

Submission to:
Department of Employment and Workplace Relations
Jobs and Skills Australia
National Skills Taxonomy
Stakeholder View

Application to Public Safety Domain: Emergency, Crisis and Disaster Management Occupational Recognition – A Case for Consideration



Without training, they lacked knowledge.
Without knowledge, they lacked confidence.
Without confidence, they lacked victory.

Gaius Julius Caesar

Department of Employment and Workplace Relations
Job and Skills Australia
GPO Box 9828
CANBERRA ACT 2601

Dear Panel Members,

Subject: National Skills Taxonomy: Application to Public Safety Domain; Emergency Crisis and Disaster Management Professionalisation – A Case for Consideration

I welcome the opportunity to submit a stakeholder contribution to the National Skills Taxonomy Discussion.

I am a passionate emergency management professional with over 20 years of experience in organisations, agencies, and vocational and higher education environments. In my experiences as a 2001 Flexible Learning Leader, 2008 Fulbright Scholar, volunteer first responder, educator, and practitioner. My emphasis has been on providing the professional development space for "the next generation of emergency managers." I am considered a "praxis" practitioner and have often been referred to as a "pracademic."

As an author and developer, I have consulted with numerous skilled professionals who have helped with the development and improvement of various Public Safety, Emergency Management and Community Safety qualifications for Swinburne University (2005-2007), Australian College of Community Safety (2008-2015), and Central Queensland University (2017-2020). This includes managing and facilitating these programs within each institution.

Contributions to the sector include extensive involvement in reviewing and updating several Public Safety Training Package, Emergency Management qualifications including the international research and benchmarking of accredited vocational Emergency Management and Recovery Management qualifications against applied world practices. Most recently I was requested to submit to a US FEMA book – Current and Emerging Trends in International Disaster Management: co-authoring with Glenn Jones ESM CEM®, the chapters Credentialing and Professionalisation in Emergency, Crisis and Disaster Management and Leadership, Management, Critical Thinking and Decision-making in Emergency Management scheduled to be published in October 2024.

I have been previously engaged with the WA Country Health Service as the Regional Emergency Operations Centre (REOC) Lead – COVID-19 Pilbara Region in 2020-2021 and the Director, Emergency Management, NT Health in 2022. COVID-19 operational Preparedness, Response and Recovery was a central focus during these periods.

I am an internationally credentialed Certified Emergency Manager (CEM®) currency recognised to 2030, and sit on the iAEM¹ Certification Commission sitting as the Vice-Chair Certification Commissioner for Oceania, Europe and Asia regions for 2024.

Sincerely,

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9 August 2024

¹ International Association of Emergency Managers <https://www.iaem.org/>

² AFAC Emergency Management Professionalisation Scheme <https://www.emps.org.au/>

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Abbreviations:

AFAC	Australian and New Zealand National Council for fire and emergency services
AGCMF	Australian Government Crisis Management Framework
AIDR	Australian Institute of Disaster Resilience
AIIMS	Australasian Inter-service Incident Management
ANZSCO	Australian and New Zealand Skills Classification of Occupations
ARC	Australian Red Cross
CEM®	Certified Emergency Manager® credential
DRA	Disaster Relief Australia
ECDM	Emergency, Crisis and Disaster Management
EMPS	Emergency Management Professionalisation Scheme
ESCO	European Skills, Competencies , Qualifications and Occupations
FEMA	US Federal Emergency Management Agency
iAEM	International Association of Emergency Managers
NEMA	National Emergency Management Agency
NST	National Skills Taxonomy
O*NET	United States Occupational Information Network

Recommendations:

Recommendation 1:

The Department of Employment and Workplace Relations- Job and Skills Australia fund a Master of Research to deliver an initial framework within a realistic timeframe, potentially within two years, then leads into Professional Doctorate. This option will could deliver an enhanced scaffolded framework program for Emergency, Crisis and Disaster Management (ECDM) in support of recognising ECDM in future ANZSCO occupational classifications.

The project would aim to deliver outlines/shapes of a structure for continuing, nationally recognised professional and unequivocal occupational recognition ECDM practitioners. All registered training providers and institutions must have access to the findings to accept, recognise, and offer national programs which align to the National Emergency Management Agency's (NEMAs) seven-stage National Disaster Management and Recovery Continuum.³

Recommendation 2:

Identify professional development programs that ensure ECDM practitioner currency across all ECDM seven phases of the Continuum which includes the availability of high-quality contemporary learning and development, aligning to future Australian and New Zealand Skills Classification of Occupations (ANZSCO) occupational classifications.

Recommendation 3:

Research and review the potential expansion of the National Council for Fire and Emergency Services (AFAC) Emergency Management Professionalisation System (EMPS) program to include the national coordination of the Emergency Management domain ensuring currency of practice and targeted ongoing professional development in the areas of partial preparedness - Response - relief (pRr) roles aligns to future ANZSCO occupational classifications.

Recommendation 4:

Research the viability of implementing a centrally developed National Disaster Management (Recovery, Reconstruction, Risk Reduction, Prevention, and Preparedness) curriculum to be made available to all Registered Training Organisations and Higher Education Institutions for the delivery of facilitated programs aligned to future ANZSCO occupational classifications.

Recommendation 5:

Review and research the 8 August 2024 Senate Committee on Australia's Disaster Resilience – Boots on the ground: Raising resilience report⁴ to determine what additional skills and occupations may need to be included in a revised ANSCO occupational classifications in meeting the changing workforce dependency in Emergency, Crisis and Disaster Management industry sector.

³ [NEMA National Disaster Management and Recovery Continuum](#) pg 11

⁴ [Senate Report](#)

Harmony during Havoc: Connecting Emergency, Crisis and Disaster Management to the National Skills Taxonomy

This submission looks through the lens of: Insights, Observations and Opportunities.

Several of my professional acquaintances who work in Emergency, Crisis and Disaster Management (ECDM) roles have stated, given the seriousness of the potential consequences of operational failures, no practitioners were currently prepared to contribute this formal submission. Access to varying supporting organisational documentation outside of what has been disclosed through the public domain is highly restricted respecting the confidentiality of individual sources. Even in my previous role as Director, Emergency Management, at NT Health, access to several areas of the COVID-19 response documentation was guarded and restricted. I therefore draw many of my responses through actual operational experience and leadership in this area.

Key Concern One: Australia has in place a raft of comprehensive Emergency Management Arrangements and the underpinning principles are summarised in the Australian Institute of Disaster Resilience (AIDR): Australian Emergency Management Arrangements 2023.⁵ Whilst all governments subscribe to the arrangements, all government departments and agencies classify the positional roles as “administrative” only, not requiring any level of ANZSCO occupation classifications.⁶ The exceptions are contained within.

Police and Fire Fighters are contained within:

- Major Group 4 – Community and Personal Services Workers,
 - Sub-major Group 44 – Protective Service Workers,
 - Minor Group 441 – Defence Force Workers , **Fire Fighters** and **Police**,
 - Unit Group 4412 - **Fire Fighters** (ANZSCO 441212 Diploma and above qualified – Station Officer and above),
 - Unit Group 4413 - **Police Officer** (ANZSCO 441311/2 Detective and Police designated specialist roles).

Ambulance Officer/Paramedics are contained within:

- Major Group 4 – Community and Personal Services Workers,
 - Sub-major Group 41 – Health and Welfare Support Workers,
 - Minor Group 411 – Health and Welfare Support,
 - Unit Group 4111- **Ambulance Officers and Paramedics** (ANZSCO 411111 Diploma and above qualified).

Forgoing the above role positions, all remaining Emergency Service / Agency operatives are relegated to non-occupational roles and positions, both paid and volunteer.

“Those volunteering in emergency response and relief include a resilient and skilled workforce of over 200,000 fire service volunteers, around 25,000 volunteers in SES, and 7,500 in ambulance service organisations. An additional 200,000 volunteers are engaged in over 1,000 registered emergency and relief charities. On top of this, many thousands of often ‘invisible’ volunteers informally and spontaneously support communities before and after crises”^{7 8} noting

⁵ https://knowledge.aidr.org.au/media/10162/handbook_aema_web_2023.pdf

⁶ <https://www.abs.gov.au/statistics/classifications/anzsco-australian-and-new-zealand-standard-classification-occupations/2022/browse-classification>

⁷ [Select Committee on Australia's Disaster Resilience Boots on the ground: Raising Resilience](#) 3.6, Pg 38

⁸ Volunteering Australia, ‘Volunteers: Australia’s backbone in times of crisis’ (accessed 14 June 2024).

that volunteers are generally managed by agency paid staff who are personnel recognised in fulfilling administrative, not occupational roles resulting in organisational conflict.

Key Concern Two: Personnel working in Emergency, Crisis and Disaster Management roles are reluctant to discuss issues outside their organisation due to the potential repercussions and potential termination of employment. This would indicate that organisations wish their information to remain restricted. Australian Governments continue to treat Emergency, Crisis and Disaster Management as “administrative” only positions/roles in the absence of ECDM occupational classifications.

Key Concern Three: There is a lack of professional development possibilities and the absence of institutions and programs offering essential, high-quality professional development due to the absence of ECDM occupational classifications.

Key Concern Four: The Australian Government Crisis Management Framework (AGCMF) outlines the government’s approach to preparing for, responding to, and recovering from crises. The framework highlights the complexity and potential confusion arising from the use of different terminologies and frameworks across various levels of government and agencies.^{9 10}

Key Concern Five: On the 8th August 2024, the federal government released the Select Committee report on Australia’s Disaster Resilience – Boots on the ground: Raising resilience.

Confusion: Definition¹¹

1. Uncertainty about what is happening, intended or required,
2. The state of being bewildered or unclear in one’s mind about something,
3. A disorderly jumble.

Confusion and disorientation within the sector are driven by a range of terminologies in which professionals struggle to align with applied work practices. For example, the AGCMF distinguishes between ‘Australian’ (referring to Commonwealth bodies and arrangements) and ‘national’ (referring to Commonwealth, state, and territory bodies and arrangements), which can add layers of confusion¹². The definitions of Emergency - Disaster Management, Emergency Management Continuum, Disaster Management Continuum, the 4 phases of Prevention, Preparation, Response, Recovery (PPRR) and the seven stages of Response, Relief, Recovery, Reconstruction, Risk Reduction, Prevention and Preparedness are not standardized across different Departments, Agencies or organisations in Australia. The Department of Prime Minister and Cabinet: Australian Government Crisis Management Framework 2022,¹³ the National Emergency Management Agency: Statement of Strategic Intent 2023,¹⁴ and the Australian Emergency Management Arrangements all have different interpretations of these same terms. Many operatives and managers have differing interpretations of the government-derived expressions.

While the previous 4 Phase PPRR was in place during COVID-19, inconsistent interpretations and non-standard policies, systems, and procedures hindered the dissemination of clear and effective health messaging, affecting all jurisdictions and federal health agencies. This created a great deal of uncertainty amongst the Australia population on how they should effectively approach and manage

⁹ https://www.pmc.gov.au/sites/default/files/resource/download/australian-government-crisis-management-framework_0.pdf

¹⁰ <https://nema.gov.au/sites/default/files/aus-gov-crisis-management-framework-v3-1.pdf>

¹¹ <https://www.oxfordlearnersdictionaries.com>

¹² [National emergency and disaster response arrangements in Australia: a quick guide](#) pg 3

¹³ <https://www.pmc.gov.au/sites/default/files/resource/download/australian-government-crisis-management-framework.pdf>

¹⁴ <https://nema.gov.au/sites/default/files/inline-files/NEMA%20Statement%20of%20Strategic%20Intent%202023.pdf>

daily life around COVID-19. The same issues apply to the general government-based Emergency and Disaster organisations across the nation.

Agency executives are free to interpret and apply phase options in a manner that maximizes cost recovery within their jurisdiction, agency/organisation and geographical area. It is important to remember that these phase option decisions refer to important actions that need to be taken to manage emergencies, crises and disasters. To guarantee efficient coordination and communication across various entities, both inside and across jurisdictional boundaries, they must be used appropriately and regularly. Inconsistent operational policies, procedures, and protocols stem from the inconsistent interpretation of emergency and disaster management terms by different agencies which ultimately lead to misunderstandings, confusion, and inefficient emergency, crisis, and disaster operational management. A large number of departments, agencies, and organisations lack the necessary number of skilled personnel to perform critical emergency, disaster and crisis management functions, particularly for campaign events like Influenza and COVID-19, the 2019-20 Bushfires and the 2022 Australian Floods.

2023 Emergency Manager: Emergency management professionals manage the most complex, diverse risk portfolio of any field. All too often they do this in relative anonymity, with limited resources, while dancing around political land mines that make our efforts more difficult and stressful.¹⁵ Emergency Management practitioners are involved in partial community Preparedness, Response, Relief, organisational Recovery and Preparedness within the Emergency Management Continuum.

2023 Crisis Manager: A person, who proactively identifies possible threats, develops overarching crisis management plans and ensures that the crisis management runs smoothly.¹⁶ A crisis manager is involved in the Response, Relief, organisational Recovery and Preparedness within the yet-to-be-defined Crisis Management Continuum based on the Emergency Management Continuum during and after an event at the organisational executive level.

2023 Disaster Manager: A person who is responsible for planning and preparing communities for disasters and emergencies.¹⁷ In the modern era of Disaster Management, qualified practitioners are involved in all components within the Emergency and Disaster Continuum.

The main goal of emergency, crisis, and disaster management should be to help communities make quick, well-informed decisions about their safety during times of unheard-of chaos and confusion. This can be done by making good decisions quickly based on reliable information through planned channels of communication.

In the 2020 Bushfires Royal Commission,¹⁸ the Commission emphasised the need for consistent and comprehensive training programs to ensure that all personnel involved in disaster response are adequately prepared. This includes training for both government and non-government organisations to enhance coordination and effectiveness during emergencies. Professionals operating across the whole Emergency/Disaster Management continuum can only attain high-quality results through professionally developed programs that are well-designed, integrated, extensively disseminated, centrally assessed and certified. With further research, an integrated and coordinated pathways

¹⁵ Cwiak, C. (2022). Forging our own Path: Emergency Management's Pathway to Power. *IAEM Bulletin*, 39(2), 15 - 20.

¹⁶ <https://www.iaem.org/LinkClick.aspx?fileticket=AeX0ZPkSjxo%3d&portalid=25>

¹⁷ <https://studyonline.port.ac.uk/blog/what-does-a-crisis-manager-do>

¹⁷ <https://knowledge.aidr.org.au/resources/handbook-community-recovery/>

¹⁸ <https://www.royalcommission.gov.au/natural-disasters/report>

program linking vocational and Higher Education could achieve such a goal.

Key Insights and Observations:

- States elected to implement their constitutional Emergency Management arrangements, where the respective Police and EM Commissioners maintained coordination control.
Through implementing Disaster Declarations, each State and Territory ensured they maintained control of their jurisdiction.
All State Premiers and Territory Chief Officers ensured they were the key representative face of their respective State and Territory and supported by their respective Chief Health Officers. Health services were a secondary consideration after Command and Control. Coordination was a tertiary consideration.
- Health Emergency Management is generally not recognised outside of legislative requirements of Australian Standards AS3745 and AS4083 – Preparing for emergencies in facilities/health facilities.
Legislative requirements influence the high level of serviceability in this area of Emergency preparedness to manage incidents. Experience across two jurisdictions witnessed the reliance on short-term irregular training and on task cards to manage incidents. Incident documentation and After Action Reviews rarely exist. In one jurisdiction, no incident management level log books could be located which hampered the application of Lessons Management continuous improvement culture.
- Application of the Australasian Inter-service Incident Management System (AIIMS) is almost non-existent, yet was the core system implemented during COVID-19 response management, the 2020 Bushfires and the 2022 Flood event.
Within the two jurisdictions I have undertaken an operational role, neither has endorsed AIIMS as an Incident Management System. When each jurisdiction transitioned to their Disaster Management Arrangements, AIIMS was adopted as the Incident Management System.

This submission will address the following.

1. Lesson from existing taxonomies:

The objective of the National Skills Taxonomy (NST) in Australia is to evaluate the advantages and constraints of current skills taxonomies. Browsing the classifications that are identified within the Australian and New Zealand Standard Classification of Occupations¹⁹ (ANZSCO), it provides a variety of benefits, such as enhanced occupational mobility, alignment with industry requirements, support for lifelong learning, economic growth, and stakeholder collaboration. The NST can foster collaboration among employers, education institutions, government, and individuals, thereby establishing a unified approach to workforce development for the occupations outlined. Nevertheless, it also presents obstacles, including ongoing maintenance, stakeholder engagement, complexity in design and implementation, including trade-offs in design.

The challenge arises regarding for the NST to support critical knowledge and skill roles and positions that are part of the intricate Emergency, Crisis, and Disaster Management (ECDM) domain. The only

¹⁹ <https://www.abs.gov.au/statistics/classifications/anzsco-australian-and-new-zealand-standard-classification-occupations/2022/browse-classification>

occupations that are recognised are ANZSCO Level 1 (AQF Level 7 Degree) and Level 2 (AQF Level 6 Associate Degree, Advanced Diploma, AQF Level 5 Diploma) Ambulance Officers and Paramedics (ANZSCO 411111), as well as Level 2 Fire Fighters (ANZSCO 441211) and Police Officers (ANZSCO 441311/2). It is noted that only practitioners who have achieved AQF Level 5 qualification or higher are acknowledged within the Fire Fighter classifications. This implies that the majority of employed and volunteer fire fighters, who may possess up to Certificate IV qualifications, are not occupationally recognised under ANZSCO criteria. Ambulance Officers and Police positions are similarly affected. A review of the role requirements has revealed that the minimum ANZSCO occupational criteria are not met by potentially over 80% of Police, Ambulance, and Fire Fighter practitioners. As of August 5, 2024, there are over 300 Australian Fire and Emergency specialists deployed to Canada to assist in the wildfire disaster impacting British Columbia and Alberta. The majority of these specialists are not recognised within the ANZSCO occupational classification system; the connotation is that these AFAC-designated specialists are just fulfilling administrative roles.

According to the ANZSCO occupational classification, people who work in non-occupationally recognised Emergency, Crisis and Disaster Management roles (other than Police Detectives and Specialists, Fire Fighters with a Diploma or higher, and Ambulance and Paramedics) help with national disaster planning, response, and recovery. These are administrative-only roles that require little to no knowledge, skill, or competency to do the job. Government agencies involved in ECDM include but are not limited to:

- National Emergency Management Agency,
- Australian Maritime Safety Authority,
- Federal and State Police agencies, (limited specialists are recognised)
- Federal and State Fire Service agencies including full-time and volunteer personnel,
- State and Territory Ambulance Services, (limited specialists are recognised)
- State Emergency Management agencies; (Qld, NSW, EMV Victoria),
- State and Territory Emergency Services, (SES)
- Emergency Recovery Victoria
- Marine Rescue Services,
- Australian Red Cross Emergency Services division,
- Salvation Army Emergency Services division,
- Queensland Reconstruction Authority,
- NSW Reconstruction Authority,
- Surf Lifesaving Australia,
- Biosecurity and Agricultural agencies (Primary Industries nationally)
- Australian Local Government Association (representing Local Government)

There are a range of not for profit organisations including but not limited to;

- Blaze Aid
- Disaster Relief Australia (who does offer international relief personnel),
- Rapid Relief Team
- Lions Clubs Australia
- Rotary International
- Australian Council of Social Service (ACOS)
- VCC Emergency Ministry

Further compounding the ‘not for profit’ sector during emergency and disaster events where spontaneous volunteers²⁰ respond and how their contributions could be optimised and managed within a recognised classification range for those that have aligned occupational skills. A new area of volunteers within the ECDM domain maybe required.

Both Government and not for profit organisations are not considered occupations, but purely administrative positions in the absence of any ANZSCO occupational classification in which any individual can undertake a myriad of specialist responsibilities.

Building a comprehensive and effective skills taxonomy will require robust governance, skill identification, standards, procedures and benchmarks. Achieving an unbiased balance of knowledge, skill, competency and capability across the various occupational requirements will require several negotiated transactions in balancing the aspirations and obligations of different stakeholders. If the NST is implemented within the ECDM domain, it will necessitate the classification of several ECDM roles. This will require ongoing maintenance, including revisions, and extensive consultation to guarantee that the system remains effective and relevant in addressing emergent skill requirements. It can be exceedingly difficult to ensure that all pertinent stakeholders are involved and their perspectives are taken into account during the design and implementation process, as various agencies compete for control over the decision-making process. Although these challenges will persist, the NST has the potential to provide benefits and necessitates meticulous management to guarantee long-term success and recognition.

To guarantee that all stakeholders have a mutual comprehension of the scope of each skill, it is imperative to have precise and unambiguous definitions. An effective organisation and navigation of the taxonomy across each of the ECDM sectors may be facilitated by a hierarchical structure that categorises skills from broad to specific levels.

Transferrable skills must include occupational mobility, facilitated by the identification and integration of transferrable skills that can be applied across the various ECDM sectors including roles and responsibilities. It is imperative to guarantee that the taxonomy is pertinent and beneficial for workforce development by ensuring that it is consistent with the most recent industry standards and trends. To establish a taxonomy that is both inclusive and comprehensive, it will be essential to engage a wide range of stakeholders, including employers, education providers, and federal and government agencies.

2. Potential use cases for a National Skills Taxonomy:

Potential use of the NST may include regular consultations with academic institutions, industry experts, and emergency management professionals in acquiring information regarding emerging trends and skill requirements within the ECDM domain. This could be accomplished by conducting regularly scheduled seminars, surveys, and focus groups. The development of an ongoing monitoring system for emergency management trends on a global and local scale through an independent organisation will be essential in ensuring ECDM practices remain relevant within the sector. This

²⁰ <https://knowledge.aidr.org.au/resources/handbook-spontaneous-volunteers/>

includes the identification of optimal practices and the recommendation of regulatory framework modifications that incorporate technological advancements. Data analytics will be necessary to anticipate and plan skill requirements, as well as to identify emergent patterns.

The proposed NST must follow the ongoing professional development programs and certifications in the emergency management sector to prevent the recurrence of the lessons observed and documented from previous Royal Commissions and inquiries. This ensures that practitioners remain proficient in following the current industry standards. The establishment of a robust feedback mechanism will allow practitioners to provide feedback on the efficacy of the NST and propose enhancements, including the identification of operational improvement areas. This may include online platforms that facilitate the exchange of recommendations and experiences among users. It is imperative to cultivate strong relationships with the extremely restricted number of vocational and higher education institutions.

To ensure that the respective curricula are following the NST, the adoption of a Unit of Competency qualification structure will be necessary from AQF Level 5 to Level 8. This collaboration has the potential to accelerate the integration of new skills and knowledge areas into training programs. Flexible skill definitions will guarantee that the NST includes adaptable and broadly defined definitions of skills that can be easily revised in response to the emergence of new competencies. This adaptability allows for the rapid integration of new skills without the need for extensive revisions. The relevance and practicality of the new skills identified in the NST will be assessed through case studies and pilot programs. Case studies will provide practical insights into the practical implementation of these skills in real-world situations.

There is a potential for oversimplifying ECDM skills, which may not accurately represent the complete complexity and nuance of specific occupations. Gaps in the taxonomy have the potential to neglect certain niche or emergent skills. The NST could become inflexible and unable to adapt to the rapidly changing needs of the ECDM domain sector if it is not routinely updated. Regional or local variations in skill demands will most likely not be completely accounted for by a national framework, particularly where volunteers fulfill many occupational roles.

The success of the NST within the ECDM industry sector is contingent upon the comprehensive and meaningful engagement of all relevant stakeholders, including employers, educators, volunteers and individuals. The process of integrating data from a variety of sources to develop a taxonomy that is both comprehensive and precise can be resource-intensive and complex. To remain relevant and effective, the NST will necessitate ongoing revisions and maintenance, which can be difficult to manage. To meet the diverse requirements of the ECDM industry sector and the emerging skills, it is crucial to strike the appropriate balance between standardisation and flexibility. The NST's development and maintenance may necessitate substantial expenditures, which must be justified by the advantages it provides.

The taxonomy must be comprehensive, encompassing the diverse range of skills that are yet to be recognised with the ANZSCO occupation classification and present within the ECDM industry sector. To ensure a shared understanding and prevent ambiguity, skills must be clearly defined and precisely articulated. The taxonomy must be adaptable enough to accommodate the evolving needs of the

industry and the emergence of new skills. The ongoing involvement of a diverse array of stakeholders, including employers, educators, volunteers and individuals, is essential for the taxonomy's success. The development and maintenance of the taxonomy must be based on robust data and evidence. The taxonomy's development and updating should be conducted transparently, with all stakeholders receiving explicit communication. The taxonomy must be accessible and user-friendly to all stakeholders, including those who are seeking vocational guidance.

3. Building a National Skills Taxonomy: Design considerations

Definitions:

- **Skills:** Specific abilities or competencies that individuals require that can be applied to perform duties or activities in a myriad of roles within the ECDM industry sector.
- **Competencies:** A set of behaviours, knowledge, and skills that are essential for carrying out a job efficiently.

Taxonomy is a structured classification system that classifies talents and subcategories based on their relationships and similarities.

Terminology:

- **Hierarchical Structure:** Skills are frequently organised in a hierarchical structure, beginning with broad categories and progressively descending to more specific skills.
- **Clusters and Groups:** Skills are classified into clusters according to their relevance and practicality in various industries or positions.

Skill Groupings:

- **Primary Skills** are the fundamental competencies that are essential for a particular position. They are the essential skills necessary for the task to be performed efficiently.
- **Secondary Skills** are the ability to contribute to performance but are not strictly required for the position. They can enhance job efficiency and provide added value.
- **Tertiary Skills** are extra-curricular abilities that may be advantageous, as they enhance adaptability without substantially altering the fundamental duties of the position.

Skill Types:

- **Technical skills** are specific, teachable abilities that can be defined and measured, such as the operation of apparatus, data analysis, or programming languages.
- **Soft skills:** include interpersonal abilities that are more difficult to quantify, including communication, collaboration, and problem-solving.
- **Leadership skills** are competencies that pertain to the management and direction of organisations, such as strategic thinking, conflict resolution, and decision-making.
- **Industry-specific skills** are distinctive to a specific industry, such as medical procedures for healthcare professionals or design analysis for engineers.

Structure of Hierarchy:

Broad Categories are at the highest level, in which skills are classified into broad categories based on their essence and application, including technical, soft, and leadership skills. Each broad category is further divided into subcategories that offer more specific groupings of related talents. Each subcategory contains a list of individual skills, frequently accompanied by comprehensive descriptions and proficiency levels.

The significance of granularity at a high level will enable the detailed mapping of skills, which can assist in the identification of the specific competencies that are necessary for various ECDM roles and positions. In turn, training and development programs and training packages can be reviewed and updated ensuring that employees acquire the exact skills required, ensuring contemporary and currency ECDM practices are maintained. Implementing a comprehensive taxonomy process has the potential to enhance job matching by offering a precise comprehension of the skills necessary for particular roles which link to training and professional development programs.

Challenges of granularity will be an ongoing complexity within the ECDM domain. The sector is difficult to navigate, particularly where there is an excessive amount of detail, which overwhelms users. Past Royal Commissions and Inquiries both in Australia and New Zealand, where the latest NZ government report on Cyclone Gabrielle's response identifies where “the emergency management system is not fit for purpose.”²¹ Similar commentary can be seen within the Australian Royal Commission into National Natural Disaster Arrangements 2020.²²

To remain pertinent, a taxonomy that is highly detailed and rapidly changing practices will necessitate more frequent updates and maintenance. Inadequate detail can render the taxonomy superficial and extraneous to specific roles and tasks, thereby diminishing its efficacy. Achieving an appropriate balance will involve experienced and qualified stakeholders in the development process and assist in determining the appropriate level of granularity, balancing the requirements of various users within complex and competing environments. An iterative approach will be required which enables adjustments to be made in response to feedback and real-world applications. An appropriate level of detail could be determined by considering the specific use cases for the taxonomy, such as recruitment, training, professional development and workforce planning.

Defining skills within the complex ECDM domain will need to be concise and unambiguous including a detailed explanation of the importance of the skills it entails. Within the AQF Levels 2 to 4, the vocational Public Safety Training identifies the operational and technical skill sets very well through the adoption of standards and Units of Competency and qualifications. The AQF Levels 5-10, the area applicable to the ANZSCO classifications, the Diploma through to Doctorate studies lack clarity with outcomes disjointed for similarly delivered qualifications and programs. A recent research project on credentialing and professionalisation²³ identified that similar courses, whilst similar in outcomes are not transferable between Australian institutions.

Activities and tasks correlated to a skill can be fundamentally mapped within vocational qualifications and programs, however, these are currently outside the scope of the ANZSCO classifications for the majority of the ECDM industry sector operatives. Tasks and activities that are associated with the skill, provide a practical understanding of its application in the workplace, however in many instances within similar courses, the learning material overlaps and is repeated, reducing the opportunity to scaffold knowledge, skill and competency.

²¹ [https://www.dia.govt.nz/diawebsite.nsf/Files/Government-Inquiry-into-Severe-Weather-Events/\\$file/Report-of-the-Government-Inquiry-into-the-Response-to-the-North-Island-Severe-Weather-Events.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Government-Inquiry-into-Severe-Weather-Events/$file/Report-of-the-Government-Inquiry-into-the-Response-to-the-North-Island-Severe-Weather-Events.pdf) (pg 12)

²² <https://www.royalcommission.gov.au/natural-disasters/report>

²³ FEMA Book - Current and Emerging Trends in International Disaster Management publish date October 2024

Proficiency as a beginner involves fundamental comprehension and familiarity with the skill. Under the guidance of a supervisor, individuals at this level are capable of executing basic duties. In the ECDM domain this will generally be covered within the AQF Level 2 – 4 qualifications and outside the domain of the ANZSCO occupational classification criteria where more than 80% of the current practitioner expertise exists.

Within the ECDM domain, all skills require a range of proficiency levels and expertise, often spanning from novice (vocational entry level), technical practitioner (AQF Levels 2 – 4). Leading/senior practitioner (Diploma, Advanced Diploma, Associate Degree and Bachelor degree – AQF Levels 5 - 7) to expert (Master's/ Doctorate – AQF Levels 8-10) and is within the focus area of the ANZSCO classification of occupations criteria.

Real-world examples of the skill's application in a diverse array of ECDM employment roles and responsibilities are critical if future Royal Commissions and Inquiries are to be avoided. Continual monitoring of training programs, courses and resources will be essential at frequency intervals no greater than a five-year cycle. Methods for assessing the skill's proficiency, such as performance evaluations and examinations will require cross-sector collaboration in ensuring there is minimal overlap of learning material. Extensive course mapping will be required to ensure Recognition of Prior Learning (RPL) can be provided at all levels between AQF Level 5 and AQF Level 8, the focus area for ANZSCO occupational classifications. Linking to industry standard certification and credentialing will ensure the relevance of an individual's knowledge, skill and competency remain industry relative and current. This component will become critical as countries deploy more specialists on overseas assignments.

There are less than a handful of institutions delivering AQF Level 5 – 6 ECDM programs and qualifications, courses similarly named and purporting to have similar outcomes are unable to be cross-mapped. Adding to the industry sector dilemma, only in exceptional circumstances institutions will recognise and credit another similar course. Many of the AQF Level 5 – 6 qualification outcomes are not recognised within Higher Education instructions, yet very often overlap.

Stepping up to an intermediate level involves a demonstrated capacity to independently complete tasks with a robust comprehension of the skill. Individuals are capable of managing more intricate duties, but they may require occasional assistance. Under ANZSCO, this level sits within the Level 1 classification (Diploma, Advanced Diploma, and Associate Degree)

A critical review of the advanced level operative can be classified at the ANZSCO Level 2 (Degree and above) an operative is required to maintain a high level of proficiency that enables an operative to independently and efficiently complete intricate tasks. Additionally, they can mentor and offer guidance to others. Subject matter experts would generally hold a Master's Degree or doctorate and have extensive experience and a profound understanding of the subject matter. They are capable of managing the most intricate duties, leading projects, and contributing to the skill's advancement.

Key factors to take into account when aligning a common language will be the creation of a common language for skills that can be understood by all ECDM operatives and applied across a variety of taxonomies within the industry sector. It will be important to ensure that the NST can be seamlessly

integrated with other taxonomies, such as the European Skills, Competences, Qualifications and Occupations (ESCO) and the United States Occupational Information Network (O*NET).

Creating mappings or crosswalks between the NST and other taxonomies to simplify the translation of skills and competencies will be imperative to the success of the project within the ECDM domain. This will include stakeholder involvement from a diverse array of government departments, agencies and organisations to ensure that the NST is following industry standards and practices. Regular updates that reflect changes in other taxonomies and emerging industry trends will be another critical component to success.

Consistency and alignment will ensure that skill definitions and classifications are consistent across a variety of frameworks, which simplifies the comprehension and application of the taxonomy for ECDM stakeholders. Facilitation of the recognition of talents and qualifications across a variety of regions and industries will enhance occupational mobility as operatives operate in a multi-agency emergency and disaster environment.

Data integration enables the more efficient planning and development of the workforce by facilitating the integration of data from a variety of sources and assists in implementing effective mitigation strategies and preparedness for significant events like the 2020 Australian bushfires, Covid-19 pandemic, 2022 Australian floods and the 2023 Cyclone Gabrielle in New Zealand.

The continual international exchange of emergency services personnel between North America and Oceania (Australia and New Zealand) reinforces the need to maintain global competitiveness. The workforce can be enhanced by adhering to international standards, which ensure that their talents are recognised and valued on a global scale, validated through occupational recognition and international credentialing.

4. Building a National Skills Taxonomy: Implementation Considerations

The initial steps will be to identify and consult with a diverse array of stakeholders, including educators, employers, employees, and industry professionals, to ascertain their perspectives on the competencies required for various roles. The next stage will be to analyse any external industry (AFAC EMPS)²⁴ and internal organisational databases or technologies that are currently in place to maintain a record of skills and competencies. Following on will require an examination of the ECDM industry sector, undertaking a comprehensive analysis of industry trends and developing skills to ensure that the taxonomy remains current and future-oriented.

Interviews and surveys of current practitioners and supervisors are conducted to identify the skills and performance metrics that are essential for success in particular roles and positions. Analysis of current job descriptions and the alignment to skills and performance markers to determine the essential competencies and abilities required for a variety of positions. Alignment to standards and benchmarks of credentialing standards will be critical if the ECDM sector is to gain professional recognition. Should the analysis determine that the pathway to professionalisation is not warranted, and job roles/positions should remain within an administrative functionality, there is a strong case to dissolve government agencies, departments and organisations that undertake emergency and

²⁴ AFAC Emergency Management Professionalisation Scheme <https://www.emps.org.au/>

disaster management functions as emergency management arrangements would be deemed administrative only and serve no purpose in the protection of the Australian community at large.

Should the analysis determine that the Australian Emergency Management Arrangements including all ECDM roles and positions are at a higher level of accountability, and then a vigorous validation framework will need to be put into place? An operative would need to be carefully reviewed to determine an individual's competence, initially through self-assessment. Allow employees to assess their abilities. This would be followed by evaluations from managers who are capable of providing an impartial evaluation of the capabilities of their employees, and then mapped against new and established standards and benchmarks. The establishment of new and emerging standards and benchmarks may require carefully structured pilot testing programs to be initiated to identify any errors or inconsistencies and implement the necessary corrections within the taxonomy.

External verification of all operatives will play an important role. An operative can be validated through the use of external certifications and qualifications that provide an impartial confirmation of competencies. Ongoing feedback through an external channel with stakeholders will ensure that the taxonomy is updated and enhanced over time in response to real-world applications and new requirements.

A recommended update frequency and checkpoints should be on an annual review and full evaluation every three years to guarantee that the taxonomy remains consistent with industry trends and emerging skills. Implementation of more frequent modifications and refinements could be facilitated by the establishment of periodic checkpoints, such as when new technologies or new skills are identified within the ECDM sector. There is an opportunity to incorporate a continuous monitoring program during the first full evaluation cycle to ascertain the ongoing necessity to monitor revisions benchmarks and changes in the labour market and industry requirements.

Currently, ECDM experiences hurried technological advancements which may require more frequent updates to incorporate emergent trends and competencies. Employers, educators, and employees can provide regular feedback to gain insight into emerging skills and voids in the taxonomy. Changes in regulations or standards may necessitate revisions to the taxonomy to ensure compliance and relevance.

Ensuring data quality will require analysis in monitoring data quality including accuracy, completeness, consistency, timeliness, and uniqueness. Explicit policies and procedures for data management, which incorporate data ownership, data stewardship, and roles and responsibilities, are known as data governance policies and will need to be established and agreed upon by stakeholders. Developing precise data metrics will be critical to assess the integrity of data, such as data consistency scores, data completeness percentages, and error rates within industry roles and position variations in avoiding data duplication or mismatch. The execution of procedures that ensure the ongoing monitoring and improvement of data quality, including regular audits and feedback channels, will need to be documented and acted upon promptly.

There are several advantages in establishing and maintaining a data quality framework. The provision of reliable and accurate information by high-quality data enables enhanced decision-making, operational efficiency, and increased workforce capability, minimising errors and rework. Compliance and risk management can mitigate risks associated with inadequate data quality and adhere to

regulatory mandates by guaranteeing data quality which leads to enhanced consumer trust. The security and veracity of consumer information will be required and managed through high-quality data, which in turn enhances customer trust.

Conclusion:

Without unity of effort, clarity in understanding and consensus, collectively we are highly likely to fail the communities we serve within the Emergency, Crisis and Disaster Management (ECDM) domain sector. For governments at all levels, defining competency, responsibilities, and roles within ECDM specialisations is a topic of contention that hinders collaboration and prevents uniformity in measurement and standardisation, particularly in situations where interoperability is crucial. Federally, accountability rests with the Chief Executives and governing boards, as mandated by the Public Governance, Performance and Accountability Act 2013.²⁵ At the State and Local levels, there is a similar set of laws and regulations. Many senior managers and leaders do not hold relevant qualifications in the fundamentals of emergency and disaster management let alone the specialised skills to manage significant events.

In most cases, the Accountable Authority is the agency and departmental CEOs/Directors and is “in charge” of the respective organisation. With ECDM not being recognised as a discipline or a professional competence by any government agency or department or within the ANZSCO occupational classifications listings leaves practitioners to question as to why these agencies and departments continue to exist. Governments at all levels need to consider consistency and minimum standards that Governments at all levels could be held accountable to meet where Federal or State funding is to be expended to ensure training is consistent with those standards. Minimum standards should include agencies and departments identifying occupational skill sets required for their agency to function in accordance with legislation added to the ANSCO recognised occupational classifications. Currently the majority of agency and departmental positions are purely administrative positions, do not meet ANZSCO occupational classification criteria and as such provide no tangible value to the government or the community. This then poses an issue for government on how do they meet their respective legislative responsibilities.

To ensure effective collaboration between Emergency Services, Recovery agencies, Reconstruction agencies, Risk Mitigation, Prevention, and Preparedness stakeholders working within the ECDM domain and meet respective legislation, it is crucial to act in unison, moreover, consistently demonstrate the ability to manage and lead. Failure to do so will lead to an ongoing disconnect between the Federal, State, and Territories in terms of recognising and applying consistent Emergency, Crisis and Disaster Management practices.²⁶

Emergency, Crisis and Disaster Management are professional practices that demand knowledge, skill, competence, and expertise which leads to increased and improved capability within the ECDM sector.

²⁵ *Public Governance, Performance and Accountability Act 2013*. 2017: Australian Government Retrieved from <https://www.legislation.gov.au/Details/C2017C00269>

²⁶ *Australian Emergency Management Arrangements* (3 ed.). Australian Institute of Disaster Resilience. https://knowledge.aidr.org.au/media/10162/handbook_aema_web_2023.pdf

Acknowledging this fact is of utmost importance.²⁷ Without consistency it will be extremely challenging to identify and develop interoperability and deployability of personnel. This then also impacts on the failure of consistency and/or duplication of resources at significant increased Government costs, noting that competency skills and resources are interconnected.

²⁷ Professionalism: certification for emergency management leaders *Australian Journal of Emergency Management*, 35(4), 5. https://knowledge.aidr.org.au/media/8225/ajem_17_2020-10.pdf