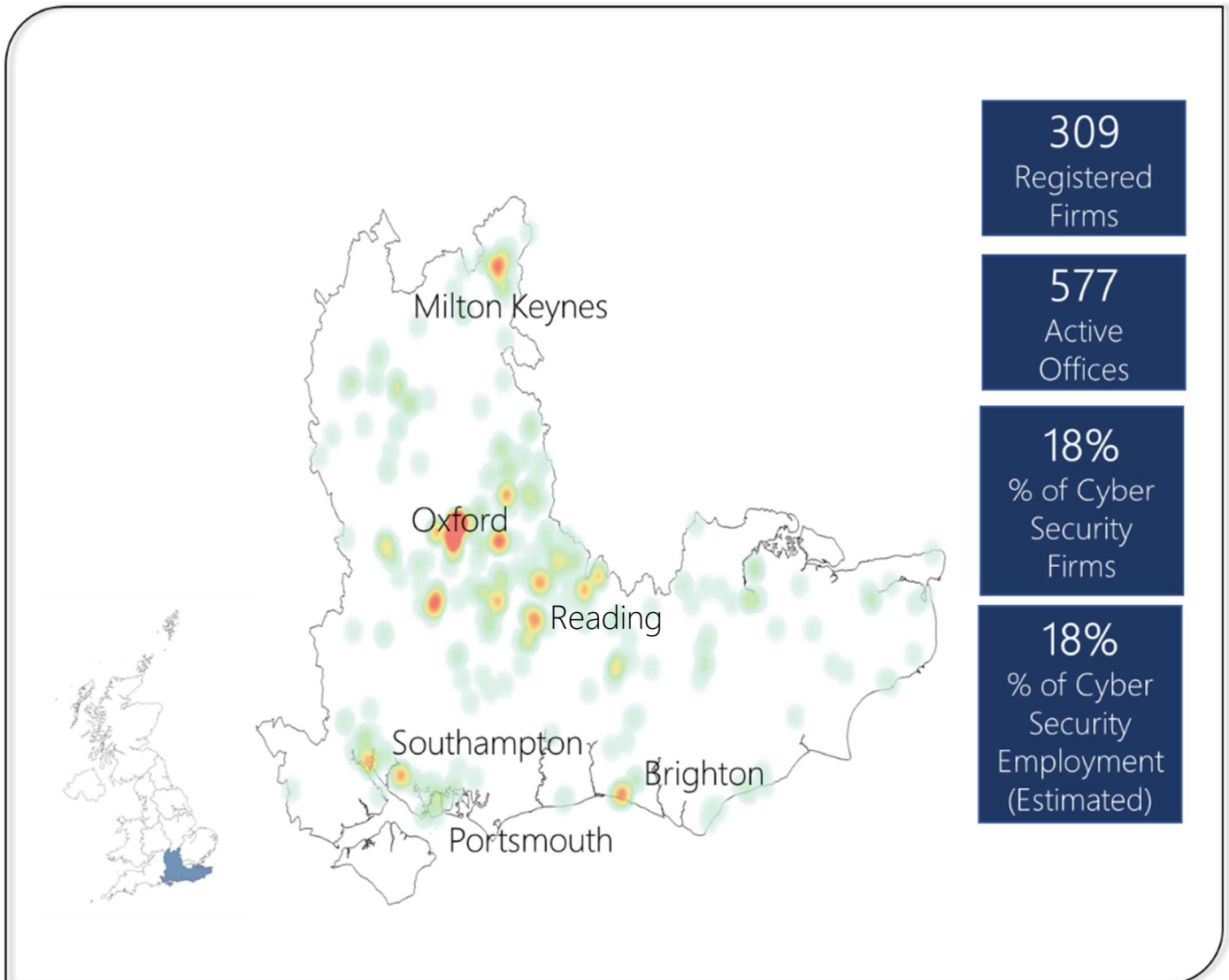
Source: *Perspective Economics*

Within the North West, we have identified 104 registered cyber security businesses, and 276 offices in the region related to the cyber security sector. The heatmap demonstrates that Manchester, Liverpool, and Warrington are among some of the key towns and cities in the region.

We estimate the North West is home to c. 8.5% of the UK cyber security sector’s employment, with employers including firms such as NCC Group, KPMG, BeyondTrust, and Secarma.

The region is also home to the North West Cyber Security Cluster, GCHQ (Manchester), and the Greater Manchester Cyber Foundry.

## South East



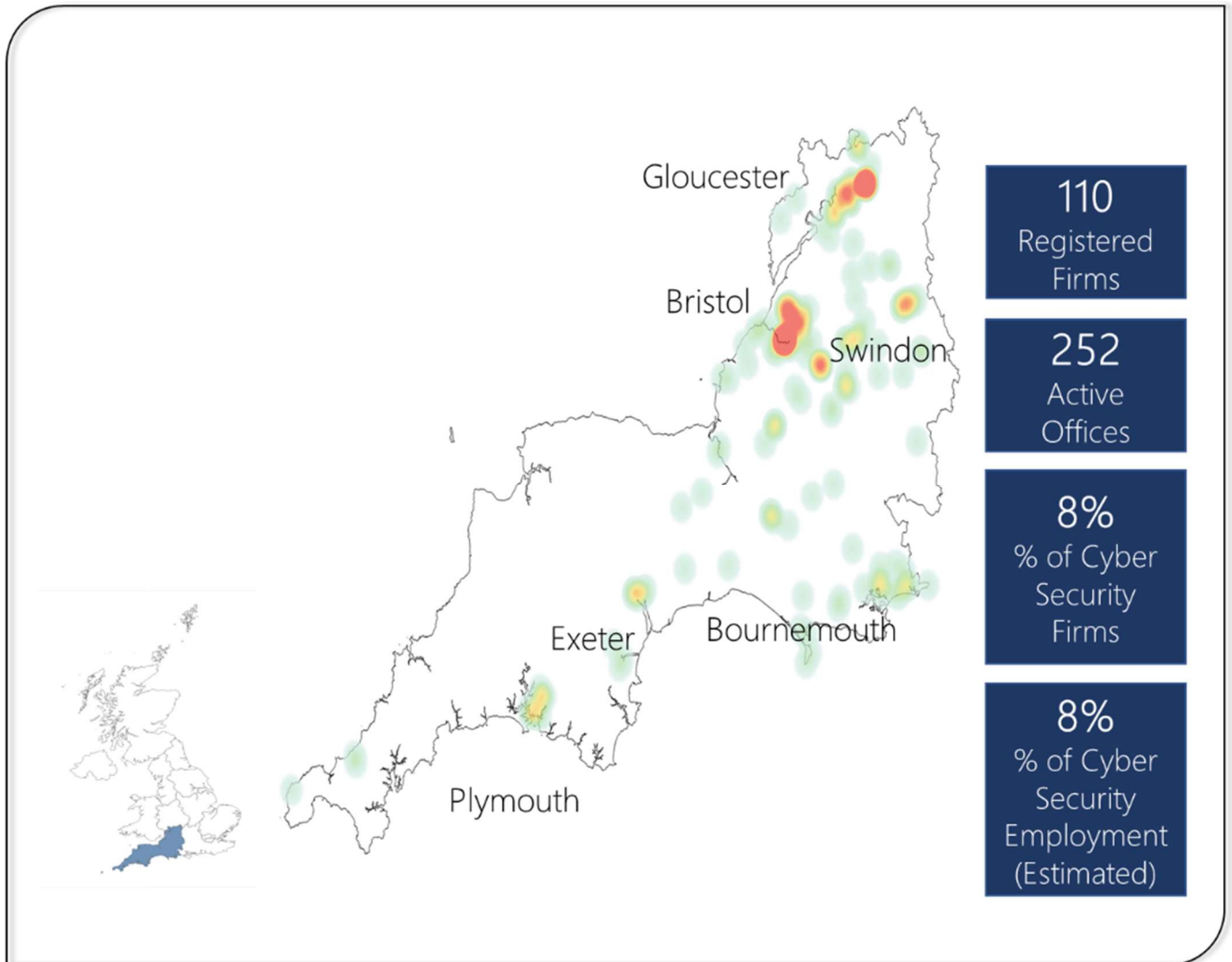
Source: *Perspective Economics*

Within the South East, we have identified 309 registered cyber security businesses, and 577 offices in the region related to the cyber security sector. The heatmap demonstrates that Oxford, Milton Keynes, Southampton, Reading, Portsmouth, and Brighton are among some of the key cities in the region.

We estimate the South East is home to c. 18% of the UK cyber security sector's employment, with employers including firms such as Sophos, Carbon Black, Fortinet, and FireEye.

The region is also home to the South East Cyber Security Cluster, Oxford Cyber Security Cluster, and Thames Valley Cluster.

## South West



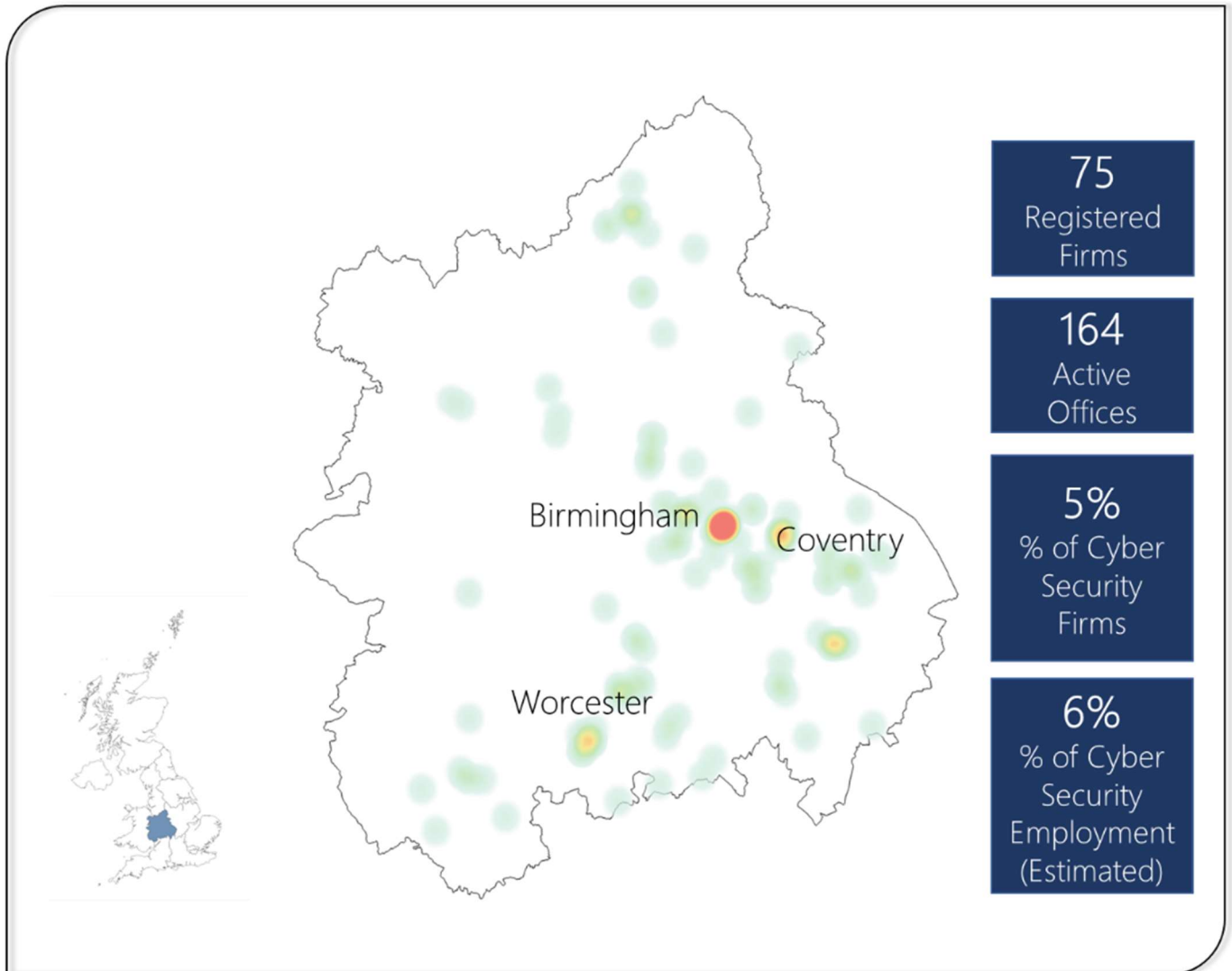
Source: *Perspective Economics*

Within the South West, we have identified 110 registered cyber security businesses, and 252 offices in the region related to the cyber security sector. The heatmap demonstrates that Gloucester, Bristol, Bath, Swindon, Bournemouth, Exeter, and Plymouth are among some of the key towns and cities in the region.

We estimate the South West is home to c. 8% of the UK cyber security sector's employment, with employers including firms such as BAE Systems and Immersive Labs.

The region is also home to a range of clusters including CyNam, Bristol and Bath Cyber Security Cluster and the South West Cluster. The region also benefits from a strong military and defence ecosystem, with strong links to GCHQ in Gloucestershire.

## West Midlands



Source: *Perspective Economics*

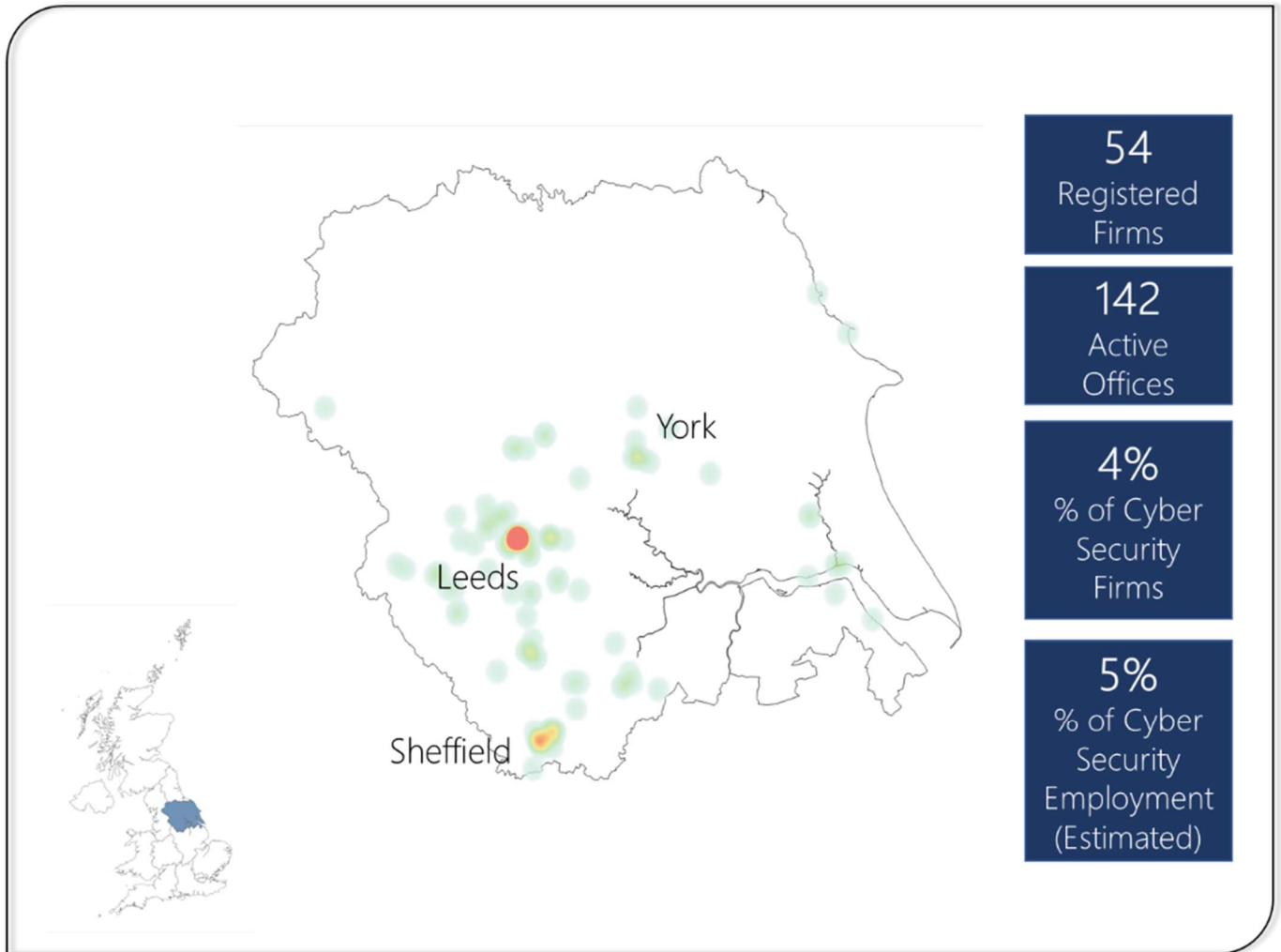
Within the West Midlands, we have identified 75 registered cyber security businesses, and 164 offices in the region related to the cyber security sector. The heatmap demonstrates that Birmingham, Coventry and Worcester are among some of the key towns and cities in the region.

We estimate the West Midlands is home to c. 6% of the UK cyber security sector's employment, with employers including firms such as Titania, IBM, CyberOwl, and Risk Evolves.

The region is also home to the Midlands Cyber Security Cluster.



## Yorkshire and the Humber



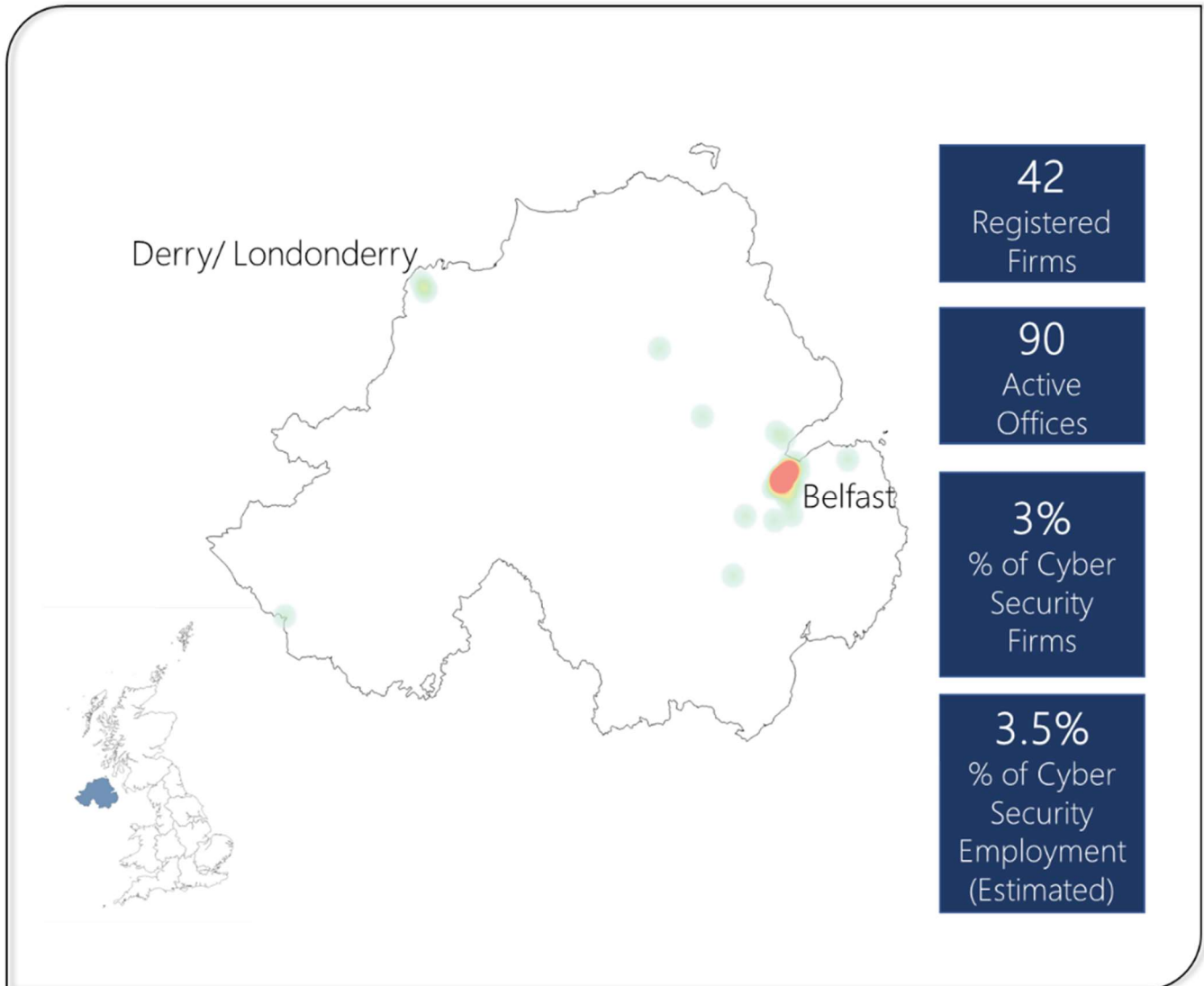
Source: *Perspective Economics*

Within Yorkshire and the Humber, we have identified 54 registered cyber security businesses, and 142 offices in the region related to the cyber security sector. The heatmap demonstrates that Leeds, Sheffield, and York are among some of the key cities in the region.

We estimate Yorkshire and the Humber is home to c. 5% of the UK cyber security sector's employment, with employers including firms such as Bob's Business, KnowBe4, and Smoothwall.

The region is also home to the Yorkshire Cyber Security Cluster.

## Northern Ireland



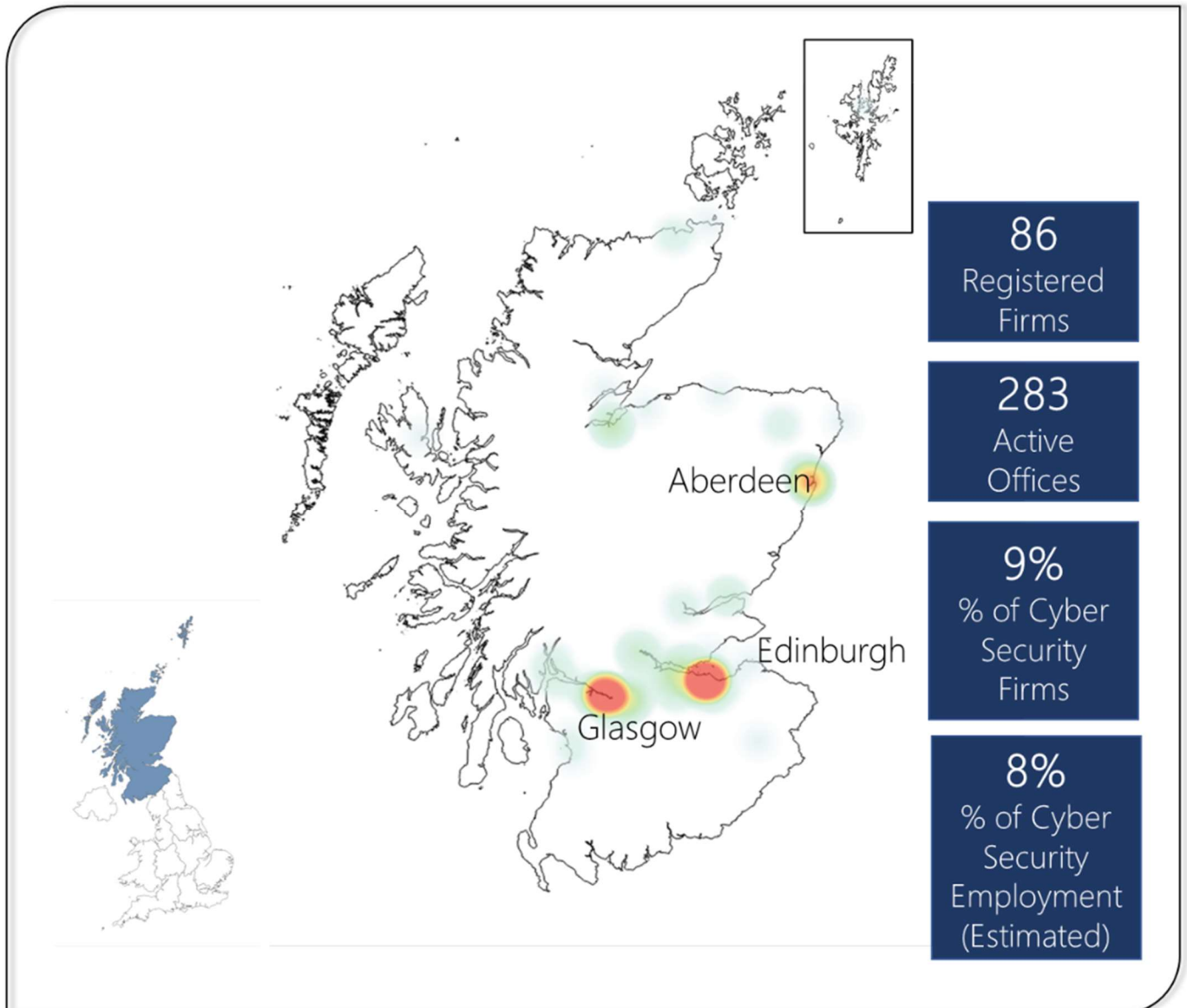
Source: *Perspective Economics*

Within Northern Ireland, we have identified 42 registered cyber security businesses, and 90 offices in the region related to the cyber security sector. The heatmap demonstrates that the majority of cyber security activity is within Belfast, followed by Derry/Londonderry.

We estimate Northern Ireland is home to c. 3.5% of the UK cyber security sector's employment, with employers including firms such as Allstate, Anomali, Cygilant, Synopsys, Microsoft, Rapid7 and Imperva.

The region is also home to the NI Cyber Cluster.

## Scotland



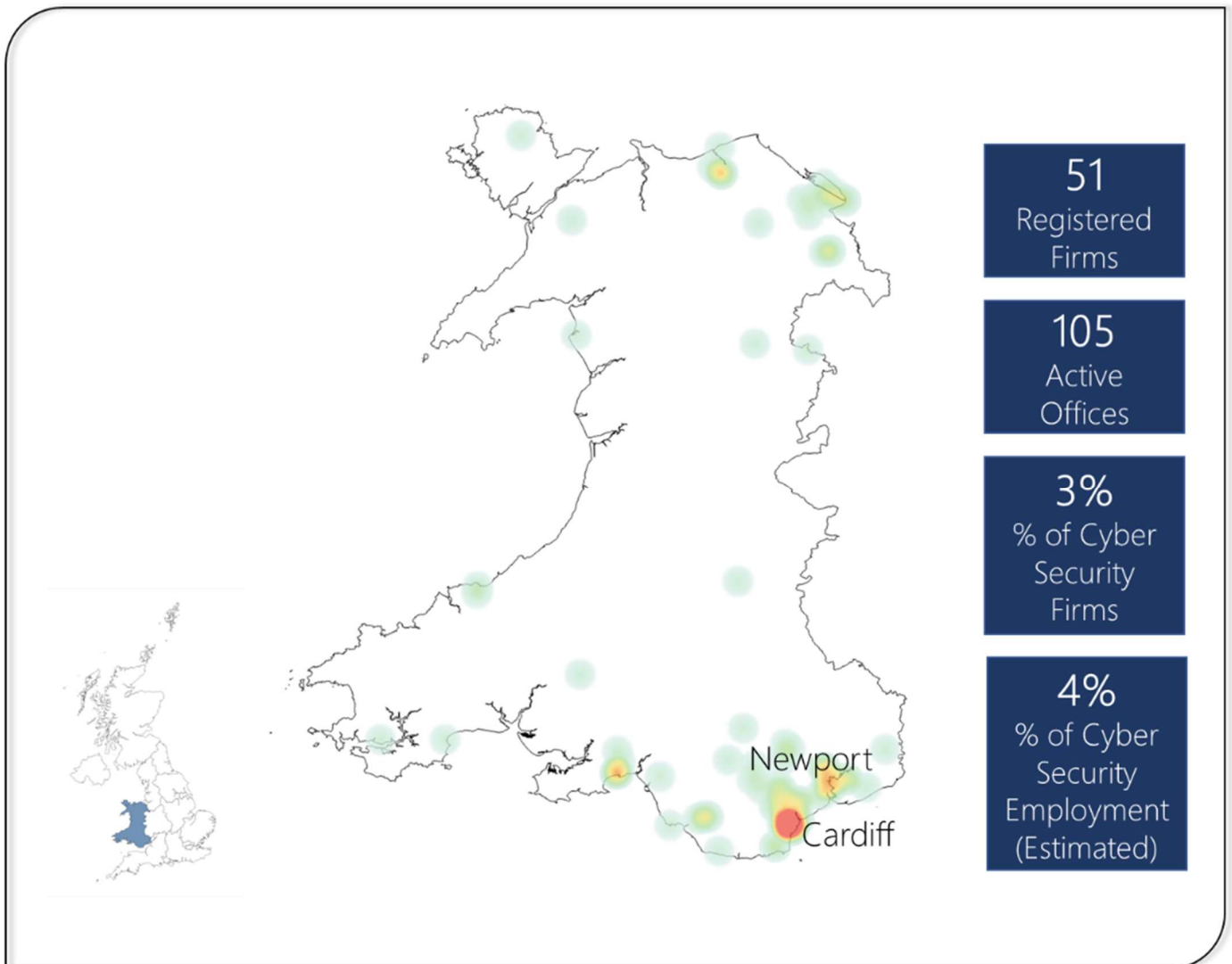
Source: *Perspective Economics*

Within Scotland, we have identified 86 registered cyber security businesses, and 283 offices in the region related to the cyber security sector. The heatmap demonstrates that the majority of cyber security activity is within Edinburgh and Glasgow, followed by Aberdeen.

We estimate Scotland is home to c. 8% of the UK cyber security sector's employment, with employers including firms such as Sopra Steria, Adarma, Fortinet, and Quorum Cyber.

The region is also home to the ScotlandIS cluster.

## Wales



Source: *Perspective Economics*

Within Wales, we have identified 51 registered cyber security businesses, and 105 offices in the region related to the cyber security sector. The heatmap demonstrates that the majority of cyber security activity is within Cardiff, Newport, Rhyl, and Wrexham.

We estimate Wales is home to c. 4% of the UK cyber security sector's employment, with employers including firms such as Airbus and Thales.

The region is also home to Cyber Wales, and the South Wales Cyber Security Cluster and North Wales Cyber Security Cluster.

# Appendices

## A: Report References

BEIS (2020) 'Business Population Estimates for the UK and Regions' Available at: <https://www.gov.uk/government/publications/business-population-estimates-2019/business-population-estimates-for-the-uk-and-regions-2019-statistical-release-html>

CyNation (2019) 'Growth Ambitions for Northern Ireland cyber security industry'. Available at: <https://cynation.com/growth-ambitions-for-northern-ireland-cyber-security-industry/>

DCMS (2020) 'DCMS Economic Estimates 2019: Employment'. Available at: <https://www.gov.uk/government/statistics/dcms-sectors-economic-estimates-2019-employment>

DCMS (2020) 'DCMS Economic Estimates 2019: Gross Value Added'. Available at: <https://www.gov.uk/government/statistics/dcms-economic-estimates-2019-gross-value-added>

DIT, DSO (2020) 'UK Defence and Security Export Statistics for 2019' Available at: <https://www.gov.uk/government/publications/uk-defence-and-security-export-statistics-for-2019/uk-defence-and-security-export-statistics-for-2019>

Ipsos MORI, Perspective Economics, CSIT (2020), 'UK Cyber Security Sectoral Analysis'. Available at: <https://www.gov.uk/government/publications/cyber-security-sectoral-analysis-2020>

ONS (2020) 'Business Demography – UK 2019' Available at: <https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/bulletins/businessdemography/2019>

TEISS (reporting on Gartner findings) (2020) 'Worldwide cyber security spending to grow by only 2.8% in 2020', Available at: <https://www.teiss.co.uk/worldwide-cyber-security-spending-2020/>

UK Government (2016) *National Cyber Security Strategy 2016 to 2021*. Available at: <https://www.gov.uk/government/publications/national-cyber-security-strategy-2016-to-2021>

## B: Overview of Sources

The data sources used to underpin the sectoral analysis included:

- **Bureau van Dijk FAME** (and Companies House Data Product): This platform collates Companies House data and financial statements from all registered businesses within the UK
- **Beauhurst**: Beauhurst is a leading investment analysis platform, that enables users to discover, track and understand some of the UK's high-growth companies e.g. identify investment, accelerator participation, and key information
- **Tussell**: Tussell provides market insight into public sector procurement through identifying key contracts, spend, buyers and suppliers
- **Cyber Exchange**: TechUK's Cyber Exchange directory enables cyber security providers to register an account and set out the products and services they provide to the market

- **Web scraping:** Our team has utilised web scraping<sup>27</sup> to extract and parse key company descriptions, locations, and contact details from identified company websites
- **Representative survey of cyber security firms:** In Summer 2019, Ipsos MORI conducted a representative survey of cyber security firms. The feedback from 262 providers has been highly useful to understand the financial performance, growth drivers, and challenges for firms within the market
- **One-to-one consultations:** Further, the team has also conducted c. 20 one-to-one consultations with investors and market providers, to gather feedback on the growth and performance of the cyber security sector in the UK

## C: Taxonomy and Definitions

| Taxonomy Category  | Agreed Definition  |
|--|--|
| Awareness, training, and education                       | Products or services in relation to cyber awareness, training or education.  |
| Cyber professional services                              | Providing trusted contractors or consultants to advise on, or implement, cyber security products, solutions, or services for others. |
| Endpoint and mobile security                             | Hardware or software that protects devices when accessing networks.  |
| Identification, authentication, and access controls      | Products or services that control user access, for example with passwords, biometrics, or multi-factor authentication.               |
| Incident response and management                         | Helping other organisations react, respond, or recover from cyber-attacks.   |
| Information risk assessment and management               | Products or services that support other organisations to manage cyber risks, for example around security compliance or data leakage. |
| Internet of Things                                       | Products or services to embed or retrofit security for Internet of Things devices or networks.                                       |
| Network security   | Hardware or software designed to protect the usability and integrity of a network.   |
| SCADA and Information Control Systems                    | Cyber security specifically for industrial control systems, critical national infrastructure, and operational technologies.          |
| Threat intelligence, monitoring, detection, and analysis | Monitoring or detection of varying forms of threats to networks and systems.   |

## D: Survey Methodology and Interpretation

### Response rate

The primary data collection was by a telephone survey. This followed a random-probability approach, with interviewers making a minimum of 10 calls to each lead (unless the respondent took part in an interview before then). This is a gold-standard surveying approach and is considered the most robust way of undertaking business surveys.

<sup>27</sup> Note: web scraping has observed robots.txt – i.e. where access is permitted.

The unadjusted response rate for the survey is 18% (262/1,483). However, this does not account for the fact that a proportion of the sample did not have telephone numbers or where the sampled telephone numbers were unusable (e.g. wrong numbers, disconnected, etc.). Over the course of the survey, Ipsos MORI attempted wherever possible to find (alternative) numbers, including alternatives to office numbers whilst working remotely.

Taking into account these issues, the total *usable* sample can be adjusted down to 878. Therefore, the adjusted response rate is 30% (262/878).

## E: Investment Definitions

The definitions below are sourced from Beauhurst's Glossary of Terms.<sup>28</sup>

### Seed

As a rough guideline: a youngish company with a small team, low valuation and funding received (low for its sector), uncertain product-market fit or just getting started with the process of getting regulatory approval. Funding likely to come from grant-awarding bodies, equity crowdfunding and business angels.

### Venture

As a rough guideline: a company that has been around for a few years, has either got significant traction, technology or regulatory approval progression and funding received and valuation both in the millions. Funding likely to come from venture capital firms.

### Growth

As a rough guideline: a company that has been around for 5+ years, has multiple offices or branches (often across the world), has either got substantial revenues, some profit, highly valuable technology or secured regulatory approval significant traction, technology or regulatory approval progression, funding received and valuation both in the millions. Funding likely to come from venture capital firms, corporates, asset management firms, mezzanine lenders.

### Established

As a rough guideline: a company that has been around for 15+ years, or 5-15 years with a 3-year consecutive profit of £5m+ or turnover of £20m+. It is likely to have multiple (often worldwide) offices, be a household name, and have a lot of traction. Funding received, if any, is likely to come from corporates, private equity, banks, specialist debt funds and major international funds.

### Exited

The company has completed an IPO or been acquired.

### Zombie

The company's website and/or social media presence show prolonged neglect and/or its Companies House status is somehow troubled – Administration, Liquidation, Dissolution First Gazette, etc. Merely doing a down-round is not by itself a reason for us to class a company as 'Zombie'. Further, a company

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<sup>28</sup> See [www.beauhurst.com](http://www.beauhurst.com)



may not be trading, because it is just a holding company, but that doesn't mean we'd classify it as 'Zombie' as its subsidiaries may be doing their thing normally, or been acquired.

## **Dead**

The company has met one or more of these conditions: It has declared it has definitively ceased all activity; its top parent company has been dissolved; and/or it has been at Zombie stage for a prolonged period of time.

# Our standards and accreditations

Ipsos MORI's standards and accreditations provide our clients with the peace of mind that they can always depend on us to deliver reliable, sustainable findings. Our focus on quality and continuous improvement means we have embedded a "right first time" approach throughout our organisation.



## ISO 20252

This is the international market research specific standard that supersedes BS 7911/MRQSA and incorporates IQCS (Interviewer Quality Control Scheme). It covers the five stages of a Market Research project. Ipsos MORI was the first company in the world to gain this accreditation.



## Market Research Society (MRS) Company Partnership

By being an MRS Company Partner, Ipsos MORI endorses and supports the core MRS brand values of professionalism, research excellence and business effectiveness, and commits to comply with the MRS Code of Conduct throughout the organisation. We were the first company to sign up to the requirements and self-regulation of the MRS Code. More than 350 companies have followed our lead.



## ISO 9001

This is the international general company standard with a focus on continual improvement through quality management systems. In 1994, we became one of the early adopters of the ISO 9001 business standard.



## ISO 27001

This is the international standard for information security, designed to ensure the selection of adequate and proportionate security controls. Ipsos MORI was the first research company in the UK to be awarded this in August 2008.



## The UK General Data Protection Regulation (GDPR) and the UK Data Protection Act (DPA) 2018

Ipsos MORI is required to comply with GDPR and the UK DPA. It covers the processing of personal data and the protection of privacy.



## HMG Cyber Essentials

This is a government-backed scheme and a key deliverable of the UK's National Cyber Security Programme. Ipsos MORI was assessment-validated for Cyber Essentials certification in 2016. Cyber Essentials defines a set of controls which, when properly implemented, provide organisations with basic protection from the most prevalent forms of threat coming from the internet.



## Fair Data

Ipsos MORI is signed up as a "Fair Data" company, agreeing to adhere to 10 core principles. The principles support and complement other standards such as ISOs, and the requirements of Data Protection legislation.

# For more information

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