UK Cyber Cluster Collaboration (UKC3) Evaluation

Final Evaluation report (2024-25)

April 2025

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Government Social Research

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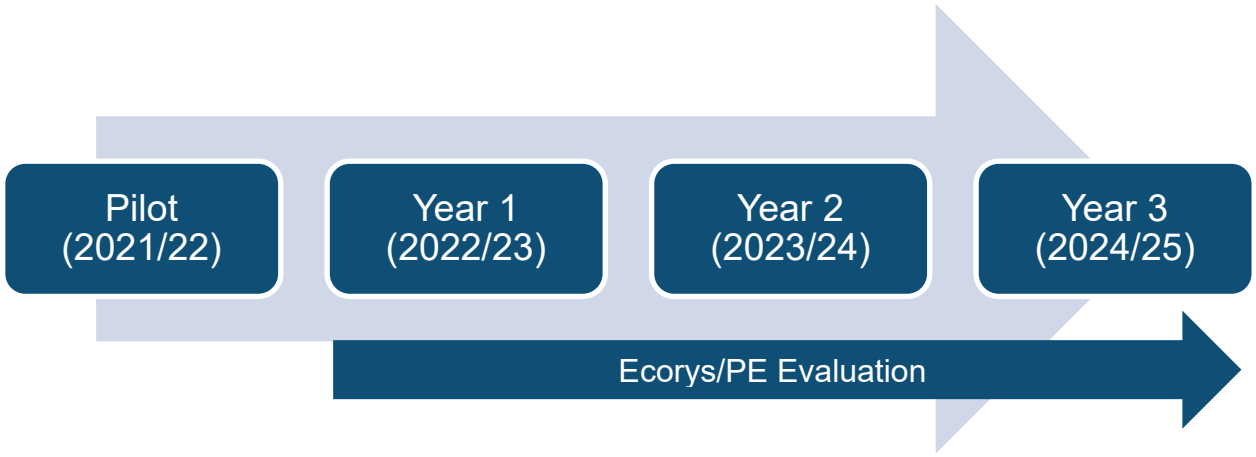
The UK Cyber Cluster Collaboration (UKC3) Programme

UKC3 was established in May 2021 as a national body and Community Interest Company (CIC), which acts as a central hub uniting cyber clusters across the UK. UKC3 promotes cyber security innovation and growth, fosters collaboration and facilitates knowledge exchange within the cyber security sector. UKC3 supports the work of cyber clusters - informal networking groups of people and organisations who work in, or have an interest in, cyber security across three strategic pillars: Ecosystem development, Innovation join-up, and Cyber skills growth.

This is the final report for Year 3 of the evaluation of UKC3 (2024-25), which captures evidence of UKC3's effectiveness and impact since its inception and up to the end of this financial year (i.e., the period 2021-2025). The following figure showcases the UKC3 and evaluation timeline during this period:

Figure 1 UKC3 and evaluation timeline



Programme Delivery

- Awareness of UKC3 in the cyber sector has increased significantly since the programme's inception.
- Cluster leaders, board members, and wider stakeholders understand and appreciate UKC3's role. Cluster members demonstrated less understanding of the aims and activities of UKC3 beyond providing operational funding for clusters.
- UKC3 governance has overall been effective but there is room for improvement; for example, there has been a reduction of administrative burden at board level, however there is a need to evolve into a more strategic structure rather than operational.

- Cluster leaders' understanding of the role of UKC3 was largely in line with the programme Theory of Change (ToC). Major themes[1] included viewing UKC3 as providing a strategic sense of direction; facilitating collaboration and knowledge sharing; ensuring a fair distribution of funding and opportunities across the UK; and advocating for the cyber security sector at government level.
- Stakeholders described the need for UKC3's role to evolve post-March 2025, towards supporting clusters to become financially sustainable, engaging with external partners, and continuing to facilitate pan-cluster activity.

Outcomes and Impact

- There was **strong evidence** that UKC3 activity has contributed to **ecosystem development**, particularly in terms of facilitating pan-cluster activity, networking and building partnerships. There was limited evidence about the national influence of UKC3 and clusters.
- There is **moderate evidence** suggesting that UKC3 contributed positively towards **cyber skills growth** through funding and supporting delivery of skills programmes. Some outcomes were difficult to attribute solely to UKC3 but stakeholders described the funding as accelerating activity.
- There was more **limited evidence** in terms of UKC3's contribution to cyber **innovation**, as stakeholders struggled to identify impact and to link it back to UKC3.
- Analysis of UKC3 reports suggest that activity was strongly aligned with the three pillars of ecosystem development, skills growth, and innovation join-up, with working groups within UKC3 leading each of the strategic pillars.
- A major theme from interviews was that operational funding had accelerated **clusters' professionalisation**, including establishing formal memberships, developing strategies, and employing full-time staff in some instances.
- Challenges remain in attributing outcomes and impacts. Monitoring and reporting have improved, with some recommendations from previous evaluations actioned. However, there is still a lack of information on quantifiable outcome and impact metrics and granular data on membership and beneficiaries. Stakeholders have also struggled to attribute impact to UKC3 compared to the activities and efforts of individual clusters.

[1] Strong or major themes are those that emerged where explicit comments were made by interviewees and/or it was a common theme. See Annex One for more details on the methodology.

Sustainability

- There were mixed views about whether clusters can be financially sustainable without UKC3 funding, and the extent to which UKC3 has contributed to accessing new funding opportunities to date.
- Current discussions are largely focused on three potential income streams for clusters: paid membership models, direct funding for project work or services, and sponsorship.
- Stakeholders suggested that sponsorship options may be the most viable, with some clusters having already leveraged additional funding through sponsors.
- Stakeholders highlighted different types/levels of sponsorship (larger commercial sponsorship, multiple commercial sponsorships, and event or ad hoc sponsorship), while suggesting that clusters may need a combination of different types to remain financially secure.
- Sponsorship could however come with certain challenges, as stakeholders suggested, for example, outside influence driven by commercial priorities, sustaining sponsorship in a tough financial environment, and that established clusters may have an advantage in gaining and maintaining sponsorship compared to less established/newer clusters.
- As stakeholders suggested, UKC3's main source of funding beyond DSIT funding is likely to be sponsorship at the national level, while they will continue to support clusters' sustainability through a cluster maturity programme and other activities.

Value for Money

- Based on current reporting, we estimate over the last four years, approximately £1.2m (35%) of resourcing has been used for UKC3 level activities, with the majority (£2.5m) (68%) used for individual cluster operations.
- The programme demonstrated reasonable efficiency in allocating funds across a broad range of activities benefitting 17 unique clusters and supporting 73 projects.
- The research team has reviewed project summaries extracted from the monitoring reports. The programme appears to have achieved positive outcomes related to networking, events, and skills development in the UK cyber security ecosystem, although quantifying overall impact remains challenging.
- This analysis suggests that over 600 events with over 17,500 attendees have been reported as delivered by the clusters.

- The review of these summaries suggest approximately 10.4 FTEs have been created or sustained as a result of funding across the clusters, including direct recruitment for cluster managers, administrators, and marketing support.
- A small number of projects also included skills provision (in addition to wider knowledge exchange). We find across three funded projects that approximately 172 students have been educated in cyber security courses (to a certification level). Further, some of the summaries include outreach and engagement with wider schemes such as CyberFirst (e.g. CyNam reaching over 7,000 students across the South West).
- Since UKC3's inception, the delivery model has been subject to ongoing change with respect to focus, leadership, staffing and remuneration, and delivery structures. There also appears to be limited clarity on the role and purpose of UKC3 among stakeholders, beyond the funding provided to clusters. For example, some stakeholders have stated they view that UKC3's role has changed from providing operational support (in a direct financial mechanism) to networking and connecting clusters together as a 'super-connector'. It is not evident that this delivery model has delivered improved value for money than a comparable alternative (e.g. if funding was provided directly to clusters by government). However, enabling clusters to access funding for operational activities and projects does appear to have supported increased professionalism and coherency across the cyber security cluster ecosystem overall.

Introduction

In August 2022, the Department for Science, Innovation and Technology (DSIT) commissioned Ecorys and Perspective Economics to evaluate the UK Cyber Cluster Collaboration (UKC3) Programme. This report covers the third year of the evaluation (March 2024 – March 2025) as well as capturing progress since the inception of UKC3 (in 2021). This draws on feedback from cluster leads, cluster members, wider stakeholders, and data from Management Information (MI) and cost data provided by UKC3. The report has also been informed by the previous evaluation phases (August 2022 – March 2023, and March 2023 – March 2024) and draws comparisons across all three phases where appropriate.

The UKC3 Programme

UKC3 was established in May 2021 as a national body and Community Interest Company (CIC) to support cyber clusters to drive growth of the cyber sector within their nations and regions, in line with the National Cyber Strategy.[2] This is achieved through funding and enabling opportunities for networking, knowledge exchange, sharing of best practice, and identifying opportunities for regional and national growth. UKC3 only funds clusters which have been formally recognised, to ensure public funding is directed at legitimate activities. As part of becoming formally recognised and funded by UKC3, a cyber cluster must operate in line with the Cyber Cluster Operating Framework[3], which comprises a common set of principles, objectives and outcomes that provide a clear definition of a cluster's remit. UKC3 is also providing support to new and emerging clusters that do not meet these criteria, helping them to professionalise and get access to funding. At the time of writing, there are 18 recognised clusters within the UKC3 network, covering almost all of the UK.

The UKC3 programme developed a Strategy during 2023-24, which outlined their "Vision" and "Mission" for the future:

- **Vision Statement**: "The main purpose of UKC3 is to develop and grow the UK's cyber security ecosystem and drive related economic growth by tapping into the opportunities created through cyber cluster collaboration."
- **Mission Statement:** "We empower our recognised UK cyber cluster bodies to fortify and nurture their communities. We do this through showcasing them, enabling connections, sharing best practices and supporting initiatives that overcome barriers to growth."

[2] https://www.gov.uk/government/publications/national-cyber-strategy-2022/national-cyber-security-strategy-2022
[3] Cyber Cluster Operating Framework - UK Cyber Cluster Collaboration

In more detail, UKC3 has four objectives, as shown in Table 1 below:

Table 1 UKC3 objectives

Main Objective	Sub-objective
1. Build the capacity of the regional cyber security clusters	a. Facilitate the sharing of best practice and raise regional understanding around key cyber issues. Encourage regional cyber innovation and share knowledge across the ecosystem. Provide opportunities for discussion and knowledge exchange
2. Raise awareness and understanding of cyber activities within regions with DSIT and other national and international stakeholders	a. Facilitate clusters to provide a regional voice, perspective and intelligence to contribute to the development and delivery of national cyber security policy b. Raise awareness of cyber resilience and cyber crime reduction capability and activity being developed and offered by companies and organisations operating in the region
3. Support the development of a healthy and diverse talent pipeline into the cyber industry	a. Work with industry, academia and other skills and talent development organisations to promote cyber skills development and the attractiveness of careers in the cyber industry
4. Support the creation, development and growth of new and exciting cyber businesses within regions	a. Engage with government to help shape and drive participation in government initiatives to accelerate regional cyber ecosystem growth b. Facilitate the delivery of government interventions away from London and the South East

UKC3 seeks to achieve these aims by supporting the work of cyber clusters across three strategic pillars:

1. **Ecosystem development:** supporting clusters to develop and build a thriving cyber ecosystem/community.
2. **Innovation join-up:** identifying and kick-starting innovation opportunities, linked to regional strengths, including join-up/collaboration across clusters.
3. **Cyber skills growth:** helping clusters become a driving force for cyber skills development within their region.

The evaluation

The evaluation has been carried out by Ecorys and Perspective Economics. The following sections outline a brief overview of the evaluation strands and data collection achieved; the scope of this report; and the data limitations relating to the quantitative and qualitative findings. The full list of research questions is available in Annex One.

Methodology

The third year of evaluation took a **mixed methods approach** involving both quantitative and qualitative data collection, aiming to address the key research questions highlighted in the initial invitation to tender, a full list of which is available in Annex One. The following table shows the various strands of data collection, and the sample sizes achieved for each as of 28 March 2025. Further detail about these data collection activities can be found in Annex One.

Table 2 Data Collection

Data collection	Sample achieved (28/03/25)
Interviews with cluster leaders	5 (5 clusters represented)
Interviews with cluster members	5
Interviews with wider stakeholders	1
Interviews with UKC3	1 (paired, 2 representatives)
Cluster member survey 2024/25	37 (15 clusters represented)[4]
Cluster Leads survey 2024/25	10 (9 clusters represented)
Cluster member organisations lists and datasets	8 (4 provided by clusters + 4 publicly available datasets)
Monitoring data and reporting from UKC3	All half-year and end-of-year reports to date (most recent being Half-year 2024/25) and review of project summaries

[4] Additional samples from the 2022/23 and 2023/24 surveys were also used. Survey results in this report are based in analysis of a combined total sample across all phases, while in some cases survey results are compared over time to identify patterns. Further detail is available in Annex One: Methodology.

The analysis provides an overview of programme activities and costs to date, perceptions of outcomes and impact, and a Value for Money assessment.

While determining impact was beyond the scope of this evaluation, a theory-based Contribution Analysis (CA) approach was taken to explore whether and how the funding, alongside other factors, contributed towards observed outcomes. This theory-based evaluation approach was used as previous evaluation work[5] suggested that **attributing** outcomes/ impacts to UKC3 would be challenging. This was mainly due to a lack of data to measure outcomes/ impacts, lack of a potential control/comparator group, and difficulty differentiating the effect of clusters vs UKC3 on outcomes/ impacts. In cases where attribution is not possible, and a counterfactual impact evaluation is not feasible, literature and guidance[6] suggests that a theory-based approach is undertaken. The CA was based on a Theory of Change (ToC), which was developed during previous phases of the evaluation, and updated further in the current evaluation period (see Annex One for a detailed diagram and explanation of the ToC).

The CA investigated each of the elements of the ToC as well as its underlying assumptions, barriers, and risks, to better understand causal pathways and strength of evidence. Strength of evidence for each outcome was assessed using a RAG-type score (red-amber-green), rating each outcome with one of the following: strong evidence, moderate evidence, weak evidence, and no evidence. The steps behind this approach are outlined in more detail in Annex One where a detailed overview of the methodology is provided.

Data limitations

The main limitations regarding **quantitative findings** are:

- **Lack of quantitative data on outcomes and impact of UKC3.** While operational and project monitoring and reporting has improved over the years, there are still significant gaps in evidence on outcomes and impact. The key challenges have been around attributing current evidence to UKC3 impact, difficulties in defining a standardised measure of cluster membership, in data sharing difficulties, and lack of information captured by existing data collection and monitoring mechanisms. The evaluation has been provided with limited data regarding beneficiaries and cannot therefore fully assess which businesses or individuals are attending events or signing up to clusters.
- Challenge with **representativeness of survey samples**: three clusters are overrepresented in the sample: South West (24%), Yorkshire (17%) and North

[5] A detailed feasibility assessment was conducted in the previous phase of the evaluation (2022-2023), to determine whether a counterfactual impact evaluation was possible.
[6] See UK government guidance on evaluation methods, such as the Magenta Book.

West (11%). Responses from other clusters were lower than 9%, meaning a smaller representation in the sample. The differences in achieved samples at the cluster area-level could be explained in a number of ways. A key challenge was the dissemination of this survey to cluster member organisations, as each cluster has different systems and different definitions of memberships (for example, one could easily forward through a newsletter, while others have specific organisations as partners, etc.). Certain clusters were also at the early stages of setting up membership and registration processes, which meant smaller reach in terms of members who could participate in the survey. The survey was kept open as long as possible within evaluation timelines to capture more responses, and the UKC3 board and cluster leaders were frequently encouraged to disseminate this to cluster members. The limited survey sample from the cluster leads survey (10 responses coming from 9 clusters), also may have affected the representativeness of results (as 8 clusters out of 17[7] are not represented in the data).

- Linked to the above limitation, this meant that samples could not be disaggregated into smaller geographical areas for comparisons. Comparisons across clusters are also complex due to the differences in demographic characteristics, as well as the different levels of maturity in the clusters themselves. Taking that into consideration, we present survey results at the aggregate level, across all 17 clusters and avoid comparisons across areas.
- Another challenge was the lack of awareness around UKC3 among cluster members. This meant that some cluster members did not engage with the survey as they had no direct feedback about UKC3. Cluster members could comment on beneficial cluster activities, which were clearly linked to clusters, but not necessarily driven by UKC3, therefore resulting in challenges in attributing outcomes and impact. Conversely, cluster leaders could comment directly on UKC3's contribution to outcomes/impact via the cluster leaders survey; however as mentioned above, that survey collected just 10 responses and therefore may not be representative of all cluster leaders.
- **Reporting data** in this evaluation report typically relates to the UKC3-produced end of year and half year reports. This data is unaudited and unverified, and relies upon cluster monitoring data regarding activity and spend, and UKC3 team reported spend data. However, this data provides some indication of direction and has been combined with previous half-year and end of year reports to assess this data over time, since UKC3 inception.

The main limitation relating to the **qualitative findings** is:

[7] At the time the surveys took place there were 17 recognised clusters, with one new cluster emerging after the surveys took place (in total 18 at the time of writing this report).

- Qualitative data does not reflect the prevalence of views: interviews were conducted with a sample of cluster representatives and are used to illustrate the range of views held by interview participants and should not be interpreted as implying the prevalence of views among the group.

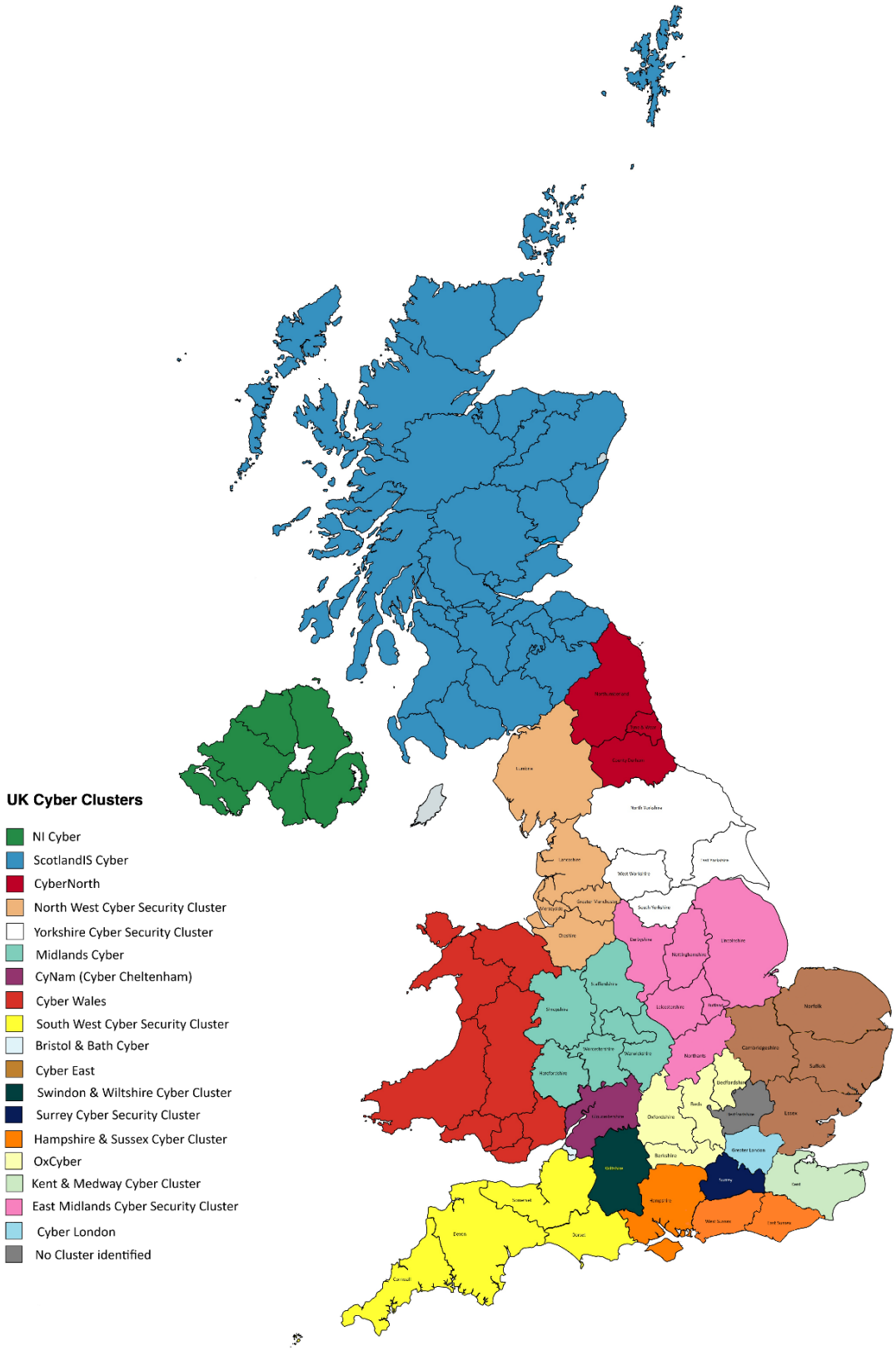
Programme Delivery

This section provides an overview of programme delivery to date, including the number of formally recognised UKC3 clusters; awareness and understanding of the role of UKC3; governance of UKC3 and cyber clusters; and programme activities and costs to date.

As of March 2025, 17 cyber clusters have been formally recognised by UKC3 using the Cluster Recognition assessment criteria[8]. Recognised clusters now cover almost all of the UK, with the only county not covered by a cluster being Hertfordshire. Figure 2 below illustrates the geographical spread of clusters.

[8] https://ukc3.co.uk/wp-content/uploads/2021/08/UKC3-Cluster-Recognition-Assessment-Criteria.pdf

Figure 2 UKC3 Recognised Cyber Clusters across the UK



Source: UKC3 Half Year Report 2024-25

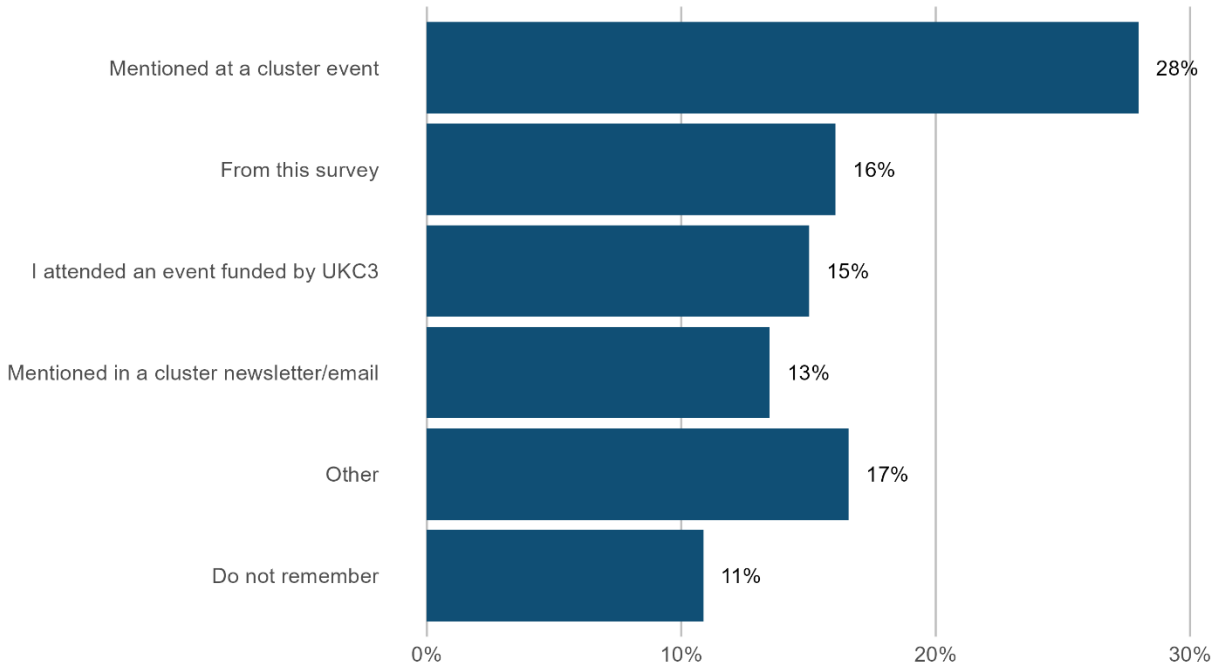
Awareness and understanding of the role of UKC3

This section covers cluster leaders' reasons for applying for their cluster to become formally recognised by UKC3 and perceptions of how the work of UKC3 relates to the aims and activities of individual clusters. It also draws on survey feedback of cluster members' awareness of UKC3 prior to receiving the survey.

Awareness of UKC3

Most survey respondents to the latest (2024-25) cluster member survey (89%, n=37) were aware of UKC3 before they were sent the survey, suggesting high levels of awareness overall. It is worth noting that **awareness of UKC3 has increased significantly**[9] when compared against results from the 2022-23 survey (71%, n=65), and has stayed at high levels compared to the previous year's (2023-24) survey (86%, n=91). Almost half of all survey respondents across all three years (43%, n=193) became aware of UKC3 through events (28% reporting they heard about UKC3 through cluster events and 15% reporting they attended events directly funded by UKC3). Another 13% reported they heard about UKC3 through a newsletter or email, 16% reported they learned about it from the survey itself, while 17% reported they heard from other sources (e.g., other events like Cyber UK/ National Cyber Security Centre (NCSC) events, social media, word of mouth, etc.).

Figure 3 How cluster members became aware of UKC3



Source: Cluster member organisation survey (n=193)

[9] This difference was statistically significant at the 5% level.

These survey results were consistent with the interview findings. Cluster leaders and wider stakeholders reported that **awareness of UKC3 in the cyber sector has continued to increase**, attributing this to UKC3 clusters launching in new regions and clusters supporting UKC3 promotional activity such as sharing the logo, engaging with social media posts, and promoting UKC3 at events.

Interviews with cluster leaders and cluster members also suggested that UKC3 continues to be seen as a trusted brand by the cyber sector, largely relating to the backing of UKC3 by DSIT which has built trust and credibility. One cluster leader described how affiliation with UKC3 helped the cluster secure funding and partnerships.

> "From a marketing perspective, having recognition is always good. [Being a recognised UKC3 cluster] made it easy for us to pitch ourselves as the platform and that made a huge difference." *Cluster Leader*

Some cluster leaders and wider stakeholders felt that **UKC3 still lacks recognition** within the wider cyber sector, particularly among businesses. They noted that other players in the cyber sector, like Cyber Resilience Centres (CRC), the UK Cyber Security Council and the National Cyber Security Centre (NCSC) have a stronger presence and voice. They also felt that local clusters have more of a presence in their regions than UKC3. For example, cluster members and other local businesses who are aware of their local cluster would not necessarily be aware of UKC3, and so would attribute any activities or impact solely to the cluster. Cluster members suggested that clusters and UKC3 should do more to promote UKC3 at events and through promotional activity.

Understanding of the role of UKC3

Consistent with the findings from the previous phases of the evaluation, cluster leaders suggested their understanding of the role of UKC3 was in line with UKC3's aims and three strategic pillars. In this final phase of the evaluation, a strong theme from interviews with cluster leaders and members was that the role of UKC3 once funding allocations from DSIT are decreased was less clear. Stakeholders provided their suggestions on the role of UKC3 going forward and areas they felt should be prioritised in their strategy.

Ecosystem development was described by cluster leaders and members as the most beneficial aspect of being part of UKC3. Cluster leaders felt that UKC3's purpose was to oversee cluster activity, **ensure consistency, avoid duplication** and **share lessons learned.** Cluster leaders and members suggested that **facilitating pan-cluster activity** was an important role for UKC3, including encouraging larger, more established clusters to support smaller and newer clusters.

Suggestions for further roles of UKC3 were generally linked to the broader UKC3 strategy around **encouraging innovation and developing cyber skills**. Some highlighted that UKC3 is there to drive growth in the cyber sector in all regions of the UK, which will ultimately **grow the UK's economy** and ensure the future protection of vital infrastructure and systems. Some described UKC3's specific role in this in terms of providing funding for clusters to deliver activities in their regions. Others described their role as an interim body linking DSIT to the clusters, for example providing opportunities for DSIT or other government bodies to talk to clusters, particularly to provide SMEs an opportunity to provide feedback and feed into policy development.

With DSIT funding ending in March 2025, cluster leaders and DSIT representatives also emphasised the ongoing role for UKC3 in supporting clusters to become financially sustainable and uniting clusters under a shared mission, for example helping clusters to prepare commercial pitches in preparation for meeting potential sponsors and supporting clusters with strategy planning.

> "Without UKC3 clusters would lose direction and that common focus or goal." *Cluster lead*

Cluster members were less familiar with the work of UKC3 and those interviewed struggled to describe its role or aims. It was suggested that UKC3 invest more in promoting the network to businesses.

> "I don't know what UKC3 actually does or what their mission is. Perhaps this could be better defined and more publicised." *Cluster member*

Motivations for UKC3 recognition

When asked about **motivations for applying** for UKC3 recognition, cluster leaders provided several reasons, which were consistent across all three years of the evaluation. These included access to funding, becoming a registered legal entity, wanting to be part of a larger cluster network to meet organisations in other regions and share learning, and a desire to have a support system around the cluster. Stakeholders also mentioned reasons such as greater ability to influence national policy and speak to Government, and vice versa to ensure cluster activities met government priorities such as supporting the implementation of the National Cyber Strategy[10]. Lastly, they suggested that recognition could mean greater levels of trust and respect from outside organisations and members, as they could see the cluster had met certain standards and had the backing of DSIT.

[10] National Cyber Strategy 2022 (HTML) - GOV.UK

> "It made sense to become recognised [by UKC3] so we had a badge rather than being just a cyber group." *Cluster leader*

Governance of UKC3 and Cyber Clusters

Overview of governance structure

UKC3 is overseen by a board of five individuals, who also have connections to individual clusters, such as being a cluster lead or director. There are three full-time employees in the UKC3 team, including the Head of Operations, an Engagement and Partnerships Manager, and an Executive Administrator[11]. This structure has been seen as an improvement compared to the beginnings of UKC3, when there was only one employee responsible for all operations and administrative tasks. The improvements were evidenced by both the UKC3 board, as well as cluster leaders. All UKC3 staff and board members are remunerated for their role on UKC3[12].

Below the board are individual clusters, which typically share similar governance structures. Most clusters have a cluster lead or three to five cluster directors responsible for the cluster, who are in post voluntarily and are not remunerated for their work. Generally, there is also a paid cluster manager responsible for day-to-day operations, funded by UKC3 or the cluster. Some clusters have advisory or steering boards made up of individuals from various cyber backgrounds, such as academia, industry, or start-ups, which meet regularly to offer insights and perspectives on cluster operations and strategy. Lastly, UKC3 has formed three separate working groups, one for each of the UKC3 strategic pillars (ecosystem development, cyber skills growth, and innovation join-up), led by a board member and including several cluster leads.

Effectiveness of cluster governance structure

Cluster leaders were generally positive about the effectiveness of their cluster governance structure. According to the cluster leaders survey, 80% of cluster leaders agreed/ strongly agreed the current cluster governance structure is effective, with the remaining 20% being neutral (n=10).

Evidence from previous evaluation phases suggested that the **diversity of backgrounds** involved in cluster governance (e.g. academia, private sector, etc.) was a particular **strength for clusters**. This has offered a mixture of perspectives and encouraged those involved to challenge each other on what works best for the cluster. However, **reliance**

[11] About - UK Cyber Cluster Collaboration
[12] Levels of remuneration have changed over the years. More information about this is available under 'UKC3 Level Expenditure'.

on volunteers was seen as a **potential risk to the sustainability** of clusters. To mitigate this, clusters have spread responsibilities across multiple directors or hired a permanent member of staff, usually as a cluster manager, to increase capacity and ensure greater consistency.

Effectiveness of UKC3 governance structure

Evidence from previous evaluation phases suggested that UKC3 governance has been effective, however there was collective agreement by board members that it could be strengthened further. Board members previously **described the structure as operational, and that it should evolve to be more strategic** by slimming down the number of board members and growing the paid operational team.

Another suggestion for improving the strategic focus of UKC3 has been adapting the current board meeting arrangements to include an additional quarterly meeting specifically focused on governance and board responsibilities.

Decision-making has improved with the use of email to progress decisions at a quicker speed than monthly meetings. However, a minor theme was that clusters with members on the UKC3 board had an advantage over those without, as there may be some 'bleeding of knowledge' between board members and their clusters. For example, one board member suggested that although funding is never awarded purely based on a connection to the board, clusters with members who sit on the UKC3 board have stronger bids. Cluster leaders also noted the importance of regional representation at board level.

Lastly, reflections on the working groups were mixed, with some cluster leaders finding them productive (for example through providing networking opportunities and knowledge sharing), while others felt they were primarily 'talking shops'. There were also conflicting opinions about the day-to-day support provided by UKC3, with some cluster leaders feeling UKC3 should provide more direct advice and guidance to individual clusters.

Programme Costs, Activities, and Value for Money Considerations (2021-2025)

‘Value for money' is a key consideration within any use of public funds across government departments. It is set out within the HM Treasury (HMT Green Book).

In summary, value for money can be described as using ‘public resources in a way that creates and maximises public value.’ Public value is defined as the total well-being of the UK public as a whole.

In the context of cluster development in cyber security, this could include where the funded initiative has supported:

- **Innovation**: Clusters can support innovation through bringing key partners together through events and projects. This can result in collaboration, knowledge sharing, and the development of new products, services and partnerships.
- **Productivity:** The UK has several regional cyber security clusters, many of which have been long-standing. The development of a cluster collaboration project should support increased productivity and use of resources – where clusters can pool resources and work collaboratively e.g. UKC3 participation at trade missions under one identity.
- **Skills** – either through supporting new talent into the cyber security ecosystem (e.g. through skills mapping and supporting skills initiatives that can result in employment outcomes), or where existing talent can take part in knowledge sharing and training events for enabling continual development.
- **Employment:** UKC3 can support employment growth, both directly e.g. through recruitment of resources to enable cluster activity, as well as indirectly – where businesses can benefit from increased partnerships, growth, and ultimately attract new staff to their region.
- **Regional cluster and ecosystem development:** UKC3 can support the development of regional ecosystems through sharing best practice as to how to grow clusters, and how to work with local industry.
- **Promoting investment and scale of national initiatives:** The UK Cyber Security Sectoral Analysis has highlighted regional challenges in securing external investment. Initiatives such as UKC3 and clusters can help to ensure that regional initiatives such as Cyber Runway and NCSC for Start-ups are promoted, with access to events in all regions. It can also enable initiatives for supporting regional investment and promoting angel investment activity e.g. work undertaken by CyNam and within the broader South West.

These benefits must be considered against the costs of implementing the schemes, i.e., through a cost-benefit analysis or through benchmarking the investments against similar programmes.

The value for money will be assessed in line with the available data from each stage of the logic model as below:

As set out within the Green Book guidance, the value for money assessment will be driven by the **economy** (i.e. are the **inputs** priced appropriately relative to the **outputs** generated), the **efficiency** (i.e. how well were the **inputs** such as budget and time converted into **outputs** that can generate resulting **outcomes** and **impacts**), and **effectiveness** (i.e. to what extent do the outputs achieve outcomes in the immediate, medium, or longer term?).

The overarching rationale for a value for money assessment is to understand whether the projects have worked, and whether the expected benefits to the UK as a whole outweigh the costs of intervention. This assessment must also account for how the costs and impacts vary across different social groups or actors, and whether it is perceived that the outputs and outcomes could have been achieved in a different way.

The Value for Money assessment(s) should therefore consider:

- Did the programme(s) work as intended? Did they, or are they likely to, achieve the expected KPIs, outputs, and outcomes in line with the expected costs?
- Have the programmes achieved (or outperformed) the expected outputs or outcomes?
- Were the programmes procured, resourced, and delivered to budget? Are there any appropriate benchmarks to test the cost per output achieved?
- Did the delivery model work, and was it undertaken efficiently and effectively?

The focus of this evaluation is therefore on **process** (understanding its design and implementation), **value for money** (determining whether the programme was an effective use of resources) and any indication of **impact** (delivery of policy outcomes). The specific areas of interest are understanding whether or not the investment of public funds is proportionate to the outcomes the programme achieves, and understanding what changes may be made in programme design to improve impact.

UKC3 Financial Activity

This section explores financial data relating to the use of grant funding provided by DSIT to UKC3 between June 2021 to November 2024. This covers four financial years (FY21/22 to FY24/25). The total grant award in review has been verified by DSIT as £3,808,838 with the following award by financial year as below:

- FY 21/22: £850,000
- FY 22/23: £1,380,838 (including £1m core grant, and £380,838 of transitional and pan-cluster funding)
- FY 23/24: £1,000,000
- FY 24/25: £578,000

The research team has reviewed a range of documents relating to the financial management of the programme, including:

- Annual Accounts (UKC3 CIC): UKC3 has filed annual accounts to Companies House covering the first three financial years (at time of writing). These accounts collectively reference £3,137,917[13] in expenditure in the first three years (FY 21/22 to FY 23/24).
- UKC3 Half-Year and Full-Year Reporting: UKC3 has provided a series of annual and bi-annual reports covering their activities, outputs, and financial position since June 2021. These reports typically provide detail regarding UKC3 operational costs (e.g. staff costs, marketing, events and wider costs), funding allocated to individual clusters, and funding allocated to national or pan-cluster projects.
- Final financial tracking developed by UKC3, covering 2021/22 to 2024/25 (shared in April 2025). This includes £3,808,838 of funding received from DSIT, and expenditure to date of c. £3,722,012.

These reports provided an indicative breakdown of how funding has been allocated and used by UKC3 to date. This assessment was undertaken in April 2025. Full spending is expected to have taken place by May 2025.

[13] The annual accounts directly confirm that the majority of DSIT grant funding (97% for FY21/22 to 23/24) has been allocated to direct and cluster activities. The remainder will include small sums carried forward / between years. Annual accounts not yet available for FY24/25.

UKC3 Income and Expenditure

Income:

In July 2021, DSIT (then DCMS) announced funding to support the establishment and activities of a 'new organisation called UK Cyber Cluster Collaboration (UKC3), which aims to support economic growth and skills development in the UK cyber security industry'. In total, DSIT has awarded £3,808,838 to UKC3 throughout the delivery period. The following table provides a breakdown of DSIT funding to UKC3 per financial year.

Table 3 DSIT funding for UKC3

Financial Year	DSIT funding
2021/22	£850,000
2022/23	£1,380,838
2023/24	£1,000,000
2024/25	£578,000
Total	**£3,808,838**

Over this period, DSIT funding has been the main income stream for UKC3 operations.

Expenditure:

The research team has reviewed annual accounts, UKC3's end-year reports and financial monitoring to explore expenditure to date.

Table 4 UKC3 Expenditure (2021-25)

Financial Year	UKC3 Expenditure	Accounts
2021/22	£940,521	£952,972
2022/23	£1,238,300	£1,242,575
2023/24	£980,458	£942,370
2024/25	£562,732	TBC
Total	**£3,722,012**	

Source: UKC3 reporting to DSIT (2021-25)

There is some variance between these two values; however, the reports are based on estimates of cost profiles, which may not align fully to costs as classified in accounts. In addition, some costs may have incurred and been categorised in different categories or time periods. Based on review of financial data provided, we expect UKC3 to spend the full grant allocation, with some reprofiling between years to support operational activity. **The research team also views that overall expenditure is likely to be commensurate and in-line with the grant funding expectations.**

We explore how this funding has been used below. As noted, this is based upon reports provided – this expenditure has not been audited in full.

Expenditure areas

The delivery model has evolved over the period of the programme. Over the four-year period, this expenditure has supported the:

- **Establishment of the UKC3 organisational structure**, including CIC registration, identification of accredited or potential clusters, recruitment of staff and directors, marketing and branding, and delivery of shared trade events and shows.
- **Allocation of funding across 73 operational and project activities benefitting 18 unique clusters**: Most of the funding has been allocated to directly support clusters with administration, operational, and event-based costs, and also to enable projects in areas such as investment outreach, innovation, and skills development.
- **A shared structure for knowledge exchange and collaboration** between clusters, with potential to streamline cyber security cluster activity.
- Early evidence of maturity and professionalisation among clusters, with **several clusters able to recruit staffing and move from a voluntary model.**

Within the first two years of the programme, funding was primarily focused on supporting clusters with ‘operational’ funding (to support the day-to-day delivery of clusters), and ‘project’ funding (where clusters could deliver specific projects).

In Year 2 and Year 3, UKC3 has continued to support individual clusters with funding for operational activities and shared projects. However, it has placed a greater emphasis upon scaling its operations (through growing the number of active clusters supported), wider sustainability and income generation, and strategy and research activities.

Table 5 sets out the estimated expenditure breakdown provided by UKC3 over the four-year period.

Table 5 UKC3 Expenditure breakdown

Expenditure	2021/22	2022/23	2023/24	2024/25	Total
DSIT Funding Received	*£980,838*	*£1,250,000*	*£1,000,000*	*£578,000*	*£3,808,838*
Staff costs (including NI and pensions)	£60,000	£162,516	£115,335	£130,875	£468,725
Agency staff				£21,517	£21,517
Rent			£2,970		£2,970
IT			£549	£882	£1,431
Consultancy			£166,851	£62,598	£229,449
Travel and subsistence	£1,477		£12,847	£6,683	£21,007
Supplies and services	£7,414	£5,321	£9,492	£8,093	£30,319
Advertising/Marketing	£30,889	£82,723	£40,952	£20,677	£175,242
Training	£5,887				£5,887
Other costs (please attach a summary breakdown)	£64,433	£70,000	£70,159	£20,953	£225,545
Match funds disbursed from DSIT grant	£770,421	£917,740	£561,303	£290,455	£2,539,919
TOTAL	**£940,521**	**£1,238,300**	**£980,458**	**£562,732**	**£3,722,012**

Source: UKC3 Reporting (2024/25)

We set out the estimated expenditure by UKC3 over the four-year period (to date) covering over £3.7m of expenditure to date. As such we have reviewed and simplified expenditure areas into two categories, namely:

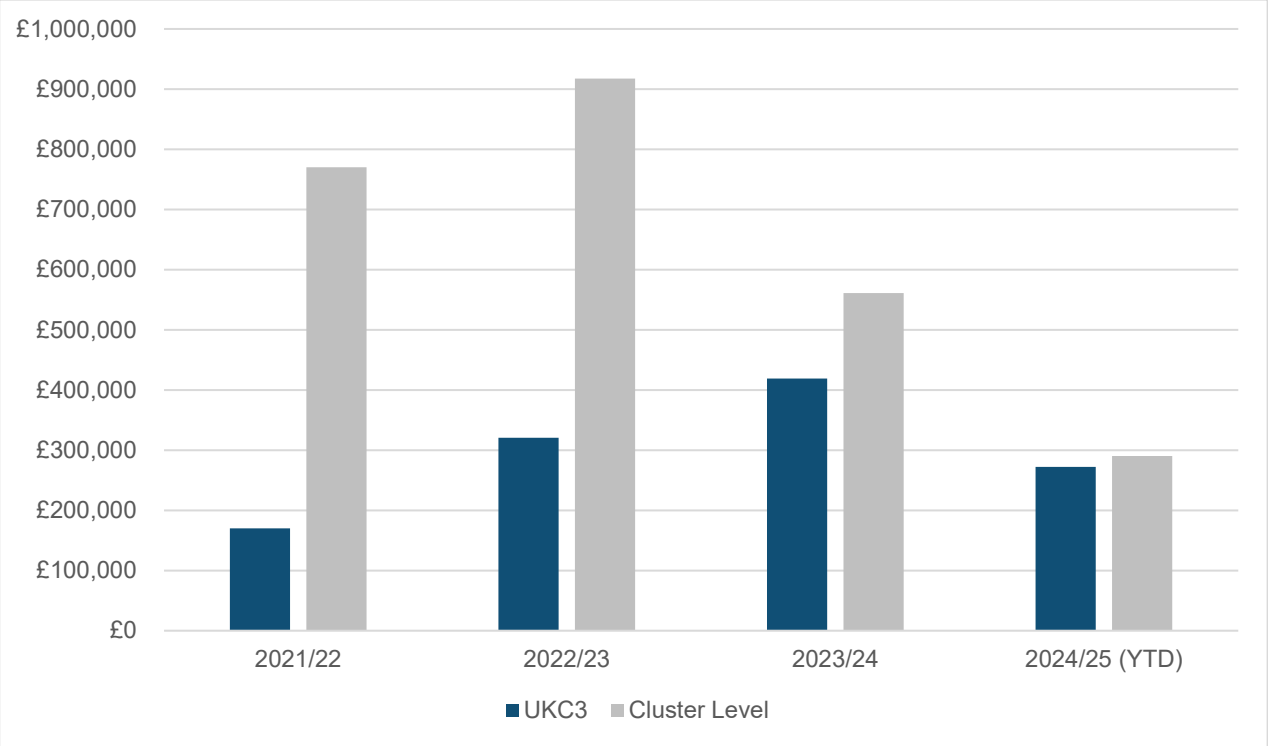
- UKC3 Level: the costs involved in running UKC3, national events, marketing and sustainability elements
- Cluster Level: funding that has been used to resource individual clusters for operational, project, or individual sustainability efforts.

This suggests that over the last four years, approximately £1.2m (32%) of resourcing has been used for UKC3 level activities, with the majority (£2.5m) (68%) used for individual cluster operations. As mentioned previously, the reduction in overall funding has resulted in a move towards UKC3 focusing on its core costs as a network facilitator, and reduction in direct cluster level funding.

Table 6 Estimated Overview of UKC3 Expenditure to Date

Level	2021/22	2022/23	2023/24	2024/25 (YTD)	Total
UKC3	£170,100	£320,560	£419,155	£272,277	£1,182,093
Cluster Level	£770,421	£917,740	£561,303	£290,455	£2,539,919
Total	**£940,521**	**£1,238,300**	**£980,458**	**£562,732**	**£3,722,012**

Figure 4 Estimated Overview of UKC3 Expenditure to Date



Source: UKC3 Financial Reporting

UKC3 level expenditure

The table below sets out the estimated expenditure by UKC3 on core running costs, such as remuneration, marketing, events, strategy, and sustainability. As shown in the previous chart, UKC3 expenditure on its own operations has typically been in the region of £300k per annum throughout the programme period. As funding has tapered, this has ultimately resulted in annual reductions to cluster operational and project grants, whilst core UKC3 spending has remained relatively consistent.

Table 7 UKC3 Expenditure breakdown (estimated) 2021-25

Expenditure type	2021/22	2022/23	2023/24	2024/25 (to date)	Total	%
Staff costs (including NI and pensions)	£60,000	£162,516	£115,335	£130,875	£468,725	40%
Consultancy	£0	£0	£166,851	£62,598	£229,449	19%
Advertising/ Marketing	£30,889	£82,723	£40,952	£20,677	£175,242	15%
Supplies and services	£7,414	£5,321	£9,492	£8,093	£30,319	3%
Agency staff	£0	£0	£0	£21,517	£21,517	2%
Travel and subsistence	£1,477	£0	£12,847	£6,683	£21,007	2%
Training	£5,887	£0	£0	£0	£5,887	0%
Rent	£0	£0	£2,970	£0	£2,970	0%
IT	£0	£0	£549	£882	£1,431	0%
Other costs	£64,433	£70,000	£70,159	£20,953	£225,545	19%
Total	£170,100	£320,560	£419,155	£272,277	£1,182,093	

Source: UKC3 Reporting

However, the draft 2024/25 mid-year report highlights some potential efficiencies underway to reduce these ongoing costs.

Previous mid-year evaluations have noted the level of board remuneration (with recommendations provided regarding proportionality and the need to move to a more operational model). In the first two years of the programme, operational costs (for two to three staff members), events, marketing, and conferences were considered appropriate for the size and scale of the programme.

We note that in the 2022/23 end of year report, it states that UKC3 has spent approximately £77,800 for external advisory support to ‘investigate future financial pressures and funding sources’. This has been followed by an additional contract for identifying commercial partnerships (£40,000) as part of a wider ‘sustainability fund’ of c. £228,711.

Cluster expenditure

The research team has reviewed the mid-year and full-year reports, and identifies 73 operational, project, and pan-cluster project budgets over the four-year period. This included operational, project, and sustainability payments to individual clusters.

Initial review of cluster funding highlights how **the delivery model has changed over the last four years,** driven by both strategic direction, and funding overall**.**

In the pilot year (2021/22) of the programme, all recognised clusters received operational and project funding to support with recruitment (e.g. cluster managers or event leads), marketing, websites, CRM development, or specific projects relating to skills or ecosystem development. The level of funding was broadly consistent for clusters that demonstrated an initial baseline of activity (typically £30,000 to £55,000), with smaller funding available to newly established clusters seeking to build a platform (typically £10,000 - £25,000). Where clusters received further funding, this was often to develop projects for shared collaborations (e.g. developing pan-cluster materials).

In Year 1 (2022/23) of the programme, cluster level funding increased in line with the overall increase in programme funding. The majority of this increase went to pan-cluster projects and saw the establishment of cross-cluster UKC3 working groups to focus on skills, innovation and ecosystem development. However, as explored in the previous evaluation, the funding increasingly focused on operational activity (e.g. staff and event costs) at a cluster level. Clusters were encouraged to submit ongoing returns regarding number of members, event attendees, and outputs from their activities. The previous evaluation activity cited the need for consistent metrics (where possible) to help understand the aggregate outputs and outcomes/impact of the cluster activities.

Year 2 (2023/24) of the programme saw a reduction in the volume of funding awarded to clusters by UKC3, comparable to the first year of the programme, but shared among a larger number of active clusters. As a result, funding levels were broadly maintained for most clusters; however, some did experience a reduction in award level. Within the most recent year (Year 3) (2024/25), cluster level funding has been significantly reduced in line with overall funding tapering. Review of programme data suggests a flat reduction across all clusters to c. £10,000 to £15,000 in funding. This has been positioned as a move towards sustainability funding (to encourage wider funding, private investment or membership models) post 2025.

Overall outputs delivered via funding

The funding allocated to clusters can broadly be segmented into four areas:

- **Operational:** Funding allocated to the day-to-day running of clusters across the UK.
- **Project-based:** Funding allocated for a specific purpose or project (e.g. skills, training, ecosystem development, specific events).
- **Pan-cluster or shared initiatives:** Projects aimed at benefitting all or multiple clusters with a shared challenge.

- **Sustainability Funding:** Funding (post-2024) aimed at supporting clusters to undertake a review of income and expenditure and maintain operational status post funding.

The research team has reviewed all reports provided by UKC3 (half year and full year) which include project and cluster summaries of grants received, activities, outputs and outcomes. These vary with respect to coverage and completeness; however, the research team has identified c. 73 project summaries, and explores the outputs and outcomes mentioned by clusters.

The following section explores the breakdown of all operational, project, pan-cluster, and sustainability funding by value, volume and outputs; how many clusters received funding; and how this was used by area and cluster.

We note that UKC3 currently estimates a combined cluster and UKC3 reach of c. 23,000 X followers, 41,300 LinkedIn followers, 21,400 newsletter subscribers, and 19,500 cluster members. It estimates in 2024/25, 134 in-person events have been delivered, 67 online events delivered, and attendance of 9,500 persons.

Wider Findings:

The research team has reviewed 73 project summaries extracted from the monitoring reports. We note that there is some variation in the availability and completeness of data, and that many clusters may measure outputs differently (e.g. membership counts may include mailing lists etc). However, review of the text and extraction of key data points suggests that:

- 60 project summaries mention clusters running events. In total, the project summaries suggest at least 611 external events have been delivered throughout the four-year period.
- For these events, the project summaries suggest approximately 17,550 attendees (an average of c. 30 attendees per event).
- Project summaries provided by clusters also suggest a total of c. 17,169 active members within the 17 clusters at the most recent time of reporting (based on project summaries). UKC3's own monitoring data suggests up to 19,500 cluster members across the clusters.
- A voluntary request for cluster membership data was issued in early 2025 (at a cluster level). Limited data was available; however, we note that there may be some data challenges for clusters including the need to deduplicate membership data (e.g. where similar names are duplicated in monitoring data), and to continue to refresh active membership data. Further, some clusters will consider newsletter

or mailing list activity within membership data, which may limit comparability. We explore cluster membership (for a small sample) in the next section.

- Some of the project summaries mention jobs created as a result of project funding. The review of these summaries suggest approximately 10.4 FTEs may have been created or sustained as a result of funding across the clusters, including direct recruitment for cluster managers, administrators, and marketing support. This does not include the employment impact of wider expenditure on events or marketing by clusters, and therefore the employment effects may be higher. However, the cessation of funding into 2025/26 may result in more challenging conditions for sustaining roles into the near future.
- A small number of projects also included skills provision (in addition to wider knowledge exchange). We find across three funded projects that approximately 172 students have been educated in cyber security courses (to a certification level).
- Further, some of the summaries include outreach and engagement with wider schemes such as CyberFirst.

Cluster Level Beneficiaries:

Over the four-year period, clusters have engaged with a wide range of beneficiaries including businesses, public sector organisations, education and academia, and wider civil society. Review of monitoring data suggests that the clusters may have engaged with in excess of 17,000 individuals and organisations in this duration.

However, there are some challenges in how this data can be assessed with respect to the evaluation, including:

- **Limited granularity:** The monitoring data does not have sufficient detail to distinguish between different types of engagement (e.g., one-time attendees vs. recurring participants, depth of involvement, nature of support received), making it difficult to assess the true reach and impact for attendees.
- **Duplication or inaccuracies:** The same individuals or organisations may be counted multiple times across different events, years or clusters, potentially inflating the total engagement figures. There may also be inconsistencies in how attendance was recorded across different cluster activities.
- **Attendee type, and extent of impact:** There is insufficient data to adequately categorise attendees (e.g., by sector, size, location) or capture qualitative information about outcomes. This limits our ability to assess whether clusters are reaching their target audiences, the difference the engagement has made to beneficiaries, and how this compared with or without funding.

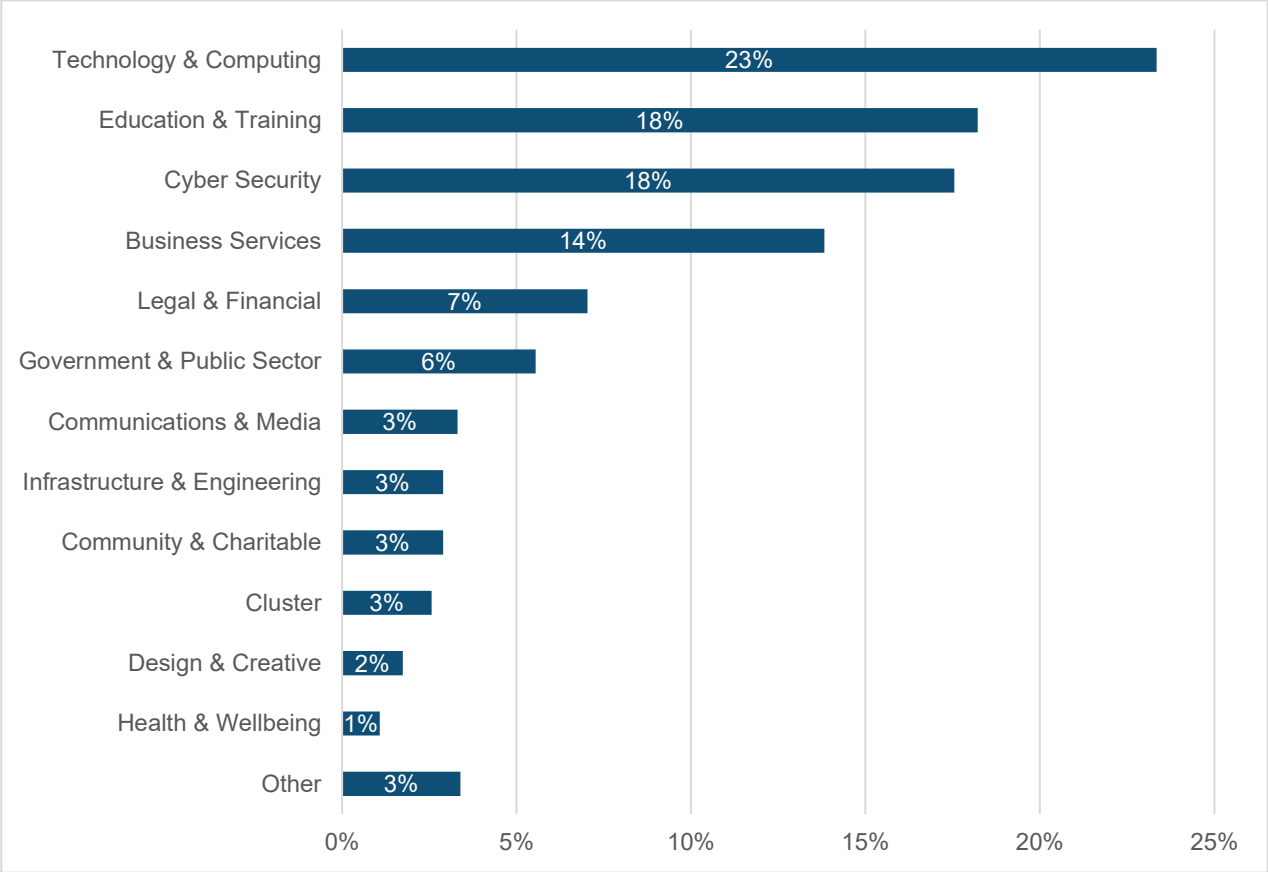
In early 2025, an optional request was issued to clusters regarding attendee and or membership data. This process resulted in three clusters (out of 17) providing information regarding the type of members active within their clusters.

This covers approximately 1,250 organisations engaging with clusters. Whilst this is a small sample across a limited number of clusters, the research team has reviewed this set and classified each organisation by type to explore engagement.

Figure 5 suggests that there is a breadth of engagement with clusters across sectors. The strong representation from the wider Technology & Computing sector (23%) demonstrates that cyber security is increasingly viewed as an integral part of the broader IT landscape rather than exclusive to cyber security firms (e.g. local IT Managed Service Providers seeking to upskill or learn more about security practices). The significant Education & Training presence (18%) also highlights the importance of talent pipeline development and knowledge transfer, with universities, skills providers and students engaged early in their cyber careers via informal networks such as clusters. Dedicated cyber security firms (18%) form a core part of the membership, providing specialist expertise and services. Business Services and Legal & Financial sectors (combined 21%) also highlight the increased demand for cyber security support within wider

professional services, showing how cyber considerations are becoming more embedded. We also find that some clusters also have other cluster organisations as members (3%) (e.g. a cluster lead in one region signs up for another cluster's events in the adjacent region) - this may also suggest some cross-pollination between neighbouring initiatives e.g. where clusters sign up to other newsletters and events etc.

Figure 5 Cluster Member Sectors (estimate based on small sample)



Source: Review and classification of cluster monitoring data (where available for members, sample, n = 1,250 across three clusters provided)

Value for money assessment

This section explores the overall value for money of the UKC3 programme, based upon the information available to the evaluation team. We note that a comprehensive Value for Money assessment is challenging due to limitations in the granularity of available data, particularly regarding impact measurements and a full audit of expenditure and activities. However, we can explore factors based on expenditure compared to outputs, and how funding has been used by clusters. We also note that this is a pilot programme, and as such, lessons can be taken for future programmes or activities.

We consider the total costs of the programme, including how funding has been used by UKC3 for overall operations, and the funding issued to individual clusters to develop projects and operational capacity. This also explores the outputs of the programme, and wider outcomes and impact where available.

In total, DSIT has awarded £3,808,838 to UKC3 throughout the delivery period. The majority of this funding has been spent to date (of which, approximately £1.2m (32%) of resourcing has been used for UKC3 level activities, with and £2.5m (68%) used for supporting cluster operations).

Overall, the funding has supported:

- **UKC3 Level**: the establishment of UKC3, with appropriate branding, marketing, and operational structure throughout the period. In initial years, the model involved remuneration with costs peaking in 2022/23 (£163k) which included remuneration for six directors, and staff costs for a team of three employees. This was explored in interim evaluations, which recommended a move towards more focused staffing structures. These appear to have been taken into consideration.
- Other costs relating to IT, rent, travel, and advertising appear to be appropriate for the funding provided. In 2023/24 and 2024/25, UKC3 has invested approximately £229k in the use of external consultants to support with marketing, strategy, and income generation as it seeks to secure external funding. There is more limited evidence regarding the outputs or efficacy of this investment; however, this may be generated in the near to medium future. Further, this also suggests a recognition of the need to find solutions for financial pressures and sustainability, indicating proactive efforts to secure the programme.
- **Cluster Level:** The programme demonstrated reasonable efficiency in allocating funds across a broad range of activities benefitting 17 unique clusters and supporting 73 projects. The initial focus on operational funding for established clusters, shifting towards sustainability efforts as funding reduced, suggests adaptability and attempts to maximise impact within budget constraints.

- The majority of funding (c. 68%, £2.5m) has been allocated directly to cluster operations – a significant portion supporting on-the-ground activity.
- The use of quarterly reporting provides some insight into how funding has been utilised by clusters; however, this is reliant upon self-reporting, with variance in metrics, outputs, and impact reported. This means that expenditure or outputs at a cluster level cannot be verified beyond self-reporting.

The programme appears to have achieved some positive outcomes related to networking, events, and skills development in the UK cyber security ecosystem, although quantifying impact is challenging. This includes:

- **A sustained revenue stream to enable cluster development and professionalisation at a pilot-level from 2021 to 2025:**
  We find evidence of cluster-level recruitment (full-time and part-time) to enable co-ordination, branding, marketing and outreach by individual clusters on more established basis. This has achieved the intentions of the initial funding; to help build a more professionalised community of cyber security clusters across the UK and reduce reliance upon voluntary models. We also note self-reported increases in cluster maturity and capacity over time. Evidence suggests the funding enabled several clusters to move from voluntary models to employing staff, indicating increased sustainability and capacity.
- **Opportunities for new and emerging clusters to form, increasing exposure to regional and national initiatives:**
  The monitoring data highlights an increase from 12 clusters to 17 clusters, covering most of the UK regions. UKC3 has used tiered investment (in line with maturity model and scale) which is considered appropriate to help ensure smaller clusters can receive seed funding then scale, and that larger clusters can grow proportionately to the size and scale of their regional ecosystem. This approach also means that regional clusters can better avail of national initiatives e.g. supporting enhanced regional engagement in national programmes such as Cyber Runway. The previous evaluations noted that in 2023, the UK cyber security sector benefitted from at least one firm in every UK region securing external VC investment, helping to generate economic opportunity across the UK.
- **Broad reach and engagement across the entire UK:**
  The review of monitoring data highlights engagement with up to 17,000 individuals and organisations across diverse sectors (i.e. not only cyber security firms, but wider technology, education, and professional services). This is further evidenced by over 600 events delivered by clusters to enable knowledge exchange and networking opportunities. The programme has also indirectly facilitated training for over 170 individuals in cyber security skills pathways, and has engaged with initiatives such as CyberFirst.

- **Evolving and refined delivery model, and a move towards cluster ecosystem cohesion and professionalisation:**
  We note that UKC3 was initially intended as a pilot model, driven by voluntary and part-time engagement. This means that the delivery model was expected to evolve from learning and best practice. The evaluation team finds that UKC3 has responded to changes in funding and refined its delivery model over time. This flexibility has helped the organisation understand what works well, and areas for ongoing improvement.

Challenges and limitations:

- **Limited baseline data and ability to attribute change:**
  As this is a pilot scheme, and as clusters and UKC3 have developed their monitoring processes, there is no substantive baseline by which outcomes can be measured against. For some of the established clusters, we note that they may have utilised other funding or delivered on a more voluntary basis prior to funding, and therefore, not all of the outputs or outcomes can be attributed to new funding. Further, much of this data reflects outputs generated throughout the four-year period; it is not clear how or where the benefits will be sustained once funding ceases.
- **Uncertainty in strategic direction:**
  Over the four-year period, the delivery model has been subject to ongoing change with respect to focus, leadership, staffing and remuneration, and delivery structures. There also appears to be limited clarity on the role and purpose of UKC3 among stakeholders, beyond the funding provided (as evidenced above, under “Understanding of the role of UKC3”). For example, UKC3’s role has changed from providing operational support (in a direct financial mechanism) to networking and connecting clusters together as a ‘super-connector’. It is not evident that this delivery model has delivered better value for money than a comparable alternative (e.g. if funding was provided directly to clusters by government). However, enabling clusters to access funding for operational activities and projects does appear to have supported increased professionalism and coherency across the cyber security cluster ecosystem overall.
- **Changes in leadership:**
  Of the ten directors appointed by UKC3’s board throughout the project duration, only four appear to remain active. The consultations and annual reports have noted ongoing issues and challenges relating to director engagement and involvement, which may have had a detrimental impact on overall organisational strategy and coherence.
- **Reduction in engagement:**
  We note that three working groups (Ecosystem Development, Cyber Skills,

Innovation) were placed on hold in 2024. This, and wider feedback may signal an overall reduction in engagement over time with UKC3 structures by individual clusters and membership.

"In 2023-24, these groups faced challenges with attendance, leadership, and delivering tangible outcomes. Engagement declined over time, shifting the groups from goal-oriented teams to discussion forums. Leadership changes at the board level further contributed to insufficient representation and effectiveness." (Half Year Report, 24/25)

- **Rationale, monitoring, and tracking impact of funded projects:**
  We note limited evidence of cluster level monitoring where funding has been awarded. Clusters are asked to provide updates on project performance, and how funding has been used; however, we note significant variations in depth, quality and how outputs and outcomes are tracked over time. Whilst proportionality should apply, additional efforts should be undertaken to verify the use and impact of funding. We also note that some pan-cluster projects (e.g. Cyber Skills Research in Year 2) appear to lack a clear output or evidence of output, and it is not clear how the funding has been utilised or generated impact. The research team has analysed all project summaries to provide some insight; however, we recommend that any future monitoring and evaluation should be undertaken by the programme.
- **No significant evidence of commercial sponsorship at UKC3 level:**
  The most recent half year report notes some progress with respect to identifying potential sponsorship opportunities. However, there is limited evidence of any tangible income generation into 2025/26 (opportunities under review, but no clear evidence of success to date)
- **Risk of a fractured cluster ecosystem post-2025:**
  The grant programme has reached its conclusion as of March 2025, and funding will not be continued beyond this period.

  As noted below (under Sustainability), evidence has suggested that half of cluster leaders surveyed (50%, n=10) disagreed that their cluster's delivery can be sustained independently (outside of UKC3 or other public funding) going forward. Only 10% of cluster leaders responding to the survey reported they have secured long-term funding in the past 12 months.

  This suggests that some clusters may reduce or limit activities into the next financial year, subject to wider funding availability.

Overall Assessment:

Based on the available information, the UKC3 Programme demonstrates some evidence of value for money as a pilot scheme, however, there are opportunities for future learning and improvements to the delivery model.

The programme successfully distributed funding to a broad range of clusters, enabled collaboration, and appears to have contributed to the development of the UK cyber security ecosystem through events, engagement, and professionalisation within cyber security clusters enabling greater coherence and connection.

However, challenges exist around data quality, impact measurement, and delivery models; which has limited the ability to explore factors such as return on investment or growth attributed to support provided.

Outcomes and Impact

This section outlines findings from the contribution analysis, exploring where UKC3 had positive contributions to outcomes and impact, and where there are potential gaps or a lack of evidence. This is based on analysis of available UKC3 reports, feedback from the cluster member surveys and cluster leads survey, and interviews with cluster leads, cluster members and wider stakeholders. The assessment of this evidence can be seen in more detail in the Contribution Analysis matrix, in Annex One.

Outcomes are grouped under the three UKC3 pillars: cyber skills growth, innovation join-up, and ecosystem development; other cross-cutting and wider impacts are also explored at the end of this section including the forming of partnerships, as well as the sustainability of UKC3 beyond DSIT funding.

Ecosystem development

Overall, there was **strong evidence suggesting UKC3 contributed positively towards ecosystem development.** It is worth noting, that this was consistently the UKC3 pillar with the **strongest evidence**, compared to the evidence available on cyber skills growth and innovation-join up, and increased from moderate evidence available in the previous phase of the evaluation. Several data sources provided evidence of this, with particularly strong evidence witnessed around increased pan-cluster activity, knowledge sharing within and between clusters, and partnership working between UKC3 and other organisations. Outcomes and impacts around ecosystem development are shown in more detail below.

Professionalisation of clusters

Throughout the evaluation, qualitative feedback highlighted **professionalisation of the clusters as a clear and positive outcome of UKC3**. Cluster leaders, board members and wider stakeholders noted that prior to UKC3, clusters operated as informal partnerships, which would have had limited growth and impact without UKC3 funding. They highlighted how clusters have established formal memberships, developed strategies, and employed full-time staff in some instances. Leaders of newer clusters highlighted the success of getting established and recognised by UKC3, including the value of being supported by existing, more mature clusters. Some newer clusters reported that the cluster would not have started formally without UKC3 backing or that without funding, they would have struggled to expand cluster activities.

> “Without recognition [the cluster] probably wouldn’t have started. Without funding we wouldn’t have started and wouldn’t be doing as much work.” *Cluster leader*

> "The commercialisation and project funding has definitely helped. Where we've spent money getting a professional marketing pack together, website hosting, they wouldn't have happened without that funding. Those things are definitely key and vital. It's given us that platform to have those conversation [with potential sponsors/partners]" *Cluster leader*

The cluster leads survey (n=10) also suggested that most cluster leaders have positive views regarding the benefits of professionalisation of clusters, although this is based on a very limited sample and should be interpreted with caution. More than half of cluster leaders (60%) agreed/ strongly agreed that their clusters are more professionalised and that they have increased capacity to engage in activities (see Figure 6 below for more detail on cluster leads' views on ecosystem development). Cluster leaders (n=10) reported that UKC3 has supported their clusters in various ways: financial support (80%), marketing (80%), networking and facilitating collaboration (80%), sharing knowledge and best practice (70%), identifying and emerging needs and opportunities (40%), and administrative support (30%). Overall, most cluster leaders (70%) agreed/ strongly agreed that UKC3 support is sufficient for their cluster.

Cyber cluster activities and member involvement

The cluster member survey asked several questions regarding the involvement of members with their clusters. Most respondents (across all evaluation phases) described their main involvement with the cluster as "signing up as a member to engage in events and activities" (75%, n=193), while just over half (53%) said they regularly engage with the cluster through events or projects (once a month or more frequently).

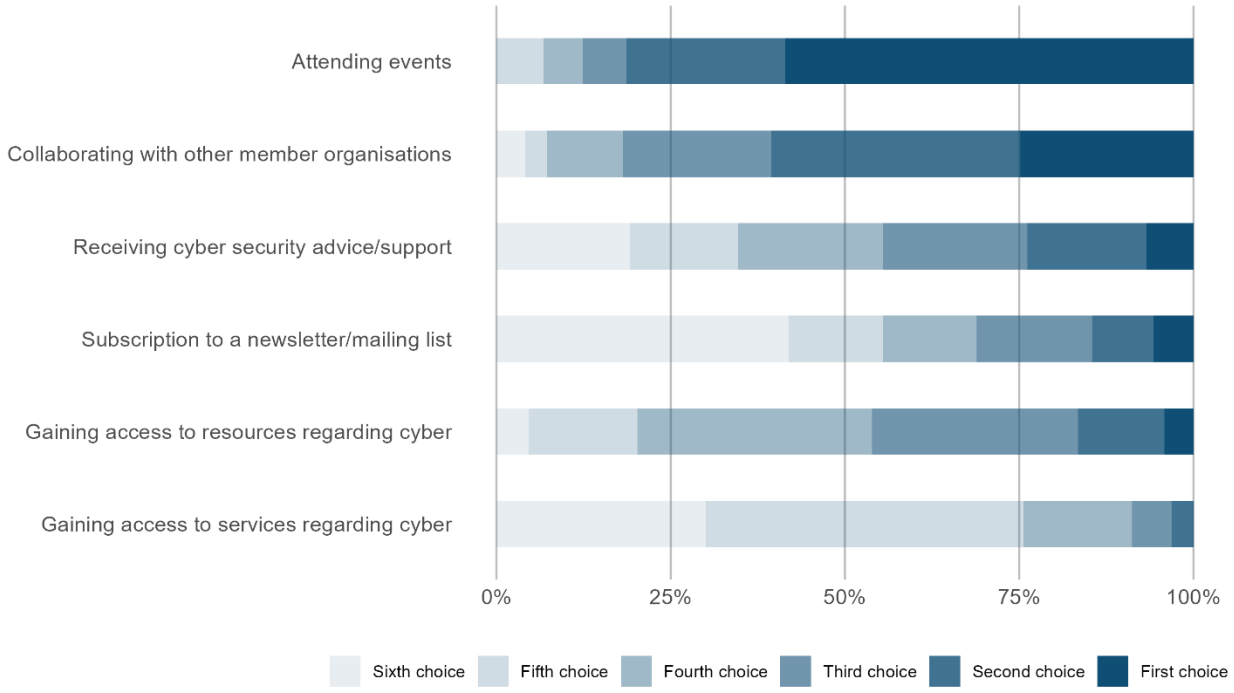
Survey respondents across all phases reported engaging with clusters in many different ways, the most common of which were attending events (88%, n=193) and subscribing to newsletter/email lists to keep up to date (72%). This was followed by collaborating with other member organisations (52%), gaining access to resources regarding cyber (38%), receiving cyber security advice and support (22%), and gaining access to services regarding cyber (19%).

Respondents ranked **"attending events"** as the **most beneficial activity** offered by clusters (59% selecting this as their first choice), which in line with the above suggests that they are indeed benefitting from attending events in their cluster. It is worth noting that the second most common activity reported by members was subscribing to a newsletter/ mailing list, although they ranked this much lower among the most beneficial activities, suggesting they are not benefitting as much from this (see Figure 6 below). Survey respondents reported "collaborating with other member organisations" as the second most beneficial cyber cluster activity. These findings have been consistent across

survey results from the last three cluster member surveys conducted during each evaluation phase. This suggests that cluster members still hold the same views regarding cluster activities.

The following figure shows how cluster members ranked key cluster activities across all three years of the evaluation, based on their views on which is the most beneficial for them and their organisations (ordered by those selected as a first choice):

Figure 6 Most beneficial cluster activities, ranked by members



Source: Cluster member organisation survey (n=193)

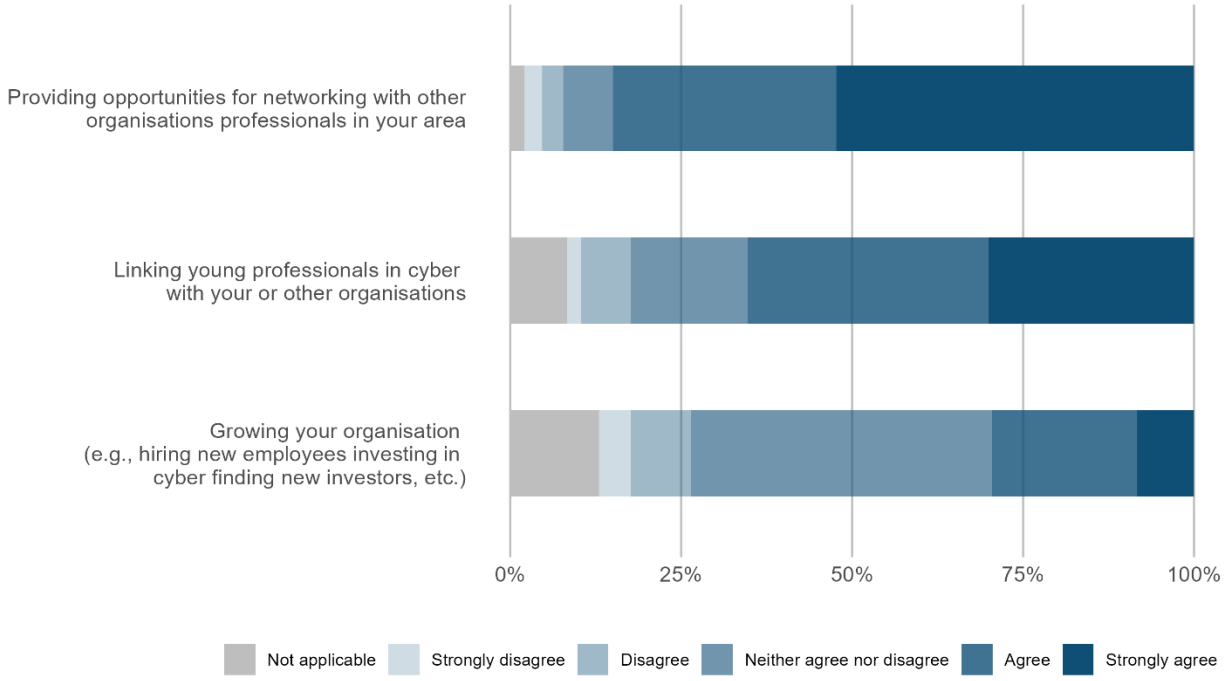
Views on ecosystem development

Overall, most member respondents across all three years of the survey (74%, n=193) agreed or strongly agreed that cluster activities are **aligned with specific needs in their area**, while half (50%, n=193) agreed or strongly agreed that cluster activities are **influencing regional and national strategy and policymaking**. A large proportion of respondents (41%) neither agreed nor disagreed with this, and 10% disagreed/ strongly disagreed, suggesting that members have mixed views about the degree of cyber cluster influence.

Member respondents (n=193) also reported positive views on the ways clusters contribute to **networking and bringing cyber professionals together in cluster areas**. Most survey respondents agreed or strongly agreed that clusters help provide opportunities for networking (85%), while most (65%) also agreed or strongly agreed that

clusters contribute to linking young professionals in cyber with their (or other) organisations in their area. However, they had mixed views when asked whether clusters help grow their organisation, as 30% agreed/strongly agreed, 44% neither agreed nor disagreed, and 13% disagreed/strongly disagreed.

Figure 7 Members' views on ecosystem development among clusters



Source: Cluster member organisation survey (n=193)

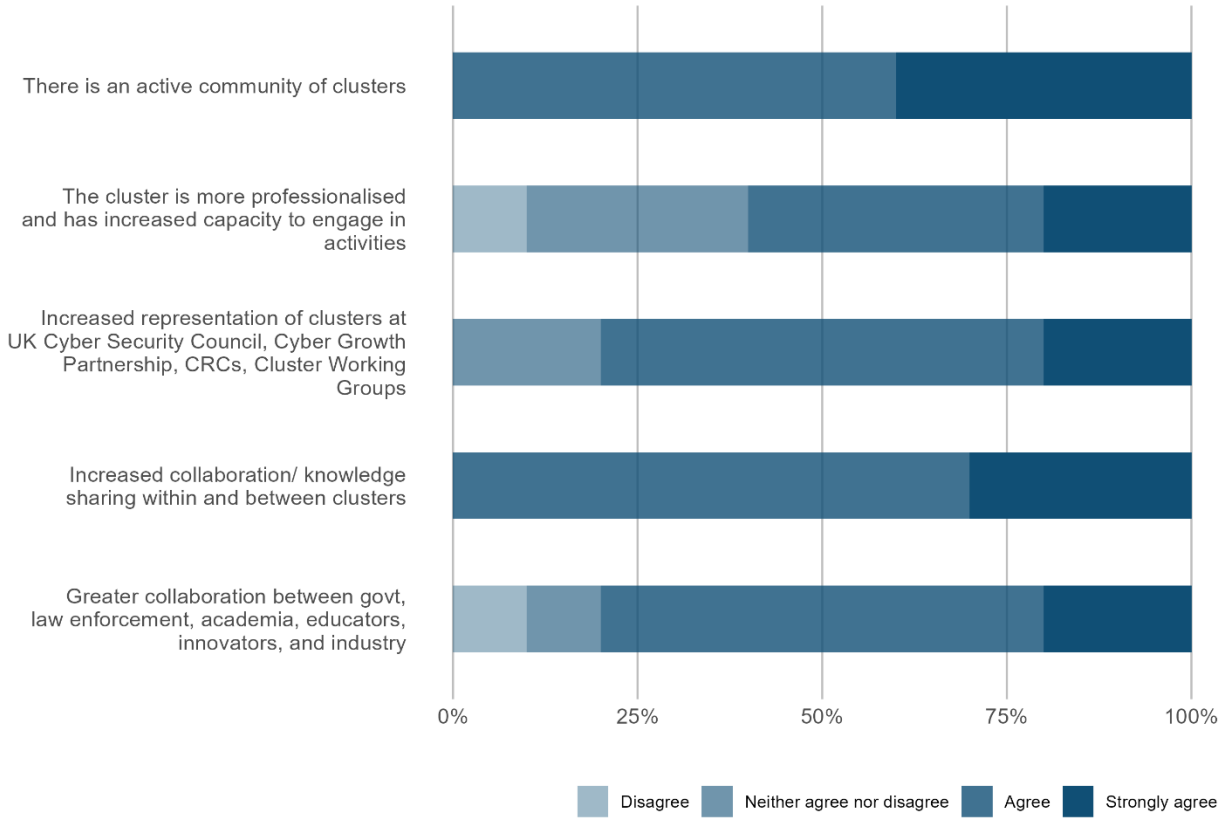
Overall, cluster member views regarding ecosystem development have stably remained positive over the three survey waves. The **levels of agreement regarding growing organisations have increased significantly**[14] between the 1st wave and 3rd wave of this survey, however the other two outcome indicators regarding ecosystem development (linking young professionals and providing opportunities) have remained broadly the same.

Additional evidence regarding views on UKC3's contribution to cyber cluster ecosystem development was also collected in the cluster leads survey, although based on a small sample of cluster leaders (n=10). As shown in Figure 8 below, the survey showed positive views among cluster leads, as 100% agreed/ strongly agreed there is an active community of clusters, and increased collaboration/ knowledge sharing within and between clusters. In addition, most (80%) agreed/ strongly agreed there is greater collaboration between key stakeholders in cyber security (government, law enforcement, academia, educators, innovators and industry, and 80% agreed/ strongly agreed that there was increased representation of clusters at UK Cyber Security Council, Cyber

[14] A statistically significant difference in levels of agreement was found at the 5% level.

Growth Partnership, Cyber Resilience Centres, and cluster working groups. Although these are very positive views, it is worth noting that the sample size of this survey was fairly small (n=10), and not representative of all clusters, hence advising caution when interpreting these results (see Data limitations section above for more details).

Figure 8 Cluster leaders' views on UKC3's contribution towards ecosystem development across clusters



Source: Cluster Leaders survey (n=10)

Across all phases of the evaluation, qualitative evidence suggested that ecosystem development was the pillar with the **greatest evidence of impact**. A major theme from interviews with cluster leaders and cluster members was that clusters act as a place for members to connect, and UKC3 acts a place for clusters to connect. They agreed that UKC3 has **helped to develop and grow a network for cyber security professionals**, and compared this to the cyber sector prior to UKC3, where the industry and expertise was fragmented. The interview participants said this linking-up of the sector has **enabled clusters and industry to be more aware of what is happening in different regions and in different sectors,** for example by bringing together members from industry, academia and the public sector, and strengthened the connections between members and clusters.

> "Everyone knows everyone… doors just open with all these networks of people and help and support. So that's what's so powerful about these clusters." *Cluster member*

Cluster members and leaders described the opportunity to share best practice, knowledge and lessons learned as an important part of this, and they saw UKC3 as playing an important role in facilitating this both within and between clusters, for example through pan-cluster events.

> "We can share challenges with other clusters. If we struggle as a single entity, it's harder than if you have a community with the same challenges. We inspire and help each other." *Cluster leader*

Events were the most cited activity related to the pillar, with events being held both online and in-person, and taking a range of forms including breakfast clubs, conferences, masterclasses, expos, capture the flag events, careers events for students, industry events with guest speakers, and networking events for members. Cluster members in their open-text survey responses described events as a key benefit of their membership, and cluster leaders highlighted that regular frequency of events was a key way to engage and maintain the interest of members. As noted above, cluster leaders also highlighted pan-cluster events a valuable opportunity to speak to clusters from other regions.

> "Having the pan-cluster events and being able to see in person and have a conversation with other cluster members, ideas spark from that. Having UKC3 facilitate these has been really beneficial to understand where we can build on that with partnerships. For that to have got to the stage it is, is phenomenal." *Cluster leader*

Case study success story – connecting regions

CyNam (Cyber Cheltenham) leveraged UKC3 funding to secure additional sponsorship funding for their 'Clusters on Tour' programme. The programme aims to connect cyber tech hotspots across the UK and has seen events held in Birmingham, Milton Keynes and Cambridge. The programme took their ecosystem to other parts of the UK and compared, contrasted and looked for opportunities to collaborate, for example the cluster will be working with CyberWales and Space West – a regional consortium of academic and industry partners accelerating growth and innovation in the space sector – to discuss cyber security and the space supply chain.

Evidence from the UKC3 Half Year Report 2024-25 suggests that many clusters have been able to grow their events programmes and used events to expand their reach and provide value to the cyber security community. For example, CyberNorth held their biggest CyberFest in October 2024 which saw the cluster host its first community conference and awards events, and a pan-cluster event. Both were described as well attended and receiving positive feedback from attendees.

Evidence from reports, surveys and interviews suggests that through networking and events, being part of the UKC3 network had led to **increased partnership working**, including between clusters and with external partners. The cluster leaders survey (n=10) suggested that clusters have been forming various partnerships over the last 12 months. Most clusters leaders reported they are in partnership with academia (80%), in a project delivery partnership (70%), or in an in-kind/ financial partnership (60%), while 20% reported they have not formed a partnership in the last 12 months.

When partnering with other organisations, clusters worked with a range of organisations, including universities, local companies both within and outside of the cyber sector, NGOs such as Action Fraud, international groups, and networks such as Barclays Eagle Labs. In many cases, clusters have formed collaborations with organisations but have yet to establish formal partnerships but compared to the previous phase of the evaluation, more activities were planned or had been delivered. For example Kent & Medway Cluster are planning to run training courses in partnership with the University of Kent; South West Cyber Cluster are partnering with Bsides Exeter (a conference for those interested in the Information Security industry) by holding their conference the day after theirs along with a joint Next Gen session; and a delegation from ScotlandIS will be visiting New York as part of NY Tartan Week to promote Scotland on a multi-industry basis with Plexal and Scottish Development International.

Where clusters have close **collaborations with local universities** they use these partnerships in a range of ways. This includes having academics from the university on their board or advisory group, having a university fund some of the cluster or activities delivered by the cluster, or using the university facilities to host events.

UKC3 representatives highlighted that UKC3 as a network is gaining more external recognition and they are receiving an increasing number of requests from organisations wishing to access the cluster network, for example to reach out to a particular sector or region.

Case study success story – partnership working

UKC3 will be partnering with the UKRI-funded Cyber Security Research and Networking Environment (CRANE) NetworkPlus. The network seeks to enhance collaboration, knowledge sharing, and skills development across the cyber sector; and will establish a new learned society dedicated to creating a sustainable and long-term community of cyber security researchers and stakeholders who are interested in collaborating with cyber security researchers. UKC3 will support the network by leveraging their strong network of cyber clusters to drive its success.

In this final phase of the evaluation, there was also **evidence of increased pan-cluster activity** through project working and mature clusters supporting newer clusters. For example, several clusters attended the launch event for Cyber London, who have reported being keen to do joint working with other regions. A further example is that CyberNorth visited ScotlandIS to spend a day talking about opportunities to collaborate and to discuss potential joint funding bids.

Cyber skills growth

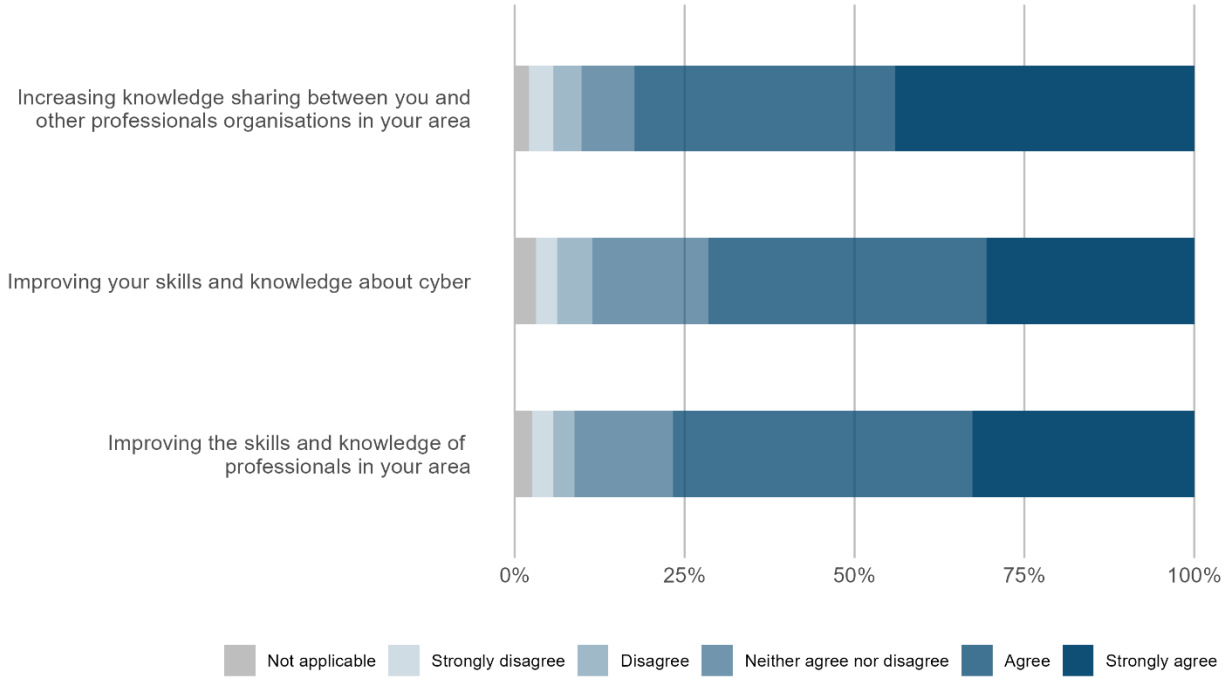
Overall, there is **moderate evidence** suggesting that **UKC3 contributed positively towards cyber skills growth**. There is growing evidence suggesting that cyber clusters are having a positive impact on cyber skills growth, although it is sometimes challenging to link this back to UKC3. Detailed findings from each data source analysed are outlined below.

Survey results suggested that clusters members felt that cyber clusters are **positively contributing to the growth of cyber skills** in their area. Survey respondents overall agreed or strongly agreed that cluster activities are **benefiting member organisations in several ways**: increasing knowledge sharing (82%, n=193), improving the skills and knowledge of professionals in their area (77%, n=193), and improving their individual cyber skills and knowledge (72%, n=193). It is worth noting that although these are very positive indications of cyber skills growth, they are not necessarily representative of all clusters. As mentioned above (under data limitations), the survey sample might be skewed towards specific clusters as some are represented more than others. Some clusters are also engaging in cyber skills projects more than others. For example, in the previous evaluation phase, we noted that one of those clusters is the South West CSC, has engaged in several cyber skills projects. As more positive responses might be

expected to come from this/other clusters, it is possible that these survey results are overestimating the contribution of all 17 clusters in cyber skills growth.

Overall, cluster member views regarding cyber skills growth have stably remained positive over the three cluster member survey waves. Levels of agreement have broadly stayed the same[15] in terms of cluster activities benefiting member organisations (increasing knowledge sharing, improving the skills and knowledge of professionals, and improving individual cyber skills and knowledge).

Figure 9 Members' views on cluster activities and cyber skills growth

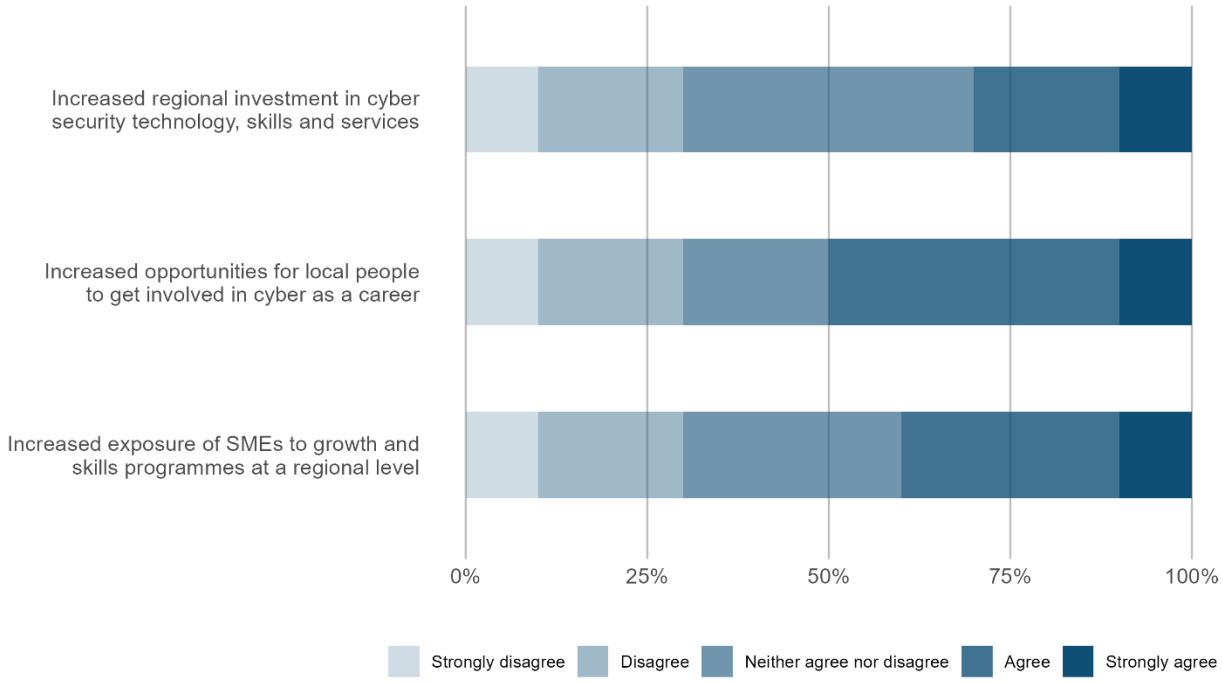


Source: Cluster member organisation survey (n=193)

The cluster leads survey also collected additional evidence regarding views on whether UKC3 has contributed towards cyber skills growth across clusters (n=10). As shown in Figure 10 below, the survey showed **mixed views among cluster leads**. Half of cluster leaders (50%) agreed/ strongly agreed there are increased opportunities for local people to get involved in cyber as a career, while 20% neither agreed nor disagreed and 30% disagreed/ strongly disagreed. Less than half (40%) agreed/strongly agreed there has been increased exposure of SMEs to growth and skills programmes at regional level, and less than a third agreed/ strongly agreed there has been increased regional investment in cyber security technology, skills and services. As above, sample sizes from the cluster leads survey are very small hence these results may not be representative of all views across cyber cluster leaders.

[15] Tested for statistical significance and not found any statistically significant differences in levels of agreement.

Figure 10 Cluster leaders' views on UKC3's contribution towards cyber skills growth



Source: Cluster Leaders survey (n=10)

Cluster leaders discussed several programmes related to skills development. Some clusters referenced their work with schools which included sponsoring school cyber qualifications and being involved in other Government cyber programmes, like CyberFirst, which highlights the value of clusters as bodies which bring together members from industry and academia. For delivery partners such as the NCSC, clusters are ideally placed to facilitate connections between industry and educational institutions.

On a national scale, established partnerships with wider stakeholders such as the UK Cyber Security Council have demonstrated the value of the UKC3 network in supporting the delivery of skills programmes.

Case study success story – External partnerships

UKC3 secured additional funding from DSIT to support the Cyber Access Network (CAN), led by the UK Cyber Security Council. CAN is a new initiative designed to support aspiring cyber security professionals by providing the skills, knowledge, and connections needed to enter the industry. Clusters across the network will be involved in promoting the programme, for example Cyber London hosted an in-person CAN event at City St George University of London titled “Unlocking Cyber Careers: Skills, Pathways and Opportunities” which was well attended by students and professionals. NI Cyber will be hosting a Cyber Switch webinar designed for individuals transitioning into cyber security of returning to the sector.

> “We’ve been able to do more with that launch than we would have otherwise. It will help us achieve a lot more… it helps us broaden that offer while extending reach.” *Wider stakeholder*

UKC3 were set an initial target of attracting 300 sign-ups to the scheme and also promoted a survey to help the UK Cyber Security Council get a better understanding of barriers to cyber security careers. As of 4th April 2025, UKC3 and clusters collectively had attracted 1,360 sign-ups and 105 respondents had completed the survey.

Interviews with cluster leaders and the UKC3 Half-Year Report (2024-25) provided further examples of where **UKC3 funding had been used to support skills programmes.** For example, to buy a license on an online gamified learning platform so a cluster can participate in regular skills development activities; to build training courses; delivering events relating to skills development and promoting careers in the sector; and expanding student placement programmes. However, some of these activities are still at an early stage so are unable to provide evidence of impact yet. For example, a number of clusters are developing mentoring platforms which highlights the ability of clusters to connect industry with those seeking a career in cyber, but as these are still in development it is too early to report on impact.

Case study success story – Pan-cluster working

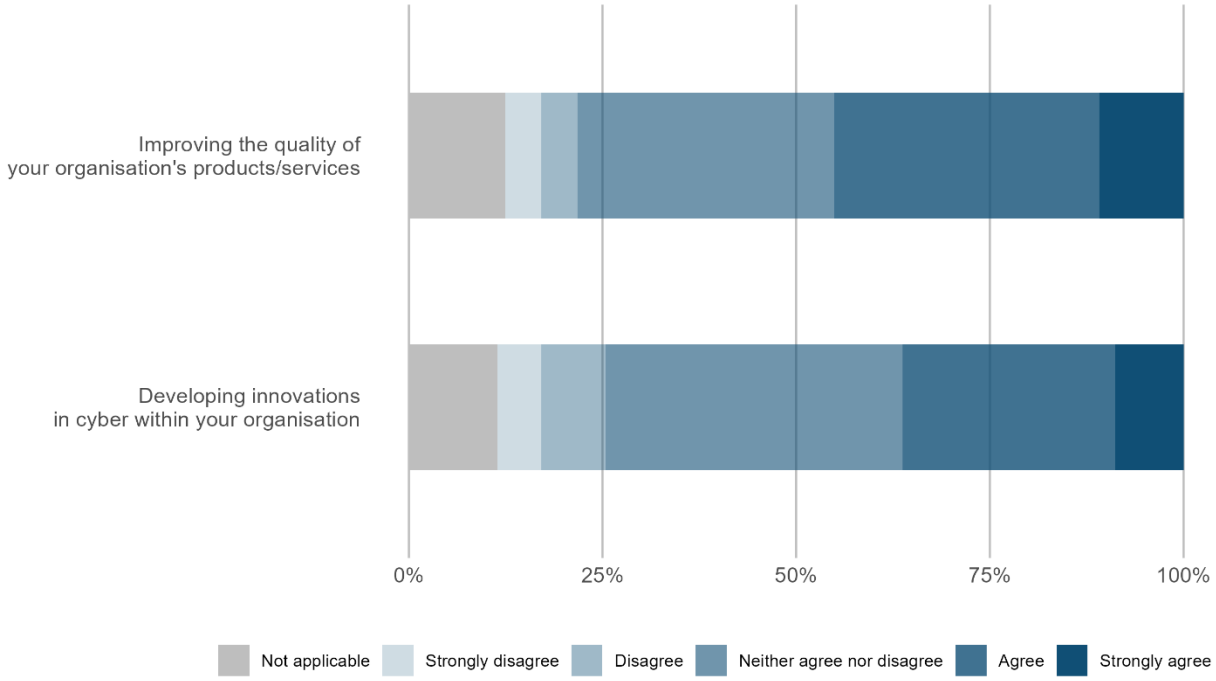
ScotlandIS were awarded £14,700 to grow their e-Placement programme. The aim of the project was to enhance student employability through the provision of fully supported, paid work placements with employers, open to all Further Education and Higher Education students with digital skills with a focus on securing cyber security internships. Following a successful programme in Scotland, ScotlandIS expanded to the North East, in collaboration with CyberNorth, to bridge the experience gap between graduates and industry. At the time of writing, it is too early to evidence impact but the project has an initial target of 15 paid work placements within the 12-week pilot period. This example showcases the value of pan-cluster working in replicating successful projects in new regions, building on learning from e-Placement Scotland.

Innovation join-up

The analysis showed that there was **limited evidence of UKC3 contributing towards innovation join-up** and growth in this sector. While evidence on cyber skills growth and ecosystem development is stronger, evidence on innovation is limited and comes mostly from the cluster member and cluster leaders surveys. Stakeholders struggled to identify impacts linked to UKC3 in this area, while documentation provides no further evidence. Findings on innovation join-up outcomes are shown in more detail below.

As shown in Figure 11 below, cluster member survey respondents had **mixed views** when asked about how clusters contribute to innovation in services and products in their area. This was in contrast with their views on cyber skills growth (see above section) which were very positive. Slightly less than half (45%, n=193) agreed or strongly agreed that clusters help improve the quality of their organisation's products and services, while a third took a neutral stance (33% neither agreed nor disagreed) and 16% disagreed/strongly disagreed. When asked about clusters helping to develop innovations in cyber within their organisation, respondents also had mixed views. A large proportion (38%) neither agreed nor disagreed, while 36% agreed/strongly agreed, and 14% disagreed/strongly disagreed.

Figure 11 Members' views on cluster contribution on innovation and quality of products/services



Source: Cluster member organisation survey (n=193)

It is worth noting that 11-12% of respondents selected 'not applicable' in these questions (as shown in the figure above in grey). These proportions were much larger compared to survey questions on cyber skills growth (between 2-3% across the three questions). This could suggest that members are more exposed/ engaged with cyber skills activities offered by clusters, compared to activities regarding innovation. Alternatively, this could mean a lack of awareness amongst members about innovation initiatives and projects in cyber clusters.

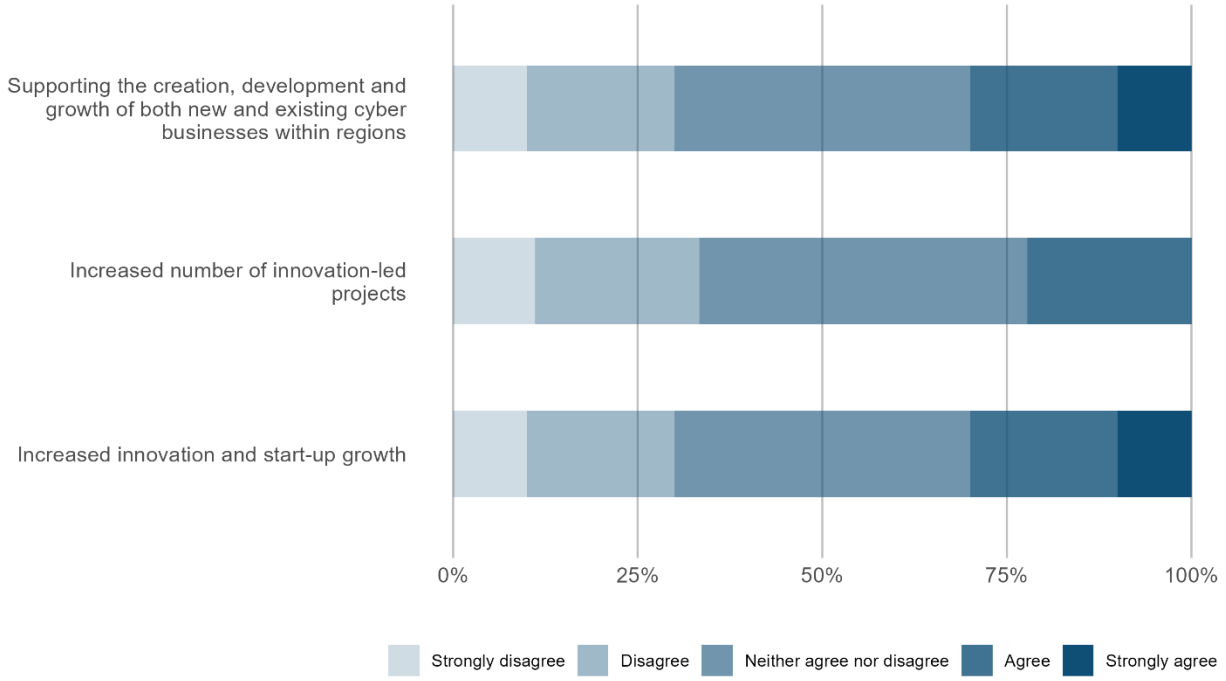
Cluster member views on innovation join-up have overall remained very similar across the three survey waves. Levels of agreement have broadly stayed the same[16] in terms of cluster contributions to innovation (improving the quality of organisations' products and services, and developing innovations in cyber within organisations).

As above, the cluster leaders survey also collected evidence on cluster leaders' views on innovation and the contribution of UKC3 to outcomes across clusters (n=10). As shown in Figure 86, cluster leaders reported mixed views in this subject, as 40% neither agreed nor disagreed that UKC3 has contributed to increased innovation and start-up growth (30% agreed/ strongly disagreed and 30% disagreed/ strongly disagreed). Likewise, 40% neither agreed nor disagreed that UKC3 has contributed in supporting the creation, development and growth of both new and existing cyber businesses within regions, and 44% neither agreed nor disagreed that UKC3 contributions have led to an increased number of innovation-led projects. As with above findings, the cluster leaders survey

[16] Tested for statistical significance and not found any statistically significant differences in levels of agreement.

sample was very limited (n=10), therefore results need to be interpreted with caution as they may not be representative of all cluster leader views.

Figure 12 Cluster leaders' views on UKC3's contribution on innovation outcomes and achievements



Source: Cluster Leaders survey (n=10)

Examples of innovation projects were limited but a small number of examples are provided in the UKC3 half year report (2024-25), including the delivery of several innovation focused events. For example, Cyber Wales were awarded UKC3 funding to run joint events with the Wales Cyber Innovation Hub, which is a coalition of universities, primes and investors to find ways to capitalise on innovations. The first event was attended by 87 people and was described as helping the new innovation hub to gain traction in the ecosystem. The second event ran in London and attracted 54 attendees from across a wide range of technical sectors in Wales. Bristol and Bath Cluster ran a series of focal point sessions, invite only roundtables where industry experts were set a challenge and key messages will be used to spark further discussions throughout the cluster and wider. The first session was run on Quantum technologies and key messages were formally published as part of a broader Quantum editorial month alongside University of Bristol, BB Cyber and TechSPARK.

Case study success story – Cyber Local funding awarded for cyber innovation centre pilot

Following CyberNorth's successful CyberFest event which was attended by the Minister for AI and cyber security, the cluster were encouraged to apply for Cyber Local funding for developing a cyber innovation centre. The innovation centre will champion and develop new and innovative hardware and software cyber security products. It aims to create an environment which encourages growth and supports new and emerging business towards maturity.

The application was successful and the accelerator programme launched in January 2024. CyberNorth is now trialling two 'pop-up' cyber security innovation centres, one in Newcastle and one in Durham. These will be used to develop a future model whereby small innovation hotspots can be created that bring together innovators and business support from across the region. A document review found that a cyber security professional who took part in the initial pilot described the experience as instrumental in building connections, getting

Lastly, **challenges remain in attributing outcomes and impacts** across the three pillars discussed above. Monitoring and reporting have improved, with some recommendations from previous evaluations actioned. However, there is still lack of information on quantifiable outcome and impact metrics, granular data on membership, and clear breakdowns on cost/spend data, while capturing lessons learned, best practice and challenges should also be improved. Stakeholders have also struggled to attribute impact to UKC3 as opposed to their cluster's activities or efforts. A summary of monitoring and reporting mechanisms, progress to date, and remaining gaps is available in Annex Two.

Sustainability

With DSIT funding ending in March 2025, surveys and interviews with cluster leaders and UKC3 representatives explored the financial sustainability of UKC3 and individual clusters, as well as likely sources of income to support them beyond DSIT funding.

The cluster member survey (n=193) asked respondents about the extent to which UKC3 had helped clusters to access new funding opportunities (e.g., through government), contributing to the growth and development of business in their area. Survey respondents had **mixed views** about this, with almost half (47%) neither agreeing nor disagreeing, 15% agreeing or strongly agreeing, and 22% disagreeing or strongly disagreeing. Some respondents (16%) reported this was not applicable to them, which is not surprising as not all members would have this kind of knowledge and awareness. It is worth noting that

the level of agreement about UKC3 helping access new funding opportunities appears to be higher during the last year of the evaluation (25% agreed or strongly agreed), compared to the previous two years (13% agreed or strongly agreed). However, this difference was not statistically significant.

In addition, half of cluster leaders surveyed (50%, n=10) disagreed/ strongly disagreed that their cluster's delivery can be sustained independently (outside of UKC3 or other public funding) going forward. Only 10% of cluster leaders responding to this survey reported they have secured long-term funding in the past 12 months.

A strong theme from interviews with cluster leads in this final phase of the evaluation was **financial uncertainty** as many did not **feel they had established a long-term independent revenue stream**. However, compared to the previous phase, cluster leads were **more optimistic about sustainability** and were able to provide examples of probable income streams, including delivering training courses, selling academic resources, and sponsorship. UKC3 are currently supporting clusters with strategy planning and preparing sponsorship decks (see below for more information).

Interview discussions largely centred around **three potential income streams**: paid membership models, direct funding for project work or services, and sponsorship.

Paid membership as a long-term funding solution was seen less favourably by cluster leaders as they felt they would need to ensure a sufficient membership offer in order to sustain paid members. Several cluster leaders felt that this would not be in line with keeping with the ethos of the cluster, some of which did not wish to be run for profit. Others noted that as their cluster had been free to join for many years, they did not believe there would be the appetite from members to start paying a fee, particularly in periods of economic downturn or when the sector is 'feeling squeezed'. There were a few clusters considering paid membership, however these had larger memberships and frequent events. For these clusters, the questions around a paid membership model related to pricing and ensuring SMEs and students are not priced out. One cluster is hoping to subsidise SME membership by having only larger employers pay to be members.

Direct funding for projects was mentioned by several cluster leaders, with both the public and private sector cited as funders. For the public sector, cluster leaders described something similar to the current UKC3 model. They would like to see UKC3, DSIT, or local government award funding using a tendering system for projects. This could be in response to a particular need of the awarder or on a case-by-case basis if the cluster justifies why funding is needed. Some clusters reported having established revenue streams from public sector contracts, for example NCSC for Startups[17], Cyber Local and Barclays Eagle Labs. For the private sector, cluster leaders suggested being paid to run training programmes or acting as a cyber security provider to local organisations. Some had established partnerships with cyber security certification bodies and academic institutions to establish a stable income stream through delivering training courses.

Almost every interview with cluster leaders mentioned sponsorship as the most viable option for future funding, with **most clusters currently looking to secure sponsors**. Some reported they had or were in the process of securing sponsorship, and were looking to grow the relationship or secure further sponsors. Different levels of sponsorship were highlighted:

- **Larger commercial sponsorship**, where either a single or a few organisations fund the majority of the cluster activities. This was seen as the easiest way to secure a large amount of funding quickly.
- **Multiple commercial sponsorships**, where a number of smaller sponsors who collectively fund cluster activities. This was seen as most sustainable, because if one or two sponsors dropped out, the cluster would be able to continue.
- **Event or ad hoc sponsorship,** where organisations fund specific activities. This is similar to the non-monetary donations (such as venue hire or free refreshments)

[17] https://www.plexal.com/our-work/ncsc-for-startups/

clusters currently receive. Clusters feel this may be more attractive to companies, as they can sponsor a specific event or project of interest.

Cluster leaders felt they would **likely need a combination of the different sponsorship types** to remain financially secure. Some were yet to secure any financial backing but compared to the previous phase of the evaluation, additional sponsorship income had been secured. Some clusters currently negotiating with sponsors were finding the process quite slow, particularly as cluster leaders only have limited capacity to pursue sponsorships.

Whilst clusters are currently looking to secure sponsorship, **concerns with sponsorship** were cited by cluster leaders. A commonly held view was the risk that sponsors will expect influence in return for sponsoring the cluster. For example, if a cluster is sponsored by a large company, they may try to steer the cluster's direction or commercialise priorities, rather than following the broader national aims of the clusters. This was noted as a particular risk in the cyber security space, where outside influence should be avoided. Another concern was that private businesses may not be able to sustain the funding, if there were tough economic conditions, and so there would be a risk to the sustainability of the clusters. A final concern was that sponsorship naturally lends itself to the more established clusters. One cluster which has attracted several sponsors noted that they were in a stronger position as they have a large cyber sector in their region and a wider pool of industry sponsors to target. Moreover, smaller and less established clusters said they felt that clusters would need to compete for sponsorship, and the more established clusters will have greater capacity to pursue sponsorship opportunities and find it easier to evidence the value of sponsoring their cluster. This in turn will make it more difficult for less established clusters to achieve sponsorship. Some cluster leaders suggested that UKC3 could develop a national sponsorship revenue stream whereby UKC3 secures sponsorship from national companies, and then that funding is distributed throughout the cluster network. Cluster leaders felt this would be a more effective strategy than individual clusters trying to secure funding from national companies, and is likely to be a more attractive prospect for companies.

UKC3 representatives outlined UKC3's plans for sustainability beyond Spring 2025. They suggested that the network's main source of funding was likely to be **sponsorship at the national level**, as well as delivering work such as workshops and thought leadership pieces. They will be continuing to support clusters to grow and achieve financial sustainability through a cluster maturity programme, which has included working with clusters to write strategies, create sponsorship decks (a pitch presentation for potential sponsors) and collect case studies to showcase the impact of their work. One larger cluster noted that this was more useful to newer, less mature clusters and that they would like to see more tailored support for established clusters such as how to further scale their work and advice and guidance on how best to utilise and manage their large membership.

Conclusions

UKC3 was intended to be a pilot programme to encourage collaboration between clusters. It has continued for four years providing resources to clusters for operational and project-based expansion. The number of recognised clusters under the UKC3 network has grown (from 12 to 18), and membership has also grown to a self-reported 20,000 members[18]. The current UKC3 network of recognised clusters covers almost all of the UK.

Evidence from interviews and UKC3 reports suggests that activity is **aligned with the three pillars** of ecosystem development, skills growth, and innovation join-up. There has been an **increase in awareness** of UKC3 among all types of stakeholders and new partnerships have been established. Overall, cluster leaders **understand and appreciate UKC3's role** in the cyber sector, which is contributing to establishing and professionalising clusters, although there was less understanding from cluster members. UKC3 governance has overall been effective, although there is still room for improvement.

There have been examples of **UKC3 contributing to positive outcomes and impact**, with mostly strong evidence regarding ecosystem development, moderate evidence regarding cyber skills growth outcomes, and some limited (but positive) evidence on innovation join-up. Examples include partnerships being formed and contributing to the expansion of networks, skills programmes delivered, and pan-cluster activity growing. Evidence about outcomes and impact is still limited across many areas, and there are challenges in attributing outcomes and impacts to UKC3. Monitoring and reporting have improved, and some of the previous evaluation recommendations have been actioned, however there are still evidence gaps.

In terms of **sustainability**, there has been **some positive self-reported evidence** of clusters securing external funding outside of UKC3 and to become self-sustaining, for example through securing sponsors and delivering public sector contracts, although there are **many challenges, particularly for less established clusters**. Stakeholders expressed mixed views about the current channels through which clusters can secure additional funding, with many viewing sponsorships as the most viable option including for UKC3 themselves. UKC3 will be continuing to run a cluster maturity programme to support clusters with their financial sustainability, for example strategy planning and creating sponsorship decks. The most recent half year report from UKC3 notes some progress with respect to identifying potential sponsorship opportunities. However, there is

[18] This requires granular verification to understand how this figure has been estimated, and who has benefitted, which is underway by the research team.

limited evidence of any tangible income generation into 2025/26 (opportunities under review, but no clear evidence of success to date).

We note **limited evidence of cluster level monitoring** where funding has been awarded. Clusters are asked to provide updates on project performance, and how funding has been used; however, we note significant variations in depth, quality and how outputs and outcomes are tracked over time. Whilst proportionately should apply, additional efforts could be undertaken to verify the use and impact of funding. We also note that some pan-cluster projects (e.g. Cyber Skills Research in Year 2) appear to lack a clear output or evidence of output, and it is not clear how the funding has been utilised or generated impact, despite a review of project summaries undertaken by the evaluation to explore participation.

There have been some **challenges in the delivery model and leadership approach.** For example, the core strategy of UKC3 appears to have shifted over the four-year period from funding clusters to that of a 'super-connector'. In addition, the working groups on skills, ecosystem development and innovation have been paused, indicating potential disengagement from the core activities or impact of the initiative.

The overall value for money of the scheme remains unclear. The direct funding for clusters may have been beneficial for resourcing current operations; however, the longer-run sustainability is unclear. This either indicates a sustained need for public funding, or limited impact of UKC3 in generating a commercially sustainable model post-2025.

It is worth noting that, in response to reduced funding, UKC3 has made investments in external consultancies for strategy, income generation and marketing efforts. The research team does not have a clear view of the final outputs of these exercises.

Based on the current evidence, there is a **risk of a fractured cluster ecosystem post-2025.** The grant programme has reached its conclusion as of May 2025, and funding will not be continued beyond this period. Half of cluster leaders surveyed (50%, n=10) disagreed that their cluster's delivery can be sustained independently (outside of UKC3 or other public funding) going forward. Only 10% of cluster leaders responding to the survey reported they have secured long-term funding in the past 12 months. This suggests that some clusters may reduce or cease activities into the next financial year, or move to a more voluntary model, subject to wider funding availability.

It is important to consider alternative mechanisms for future grant funding, for example Cyber Local. The new Cyber Local scheme may provide a more appropriate mechanism for grant funding, given the need to apply, monitor and deliver specific projects in local areas related to cyber skills, innovation, and ecosystem development.

Annex One: Methodology

The evaluation team employed a mixed method evaluation approach, including a process evaluation and theory-based evaluation, utilising several data and evidence sources. A key component of this evaluation was assessing "how the programme is being delivered, perceptions of quality and effectiveness and to evaluate the impact the programme has had" (process evaluation). While determining impact is beyond the scope of this evaluation, our theory-based contribution analysis approach was used to build a credible performance story,[19] showing whether UKC3 contributes towards observed outcomes.

Research questions

The key research questions explored in this evaluation are outlined below. These are divided into two strands of the evaluation: the process evaluation (i.e., relating more to the implementation of the programme), and theory evaluation (i.e., relating more to the emerging outcomes and impacts of the programme).

Process Evaluation

UKC3:

- Is the UKC3 programme being implemented as designed?
- What worked well, or less well, for different clusters and why?
- How many clusters are receiving funding?
- How are clusters using funding?
- How could this funding process be improved?
- What can be learned from the delivery methods used by the UKC3?
- Are all clusters aware of the programme?
- Does the programme coordinate effectively with other stakeholders including the clusters?
- Are there members of the target population who are not receiving services or clusters that are underrepresented?

Clusters:

- Are resources used effectively and efficiently?

[19] Mayne John (1999) "Addressing Attribution through Contribution Analysis: Using Performance Measures Sensibly", discussion paper, Office of the Auditor General of Canada.

- Are cluster resources and facilities adequate to utilise programme funding?
- Do recipients of programme funding use money in a way that complies with funding restrictions?
- Does programme performance vary between clusters?
    - If so, why is this?
- What is the governance structure of clusters, does it work and why?
- Are clusters satisfied with the programme and programme procedure?
- To what extent do the clusters benefit from the UKC3 programme?
- To what extent could the clusters operate the same level without UKC3 intervention?
- How can clusters and the UKC3 look to become less reliant on government funding over the course of the programme?
- What steps have clusters taken to become self funded? How successful or not have those been?

Theory Evaluation

Has the programme led to:

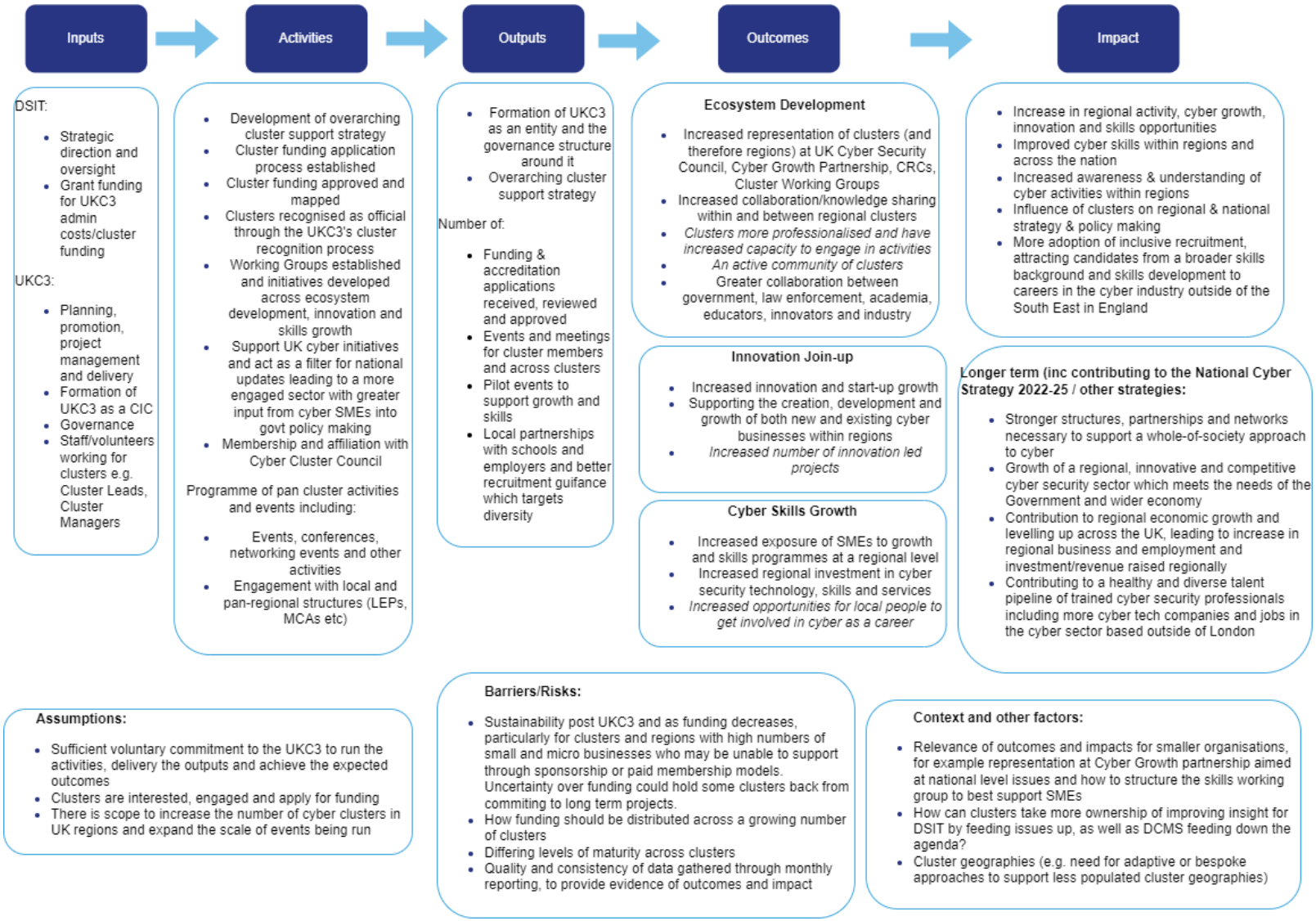
- more formalised cluster governance, both at a cluster level and at UKC3 board level?
- an increase in the number of networking, collaboration and knowledge sharing opportunities and events between clusters and for cluster members?
- increased representation of clusters (and therefore regions) in organisations such as Cyber Council, Cyber Growth Partnership, Cyber Resilience Centres, Cluster Working Group?
    - How does this vary between clusters?
- greater knowledge sharing between clusters and DSIT.
- an increased number of local partnerships with schools and employers.
- better recruitment guidance focused on increasing diversity to support the adoption of more inclusive recruitment and skills?
- clusters becoming less reliant on government funding?
- clusters becoming self-sustainable and self funded?
- DSIT would also like to understand how the above varies geographically from cluster to cluster?

The UKC3 Theory of Change

A key part of this evaluation was developing and using Theory of Change (ToC) for the UKC3 programme, outlined in Figure 13 below. The ToC outlines all the key elements that constitute the UKC3 programme, which was used to better understand all the causal mechanisms that led from initial inputs (e.g., DSIT funding of the programme) to impact (e.g., contributing to local economic growth). The initial ToC evolved based on feedback collected throughout the lifetime of the evaluation. During the first year of the evaluation (August 2022 - March 2023), the evaluation team held a ToC workshop[20] and several interviews with cluster leads to ensure that the key mechanisms, as well as a wider narrative based on assumptions, barriers, risks and context, are all captured. It is worth noting that one of the key features of this ToC is that the outcomes have been structured around the three strategic pillars (ecosystem development, innovation, and cyber skills growth), to align with the programme and focus of this evaluation.

[20] The ToC workshop engaged with 17 stakeholders representing 13 clusters in total.

Figure 13 UKC3 Programme Theory of Change



Data collection

Interviews

Interviews for year three of the evaluation were conducted remotely by MS Teams between December 2024 and March 2025. Qualitative data was analysed thematically using a Framework approach[21]. Themes are reported as strong or major where explicit comments were made by interviewees and/or it was a common theme. The table below outlines the number of interviews completed in each phase of the evaluation.

Table 8 Interview samples for each evaluation phase

Type of interview	Phase 1 (2022/23)	Phase 2 (2023/24)	Phase 3 (2024/25)
Cluster leaders	11 (11 clusters)	16 (13 clusters)	5 (5 clusters)
Cluster members	n/a	n/a	5
UKC3 board members	n/a	3	n/a
Wider stakeholders	n/a	3	1
UKC3 representatives	n/a	n/a	2
Total (combined) sample	*11*	*22*	*13*

Cluster leaders

Cluster leaders included cluster directors, leads, and managers. They had a mix of experience, with some participants having been involved in UKC3 and their clusters since the outset, whereas others had come into post as recently as 3-4 months ago. Cluster leads described their role as leading on overall strategy and being the individual ultimately responsible for the cluster. Cluster directors had similar responsibilities to a cluster lead, however, were often part of a small number of directors operating collectively as a lead. Cluster managers were typically paid employees of the cluster and were responsible for day-to-day operations. This includes the coordination and running of

[21] Liz Spencer, Jane Ritchie, Jane Lewis and Lucy Dillon - National Centre for Social Research, “Quality in Qualitative Evaluation: A framework for assessing research evidence”, 2003

events, reporting into UKC3, overseeing commercialisation opportunities, marketing, and supporting member queries.

Interviews explored cluster leaders' understanding of the role of UKC3, how UKC3 funding is being used, views on outcomes for clusters and the wider cyber sector, and any future funding plans.

Cluster members

Interviews with cluster members explored experiences of being involved with a UKC3 recognised cluster, awareness of UKC3, and views on how UKC3 can support them and the wider sector going forward.

Wider stakeholders

The wider stakeholder worked for a professional body in the UK Cyber sector and had regular engagement with UKC3. The interview explored awareness and understanding of the role of UKC3, partnership working, and views on outcomes the wider cyber sector.

Surveys

Cluster member surveys

Surveys were conducted, targeted at individuals and organisations who are members of cyber clusters. The purpose of these surveys was to collect evidence on the views of individuals regarding cyber cluster activities, measure levels of awareness among cluster members about UKC3, as well as improve our understanding of needs in each area and potential benefits to cluster members from cluster activity.

The online survey questionnaire was hosted in Microsoft Forms and designed by Ecorys and PE. Surveys were disseminated through UKC3 and by contacting cluster leads who then distributed through various channels such as newsletters, mailing lists and social media. The data collected through these surveys was anonymous and confidential, meaning that it was aggregated to determine patterns across clusters and UKC3, without attributing any responses to individuals or individual organisations.

The survey asked questions about the characteristics of the organisations that cluster members work in (e.g., name, type, size, etc.), and the name of the cluster they are involved with. There were also questions around the type and frequency of involvement, while the main focus was to gather views around cluster activities and whether/how these might be beneficial for cluster members. Lastly, the survey included a question to gauge awareness of UKC3, and to understand how that awareness was cultivated in the cluster area.

The questionnaire included a range of different question styles, for example Likert scales (e.g., from “strongly agree” to “strongly disagree”), to multiple choice questions, as well as ranking questions. Survey analysis was conducted on all questions, which entailed producing summary and descriptive statistics (frequencies, percentages, etc.) at the programme/national level. Survey analysis results are reported in tables and graphs.

The survey collected a **total of 193 responses across 15 areas with recognised cyber security clusters** (CSCs) over the last three years of this evaluation. The total samples and cluster representativeness is outlined in the following table:

Table 9 Cluster Member survey samples and representativeness

Survey	Sample size (n)	Number of clusters represented
Cluster member survey 2024/25	37	15
Cluster member survey 2023/24	91	15
Cluster member survey 2022/23	65	12
Total (combined) sample	*193*	*17*

The majority of respondents reported working in private organisations that are members of the cluster (63%). These organisations, varied in size[22], with 33% micro, 18% small, 7% medium, 35% large, and 7% independent/sole traders. As was expected, most responses came from organisations in Cyber security and intelligence (50%), and IT services (33%). Respondents’ characteristics have been consistent across the three waves of the cluster member survey, allowing for robust comparisons.

During the last wave of the cluster member survey (2024/25), respondents had the option to express interest for an interview with the evaluation team, which led to further, more in-depth data collection.

Cluster leaders survey

An additional survey was also conducted during this last year of the evaluation (2024/25), targeted towards cluster leaders. The survey followed the same approach as the cluster member survey, it was conducted online, using Microsoft Forms, designed by Ecorys and

[22] Micro = less than 10 employees and/or turnover under £2 million
Small = between 10 and 50 employees and/or turnover under £10 million
Medium = between 50 and 250 employees and/or turnover under £50 million
Large = more than 250 employees and/or turnover over £50 million

PE. It was distributed directly to cyber cluster leaders and with the support of UKC3 and DSIT.

The cluster leaders survey collected **10 responses, across 9 clusters** (more than 1person could respond as a “cluster leader”, if they have a leading position within the cluster. Most respondents (60%) were general managers/leaders of a cluster, with some leading on marketing/ events (30%), business support/ operations (30%) and/or acting as consultants/ strategic advisors (20%). The majority (80%) were not involved directly with UKC3 activity, while 20% were UKC3 board members.

As in the cluster member survey, the cluster leaders survey also allowed respondents to opt-in for an interview with the evaluation team, which led to further, more in-depth data collection.

Contribution Analysis

The Contribution Analysis approach used in this report is a **theory-based approach** aimed towards answering the above-outlined research questions. As mentioned above, a theory-based approach was chosen as an alternative method to assess outcomes and impact, as a counterfactual impact evaluation (CIE) was not feasible to use for this programme. This approach assessed the **contribution** of UKC3 to positive outcomes and impacts, as opposed to CIE approaches which aim to identify attributable outcomes and impacts (i.e., isolating and quantifying the ‘net effect’ of UKC3).

The evaluation team synthesised feedback from all data sources to present an assessment of the contribution of UKC3 to the desired outcomes, relative to other factors that could have contributed to these outcomes (for example work that clusters were already doing before becoming a recognised UKC3 cluster). This approach was implemented following the below steps:

1. Identifying the attribution problem
2. Developing a Theory of Change for the programme, including assumptions, barriers/ risks, and context/ other factors affecting it
3. Assemble existing data and evidence, and assess the contribution story, as well as any challenges to it
4. Seek out additional evidence
5. Revise and strengthen the contribution story if possible

Step 1 was explored during a previous phase of the evaluation (2022-2023), and further investigated during subsequent phases of the evaluation (2023-2024 and 2024-25). Attributing certain outcomes and impacts to UKC3 has been challenging, as positive outcomes are affected by both cluster and UKC3 activity. In some cases, this was difficult to measure, and stakeholders suggested that it was not clear whether a positive outcome was directly caused by UKC3.

Step 2 (developing a Theory of Change) was also developed during the initial phase of the evaluation (2022-2023), during which a Theory of Change workshop was held including key stakeholders from all clusters. The Theory of Change was reviewed again during subsequent evaluation periods to ensure that it is up to date and that all the assumptions, risks, and context are still relevant to the UKC3 programme.

Step 3 was undertaken during this current (2024-2025) and the previous evaluation period (2023-24), and involved analysing and triangulating all available data sources for this evaluation: cluster member surveys, interviews with key stakeholders, and a review of key documentation such as UKC3 reports and raw data provided by UKC3. As part of this analysis we developed a **Contribution Analysis matrix**, mapping each outcome of the ToC against data collection method and type of stakeholder, where possible. The strength of evidence for each outcome was assessed using a RAG-type score (red-amber-green), rating each outcome with one of the following: strong evidence, moderate evidence, weak evidence, and no evidence. The strength of evidence of each data source (surveys, interviews, and documentation) was first assessed and then an overall score was determined for each outcome across all data sources. The completed matrix is shown at the end of this section.

Step 4 was undertaken during this evaluation period (2024-25) and was informed by evidence gathered during the previous phase. For example, in this phase the evaluation included interviews with cluster members to explore awareness of UKC3 amongst the wider community and how outcomes and impact were perceived by those involved in cluster activities. An additional data request was also sent to all clusters to provide with lists of member organisations and other data to help understand who is benefiting from UKC3/cluster funding.

Step 5 was undertaken during this evaluation period (2024-25) and involved updating the Contribution Analysis matrix based on the evidence gathered in the previous steps. For example, as more evidence was available about ecosystem development the overall rating of ‘moderate’ was replaced with ‘strong’.

Table 10 Contribution Analysis Matrix

UKC3 Strategic pillar	**Outcomes (ToC)**	**Evidence from programme documents and reports**	**Evidence from cluster leader, cluster member & board member interviews**	**Evidence from wider stakeholder interviews**	**Evidence from cluster organisation survey**	**Cluster leads survey**	**Evidence from other existing information** (previous evaluation, cyber sector analysis, other literature, etc)	**Overall score**
Ecosystem Development	Increased representation of clusters at UK Cyber Security Council, Cyber Growth Partnership, CRCs, Cluster Working Groups	**Moderate evidence** - UKC3 reports mentioned attendance at events such as CyberUK, and engagement with regional CRCs. However, they noted the need for improved representation and branding at future events	**No evidence -** Cluster leaders, cluster members and board members had limited feedback on the representation of the clusters in these groups. They did identify that these groups have different aims and collective working is challenging given this.	**Moderate evidence** - Wider stakeholders described UKC3's role in supporting the Cyber Access Network (CAN) led by the UK Cyber Security Council	N/A	**Moderate evidence** - 80% agreed/ strongly agreed that there was increased representation of clusters in at UK Cyber Security Council, Cyber growth Partnership, CRCs, and Cyber Working groups.	N/A	**Moderate evidence**

	Increased collaboration/knowledge sharing within and between clusters	**Strong evidence** - collaboration is mentioned throughout UKC3 reports, with a range of pan-cluster events, workshops, and shared initiatives underway.	**Strong evidence** - Cluster leaders, cluster members and board members saw this as the area of greatest impact. They commented on connections made between cluster members and across clusters. Some did comment the increased collaboration may not be attributable solely to UKC3.	**Strong evidence** - Wider stakeholders agreed UKC3 has facilitated a network of clusters and enabled clusters to connect. Some did comment the increased collaboration may not be attributable solely to UKC3.	**Strong evidence** - Survey respondents reported "collaborating with other member organisations" as the second most beneficial cyber cluster activity. Survey respondents overall agreed/ strongly agreed that cluster activities are benefiting member organisations in several ways, the highest rated was increasing knowledge sharing (82%).	**Moderate evidence -** 100% agreed/ strongly agreed there isincreased collaboration/ knowledge sharing within and between clusters	**Moderate evidence** - The 2023 DSIT Cyber Security Sectoral Analysis notes (via qualitative interviews by Ipsos) that some UK cyber security businesses have noted that: *Cyber Security Clusters were also considered good ways to hear about new opportunities, particularly those looking for opportunities to work with the public sector or in sectors that were particularly active in their region.*	**Strong evidence**

	Clusters more professionalised and have increased capacity to engage in activities	**Moderate evidence** - UKC3 reports set out the increased capacity of clusters, with additional certified clusters in place, and more with paid staffing structures. However, the extent of professionalisation remains ongoing - and some clusters have noted the potential long-run challenge in funding this model sustainably.	**Strong evidence** - Agreement from cluster leaders and board members that clusters have professionalised as a result of UKC3. For example, producing strategies, having formal memberships, and employing staff in some instances.	**Strong evidence** - Wider stakeholders felt clusters were more professionalised since the establishment of UKC3.	N/A	**Moderate evidence -** 60% agreed/ strongly agreed that their clusters are more professionalised and that they have increased capacity to engage in activities	**Moderate evidence -** 35% of cyber security businesses engaged with a regional cyber cluster (CSSA 2025)	**Moderate evidence**
	Active community of clusters	**Strong evidence** - there are now 18 established clusters, several of which have been formed / enhanced as a result of UKC3 funding.	**Strong evidence** - Closely tied to the increased collaboration between clusters, cluster leads and board members believed UKC3 has contributed to an active community of clusters. They evidenced this with the range of cluster events and activities. Cluster members described networking and	**Moderate evidence** - Wider stakeholders acknowledged how some clusters engage with their local community through event and activities, however they did not feel this was universal.	N/A	**Moderate evidence -** 100% agreed/ strongly agreed there is an active community of clusters	N/A	**Strong evidence**

			attending events as the main benefit of being a member of their cluster.					
	Greater collaboration between govt, law enforcement, academia, educators, innovators, and industry	**Moderate evidence** - UKC3 reports set out multiple engagements between clusters and government, law enforcement, etc. This included participation in initiatives such as CyberFirst and CRCs.	**Strong evidence** - Multiple cluster leaders and a wider stakeholder commented on the close relationships between clusters and academia, with partnerships established in some cases. For example, UKC3's involvement in the Cyber Access Network and the Cyber Security Research and Networking Environment (CRANE) NetworkPlus was highlighted as showcasing UKC3's role in bringing together academia and industry. Cluster leaders and	N/A	**Moderate evidence** - Good collaboration reported but evidence not sufficient to say if this consistent across all the different types of stakeholders. Members had mixed views about the degree of cyber cluster influence -half (50%) agreed/strongly agreed that cluster activities are influencing regional and national strategy and policy-making.	**Moderate evidence -** 80%) agreed/ strongly agreed there is greater collaboration between key stakeholders in cyber security (government, law enforcement, academia, educators, innovators and industry	**Moderate Evidence:** UK Cyber Security Sectoral Analysis (2023): *"One participant ... felt that cluster had raised their business' maturity and knowledge of the cyber ecosystem."*	**Moderate evidence**

			board members also reported that UKC3 has acted as a conduit between government and the clusters, although did not mention if this had led to greater collaboration. Partnerships with other organisations was seen as an area for further progress in the future.					
Innovation join-up	Increased innovation and start-up growth	**Weak evidence** - the reports identified limited examples of innovation and start-up growth, including CyberNorth's Cyber Innovation Centre project funded by Cyber Local.	**No evidence** - No cluster leaders or board members referenced any projects or activities related to increased innovation and start-up growth.	**No evidence** - Wider stakeholders struggled to identify any impacts of innovation start-up.	**Weak evidence** - respondents had mixed views when asked about how clusters contribute to innovation in services and products in their area. less than half 45% agreed or strongly agreed that clusters help improve the quality of their organisation's products and services, 36% agreed/ strongly agreed that clusters helping to develop innovations in	**Weak evidence** - mixed views - 40% neither agreed nor disagreed that UKC3 has contributed to increased innovation and start-up growth (30% agreed/ strongly disagreed and 30% disagreed/ strongly disagreed)	N/A	**Weak evidence**

					cyber within their organisation			
	Supporting the creation, development and growth of both new and existing cyber businesses within regions	**No evidence** - there was no evidence to link the role of UKC3 with business incorporations.	**No evidence** - Only one cluster leader referenced an activity associated with supporting the growth of new and existing cyber businesses.	**No evidence** - Wider stakeholders struggled to identify any impacts of innovation start-up.	**Weak evidence** - respondents had mixed views when asked whether clusters help grow their organisation, as 30% agreed/strongly agreed, 44% neither agreed nor disagreed, and 13% disagreed/strongly disagreed.	**Weak evidence** - mixed views - 40% neither agreed nor disagreed that UKC3 has contributed in supporting the creation, development and growth of both new and existing cyber businesses within regions	**No evidence** - 2,165 active cyber security businesses (2025 CSSA) - however, no evidence to suggest linked to cluster activity.	**Weak evidence**
	Increased number of innovation-led projects	**Weak evidence -** The UKC3 End of Year report 2023-24 detailed a £12,000 allocation for innovation funding to three clusters. Limited detail on impact is provided	N/A	**No evidence** - Wider stakeholders struggled to identify any impacts of innovation start-up.	N/A	**Weak evidence -** 44% neither agreed nor disagreed that UKC3 contributions have led to an increased number of innovation-led projects	N/A	**No evidence**

Cyber Skills Growth	Increased exposure of SMEs to growth and skills programmes at a regional level	**Moderate evidence** - there was some mention of clusters engaging with the Cyber Runway and similar programmes.	**Weak evidence** - Cluster leads and board members stated the importance of SMEs to the clusters, however only one cluster referenced skills activities that benefit this group.	**No evidence** - Wider stakeholders struggled to identify any impacts of cyber skills growth.	**Weak evidence -** clusters members felt that cyber clusters are positively contributing to the growth of cyber skills in their area. However this is not necessarily linked to UKC3 and potentially driven by specific clusters.	**Weak evidence -** Less than half (40%) agreed/strongly agreed there has been increased exposure to SMEs to growth and skills programmes at regional level	**Moderate Evidence:** The CSSA notes the benefit of programmes such as Cyber Runway being able to work with regional clusters to promote increased exposure to growth programmes (e.g. Runway events in Aberdeen, Belfast, Cardiff, Sheffield etc)	**Weak evidence**
	Increased regional investment in cyber security technology, skills, and services	**No evidence** - some clusters mentioned engagement with skills initiatives - however, this can not be linked to increased regional investment in cyber technology or skills.	N/A	**No evidence** - Wider stakeholders struggled to identify any impacts of cyber skills growth.	N/A	**Weak evidence -** less than a third agreed/ strongly agreed there has been increased regional investment in cyber security technology, skills and services	**Weak evidence** - each region in the UK (CSSA 2024) has at least one deal in a cyber security firm for the first time (2023). However, this can not be attributed to UKC3 activity.	**Weak evidence**

	Increased opportunities for local people to get involved in cyber as a career	**Moderate evidence** - there was some mention of clusters (E.g. Yorkshire) funding student places for entry-level cyber qualifications, engaging with schools and CyberFirst programmes regionally.	**Moderate evidence** - Cluster leads, cluster members and board members referred to activities aimed at getting local people into cyber. These activities were not universal across the clusters and in most instances targeted univerisity students and school pupils.	**Moderate evidence** - One wider stakeholder described UKC3's role in supporting the CAN network which supports aspiring cyber security professionals.	**Moderate evidence -** Survey respondents reported positive views on the ways clusters contribute to networking and bringing cyber professionals together in cluster areas - help provide opportunities for networking (85%), while most (65%) also agreed or strongly agreed that clusters contribute to linking young professionals in cyber with their (or other) organisations in their area. Most agreed/ strongly agreed that clusters contribute to: increasing knowledge sharing (82%), improving the skills and knowledge of professionals in their area (77%), and improving their individual cyber skills and knowledge (72%).	**Moderate evidence -** mixed views among cluster leads -50% agreed/ strongly agreed there are increased opportunities for local people to get involved in cyber as a career	N/A	**Moderate evidence**

Legend: Strength of Evidence (SoE) RAG score	
Strong evidence	The finding is supported by multiple data sources (good triangulation), which are of strong quality.
Moderate evidence	The finding is supported by multiple data sources of lesser quality (moderate triangulation), or by fewer data sources of higher quality.
Weak evidence	The finding is supported by few data sources (limited triangulation) of lesser quality.
No evidence	The finding is supported by very limited evidence (single source) or by incomplete or unreliable evidence. In the context of this evaluation, findings with this ranking may be preliminary or emerging, with active and ongoing data collection to follow up.

Analysis and reporting

The analysis results shown in this report relate to the **process evaluation** strand (i.e., the effectiveness of the implementation of the UKC3 programme), and the **theory-based evaluation** strand (i.e., the contribution analysis used to assess the contribution of UKC3 to certain outcomes).

Qualitative data was analysed, and themes, views and experiences were compared to identify similarities, differences and other patterns emerging from the data. Quantitative analysis began with comprehensive data checking and cleaning. As with the qualitative analysis, findings were organised under the research questions for each strand (process evaluation and theory-based evaluation). A contribution analysis matrix was used to triangulate findings across qualitative and quantitative approaches. This plotted the findings against stakeholder groups and data collection methods, with each finding coded to show the extent of agreement or disagreement across each key theme or question, thereby providing clarity and weight behind findings.

Annex Two: Monitoring, Evaluation and Learning

UKC3 monitoring and reporting mechanisms have evolved significantly since their inception. Initially, combined operational and project monthly reports were used, but these were later separated into two distinct quarterly reports, and a monthly budget tracker. The most recent system included operational quarterly reports, and monthly budget reports, which collected both quantitative and qualitative data on key metrics such as funding spent, cluster memberships, events held, and emerging risks. This data was aggregated and analysed by UKC3 to produce half-year and end of year reports to DSIT. The evaluation team has been working closely with UKC3 to provide suggestions on how to improve monitoring, which has resulted in changes such as quantifying some of the questions, adding data validation on numeric inputs, and making the reports shorter and less resource-intensive for clusters. Clusters have also been able to provide with more (and more detailed) information as they reached higher levels of maturity as recognised clusters in the UKC3 ecosystem.

Despite improvements, cluster leaders have criticised the process for being long and onerous, suggesting that UKC3 should provide aggregated feedback to clusters to further aid knowledge sharing across clusters and ecosystem development. Future monitoring and reporting improvements could still be made, including capturing more detailed data on cluster progress, better quantifying outcomes and impact of clusters, standardizing membership definitions across clusters, capturing qualitative feedback, and enhancing engagement with clusters through feedback loops. Outcome and impact metrics should align with the Theory of Change (see Annex One), focusing on ecosystem development, innovation, and cyber skills growth.