



The Occupational Health and Safety (OHS) Professional Capability Framework: A Global Framework for Practice

OHS Professional

OHS Practitioner

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- Andrew Hale, Professor Emeritus, Delft University of Technology, Netherlands and Chair of HASTAM in the UK
- Dennis Hudson, CEO, American Society of Safety Engineers (ASSE)

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The working party collected and reviewed the documentation from national professional associations and certification bodies, including that already analyzed by ENSHPO in the EUSafe project,¹ to define the role, functions and competencies of OHS practitioners and professionals. Given the great diversity of

¹ See www.eusafe.org.

approaches across countries, the working party developed a new overarching structure designed to encompass all approaches.

The draft framework document was subject to critical review, both through INSHPO's own channels and at international conferences and presentations, including the XX World Congress on Safety and Health at Work 2014 in Frankfurt and the 7th International Conference of the Working on Safety Network (wosnet2014) in Scotland. The framework has been further enhanced through a collaborative project with the International Council on Mining and Metals (ICMM) on OHS capability in the mining and metals industry. Dr. David Borys, adjunct associate professor at RMIT University, Australia was a member of the working group on the mining project and has made a significant contribution to the capability framework overall.

The working party first developed two parallel frameworks, one for the OHS Professional² and one for the OHS Practitioner. On the advice of the reviewers, the two roles have been compared and presented in this single document, with this final version being endorsed by the INSHPO Board of Directors.

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While the term "Occupational Health and Safety" or "OHS" is used in this document, it should be considered interchangeable with "Occupational Safety and Health" (OSH) or "Work Health and Safety" (WHS).

² First published online in October 2015. The single framework document is superseded by this document, which addresses both Professional and Practitioner descriptions.

1 Introduction

1.1 INSHPO

The International Network of Safety and Health Practitioner Organisations (INSHPO) is the global voice for the occupational health and safety (OHS) profession. INSHPO provides an international forum for engagement on OHS-related matters and for advancing the OHS profession through the exchange of evidence-based practices and the development of a harmonized framework for the profession. Its member organizations include OHS professional bodies from the United States, Canada, the United Kingdom, European Union, Australia, New Zealand, the Russian Federation, Singapore and Korea.

INSHPO has recognized the need for a global framework for practice of OHS Professionals. In addition to this project, which defines the roles, knowledge and skills for both vocationally and university-educated (or other higher education) OHS personnel, related projects by INSHPO include:³

- A model code of conduct for OHS Professionals and Practitioners
- A literature review providing the basis for formulating a value statement for the OHS Professional
- Guidelines for certification of individuals
- Guidelines for accreditation of OHS education

The relationship of these different projects is shown in Figure 1, which integrates them into a global framework for practice.

³ See www.inshpo.org for details.

Global Framework for Practice

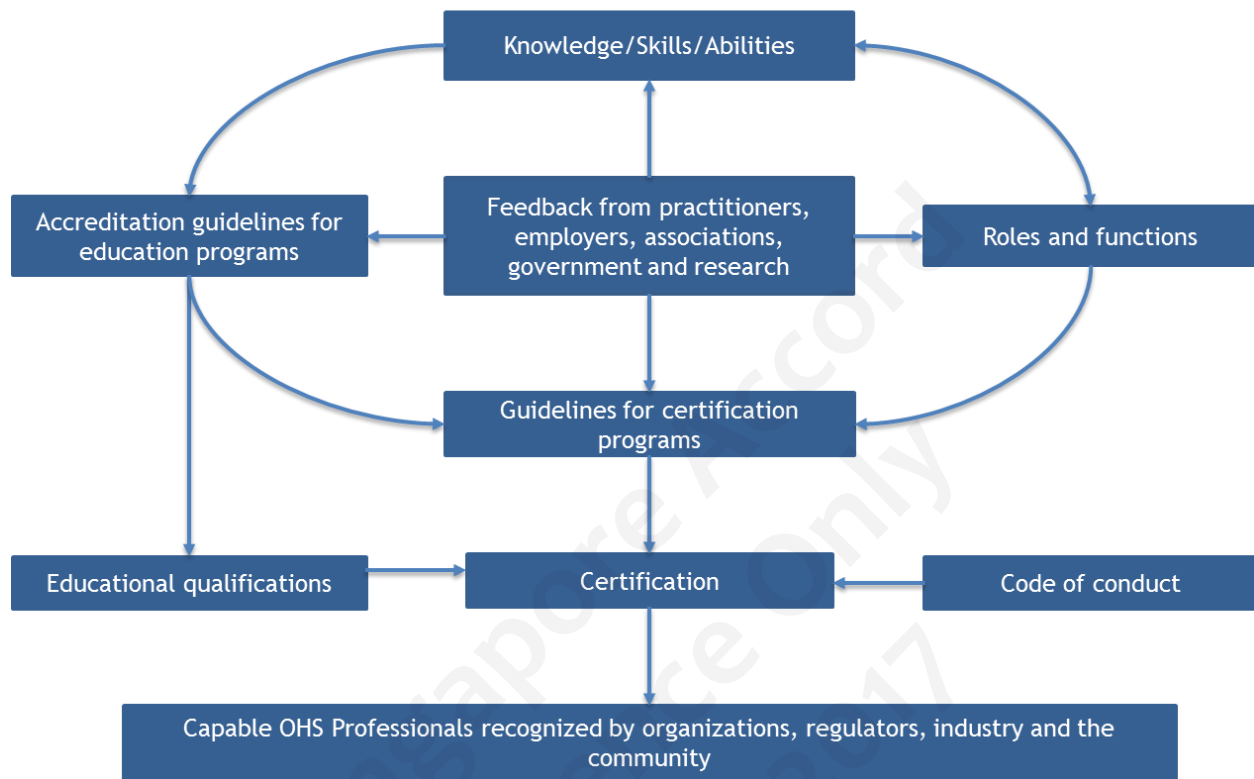


Figure 1: A Global Framework for Practice

1.2 Definition of “Capability”

While many may use “competency” to describe the nature of a professional framework, this document adopts a different approach in using the term “capability.” In developing this framework, INSHPO considered that while it is vital for both OHS Professionals and OHS Practitioners to be competent, effective and influential, OHS personnel must go beyond competence to capability.

“Competence” has been defined as the ability to transfer and apply knowledge and skills to new situations and environments, consistently applying knowledge and skills to a standard of performance required in the workplace.⁴ In comparison, “capability” is:

⁴ Naidu, R., Stanwick, J., & Fraser, K. (2013). Glossary of VET. Adelaide: NCVER.

The applied theoretical knowledge that underpins practice in occupations and professions and also the industry-specific knowledge and skills that transcend particular workplaces and the tacit knowledge of the workplace.⁵

The difference between competency and capability is that competency is about delivering the present based on the past, while capability is about imagining and being able to realize the future.⁶ Competency is a necessary part of capability,⁷ but capability goes much further. Capability is about confidence and adaptability as well as the development and effective use of knowledge and skills in complex and changing circumstances, including those that may not have been previously experienced.

Capable people have knowledge, skills, self-esteem and values that make them confident in their ability as individuals and in association with others in a diverse and changing society⁸ to:

- take effective and appropriate action
- explain what they are about
- live and work effectively with others and
- continue to learn from their experience

Thus, while competence is essential for OHS practice, the concept of capability provides a further dimension that expands our understanding of the required knowledge and skills and how these should be applied as part of positioning the OHS profession and OHS Professionals and Practitioners for the future.

1.3 The OHS Professional Capability Framework – An overview

INSHPO has developed this framework to:

- facilitate a shared understanding of the difference in roles of the OHS Professional and the OHS Practitioner
- position the OHS Professional as a key advisor, strategist and leader in fully integrating the management of OHS risk into sustainable business practice
- position the OHS Practitioner as a skilled implementer of OHS activities and an effective OHS supporter and communicator at the site level

This document is intended for six target audiences:

⁵ Wheelahan, L., & Moodie, G. (2011). Rethinking skills in Vocational Education and Training [Electronic Version], from http://www.bvet.nsw.gov.au/pdf/rethinking_skills.pdf

⁶ Stephenson, quoted in Lewis, J. (2009). Introducing the ACEL leadership capability framework. *Curriculum and Leadership Journal*, 7(16).

⁷ Hase, G., & Davis, L. (1999). *From competence to capability: the implications for human resource development and management*. Paper presented at the Millennial challenges in management, education, cyber-technology and leadership: Association of International Management, 17th Annual Conference San Diego.

⁸ Stephenson, J. (1992). Capability and quality in Higher Education In J. Stephenson & S. Weil (Eds.), *Quality in Learning*. Kogan Page.

- OHS professional associations and related certification bodies: to inform their certification and other assessment processes.
- OHS Professionals and OHS Practitioners (subsequently, collectively referred to as “OHS specialists”): to act as a reference and basis for gap analysis in relation to their professional practice and career development, to aid the development of continuing professional development plans and to assist in promoting the OHS Professional and OHS Practitioner roles in relation to each other.
- OHS educators: to use while developing and reviewing OHS education programs.
- Employers and recruiters: to assist in developing position descriptions for OHS roles, in recruiting OHS personnel and in performance evaluation as a basis for professional development.
- OHS regulators: to aid in understanding the range of OHS specialist roles in order to clarify the requirements for certification/registration/licensing of OHS specialists as well as to inform the professional development of government and other regulatory inspectors.
- The community: to assist in creating a better understanding of the scope of OHS specialist roles.

The framework promotes a high standard of capability for OHS specialists and in turn informs employers and regulators as to the differential capabilities of OHS Practitioners and OHS Professionals. The sections on knowledge and skills provide benchmarks for education and training bodies and OHS professional associations in developing the detail of certification schemes, educational programs and continuing professional development. It is recognized that differences will exist in terminology and emphasis across different countries depending on history, legal and regulatory frameworks and industry mix. This framework gives generic guidance, which may need to be adapted and developed in more detail by each country to account for such differences.

The framework was developed by comparing documents provided by OHS professional bodies and OHS certification bodies for European Union countries (particularly the United Kingdom, the Netherlands and those included in the EUSafe project), the United States, Canada, Australia, Singapore and the Russian Federation. Variation in the structure and underlying organizing principles of these documents lent itself to the creation of a new structure drawing on each country’s strengths. This structure describes the activities of OHS Professionals and OHS Practitioners at a generic level that allows for variations in national regulations, histories and cultures as they pertain to OHS practice.

The document begins by clarifying the roles of the OHS Professional and of the OHS Practitioner and the context in which they work. It provides position profiles that set the roles in an organizational context and highlight gradations across the roles. It then indicates that these gradations are partly related to differences in the maturity of the OHS management system in the employing organizations. Finally, it details the activities, knowledge, skills and hazards that the OHS Professional and OHS Practitioner may be expected to advise on and help manage.

To facilitate use of the Framework, guidelines and online tools have been developed to support the various target audiences in applying the Framework for their particular purpose and context.⁹

2 Clarifying OHS roles

OHS specialists are usually cast in the role of problem solvers. The range of problems they are required to solve range from helping organizations identify hazards and assess their associated risks, to proposing solutions to control those risks. Furthermore, OHS Professionals may be called upon by senior managers to provide advice on combating increasing or plateauing rates of work-related fatality, injury and illness, investigating near misses and accidents and devising programs to provide a framework for OHS decision making and action. Should this advisory role spill over into the specialist taking over direct responsibility for OHS from line and executive management, this would be at odds with the model of continuous improvement enshrined in current management system standards, including those for OHS, which rightly stress that primary responsibility for OHS rests with the line.

The OHS Professional's role should be reconceptualized as a continuous improvement expert, or "value engineer" as opposed to the current conceptualization of the role as just a problem solver or enforcer. The role needs to be that of a safety engineer who truly understands work processes as a system and offers solutions to improve the system of work before anything goes wrong or an actual injury or damage is identified. A further benefit of this approach is the potential to break down barriers (silos) between safety and operations. Safety can be integrated into business operations where OHS specialists work alongside workers, supervisors and managers with the shared purpose of continually improving work processes. As a result, OHS specialists can demonstrate their value to the organization.^{10 11}

Concomitant with the changing role, soft skills, including coaching and the ability to work with organizations at different levels of cultural maturity, are appearing as skills in demand for OHS Professionals and OHS Practitioners. Terms such as "soft skills" and "coaching" are vague and are better understood from the perspective of relationship building. The ability to build a web of relationships enables the OHS specialist to influence others to bring about change in organizational practices focused on risk control, which, in turn, should allow the organization to move up the safety culture ladder.

OHS specialists also need to be sensitive to the cultural maturity of the organization in which they work since it will determine their role in the organization and the way in which they can best exert influence (see Section 2.4 below).

⁹ See www.inshpo.org.

¹⁰ See also the proposals for an ISO standard on "The Human-Centred Organization." British Standards Institution March 2016. BS ISO 27500

¹¹ See Borys, D. (2014). The Value Proposition for the Occupational Health and Safety Professional – Literature Review. INSHPO. www.inshpo.org.

2.1 OHS Professional and OHS Practitioner

The OHS profession or role advises and supports management in its overall task of managing risks to prevent or mitigate work-related fatalities, injuries and illnesses. This emerging profession is often not well defined, locally or globally. The scope and nature of the role, education requirements and regulatory context vary across and even within countries. The OHS role originated in many organizations as a technical compliance officer, educated via a vocational track and mainly engaged at lower levels in the organization, providing technical¹² advice focused on compliance, personal protective equipment and a reactive response in the workplace. However, as OHS management has matured over the last century, it has taken two paths, one the vocationally-trained OHS Practitioner, the other a more managerial/professional role that influences, engages and coaches all levels of the organization, including senior management.

While the workplace may have a range of OHS roles, two clear categories exist:

- the **OHS Professional**, who is usually **university educated** (or has attained a similar level of higher education), and
- the **OHS Practitioner**,¹³ who is usually **vocationally educated**.

Table 1 summarizes the key differences between the two roles with further detail provided in Section 3, Position profiles.

Table 1: Comparison of OHS Professional and OHS Practitioner roles

OHS Practitioner	OHS Professional
Implementer/executor of strategy and the framework for OHS critical control management	Designer of OHS management strategy and framework for OHS critical risk control management
Communicates predominantly with middle management, supervisor and shop floor, building relationships as a basis for influence, mentoring and providing technical advice	Influences senior managers, building relationships as a basis for influence, mentoring and providing integrated technical and strategic advice
Oversees and drives monitoring and compliance, acting as local change agent when required	Develops monitoring systems. Involved in organizational review and change management
Supports safe working environment by maintaining administrative processes, conducting training and using state-of-the-art tools, processes and standard practice solutions	Considers wider context of business processes and external regulatory, market and societal influences

¹² "Technical" is normally used in the rest of this document not in its narrow sense relating only to hardware, engineering and physical sciences, but in the broader meaning of the appropriate, detailed knowledge of the application of the broad range of disciplines relevant to OHS, including human factors.

¹³ In some countries the OHS Practitioner role may be termed "OHS technician," "OHS technologist" or similar.

Advice/action based on technical knowledge, experience and input by OHS Professionals and other technical advisors	Advice/action based on conceptual and technical knowledge mediated by analysis of evidence, experience and critical thought
Focuses on organization's primary processes operating in known contexts within established parameters	Able to extend his or her understanding and control to novel, unknown and complex risks and their control
Accesses, evaluates and uses a broad range of workplace and industry sources of information	Understands how to use, critically evaluate and develop the evidence base
Usually works under direct or indirect supervision or mentorship with substantial responsibility for planning own work	Works autonomously within own initiative and responsibility but values professional collaboration
May work with SMEs in well-known hazards or under OHS Professional supervision in larger organizations	Usually works in large, complex and/or high-hazard organizations or as a consultant to medium-sized organizations
Usually educated through vocational or technical streams	Usually educated through university or higher education sector

The OHS Professional is a key advisor, strategist and pilot to the organization's leadership in fully integrating the management of OHS risk into sustainable business practice at all levels. The OHS Practitioner implements strategy, notably at site level, with an emphasis on state-of-the-art-compliance. While the two roles may overlap, role clarity is imperative in enabling organizations to improve their business and OHS performance. The two roles are further clarified below.

2.1.1 The OHS Professional

OHS Professionals are designers of strategy relating to the organization and management of OHS within the wider context of business processes and external regulatory, market and societal influences. They are influential with senior management and are involved in problem solving and organizational review and change as advisers and consultants. Their advice is based on conceptual and technical knowledge of design, operations and management, mediated by experience, analysis of evidence and critical thought. This enables them to extend their understanding and control to novel, unknown and complex risks. They understand how to access, use, critically evaluate and develop the evidence base, and they value professional collaboration. They gain their OHS education in the majority of cases through the higher education sector. OHS Professionals will engage with any level of the organization from shop floor to board room as well as other functions and professionals. They should report at a high level in the organization, for example, to the managing director, CEO or higher-level OHS, risk or operations director. They may have a team of OHS personnel reporting to them.

The OHS Professional role requires an understanding of a unique multidisciplinary body of knowledge concerning risk and the elimination or reduction of work-related fatalities, injuries and illnesses as well as property damage and associated social and financial losses. Typically, the OHS Professional provides broad-based advice, support and analysis to organizations regarding risk assessment and controls and

their management processes. The role also supports health and wellness as it relates to the work environment.

The capable OHS Professional has generic knowledge appropriate to risk in all activities and employment, supported by deeper knowledge of his or her specific industry, including its characteristic hazards and risk prevention, management and mitigation processes. They also possess a broad understanding of a core range of hazards and hazard controls.

OHS Professionals may be engaged as internal employees in medium to large or global organizations, particularly in complex and major hazard technologies, or as external consultants advising small to global organizations. They may work solo, as part of a team or give direction to others.

2.1.2 The OHS Practitioner

OHS Practitioners are implementers of strategy and actions usually designed by an OHS Professional. They support a safe working environment by maintaining OHS administrative processes, conducting training and using a range of state-of-the-art tools, processes and common practice solutions to OHS risks. Their risk assessment and management are usually aimed at routine and well-known processes and work. They oversee and drive monitoring and compliance in relation to technical and behavioral risk controls. They are likely to have a focus on the workplace and the organization's primary processes and communicate predominantly at middle management, supervisor and shop-floor levels, often taking a mentoring and coaching role. They usually work in either small- or medium-sized enterprises (SMEs) with relatively well-known risks, or in larger and more complex enterprises under supervision or mentoring by OHS Professionals (which may be indirect). In all cases, their work focuses on known contexts within established parameters. Within those parameters they have substantial personal responsibility for the planning and quality of their own work. They usually gain their OHS education through the vocational or technical sector.

The relationship of the OHS Practitioner to the OHS Professional in larger organizations is similar to that of the nurse practitioner to the general practitioner and hospital specialist in the medical profession. Like nurse practitioners working under doctors in medical practices, OHS Practitioners are generalists in the practice of OHS, liaising with and referring as appropriate to higher-level OHS Professionals, while catering on their own authority for less complex problems in familiar environments and known and proceduralized tasks. This practice model can also be compared in the small- and medium-sized organizations with that of an accountant as compared to a bookkeeper, where the accountant (*cf.* OHS Professional) sets up the chart of accounts and accounting practices and provides strategic oversight whereas the bookkeeper (*cf.* OHS Practitioner) undertakes the day-to-day activities.

The OHS Practitioner role requires an understanding of a multidisciplinary body of knowledge concerning well-known hazards and risks, and the elimination or reduction of work-related fatalities, injuries, and in some jurisdictions, occupational diseases and property damage. Typically, the OHS Practitioner provides broad-based advice, support and monitoring of compliance to organizations regarding hazard and risk assessment and controls and the known procedures for their management.

Capable OHS Practitioners have generic knowledge appropriate to the management of OHS hazards and their controls, supported by deeper knowledge of their specific industry, including its characteristic hazards and standard risk controls, risk prevention and mitigation processes. They also possess a broad understanding of a core range of hazards and hazard controls.

OHS Practitioners are usually engaged as internal employees in medium to large or global organizations, particularly those with developed and well-known technologies involving manual and machine labor. They may work in smaller organizations, sometimes in a multifunction role preferably under supervision from an OHS Professional, as part of a team or with the support of an OHS Professional as consultant. OHS Practitioners will engage most frequently with shop floor, supervision and middle management.

2.2 *Scope of practice in the context of other professionals and specialists*

The focus of activity for OHS specialists is providing advice and support for the prevention and management of work-related fatalities, injuries and illnesses, property damage and associated social and financial losses. Work health and the promotion of physical and mental wellness are increasingly becoming important areas for the OHS Professional, although less so for the OHS Practitioner. In some countries and organizations, the OHS role also encompasses prevention and management of environmental hazards and promotion and management of sustainability.

While many OHS specialist position descriptions may include one or more of the following areas of responsibility, this document does not consider them to be core functions and does not address them in detail. The scope of this Framework is limited in the following way:

- Environment: the core OHS role is limited to environmental aspects and impacts associated with work activities.
- Emergency response management: the core OHS Professional role is limited to planning and liaising with other services providing firefighting, rescue and emergency treatment and business continuity, while that of the Practitioner is likely to be limited to site-level responses.
- Rehabilitation, return to work: the core OHS role is limited to liaising with medical and occupational health specialists and advising on workplace adjustments to aid early return to work.
- Security: the core OHS role is limited to managing and resolving conflicts between safety and security measures. While the OHS Practitioner may have some site-level security-related responsibilities, these are not considered core OHS activities.

Section 7 sets out a range of hazards of which the OHS Professional may be expected to have some knowledge. It is likely that there will be considerable variation in the range of hazards forming the core of the OHS specialist's knowledge and practice depending on the industry within which they work, their professional interests and the country or countries within which they practice. Individual position descriptions may also note other areas of safety that share approaches, knowledge and skill bases and

management and regulatory principles with OHS, such as transportation safety, product safety, patient safety, public safety, home and leisure safety, and sport safety. These are not covered in this document.

2.3 OHS and other functional roles

It is expected that OHS Practitioners and Professionals will liaise with and enlist the assistance of OHS specialists with deeper knowledge bases that may not be core to the OHS Professional or Practitioner but are important in the overall risk picture. These OHS-related specialists include, among others, ergonomists, occupational/industrial hygienists, organizational/occupational psychologists, occupational health professionals and professionals from allied professions, such as fire protection or structural engineers/specialists. OHS Professional and Practitioners may also collaborate with experts from disciplines, such as sustainability, environmental protection, emergency response, security, rehabilitation and mental health, law and insurance. OHS Professionals and Practitioners need to have sufficient understanding of each of these fields to identify the potential need for involvement of professionals in these and other disciplines.

Managers are responsible for the management of OHS and risk. All roles within the organization have specific responsibilities not only for individual health and safety, but for their contribution to the OHS management system. Shared understanding and clarity of responsibility between line and corporate management and the OHS function are vital for effective and efficient management of OHS. Any gaps resulting from role confusion may result in exposure to legal or critical risk.

2.4 OHS roles in organizations of different OHS maturity

Organizations can be classified based on the maturity of their approach to managing OHS. A much-used classification¹⁴ identifies five stages in development:

- Pathological: does not care about safety, conceals accidents and breaches of OHS regulation
- Reactive: cares about safety only after something goes wrong
- Calculative/bureaucratic: cares about safety in a rule-bound way, if it can be shown to be cost-neutral or advantageous
- Proactive: cares about safety, makes plans in advance to achieve it and seeks innovative strategies, beyond inflexible rules, to achieve it
- Generative: gives priority to safety; fully understands the interactions between social and technical aspects of work and how OHS can be integrated with other imperatives

It is a general objective of all OHS specialists to help shift their organization/client to move up the hierarchy to the most suitable level for their organization. The emphasis in the role of OHS specialists

¹⁴ Parker D., Lawrie M., Hudson P. (2006). A framework for understanding the development of organizational safety culture. *Safety Science*, 44(6), pp.551-562.

will differ depending on the cultural maturity of the organization, as will the division of roles between the OHS specialists and the line and staff of management. While no current studies relate this organizational maturity scale to differences in OHS specialist roles, knowledge and skill requirements, some general principles are discussed below.

At the pathological and reactive levels (and to a lesser extent the calculative level) the role of the OHS Professional will be focused on opportunities provided by actual accidents or dramatic near-misses to persuade the organization to move up the maturity hierarchy, while the role of an OHS Practitioner may be limited to fulfilling unavoidable legal requirements and enforcing them. Practitioners at these three lower levels may need to resist attempts by line and senior management to make them, rather than the line, primarily responsible for OHS performance. At the calculative level, there will be more scope for the OHS Practitioner to propose and support the implementation of state-of-the-art risk controls. As the organization moves to the proactive and generative levels, many aspects of the role of the OHS Practitioner may be incorporated and accepted into the task specifications of line and staff, leaving the Practitioner primarily with support and monitoring tasks. The OHS Professional, on the other hand, may, at the proactive and generative levels, have increased opportunities to support and influence the development and implementation of effective OHS management strategies and the integration of OHS into the corporate strategy and practice.

Cultural maturity may vary according to the age, financial status and organizational history of the business as well as the economic and regulatory environment of the country or region. Being sensitive to the maturity of their organization will enable OHS specialists to tailor their relationships and social interaction with managers, front-line supervisors and workers to become effective contributors to OHS management and champions of culture change.

The Appendix summarizes the potential variation in the OHS roles alongside an organization's cultural maturity.

3 Position profiles

The Capability Framework describes the activities, knowledge and skills for OHS specialists. These roles occur within organizations, and the positions of OHS Practitioner or OHS Professional will have many parameters in addition to the OHS-specific components. Gradations in the OHS Practitioner and OHS Professional positions also reflect the position's seniority, the role's demands and the organization's structure.

INSHPO has developed position profiles based on the Australian Qualification Framework (AQF),¹⁵ the European Qualification Framework (EQF)¹⁶ and several professional frameworks from related

¹⁵ See <http://www.aqf.edu.au/> for details of the Australian Qualification Framework.

¹⁶ See https://ec.europa.eu/ploteus/search/site?f%5B0%5D=im_field_entity_type%3A97 for details of the European Qualification Framework.

professions. The profiles (Table 2 and 3) give an outline of the OHS Professional and OHS Practitioner roles at three levels for each role in terms of:

- Position details
- Professional parameters
- Nature and complexity of knowledge and skills
- Qualification

The position profiles do not address the OHS capabilities in any detail, as these will be found for the two generic levels (Practitioners and Professionals) in Sections 4–6 of this document. The profiles provided here show how each of these two generic OHS roles can be developed into three more differentiated roles and how the activities, knowledge and skills can be contextualized to create a defined organizational role statement or position description. The resultant position descriptions will not only inform the recruitment of suitably capable people into OHS roles, but will provide a structure for performance appraisals and ongoing professional development of incumbents.

Organizations will have their own structure and format for documenting position descriptions. In some cases, the position details may be used to confirm that the organization position description is accurate.

Table 2: Position profiles for OHS Practitioner

	Practitioner Level 1	Practitioner Level 2	Practitioner Level 3
Position details			
Representative titles	OHS Officer	OHS Advisor	OHS Coordinator
Key purpose of role	<p>To support a safe work environment by maintaining OHS administrative processes, conducting basic OHS training and effectively using a range of OHS tools and processes to implement OHS programs and drive compliance.</p> <p>To monitor the implementation of critical controls.</p>	<p>To contribute to maintenance of a safe and healthy work environment by implementing and monitoring OHS systems and processes in their local area. This includes managing OHS administrative processes, conducting training and effectively using a range of OHS tools and processes to implement OHS programs and drive compliance.</p> <p>To initiate, promote and implement site-level activities to improve OHS.</p> <p>To contribute to the implementation and monitoring of critical controls.</p>	<p>To contribute to development and maintenance of a safe and healthy work environment by implementing and monitoring OHS activities to continuously improve OHS. This includes managing OHS administrative processes, identifying training needs, designing and conducting training and effectively using a range of OHS tools and processes to implement OHS programs and drive compliance.</p> <p>To design, develop and implement innovative site-level activities to improve OHS.</p> <p>To drive site-level identification, implementation and monitoring of critical controls.</p>

	Practitioner Level 1	Practitioner Level 2	Practitioner Level 3
			May manage a small site OHS team.
Typical reporting line	OHS manager or coordinator in larger organizations. In SME, may report to operations manager with advice from contracted consultant.	OHS manager in larger organizations. In SME, may report to operations manager/CEO with advice from contracted consultant.	OHS manager in larger organizations. In SME, may report to manager/CEO with advice from contracted consultant.
Professional parameters			
Autonomy	Limited responsibility in known or changing contexts, within established parameters. Stops work if unsafe. Works under direction with responsibility for own output.	Identified responsibility in known or changing contexts and within broad but established parameters. Stops work if unsafe. Works under general direction with personal responsibility for own outputs within broad parameters. Determines when issues should be escalated to a higher level.	Defined responsibility in contexts that are subject to change within broad parameters. Stops work if unsafe. Works under general direction within a clear framework of accountability, exercising substantial responsibility and autonomy in area of work.
Influence/ leadership	Interacts and engages with operational staff, supervisors and consultative groups in own area. Focuses on compliance monitoring. Encourages and supports others in adapting to change. Mentors line workers.	Interacts with and influences operational, supervisory and line and middle management and consultative groups across a designated area. May make decisions with a potential to influence others' work. Supports change management processes in local area. Builds relationships as a basis for influence, mentors supervisors and workers with a focus on empowerment of others rather than control. ¹⁷	Influences work across a designated area/site, including projects and team activities; may have some responsibility for resource allocation and engagement with external agencies. Initiates and supports change in area of responsibility. Establishes communication channels and develops and maintains relationships to influence and mentor line managers in local area.
Complexity	Performs a range of varied work activities, usually as defined in written procedures, in a structured and specified environment.	Performs a range of work that is largely routine, but sometimes complex, in a specified range of work environments.	Performs a range of complex advisory and technical activities in a variety of contexts.

¹⁷ The term “builds relationships as a basis for influence” is used in preference to “coaching” as coaching implies a power role rather than empowering. See Section 3.3 of Element 2: Overview for an explanation of the importance of the terminology.

	Practitioner Level 1	Practitioner Level 2	Practitioner Level 3
Business and organizational skills	Demonstrates an understanding of the operational activities and demands in his or her area of work. Manages own activities to meet work/project timelines.	Demonstrates an understanding of the implications of OHS strategies and activities for operational functions and areas of the organization. Manages own activities to meet work/project timelines.	Demonstrates an understanding of how OHS interacts/integrates with the broader operational environment within the organization/site. May manage a site-level team of OHS personnel in larger organizations. Has personal planning and organizational skills to meet work/project deadlines.
Knowledge and skills			
Knowledge	Demonstrates broad factual and technical OHS knowledge with some theoretical basis.	Demonstrates broad technical and theoretical OHS knowledge with depth in some areas.	Demonstrates comprehensive and integrated OHS technical knowledge underpinned by a theoretical understanding with depth in some areas.
Analyze and evaluate information	Applies cognitive skills to identify, analyze, compare and act on information from a range of workplace sources as per procedures.	Applies cognitive and communication skills to identify, analyze, synthesize and act on information from a range of workplace sources. Takes advice and input from others as part of collecting and analyzing information.	Applies cognitive and communication skills to identify, analyze, synthesize and act on information from a range of workplace and external sources. Considers the views and input of others as part of collecting and analyzing information as a basis for decision making
Problem solving	Applies a methodical approach to provide technical solutions of a routine or contingency nature to a defined range of predictable problems in known environments.	Applies cognitive and technical skills to analyze, plan and evaluate approaches to sometimes unpredicted problems within a framework of existing systems and processes and in known and specified environments.	Applies cognitive and technical skills to develop creative solutions to nonroutine and sometimes complex problems in a defined but wide range of environments.
Transmit knowledge skills and ideas	Applies communication skills to guide activities and share information across the work group(s). Prepares basic reports using appropriate writing style, grammar and data displays.	Applies communication and training skills to transfer OHS knowledge and skills to others. Prepares reports on OHS performance and trends using appropriate writing style, grammar and data displays.	Applies communication and training skills to transfer sometimes specialist knowledge and skills to others in a persuasive manner to achieve desired outcomes. Develops reports for site and regional/commodity managers on OHS performance with recommendations for site-level action to improve OHS.

	Practitioner Level 1	Practitioner Level 2	Practitioner Level 3
Soft skills	Works well in a team and engages with other frontline colleagues in informal and formal environments.	Applies communication, engagement and skills to promote and support change. Applies mentoring skills to develop capability of site operational personnel.	Applies communication, engagement and leadership skills to initiate and support change. Applies mentoring skills to develop capability of site operational and OHS personnel.
Qualifications			
Qualification level	AQF 4/ EQF 4	AQF 5/EQF 4	AQF 6/EQF 5

Table 3: Position profiles for OHS Professional

	Professional Level 1	Professional Level 2	Professional Level 3
Position details			
Representative titles	Graduate OHS Advisor	OHS Manager	General/Group Manager, OHS/Safety VP/Director OHS/Safety
Key purpose of role	<p>To support development and maintenance of a safe and healthy work environment by:</p> <ul style="list-style-type: none"> ensuring identification of key risks and critical risk controls; analyzing OHS training needs; designing, delivering and evaluating OHS training; and applying the OHS evidence base to develop, implement and monitor OHS strategy and programs, including for OHS critical control management. <p>To ensure appropriate maintenance of OHS records.</p>	<p>To apply leadership, specialist skills and knowledge of the OHS evidence base to provide strategic direction and support to managers to:</p> <ul style="list-style-type: none"> operationalize and implement corporate OHS strategy; and evaluate the outcomes with an emphasis on critical control management. 	<p>To set corporate direction and lead development of strategy for OHS by applying high-level strategic and/or specialist skills.</p> <p>To work with Boards, executives, senior managers and others to lead OHS strategy and to initiate, develop and maintain activities for a safe and healthy work environment.</p> <p>To ensure an emphasis on critical risk and identification and management of critical controls.</p> <p>To develop and implement a strategy for communicating the strategy and framework throughout the business.</p> <p>To represent the company to external agencies.</p>
Typical reporting	<p>OHS manager in larger organizations.</p> <p>In smaller organizations: MD/CEO, Operations Manager</p>	<p>General manager OHS or operations manager in larger organizations.</p> <p>In smaller organizations: MD/CEO, Operations Director.</p>	<p>CEO Operations Director Head of Risk</p>

	Professional Level 1	Professional Level 2	Professional Level 3
Professional parameters			
Autonomy	Works under broad direction, independently or as part of a team, on activities that may be self-initiated; is accountable for meeting milestones and timelines.	Makes high-level independent judgements with guidance only in the most complex situations. Plans, implements and monitors substantial projects within the boundaries of the corporate business strategy and priorities.	Makes high-level independent judgments regarding technical and strategic OHS issues and operates with a high level of autonomy to conceptualize, plan, implement and evaluate major OHS projects. Wide scope of authority to operate within the constraints of the business plan.
Influence/ leadership	Builds internal and external relationships to create influence, mentors line managers and site OHS personnel to achieve OHS objectives.	Develops relationships with senior management, OHS Professionals and Practitioners to create/influence OHS-related policy, objectives and strategy and to act as a change agent to support improvement in OHS. Liaises with industry leaders and OHS regulatory agencies.	Develops long-term strategic relationships with the senior management team and operational managers and builds relationships with external stakeholders, including industry bodies and OHS regulatory agencies. Directs OHS strategy across the organization and sometimes the industry and the profession. Creates a vision, sets and communicates goals and acts as a catalyst and key influencer in driving change. Engages, influences and mentors internal and external stakeholders as a functional expert.
Complexity	Performs an extensive range and variety of complex technical and professional activities requiring application of fundamental principles in a wide and often unpredictable range of contexts.	Creatively performs a range of highly complex OHS activities and leads on formulation, implementation and evaluation of OHS strategy, often working with diverse cultures and changing business environments.	Applies a deep knowledge of OHS together with management and leadership skills in a range of diverse, complex and often developing and unfamiliar contexts to lead formulation, implementation and evaluation of OHS strategy. Leads teams and projects often requiring integration of multiple concepts, technologies and activities within diverse cultures. Innovative in developing and implementing strategies and adapting to changing business environments.
Business and organizational skills	Understands the relationship between OHS and operations as well the	Understands the wider organizational and business environment and the impact on	Brings an international perspective and an awareness of the broader

	Professional Level 1	Professional Level 2	Professional Level 3
	<p>wider organizational requirements.</p> <p>Manages own activities to meet work/project timelines.</p>	<p>management of OHS as well as the interdependency of OHS and operations.</p> <p>Personal planning and organizational skills to meet work/project deadlines.</p> <p>Engages to support availability of required resources.</p> <p>May manage an OHS group.</p>	<p>business and operational environment to OHS management.</p> <p>Uses planning and organizational skills to manage a group to meet work/project deadlines.</p> <p>Collaborates to ensure required resources are available.</p> <p>May manage an OHS group.</p>
Knowledge and skills			
Knowledge	Demonstrates familiarity with and understanding of a broad range of OHS concepts with depth of technical knowledge in some hazard areas.	<p>Demonstrates understanding of advanced theoretical OHS concepts and technical knowledge within a systematic and coherent OHS body of knowledge.</p> <p>Recognized as an expert within and outside the organization.</p>	Demonstrates advanced and integrated understanding of a complex body of OHS knowledge, including an extended understanding of recent developments as a basis for critical thinking.
Analyze and evaluate information	Applies cognitive and technical skills to access, review, critically evaluate and consolidate information from a range of external and internal sources to inform OHS practice.	Applies cognitive and technical skills to access, analyze and evaluate information to think critically, generate and evaluate complex ideas and inform OHS strategy and practice.	Applies cognitive, technical and creative skills to investigate and analyze complex information, concepts and theory and to reflect critically to generate new knowledge and apply it to professional practice.
Problem solving	<p>Applies critical thinking, information gathering, communication skills and judgment to identify and analyze routine and sometimes complex OHS problems to generate practical evidence-informed solutions while taking into account legislation and industry standards.</p> <p>Applies cognitive, technical and communication skills to justify proposed solutions from an OHS perspective.</p>	<p>Applies critical thinking, information gathering, problem solving and communication skills and judgment to identify and analyze complex OHS problems to generate innovative, practical evidence-informed solutions while taking into account legislation and industry standards and the organizational environment.</p> <p>Applies cognitive, technical and communication skills to justify and prioritize proposed solutions while taking into account OHS principles as well as organizational, legal, industry and other relevant factors.</p>	<p>Applies critical reflection to synthesize information and established theory from a variety of sources to generate creative, practical evidence-informed solutions to OHS problems within a business environment while taking into account legislation and industry standards.</p> <p>Applies knowledge of the OHS evidence base, logical reasoning and a business evaluation process to explain the risks and benefits of a range of options and to justify recommendations while taking into account current thinking in OHS, commercial factors, industry standards and legislation.</p>

	Professional Level 1	Professional Level 2	Professional Level 3
		Applies problem-solving techniques to develop an integrated strategy for OHS and related management issues.	
Transmit knowledge, skills and ideas	<p>Selects and appropriately applies a broad range of written, oral and nonverbal communication skills and formats to explain technical information and concepts to a range of workplace audiences.</p> <p>Uses technology effectively to prepare reports for a range of workplace audiences.</p>	<p>Interprets and tailors information to communicate knowledge and ideas to workplace, professional and regulatory audiences using appropriate communication strategies and formats.</p> <p>Prepares reports for a range of audiences using appropriate data displays.</p>	<p>Challenges existing thinking and practices while acknowledging perspectives of others.</p> <p>Interprets and tailors technical and organizational information, complex concepts and theories to communicate complex concepts and ideas to a range of senior management, specialist and nonspecialist audiences using a variety of appropriate communication strategies.</p> <p>Prepares reports for company's internal and external audiences and, where required, prepares regulatory standards.</p>
Soft Skills	Uses communication, engagement and mentoring skills to develop OHS capability of site operations and OHS personnel.	<p>Uses communication and engagement skills, including negotiation and conflict management skills, to initiate, promote and support change.</p> <p>Uses mentoring skills to develop OHS capability of site operational and OHS personnel.</p>	Uses communication, engagement and leadership skills to be a trusted advisor and mentor to senior managers and to initiate and support change.
Qualifications			
Qualification level	AQF 7/EQF 6	AQF 8/EQF 6	AQF 9/EQF 7

4 Activities

The OHS Capability Framework defines the role of the OHS Professional and the OHS Practitioner in terms of OHS-related activities. These activities are divided into two levels:

- Dimensions – providing the scope of the distinguishing boundaries of the roles.
- Domains – describing fields of activity within the dimensions.

A third level of detail in the form of explanatory comments for the domain is incorporated in the online tools developed to support implementation of the Framework.¹⁸

Seven dimensions are used to outline the roles of the OHS Professional and OHS Practitioner:

1. Systems management approach
2. Organizational culture and its impact on OHS
3. OHS risk management processes
4. Measurement and evaluation of OHS performance
5. Knowledge management
6. Communication, engagement and influence
7. Professional and ethical practice

The activity statements may be used in many contexts:

- As a mapping tool to confirm key OHS activities are addressed by one or more OHS specialists in the organization
- As a detailed OHS duty statement as part of a position description
- To create a shared understanding of the role by incumbents, line and senior managers and others
- As a basis for performance appraisals
- To identify areas for role expansions and further development of an incumbent.

INSHPO has developed job position builder and self-assessment tools to support use of the Framework for these purposes. Information on access and availability of the tools is available at www.inshpo.org.

It should be noted that the scope of application of the activities is different for the OHS Professional compared with that of the OHS Practitioner.

OHS Professional: Across the organization, including site, divisional/regional and corporate; may include local, national or global roles.

OHS Practitioner: Usually at a site (workplace) level of an SME or a section or site within a large organization. Thus, when considering the Practitioner activities, each activity should be read as applying “at the local level.”

¹⁸ Tools available at www.inshpo.org.

4.1 Activities

Table 4: Activity matrix for OHS Practitioners and OHS Professionals

	OHS Practitioner			OHS Professional	
	Dimension		Domain	Dimension	Domain
1 Systems management approach	Support the implementation of a systems approach to OHS.	1.1	Support implementation of and monitor compliance with defined OHS management system, policy and procedures. Builds relationships as a basis for influence ¹⁹ with managers to understand the limitations of written safety rules and procedures and to favor control through workplace and process design, critical controls and proven competence.	Lead and support the development and implementation of a systems approach to OHS.	Lead the development of OHS management systems, policies and procedures. Understand management systems, policies and procedures in the broader context of the business as a sociotechnical system and develop effective, nonbureaucratic management systems acceptable to all stakeholders.
		1.2	Contribute to identification of required resources and work within resource framework.		Advise on and facilitate commitment of appropriate resources for sustainably managing OHS.
		1.3	Support and motivate line management and supervisors to provide OHS leadership and through them to influence workers to give appropriate priority to OHS in relation to other operational objectives.		Support and motivate senior management and through them, all people in the organization, to provide OHS leadership and to give appropriate priority to OHS in relation to other business objectives.
		1.4	Facilitate, monitor and provide feedback on implementation of operational plans to address and improve the controls of OHS hazards, their associated risks and related costs.		Facilitate development and utilization of strategic and operational plans to address and improve the control of OHS hazards, their associated risks and related costs.
	Support line managers, supervisors and	2.1	Facilitate, monitor and support management practices and projects aimed at achieving an organizational	Lead and support key influencers,	Advise managers on appropriate management practices to achieve an organizational culture that is focused on OHS.

¹⁹ The term “builds relationships as a basis for influence” is used in preference to “coaching” as coaching implies a power role rather than empowering. See Section 2.3 for an explanation of the importance of the terminology.

	OHS Practitioner			OHS Professional	
	Dimension		Domain	Dimension	Domain
2 Organizational culture and its impact on OHS	workers on methods to foster and monitor a positive OHS culture.		culture focused on OHS. Recognize and support the increase in the maturity of the organization's culture and its effect on how to function effectively as an OHS Practitioner.	including managers, on strategies to foster an organizational culture that prioritizes OHS.	Recognize the maturity of the organization's culture and work with managers as a change agent to increase organizational OHS maturity.
		2.2	Support implementation of change processes to improve OHS, being aware of the cross-functional impacts of change.		Facilitate the identification and management of OHS implications of organizational change and influence the change process to minimize adverse effects and maximize positive effects of the change.
		2.3	Engage with supervisors and middle managers to develop responsibility and leadership in OHS.		Engage with managers at all levels in the organization to develop their responsibility and leadership in OHS.
		2.4			Engage with stakeholders and others to promote innovation in managing OHS.
3 OHS risk management processes	Support implementation and maintenance of routine OHS risk assessment, control and management processes in normal operations and emergencies.	3.1	Conduct hazard identification in well-known tasks in sometimes dynamic conditions.	Lead development of OHS risk management processes and facilitate and support their implementation and maintenance.	Develop and implement processes for hazard identification, including those for major risks.
		3.2	Use technical, human factors and other knowledge to identify causation, consequences, possible risk controls, including critical controls, and potential failure in controls related to the hazards of well-known tasks in sometimes dynamic conditions.		Use technical, human factors and other theoretical knowledge, to research, review and interpret information on hazards to identify causation, consequences, possible risk controls, including critical controls, and potential failure in controls related to all relevant hazards in all lifecycle phases.
		3.3	Contribute to identification of risk factors and analysis and prioritization of OHS risks associated with known and routine work processes in familiar environments.		Develop and lead processes to identify risk factors and to analyze and prioritize OHS risks with an emphasis on critical risk.
		3.4	Provide technical information to inform risk analysis and risk estimation processes.		Provide technical, organizational and strategic information to inform risk analysis and risk estimation processes.

	OHS Practitioner			OHS Professional	
	Dimension		Domain	Dimension	Domain
		3.5	Provide information on the requirements for compliance with detailed, operational-level OHS-related regulations and standards.		Provide advice on the strategy requirements for compliance with OHS-related laws and standards.
		3.6	Take appropriate steps to stop unsafe work.		Ensure processes are in place to empower workers to stop work considered an immediate threat to health or safety.
		3.7	Advise on hazard control for routine and sometimes complex tasks.		Advise on cost-effective and efficient hazard controls, including critical controls, and risk minimization/mitigation strategies, taking a lifecycle approach.
		3.8	Advise on and support implementation of efficient controls, including critical controls for effective risk minimization/mitigation strategies.		Support identification and implementation of critical controls for effective OHS risk management and OHS risk minimization.
		3.9	Prepare and check specifications and orders for the purchase of preventive and protective safety equipment and other physical risk controls.		
		3.10	Coordinate the issue, testing, availability, use and replacement of personal protective and/or emergency equipment.		
		3.11	In liaison with operational staff, write and keep up-to-date procedures for safe working.		Oversee, evaluate and approve the collection, development and implementation of safety procedures and documentation, including for emergency situations.
		3.12	Write and keep up-to-date documentation for emergency planning.		
4 Measurement and evaluation of OHS performance	Support monitoring and measurement of OHS performance.	4.1		Develop and lead processes for monitoring, measuring and evaluating OHS performance.	Facilitate processes to develop criteria for determining criticality of risk.
		4.2	Build relationships with supervisors and managers to develop their understanding as to why work as done may differ from documented procedures.		Develop criteria for monitoring OHS performance that take into account the overall organizational goals.

		OHS Practitioner		OHS Professional	
		Dimension	Domain	Dimension	Domain
		4.3	Implement activities to monitor OHS performance.		Design and implement processes for monitoring OHS performance at strategic and operational levels.
		4.4	Monitor the integrity and effectiveness of controls, with an emphasis on critical controls, to identify actual and potential failures in control.		Monitor the effectiveness of hazard and risk controls with an emphasis on critical controls, including the identification of actual and potential failure in controls.
		4.5	Coordinate workplace inspection activities to monitor the presence and use of hazard controls.		
		4.6	Monitor and provide feedback on compliance with safety-critical procedures.		
		4.7	Prepare and use equipment to undertake basic measurement and monitoring of the work environment.		
		4.8	Contribute to monitoring of employees and contractors' personnel and their compliance with OHS requirements.		
		4.9	Monitor and report on the effectiveness of risk management and OHS management processes.		
		4.10	Support processes and procedures to investigate, analyze, record and report on incidents and nonconformities indicating failures or inadequacies of controls.		Implement, monitor and evaluate processes and procedures to investigate, analyze and report on incidents and nonconformities indicating failures or inadequacies of controls. Mentor operations personnel to participate in incident investigations.
		4.11	Participate in OHS hazard and management system audits.		Develop, manage, evaluate and improve OHS audit processes and conduct OHS hazard and management system audits.

	OHS Practitioner			OHS Professional	
	Dimension		Domain	Dimension	Domain
		4.12	Conduct and analyze emergency drills.		Develop, evaluate and manage emergency and disaster preparedness.
		4.13	Support periodic management reviews to systematically assess, monitor and identify areas for improvement in the OHS management system and OHS culture.		Support and structure periodic management reviews to systematically assess, monitor and identify areas for improvement in the OHS strategy, management system and OHS culture.
		4.14	Make recommendations to improve OHS, including addressing identified nonconformities to improve OHS compliance.		Make recommendations to address identified issues and improve OHS management and risk minimization.
5 Knowledge management	Implement processes for knowledge collection and management to enable positive OHS outcomes.	5.1	Use and maintain data management systems for collecting information relevant to OHS.	Develop and implement processes for knowledge collection and management to enable positive OHS outcomes.	Specify, develop and use data management systems for collecting and validating information relevant to OHS.
		5.2	Collect and keep up-to-date relevant internal and external OHS information, regulations, standards, good practice and OHS record systems.		Collect and critically evaluate information from diverse internal and external sources and databases as part of evidence-based practice.
		5.3			Collect, collate and interpret information to develop business cases for OHS improvement strategies and activities.
		5.4	Analyze and apply data to monitor OHS performance and produce summary reports.		Analyze and apply data to identify trends and information to monitor and report OHS performance.
6 Communication engagement and influence	Communicate, engage with and influence line and middle management, supervisors and workers to mitigate risk and optimize worker	6.1	Implement OHS-related communication and consultation processes with stakeholders.	Communicate, engage with and influence decision-makers and other stakeholders to mitigate risk and optimize	Develop and implement OHS-related communication and consultation systems and processes engaging all stakeholders.
		6.2	Contribute to the preparation of training and information material to develop OHS skills and awareness in workers and supervisors.		Lead and facilitate OHS knowledge and skill development, training and understanding of OHS responsibilities, obligations and actions required to meet legal and risk management requirements.

	OHS Practitioner			OHS Professional	
	Dimension		Domain	Dimension	Domain
	health and safety.	6.3	Conduct and support OHS training and skill development related to OHS for supervisors and workers.	worker health and safety.	Support the development and delivery of OHS training for all levels in the organization.
		6.4	Develop relationships with supervisors and middle managers to support their development in OHS related to their role.		Develop relationships with managers to support OHS development relevant to their roles.
		6.5	Provide varied and up-to-date OHS information to middle managers, supervisors and workers.		Analyze and interpret information to communicate technical and theoretical concepts and knowledge about OHS.
		6.6			Communicate and liaise with business partners, OHS regulators and other external bodies on behalf of the organization.
		6.7	Be a “trusted advisor” to influence middle managers, supervisors and workers.		Be a “trusted advisor” to influence management decision making to consider OHS implications.
7 Professional and ethical practice	Apply legal and ethical standards to practice	7.1	Comply with laws and regulations governing practice of OHS and related activities.	Promote and apply professional and ethical standards to practice	Promote and comply with laws and regulations governing professional practice of OHS and related activities.
		7.2	Make decisions and judgments impartially based on standards, legislative requirements, OHS knowledge and practice.		Make decisions and judgments impartially based on scientific evidence and verifiable theoretical and professional knowledge and practice.
		7.3	Operate under the (direct or indirect) direction of an OHS Professional to implement OHS projects and risk controls and management processes.		Operate with a level of autonomy to conceptualize, plan, implement and evaluate OHS projects and risk control and management processes.
		7.4	Observe relevant codes of conduct provided by professional associations and other assessment and advisory bodies nationally.		Observe relevant codes of conduct provided by professional associations and other assessment and advisory bodies nationally and internationally.
		7.5	Ensure that employers and others who may be affected by their activities are aware of their levels of OHS competence.		Ensure that clients, employers and others who may be affected by their activities are aware of their levels of professional

	OHS Practitioner			OHS Professional	
	Dimension		Domain	Dimension	Domain
			Seek specialist support and advice where necessary and appropriate.		competence. Seek specialist support and advice where necessary and appropriate.
		7.6	Ensure currency of own OHS technical knowledge and knowledge of industry practice.		Ensure currency of own OHS conceptual understanding, technical knowledge and industry practice.
		7.7	Seek out and form a collaborative relationship with an OHS Professional mentor.		Engage in evidence-informed reflective practice, evaluative activities and professional discussion with a view to testing ideas through peer appraisal. Provide mentoring to OHS Practitioners.
		7.8	Provide leadership in OHS and act as an exemplar of good OHS practice and behavior to peers, coworkers and the public.		Provide leadership in OHS and act as an exemplar of good OHS practice and behavior to peers, coworkers and the public.

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5 Knowledge

A conceptual framework together with specific technical knowledge is essential for both the OHS Professional and OHS Practitioner. Such a knowledge base supports innovation, flexibility and openness to new and advancing thinking about OHS. It enables OHS specialists to develop and adapt their professional practice to changing demands of business and society and also enables them to mentor and develop others. As shown in Section 5.1, considerable overlap exists in the knowledge topics for the OHS Professional and OHS Practitioner with differences in the depth and breadth as applicable to the Professional and the Practitioner.

Such a knowledge base will be gained through a combination of formal education and experience. It is not expected that an OHS Professional or OHS Practitioner would gain the knowledge through education alone.

The knowledge matrix of the Framework is described under six areas with each area having many categories with illustrative generic topics indicating the intended scope of the knowledge category. This is described at a high, generic level to allow flexibility in the way it is applied to suit the legal and OHS context in individual countries.

The knowledge areas:

- A: Hazards and risks
- B: Hazard and risk controls
- C: Safety and health management
- D: Professional role and functioning
- E: Underlying technical and behavioral disciplines
- F: Underlying management science.

This classification is not the same as that used for the dimensions and domains described in Section 3 on Activities. While Section 3 discusses tasks, this section describes the underlying knowledge needed to perform those tasks, which means a move to a classification that resides in the underlying disciplines and subjects constituting OHS. For each activity in the roles, many pieces of knowledge are relevant, and each piece may underpin several, if not many, of the activities. This produces a many-to-many mapping or matrix, which is not made explicit in this document. Between this section on knowledge and the activities described in Section 4, a many-to-many mapping is also found between the headings A to D of applied knowledge and the underlying disciplines of headings E and F.

The conceptual and technical knowledge under these areas must be integrated to enable the OHS Professional and Practitioner to develop a “mental model” to inform his or her OHS practice.

The illustrative topics in the knowledge matrix are annotated with an indicative range to reflect the expected nature and complexity of the knowledge of the OHS Professional and OHS Practitioner. The coding is based on the following four **knowledge levels**, which address depth, breadth, maturity and

integration of the knowledge. These levels are informed by and developed from Bloom’s hierarchy of educational objectives.²⁰

Level	Knowledge
1	Awareness: Understands the need for and general principles of application of the knowledge.
2	Routine application: Applies the knowledge to routine, well-known situations, with depth in some areas.
3	Comprehensive application: Integrates, adapts and applies the knowledge to all relevant areas and situations.
4	Creative mastery: Applies the theoretical concepts and applied knowledge critically and creatively to new situations.

The lower number in the range reflects the minimum level of knowledge expected of an effective OHS Practitioner or Professional with the higher number providing a target for development. In providing a target level, there is no intention to create a “ceiling.” The actual target knowledge level will depend on qualifications, personal interest as well as the organizational and industry context. A single number rather than a range indicates that while the level of technical knowledge required for practice may be similar, the scope of application or the complexity of application may be greater. Where an overlap exists in the range of knowledge levels across the Practitioner and the Professional role, the application of the knowledge by the Practitioner will usually be site-based while the Professional will have a broader role.

As with the activities, when considering required knowledge, the scope of activities and so the application of knowledge is as follows for each of the two roles:

OHS Professional:	Across the organization, including site, divisional/regional and corporate; may include local, national or global roles.
OHS Practitioner:	Usually at a site (workplace) level of an SME or a section or plant of a large organization.

The knowledge component of the Framework should not be seen as a standalone item. An integrated knowledge base (or mental model) is essential for providing informed advice, so it would be too complex to map individual knowledge topics to specific activities. However, the required breadth and depth of knowledge should take into account the scope of relevant activities as well as specific requirements related to the role that may be organization- or country-specific.

The knowledge framework supports the applications described for the position profiles and the activity matrix. More specifically, the knowledge matrix may be used:

- In recruitment, as a basis for specifying applicants’ required qualifications
- In assessing job applicants as part of assessment tests or interview questions
- As part of a detailed duty statement or position description

²⁰ See Bloom, B.S., Engelhart, M.D., Furst, E.J., Hill, W.H., & Krathwohl, D.R. (Eds) (1956). *Taxonomy of Educational Objectives: Handbook 1 Cognitive domain*. New York: David McKay.

- As a basis for performance appraisals
- To inform development of internal training programs
- To identify areas for OHS Professional development

The knowledge matrix has been incorporated into the online tools developed by INSHPO to support implementation of the framework.²¹

The OHS knowledge matrix is limited to specific OHS-related knowledge. It does not address industry or process-specific knowledge. It should be recognized that to operate as an effective OHS Professional or Practitioner, one must understand the technical and cultural aspects of the industry in which s/he practices, with practical knowledge of the industry and its processes being more important for the Practitioner.

5.1 Knowledge matrix

Table 5: Knowledge matrix for OHS Practitioners and OHS Professionals

Code	Knowledge category	Illustrative generic topics	OHS Practitioner	OHS Professional
A	Hazards and risks			
1.	Causation – Health & Psychosocial ²²	• Chronic and cumulative impacts	1-2	3
		• Multifactorial nature of health determinants	1-2	3
		• Work-related impacts on health	2-3	3
		• Concept and models of “healthy work” and “wellness”	1-3	3
		• Models of causation of fatigue and stress	1-2	2-3
		• Mental illness in the workplace	1-2	2-3
2.	Causation – Safety	• Models of accident ²³ causation (linear to complex)	2-3	3-4
3.	Causation – Environmental ²⁴	• Models of environmental harm (air, water, soil)	0-1	2-3
4.	Risk	• Difference between hazard and risk	2-3	4
		• Risk as a complex concept (uncertainty)	2-3	3-4
		• Prioritization of critical risk	2-3	3-4
		• Qualitative/quantitative aspects of risk	1-2	3-4
5.	Hazards	• Process and task safety analysis methods (e.g., Job Safety Analysis)	2-3	3-4
		• Complex hazard analysis methods (i.e., FMEA, HAZOP, Fault Tree, Bowtie, etc.)	0-1	2-4
		• Knowledge of exposure standards and their application	2-3	2-3

²¹ See www.inshpo.org.

²² The degree to which safety and health professionals are involved with the control of psychosocial hazards differs from country to country. The degree of involvement will govern how much knowledge is required under these headings.

²³ The term “accident” in this document includes incidents (sometimes called dangerous situations, near-misses or precursors) leading toward but stopping short of harm.

²⁴ The degree to which OHS personnel are involved in the control of environmental hazards differs from country to country. The degree of involvement will govern how much knowledge is required under these headings.

Code	Knowledge category	Illustrative generic topics	OHS Practitioner	OHS Professional
		<ul style="list-style-type: none"> • For each specific hazard:²⁵ <ul style="list-style-type: none"> ○ Basic underpinning science to understand the hazard's behavior, how it causes damage and how it can be controlled ○ Relevant definitions, units and methods of measurement ○ Mechanisms of damage, injury and health outcomes, including those leading to material unwanted events ○ How the hazard is used/occurs in the occupational environment and specific industries ○ Risk factors 	2-3	3-4
		<ul style="list-style-type: none"> • Hazard-specific legislation and standards 	2-4	2-3
B Hazard and risk controls				
6.	Control – Principles	<ul style="list-style-type: none"> • Time sequence of pre event, event and post event and relevant control/intervention points • Hierarchies of control, barriers and defenses, critical controls, requisite variety of controls • Criteria for critical controls and principles of critical control management²⁶ • Health protection and promotion²⁷ • Hazard-specific risk control strategies 	2-3	3-4
		<ul style="list-style-type: none"> • Hierarchies of control, barriers and defenses, critical controls, requisite variety of controls 	2-4	4
		<ul style="list-style-type: none"> • Criteria for critical controls and principles of critical control management²⁶ 	1-3	3-4
		<ul style="list-style-type: none"> • Health protection and promotion²⁷ 	1-2	3
		<ul style="list-style-type: none"> • Hazard-specific risk control strategies 	2-3	3
7.	Control – Process and workplace design	<ul style="list-style-type: none"> • Concept of inherent safety and engineered safe design • Process and equipment instrumentation and control • Human factors and ergonomics (including physical and cognitive ergonomics) • User-centered design • Workplace layout • Impact of technology, including automation 	1-3	3
		<ul style="list-style-type: none"> • Process and equipment instrumentation and control 	2-3	2-3
		<ul style="list-style-type: none"> • Human factors and ergonomics (including physical and cognitive ergonomics) 	2-3	2-4
		<ul style="list-style-type: none"> • User-centered design 	1-3	3
		<ul style="list-style-type: none"> • Workplace layout 	2-3	3
		<ul style="list-style-type: none"> • Impact of technology, including automation 	1-2	3
8.	Control – Barriers	<ul style="list-style-type: none"> • Types of barriers (machinery guarding, access control, separation, containment, work skills, PPE, etc.) • Role and limitations of barriers • Barrier maintenance requirements • Establishing and managing a PPE program (including selection, fitting and maintenance) 	2-4	3-4
		<ul style="list-style-type: none"> • Role and limitations of barriers 	2-4	3-4
		<ul style="list-style-type: none"> • Barrier maintenance requirements 	2-4	3-4
		<ul style="list-style-type: none"> • Establishing and managing a PPE program (including selection, fitting and maintenance) 	3-4	3-4
9.	Control – Procedural and administrative controls	<ul style="list-style-type: none"> • Systems of work • Handovers, permit to work systems, lock out/tag out • Inspection, maintenance and testing • Competent workers: recruitment and selection processes, fitness for work • Competent workers: training; needs analysis; development and documentation of training; multimodal delivery; assessment of individuals and training programs; mentoring • Rules and procedures, factors affecting procedural compliance • Licensed operators 	1-3	3-3
		<ul style="list-style-type: none"> • Handovers, permit to work systems, lock out/tag out 	2-4	2-3
		<ul style="list-style-type: none"> • Inspection, maintenance and testing 	2-4	2-3
		<ul style="list-style-type: none"> • Competent workers: recruitment and selection processes, fitness for work 	1-2	3-4
		<ul style="list-style-type: none"> • Competent workers: training; needs analysis; development and documentation of training; multimodal delivery; assessment of individuals and training programs; mentoring 	1-4	3
		<ul style="list-style-type: none"> • Rules and procedures, factors affecting procedural compliance 	2-4	3-4
		<ul style="list-style-type: none"> • Licensed operators 	2-4	2-3

²⁵ See Section 7.

²⁶ See International Council on Mining and Metals (ICMM). (nd). *Health and Safety Critical Control Management: Good practice guide*. www.icmm.org.

²⁷ The degree to which OHS personnel are involved with health promotion differs from country to country.

Code	Knowledge category	Illustrative generic topics	OHS Practitioner	OHS Professional
		• Outsourcing, contractor management	2-3	3
		• Supply chain management	1-3	3
10.	Mitigation – Emergency preparedness	• Liaison with external agencies: chain of command	2	3-4
		• Relevant standards	2-4	3
		• Detection and mitigation methods	2-4	3
		• Development of emergency preparedness plans and arrangements	2-3	3-4
		• Implementation of preparedness, including testing of preparedness	2-4	2-3
		• Recovery, including organization continuity plans and management	1-2	3-4
11.	Mitigation – Health Impacts ²⁸	• Provision of first-aid services	2-3	1
		• Provision of medical services	1-2	2-3
		• Workers’ compensation and local legal requirements	0-1	1-3
		• Injury management, case management and claims management	0-1	1-3
		• Role of work and the workplace in worker recovery (establishing and managing a return-to-work program)	1-2	2-3
C Safety & health management				
12.	Safety management	• OHS management systems (structure and elements, relevant standards, limitations)	2-3	4
		• Processes for implementing a critical control management program	2-3	3-4
		• System safety	1-2	3-4
		• Systems of work, work procedures and instructions	2-4	3-4
		• Decision making	2	3-4
		• Theories of safety management, including new and emerging theories and insights	1-3	3-4
		• Relationship of safety management systems to environmental, quality and business management approaches	1-2	3-4
		• OHS roles and responsibilities	2-4	4
		• Principles of assessing and managing contractors	2-3	3-4
13.	Organizational culture	• Organizations as complex sociotechnical systems	1-2	3-4
		• Concepts of national, organizational and safety culture	1-2	3-4
		• Relationship between employee (manager and workforce) behavior, organizational culture, safety culture and safety climate	1-3	3-4
		• Organizational maturity	2-3	3-4
		• Role of leadership	2-3	4
		• Healthy work	2	3
		• Limitations of the role and use of safety and health incentives, awards and competitions in relation to culture	2-3	3-4
14.		• International regulatory context	0-1	2-4
		• Regional and national regulatory context	2	3-4

²⁸ The degree to which OHS professionals are involved with these health mitigations differs from country to country. The degree of involvement will govern how much knowledge is required under these headings.

Code	Knowledge category	Illustrative generic topics	OHS Practitioner	OHS Professional
	Law, regulation and societal context ²⁹	• Legal principles and comparative legal systems and regulatory frameworks	1	3-4
		• Criminal and civil law and effect on OHS	1	3-4
		• OHS-specific law	2-3	3-4
		• Compliance and enforcement policies and strategies in the jurisdiction	2-3	4
		• Workers' compensation law	0-1	1-2
		• Product liability law	0	1-2
		• Basics of contract law	0-1	1-3
		• Best practice as it affects due diligence, common law, standard of care and regulation	1-2	3-4
		• ILO, ISO and other international standards	1-2	3-4
		• Market and societal influences	1	2-3
15.	Risk assessment and decision making on risk	• Sources of information on risk	2-3	3-4
		• Methods of risk assessment and their application for specific hazards	2-3	3-4
		• Qualitative methods for estimating levels of risk, including issues and limitations	2-3	4
		• Quantitative methods for estimating levels of risk, including issues and limitations	1-2	3
		• Defining acceptable levels of risk (legal requirements, internal standards, ALARP ³⁰)	1-2	3-4
		• Risk and decision making (individual and organizational decision-making processes, balancing priorities, risk perception and risk communication, role of workforce, trades unions, public and other stakeholders)	1-2	3-4
		• Risk management standards (process, application and limitations)	2-3	4
		• Risk perception and risk communication, role of workforce, trade unions, public and other stakeholders	1-3	3-4
16.	Monitoring, evaluating and validating controls	• Potential sources/modes of failure in controls	2-3	3-4
		• Risk control and hazard monitoring techniques (including inspections and maintenance)	2-4	3
		• Structures and processes for managing critical controls	2-3	3-4
		• Work environment monitoring (required equipment and programs)	2-3	3
		• Investigation methods (incidents, nonconformities)	2-3	3-4
		• Role of health surveillance and health risk assessments ³¹	1-2	2-3
		• Auditing (hazard audits, compliance audits, OHSMS audits, protocols and procedures, relevant standards)	2-3	3
		• Principles for selecting performance measures	1-2	4

²⁹ The degree to which OHS professionals are involved with these legal aspects differs from country to country depending on their legal and compensation systems. The degree of involvement will govern how much knowledge is required under these headings.

³⁰ As Low As is Reasonably Practicable.

³¹ While health surveillance and health monitoring are the purview of the health professional, the generalist OHS specialist should have an understanding of the role of these activities and be able to engage with health professionals on these activities.

Code	Knowledge category	Illustrative generic topics	OHS Practitioner	OHS Professional
		• Key performance indicators (qualitative, quantitative, lead and lag) ³²	2-3	3-4
		• Criteria and processes for monitoring and validating critical controls	2-3	3-4
		• Benchmarking	1-2	3-4
		• Basic principles of quantitative and qualitative evaluation methodologies	2-3	3-4
17.	OHS information management	• Sources of OHS information (internal and external)	2-3	4
		• Workplace requirements for OHS information	2-4	4
		• External agencies' requirements for information	1-3	4
		• Documentation requirements (organizational and external)	3-4	4
		• Systems for managing OHS information	2-3	4
		• Data collection by research, investigation, interview and observation	1-2	3-4
18.	Communication and consultation	• Organizational channels of communication (formal and informal, internal and external and barriers to communication)	2-4	3-4
		• Consultative structures (e.g., safety committees)	3-4	4
		• Participatory management as it relates to OHS	2-4	4
		• Models of communication, influence and factors contributing to influence	2-3	3-4
		• Conflict management	2-3	3
19.	Change management	• Strategies for defining problems	1-3	3-4
		• Strategies for analyzing and understanding problems (e.g., affinity diagrams, flow charts, cause and effect, system diagrams)	1-3	3-4
		• Potential for change to affect work equipment, work processes and work environment	2-3	3-4
		• Psychology of change as it relates to individuals	2-3	3-4
		• Innovation and change management processes (planning, consulting, promoting, reviewing and consolidating including role of Practitioner/Professional)	1-3	3-4
D. Professional role and functioning (See also skills)				
20.	Ethics and professional practice	• Corporate governance	1-2	3-4
		• Corporate Social Responsibility and sustainability	1-2	3-4
		• Roles, responsibilities and rights ³³	2-4	3-4
		• Professional ethics and codes of conduct	3-4	4
		• Models of ethical practice and ethical decision making ³⁴	1-3	3-4
		• Professional role (independence, impartiality, confidentiality, competence, evidence base, collegiality, practice within competence)	3	4
		• Professional liability and indemnity	1-2	3-4
		• Theories of communication, advocacy, persuasion and documentation	2-3	3-4
		• Setting up and participating in team work	3	3-4
		• Research methodologies relating to OHS and work-based research	0-1	3-4

³² See International Council on Mining and Metals (ICMM). (2012). *Overview of leading indicators for occupational health and safety in the mining industry*. www.icmm.org.

³³ Including right to know and right to refuse unsafe work.

³⁴ These should take national differences into account.

Code	Knowledge category	Illustrative generic topics	OHS Practitioner	OHS Professional
E. Underlying technical, human and social sciences				
21.	Systems	<ul style="list-style-type: none"> • Systems as a concept, including variability • Systems thinking in an OHS context 	1-3 0-2	3 2-4
22.	Human as a biological system	<ul style="list-style-type: none"> • Basic human biology • Physiology as it relates to work • Biomechanics as it relates to work • Cumulative compared with acute impacts on the body • Basic principles of toxicology 	2 1-2 2 1-2 1-2	2 2 2-3 3 2
23.	Individual Psychology	<ul style="list-style-type: none"> • Psychobiology (structure and function of the brain and nervous systems, role of endocrine systems in response) • Cognitive psychology (situation awareness, memory, cognitive biases in decision making) • Behavioral psychology (learning, conditioning, motivation) • Communication • Human error • Fatigue and stress • Impact of aging on work capability 	1-2 1-2 2-3 2-3 2-3 1-3 1-3	2 2-3 3 3 3 3 3
24.	Social psychology	<ul style="list-style-type: none"> • Perceiving individuals (attribution theory and biases) • Self in relation to others (social comparison theory) • Group membership (development of groups, in-groups and out-groups; social identity and self-categorization theories; stereotypes, prejudice and discrimination, contact hypothesis) • Groups as they relate to team work • Norms and group pressure to conform • Task performance (decision-making biases; group task performance) • Power (sources of power, compliance, inequality, obedience to authority) • Attitudes and behavior (e.g., theory of planned behavior; cognitive dissonance theory, persuasion theory) • Understanding and resolving conflict (competition and cooperation; conflict management styles; distributive and procedural justice) 	1-2 1-2 1-3 2-3 1-3 1-2 1-2 1-2 1-3	3 2-3 3 3 3 2-3 3 2-3
25.	Statistics and quantitative analysis	<ul style="list-style-type: none"> • Basic arithmetic and algebraic manipulation • Units of measurement, prefixes and logarithmic scales • Data display and reporting • Probability, sampling distribution and confidence levels • Basic statistical measures, including sources of error • Principles of survey methods • Principles of epidemiological analysis • Principles of designing assessments of intervention effectiveness 	2-4 2-4 3-4 1 1 0-2	4 4 4 3 3 3 2-3 3-4
26.	Science and engineering	<ul style="list-style-type: none"> • Basic science and technology to understand the damage and control mechanisms of hazards covered; types of machinery and processes; and their functioning and hazards. • Standards relating to “state of the art and best available technology” • Use of technical standards • Use of hazard monitoring equipment (e.g., noise, ventilation, chemicals, etc.) • Interpretation of results of hazard monitoring 	2-3 1-2 2-3 2-3 1-2	4 3 3 2 3

Code	Knowledge category	Illustrative generic topics	OHS Practitioner	OHS Professional
F.	Underlying management sciences:			
27.	Organizations	• Governance arrangements		3
		• Impact of reporting structures		3
		• Organizational structure, departments' functions, roles and responsibilities, authority and accountability	2-3	3-4
		• Organizational goals and strategy	2-3	4
		• Resource allocation processes	1-2	3-4
		• Principles of change management	2-3	4
28.	Project management	• Key requirements for successful projects	0-1	3-4
		• Project conceptualization and design		3-4
		• Project planning, budgeting, implementation and monitoring	0-2	3-4
		• Project evaluation	0-2	3-4
29.	Strategic and operational planning	• Managing self	2-3	4
		• Operational and strategic planning	0-2	3-4
		• Managing others		3-4
		• Human resources management/management of people		2-4
30.	Business imperatives	• The Organization operating as a commercial entity with a range of stakeholders and attendant pressures, including costing and budgeting in their own area of responsibility	0-2	3-4
		• Financial literacy in a business context, including budgeting	0-2	3
		• Business case development and cost-benefit analysis		3
		• Legislation and organizational arrangements relating to terms and conditions of employment, employee rights, consultation and participation	1-2	3
		• Understanding of external environment, including legal and market pressures		3-4

6 Skills

Personal and professional skills are vital attributes for effective practice as an OHS Professional or Practitioner. Such skills have been identified as a priority in recruitment and a key area of professional development for OHS personnel.

A “Bloom”³⁵ style taxonomy approach has been used to describe skills in the Framework, which are presented in three sections: personal skills, professional practice skills and professional technical skills.

As with the knowledge requirements, the skills have been annotated with a code to indicate the expected skill levels for the OHS Professional as compared to the OHS Practitioner. The skill code is based on the four **skill levels**, which also reflect Bloom’s taxonomy. However, while definitions of the skill levels are similar to those for the knowledge requirements, important subtle differences reflect the nature of skills application.

³⁵ Anderson, L.W., Krathwohl, D.R., Airasian, P.W., Cruikshank, K.A., Meyer, R.E., Pintrich, P.R., Raths, J., & Whittrock, M.C. (2001). *A Taxonomy for Learning, Teaching and assessing: a revision of Bloom’s taxonomy of educational objectives*. New York: Longman.

Application of skill

Level	Skill
1	Awareness: Understands the need for and general principles of skill application.
2	Routine application: Applies the skill independently to well-known, routine tasks and to nonroutine tasks under supervision.
3	Skilled application: Adapts and applies the skill independently and effectively, also to nonroutine tasks.
4	Creative mastery: Applies the theoretical concepts and the practiced skill critically and creatively to new situations.

When considering required skills, the application of skills is as follows for each of the two roles:

OHS Professional: Across the organization, including senior management and external agencies, including regulators and industry bodies

OHS Practitioner: Within the organization with a focus on middle management, supervisor and workers.

The skills are structured to support self-assessment and peer or manager assessment. They may also provide a basis for training and development, either formal or informal.

6.1 Skills matrix

Table 6: Skills matrix for OHS Practitioners and OHS Professionals

	Skill	Performance criteria	Practitioner	Professional
A: Personal skills				
A1	Verbal communication	Selects an appropriate time, format and venue taking into account the nature of the communication and the other person's needs.	2-4	3-4
		Focuses by giving full attention to the speaker. Puts the speaker at ease. Uses nonverbal cues appropriately.	2-4	3-4
		Uses language appropriate to the nature of the communication and the other person; is clear and concise and uses questioning techniques as appropriate.	2-4	3-4
		Respects people by demonstrating empathy, open-mindedness and respect. Looks at issues from others' perspective. Lets go of preconceived ideas. Builds on others' perspectives to enhance effectiveness and quality of outcomes.	2-4	3-4
		Encourages and receives feedback with an open mind, listens, questions for clarification, reflects on the implications for own behavior and expresses appreciation for the feedback.	2-4	3-4
		Gives feedback , including praise, which is timely, specific and focused on behaviors, not the person.	2-4	3-4

	Skill	Performance criteria	Practitioner	Professional
		Confirms and closes communication by summarizing and clarifying the outcomes.	2-4	3-4
A.2	Professional presentation skills	Documents by completing forms and preparing reports and documentation that are easily understood by the intended audience, demonstrating appropriate selection and structuring of information and correct spelling, grammar and industry-specific terminology.	2-4	3-4
		Prepares professional reports and documentation that are easily understood by the intended audience, demonstrating appropriate selection and structuring of information and writing style.	2-3	3-4
		Customizes information in a variety of formats and communication channels that take into account audience characteristics, needs and cultural sensitivities.	2-3	3-4
		Uses information technology effectively in preparing OHS documentation.	2-3	3-4
		Uses information technology effectively in communicating OHS information.	2-3	3-4
		Makes presentations (informal and formal) that clearly communicate the topic to a range of audiences, using a variety of media.	-4	3-4
		Engages and works with the interests of people from a range of disciplines, backgrounds and workgroups.	2-4	3-4
B. Professional skills				
B1	Evidence-based practice			
B1.1	Knowledge management	Accesses information from a range of workplace sources using digital skills and a variety of strategies.	2-4	3-4
		Uses literacy skills to read and interpret OHS legislation, codes of practice, guidance material, policies and procedures.	2-3	3-4
		Investigates and assesses the credibility of sources and information reliability and validity.	2-3	3-4
		Collates information to identify common themes.	2-3	3-4
		Critically evaluates and validates results through challenging information, concepts and theories.	1-3	2-4
		Synthesizes information to identify implications for practice.	1-2	2-4
		Applies information, concepts and theories to inform practice.	2-3	3-4
B1.2	Problem solving and critical thinking	Identifies a problem(s) by application of informal and structured strategies.	2-3	3-4
		Analyzes and applies a range of information gathering and analytical strategies to clarify the nature of the problem and the contributing factors.	1-2	3-4
		Generates potential solutions by applying consultative and creative processes.	2-3	3-4
		Evaluates systematically and considers potential solutions against preset criteria in a consultative process	2-3	3-4

	Skill	Performance criteria	Practitioner	Professional
		Applies consultative and creative processes for evaluating potential solutions.	2-3	3-4
		Decides on a strategy based on evaluation.		3-4
		Implements by supporting change management processes to implement selected solutions.	2-3	3-4
		Reviews outcomes using prescribed processes to monitor the implementation and effectiveness of solutions implemented.	2-3	3-4
		Seeks information and feedback to evaluate and validate the effectiveness of solutions.	2-3	3-4
		Improves outcomes by recommending/taking action based on the review's outcomes to optimize OHS outcomes.	2-3	3-4
B1.3	Evidence-based practice	Accesses OHS handbooks and standards for evidence to inform OHS practice.	2-4	3
		Accesses OHS research papers and reports for evidence to inform OHS professional practice.	1-2	3-4
		Designs workplace-based studies that have rigor and ethical integrity to clarify issues and contributing factors and to evaluate the effectiveness of interventions.	0-1	2-4
		Implements action by applying information from OHS handbooks and standards as part of OHS practice.	2-4	3
		Systematically implements workplace-based research studies.	0-1	3-4
		Analyzes and evaluates OHS research papers, reports and workplace studies for evidence to inform OHS professional practice.		3-4
		Synthesizes OHS research information and outcomes to inform OHS practice.		3-4
B2	Influence			
B2.1	Engaging	Interacts to develop relationships with operational staff and consultative group(s).	3-4	3-4
		Networks by identifying champions and other stakeholders (including managers, technical staff, employees, consultants, regulators and local residents) and creates positive relationships.	2-4	3-4
		Informs others by providing technically correct information informed by conceptual models that takes into account current OHS thinking.	2-3	3-4
		Empathizes with others by identifying their needs and perspective, including the organizational environment. Generates their respect.	2-3	3-4
		Provides advice that others can understand and takes into account the needs and perspectives of others and the organizational environment.	2-4	3-4
		Relates to others by becoming a trusted resource through establishing credibility and demonstrating reliability.	3-4	3-4
		Provides support to others by both actions and communications.	2-4	3-4

	Skill	Performance criteria	Practitioner	Professional
		Takes action to implement strategy and management decisions.	2-4	3-4
B2.2	Mentoring and being mentored	Engages to establish a relationship as a basis for learning and development of another.	2-4	3-4
		Clarifies by engaging with others as a proposed mentor or mentee to clarify their current knowledge, skill and perspective basis, their goals and factors that may affect goal achievement.	2-4	3-4
		Engages to share knowledge, skills, information and perspective to foster others' personal and professional development.	2-3	3-4
		Supports others by providing constructive feedback to enable transferable learning.	2-3	3-4
		Reflects and engages with others to review their learnings and strategy for achieving the goals.	2	3-4
B.3	Leadership			
B3.1	Teamwork	Understands different traits, styles and team roles.	2-4	3-4
		Understands and recognizes the steps in group/team formation and supports the maturation of a group to form an effective team.	1-3	3-4
		Supports discussion to ensure that team members have a common understanding of the goals and individual roles and a shared commitment to the activity.	1-3	3-4
		Shares information and ideas openly and willingly inside and outside formal team processes and offers assistance to others in performing their tasks.	2-4	3-4
		Respects and listens to the opinion of others, has patience and respects and trusts others to complete their assigned tasks.	2-4	3-4
		Actively participates in team processes and demonstrates commitment by attending meetings and other activities.	3-4	3-4
		Demonstrates flexibility in own role in team, and openness to the opinions of others and in dealing with changing conditions.	3-4	3-4
		Identifies the phenomenon of "group think" and challenges the group to open the discussion to apply broader thinking.	1-3	3-4
B3.2	Negotiation and management of conflict	Understands that differences of opinion are a healthy part of management decision making and, in that context, affirms their own position.	2-3	3-4
		Ensures that all pertinent facts and context of the situation are known.	2-4	3-4
		Identifies the background and reason for differences in opinion and respects those differences.	2-3	3-4
		Applies interpersonal skills of listening, questioning and reflecting to facilitate discussion to clarify goals and common ground.	2-3	3-4

	Skill	Performance criteria	Practitioner	Professional
		Facilitates discussion to identify alternative strategies and compromises, which may achieve greater benefit for all concerned than original positions.	2-3	3-4
		Confirms clearly the agreement reached so that all involved have a similar understanding of the outcome.	2-3	3-4
B3.3	Personal Leadership	Shows self-awareness by identifying own leadership style and the need for both further development and situational adaptation to enhance leadership capabilities.	2-3	3-4
		Demonstrates up-to-date knowledge on OHS and current issues and an ability to explain complex/technical topics in a way that others can understand.	2-4	3-4
		Creates an imperative for change and a clear vision to bring people along.	1-3	3-4
		Engages people in the process, comprehends and accepts emotions, feelings and others' perspective and is able to build rapport with and empathy for others.	2-3	3-4
		Demonstrates assertiveness where needed in subtle, constructive ways.	2-3	3-4
		Leads by setting an example and by demonstrating confidence, optimism and interest in others, which, in turn, generates confidence in others.	3-4	3-4
		Generates the respect of others.	3-4	3-4
		Builds consensus and constructive problem solving.	2	3-4
		Provides support to people to make them comfortable, bases change on learning and enables people to have ownership of the outcome.	2-4	3-4
		Perseveres and recognizes that change takes time.	2-4	3-4
B4	Management			
B4.1	Project management and management of change	Identifies and clearly communicates the need for improvement and change and the benefits of change.	2-3	3-4
		Identifies options for change to address needs and realize benefits.	2-3	3-4
		Applies consultative processes to developing implementation plan.	1-4	3-4
		Defines and clarifies scope of change, parameters, objectives, budget, stakeholders, roles and timelines and interaction with other processes and activities.	1-2	3-4
		Identifies key players and establishes the project team to facilitate change and give people ownership of outcomes.	1-2	3-4
		Collaborates to develop project plan, identify project risks and required resources and potential impact on other groups.	1-2	3-4
		Uses formal processes to plan, sequence and prioritize own activities and activities for implementation of change.	2-3	3-4
		Identifies and assesses appropriate project management tools, develops operational plans, accesses required resources, defines and communicates and delegates roles and	1-2	2-4

	Skill	Performance criteria	Practitioner	Professional
		responsibilities. Establishes monitoring processes. Influences, mentors and supports others in managing change.		
		Administers , establishes and maintains required recordkeeping systems, including financial recordkeeping and project progress.	2-3	3
		Plans , prepares and conducts structured meetings with clear outcomes.	2-3	3-4
		Administers by using digital systems and programs to assist planning and tracking of communications for implementation activities.	1-2	3
		Communicates with all affected groups to support change.	2-3	3-4
		Completes activities, including required reports.	2-3	3-4
		Administers approved processes for monitoring the outcomes of change processes.	2-3	3-4
		Reviews and evaluates project processes and outcomes against project scope and plan with input from project team. Documents lessons learned. Recognizes input of others and shares credit for achievements.	1-3	3-3
B4.2	Managing others³⁶	Identifies and clarifies the role of others from both strategic and operational perspectives with an understanding of what is reasonable given the circumstances.		3
		Plans and allocates appropriate resources and allocation of personnel to OHS and company priorities.		3
		Reviews and monitors the processes and outputs of those being managed.		3
		Creates opportunities to support and develop the capability of those being managed.		3
B5	Professional and ethical practice			
B5.1	Professional practice	Manages own activities and is reliable with regard to agreed deliverables and timelines.	3-4	3-4
		Undertakes formal and informal CPD ³⁷ activity to ensure currency and capability.	3-4	3-4
		Works effectively as a leader or as part of a team while respecting differences and diversities.	2-3	3-4
		Recognizes the value of professional, enterprise and industry collaboration.	2-3	3-4
		Consults by seeking information or informed opinion from others as part of decision making.	3-4	3-4
		Seeks further advice within the OHS profession and across other professions and stakeholders as appropriate.	3-4	3
		Engages to establish a relationship with a higher-level/peer professional or other appropriate mentor as a basis for self-development.	3-4	3-4

³⁶ Others include OHS staff and contractors. Not all OHS professionals will be involved in managing others. The degree of involvement will govern the knowledge and scope of the skill required under this heading.

³⁷ Continuous Professional Development: structured ways to develop competence and keep it up to date.

	Skill	Performance criteria	Practitioner	Professional
		Engages in professional discussion with peers with a view to advance professional practice.	3-4	3-4
		Engages appropriately and effectively with technology to access information, collect and collate information, produce documents and engage with people in appropriate ways. This includes providing information, communicating as well as developing and delivering training.	2-3	3-4
		Applies formal and informal processes to reflect on current and past practice to identify areas for improvement or development.	2-3	3-4
B5.2	Ethical Practice	Recognizes the limits of own knowledge, skills and experience.	3-4	4
		Complies with relevant codes of conduct and laws.	4	4
		Treats all individuals with respect and maintains confidentiality of personal and business-sensitive information.	4	4
		Examines critically the ethics of proposed courses of action.	2-4	4
		Provides unbiased and impartial advice.	4	4
		Provides advice informed by technical and conceptual knowledge.	3-4	4
		Acts with honesty and probity. Sets example of good OHS behavior.	4	4
		Takes responsibility for and demonstrates the conceptual and technical underpinning of own practice.	3-4	4
		Recognizes when disclosure and whistleblowing may be appropriate and takes action in an ethical manner.	2-3	4
C. OHS professional technical skills				
C1	Training	Identifies knowledge and skill gaps and training needs for specific groups.	2-4	3
		Develops appropriate learning outcomes to address knowledge and skill gaps.	2-4	3
		Prepares appropriate training material to address learning outcomes and defined competencies.	2-4	3
		Organizes appropriate planning processes and logistics to deliver training to specified groups.	2-4	3
		Communicates effectively during training with a range of people.	3-4	3
		Engages with supervisors, workers and managers to help them acquire and use their skills and knowledge for improving OHS.	3-4	3
		Assesses learning outcomes for individuals and provides feedback.	3-4	3
		Evaluates training outcomes and makes modifications as necessary.	2-4	3
C2	Surveying, inspecting and auditing	Systematically observes the workplace, state of technology, processes and behaviors to evaluate their conformity with requirements.	2-4	3

	Skill	Performance criteria	Practitioner	Professional
		Designs a comprehensive monitoring system to collect and analyze information to evaluate risk controls and OHS management processes.	0-2	3-4
		Interviews by meeting with, collecting information from and discussing OHS with all levels of employees and managers to gain insight into their work practices, beliefs and attitudes toward OHS.	2-3	3-4
		Combines and critically assesses information from inspections, surveys and audits to determine the state of OHS.	2-3	3-4
		Contributes to the development of written and oral reports to managers as a basis for decisions about improvement.	1-3	3-4
		Provides formal written and oral reports to stakeholders and decision makers as a basis for improvement.	1-3	3-4
C3	Investigating	Coordinates/supports identification and collection of evidence associated with accidents and nonconformances to determine the sequence of events and assist in uncovering causal links.	2-3	3-4
		Interviews leads/participates in collection of information from people involved in the development of the accident/event, while avoiding hindsight and other biases and ensuring that conclusions are soundly based.	2-3	3-4
		Collates the evidence about the development of the incident/accident in a critical way to understand and chart that scenario and its links to underlying practices and conditions.	0-2	3-4
		Supports the analysis and synthesis of evidence to understand and chart scenarios and links to risk controls.	0-3	3-4
		Recognizes the difference between superficial and underlying causes of incidents and unsafe conditions. Identifies ineffective and missing barriers and assesses possible improvements to avoid the scenario revealed and any other related scenarios.	2-3	3-4
		Synthesizes data and evidence to develop recommendations for future prevention.	2-3	4
		Writes and communicates reports to meet organizational standards on accidents with nonfatal potential.	2-4	3-4
		Contributes to the reports of OHS and other professionals on accidents with fatal potential.	1-3	3-4
		Writes and communicates reports to organizational, professional and legal standards.	2-3	3-4
		Recommends based on appropriate use of analysis improvements in the work processes and organizational environment.	2-3	3-4
		Implements/supports changes to implement recommendations.	2-4	3-4
		Collects information as a basis for monitoring effectiveness of recommendations.	2-4	3-4

	Skill	Performance criteria	Practitioner	Professional
		Assesses the implementation of recommended controls and their effectiveness.	2-4	3-4
C4	Measuring and monitoring	Selects the appropriate tools to assess the organization's processes, workplaces and working environments.	0-2	3-4
		Applies appropriate tools to gather information to assess the effectiveness of risk controls.	2-3	3
		Implements appropriate strategies and tools to gather information as per agreed performance criteria as part of assessing the risks and effectiveness of hazard controls.	3-4	3
		Uses technology to analyze data to identify trends.	2-3	3-4
		Interprets data to evaluate OHS performance, the factors affecting performance and areas for improvement.	2-3	3-4
		Uses technology to develop graphical presentations as part of reporting.	2-3	3-4

7 Hazard types managed

While some hazards are more in the OHS specialist's core knowledge, others are seen as peripheral and may require expertise from specialist professions, such as occupational hygiene, occupational medicine, organizational/occupational psychology, ergonomics, fire protection, environmental engineering and management or other related specialities. In such cases, the role of the OHS Professional and Practitioner will be to liaise with those professional specialists for more complex problems or ones requiring deeper knowledge.

The following table lists the hazards that an OHS specialist could be expected to manage. It is based on the energy-damage categorization developed by Haddon³⁸ and Gibson.³⁹ It reflects the origins of the OHS professional in technological disciplines and machinery hazards, with a later, but fairly universal, move to include chemical and working environment hazards. Some countries have seen a move also into psychosocial (e.g., stress, conflict, harassment, etc.) and/or environmental (e.g., pollution, biodiversity, degradation, etc.) hazards.

OHS specialists need to understand the nature of the hazards; their modes of entry into or effect on the body (and mind) of those exposed and on the physical environment, their mechanisms of harm to people and other assets (including exacerbating circumstances, e.g., working alone, pregnancy, etc.). They also need to understand the methods of assessment and measurement of the risk associated with each hazard as well as the principles and practice of prevention and control relevant to each of the hazards in the core of the OHS specialist role for a particular organization, country or jurisdiction. These constitute the underpinning science related to each of the various hazards. The depth and breadth of this underpinning knowledge will vary with the Professional or Practitioner role and the complexity of the hazard and context. Some indications of the underpinning science are given in Section 5 on the

³⁸ Haddon Jr, W. (1973). *Energy Damage and the Ten Counter-Measure Strategies*. Human Factors Journal, August.

³⁹ Gibson, J.J. (1961). The contribution of experimental psychology to the formulation of the problem of safety—a brief for basic research. In: *Behavioral Approaches to Accident Research*. New York: Association for the Aid of Crippled Children, pp 77-89.

knowledge underpinning practice. This document does not allocate different categories of hazards to Professionals and Practitioners.

Table 7: OHS hazard types

<p>Gravitational, including specialized technical and construction hazards</p> <ul style="list-style-type: none"> Falls from height Falling objects, lifting equipment Slips, trips and falls on level and stairs <p>Biomechanical</p> <ul style="list-style-type: none"> Manual lifting/handling Postural (including seating) Repetitive strain <p>Electrical and (electro)magnetic</p> <p>Chemical</p> <ul style="list-style-type: none"> Toxic, carcinogenic, teratogenic and corrosive chemicals, fibers and dusts Nanoparticles Sensitizing agents (for asthma, dermatitis) Fire and explosion <p>Thermal environment</p> <ul style="list-style-type: none"> Heat and cold Hot work <p>Noise</p> <p>Vibration (whole body and hand/arm)</p> <p>Equipment under pressure/pressure vessels</p> <p>Powered plant (kinetic and potential energy)</p> <ul style="list-style-type: none"> Flying objects ejected from machinery processes Entanglement in moving parts of static machinery (including robots) Use of portable power tools <p>Moving plant/vehicles (kinetic and potential energy)</p> <p>Occupational road use</p> <p>Subsidence and collapse</p> <p>Structural failure</p> <p>Psychosocial hazards⁴⁰</p> <ul style="list-style-type: none"> Workload/stress Fatigue Impacts on wellness Bullying and harassment Aggression (people/animals) Violence at work⁴¹ <p>Hazards in special work environments</p> <ul style="list-style-type: none"> Confined spaces (including asphyxiant atmospheres) Drowning/diving Higher than atmospheric pressure Computer/monitor screen, including control rooms <p>Biological hazards (including occupational pathogens)</p> <ul style="list-style-type: none"> Infectious diseases Indoor air quality (spores, pollens, prions, etc.) <p>Ionizing radiation</p> <p>Nonionizing radiation (including lasers, UV, radio frequency, etc.)</p> <p>Hazards of the natural environment (earthquake, flooding, storm, tornado, etc.)</p>
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⁴⁰ The degree of involvement of OHS professionals with the control of psychosocial hazards differs from country to country. The degree of involvement will govern how much knowledge is required under these headings.

⁴¹ Workplace violence is treated as a security/criminal issue rather than an OHS issue in some jurisdictions.



This list addresses generic OHS hazards that may occur in a range of locations and activities for which OHS Professionals and Practitioners have responsibilities. Users of this document will need to tailor the list of hazards to address the circumstances of their locations and activities, which fall under their responsibility or influence.

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Reference Only
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Appendix: OHS roles and cultural maturity

