

The UK Cyber Security Council

The role of the Council
and the influence of
CyBOK



THE VOICE FOR THE CYBER SECURITY PROFESSION

- ▶ the self-regulatory body for the UK cyber security profession
- ▶ supports the UK Government's National Cyber Security Strategy to make the UK the safest place to live and work online
- ▶ develops, promotes and stewards nationally recognised standards for the cyber security profession.

VISION, ROLE & MISSION

Our **vision** is a shared vision: for the UK to be one of the most secure places anywhere in the world to do business in cyberspace*.

Our **role** in achieving this vision is to be the umbrella body for existing professional organisations and to drive progress towards meeting the key challenges faced by the profession.

In that role, our **mission** is:

- ▶ to be the self-regulatory body for, and voice for, the cyber security profession
- ▶ to develop, promote and provide stewardship of the highest possible standards of expertise, excellence, professional conduct and practice in the profession, for the benefit of the public.

*As set out in the original National Cyber Security Strategy 2016-2021

About the Council

Vision & mission

Our aims

What we do

The four pillars

The Council and
CyBOK

Next Steps

AIMS

Our **aims** are to:

- ▶ inspire, inform and advance public cyber security awareness and knowledge
- ▶ create an open, inclusive and professional cyber security culture
- ▶ influence cyber security best practices that proactively benefit the public in the UK and beyond
- ▶ act as the reference point for cyber security professional standards, competence and commitment.

The Council works closely with the National Cyber Security Centre (NCSC) to define and develop the skills the UK needs.

About the Council

What we do

The four pillars

The Council and
CyBOK

Next Steps

WHAT WE DO

In order to **champion the cyber security profession** across the UK, **provide broad representation** for the industry, **accelerate awareness** and **promote excellence in the profession**, the Council:

- ▶ delivers thought leadership, career tools and education resources to the cyber security sector and those seeking to enter the sector
- ▶ helps influence government, industry and academia with the aim of developing and promoting UK cyber security excellence globally; and
- ▶ takes action to grow the UK's cyber security skills base.

About the Council

What we do

The four pillars

Professional
development

The Council and
CyBOK

Next Steps

PROFESSIONAL DEVELOPMENT

Key purposes of the Council:

- ▶ supporting the professional development of those working or aspiring to work in the cyber security profession
- ▶ supporting employers and individuals as they make decisions about skills, development and recognition through certification and Chartered Status
- ▶ establishing a professional qualification framework, mapping criteria to appropriate skills and qualifications.

About the Council

What we do

The four pillars

Professional
development

Outreach &
diversity

The Council and
CyBOK

Next Steps

OUTREACH & DIVERSITY

Key purposes of the Council:

- ▶ broadening the skills base and overcoming actual and perceived barriers to entry and progression
- ▶ building a vibrant and inclusive network of industry, government and education partners that will provide events and attract people into cyber security from all parts of society
- ▶ promoting cyber security as an attractive and rewarding career option for people of all ages and at any stage of their career, whether already in the industry or new to it.

About the Council

What we do

The four pillars

Professional
development

Outreach &
diversity

Professional
ethics

The Council and
CyBOK

Next Steps

PROFESSIONAL ETHICS

Key purposes of the Council:

- ▶ building and maintaining public confidence in the industry, its organisations and practitioners
- ▶ developing and maintaining a Code of Ethics and Guiding Principles for Individuals, to ensure organisations and individual professionals maintain the highest possible standards themselves and challenge any unethical behaviour by others
- ▶ enforcing through member bodies the Code of Ethics

About the Council

What we do

The four pillars

Professional
development

Outreach &
diversity

Professional
ethics

Thought
leadership &
influence

The Council and
CyBOK

Next Steps

THOUGHT LEADERSHIP & INFLUENCE

Key purposes of the Council:

- ▶ informing Government policy and regulation development by:
 - ▶ acting as an expert body on education and skills for the cyber security profession
 - ▶ identifying where new policies are required; and
 - ▶ advising on regulations or statutes that include an aspect of cyber security.
- ▶ forging and nurturing essential international links
- ▶ working with industry and regulators to further the cause of the sector and to ensure needs are understood on both sides
- ▶ working with relevant bodies to agree standards that define cyber security.

About the Council

What we do

The four pillars

The Council and
CyBOK

Why CyBOK is
important to the
Council

Next Steps

WHY CYBOK IS IMPORTANT TO THE COUNCIL

CyBOK is the source of the knowledge content in two key products of the Council Formation Project:

- ▶ The Qualifications Framework
- ▶ The Careers Framework

About the Council

What we do

The four pillars

The Council and
CyBOK

Why CyBOK is
important to the
Council

The
Qualifications
Framework

Next Steps

THE QUALIFICATIONS AND CAREERS FRAMEWORK

The framework will help...

Prospective practitioners (and advisers) identify:

- ▶ suitable initial roles
- ▶ helpful qualifications
- ▶ potential career paths

Current practitioners identify:

- ▶ appropriate sideways careers moves
- ▶ prospects for upwards progression
- ▶ helpful qualifications

Managers and recruiters define:

- ▶ cyber security team structures
- ▶ job and person descriptions
- ▶ appropriate qualifications for roles
- ▶ valuable experience outside cyber or IT for candidates

About the Council

What we do

The four pillars

The Council and
CyBOK

Why CyBOK is
important to the
Council

The
Qualifications
Framework

Specialisms

Next Steps

SPECIALISMS

- ▶ Used to define pathways and roles in a Careers Framework
- ▶ Descriptive, not prescriptive
- ▶ Compatible with existing standards
- ▶ Flexible enough to meet the varying needs of organisations

About the Council

What we do

The four pillars

The Council and
CyBOK

Why CyBOK is
important to the
Council

The
Qualifications
Framework

Specialisms

The 16
specialisms we
are using

Next Steps

THE 16 SPECIALISMS WE ARE USING

- ▶ Digital Forensics
- ▶ Threat Intelligence
- ▶ Incident Response
- ▶ Vulnerability Management
- ▶ Network Monitoring & Intrusion Detection
- ▶ Security Testing
- ▶ Data Protection & Privacy Management
- ▶ Cryptography & Communications Security
- ▶ Identity & Access Management
- ▶ Secure Operations
- ▶ Secure Development
- ▶ Secure Architecture & Design
- ▶ Cyber Security Risk Assessment & Management
- ▶ Cyber Security Audit & Assurance
- ▶ Cyber Security Control & Management
- ▶ Cyber Security generalist

About the Council

What we do

The four pillars

The Council and
CyBOK

Why CyBOK is
important to the
Council

The
Qualifications
Framework

Specialisms

The 16
specialisms we
are using

An example of
mapping
knowledge to
specialisms

Next Steps

MAPPING KNOWLEDGE FROM CyBOK

- ▶ What is the relevant knowledge?
 - ▶ these knowledge elements are ones that an experienced practitioner in an incident response role will typically use, although not always to the same level of detail.
 - ▶ they are most likely to have a very good understanding of the Specialist Knowledge, which is essential to performing the role.
 - ▶ they may still a good understanding of the Related Knowledge but not to quite the same degree.
 - ▶ they may have much less detailed understanding of the elements of Wider Knowledge, which provides context for their work.
 - ▶ it is not expected that someone coming into such a role would have all this knowledge initially.

About the Council

What we do

The four pillars

The Council and
CyBOK

Why CyBOK is
important to the
Council

The
Qualifications
Framework

Specialisms

The 16
specialisms we
are using

An example of
mapping
knowledge to
specialisms

Next Steps

MAPPING KNOWLEDGE AREAS

- ▶ Specialist Knowledge
 - ▶ Security Operations & Incident Management
if you are working in a role which has responsibility for the security of cyber-physical systems, you will also need:
 - ▶ Cyber-Physical Systems Security
- ▶ Related knowledge
 - ▶ malware & matakck Technologies
 - ▶ adversarial behaviours
- ▶ Wider Knowledge
 - ▶ human factors
 - ▶ forensics
 - ▶ network security
 - ▶ hardware security

About the Council

What we do

The four pillars

The Council and
CyBOK

Next Steps

NEXT STEPS

- ▶ Committee Set-Up
 - ▶ Standards & Qualifications Committee
 - ▶ Ethics & Diversity
- ▶ Expansion of Council Operations
 - ▶ Final Trustees - Nominated by members
 - ▶ Permanent Staff Appointments
 - ▶ Membership

Council and CyBOK defining together the future relationship and use of CyBOK by the profession

THANK YOU