

cabe

chartered
association
of building
engineers

Chartered Member (MCABE)

Competency Framework 2023

cbuilde.com

v1 May 2026

 **cabe** Document

 **cabe**
chartered member

Contents



Introduction	3
Competency Framework Structure	4
Core Competence Criteria Descriptors	5
Scope and Evidence Requirements	6
Competence Sections	7
Chartered Member Guidance	8
MCABE Competency Framework	9
Supporting Annexes	17
ANNEX A – CABE Guidance on Building Safety	18-19
ANNEX B – Engineering Council Principles of Sustainability	20-21
ANNEX C – CABE Guidance on Inclusive Design	22
ANNEX D – Engineering Council Guidance on Risk	23-24
ANNEX E – Engineering Council Statement of Ethical Principles	25
ANNEX F – Engineering Council Guidances on Whistleblowing	26-27
ANNEX G – Engineering Council Guidances on Security	28-29



Introduction – Raising the Standard



The **CABE 2023 Competency Framework** is designed to ensure that there are clear and concise descriptors against the levels of knowledge, skills, experience and understanding that are being demonstrated. They relate to both the expectation of competence against the grade of membership, and a clear structure for ensuring accurate measurement of the competencies required.

This framework, and its descriptors and measurement criteria (and, where appropriate, the subject specific guidance) regardless of the level of membership, incorporates the requirements of Flex 8670 and The UK Standard for Professional Engineering Competence and Commitment (UK-SPEC) Fourth Edition. Taken as suite of information, it enables our members to provide evidence of competence both as a Building Engineer and within (if required) a specialist working role.

CABE Building Engineers, at each grade of membership, are expected to maintain and manage the application of current and developing technology whilst undertaking a wide range of activities. These would include engineering, design, inspection, development, surveying, manufacture, construction, and operations appropriate to the grade of membership they currently hold.

CABE members should demonstrate:

- the theoretical knowledge to solve problems within established technologies, using well-proven analytical techniques
- successful application of the knowledge to deliver engineering tasks or services using established technologies and methods
- an ability to contribute to the financial and planning aspects of projects or tasks and contribution to leading and developing other professional staff
- effective interpersonal skills in communicating technical matters
- the ability to specify and operate within safe systems of work and to demonstrate appropriate consideration of the principles of sustainability; and
- commitment to professional engineering values.

CABE members will be able to demonstrate their competence in all the core competences listed, but the depth and extent of their experience and competence will vary with the nature and requirements of their role. It is to be expected that they will have a higher level of competence in some areas than others and their role may provide limited experience in certain areas; however, as a minimum requirement, they need to demonstrate an understanding of, and a familiarity with, the key aspects of each core competence whilst demonstrating higher levels of competence in those areas which are critical to their role. Overall, they must demonstrate an appropriate balance of competences to perform their role effectively at whichever level of CABE membership they hold.

This framework consists of a suite of information, which is combined and utilised as a whole, to create all the necessary detail to understand, measure and align the **CABE 2023 Competency Framework** to the required standards;



Chartered Member Competency Framework Structure

Membership Level	Designation	Competence Framework	Built Environment Qualifications	Indicative RQF or equivalent	Experience with qualifications	Experience without qualifications	Engineering Council	Society for the Environment
Chartered Member	MCABE	Chartered Member	Bachelor's Degree (with/without Honours)	6	2 years	5 years	Incorporated Engineer (IEng)	Registered Environmental Practitioner (REnvP)
			Higher National Diploma (HND)	5	3 years			Registered Environmental Technician (REnvTech)
			Higher National Certificate (HNC)	4	4 years			

Go to **cbuilde.com/subscription_fees**
to find out the associated fees for this grade of membership.

The Core Competence Criteria Descriptors



The **CABE 2023 Competency Framework** is designed to ensure that there are clear and concise descriptors against the levels of knowledge, skills, experience and understanding that are being demonstrated.

They relate to both the expectation of competence against the grade of membership and then a clear structure for ensuring accurate measurement of the competences required.

Awareness (1)

- Has the basic knowledge of theory to understand key concepts relevant to their work
- Able to engage in discussions regarding specific competencies
- Performs routine tasks typically with significant supervision
- Learns how to do things

Understanding / Basic application or proficiency (2)

- Performs fundamental and routine tasks
- Requires occasional supervision in their execution
- Increased functional expertise and ability
- Works with others
- Decision making must remain within the limit of expertise.

Detailed understanding / Detailed application or proficiency (3)

- Independent contributor
- Integrates work with other disciplines
- Assesses and compares options and makes key decisions
- Often mentors, coaches, or manages others.

Comprehensive understanding / Complex application or expert proficiency (4)

- Advanced experience in particular competence
- Applies creative solutions to difficult problems
- Defines and drives critical business opportunities and needs
- Represents the organisation internally and externally on critical issues
- Sets standards within the organisation
- Recognised as a subject matter expert.

Scope and Evidence Requirements



Scope – ‘CABE expects you to...’

The scope listed against each sub-competence provides an outline of the expected areas of competency, wherever these are relevant/applicable to the member's/applicant's specific area of practice.

A general awareness should be displayed against the relevant scope point, but applicants will be expected to evidence more specialised competence relevant to their own specific roles or activities. Members/applicants should also be able to demonstrate how they manage the interface of their work with others to ensure safe and effective outcomes.

Evidence – ‘you can demonstrate this by...’

The evidence is intended to help identify activities that demonstrate the required competence and commitment for CABE membership. They are intended as examples only; the most appropriate evidence will vary with each individual member's/applicant's job role, knowledge, skills and experience.

The examples given are not exhaustive and other types of evidence may be valid. There is no requirement to provide multiple examples of evidence for each area of competence, but examples from two or three projects or tasks are expected.

Subject-specific Annex

Additional guidance on a range of critical issues is provided in a series of supporting annexes drawn from guidance issued by the Engineering Council UK and CABE.

CABE members must understand and be able to demonstrate how they apply this guidance in their day-to-day work which covers key crosscutting areas of professional competence often relevant to multiple areas of building engineering practice.

The annexes are:

ANNEX A – CABE Guidance on Building Safety

ANNEX B – Engineering Council Principles of Sustainability

ANNEX C – CABE Guidance on Inclusive Design

ANNEX D – Engineering Council Guidance on Risk

ANNEX E – Engineering Council Statement of Ethical Principles

ANNEX F – Engineering Council Guidance on Whistleblowing

ANNEX G – Engineering Council Guidance on Security

Competence Sections



The competence framework for every level of membership is designed around five sections of competence (see below); the main headings in the left-hand columns (e.g., A1, A2) describe the core competences that will be assessed. Assessment will be contextualised to be relevant to the specific role, discipline, or activity of the applicant/member as per the scope set out below, and they will be expected to demonstrate competence using suitable examples of evidence.

Each competence section is aligned with the corresponding subject-specific guidance as set out in the applicable annexes.

A – Knowledge and Understanding

This competence is about the foundational knowledge and understanding of technical principles and technologies relevant to an individual's area of building engineering practice.

The relevant annexes that support this are A, B and C

B – Design, Development and Solving Engineering Problems

This competence is about the ability to apply appropriate methods and approaches when undertaking building engineering tasks or functions.

The relevant annexes that support this are A, B, C and D

C – Responsibility, Management and Leadership

This competence is about the ability to plan your own work and manage or specify the work of others effectively, efficiently and in a way which provides leadership at an appropriate level, whether technical or commercial.

The relevant annexes that support this are D, E and F

D – Communication and Interpersonal Skills

This competence is about the ability to work with others constructively, to explain ideas and proposals clearly and to discuss issues objectively and constructively.

The relevant annexes that support this are E and G

E – Professional Commitments and Standards

This competence is about ensuring that the applicant is acting in a professional manner in their work and in their dealings with others.

The relevant annexes that support this are B, C, D and E

Chartered Member (MCABE)



Chartered Members (MCABE) maintain and manage the application of current and developing technology, whilst undertaking a wide range of activities including engineering, design, inspection, development, manufacture, construction, and operation.

To achieve Chartered membership, you must show that you meet the competences laid out in the **Chartered Member (MCABE) Competency Framework**.

Chartered Members should demonstrate:

- theoretical knowledge to solve problems in established technologies using well proven analytical techniques
- successful application of the knowledge to deliver engineering tasks or services using established technologies and methods
- the ability to apply complex application or proficiency in the implementation of their role
- an ability to contribute to the financial and planning aspects of projects or tasks and contribution to leading and developing other professional staff
- effective interpersonal skills in communicating technical matters
- the ability to specify and operate within safe systems of work and to demonstrate appropriate consideration of the principles of sustainability
- the ability to work as an independent facilitator; and
- proven evidence of commitment to professional engineering values.

Chartered Members will be able to demonstrate their competence in all the areas listed, but the depth and extent of their experience and competence will vary due to the nature and requirements of their role. They will demonstrate a level of competence and commitment in each area (A1–E5) set out in the framework at a level which is consistent with their specific role. It is to be expected that they will have a higher level of competence in some areas than others and their role may provide limited experience in certain areas.

Overall, they must demonstrate an appropriate balance of competence to perform their role effectively at MCABE level.



Competency Framework

A KNOWLEDGE AND UNDERSTANDING (MCABE)

Use a combination of general and specialist building engineering knowledge and understanding to apply existing and emerging technology relevant to your work.

This competence is about an individual having the foundational knowledge and understanding of technical principles and technologies relevant to an their area of building engineering practice. This includes the knowledge necessary to undertake assessment, analysis, design or management of technical solutions to address complex building engineering problems. This competence also requires demonstration of the ability to identify opportunities for continuous improvement and an ongoing commitment to maintain and develop relevant knowledge.

SUPPORTING ANNEXES: A, B and C

Descriptor	Scope	Evidence
A1 Maintain and extend a sound theoretical approach to the application of technology to relevant markets, sectors and scales of work undertaken in building engineering practice including appropriate construction technology and techniques.	Possess detailed knowledge of the following: • common, specialised, or complex construction techniques, technologies, systems, products and practices relevant to your own building engineering practice • technologies for the design, specification, or assessment of fire safety to meet or exceed statutory requirements to aid warning and escape; for facilities to enable access and intervention by the fire and rescue services; for containment of fire and to support extinction • structural safety and stability including primary and secondary structural elements • technologies, building services, systems and standards including those required to protect public health and public safety • building fabric, building services and design practices for sustainability • technologies and practices to provide an inclusive built environment • modern methods of construction and innovative digital technology • building pathology, measurement, assessment, and inspection.	• Utilising a range of common construction methods and technologies • Deploying understanding of principles or using specific technologies to address fire, structural, public health or public safety issues in your building engineering practice • Deploying understanding of principles or technologies to achieve sustainable outcomes • applying the principles of inclusive design and deploying technical solutions to create a more inclusive environment • Identifying the limits of your knowledge and skills • Taking steps to develop and extend personal knowledge of appropriate technology, both current and emerging • Applying newly gained knowledge successfully in a task or project • Reviewing current procedures and processes and recommended improvements or changes to reflect best practice • Developing knowledge needed to work in a new industry area or discipline • Learning new building engineering theories and techniques in the workplace, • Broadening your knowledge of building engineering codes, standards, and specifications • Assisting in the development of industry standards and codes of practice.
A2 Use a sound, evidence-based approach to problem solving and contribute to continuous improvement.	• Undertake and use technical research to inform engineering decisions. • Exercise sound judgement including anticipating, identifying, analysing and solving problems to support safe, sustainable and effective outcomes • Identify technical requirements and performance standards necessary to comply with applicable building regulations, codes or standards and undertake relevant design, specification, assessment, or inspection activities • Demonstrate an understanding of construction product and building system characteristics to meet or exceed safety or performance requirements throughout the building lifecycle. • Develop solutions involving complex or multi-disciplinary technology • Work within systems that support continuous improvement.	• Applying knowledge and experience to investigate and solve problems arising during engineering tasks and implementing corrective action • Demonstrating the ability to apply or deploy knowledge to comply with or exceed technical standards, codes, building regulations and any other performance requirements relevant to your work • Using an established process to analyse issues and establish priorities • Carrying out technical research and development into products, materials or technology • Conducting assessment or appraisal of data or technical proposals • Identifying opportunities for improvements and how these have been/could be implemented.

B DESIGN, DEVELOPMENT, AND SOLVING ENGINEERING PROBLEMS (MCABE)

Apply appropriate theoretical and practical methods to manufacture, assess, design, develop, construct, commission, operate, maintain, de-commission and recycle using building engineering process, systems, products, and services relevant to your work.

This competence is about an individual's ability to apply appropriate methods and approaches when undertaking building engineering tasks or functions. It also requires competence in implementing solutions and managing, sharing, and protecting data through the project lifecycle.

SUPPORTING ANNEXES: A, B, C and D

Descriptor	Scope	Evidence
B1 Identify, review, and select techniques, procedures, and methods to undertake engineering tasks to comply with required performance standards and requirements of relevant regulatory frameworks.	- Develop client user requirements, briefs or specifications - Identify regulatory and legal frameworks and requirements to protect people and property during construction and occupation including statutes, building regulations, national or international standards and good practice guidance - Plan for the execution, assessment, management and monitoring of work so that it meets client and user requirements and complies with technical and procedural requirements of applicable building regulations, standards or codes - Establish realistic programmes, schedules and timetables taking into account the need to maintain quality, safety and performance standards - Coordinate building design, assessment, management or construction activities to achieve holistic building safety and performance.	- Establishing user requirements for improvements - Identifying resources required and the costs of different options - Establishing the steps needed to carry out a task efficiently - Identifying the available products or processes needed to undertake an engineering task and establishing a means of identifying the most suitable solution - Identifying and understanding relevant frameworks and legislation and their implications for project delivery - Contributing to effective tendering / procurement and review of building engineering products, processes and systems to meet user requirements - Preparing technical specifications - Reviewing and comparing responses to the technical aspects of tender invitations.
B2 Contribute to the assessment, design, and development of building engineering solutions.	- Undertake appropriate design, assessment and specification for intended use so that construction products and building systems function effectively and safely, individually and together - Comply with relevant legal requirements for fire safety, structural safety, public health and public safety, sustainability and inclusive design - Account for impact of installation quality on construction product and building system performance - Apply quality assurance and quality management processes - Identify and manage risk in assessment, design and development activities - Utilise test and research data.	- Producing detailed designs and specifications - Undertaking and managing inspections or assessments - Contributing to the identification and specification of design and development requirements for engineering products, processes, systems and services - Identifying operational risks and evaluating possible engineering solutions, taking account of cost, quality, safety, reliability, accessibility, appearance, fitness for purpose, security (including cyber security), intellectual property constraints and opportunities, and environmental impact. - Carrying out necessary tests including physical tests, inspection, and trials, analysing and evaluating the results.
B3 Effectively manage information and knowledge, comply with data protection legislation. Contribute to the recording, updating, development, collection, organisation, and sharing of information about design, construction, operation, maintenance, and refurbishment of buildings or built environment assets throughout the building lifecycle to maintain safety and performance	- Identify legal or client requirements for exchange of building information (including fire and building safety information) - Maintain a 'golden thread' of information through identification of records to be kept, how they should be retained, accessed and managed over time to support safety, performance and data protection outcomes - Identify when and how to undertake research to obtain information, or identify and highlight missing information, relevant to building safety or performance, especially in existing buildings - Possess a detailed knowledge of and the ability to comply with any relevant requirements for information (including building safety information) to be available to building occupants including residents, visitors and staff, emergency services or persons otherwise affected by building and building work, such as duty holders, regulators, clients and project team members - Demonstrate the ability to effectively share information about design, construction and maintenance of buildings with regulators, clients, designers and contractors whilst maintaining legal compliance with requirements for data protection and cyber security.	- Deploy a detailed knowledge of digital systems, including building management systems, digital records and building information modelling and digital engineering standards and systems; - safety management systems and safety case - health and safety file - fire risk assessment and emergency plans - as-designed/as-built information - building safety strategies - building maintenance information and scheduling - testing and commissioning information including acceptance reports - inspection reports and any declarations, sign off or notices - lifecycle and replacement data, records and certificates - data protection and cyber security - management of deleterious materials including asbestos - information relating to safe demolition and disposal of building materials operation manuals - statutory records and certificates relating to building work - information relating to temporary works.



B DESIGN, DEVELOPMENT, AND SOLVING ENGINEERING PROBLEMS (MCABE) Continued...

Apply appropriate theoretical and practical methods to manufacture, assess, design, develop, construct, commission, operate, maintain, de-commission and recycle using building engineering process, systems, products, and services relevant to your work.

This competence is about an individual's ability to apply appropriate methods and approaches when undertaking building engineering tasks or functions. It also requires competence in implementing solutions and managing, sharing, and protecting data through the project lifecycle.

SUPPORTING ANNEXES: A, B, C and D

	Descriptor	Scope	Evidence
B4	Implement or assess building engineering solutions and contribute to their evaluation.	• Identify critical factors likely to affect successful implementation including the establishment of the required level and type of resources • Undertake inspection, testing or assessment of design, construction work or installations and make effective interventions to assure compliance with required performance • Possess a detailed understanding of the requirements for maintaining fire or structural safety including instructing, planning or undertaking assessment, inspection, or maintenance tasks • Possess a detailed understanding of the processes and duties to notify building operators, suppliers and manufacturers where defects or maloperation issues are found in construction products or building systems which could impact on building safety or performance • Identify and provide feedback on unsafe or inadequate designs, process, equipment, procedures, construction products, building systems, standards or quality.	• Identifying and obtaining resources including money, people and time required for effective implementation • Ensuring that the design or work undertaken results in desired standards of performance and safety • Operating and maintaining processes and systems • Implementing design solutions, taking account of critical constraints, including due concern for safety and sustainability • Identifying problems during implementation and taking corrective action • Contributing to recommendations for improvement and actively learning from feedback on results.



C RESPONSIBILITY, MANAGEMENT AND LEADERSHIP (MCABE)

Provide technical and commercial management.

This competence is about an individual's ability to plan their own work and manage or specify the work of others effectively, efficiently and in a way which provides leadership at an appropriate level, whether technical or commercial. Leadership is not necessarily about having a formal line management role. In matrix management and other types of organisational structure, where Building Engineers are working within complex and varied working relationships, they will provide leadership to achieve objectives. This competence is also about the ability to consider and identify improvements to quality.

SUPPORTING ANNEXES: D, E and F

	Descriptor	Scope	Evidence
C1	Plan for effective project implementation or project management.	- Project budgeting, cost management, cost control and reporting - Programme assessment, management and reporting - Management of appointments and contracts - Mitigate actions to avoid building safety and performance being adversely affected by procurement, cost, management, specification or commercial decisions - Ensure the application of relevant legal frameworks for safety and risk management through the building lifecycle - Personal evaluation planning - Develop and implement control measures to mitigate risks posed to safety throughout the building lifecycle - Accept and manage accountability for individual actions and for the actions of those under their supervision or direction. - Where relevant, fulfil or manage roles, responsibilities, and duties critical to building safety - Manage risk allocation within and between teams, disciplines, roles, and activities, particularly at boundaries / interfaces of responsibility, and communicate these effectively to others and implement effective control measures - Manage or work within the necessary contractual arrangements with other stakeholders (client, subcontractors, suppliers).	- Identifying factors affecting the project implementation - Carrying out holistic and systematic risk identification, assessment and management - Preparing and agreeing implementation plans and method statements - Securing the necessary resources and confirming roles in a project team - Applying the necessary contractual arrangements with other stakeholders (clients, subcontractors, suppliers) - Managing and contributing to relevant risk assessment processes and activities, such as: - fire risk assessment - safety case development - design risk management - major incident plans - occupants and residents information - residents engagement plans.
C2	Manage, programme or schedule budget and resource elements of engineering tasks or projects to meet required performance or safety standards.	- Operate within appropriate management systems - Work to the agreed quality and safety standards, programme and budget, within legal and statutory requirements - Manage and acting effectively within teams, co-ordinating project activities - Identify variations from quality and safety standards, programme and budgets, and take corrective action - Manage and check competence (including building safety competence) of persons undertaking activities including specification, design, construction, management during occupation, operation, installation, maintenance, demolition - Identify and communicate duty holder obligations when making appointments or allocating tasks within teams - Provide persons under your control with suitable supervision, instruction, and information to support regulatory compliance - Manage impacts of use of alternative construction products, solutions or building systems with potential to affect holistic building safety and performance - Evaluate persons or organisations under your control, supervision or instruction and provide feedback.	- Operating appropriate management systems - Working to the agreed quality standards, programmes and budgets, within legal and statutory requirements - Managing work teams and coordinating project activities - Identifying variations from quality standards, programmes and budgets, and taking corrective action - Evaluating performance and recommending improvements.



C RESPONSIBILITY, MANAGEMENT AND LEADERSHIP (MCABE) Continued...

Provide technical and commercial management.

This competence is about an individual's ability to plan their own work and manage or specify the work of others effectively, efficiently and in a way which provides leadership at an appropriate level, whether technical or commercial. Leadership is not necessarily about having a formal line management role. In matrix management and other types of organisational structure, where Building Engineers are working within complex and varied working relationships, they will provide leadership to achieve objectives. This competence is also about the ability to consider and identify improvements to quality.

SUPPORTING ANNEXES: D, E and F

	Descriptor	Scope	Evidence
C3	Manage teams and the input of others into own work and assist others to meet changing technical and management needs.	• Manage effective communication within and between project teams, organisations and individuals • Accept and manage accountability for individual actions and for the actions of those under their supervision or direction • Identify team and individual needs and consider competence requirements for specific roles, disciplines activities or tasks, and planning for their development • Collaborate effectively • Demonstrate effective team working skills • Undertake effective appraisal and feedback • Recognise and promote consideration and understanding of inclusion and diversity.	• Agreeing objectives and work plans with clients, managers, teams and individuals • Reinforcing team commitment to professional standards • Promoting collaborative behaviours within teams and between organisations • Leading and supporting team and individual development • Seeking input from other teams or specialists where necessary and managing the relationship • Assessing team and individual performance and providing feedback.
C4	Take an active role in continuous quality improvement.	• Record, monitor, analyse and act to improve outcomes as part of a learning culture • Apply principles of quality management, including undertaking quality assurance and quality control activities • Apply obligations to raise, escalate or flag risks to life safety during the design, manufacture, construction, maintenance or management process and the ability to take action through whistleblowing and mandatory reporting regimes.	• Demonstrating how you ensure the application of quality management principles by yourself, team members or colleagues • Managing operations and building engineering tasks to maintain or meet quality, safety, and performance standards • Evaluating projects and make recommendations for improvement • Raising and escalating safety concerns where necessary • Implementing and sharing the results of lessons learned.

D	COMMUNICATION AND INTERPERSONAL SKILLS (MCABE)		
	Building Engineers shall demonstrate effective communication and interpersonal skills.		
	This competence is about an individual's ability to work with others constructively, to explain ideas and proposals clearly and to discuss issues objectively and constructively.		
	SUPPORTING ANNEXES: E and G		
	Descriptor	Scope	Evidence
D1	Communicate effectively in with others at all levels through use of verbal, written, drawn, digital or graphic information and in accessible formats.	• Prepare communications, documents and reports on technical or contractual matters • Effectively communicate technical information (and, where necessary, provide advice) to technical and non-technical audiences • Effectively, accurately and responsibly communicate issues relating to risk or safety with members of project or management teams, occupants and residents. • Contribute to, chair and record meetings and discussions • Prepare material in accessible formats, taking into account diversity of the audience.	• Providing reports, letters, emails, drawings, specifications and working papers (e.g. meeting minutes, planning documents, correspondence) in a variety of formats • Engaging or interacting with professional networks, client or public consultation groups in meetings, presentations, workshops or seminars.
D2	Clearly present and discuss proposals.	• Possess the ability to listen and feedback effectively within project teams or management • Supply the provision of information, training and education on building safety, building performance or management matters to colleagues, communities, occupants, clients and residents as required and in accessible formats • Provide balanced, proportionate and factual explanation of technical issues, particularly where risks to life safety have been identified, the potential consequences and make clear recommendations for mitigating measures.	• Providing records of discussions and their outcomes • Preparing and delivering appropriate presentations • Managing debates with audiences • Feeding the results back to improve the proposals • Managing the contribution and impact of risk.
D3	Demonstrate personal and social skills and awareness of diversity and inclusion issues.	• Deploy effective consultation, listening and engagement with occupants or others who are or could be affected by work (including vulnerable, older, and disabled people) and respond appropriately • Lead on diversity programmes and how to engage with a wide range of stakeholders in a professional manner • Deal with difficult conversations professionally • Possess knowledge of the different routes to resolving disputes or complaints, including mediation and arbitration.	• Knowing and managing own emotions, strengths and weaknesses and understand impact of behaviours both negative and positive • Being confident and flexible in dealing with new and changing interpersonal situations • Identifying, agreeing and working towards collective goals • Creating, maintaining and enhancing productive working relationships, and resolving conflicts • Being supportive of the needs and concerns of others, especially where this relates to diversity and inclusion • Applying diversity and anti-discrimination legislation • Taking part in public consultation or direct engagement with a diverse range of people to improve inclusion, diversity and equality in the built environment.



E

PROFESSIONAL COMMITMENT AND STANDARDS (MCABE)

Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession, and the environment.

This competence is about ensuring that an individual is acting in a professional manner in their work and in their dealings with others. A Chartered Member should set a standard and example to others about professionalism.

SUPPORTING ANNEXES: B, C, D and E

	Descriptor	Scope	Evidence
E1	Comply with, and have detailed knowledge of, the CABE Code of Professional Conduct, and any other relevant code of conduct and maintain professional standards to which you are subject.	- Act within limits of own competence (particularly in relation to building safety) and seek further appropriate advice where necessary - Ensure appointments, terms and conditions, contracts and transactional relationships are recorded clearly in writing and adhered to - Operate adequate complaints handling procedures and deal with issues raised by clients or the public fairly, cordially and professionally - Manage finance and money responsibly and in compliance with the law - Obtain adequate public, professional, property, construction product and business insurances, warranty or other protections, including those enabling routes of recourse to address building defects.	- Reflecting the requirements of the Code of Professional Conduct in your daily work - Evaluating your own activities, competence and performance - Managing work within all relevant legislative frameworks including social and employment legislation - Working with a variety of conditions of contract and appointment - Dealing with issues or complaints in a professional manner - Managing risk through obtaining suitable insurance or warranty protection for yourself, your business, clients and the public - Protecting clients' money and managing finances responsibly - Mitigating risks of potential fraud, tax evasion or financial irregularities.
E2	Manage and apply safe systems of work.	- Demonstrate professional commitment to a strong safety culture - Demonstrate a sound knowledge of health and safety legislation relevant to your work, including operations on-site and through the building life cycle, including occupation - Possess a detailed knowledge of your personal role and responsibilities for health safety and welfare issues - Communicate with persons outside the project team and respond effectively to reported risks or concerns - Manage systems that satisfy health, safety and welfare requirements relevant to your work - Develop and implement appropriate hazard identification and risk management systems, procedures or processes; manage, evaluate and improve these systems - Respond to events which affect fire, structural, public health or public safety including identifying when there is a need for competent specialist advice or execution of work - Anticipate, identify and challenge unsafe or inappropriate behaviours and escalate concerns through reporting or whistleblowing mechanisms.	- Undertaking formal health and safety training - Identifying and taking responsibility for your own obligations for health, safety, and welfare issues - Working with health and safety legislation and best practice. In the UK, examples include HASAW 1974, CDM regulations, OHSAS 18001:2007 and company safety policies - Carrying out safety audits - Carrying out risk assessments - Identifying and minimising hazards - Assessing and controlling risks - Delivering health and safety briefings and inductions - Ensuring compliance with CDM regulations or other health and safety legislation.

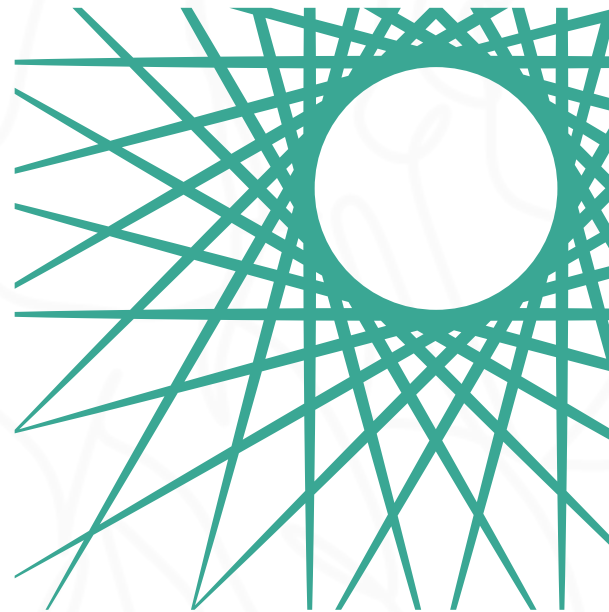
E**PROFESSIONAL COMMITMENT AND STANDARDS (MCABE) Continued...**

Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession, and the environment.

This competence is about ensuring that an individual is acting in a professional manner in their work and in their dealings with others. A Chartered Member should set a standard and example to others about professionalism.

SUPPORTING ANNEXES: B, C, D and E

	Descriptor	Scope	Evidence
E3	Undertake building engineering activities in a way that contributes to sustainable development considering social, environmental, and economic factors.	Possess a detailed knowledge of: • climate science and impacts of climate change • climate change mitigation • sustainability and the built environment • lifecycle costing and embodied carbon • circular economy, recycling, and re-use • social sustainability including community engagement • inclusive design, inclusion and diversity.	• Operating and acting responsibly, taking account of the need to progress environmental, social and economic outcomes simultaneously • Adopting sustainable principles and practices in your building engineering work or practice • Carrying out/contributing to environmental risk assessments • Managing best practice environmental management systems, e.g. ISO 14000 • Managing best practice risk management systems e.g. ISO 31000 • Working within, or ensuring others comply with, environmental legislation • Providing products and services which maintain and enhance the quality of the environment and community, and meet financial objectives • Applying the principles of inclusive design to ensure the built environment meets the needs of a diverse range of users • Demonstrating respect for diversity and principles of inclusivity • Encourage stakeholder involvement in sustainable development • Using resources efficiently and effectively.
E4	Carry out and record Continuing Professional Development (CPD) as necessary to maintain and enhance competence in your own area of building engineering practice.	• Understand competence management systems and frameworks • Demonstrate practical approaches to career planning and development • Identify appropriate training and development opportunities.	• Undertaking reviews of your own development needs • Planning how to meet personal and organisational objectives • Carrying out formal and informal CPD activities • Maintaining evidence of competence development through on-the-job learning, private study, in-house courses, external courses, and conferences. • Evaluating CPD outcomes against any plans made • Assisting others with their own CPD.
E5	Understand the ethical issues that may arise in their role and carry out their responsibilities in an ethical manner.	• Prove application in the practice of ethical principles to promote safe and sustainable outcomes, including: i. respect for life, the law, environment and public good ii. honesty and integrity iii. accuracy and rigour iv. responsibility for direction, conduct and communication • Act on your duty of care to protect the health and safety of co-workers and others, including the general public and building occupants and residents, throughout the building lifecycle.	• Demonstrating your knowledge of the ethical issues you encounter in practice • Demonstrating how you consider the ethical principles as set out in the CABE Guide to Ethical Professionalism in your building engineering work • Demonstrating how you exercise your duty of care to others in the execution of your building engineering work.



Supporting Annexes

ANNEX A – CABE Guidance on Building Safety



Building Engineers have a responsibility to undertake their work in a way which protects the safety and welfare of people in the built environment, and throughout the life-cycle of the buildings and places they help to create, maintain, or operate.

The following guidance sets out key considerations for Building Engineers to help identify the knowledge and competence they need to keep people safe in their day-to-day work.

This guidance should be used to inform self-assessment, personal development planning and training to develop and maintain safety-critical competence.

1. Fire safety

Building Engineers should understand the principles of fire safety and be able to deploy or use technologies and engineering techniques to prevent or mitigate fire safety risks including:

- Principles of fire chemistry and physics, including ignition and heat transfer
- The influence of structure, construction product selection and buildings systems on fire safety performance
- Human behaviour, escape strategies and requirements
- Methods of fire suppression and how to limit fire growth and fire spread
- Mitigation and control functionalities of fire protection technologies including active and passive systems.

They should also be able to integrate factors affecting fire safety during occupation into design, assessment, specification, or management activities, considering:

- Appropriate fire design concepts and strategies that enable safe use and occupancy of a building
- The need for good housekeeping and fire safety practices amongst residents
- The need to control factors affecting building fabric or building systems to maintain compartmentation and prevent fire spread
- Interaction between building users/residents and building safety, considering human factors
- Maintenance and replacement requirements for construction products and building systems through the building life-cycle, including planning, procuring, monitoring, undertaking, or managing maintenance of building fabric, fire protection or life safety systems.

2. Structural safety

Building Engineers should be aware of core principles relating to structural safety, and have higher levels of competence wherever their activities involve interaction with structural design, installation or maintenance including:

- Provisions for structural stability of primary structure, secondary structure, and fixings, including through life inspection and maintenance
- Characteristics of structural systems and their performance
- Performance of structures under load and principles of structural stability
- Understanding where more specialised advice is required and appointing suitably competent persons
- Requirements for inspection, maintenance, and protection of building structures during occupation.

3. Public health and public safety



Building Engineers should have a broad awareness of key risks to public health and public safety in and around buildings, and develop and maintain higher levels of competence wherever their activities involve design, installation or maintenance of public health and public safety related systems and building elements including (but not limited to):

- Provisions to protect public health and public safety including requirements for Inspection, assessment, testing, and monitoring during construction and in occupation
- Radon, methane, and site contamination including asbestos
- Waste and grey water drainage and rainwater recovery systems
- Electrical safety including lightning protection
- Gas supply and combustion appliance safety including carbon monoxide detection and the provision of devices and information for identifying and isolating gas supply
- Ventilation
- Moisture, damp, and condensation risk
- Water supply and storage including hot water safety and public health risks, such as Legionella
- Overheating and heating failure
- Stairs, glazing, guarding and balustrading safety
- Lift and escalator safety.

4. Understand buildings as systems, building systems and construction products

Building Engineers need to understand how materials, components, sub-systems and building systems will perform individually and as a part of the building as a whole system. This includes:

- Appropriate selection for intended use so that construction products and building systems function individually and together to maintain building safety and consider buildings as holistic systems
- Impact of installation quality on construction product and building system performance and need for quality assurance and quality management processes
- Requirements for construction product durability over time taking building use into account
- Consideration of location and context in construction product performance and selection, e.g., proximity to boundary, boundary conditions (fire resistance, water resistance) size, distance, environmental conditions, geometry
- Understand requirements for replacement (and safe disposal) of construction products and buildings systems at the end of their life-cycle to maintain building safety.

5. Understand, meet, and comply with regulatory requirements for building safety

Building Engineers should understand the principles and objectives of regulatory frameworks relating to building safety throughout the building life-cycle. They should be confident in their ability to comply with the requirements imposed by those systems. They should:

- be aware of relevant legislation relating to building safety and keep that knowledge current
- understand how regulatory systems are intended to keep people safe and work in alignment with those principles
- demonstrate suitable competence in executing technical engineering tasks so that they comply with relevant legislation and safety standards
- understand and comply with procedural requirements of regulatory frameworks
- understand their legal duties in relation to building safety, collaborate and share information with regulators and others, and effectively report risks when they are identified.

ANNEX B – Engineering Council Principles of Sustainability



Building Engineers are required to carry out their work in a way which contributes to sustainable development, as outlined in the UK Standard for Professional Engineering Competence (UK-SPEC) and the CABE Competence Framework. The six principles set out by the Engineering Council to support Building Engineers when making decisions for clients, employers and society that affect sustainability are as follows:

1. Contribute to building a sustainable society, present and future

Engineering professionals have a responsibility to maximise the value of their activity towards building a sustainable world. This requires an understanding of what society demands and what is achievable, recognising that both change over time. This is not only about doing less harm, but also about actively restoring and regenerating, where possible. They should:

- recognise that though their activity may be local and immediate, its potential impacts may be global and long-lasting and may span several supply chains
- understand the full range of sustainability implications across the life cycle of products, processes, or systems
- understand other relevant social and cultural structures outside their own normal community of practice
- be proactive, contribute and positively influence the sustainable development of communities, local or global

2. Apply professional and responsible judgement and take a leadership role

Engineering is a profession with a strong ethical dimension. Engineering professionals have an important role in contributing solutions for issues such as poverty, under-development, and environmental degradation. In making a sound judgement, the engineering professional should:

- consider the broad context for their work
- be aware that there are inherently conflicting and un-measurable aspects of sustainability
- adopt a system-thinking approach wherever appropriate
- keep their sustainable development knowledge up to date
- provide issues, options and solutions to decision-makers enabling sound decisions, congruent with sustainable development principles
- lead by example, influencing others to improve their engineering sustainability performance, including non-engineers and those in the supply chain
- include lessons learnt as part of the engineering process.

3. Do more than just comply with legislation and codes be prepared to challenge the status quo

In seeking sustainable solutions, simply complying with current legislation, codes and environmental protection regulations may not be sufficient. Engineering professionals should:

- strive to go beyond the minimum wherever possible, anticipating future legislation which may be more stringent
- question current standards and seek improvement
- drive the development of future legislation and regulations in line with sustainable development principles
- alert the relevant authorities if proposed regulatory change could give rise to fresh issues which endanger sustainable engineering practice.

4. Use resources efficiently and effectively



Those working in engineering have a stewardship role with respect to the planet's finite resources. This brings a responsibility to use resources efficiently and effectively, and to take account of the whole life-cycle from the design phase to manufacturing and use, and to end-of-life waste management. Engineering professionals should:

- minimise any adverse sustainability impacts at the design stage
- design and use products, processes, and services with the lowest possible consumption of raw materials, water, energy, and other resources
- adopt life-cycle assessment as normal practice, including in the supply chain, to quantify the environmental implications of projects
- apply the principles of circularity (circular economy), promoting the elimination of waste and pollution, and the continued safe use of resources for as long as possible
- adopt strategies for re-use, recycling, decommissioning and safe disposal of components and materials
- seek regenerative outcomes to redress damage and past harm.

5. Seek multiple views to solve sustainability challenges

Solving increasingly complex and interconnected sustainability challenges will require working in multi-disciplinary teams, across geographical boundaries, and with greater inclusivity of communities. Engineering professionals should:

- pro actively engage with all those who may be impacted, positively or negatively, by proposed solutions
- seek to involve those who traditionally may not have had a voice in the development of engineering solutions
- listen to, and recognize, the value of the perspectives of others
- utilise cross-disciplinary knowledge and expertise and diverse skills at all stages of a project
- consider the potential impacts for future generations
- seek a balanced approach.

6. Manage risk to minimise adverse impact and maximise benefit to people and the environment

Engineering professionals are routinely involved in planning and managing projects, where they should:

- undertake a comprehensive risk and benefit assessment before a project begins and after completion
- strive to ensure responsible and ethical sourcing
- include the risks and benefits of environmental, economic, and social impacts beyond the lifetime of the engineering project, product, or service
- consider the potential risks of how the product or service will be used, to enable mitigation at the design stage
- prioritise sustainability goals including where scientific knowledge is not conclusive, applying the precautionary principle
- instigate monitoring systems so that all impacts of engineering projects are identified at an early stage.

NOTE: It is recommended that all building engineers review Annexes A-D of BSi Flex 8670 *Built Environment – Core criteria for building safety in competence framework – Code of practice* to help provide a broad overview of expected behaviours and safety related issues in the Built Environment.

ANNEX C – CABE Guidance on Inclusive Design



Building Engineers play a major role in shaping our built environment and should understand their responsibility to a diverse range of clients and users to ensure equitable access in the built environment. Building Engineers should consider inclusive design as an integral part of their day-to-day work. They should:

- apply the principles of inclusive design from the outset of a project, and work creatively to solve challenges and remove barriers to access and inclusion
- contribute to building an inclusive society now and in the future
- do more than just comply with legislation and codes, and acquire the skills, knowledge, understanding and confidence to embed inclusion making it the norm not the exception.

1. Apply the principles of inclusive design from the outset of a project, and work creatively to solve challenges and remove barriers to access and inclusion

Building Engineers should take practical steps to integrate inclusive design principles into their day-to-day processes and practices, so that inclusion becomes a non-negotiable, fully integrated part of delivering their professional services. The principles of inclusive design are:

- Acknowledge and incorporate diversity and difference
- Create people focussed places which everyone can use, are convenient and welcoming with no disabling barriers
- Provide independent access without additional effort, separation, or special treatment, offering choice where a single solution cannot accommodate all users
- Create an environment that is convenient and enjoyable for everyone to use.

2. Contribute to building an inclusive society now and in the future

Building Engineers should understand the key elements that contribute to a future-proofed, accessible, and inclusive built environment. These include (but are not limited to):

- Inclusive access from transport hubs, terminals, interchanges, parking and drop off points
- Enabling clear wayfinding through provision of suitable lighting, legible signage and information, and visual emphasis on key building features and destinations
- Making horizontal and vertical access, egress, and circulation routes safe and usable, avoiding separation from other users and exceeding minimum requirements where possible
- Providing facilities to meet the broadest range of user requirements.

3. Do more than just comply with legislation and codes, and acquire the skills, knowledge, understanding and confidence to embed inclusion making it the norm not the exception.

Building Engineers should be competent in advising on relevant equality legislation, and regulatory requirements for the design, construction, maintenance, or operation of buildings to provide equitable access, as well as how to exceed these. This should include:

- Knowledge and understanding of relevant equality or accessibility legislation for the built environment relevant to use of buildings in occupation
- Knowledge of relevant building regulations, codes, or standards for the built environment to be accessible and inclusive
- Awareness, knowledge, and ability to apply best practice guidance on inclusive design to building engineering tasks and activities they undertake.

ANNEX D – Engineering Council Guidance on Risk



1. Apply professional and responsible judgment and take a leadership role

Engineering professionals should demonstrate, by example, a commitment to safety, reliability, and ethical conduct through the professional management of risk, from the inception of any engineering activity. They should clearly demonstrate the standards by which they expect risks to be managed, thus setting an example to others. In doing so, engineering professionals should:

- be prepared to challenge assumptions and proposals
- ensure that safety receives appropriate consideration
- assess the balance of risk and benefit
- strive for all those involved to be able to identify potential problems and opportunities
- ensure that any engineer reporting to them can maintain competence in the process of risk management
- lead others in improving practice.

2. Adopt a systematic, broad, and holistic approach to risk identification, assessment, management, and review

The factors that give rise to risk are interdependent and cannot be examined in isolation. It is vital in managing risk to be aware of this interdependency and, rather than dealing with risks one-by-one as they arise, use approaches that deal with whole systems. This requires engineers to:

- make risk management an integral part of all engineering activity and decision making
- look beyond purely technical considerations, to address non-technical factors, including social, economic, environmental, and political perspectives
- don't discount weak signals without further consideration
- ensure that human factors are considered
- adopt a decision-making approach, proportionate to the risk and consistent with their organisations defined risk appetite
- aim to quantify the risks with as much precision as is relevant, sufficient and can be supported by evidence
- ensure consideration of high severity, low frequency events along with low severity, high frequency events
- be responsive to changes in the operating environment
- look for connections, patterns and relationships between risks and opportunities
- bear in mind that risk assessment should be used as an aid to professional judgment and not as a substitute for it.

3. Comply with legislation and codes, but be prepared to suggest or promote further improvements.

Regulations and codes are generic. They can only deal with anticipated events and cannot predict every possible situation. Engineering professionals should take a measured, yet challenging, approach to potential risks, whether regulations apply. They should:

- act in accordance with codes of conduct
- know about and comply with the law in countries where they are operating or where their products or services will be used
- organize and understand the intent behind standards and codes, and understand when their limits are being approached
- comply with current relevant legal requirements governing engineering risk issues
- seek advice where necessary
- where it is practicable, seek further improvements, thus embedding a culture of seeking continuous improvement
- be open-minded and avoid hiding behind regulations.

4. Ensure good communication with the others involved

Communicating effectively with all stakeholders is important to ensure that risks and their implications are understood properly. Within an organisation, risk management should be communicated as a core value. Engineering professionals should:

- establish strong, honest, and effective two-way communication within and beyond their organisation
- establish a consultation and feedback process about risks with all stakeholders, including the public and local community
- clearly express the balance of risk and benefit
- communicate clearly assumptions made during the risk management process
- clearly communicate individuals' responsibilities in managing risk over the lifetime of the engineering activity
- encourage a culture of 'open reporting' and a spirit of questioning and learning from others
- avoid a 'good news only' or closed culture.



5. Ensure that sustainable systems for oversight and scrutiny are in place

Effective oversight and assurance processes are important safeguards in controlling risk. They should be challenging and carried out with independence from those creating the risk or attempting to control it. Engineering professionals should:

- be aware that risk assessment documentation may be used in incident investigations
- ensure that effective oversight and assurance procedures and systems are in place, and are sufficiently independent
- ensure that roles, responsibilities, and accountabilities are understood and clearly defined, especially where functions are outsourced
- include assessment of culture
- not limit assurance to audit or physical systems.

6. Contribute to public awareness of risk

The perception of risk among the public is influenced by a range of factors, including emotional ones. Engineering professionals have an important role in raising awareness and understanding about actual levels of risk and benefit and helping to prevent misconceptions. They should:

- be prepared to engage in public debate on the perceived risks and benefits
- ensure that discussion with the public includes management of risk
- ensure that the public are informed about all aspects of risk management
- explain the quantitative and qualitative aspects of risk with clarity and supporting evidence
- be honest and clear about assumptions
- be prepared to challenge misrepresentations
- communicate to the public its role in risk management.

ANNEX E – Engineering Council Statement of Ethical Principles



1. Honesty and integrity

Engineering professionals have a duty to uphold the highest standards of professional conduct including openness, fairness, honesty, and integrity. They should:

- act in a reliable and trustworthy manner
- be alert to the ways in which their work and behaviour might affect others and respect the privacy, rights and reputations of other parties and individuals
- respect confidentiality
- declare conflicts of interest
- avoid deception and take steps to prevent or report corrupt practices or professional misconduct
- reject bribery and improper influence.

2. Respect for life, law the environment and public good

Engineering professionals have a duty to obey all applicable laws and regulations and give due weight to facts, published standards and guidance and the wider public interest. They should:

- hold paramount the health and safety of others and draw attention to hazards
- ensure their work is lawful and justified
- recognise the importance of physical and cyber security and data protection
- respect and protect personal information and intellectual property
- protect, and where possible improve, the quality of built and natural environments
- maximise the public good and minimise both actual and potential adverse effects for their own and succeeding generations
- take due account of the limited availability of natural resources
- uphold the reputation and standing of the profession.

3. Accuracy and rigour

Engineering professionals have a duty to acquire and use wisely the understanding, knowledge and skills needed to perform their role. They should:

- always act with care
- perform services only in areas in which they are currently competent or under competent supervision
- keep their knowledge and skills up to date
- assist the development of engineering knowledge and skills in others
- present and review theory, evidence, and interpretation honestly, accurately, objectively and without bias, while respecting reasoned alternative views
- identify, evaluate, quantify, mitigate, and manage risks not knowingly mislead or allow others to be misled.

4. Leadership and communication

Engineering professionals have a duty to abide by and promote high standards of leadership and communication. They should:

- be aware of the issues that engineering, and technology raise for society, and listen to the aspirations and concerns of others
- promote equality, diversity, and inclusion
- promote public awareness and understanding of the impact and benefits of engineering achievements
- be objective and truthful in any statement made in their professional capacity
- challenge statements or policies that cause them professional concern

This guidance should be read alongside the **CABE Guide to Ethical Professionalism**.

ANNEX F – Engineering Council Guidance on Whistleblowing



Engineers and technicians should understand their professional obligations with respect to whistleblowing and know where to go for guidance and advice. The following guidance describes whistleblowing and the processes that engineers, and technicians should follow when confronted by a potential whistleblowing situation.

1. What is whistleblowing?

Whistleblowing is defined by the UK Whistleblowing Commission as 'the raising of a concern, either within the workplace or externally, about a danger, risk, malpractice, or wrongdoing which affects others. For engineers, engineering technicians and ICT technicians, whose professional lives revolve around the management of risk, 'risk' is better interpreted to mean 'inadequate quantification and management of risk'. A concern may include something which you may not be directly involved in but become aware of in the course of your work.

2. What are my obligations if I have such a concern?

Your obligations when you have a concern can be categorised as ethical, professional, and legal:

- You have an ethical responsibility as an engineer to act when you encounter a material and unmanaged risk, danger, malpractice, or wrongdoing which adversely affects others
- You have an obligation as a member of a professional engineering institution to act in line with your institution's Code of Conduct
- You have a legal obligation to comply with the laws of the country in which you operate, and in all countries, you will have an obligation to carry out your duties as an engineer or technician in a competent manner.

Your obligation to act when encountering something inconsistent with your Code of Conduct arises under that Code, it is not a legal requirement. However, you may become liable in law if you fail to act when it is part of your own professional duty. Your professional engineering institution's Code of Conduct may have changed since you joined, so it is important to ensure that you are up to date on your obligations.

This guidance does not cover the consequences of failing an ethical responsibility or a legal obligation; however, if you fail in your professional obligations, you may be subject to your professional engineering institution's disciplinary procedures and you could, if professionally registered, face removal from the Engineering Council's register.

Members of the Armed Forces and those involved in protecting National Security who are not protected by the Public Interest Disclosure Act 1998 (PIDA) will be excluded from following some aspects of this guidance, for example by working through the military chain of command and not externally. You should check with your employer.

3. What does the relevant legislation say?

The general principles of this guidance apply in whichever country engineers and technicians are working. However, the laws affecting whistleblowing vary widely from country to country. Some countries may have little or no protective legislation in place, or it may favour the state, or the employer more than UK or US legislation does.

In considering how to act, the underlying law applicable to you or your employer may be that of the country where you are working, but if your contract of employment is made in England, it is subject to English law. Other combinations of circumstances may create more complexity, and often both English and local law may be relevant.

If you are considering whistleblowing outside the UK, you should ensure that you are aware of local legislation and local culture.

4. How do I raise a concern?



Technicians and engineers who cannot easily address a concern on their own should discuss it with, or report the concern to, their immediate employer or manager.

If this does not address the concern, you should ensure you are aware of, and make use of, existing company and industry sector regulatory reporting systems.

Where there is no whistleblowing policy, you should still try to raise any concern internally. If this approach has not resolved the concern, or your immediate employer or manager is part of the cause, then you are obliged by your institution's Code of Conduct to escalate your concern, which could mean raising it externally.

Provided that a genuine concern is raised, and you have a reasonable belief that you are acting in the public interest, UK law offers individuals protection from action taken by an employer for simply reporting a concern.

Your industry may be regulated. You should make use of any reporting systems which have been put in place by, for example the Health and Safety Executive (HSE); Civil Aviation Authority (CAA); Maritime and Coastguard Agency (MCA); Office of Rail and Road (ORR) or other prescribed persons or bodies.

You should not try to use the protection which relevant legislation may offer whistle-blowers simply to air or extend a personal disagreement or grievance with your employer.

5. Where can I get advice?

If the concern is a technical one which does not go beyond the application of engineering principles, your professional engineering institution may be able to offer guidance and advice. You should follow your professional engineering institution's guidance and advice and make use of any procedure it offers for raising, discussing, and monitoring a technical issue.

If the concern is of a legal or HR nature, then advice should be sought elsewhere. In addition to Public Concern at Work (the whistleblowing charity), industry regulators, trades union or employee legal assistance programmes may be able to provide additional help and advice.

If you are in a position of responsibility in an organisation without a clear ethical Code of Conduct and whistleblowing policy, you should take steps to ensure these are put in place. In the UK, guidance is available from Code of Practice PAS 1998:2008 issued by the British Standards Institute (BSI) in conjunction with Public Concern at Work; the recommended code of practice in the UK Whistleblowing Commission Report; and the Department for Business, Innovation and Skills' Whistleblowing Guidance for Employers.

ANNEX G – Engineering Council Guidance on Security



Security can be defined as the state of relative freedom from threat or harm caused by deliberate, unwanted, hostile, or malicious acts. It operates on several levels ranging from national security issues to countering crime. This guidance sets out **six key principles** to guide engineers and technicians in identifying, assessing, managing, and communicating issues about security.

Cyber Security

Launched in Augil 2021, the **UK Cyber Security Council** is the self-regulatory body for the UK's cyber security profession. It develops, promotes and stewards nationally recognised standards for cyber security in support of the UK Government's National Cyber Security Strategy to make the UK the safest place to live and work online. A range of information for individuals and organisation is available on its website.

The **UK's National Cyber Security Centre** is a single point of contact for small and medium sized enterprises (SMEs), larger organisations, government agencies, the general public and departments. It works collaboratively with other law enforcement, defence, the UK's intelligence and security agencies and international partners.

Many of the **professional engineering institutions** (PEIs) and **Professional Affiliates** provide material on security, data and privacy, which is a very useful starting point for engineers and technicians.

1. Adopt a security-minded approach to your professional and personal life

A security-minded approach requires engineers and technicians to:

- be aware that their behaviour, use of social media, publications and public presentations affects their own security and the security of others
- assess potential threats and vulnerabilities end to end, taking account of the potential harm to people, the asset or system, and the sensitivity of the information, which may be societal, environmental, or commercial
- be aware that security risks are interdependent, adopting a holistic risk management view that is appropriate and proportionate, and is an integral part of all engineering activity and decision-making
- remember that security risk assessment is an aid to professional judgement, not a substitute for it
- be aware that overly elaborate processes and procedures can lead to poor compliance and undermine a security culture
- identify vulnerabilities that may be used in a hostile, malicious or inadvertent manner to create security breaches or failures
- be responsive to changes in the operating environment, including the impact of changes in use of the asset or system, its wider connectivity and emerging threats and vulnerabilities

2. Apply responsible judgement and take a leadership role

When implementing a security-minded approach, engineers and technicians should demonstrate a commitment to privacy, reliability, and ethical conduct by:

- leading others in improving practice
- working with other professionals to ensure informed, proportionate, holistic judgements
- empowering all those involved to identify potential security challenges and opportunities
- being prepared to challenge assumptions and proposals
- ensuring that everybody reporting to them can maintain competence in security.

3. Comply with legislation and codes, understand their intent, and be prepared to seek further improvements

Seeking advice where necessary, engineers and technicians should:

- be aware of, and comply with, the security-related laws in countries where they operate or where their products or services will be used
- act in accordance with relevant security-related codes of conduct
- recognise and understand the intent behind security standards and codes, as well as their limitations
- seek further improvements where reasonably practicable, thus embedding a culture of continuous security development
- be open-minded and avoid using regulations to facilitate complacency.

4. Ensure good security-minded communications

Good security depends on communicating effectively and appropriately with customers, clients, suppliers, sub-contractors, and non-engineering colleagues. Engineers and technicians should:

- adopt appropriate measures to protect sensitive information when it is communicated, used, and stored, both within and beyond their organisation
- be able to clearly express the risks and benefits
- where appropriate, encourage an 'open reporting' approach to security risks, incidents, and near-misses, coupled with a spirit of questioning and learning
- take a measured approach to publishing information at conferences, workshops, and seminars, or in professional or trade publications, to avoid helping those intent on hostile reconnaissance
- be aware of the impact of data aggregation, both through accumulation and association, including the use of disparate sources
- recognise the persistent nature and accessibility of information published on the internet or otherwise made publicly available
- recognise that indiscriminate publication of project, technical or personal information can aid reconnaissance and enable security breaches through social media
- be aware of the use of social engineering* to manipulate individuals to give up confidential information
- ensure responsible use of social media for both personal and professional purposes.

*Social engineering:

www.cpni.gov.uk/advice/Personnel-security1/Social-engineering-Understanding-the-threat

5. Understand, comply with, and seek to improve lasting systems for security governance



Effective security requires good governance, with clear reporting lines and accountability at board or executive level. Engineers and technicians should:

- ensure that they, and those who work with them, understand the relevant security management policies, processes, and procedures
- seek regular briefings on the security threats facing their organisation and understand how threat agents might exploit vulnerabilities in their customers/users and their own assets, systems, or business processes
- ensure that security-related roles and responsibilities are clearly assigned and understood, irrespective of whether functions or services are outsourced
- ensure that there are appropriate mechanisms for reporting and feedback on security incidents and issues
- contribute to the development and review of relevant security management frameworks, particularly about aspects which may not be well understood
- scrutinise the security culture and responses to management systems, with audits encompassing processes and technical and paper systems.

6. Contribute to public and professional awareness of security

Engineers and technicians have an important role in raising awareness and understanding about security risk and benefit. They should:

- be prepared to engage in debate on security risks and benefits, especially in relation to new technologies and innovative developments
- be security-minded during public discussion
- recognise the social, political, and economic implications of security risks and acknowledge these through appropriate channels
- be honest and clear about uncertainties, and prepared to challenge misrepresentations and misconceptions
- contribute to public and professional awareness of security by sharing and promoting knowledge of effective solutions.

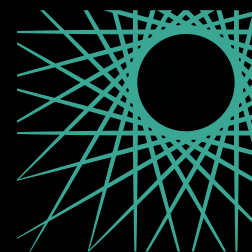
We're here to help

If you have any queries about the **MCABE Membership Competency Frameworks**, please contact us. You can also find out further information at cbuilde.com

Lutyens House, Billing Brook Road
Northampton, NN3 8NW
United Kingdom

T: +44 (0) 1604 404 121
E: info@cbuilde.com

Chartered Association of Building Engineers is a company incorporated by Royal Charter, registered in London, No. RC000867



cabe
chartered
association
of building
engineers