CREST

Annual Report
2022

Our vision

CREST builds trust in the digital world by raising standards in the global cyber security industry.

Our mission

CREST builds *capability, capacity, consistency* and *collaboration* in the global cyber security industry, through services that nurture, measure and enhance the performance of individuals and organisations.

Contents

Welcome to our 2022 review

Rowland Johnson
President
&
Nick Benson
CEO

We're delighted to share a new annual review with our members.

It is a fascinating and challenging time to be part of the Cyber community. Innovation, Technology and Cyber all go hand in hand, and as Artificial Intelligence becomes increasingly relevant in offensive and defensive Cyber so the threat landscape will evolve once again. Bad actors continue to have a fundamental advantage in adopting these technologies and being unbound by ethical and legal constraints.

The case for standards and professionalism in cyber has never been greater. As you, our members transform and adapt, so must CREST. Looking back over the last 12 months has been an encouraging reflection, seeing the start of the transformation we are making with your help and on your behalf.

2022 was year 17 for CREST and one of its most transformative yet. We listened to our members and responded with a desire to evolve. A new strategy, key appointments to the leadership team, a ramp-up in collaborations with other industry players, launching partnerships with immersive learning providers and reforming the governance structure of councils worldwide are forefront of mind.

There were some positive milestones hit in 2022 that we can all be proud of. We launched the OWASP verification standard (OVS), offering assurance to companies that build and use mobile and web-based apps. We also published the CREST defensible pen test standard as part of our intent to continually raise standards and provide practical guidance to buyers and sellers of cyber services.

> "There is increasing momentum in using CREST as a vehicle to progress and harmonise standards."

The CREST leadership team, in partnership with our regional council representatives continued to drive discussions at national and regional level with government, regulators, fellow not-for-profits and the private sector. **Driving consistency and quality across international borders helps the market function effectively and reduces friction for our members doing business.** These conversations often take time to crystalise into meaningful change, but there is increasing momentum in using CREST as a vehicle to progress and harmonise standards.

Candidates took over 2,000 CREST exams in more than 40 countries and **we welcomed our 300th member!** We are also proud to have helped almost 1,000 individuals in the early stage of their careers through practitioner level exams, an example of our part in the global effort to close the skills gap.

We launched the new skilled persons register which allows individuals' to record their skills, training, exams (both CREST and non-CREST) and experience. This approach is designed to be highly inclusive, supporting individuals that have chosen to train, develop and become certified through multiple training pathways.

In addition, this provides the community with a rich and unique source of information that can be anonymised and played back to illustrate the state of the cyber skills market. We have already analysed over 13,000 data points and developed some interesting initial analysis which we will build on and share in 2023.

At the time of writing, we have over 330 members from 41 countries. While CREST membership has increased year-on-year since our inception in 2006, there has been a noticeable acceleration in membership growth since 2018, demonstrating the ongoing and developing member value proposition. The last year was no exception with 22% growth. You can see further details on page 23. You can read about our governance changes on page 10. In summary, we have internationalised our governance structure, placed more control in the hands of our regional councils and separated

the role of President and CEO. Each of our five regions – the Americas, Asia, Australasia, EMEA and the UK – is now represented by a regional council that is empowered to take the CREST proposition global.

Our cross-region discipline-based focus groups ensure we monitor best practices in penetration testing, threat intelligence, incident response, intelligence-led testing, and security operations centres. They also help steer the direction of our accreditation and certification requirements. Our international council, the ultimate governing body of the organisation, comprises the chairs from each regional council and representatives from the five discipline-based focus groups.

We encourage members to engage with regional representatives, as they act as your voice. Of course, we welcome your feedback and discussion through all means and will continue to engage with you more on your thoughts and ideas through 2023.

Looking ahead, the international council revised our vision and mission in late 2022 and set the three-year strategy and goals. This committed CREST to accelerate its mission to build capability, capacity, consistency, and collaboration in the global cyber industry. Turn to page 29 to view.

And all this is just a snapshot. As you scroll through this review, there's plenty more content to get stuck into.

We are excited about the future direction of CREST as we strive to build trust in the digital world together. We hope you are already starting to see the positive momentum.

It is a pleasure to share this review with you, and we look forward to working with you in 2023 and beyond.

Rowland Johnson President
Nick Benson CEO

1.

2022 in review

a. Setting a new direction

CREST has been operating since 2006, and in our 17th year, we've had one of the most transformative periods in our history. The priority for 2022 was to set a new direction with members front and centre of all our changes.

The new shape
of leadership

**A new president, a new CEO,
and a new leadership team.**
Representatives of the team have
visited all geographic regions,
meeting many members, prospective
members, exam takers and regulators
over the last year.

L–R:
Rowland Johnson
President
Nick Benson
CEO

Jonathan Armstrong
Principal Accreditor
Mark Grigg
Head of IT and Change
Sarah Kirkpatrick
Head of Member Engagement

Elaine Luck
Head of Governance and Legal
Andy Woolhead
Head of Global Product
Richard Beddow
Financial Controller*
Zoe Averill
HR Consultant*
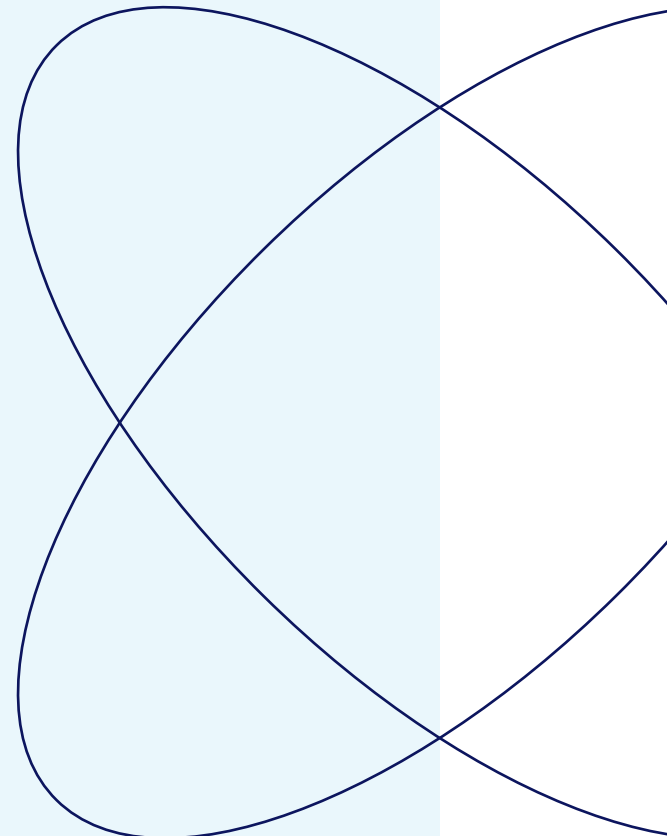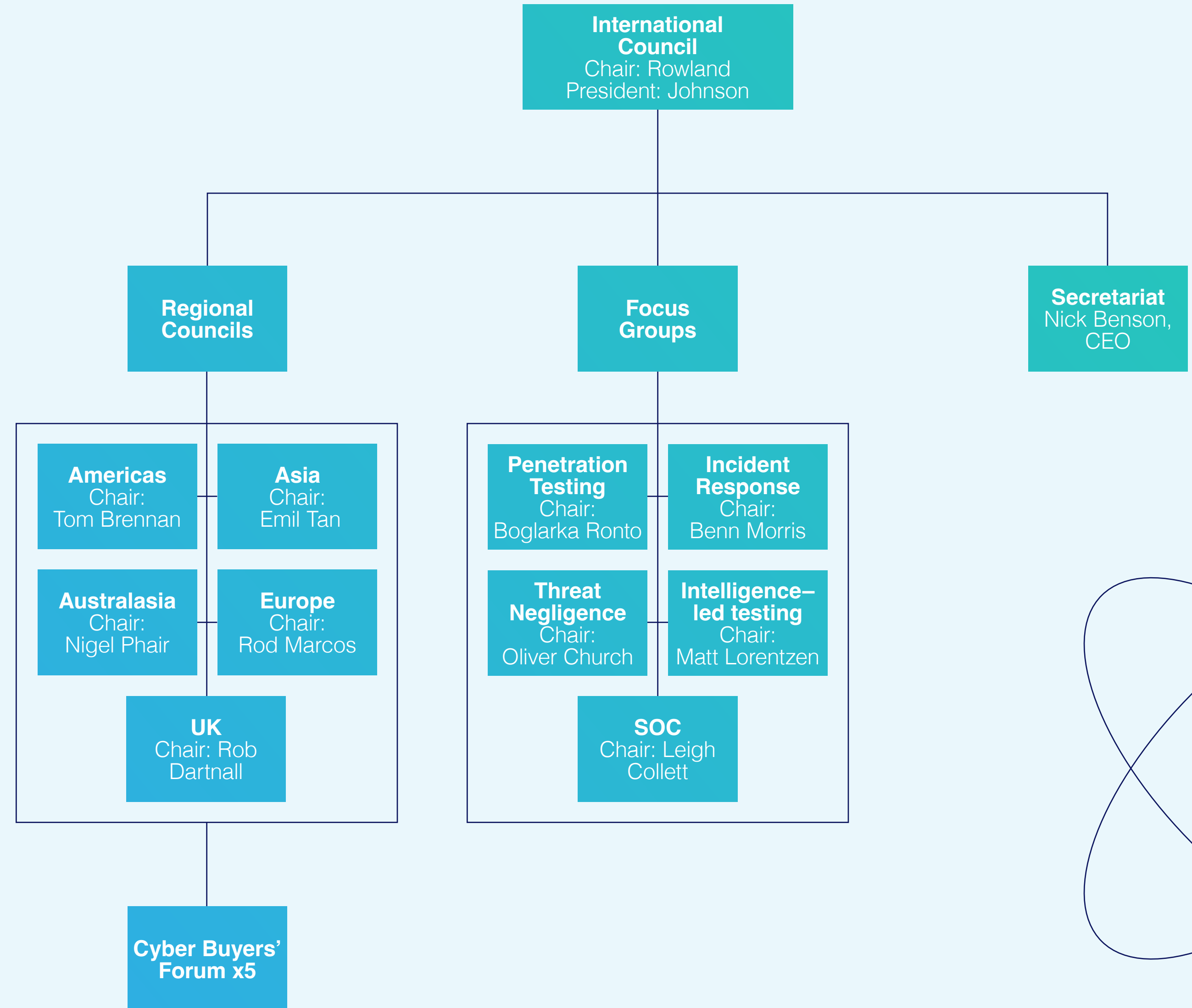
*Key Service Providers
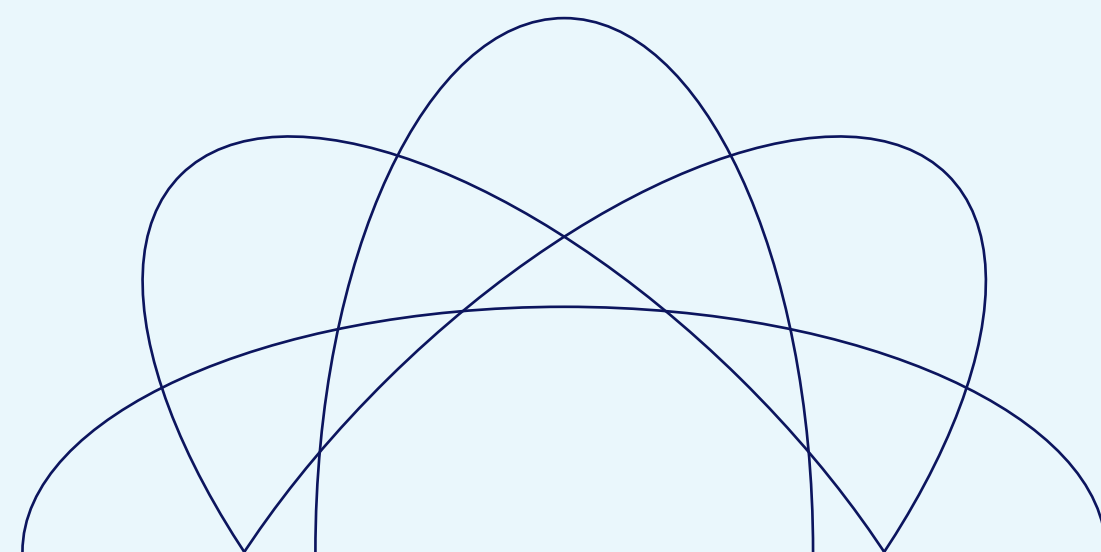
The reformed governance

We established a new **International Council** (9 of 11 members are new to the top council), five **Regional Councils** (c.45 members represented), and five discipline-based **Focus Groups** (c35 members represented on the sub-committee).

We also introduced a rotation of our pool of highly skilled penetration testing assessors. The **CREST Cyber Buyers' Forum**, previously known as the Industry Advisory Groups, will have a resurgence in the summer of 2023.

International Council
Chair: Rowland
President: Johnson

Regional Councils

Focus Groups

Secretariat
Nick Benson, CEO

Americas
Chair: Tom Brennan

Asia
Chair: Emil Tan

Australasia
Chair: Nigel Phair

Europe
Chair: Rod Marcos

UK
Chair: Rob Dartnall

Penetration Testing
Chair: Boglarka Ronto

Incident Response
Chair: Benn Morris

Threat Negligence
Chair: Oliver Church

Intelligence–led testing
Chair: Matt Lorentzen

SOC
Chair: Leigh Collett

Cyber Buyers' Forum x5

The new strategy and look

The International Council recently set a new three-year strategy; see page 29 for the full details. In addition, we refreshed our branding and website, including functionality to connect members with the buying community, which will continue to develop in 2023.
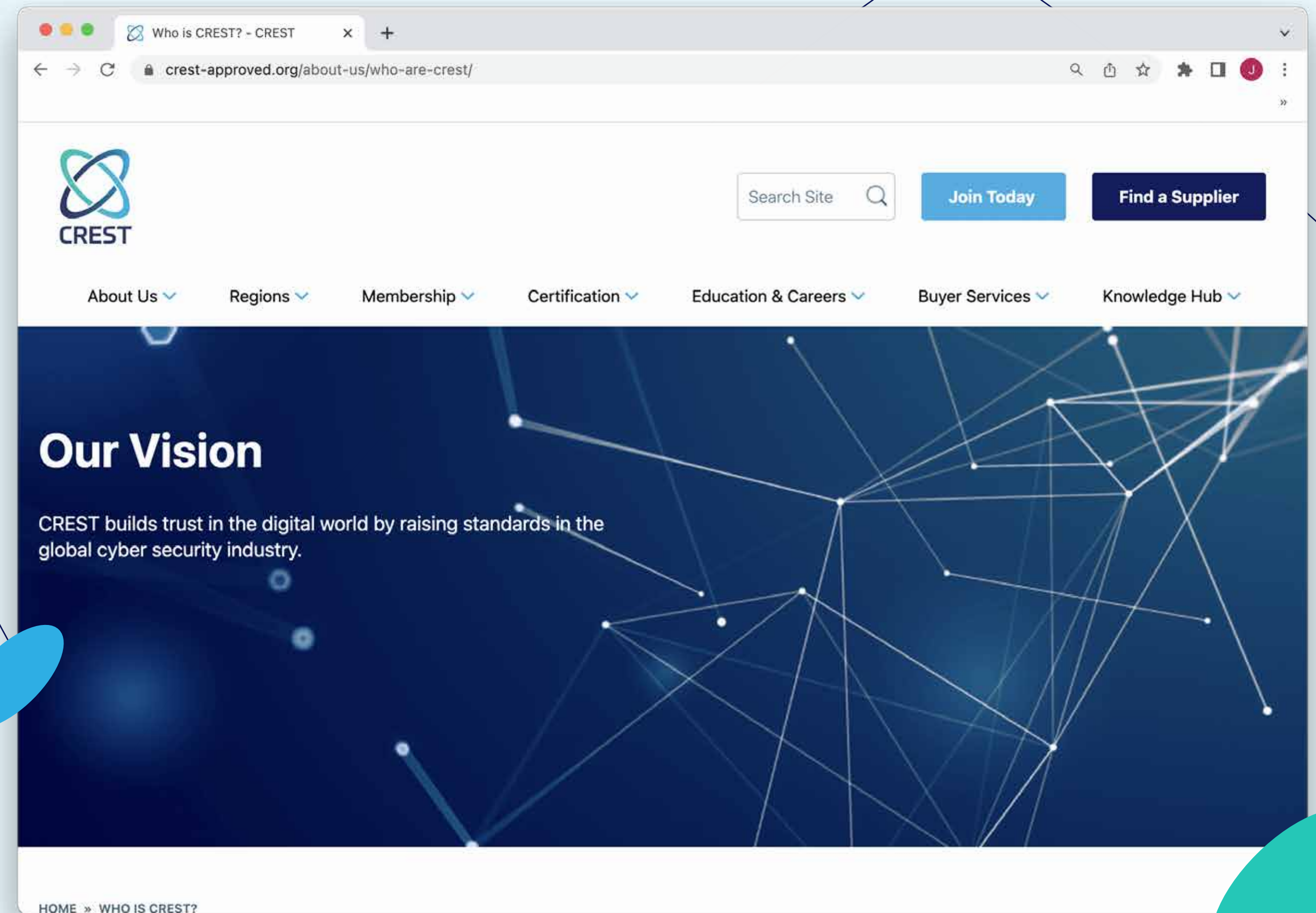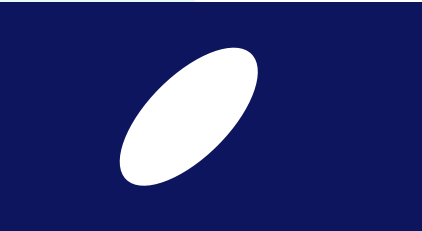
b. Community Collaboration

Engagement with our members, qualified professionals, buyers, governments, regulators, and many other key stakeholders is at the heart of all we do.

The global community makes **CREST** unique and effective, and in 2022 we stepped up the pace and depth of our engagement around the world.

Engaging our community

Lots of digital interactions:

34,500
YouTube views

207,744
website visits

14,400
LinkedIn followers (35% growth)

11
Events online including the highly popular Access to Cyber Day supporting Diversity and Inclusion

But also great to be back to seeing people in person:

35 major events in person with **1,100** attendees

140 attendees at **5** briefing and networking events

Collaborating with our community

June	August	October	December
National Cyber Security Agency (NCSA), Qatar CREST signs an MOU to support accreditation programs focused on enhancing Penetration Testing providers and Security Operations Centres. *ncsa.gov.qa*	**OWASP** CREST launches the OWASP Verification Standard for the global application security industry *owasp.org*	**NonProfit Cyber** CREST becomes a founding member of global coalition of not-for-profit organisations dedicated to improving cyber security *nonprofitcyber.org* **Association of Information Security Professional** CREST signs an MoU to develop and support the cybersecurity profession in Singapore. *www.aisp.sg*	**CyberUp Campaign** CREST officially supports the UK campaign for cybersecurity legislation fit for the 21st century. *cyberupcampaign.com* **Cyber Youth** CREST signs an MOU in support of the youth-in-tech community in Singapore. *cyberyouth.sg*

Building relationships

We continued to build relationships and collaborate with the international cyber community including:

TechVets
techvets.co

The Cyber Scheme
thecyberscheme.org

ISC²
isc2.org

Our research work with the Gates Foundation delivered:

8 in-depth reports detailing the maturity of the cyber ecosystems in Bangladesh, Ethiopia, Indonesia, Kenya, Nigeria, Pakistan, Tanzania, Uganda.

16 guides covering cybercrime; inclusion and diversity; penetration testing; cybersecurity training; establishing an incident response capability; SOC; threat intelligence.

(ISC)²

THE CYBER SCHEME

Forces Employment Charity | TECHVETS

BILL & MELINDA GATES *foundation*

c. Understanding and supporting skills development

In 2022 we expanded our mission beyond exams and accreditation, to look deeper into the skills and competences in the cyber security industry.

We have analysed more than 13,000 datapoints from the thousands of professionals who hold **CREST** certifications and the data we hold in our Skilled Persons Register.

This provides a unique insight and market intelligence of benefit to the industry.

The CREST Skilled Persons Register

What is it?

- A way to gather insight into the state of the global cyber workforce
- Inclusive, supporting all learning pathways, not just CREST
- Gathers data on skills (against SFIA*), certifications, experience and giving back to industry
- Strengthened by individuals attesting their submission and signing a code of conduct

*See sfia-online.org

Key metrics:

439 skilled persons registered

58 company registrations

22 countries represented

20-30 Median age bracket

23% have been in the industry for two years

49 languages spoken

60% have been industry for five years or less

Industry Experience

Years in industry is not necessarily a proxy for skills or competence. Many people build skills at school, college, university, or as extra-curricula activities and many that take CREST certs, do so very early on in their career.

85% use immersive learning or online labs to keep their skills current

Most skills and experience align with the technologies and systems used within banking and finance, possibly due to the maturity of this market and the number of financial services led assurance programs that have driven skills adoption and standards e.g., CBEST, TIBER, iCAST.

% of individuals with industry experience

Industry	%
Banking & Finance	86%
Retail	76%
Healthcare	71%
Government	68%
Energy	60%
Transportation	60%
Manufacturing	57%
Defense	24%
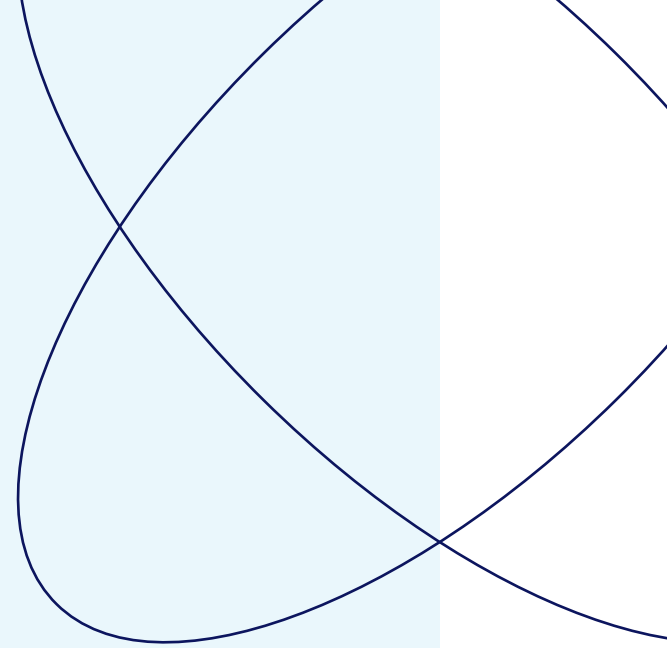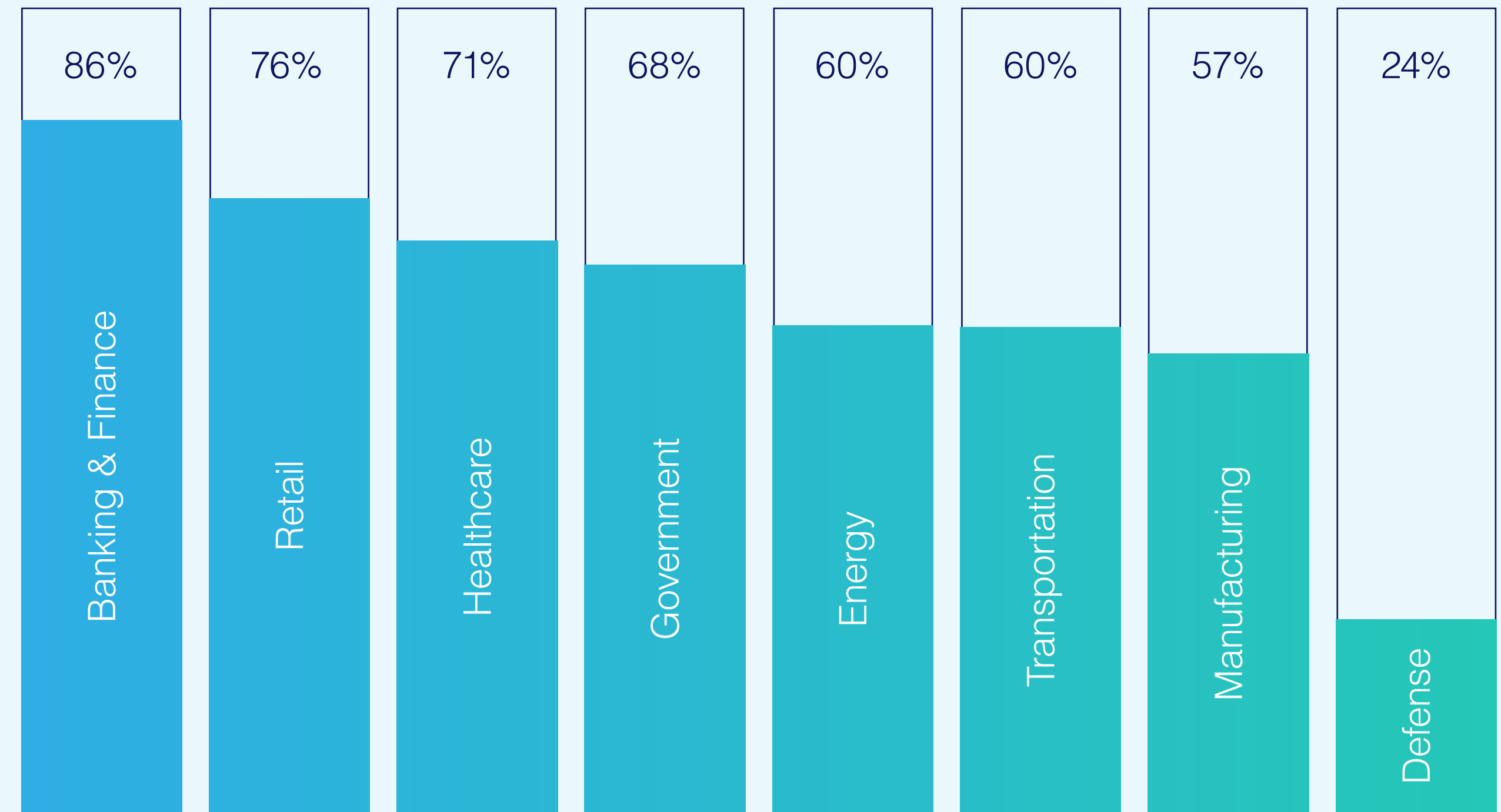
CREST global reach

Where our members are head-quartered:

Armenia
Australia
Bulgaria
Denmark
Estonia
Finland
France
Germany
Greece
Hong Kong
India
Indonesia
Ireland
Israel
Japan
Malaysia
Mexico
New Zealand
Norway
Oman

Portugal
Qatar
Republic of Armenia
Republic of Ireland
Romania
Saudi Arabia
Singapore
South Africa
Spain
Sri Lanka
Switzerland
Taiwan
Thailand
The Netherlands
Turkey
UAE
UK
USA
Vietnam

d. Re-invigorating the CREST exams offer and support for candidates

We continued to offer a range of high quality and internationally respected exams and professional certifications in 2022 at practitioner, registered and certified level.

Exams in 2022

In 2022 we began a full review of our in-person exam content, operating and delivery model. This has included updating the content on our CREST Certified Infrastructure Tester (CCT INF) certification, of which the pass rate is within the long-term historic range, shortly to be supported by training pathways through Hack The Box

- Over **2100** exams taken in **42** countries

- **934** people helped into the cyber profession by taking practitioner level exams

- **621** people advanced their careers by taking registered level exams

- **559** people sought the ultimate badge of honour by taking certified level exams

CATP

Training
We began a review of our CREST Approved Training Partner model in 2022 with completion due in 2023.

Practice labs
Knowing the importance for professionals to practice their skills ahead of exams, we worked with training platforms Hack the Box and Immersive Labs to develop new certification-aligned practice labs for CREST members.

IMMERSIVELABS

HACKTHEBOX

# e. Growing membership and rising demand for CREST accreditation

The **CREST** membership has grown year-on-year since we were founded in 2006. Accreditation is a gateway to CREST membership, and demand continues to rise.

This underlines the increasing value of **CREST** accreditation and membership to companies, supporting the capacity and capability strands of our mission.

Membership and accreditation growth in 2022

- **55** new members from around the world
- Members are based across **41** countries
- **227** renewal applications processed

86 new accreditations awarded:

10 SOC

9 VA

3 STAR Intelligence-led PT

46 PEN TEST

8 CSIR

7 OVS

3 ASSURE
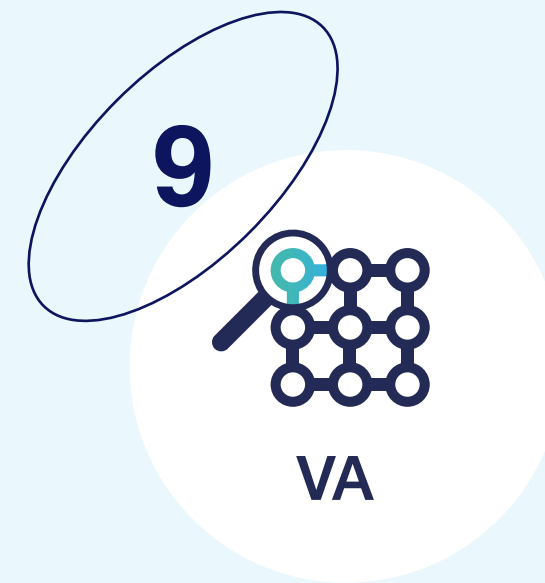
2022 Highlights

New OVS accreditation aimed at supporting member companies offering testing services to the vast app development market

Celebrated our 300th member, **Vertical Structure**

VerticalStructure

Connecting buyers to members

In 2022 we relaunched the **Find a Supplier** function on the website to connect members with potential clients and generate genuine sales leads.

60 average number of forms submitted every month to member companies

1,000 supplier enquiry and callback request forms submitted to member companies

f. Supporting standards and driving consistency worldwide

We have continued working with members, governments, regulators, and industry stakeholders to set standards and collaborate with the standard setters to raise the bar and drive consistency across cyber security.

CREST Defensible Penetration Test

Penetration testing has existed as a cyber security assurance activity for many years, but the term lacks a precise definition, often leading to misunderstanding. With significant growth in penetration tests carried out worldwide, the need to define best practices has become increasingly important.

We worked alongside industry recognised and peer-selected experts in 2022, producing a specification for a CREST penetration test. This recommends how our accredited pen testing member companies should scope, deliver, and sign off their penetration tests.

PEN TEST

CREST: Support for Government frameworks

Governments and regulators require the highest level of assurance of cyber service providers and professionals. CREST has a long history of supporting them.

Here are some examples:

CORIE
The Cyber Operational Resilience Intelligence-Led Exercises framework (CORIE framework 2.0) is a regulatory framework introduced by the Australian Council of Financial Regulators to improve the resilience of the Australian financial system against known cyber threats. Our CCTINF and CCSAS qualifications are accepted qualifications under the CORIE framework.

CHECK
Run by the UK government, CHECK approves cyber security service providers to carry out authorised penetration tests of public sector and critical national infrastructure systems and networks. Companies providing CHECK services use individuals who hold National Cyber Security Centre (NCSC) approved qualifications and have relevant experience. Our collaboration with the NCSC means CREST certifications are recognised to gain CHECK status.

CBEST
Part of the Bank of England and Prudential Regulation Authority's (PRA's) supervisory toolkit, CBEST assesses the cyber resilience of the financial sector. A CBEST assessment allows a better understanding of the vulnerabilities and required actions for financial services providers and the broader financial system. For a service provider to become CBEST, they must be accredited by CREST.

CREST: Support for Government frameworks

ECB
We are in consultation with the European Central Bank regarding CREST's role in quality assurance and data provision around skills and competencies.
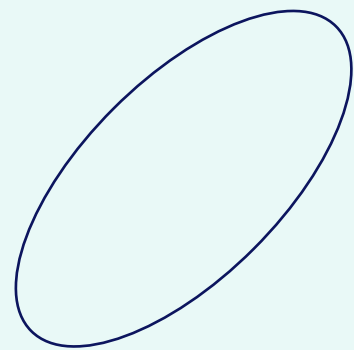
DESC
Throughout 2022 we were in discussions with the Dubai Electronic Security Center about CREST providing quality assurance for cyber security providers who offer services to the Dubai government. This resulted in signing an agreement with DESC in March 2023 to launch the Dubai Cyber Force program, an unprecedented regional initiative.

CSA
We have engaged with the Singapore Cyber Security Agency over several years, including contributing members' feedback to its consultation on the licensing framework for cybersecurity service providers in Singapore.

CAA ASSURE
The scheme is a mechanism for accrediting cyber security suppliers to conduct cyber audits of aviation organisations on behalf of the UK's Civil Aviation Authority. Developed in partnership with CREST, we are one of just two bodies delivering the audit and accreditation process for ASSURE.

2.

Evolution 3.0
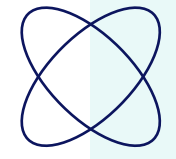
The emergence of CREST 3.0

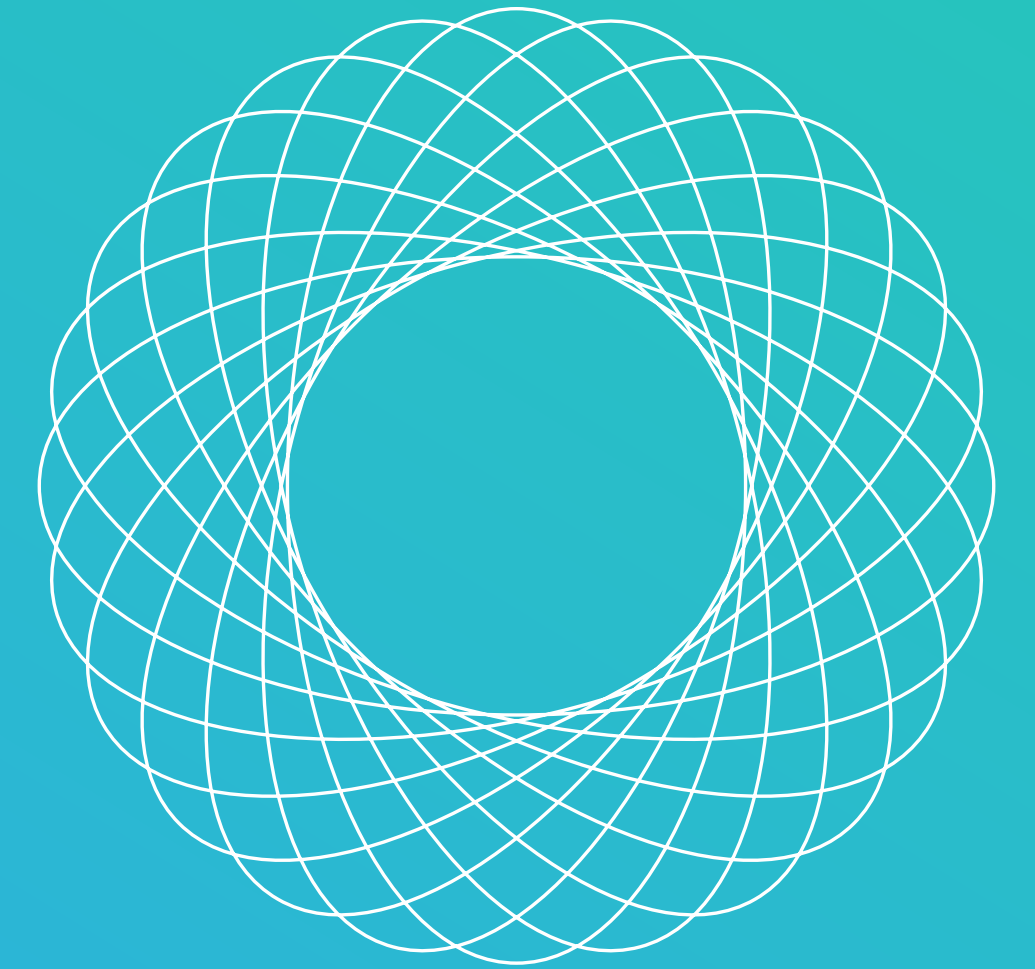## CREST 1.0
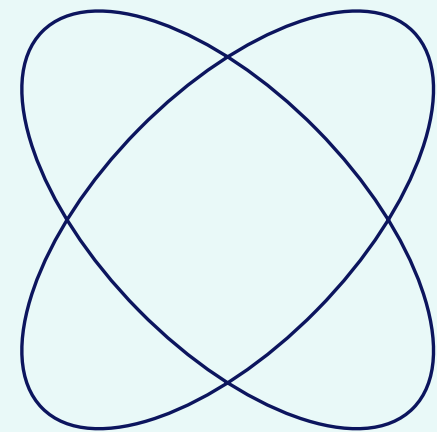
Markets	
UK	
Services	
Mostly Exams	
Member Value Proposition	
Alignment with UK CHECK scheme	

CREST 2.0
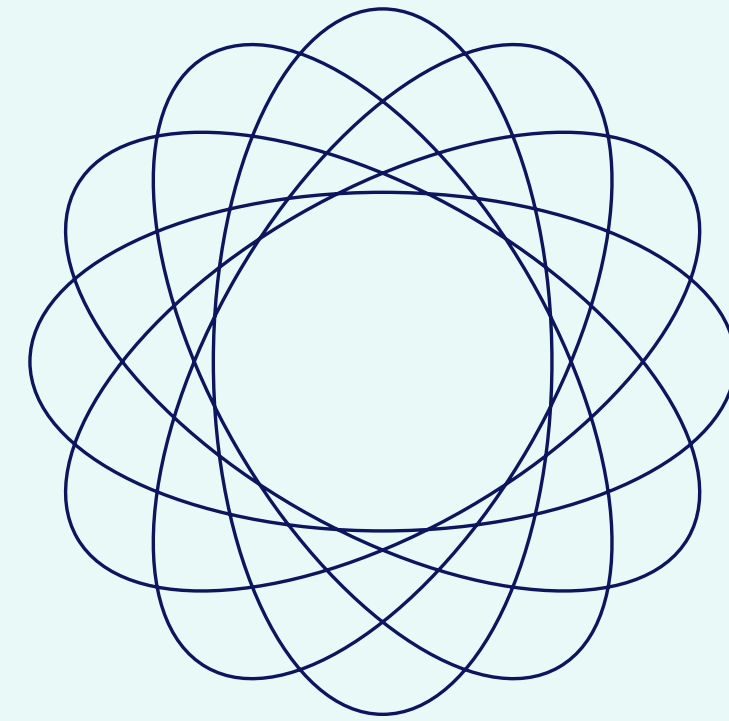
Markets	
UK + Regional	
Services	
Discreet Services (Exams & Accreditation)	
Member Value Proposition	
Regulatory compliance & pre-qual on RFPs	

CREST 3.0

Markets	
Global	
Services	
Connected Services (orgs, Skilled Persons, Programmes)	
Member Value Proposition	
Full member value proposition	
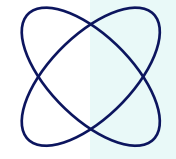
The 2022 to 2025 strategic stages

2022   2023   2024   2025

Laying the foundations

Building on foundations

Forging ahead

Reset

Transform

Evolve

Innovate
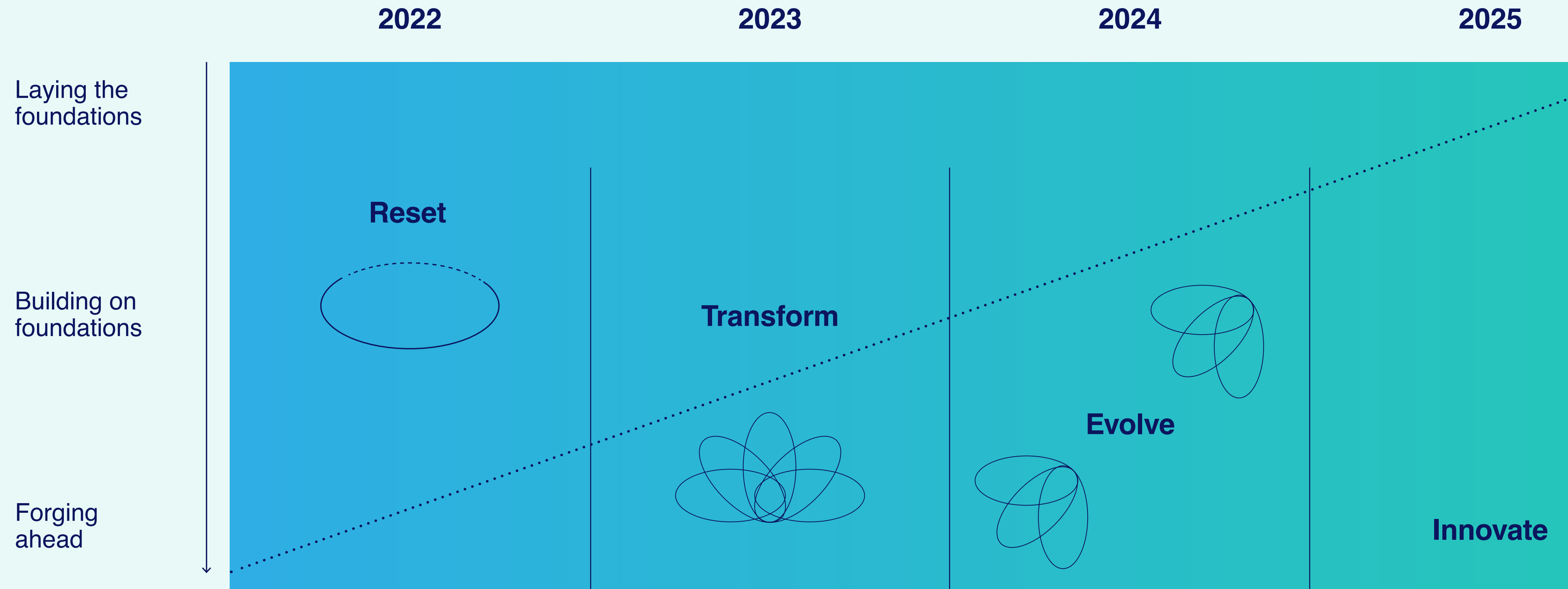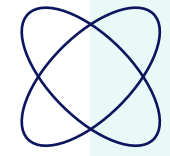
Three–year strategy

Having set a new direction in early 2022 we set about defining a three-year strategy with clear goals, **aligned to our core values of the four Cs.**

Capability
We develop and measure the capability of the cyber security industry
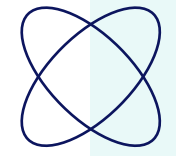
Capacity
We work across the industry to grow the pipeline of cyber security expertise
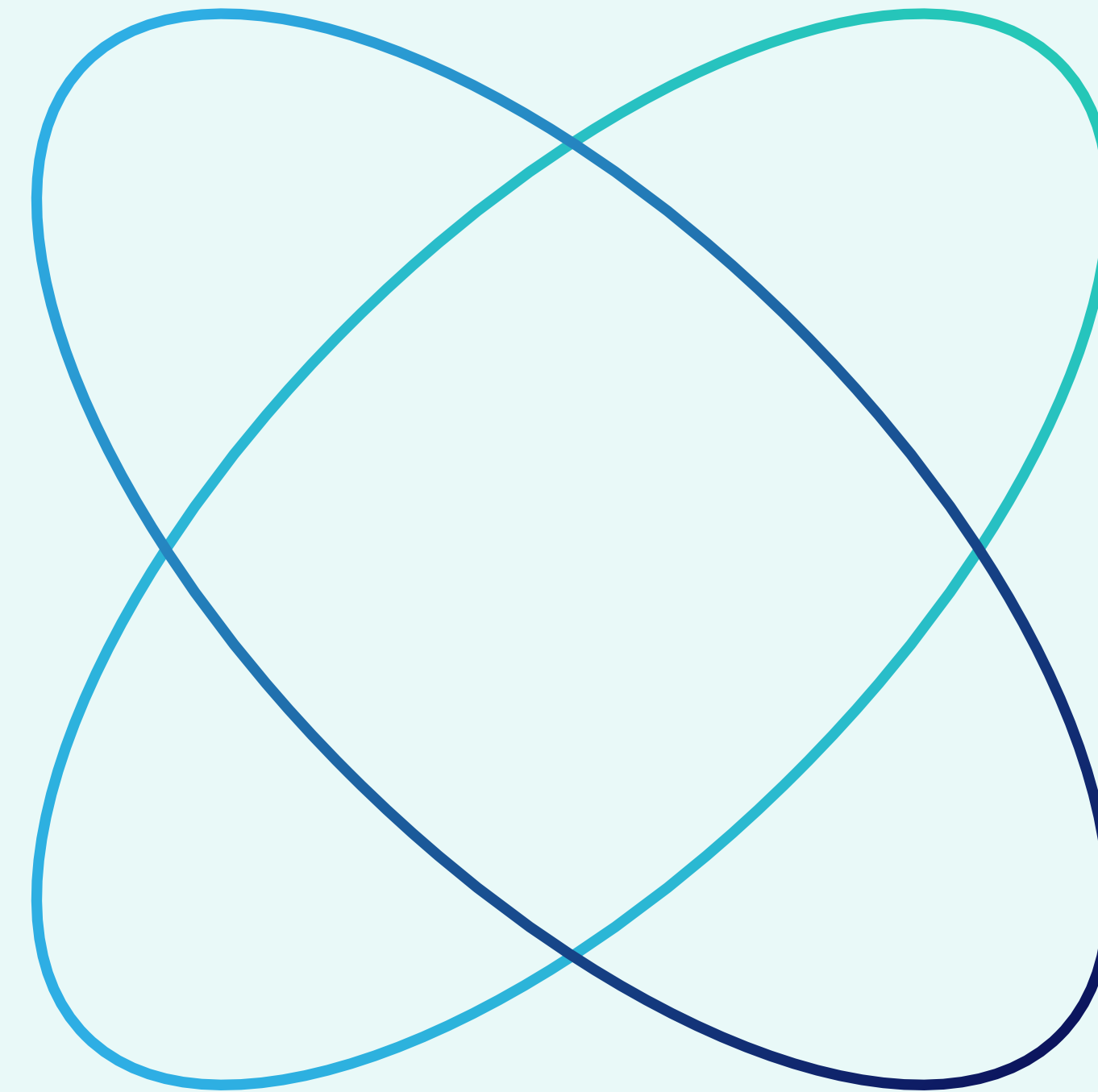
Consistency
We set global standards for cyber security organisations to deliver a consistently high quality of service

Collaboration
We develop and engage with the global cyber security community to leverage our shared knowledge and capabilities for the benefit of all

Three–year goals

Capability
Capability
We develop and measure the capability
of the cyber security industry

1. Encourage organisations in both established and early stage CREST markets to enhance their capabilities through membership and accreditation.

2. Significantly expand the reach of CREST certifications internationally, building on their reputation as the ultimate mark of achievement.

   Use a multi-modal approach to deliver a great candidate experience, continuously enhanced content and high-quality CREST aligned training partners.

Capacity
Capacity
We work across the industry to grow
the pipeline of cyber security expertise
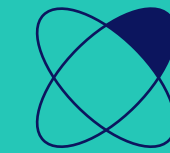
3. Extend CREST presence internationally using regionally focused strategies to drive up the volume of capable cyber security organisations, with tangible support for developing markets.

4. Be a major player in the mission to expand the capacity of skilled and competent individuals in cyber, delivering a global approach to measuring, monitoring and reporting on the state of the market.
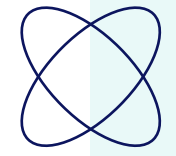
Three–year goals

Consistency
We set global standards for cyber security organisations to deliver a consistently high quality of service

5. Ensure that membership and accreditation standards are consistently raising the bar, are extended to other disciplines where demand is strong and are increasingly evidence-based including the need for certified individuals.

6. Develop international standards that set the quality bar at an increasingly high, consistent level and increase the prevalence of regulators signposting to CREST standards.

Collaboration
We develop and engage with the global cyber security community to leverage our shared knowledge and capabilities for the benefit of all
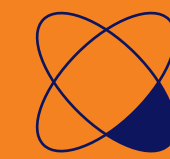
7. Enhance the ability of the buying community to engage CREST members, reducing complexity and friction.

8. Engage and influence governments, regulators and organisations with large supply chains to drive consistency of approach, aiding our members to operate cross-border with minimum friction.

9. Deliver a research agenda that leverages the combined expertise of our community to advance capability, capacity and consistency.

10. CREST members and qualified individuals are part of a vibrant community across varied disciplines and are advocates, highly engaged and believe in the strong value proposition.

3.

Transform
Business Plan 2023
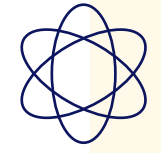
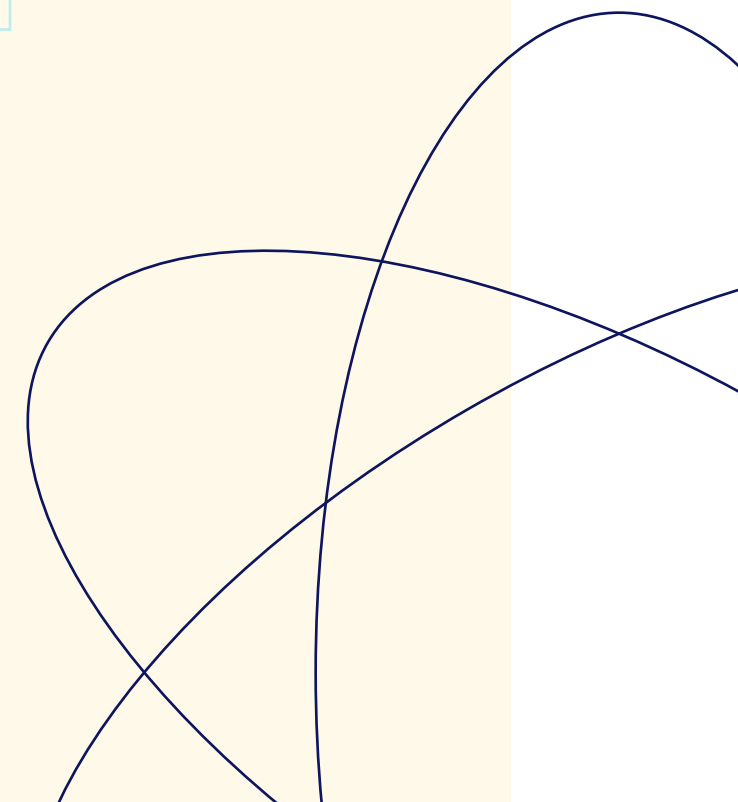# Specific three-year goal priorities for 2023

| Capability We develop and measure the capability of the cyber security industry	2023 International Priorities
1. Encourage organisations in both established and early stage CREST markets to enhance their capabilities through membership and accreditation.	Continue to support capability in application security through CREST's new OWASP Verification Standard (OVS) accreditation. Enable buyers of security services to better differentiate member offerings.
2.. Significantly expand the reach of CREST certifications internationally, building on their reputation as the ultimate mark of achievement. Use a multi-modal approach to deliver a great candidate experience, continuously enhanced content and high-quality CREST aligned training partners.	Continue to build CREST's exam proposition in international markets, developing secure delivery models that are scalable and fit for modern exam candidate expectations. Review all core exams to ensure the syllabus and content is aligned with market expectations. Re-launch the CREST training provider programme, ensuring global and high-quality representation.
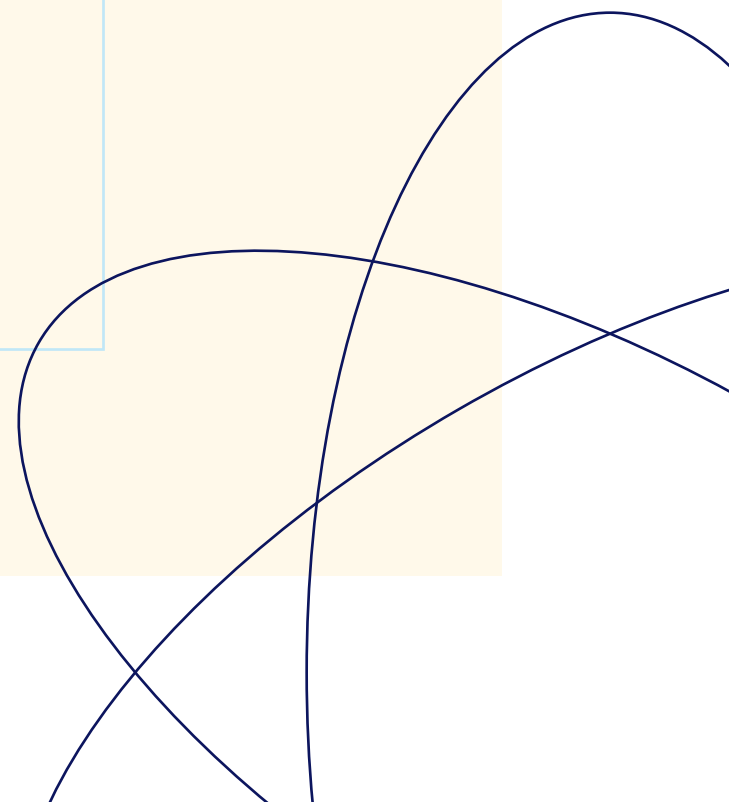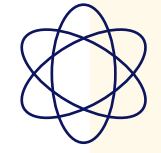
Specific three-year goal priorities for 2023

| Capacity We work across the industry to grow the pipeline of cyber security expertise	2023 International Priorities
3. Extend CREST presence internationally using regionally focused strategies to drive up the volume of capable cyber security organisations, with tangible support for developing markets.	Empower and grow our regional capabilities, led by elected and active regional councils that develop internationally aligned but locally tailored strategies.
4. Be a major player in the mission to expand the capacity of skilled and competent individuals in cyber, delivering a global approach to measuring, monitoring and reporting on the state of the market.	Make considerable progress in understanding the state of the cyber workforce through the CREST skilled persons register. Support regional government-led initiatives to develop cyber career pathways.
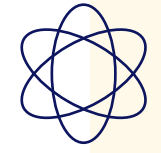
# Specific three-year goal priorities for 2023

| Consistency We set global standards for cyber security organisations to deliver a consistently high quality of service	2023 International Priorities
5. Ensure that membership and accreditation standards are consistently raising the bar, are extended to other disciplines where demand is strong and are increasingly evidence-based including the need for certified individuals.	Review and evolve CREST accreditation services in line with internationally recognised accreditation standards. Investigate and launch additional accreditations where market demand is strong.
6. Develop international standards that set the quality bar at an increasingly high, consistent level and increase the prevalence of regulators signposting to CREST standards.	Build on the prevalence of the CREST Defensible Penetration Test framework and publish an additional standard for another discipline.
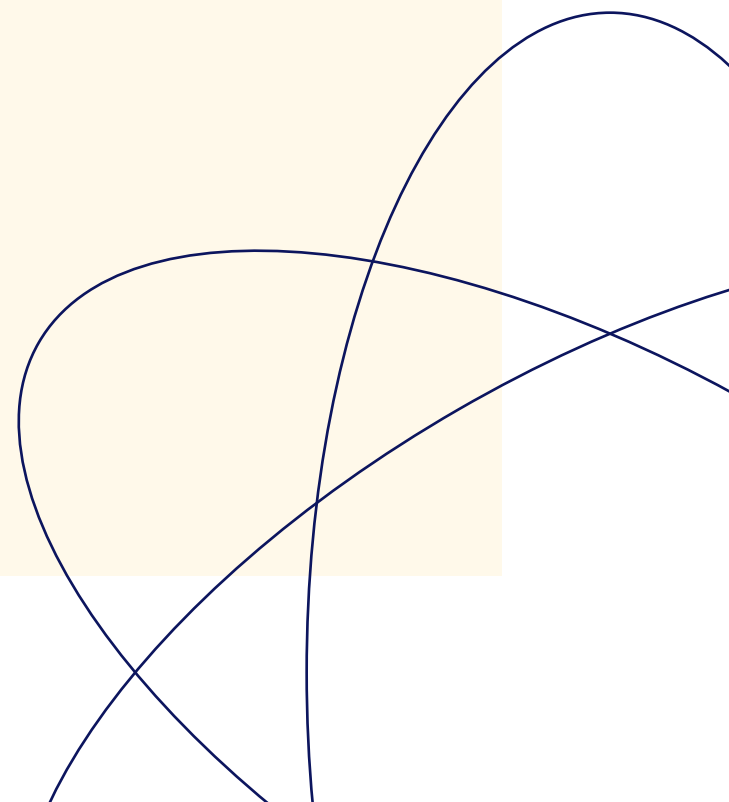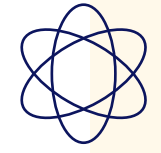
Specific three-year goal priorities for 2023

| Collaboration We develop and engage with the global cyber security community to leverage our shared knowledge and capabilities for the benefit of all	2023 International Priorities
7. Enhance the ability of the buying community to engage CREST members, reducing complexity and friction.	Mobilise regional forums for cyber service buyers, bringing CREST members and the buying community closer together.
8. Engage and influence governments, regulators and organisations with large supply chains to drive consistency of approach, aiding our members to operate cross-border with minimum friction.	Engage regulators that are developing domestic standards to encourage alignment with international standards. Develop more formalised collaborations with other cyber not for profits.
9. Deliver a research agenda that leverages the combined expertise of our community to advance capability, capacity and consistency.	Develop a differentiated and focused research strategy leveraging the unique collective knowledge of the CREST network.
10. CREST members and qualified individuals are part of a vibrant community across varied disciplines and are advocates, highly engaged and believe in the strong value proposition.	Launch relationship management programme, actively surveying and engaging key stakeholders and commence action plan to address any areas identified.
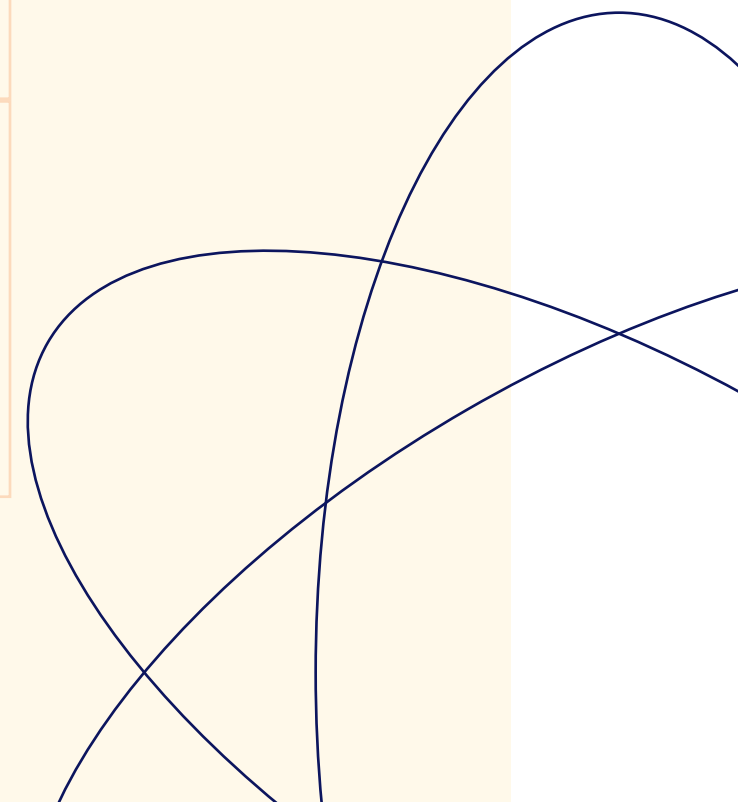
4.

Financial Statements 2022
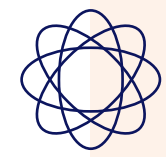
CREST group results 2022

We remain a financially stable and resilient organisation, as validated by our independent external auditors who issued a clean audit report for the 2022 accounts.

CREST group is made up of CREST (International), CREST (GB) and CREST (USA). These figures represent a non-statutory consolidation of those three entities.

	£m
Revenue/turnover	£3.5m
Cost of rev/operating costs	£(3.1)m
Projects (net of £0.5m – £0.4m)	£0.1m
Underlying profit	**£0.5m**
Investments (Opex)	£(0.3)m
Gross profit	**£0.2m**
Fixed asset adjustment	£(0.33)m
Currency gains and bank charges	£0.09m
Net profit/(loss)	**£(0.07)m**

Cash reserves at Y.E.	£1.6m
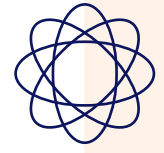
Financial statements 2022

The **underlying profit** is £0.5m, equating to 15% of revenue and shows that we are financially viable before one-off adjustments with a modest profit to re-invest in the member proposition.

This surplus was from:

Revenue
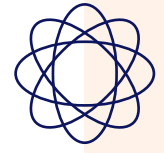£3.5m, up 17% versus 2021

Driven by
- 22% growth in membership, an increase of 55 to 309 at the end of 2022
- 80% increase in exams taken, bringing it to 11% below the 2019 pre-Covid levels

Operating costs
£3.0m, up 22% versus 2021

Driven by
- Right sizing the central and regional teams to support the significant shift of strategy
- Inflationary pressure
- Growth of the business

Financial statements 2022

After accounting for one-off investments of £0.3m, **gross profit** was £0.2m. Investment activity was targeted at delivering a new website, developing the immersive training offer and investigating a new exam delivery platform.

The **net profit** was a marginal loss of £70k due to a fixed asset adjustment of £0.3m offset by currency gains of £0.1m

The **fixed asset adjustment** relates to original development work in 2020 and 2021 on a new exam delivery platform. Ultimately this did not pass the security testing phase. As is the case when you innovate and seek to develop a new platform using emerging technology and capabilities, the solution only sometimes makes it into the live environment, as was the case here. This is consistent with the announcement by a peer security certification provider that they, too, had ceased a project with the same delivery partner for the same reasons.

As a not-for-profit with no shareholders and limited assets from which to secure funding, we need to accumulate surplus funds to invest in future years and remain resilient to potential short-term cash requirements. As such, CREST had £1.6m available cash reserves at the year-end, up £0.2m versus 2021.

CREST

Thank You