Collaboration is a key vehicle for supporting startups seeking the investment and economic resources they need to test, prove concepts, commercialise and scale

COME TOGETHER

Steven Wood *reveals why the UK's defence and security startups are key to meeting global demand for new solutions*

In light of geopolitical developments and an increasingly insecure international environment, global demand for defence and security solutions has surged in recent years. Fuelled by countries intent on protecting their airspace, surveilling illicit activity, predicting future threats and defending critical infrastructure, startups within the defence and security space present the perfect solution to keep up with demand for innovative products and capabilities, and drive long-term economic growth.

To keep up with demand, the defence and security industries are accelerating at pace, but keeping up with innovation is by no means an easy feat. The global market continues to see new and emerging players with non-traditional solutions surging in terms of relevance. The UK is, however, unique in that it is able to build upon its rich legacy of defence excellence, that continues to deliver strategic value in today's uncertain geopolitical climate.

At Digital Catapult we continue to support pioneering startups that present novel and necessary solutions in different sectors, including defence and security. By developing new programmes and projects in collaboration with defence leaders such as Thales and BAE Systems, we are establishing a pipeline of innovators that will disrupt the global defence and security ecosystem, challenge the norm, and maintain the UK's competitive edge. To effectively do this, however, sustained support of the UK's defence and security startups is essential to ensure that it keeps up with global demand for innovation, and provides the level of support that is necessary to get the best out of the innovator ecosystem.

The UK has long had a global reputation for defence and security excellence, which has been driven by a commitment towards international collaboration, continued research and development, and a focus on innovation. While esteemed players in the sector maintain global dominance, startups in the space are often overshadowed by new businesses in other sectors that are perceived to generate quicker returns in the short term such as fintech, healthtech and createch. Although learnings from different technology areas can be applied to inform defence and security solutions, such as cyber security, Digital Twins and gamification of specific environments, primary defence and technology startups may be overlooked. What this means is that startups that could generate significant returns in the long-term, including those operating within the defence and security space, often lack the support necessary for them to commercialise and scale.

Consequently, we are failing to see enough UK startups succeed, scale and commercialise in this sector despite their potential. On top of this, the level of startups receiving investment and support in this space is inhibiting the success that is necessary for the UK to maintain its competitive edge, and its position as a global frontrunner on defence and security related innovation. Pitchbook and the Financial Times recently published data showing that global deal activity from private equity and venture capital investors had increased by 2022 to $20-billion in the defence space, up from an annual average between 2015-2019 of $10.4-billion. Although this research looks positive on the surface, given the US's prominence within the aerospace and defence sector, that same data saw Europe only contributing around a tenth of this figure, demonstrating the need for investment-readiness support, private-sector partnerships and technological expertise.

While there are, however, various initiatives to promote defence tech in Europe (including both the EU and the UK) – including the new $1-billion NATO Defence Innovation Fund, at Digital Catapult, we recognise the economic value and strategic importance of startups primarily within the UK defence and security space. This is why we work with some of the UK's most promising startups, providing them with the support necessary to develop scalable and successful solutions. The UK is home to defence and security startups with immense potential, but in order for these companies to meet their goals, greater support is necessary – not only from organisations and innovation agencies like us, but from larger players in the space too. This will ensure that startups receive support on all fronts including a route to eventual commercialisation and expansion.

I've seen firsthand how startups in the defence and security space benefit from collaborating with larger companies. These household names have impressive resources and the facilities necessary to allow startups to trial groundbreaking new solutions. The defence and security industries are notorious for their competitive nature, but what we have been able to effectively achieve is to bring large defence players together in a commercially neutral environment. This allows for knowledge sharing, investment and fruitful collaboration between startups and larger organisations that can ensure the successful development of new defence solutions. Such activity will generate long-term growth for the UK, as well as play a pivotal role in maintaining the UK's defence and security expertise.

STARTUPS HOLD A MAJOR KEY TO SHARPENING THE UK'S DEFENCE AND SECURITY EXPERTISE

When we combine innovative new solutions with the expertise of larger companies, new products can be developed with far-reaching benefits and economic value. For example, we have developed a Skills Passport in the nuclear energy industry, which allows employers to rapidly verify that new members of staff satisfy their requirement in terms of skills, qualifications and experience, using a shared blockchain based ledger. This creates a triangle of trust between the employee, the employer and a central skills and qualifications authority – using immutable and verifiable records.

This has been created for the Nuclear Decommissioning Authority by a UK startup called Condatis, under our supervision. There are many potential applications in the defence sector where the concept of being able to prove that you are a suitable, qualified and experienced professional (SQEP) is well established. Such collaborations like the Skills Passport empower startups to refine products, ensuring long-term viability. By creating impactful solutions through authentic cooperation, startups contribute to the growth of sectors crucial for national security and economic prosperity.

Moreover, collaboration is also a key vehicle for supporting startups seeking the investment and economic resources they need to test, prove concepts, commercialise and scale. Grant activity by UK defence technology companies was at its highest between 2017 and 2021, with the value of these grants reaching a peak of £50.5-million in 2021, demonstrating the willingness of larger companies and organisations to invest in startups and other companies that demonstrate the most potential. The obstacle for many startups however, is proving their worthiness of grants and investment in the first instance, and this is something that we support startups with, because broader defence and security success can only be achieved by supporting UK startups in the first instance.

As the UK defence industry is set to experience substantial growth, increasing from £49.1-billion in

2023 to £57.2-billion by 2028, supporting startups within this space will be critical to UK's GDP in the mid-to-long-term. In fact, between 2013 and 2022, the total value of equity investment secured by UK defence tech companies rose from £15.4-million to a record £295-million, and the number of deals almost doubled, rising from 22 to 43 according to Beauhurst. This expansion and increase in investment underscores the value of defence and security in terms of job creation and attracting international investment. Without a doubt, startups play a critical role in this. By offering support, be it through investment, technological expertise, mentorship or providing other resources, startups will receive the assistance they need to eventually contribute significantly towards the UK economy, while simultaneously sharpening its defence capabilities.

THE OBSTACLE FOR MANY STARTUPS IS PROVING THEIR WORTHINESS OF GRANTS AND INVESTMENT

Supporting startups in the defence and security space is not only necessary to grow the UK, but is also key to ensuring that UK companies keep up with innovation on the global stage. The UK is not the only country renowned for its defence capabilities, and innovative new solutions are being developed in other economies at pace. As it stands,

more sophisticated technologies are being developed that point towards a paradigm shift, in which the focus will be on unmanned platforms and automation. The timing of this transformation depends primarily on the development of computing power, and the deployment of so-called 'edge' processing along with the fast, secure networks that support it. Geopolitically, competition to develop the next generation of defence tech, including the intelligence that underpins it, is heating up.

As such, focusing on the next generation of British startups within defence and security will be key to developing and honing the innovation necessary to ensure the UK remains at the forefront of military expertise. Supporting startups will thus not only drive economic growth, but will also ensure new solutions align with the needs of the global community and allied partners.

Startups hold a major key to sharpening the UK's defence and security expertise in the modern era. Those that hold the most potential must be supported in order to scale and commercialise their solutions, driving economic growth and strengthening the UK militarily expertise. The country's startups deserve greater support, which will see a new era of defence and security expertise come about, new jobs created and further inward investment achieved.

This is what we are working to achieve through our programmes, partnerships and new products across the public and private spheres of defence and security. Our work continues to drive economic growth of these key sectors and sharpen the country's competitive edge ●

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