Helps organisations discover innovative cyber companies, supports investment and highlights key opportunities across the UK sector.

DCMS and techUK have developed Cyber Exchange to help map the UK cyber security sector.

Mission and objectives of Cyber Exchange:

1. Continue to map the UK cyber sector; promoting cyber capability across the UK.

2. Stimulate investment in the cyber sector, giving organisations the tools to understand the cyber security sector.

3. Promote engagement across national and regional cyber security clusters.

4. Providing a platform to access the latest opportunities and events, from both industry and Government.

Global startup & venture capital intelligence platform.

Dealroom.co is the foremost data provider on startup, early-stage and growth company ecosystems in Europe and around the globe.

Founded in Amsterdam in 2013, we now work with many of the world's most prominent investors, entrepreneurs and government organizations to provide transparency, analysis and insights on venture capital activity.
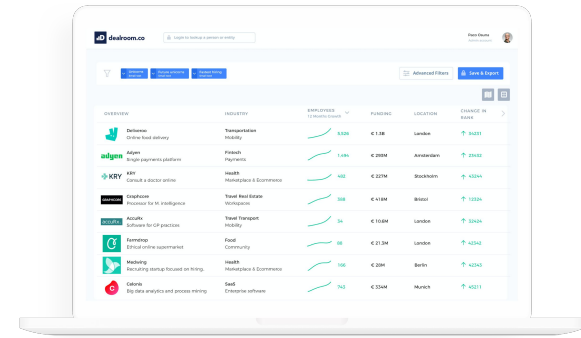
techUK

Championing technology's role in preparing and empowering the UK for what comes next, delivering a better future for people, society, the economy and the planet.

TechUK represents the companies and technologies that are defining today, the world that we will live in tomorrow.

The tech industry is creating jobs and growth across the UK. Over 850 companies are members of techUK. Collectively they employ more than 700,000 people, about half of all tech sector jobs in the UK. These companies range from leading FTSE 100 companies to new innovative start-ups. The majority of our members are small and medium sized businesses. We create a network for innovation and collaboration across business, government and stakeholders to provide a better future for people, society, the economy and the planet.

Department for Culture Media & Sport

The Department for Digital, Culture, Media & Sport (DCMS) helps to drive growth, enrich lives and promote Britain abroad.

We protect and promote our cultural and artistic heritage and help businesses and communities to grow by investing in innovation and highlighting Britain as a fantastic place to visit. We help to give the UK a unique advantage on the global stage, striving for economic success.

DCMS is a ministerial department, supported by 47 agencies and public bodies.

CYBER EXCHANGE | **dealroom.co**

Key takeaways.

UK Cyber security startups are now worth $30B.

Value is concentrated in younger startups compared to the UK average, with 78% of total value created by startups founded after 2010. University spinouts account for 18% of total value.

Combined enterprise value of UK Cyber security startups

Founded in the UK, HQ in the US

HQ in the UK

$30B

$2B

2016 2017 2018 2019 2020 2021 2022 YTD
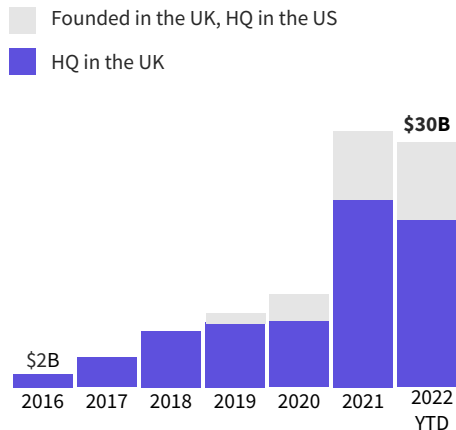
UK's Cyber ecosystem grew faster than the top global ecosystems.

The combined enterprise value of HQ'ed and founded startups has grown 7.6x since 2017, faster than US, China, EU and Israel.

There is room to grow still, as the UK Cyber ecosystem remains 24x smaller than the US's, and 4x smaller than Israel's.

EV growth of Cyber security startups (2017-2022 YTD)

UK	x7.6
China	x7
Israel	x4.8
EU	x4.5
US	x3.8
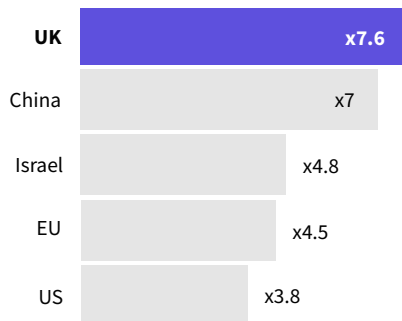
UK Cyber security startups raised more than $600M in 2022 YTD, a record.

Record investment has been driven by an increase in late stage and megarounds, while early stage funding is at its lowest since 2017. Foreign investors are driving mid to late stage rounds, contributing more than 67% of funding in 2022 YTD.

Investment in UK Cyber security startups

$607M

2016 2017 2018 2019 2020 2021 2022 YTD

CYBER EXCHANGE | dealroom.co
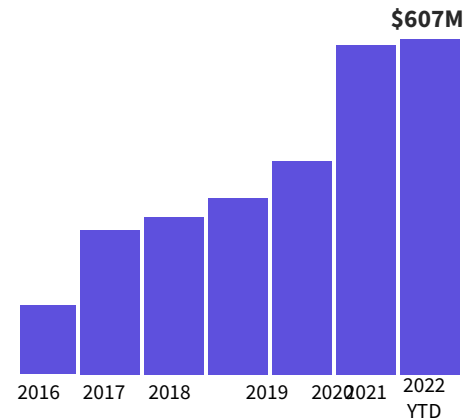
Foreword

Cyber security underpins our digital future. Increasingly at work and at home digital technology enables the activity of the UK economy and society. Cyber security companies provide the leading-edge technologies and solutions that ensure the UK is resilient in the face of an ever-changing threat landscape.

As the significance of Cyber security has grown, we have seen the UK cyber sector grow rapidly, with DCMS measuring the growth of the sector every year in its Cyber Security Sectoral Analysis. In the latest Sec, there were an estimated 1,838 cyber companies operating in the UK, with the sector generating £10.1bn in revenue and employing over 52,700 people.

This growth drives economic prosperity, whilst in turn strengthening our National Security capability, pulling through leading-edge technology, and fostering new talent. This is a virtuous circle. Cyber security has long since been a strategic focus for UK Government, with the publication of the third National Cyber Strategy in 2021 renewing that commitment whilst developing a whole-of-society approach to strengthening resilience.

This strategic long-term approach has gone some way to ensuring the UK remains a leading cyber nation alongside allies like the US, EU and Israel.

But how do we stay there? Increasingly we see nations investing and developing their own Cyber security ecosystems.

Beyond 2022 we must ensure that the UK is the best place to start and base a cyber company, to ensure we continue to develop the technology and talent to meet the cyber threats of the future.

This Cyber Exchange Report explores how Government and industry are working together to help Cyber security companies to grow, drive investment in new companies and develop talent across every nation and region of the UK.

**Julian David
Chief Executive Officer
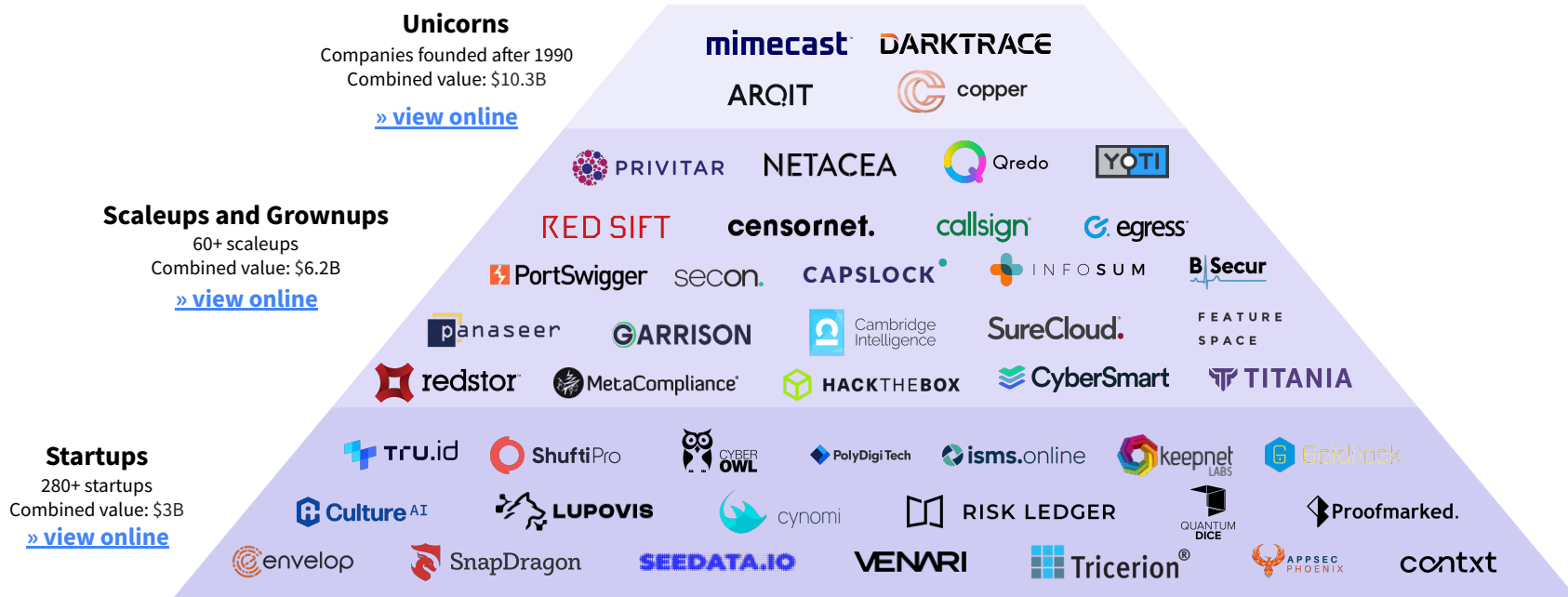at techUK**

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1 | The UK Cyber security ecosystem

Framework : products and services offered by Cyber security startups

Cyber security

Protection of network-connected systems (includes hardware, software, and associated infrastructure), the data on them, and the services they provide, from the exploitation of vulnerabilities as well as natural and man-made cyber threats and cyber attacks.

The Goal of Cyber security is to ensure:
Confidentiality
Integrity and Accuracy
Availability

- Threat intelligence, monitoring, detection, and analysis
- Information security, risk assessment and management
- Identification, authentication, and access controls
- Incident response and management
- Application Security
- Cloud Security
- Endpoint, Mobile and Network Security
- IoT Security
- SCADA and Information Control Systems Security
- Cyber Awareness, training, and education

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The UK Cyber security ecosystem is home to 280+ startups, 60+ scaleups and 4 unicorns.

Unicorns
Companies founded after 1990
Combined value: $10.3B

» view online

Scaleups and Grownups
60+ scaleups
Combined value: $6.2B

» view online

Startups
280+ startups
Combined value: $3B

» view online

mimecast   DARKTRACE
ARQIT   copper

PRIVITAR   NETACEA   Qredo   YOTI
RED SIFT   censornet.   callsign   egress
PortSwigger   secon.   CAPSLOCK   INFOSUM   B Secur
panaseer   GARRISON   Cambridge Intelligence   SureCloud.   FEATURE SPACE
redstor   MetaCompliance   HACK THE BOX   CyberSmart   TITANIA

tru.id   ShuftiPro   CYBER OWL   PolyDigiTech   isms.online   keepnet LABS   Gatelock
Culture AI   LUPOVIS   cynomi   RISK LEDGER   QUANTUM DICE   Proofmarked.
envelop   SnapDragon   SEEDATA.IO   VENARI   Tricerion®   APPSEC PHOENIX   contxt

Source: Dealroom.co. The logos shown are not exhaustive but a discretionary selection of the companies of the category.

CYBER EXCHANGE | dealroom.co

Cyber security startups founded and HQ in the UK are worth $30B, a 7.6x increase since 2017.

Combined enterprise value of UK Cyber security tech companies founded since 1990 (founded and HQ) [» view online](#)

Startups, scaleups and unicorns founded in the UK but HQ in the US

Startups, scaleups and unicorns with current HQ the UK

x7.6

	2016	2017	2018	2019	2020	2021	2022 YTD
Total	$2B	$4B	$8B	$9B	$12B	$32B	$30B

$30B
$20B
$10B

31%
69%

snyk
TESSIAN
digital shadows_
Spherical Defence

mimecast
DARKTRACE
PRIVITAR
RED SIFT
CYBER OWL
tru.id
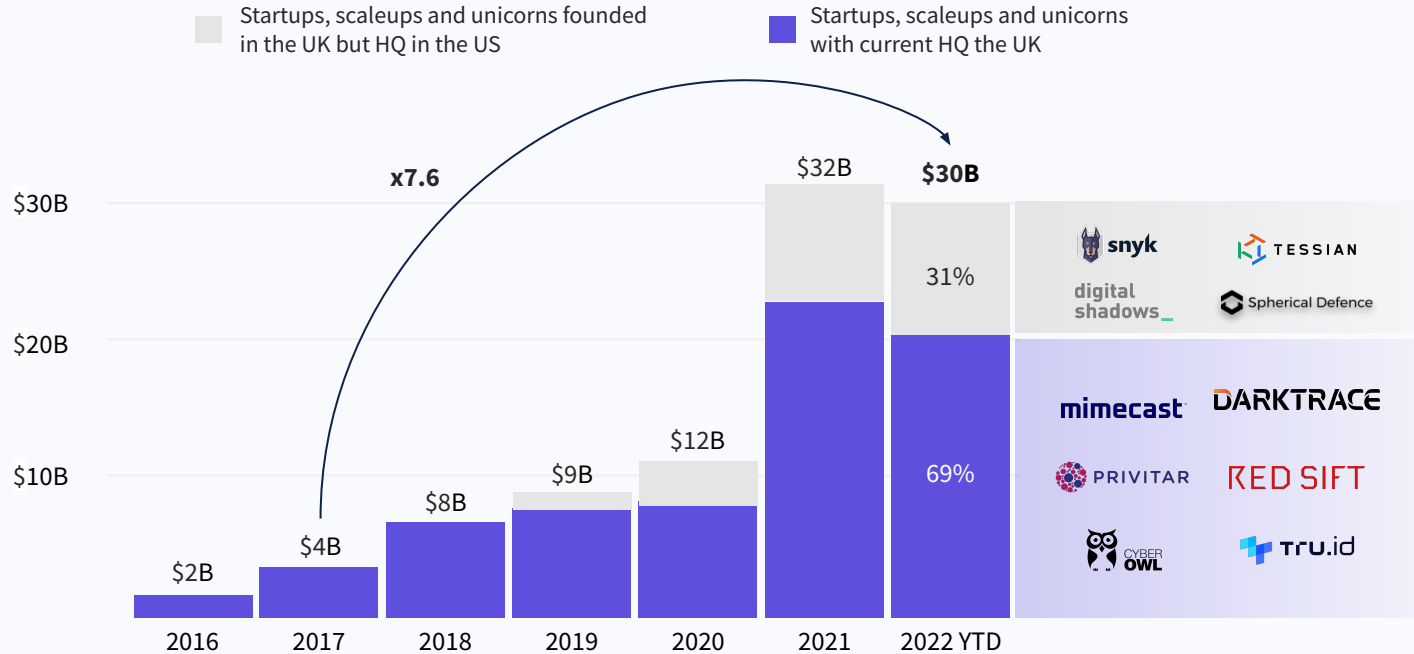
78% of the total value is concentrated in startups founded after 2010.

Combined enterprise value of UK Cyber security tech companies founded since 1990 **» view online**

- ■ 2015–2021
- ■ 2010–2014
- ■ 2005–2009
- ■ 2000–2004
- ■ 1995–1999
- ■ 1990–1994

$30B

50%
28%
3%
17%
2%

2016   2017   2018   2019   2020   2021   2022 YTD
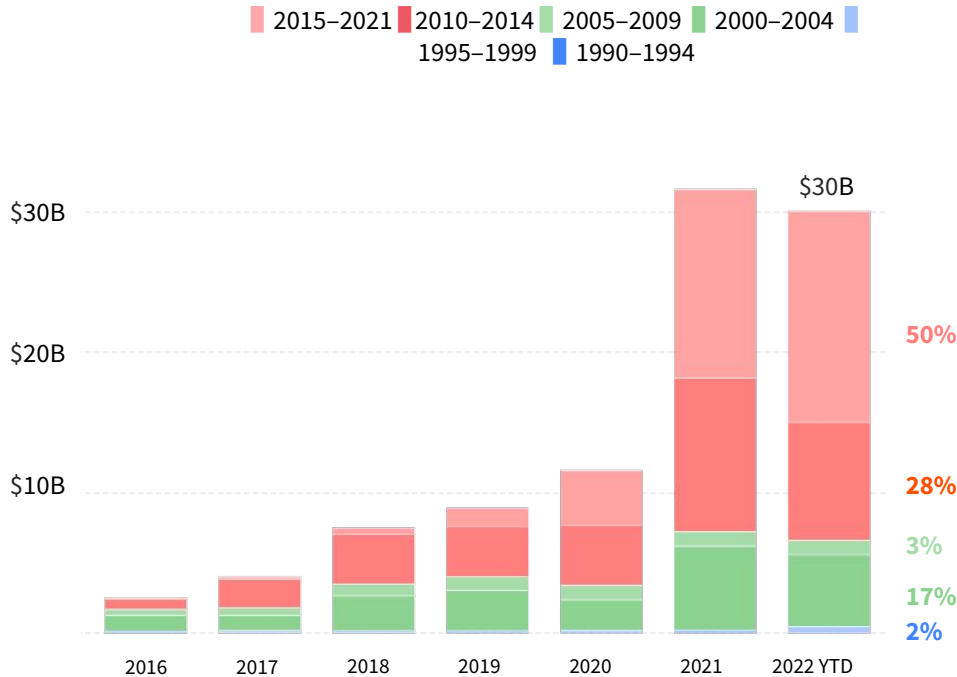
Cyber security innovation is booming, and not relying on legacy tech.

The UK Cyber security ecosystem value is concentrated in younger startups than the UK average. 78% of the UK Cyber security ecosystem value has been created by startups founded after 2010, against 50% in the UK overall.

Enterprise value of startups founded after 2010

UK Cyber Security startups — **78%**

All UK startups — **50%**

CYBER EXCHANGE | **dealroom.co**
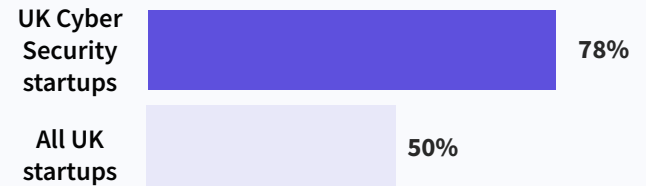
The UK Cyber security ecosystem hosts a strong pipeline of future unicorns and promising companies, most of them founded since 2010.

	Before 2010	2010	2011	2012	2013	2014	2015	2016	2017	2018
Rising Stars $100M–$250M	FEATURE SPACE, GLASSWALL, egress			RIPJAR	PRIVITAR, Ravelin, panaseer, GARRISON		ShuftiPro	element	SENSEON ON A MISSION, PQ SHIELD	
Future unicorns $250M-$1B			callsign, Qredo		vcode, CQC	PRIVITAR, RED SIFT		INFOSUM, envelop, IMMERSIVELABS		
Year Founded	Before 2010	2010	2011	2012	2013	2014	2015	2016	2017	2018

CYBER EXCHANGE | **dealroom.co**

UK regions outside of London host some of the most promising Cyber security startups.

Enterprise value growth of Cyber security startups since 2017
EV growth of selected UK Regions

South West England
~ 20+ startups — x14.6

Greater London
~ 215+ startups — x7

South East England
~ 45+ startups — x4.6

East of England
~ 20+ startups — x3.5
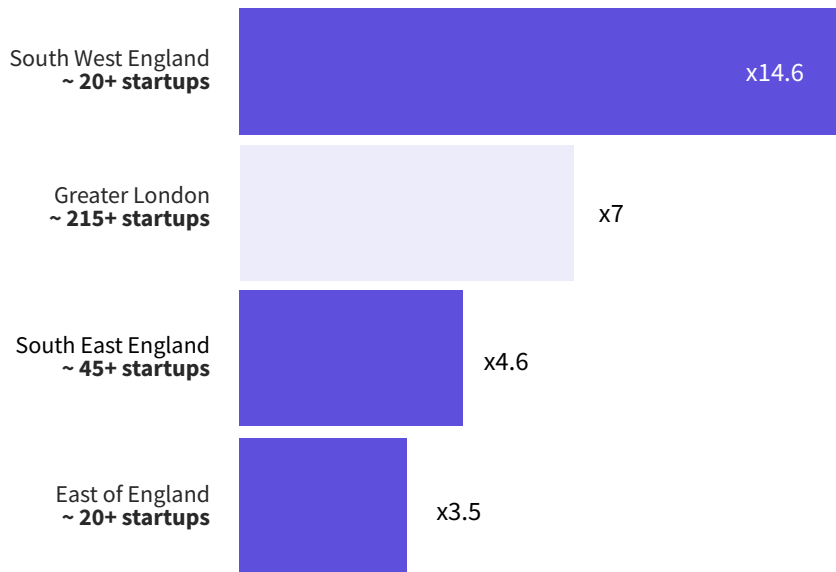
Selected startups per UK Region

North West
NETACEA
vcode

Northern Ireland
SKURIO
ANGOKA

West Midlands
DEEP SECURE
ELEMENDAR.

Wales
awen COLLECTIVE
ENCLAVE

South West
IMMERSIVE LABS
KETS

South East
SHIELD
HACKTHEBOX

London
mimecast
envelop

Scotland
Lupovis
approov

Yorkshire and The Humber
smoothwall
RAPIDSPIKE

East Midlands
intercede
CyTAL

East
DARKTRACE
ultrasoc

Source: Dealroom.co

CYBER EXCHANGE | **dealroom.co**

UK-based Accelerators active in the Cyber security Ecosystem.

These accelerators are key enablers and play a vital role in supporting domestic and foreign early stage companies thanks to funding received from the UK Government.

Cyber security focused

CYBER RUNWAY
Delivered by Plexal

178+ Alumni Startups
64% of companies are non London participants
Aims to create diverse regional innovation ecosystem

National Cyber Security Centre *For Startups*
Delivered by Plexal & NCSC

58+ Alumni Startups
Challenge led cohorts with support from technical experts
Welcomes companies at all maturity stages

CYBER ASAP

22+ companies formed which raised £17.7m in total
Accelerated the commercialisation of UK academic research in Cyber security

Others

ENTREPRENEUR FIRST

TECH NATION

Startupbootcamp

BETADEN

Source: Dealroom.co

CYBER EXCHANGE | **dealroom.co**

> **" We're proud to play our role alongside DCMS in closing the gap between private and public parties to build the Cyber ecosystem and enhance our national security.**

From the success of LORCA, we've continued pushing forward with our mission at Plexal: solving technology challenges through collaboration. Recently with Cyber Runway, £10.1bn in revenue was generated by over 1,800 Cyber security companies in the most recent financial year, a new record was also set with over £1bn of investment generated across 84 deals."

Saj Huq
Chief commercial officer
at Plexal

> **" Academics have made a significant contribution to the Cyber security ecosystem here in the UK.**

It has been a huge privilege to see so many academics develop their skills and progress their ideas. We have seen these projects evolving into successful, scalable spinouts with two acquisitions to date as well as open source and licensing offers."
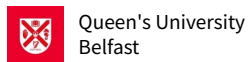
Emma Fadlon
Investment Projects Lead and
Co-Director
at CyberASAP

The Academic Centres of Excellence for University Research leads research in the UK and internationally.

19 universities are recognised as ACEs-CSR

Northern Ireland
Queen's University Belfast

Wales
Cardiff University

Scotland
University of Edinburgh

England

University of Birmingham

King's College London

Imperial college London

Royal Holloway, University of London

University of Bristol

University of Cambridge

De Montfort University

University of Kent

Lancaster University

University College London

Newcastle University

Northumbria University

University of Oxford

University of Southampton

University of Surrey

University of Warwick

They are supported by research Institutes that contribute to the ecosystem.

Selected UK Research Institutes:

CSIT — CENTRE FOR SECURE INFORMATION TECHNOLOGIES

CRITICS

C-MRiC — CENTRE FOR MULTIDISCIPLINARY RESEARCH, INNOVATION AND COLLABORATION ®

RISS — Resilient Information Systems Security

RISCS

UKRI — UK Research and Innovation

Partnership for Conflict, Crime & Security Research

CSCIS

SE — RESEARCH INSTITUTE FOR SECURE HARDWARE & EMBEDDED SYSTEMS

The Alan Turing Institute

Source: Dealroom.co, NCSC.

CYBER EXCHANGE | dealroom.co

Many UK Cyber security startups have their roots in academia.

Selected UK Cyber security spinouts » view online

Name	Spun out from
DARKTRACE	University of Cambridge
FEATURE SPACE	University of Cambridge
PQSHIELD	University of Oxford
KETS	University of Bristol
approov	University of Edinburgh
hazy	University College London
QUANTUM DICE	University of Oxford
Verifiable Credentials	University of Kent
LUPOVIS	University of Strathclyde

University spinouts represent 18% of the combined enterprise value of the UK Cyber security ecosystem.

EV created by university spinouts HQ & Founded in the UK

$3.8B
Value of UK Cyber security spinouts in 2022

UK Tech Ecosystem — 4%

UK Cyber security startups — 18%

Source: Dealroom.co.

CYBER EXCHANGE | dealroom.co
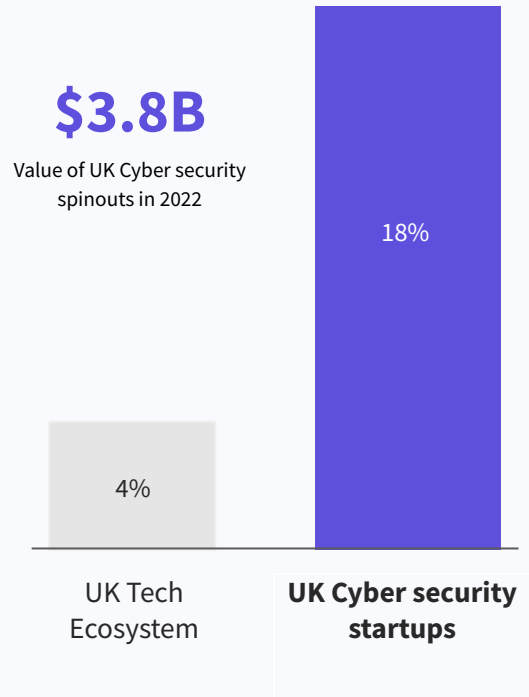
Cyber security addresses new challenges in Fintech and Industrial tech.

Cyber security for Fintech

Protecting financial data and assets against risks such as account takeovers, malware attacks, and data breaches thus ensuring better compliance with regulatory requirements.

Covering and managing cyber risks by offering built-in Cyber security monitoring and protection platforms with added insurance on top.

Cyber Insurance

KYND

envelop

Regulativ.ai

Asset custodianship

Vo1t

copper

Qredo

Fraud management

FEATURE SPACE

cybertonica

Ravelin

Cyber security for Industrial tech

Protecting Industrial Control Systems, Cyber Physical systems, and IOT devices against cyber threats through network intrusion and endpoint detection, access management, vulnerability management, etc.

Due to the interconnected nature of Industry 4.0, Cyber Security is becoming an integral part of network design and operations.

SCADA & Industrial Control Systems

OSIRIUM

awen COLLECTIVE

Asset Guardian SOLUTIONS LIMITED
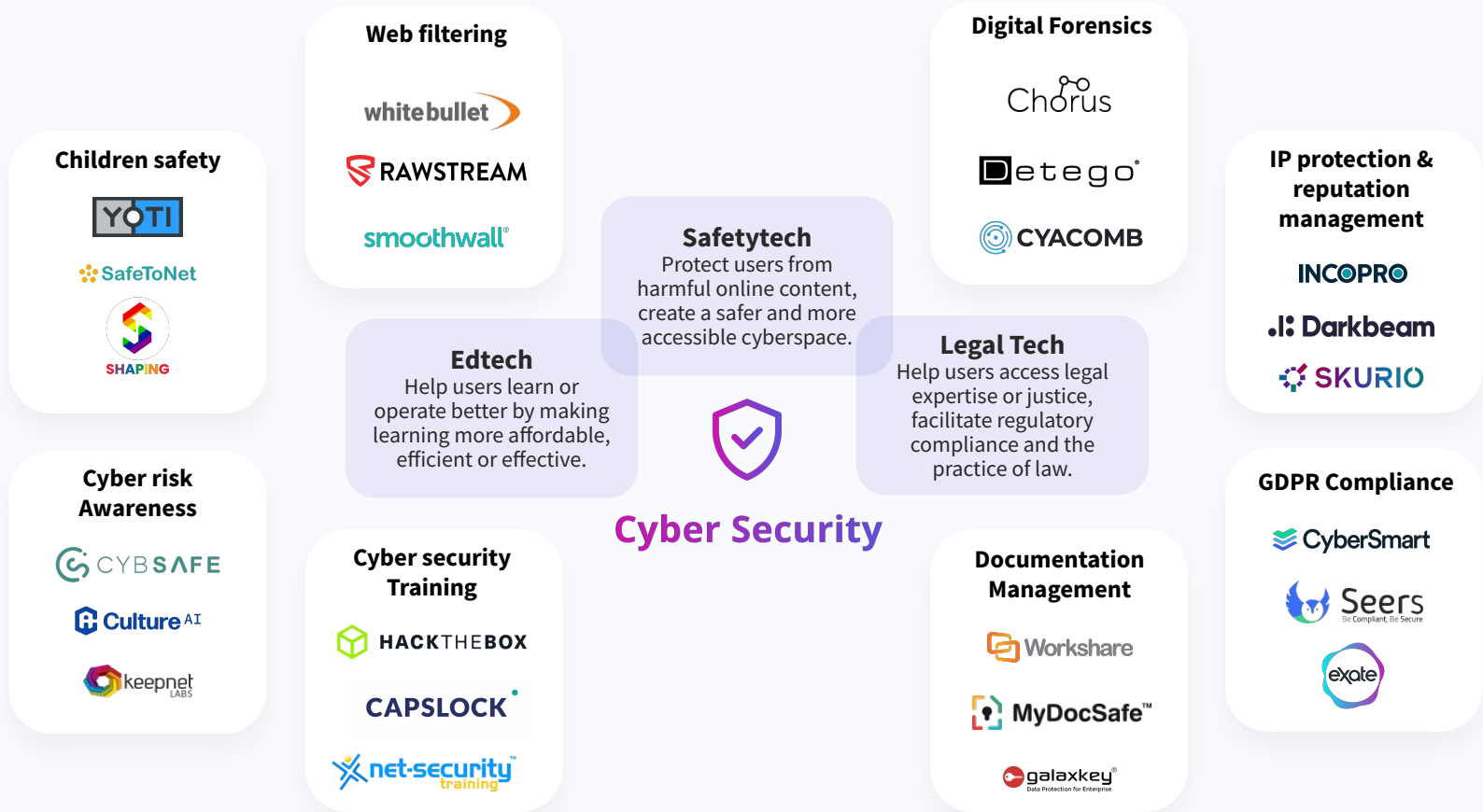
CyTAL

RazorSecure

CYBER OWL

Cyber physical systems

EXALENS

CyTAL

BLUESKYTEC

CYBER EXCHANGE | dealroom.co

Cyber security creates growth opportunities in Edtech, Safetytech, and Legal tech.

Web filtering

white bullet

RAWSTREAM

smoothwall

Children safety

YOTI

SafeToNet

SHAPING

Digital Forensics

Chorus

Detego

CYACOMB

IP protection & reputation management

INCOPRO

Darkbeam

SKURIO

Safetytech
Protect users from harmful online content, create a safer and more accessible cyberspace.

Edtech
Help users learn or operate better by making learning more affordable, efficient or effective.

Legal Tech
Help users access legal expertise or justice, facilitate regulatory compliance and the practice of law.

Cyber Security

Cyber risk Awareness

CYBSAFE

Culture AI

keepnet LABS

Cyber security Training

HACKTHEBOX

CAPSLOCK

net-security training

Documentation Management

Workshare

MyDocSafe

galaxkey
Data Protection for Enterprise

GDPR Compliance

CyberSmart

Seers
Be Compliant, Be Secure

exate

UK Cyber security startups providing services to local and foreign governmental institutions.

To secure critical national and citizen data	NOMINET · KEYLESS · worldr · CLOUD GATEWAY
To detect and respond to cyber threats endangering national security	SecAlliance · RIPJAR · Chorus · ELEMENDAR.
To create a secure workspace amongst public sector employees	GARRISON · intercede · PIREAN · Armour Comms

> " *Cyber security threats have become increasingly prevalent in recent years.*
>
> Attacks across all sectors threaten the safety of critical national infrastructure. Encouragingly, DCMS has been a driving force within the government to help ensure that we – the UK tech ecosystem – are taking the necessary measures to protect ourselves."

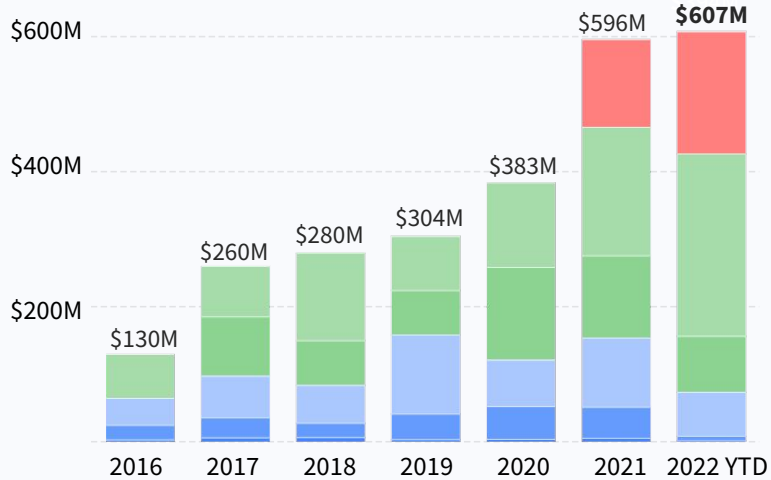**Saj Huq**
Chief commercial officer at
Plexal

2 | Funding landscape

UK Cyber security startups raised more than $600M in 2022 YTD, a record.

Investment in UK Cybersecurity startups » view online

- ■ $0M-$1M (pre-seed)
- ■ $1M-$4M (seed)
- ■ $4M-$15M (series A)
- ■ $15M-$40M (series B)
- ■ $40–€100M (series C)
- ■ $100–$250M
- ■ $250M+

Chart of Investment in UK Cybersecurity startups:
- 2016: $130M
- 2017: $260M
- 2018: $280M
- 2019: $304M
- 2020: $383M
- 2021: $596M
- 2022 YTD: **$607M**

Y-axis: $200M, $400M, $600M

Selected top rounds since 2021

copper	envelop
Oct 2022	Sep 2021
$181M Series C	$130M Series B

Qredo	IMMERSIVELABS
Feb 2022	Jun 2021
$80M Series A	$75M Series C

iproov	INFOSUM
Jan 2022	Aug 2021
$70M Growth Equity VC	$65m SERIES B

Source: Dealroom.co

CYBER EXCHANGE | dealroom.co
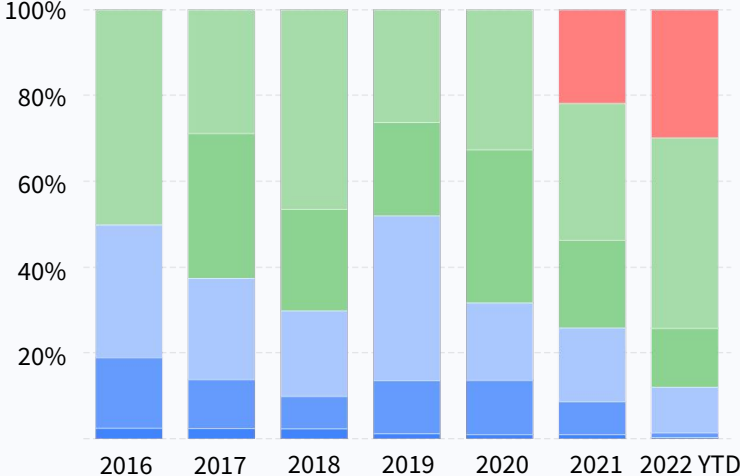
Record funding has been driven by late stage rounds & megarounds.

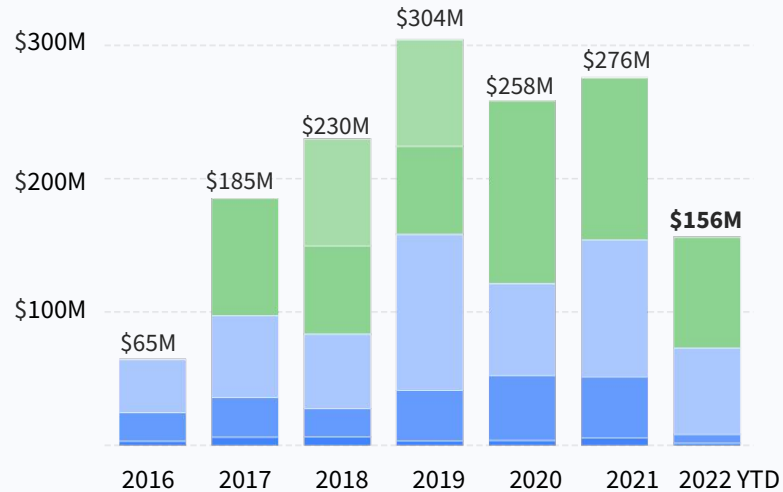**VC investment in UK Cybersecurity startups per round size**

■ $0M-$1M (pre-seed)   ■ $1M-$4M (seed)   ■ $4M-$15M (series A)   ■ $15M-$40M (series B)

■ $40–€100M (series C)   ■ $100–$250M   ■ $250M+

Early stage investment is at its lowest since 2017.

Pre-Seed to Series B Investment in UK Cyber security startups » view online

■ $0M-$1M (pre-seed)　■ $1M-$4M (seed)　■ $4M-$15M (series A)　■ $15M-$40M (series B)

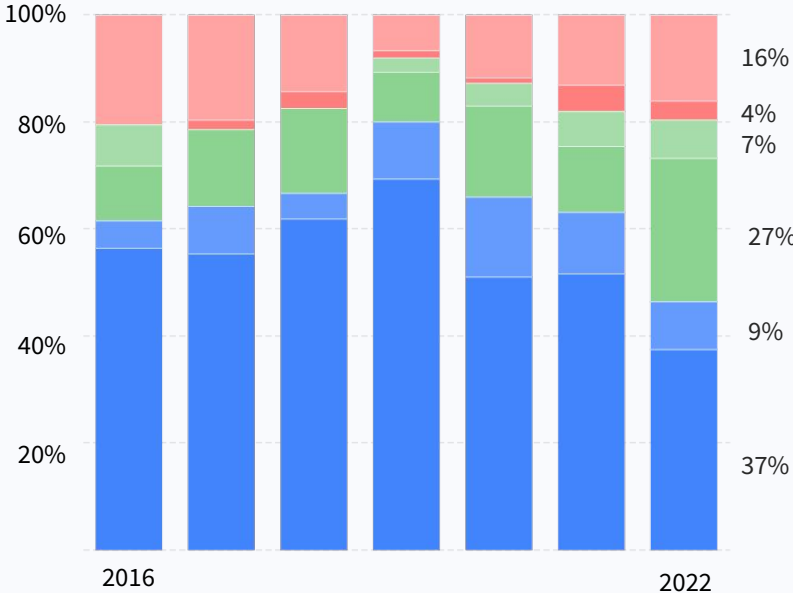Chart values by year:
- 2016: $65M
- 2017: $185M
- 2018: $230M
- 2019: $304M
- 2020: $258M
- 2021: $276M
- 2022 YTD: **$156M**

Y-axis: $100M, $200M, $300M

UK Cyber security Pre-Seed to Series B rounds » view online

NAME		INVESTORS	MARKET	LOCATION	VALUATION	
Element	All-in-one secure chat app for tea...	Protocol Labs MetaPlanet	B2B security enterprise software data protection	London, United Kingdom	$120—180m	$
Panaseer	Big data insights on cyber security...	Notion Capital Cisco Investments Evolution Equity Partners Paladin Capital Group AllegisCyber Capital	B2B security enterprise software data protection	London, United Kingdom	$106—159m	
Copper	The institutional gateway to digita...	Alan Howard	B2B security fintech crypto and defi data protection	London, United Kingdom	$2.0b	
Axiad	Delivers an agile, user-centric iden...	Invictus Growth Partners	security enterprise software identity & access	Nottingham, United Kingdom	-	$20m G
Senseon	Self-driving cyber defense platfor...	Eight Roads Ventures MMC Ventures CyLon Winton Ventures Crane Venture Partners	security cloud & infrastructure	London, United Kingdom	$80—120m	
e2e-assure	E2e-assure are a specialist SOC as ...	Business Growth Fund	security device security & antivirus data protection	Vale of White Horse, United Kingdom	$55—83m	£10
Qredo	A cross-chain protocol platform fo...	GSR Ventures Wintermute Trading Connect Capital Kenetic Capital Celsius Network	B2B security fintech cloud & infrastructure crypto and defi	London, United Kingdom	$460m	
Hack The Box	Hack The Box is a platform allowin...	Paladin Capital Group Marathon Venture Capital Brighteye Ventures Osage University Partners	security education education providers	Folkestone and Hythe, United Kingdom	$42—64m	$1

　　CYBER EXCHANGE | dealroom.co

UK investors contribute 37% of total funding in 2022 YTD, 25% less than 2021.

Investment rounds by source » view online

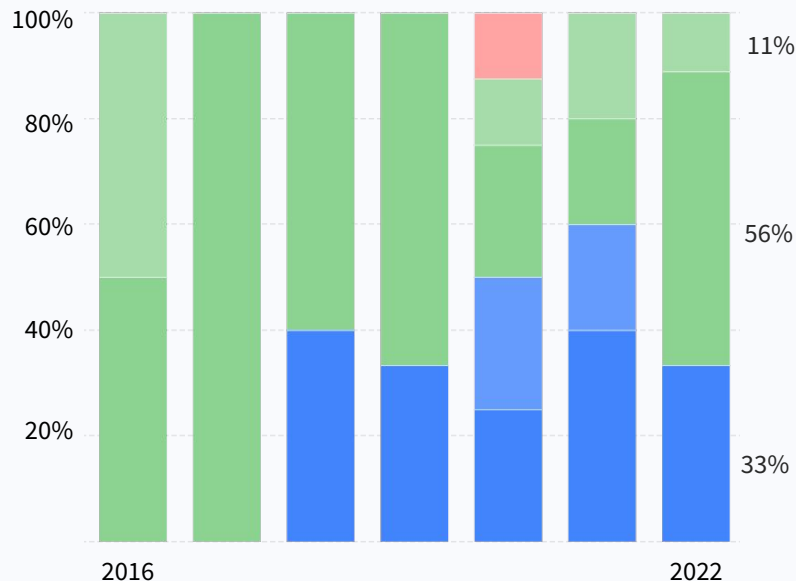■ Domestic ■ Europe ■ USA ■ Asia ■ Rest of the World ■ Undisclosed

Chart: Investment rounds by source, 2016–2022

100%	16%
80%	4%
	7%
60%	27%
40%	9%
20%	37%

2016 ... 2022

Selected UK VCs investing in UK Cyber Security companies

Seedcamp   IQ CAPITAL

NOTION   LocalGlobe

AlbionVC   dawn.

MMC ventures   Amadeus Capital Partners

CYBER EXCHANGE | **dealroom.co**

Foreign investors are driving mid to late stage rounds and account for more 67% of funding raised in 2022 YTD.

Series C+ investment rounds by source » view online

Legend: ■ Domestic ■ Europe ■ USA ■ Asia ■ Rest of the World ■ Undisclosed

Bar chart axis: 2016 to 2022, values 20% to 100%. Right-side labels: 11%, 56%, 33%.

Selected foreign investors active in the UK

Investor	Selected UK Cyber security investments		
INSIGHT PARTNERS	🇺🇸	mimecast	DARKTRACE
salesforce ventures	🇺🇸	PRIVITAR	Gospel Technology
evolution EQUITY PARTNERS	🇺🇸	ARQIT	panaseer
ALLEGISCYBER CAPITAL	🇺🇸	callsign	panaseer
Si Speedinvest	🇦🇹	SOCOS	KETS
gumi Cryptos	🇯🇵	KEYLESS	Qredo
PALADIN CAPITAL GROUP	🇺🇸	panaseer	HACKTHEBOX

CYBER EXCHANGE | dealroom.co

> **"** *There has been record levels of investment into the Cyber security space, though this growth has began to slow.*

To avoid squandering the hard-fought opportunity that the UK Government and the private sector have created, members of the Cyber Growth Partnership are undertaking analysis into the near-live data of cyber startup and scaleup investment rates and activities. A Working Group of the Cyber Growth Partnership has been established to focus on better understanding the nuances of cyber investment by lifestage, and identify where any additional support may be necessary to ensure the UK retains and improves its global ranking for cyber investment."

Ian Merricks,
Managing Partner
at White Horse Capital

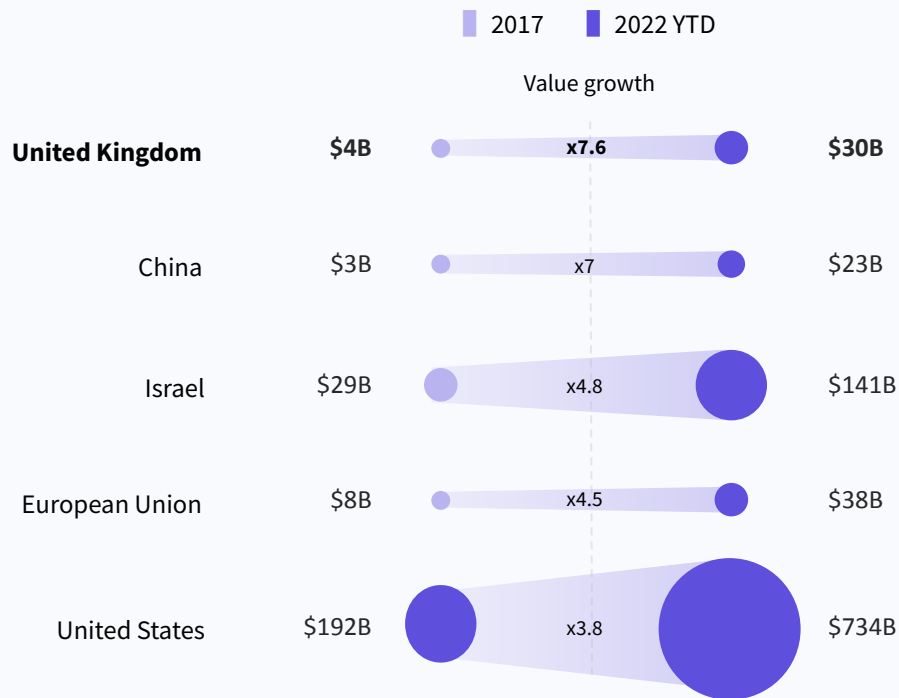CYBER EXCHANGE | **dealroom.co**

3 | Global Competitiveness

The value of the UK Cyber security ecosystem has grown faster than the top global Cyber ecosystems.

Ecosystem Value growth of Cyber security startups

■ 2017　■ 2022 YTD

Value growth

	2017	growth	2022 YTD
United Kingdom	$4B	x7.6	$30B
China	$3B	x7	$23B
Israel	$29B	x4.8	$141B
European Union	$8B	x4.5	$38B
United States	$192B	x3.8	$734B

Source: Dealroom.co. Sum of the valuations of startups HQ and founded in each respective ecosystem, founded after 1990.
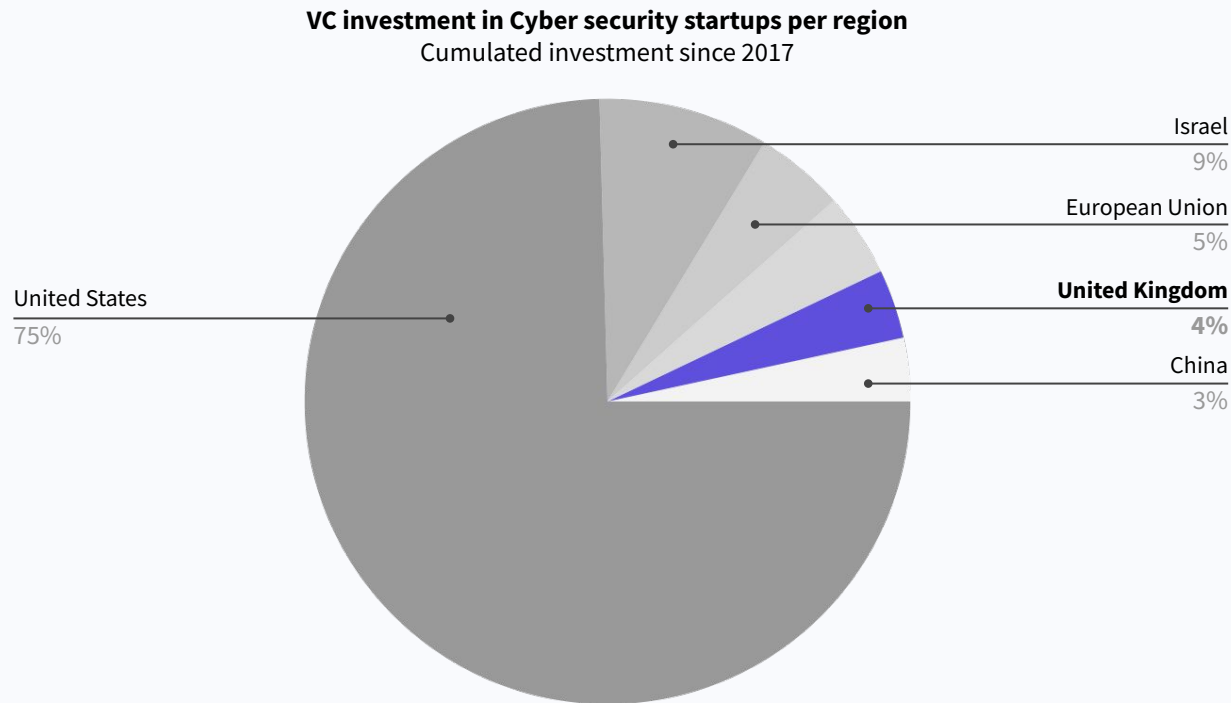
CYBER EXCHANGE | **dealroom.co**

The UK ranks as the top 3rd country for VC investments into Cyber security startups since 2017, after the US and Israel.

VC investments into Cyber security startups » view online
Cumulated investment since 2017

United States	$48.4B
Israel	$5.9B
EU27	$3.1B
United Kingdom	**$2.4B**
China	$2.2B

CYBER EXCHANGE | **dealroom.co**

Cyber security startup investment is heavily concentrated with the US and Israel having raised close to 85% of global funding since 2017.

VC investment in Cyber security startups per region
Cumulated investment since 2017

Israel
9%

European Union
5%

United Kingdom
4%

China
3%

United States
75%

Source: Dealroom.co

CYBER EXCHANGE | **dealroom.co**

Selected investors active in Cyber security funding globally.

VCs and PEs

Corporates & CVFs

Governments & Accelerators

Source: Dealroom.co

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Methodology & definitions

What is a startup?

Companies designed to grow fast. Generally, such companies are VC-investable businesses. Sometimes they can become very big (e.g. $1B+ valuation).

When startups are successful, they develop into scaleups (>50 people), grownups (>500 people) and result in big companies. Only companies founded since 1990 are included in this report.

> **What is a startup?**

What is a unicorn?

Unicorns are (former) startups that reached US$ 1B valuation or exit at one point in time.

> **What is a Unicorn?**

Venture Capital, Investors

Domestic investors are all investors based in the United Kingdom.

Investment numbers refer to rounds such as Seed, Series A, B, C, …. late stage, and growth equity rounds. VC investment figures exclude debt or other non-equity funding, lending capital, grants and ICOs.

Investment rounds are sourced from public disclosures including press releases, news, filings and verified user-submitted information.

> **Glossary & Definitions**

Valuation

The combined valuation of the tech ecosystem is based on their market cap or latest transaction value.

Transaction value is realized from exit or implied unrealised valuation from the latest VC round, which is either announced or estimated by Dealroom based on benchmarks.

Underlying Data

Dealroom's proprietary database and software aggregate data from multiple sources: harvesting public information, user-submitted data verified by Dealroom, data engineering. All data is verified and curated with an extensive manual process.

The data on which this report builds is available via **uk-security.dealroom.co**. For more info please visit dealroom.co or contact **support@dealroom.co**.

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