

FINAL PROJECT REPORT

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DIVERSITY AND INCLUSION: BUILDING STRENGTH AND CAPABILITY

Final project report

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Victoria University





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This project, 'Diversity and inclusion: building strength and capability', relies on the generosity and willingness of our end-users to open up their organisations and give their time to explore a difficult, and sometimes potentially contentious issue. Researching diversity and inclusion (D&I) requires the same environment that implementing D&I needs: mutual trust and safe spaces where open and honest conversations can be had, and a willingness to be candid about the issue in each organisation.

We especially wish to thank all our stakeholders for their collaboration, and in particular, Fire and Rescue New South Wales (FRNSW), Queensland Fire and Emergency Services (QFES), South Australian State Emergency Service (SASES), Women and Firefighting Australasia (WAFA), Department of the Environment in South Australia (DoE), South Australian Metropolitan Fire Brigade (SAMFB) and the New South Wales State Emergency Service (NSWSES) for their support of our research activities. We would also like to thank our working group, mentors and advisors who have guided us, and the D&I practitioners within and beyond these organisations who have generously shared their experience and knowledge with us. These contributions have been invaluable, and our research would not have been possible without them.

We would also like to thank the following individuals for their contributions:

- Members of our working group: Janine Taylor, Steve O'Malley and Claire Cooper, and special advisors Mal Connellan, Joe Buffone and John Beard for their encouragement, contributions to, and guidance of, this study.
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EXECUTIVE SUMMARY

In 2016, the emergency management sector (EMS) acknowledged that action was needed to address the low representation of diversity in its workforce. This was being driven by a moral imperative to better represent the communities they serve (AFAC, 2016). The role of the EMS was also changing in response to ongoing unprecedented natural hazard events and the need for more strategic approaches to building resilience. This meant renegotiating the relationship between emergency management organisations (EMOs) and their communities, reinforcing the importance of D&I. This brought to the fore the need to understand how to improve the effectiveness and value of D&I in EMOs.

The main goal of the three-year project was to work with those in the sector engaged in D&I practice and develop an evidence-based framework capable of supporting more effective management and measurement of D&I. This was carried out in three phases: (1) understanding the context, (2) development of the framework, and (3) testing. Each phase was subject to annual review and the program was adjusted in response to the outcomes of those reviews.

The project used the 'working from the inside out' methodology to provide the framework for its activities (see p17 for details). This is a transdisciplinary approach that aims to develop workable solutions to seemingly intractable problems through collaborative research codesigned with end-users. The transdisciplinary aspect integrates different knowledge systems. It starts with understanding user needs and context, surveys available knowledge from a wide range of sources, puts this knowledge into a format that can be used in practice, and lastly tests the research outputs and refines this with end-users. The process is iterative with the key features of systemic assessments, integration into decision-making systems, translation, learning, adjustment and communication with end-users. Its key purpose is to ensure that research is fit-for-purpose and useable.

Following the scoping phase of the research project, three lines of inquiry were established to analyse the key systems that most directly influence D&I for EMOs – organisational, economic and community. A mixed methods approach was undertaken that incorporated case studies, semi-structured interviews, focus groups, decision-making assessments, desktop reviews of organisational documents, informal and formal literature, and ongoing review and feedback with end-users.

The initial literature review (Young et al, 2018a) assessed where D&I practice was considered effective, the contributing factors to effectiveness and its benefits throughout the emergency services. It also reviewed the organisational change and innovation literature. In more recent years, the literature has changed focus from addressing diversity towards understanding the role of inclusion. It highlights the role of systemic approaches and the importance of understanding context in relation to achieving effective outcomes. The literature had stagnated in some areas, with few examples of successful implementation. The emergency services were not well-represented.

The final conclusion was that there were no suitable frameworks available and that information about the specific contexts for D&I in the emergency services was limited. To provide a focus for the project and to inform practice, a definition of effective diversity (see p16) was developed.



We undertook case studies in three EMOs to inform the sectoral context. D&I was present in all organisations, but not well-integrated into systems and processes, or connected to day-to-day decision making and tasks. The largest barrier was culture, and the largest need was in the area of management. Strategic vision and supportive organisational frameworks and processes were limited, resulting in shorter term, reactive approaches dominating the implementation of D&I.

Predominantly response-based and hierarchical cultures and tactical decision making were often at odds with the more strategic-based softer skills required for D&I. Many activities had not been effectively socialised or communicated, resulting in confusion, fear, resistance and difficult behaviours. There were also cultural gaps between upper and lower tiers in organisations. Implementation often focused on 'obtaining (gender-based) diversity quotas', and rather than creating an inclusive culture, was felt to have polarised gender-based issues. There was a lack of awareness of what constituted appropriate language use and behaviours in relation to diverse communities and individuals. There was also no compelling narrative as to why it would be a business imperative or even perceived as such.

At the end of phase one, key components for the framework were identified. These were organised across the following areas: a strategic process of change, a programmatic continuous-improvement process and organic bottom-up growth. To develop these, further mapping and investigation of skills and capabilities in organisations and communities, and greater understanding of the economic value generated by programs were needed.

A turning point for the project was during phase two, following the 'Into the future: building skills and capabilities for a diverse and inclusive workforce' workshop in December 2018. Exploration of three scenarios revealed the extent of D&I-related risk to EMOs. These related to the mitigation and management of social, human and innovation risk. These were not being formally managed or, in some cases, even recognised. It also highlighted the need to manage innovation risk during implementation activities. A better understanding of these risks provided the connection between day-to-day tasks and the business imperative for EMOs.

The participants in the workshop displayed a high level of skill and capability in these areas. Other work undertaken with Women and Firefighting Australasia (WAFAs) indicated that the sector was becoming more aware of these risks, but needed further development of systems, skills and capabilities to manage them.

The risks associated with D&I are not new, but are still largely unrecognised as part of formal risk management within organisations. Skills and capabilities associated with D&I practice were, for the most part, being given a lower priority than those required to manage more established and accepted risks. If left unmanaged, D&I risks are likely to 'impair the ability of EMOs to perform their functions effectively' (Young et al, 2019).

Two economic case studies highlighted the benefits that could be achieved by successful programs. The Indigenous Fire and Rescue Employment Strategy (IFARES) program produced \$20.00 of benefits for every dollar invested (Rasmussen and Maharaj, 2019). However, existing economic models need further development before programs for different cultural cohorts can be comprehensively assessed. Appropriate data also needs to be collected from the beginning of programs to support this.



The community case studies (Pyke, 2018b; Macdonald, 2020a, 2020b) illustrated some of the complexities in relation to the capabilities of diverse cohorts and young people, but each has its own context that needs further exploration. Although culturally and linguistically diverse (CALD) communities have many capabilities, these have not been examined with respect to various needs, so are unlikely to be harnessed effectively in an inclusive manner (Pyke, 2018b; MacDonald, 2020a).

The final D&I framework (Young and Jones, 2020) is constructed around four components:

- Strategic – transformational change.
- Programmatic – continuous improvement.
- Inclusive growth – bottom-up engagement.
- Risk management – human, social and innovation risk associated with D&I.

This is developed to be flexible and adaptable, to aid decision making in a range of different contexts, and to be useful in full or in parts, depending on the situation an organisation may encounter and the context in which this is occurring. The strategic and programmatic processes are supported by guidance that outlines the key phases and question-focused considerations for practitioners (Young and Jones, 2020) and three practitioner manuals (Macdonald, 2020a; Ooi, 2020; Young et al, 2020). Progress over the three years of the project has culminated in the following conclusive statements (Young and Jones, 2020):

- Effective D&I is an imperative for all EMOs if they are to mitigate and manage the human, social and innovation risk associated with the changing risk landscape occupied by organisations and communities.
- Improving D&I provides a tangible way to build robust and resilient social infrastructure in communities and organisations.
- Social and human risks associated with D&I have, for the most part, been seen as secondary to more technical and tangible risks, and their value is not well recognised or understood.
- D&I is not a fixed-point destination to arrive at. It is a series of destinations that organisations and communities move through as they work towards a desired, inclusive vision. This vision provides the destination that enables the development of the transitions needed to achieve an outcome.
- Inclusion is not about being permissive. It is about understanding the formation of new boundaries and who should decide what those boundaries are. It is also not one conversation, but many different voices coming together to negotiate a collaborative outcome.
- Statements of inclusion drafted by diverse groups that outline the terms of their inclusion are needed to enable negotiation from a position of empowerment. These statements support the development of respectful relationships that celebrate difference through a shared understanding of what is needed and how it is needed.



Common aspects found to support effective programs include:

- Ensuring there are safe spaces where difference is welcomed and accepted, where and how the terms of inclusion can be negotiated, and concerns can be addressed.
- Organisations need an authorising environment (structures, governance and processes) and a mandate to operate (social licence) if programs are to be effective. Upper-level advocacy, support and commitment to the D&I agenda over the longer term is critical.
- Ensuring that people who are undertaking and leading activities have the appropriate skills and knowledge to manage proactively and effectively. Authentic actions are needed to build trust in the longer term.
- A pragmatic approach where organisational champions and leaders are able to respond, capitalise on and leverage opportunities as they arise.
- To look beyond the organisation itself and understand where the interactions between the community, EMOs and other institutions (such as government), need to be managed and who needs to manage these.
- The development of collaborative and individual narratives that take the conversation 'beyond the numbers and quotas' to tell stories that connect people to each other and humanise risk so that it is understood and valued.

This project has experienced a high level of uptake and use during its three-year term. This has been aided by the sector's focus on progressing the D&I agenda, and the work of peak agencies and end-user organisations to develop programs and leadership. It has also contributed to the repositioning of the D&I agenda as a risk-based business imperative, and has developed and provided materials to support the integration of D&I into resilience, risk and workforce planning frameworks. Its effectiveness and impact are due to the collaboration and commitment of the end-user group who have actively participated, supported and promoted the work over the life of the project.

Considerable work is still needed in developing measurement protocols, particularly those related to economic evaluation and the effectiveness of inclusion. Further work is also needed to identify and document the specific capabilities and skills needed to support this. As D&I is a long-term and dynamic issue, longitudinal evaluation is needed to assess returns on investment, ensure that visibility is maintained, and deeper understandings continue to develop.

The final framework, which has been developed in close collaboration with practitioners in EMOs, provides a basis on which to build. The collateral from this study also captures and consolidates some of the considerable knowledge that already exists within these organisations to be used as reference material. This project has shown that achieving truly diverse and inclusive organisations is a long road, but it is one that EMOs are already travelling.



END-USER PROJECT IMPACT STATEMENT AND TESTIMONIALS

John Beard, *Deputy Chief Fire Officer, Cumbria Fire & Rescue Service, Fire, Rescue & Resilience, Cumbria County Council*

Diversity and inclusion form an essential foundation stone for community focused public services. Research is a primary tool that ensures leaders can make strategic decisions that will drive continuous improvement and that recognises the clear link between this foundation and the delivery of the best possible community outcomes. I feel truly grateful to have been able to contribute to this research and to work with people who recognise the true value of this work.

Atcha Faisal MBE, *Watch Manager, Gloucestershire Fire and Rescue Service*

The *Diversity and inclusion framework for emergency management policy and practice* is an excellent document in that its tone and approach is very readable, supportive and practical.

Quinn Cramer, *President, Women and Firefighting Australasia (WAFA)*

The combined WAFA-BNHCRRC report is a valuable report to use alongside the conference outcomes statement for WAFA. While the outcomes statement provides insights to current and best practices, the workshop report has allowed us to gather data from a wide range of members that not only backs up the findings in the outcomes statement, but moving forward, allows us to measure change around the qualities, traits and behaviours observed by our members within their organisations. The ability to partner with BNHCRC to create the report ensured that the methodology used to analyse the data was the best method to ensure that the data was summarised in a manner that allowed for future comparisons and ensured that undue bias wasn't conferred on the results.

Wayne Phillips, *Chief Superintendent, Fire and Rescue New South Wales*

Firstly, my team has used the IFARES document to validate the program not just from an equity view but from an economic view for our organisation and our government cluster. Secondly and probably more exciting we are using the document as a basis for a similar program we are soon hoping to start.

Nada El-Masri, *Cultural Diversity Engagement Officer, Country Fire Authority*

This is definite 'learn as you go' information that has been provided. It is so wonderful to see and read what others alike are accomplishing within their services. There are contents within this research that will resonate with you, make you nod and in some way say yeah I knew that; And there is certain content that you may have not thought about, that could possibly work. It's like a big THINK TANK, knowledge, projects and program sharing ... very valuable. Thank you for adding "Top Tips for Managers" we don't realise when we are stuck in our own bubble of work how much our managers can possibly miss out on but a great tool for them to re-evaluate what they may have forgotten.

Steve O'Malley AFSM, *Leading Fire-fighter, Fairness and Inclusion Officer Culture and Transformation, Metropolitan Fire and Emergency Services Board*



The opportunity to be at the same table as fellow D&I practitioners and then to earnestly contribute to such innovative research at a time of cultural redetermination has been the fillip the EM sector needed. This type of wholehearted and passionate collaboration sets a new standard in high quality research leading to informed practice.

Janine Taylor, *Acting Executive Manager, Talent Development Unit, Human Capital Strategy, Queensland Fire and Emergency Services*

A highlight in terms of the working group and the broader project has been the collaborative approach of all involved. When there is an authentic regard for work being conducted and the people involved, it creates an environment of trust and mutual respect where collaboration flourishes.

Malcolm Connellan AFSM, *Deputy Commissioner, Fire and Rescue New South Wales*

The work is vital for this organisation as we continue on our 'cultural' journey. We will not get another chance to get this right, nor assess how we have performed or measured the effects without this piece of work. Additionally, the close involvement in the research phase has provided the opportunity to discuss, test scenarios and propositions with other jurisdictions. More importantly for a sector such as this, external perspectives are critical. The close collaboration is evident in the position and quality of the product to now.

Dermot Barry, *Deputy Chief Officer, South Australia State Emergency Service (SASES)*,

I have found the project to be both challenging and enlightening. Whilst it has confirmed some of the good things about the SASES in relation to the existing diversity of the agency, it has also highlighted many areas where we have room for significant improvement. The challenge for all of us moving forward is to drive greater diversity in a resource-constrained environment. I am confident that the research completed to date, and the ongoing work of the team, will help inform our strategies and support our success.

Sonja Braidner, *Lead Diversity and Inclusion, Fire and Rescue New South Wales (FRNSW)*

The Bushfire Natural Hazards CRC 'Diversity and inclusion: building strength and capability' research project is a ground-breaking opportunity for Australian emergency services industries. The project brings together practitioners and academics with deep expertise to construct an informed narrative of what inclusion really looks like and means to our organisations. The project has already begun to explore some incredibly nuanced territories which defy previous assumptions and unpack the real mechanics behind staff engagement.

In addition, it is discovering a wider sphere of benefits brought about by increased diversity within our services, than initially understood. The research is beginning to unearth the wicked questions about Emergency Service cultures and through its trusted partnership with stakeholders. I believe this project will be a watershed for our agencies. This is complex adaptive work, and as such, I am proud to be involved with this project. FRNSW is already beginning to benefit from some incredibly potent data to date, which will help better target our inclusion, equity and diversity energies to bring about successful and authentic



organisational change, enabling our service to flourish with innovation, ready to meet the challenges of the coming decades.

Heather Stuart, *Cluster Lead End-user, Manager, Knowledge and Lessons Management, NSW State Emergency Service, State Headquarters*

The project has seen strong interest this year, with a number of agencies already applying the research findings and outputs. This interest has been at both an agency senior management level and amongst members of agencies. It is pleasing to see that the research is being so well received at all levels of agencies. The reports and journal articles produced to date have been of a high quality. I am very pleased with the quality of interaction and collaboration between the research team and the end-users. The outputs from the project will provide a strong evidence base for future improvement in diversity and inclusivity across the emergency services sector.

Source: From project annual reporting (Young, 2018, 2019 and 2020), supplemented by additional statements provided by end-users.



INTRODUCTION

The EMS is diverse and complex. Its key purpose is the protection of life and property by implementing 'a range of measures to manage risks to communities and environments' (Emergency Management Australia, 1998, p39). Its scope of activities spans the prevention, preparedness, response and recovery (PPRR) spectrum, covering a wide range of activities that contribute to community safety, wellbeing and environmental sustainability.

The context in which EMOs operate has been changing due to:

- The increasing intensity and frequency of events due to climate change, and the increasing costs associated with these events.
- Changing community diversity (demographically, culturally and socially).
- New technologies (particularly digital technology).
- Resource constraints and decreasing volunteer numbers.
- The need to build resilience in organisations and their communities to reduce the impacts, damage and loss of future events.

This is expanding the role of emergency services from the more traditional view of responding to emergencies efficiently – 'the job of a fire fighter nowadays has changed from not just putting out fires ... to almost being a semi social worker' (Cross, 2014).

The sector recognises that the emergency services need to better reflect the communities they work with (NEMC, 2011). This is driving a fundamental change in the nature of the relationship EMS has with the community – from delivering a service to them to working with them (Young et al, 2018a). This reorientation is reflected in recent policies and frameworks including: the National Strategy for Disaster Resilience: Community Engagement Framework (AIDR, 2013); Community First: Safer Together (DELWP, 2015); and the Community Resilience Framework for Emergency Management (EMV, 2017).

The dynamic and systemic nature of these changes moves the focus of EMS activities from short-term tactical approaches to long-term strategic approaches spanning more of the PPRR spectrum. In developing new relationships and services that increase organisational and community resilience, the EMS needs to become more innovative in areas where it has traditionally been conservative.

Having effective D&I policies, plans and actions are central to this agenda. There is a growing awareness of the essential role D&I plays in organisational and community wellbeing and safety, and the benefits that can be obtained when it is effective. However, implementation of D&I is a complex and long-term undertaking.

D&I is not new to EMOs, as there are existing strengths and knowledge to build upon. Organisations are beginning to capitalise on emerging opportunities, but there is still considerable work to be done. Progressing this agenda is no longer optional. It is a vital component needed to build resilient and sustainable organisations and communities.



PROJECT BACKGROUND

'Diversity and inclusion: building strength and capability' was a three-year project established by the BNHCRC to develop a better understanding of D&I management and measurement. Discussions and a workshop between the BNHCRC and end-users had identified the following needs:

- To be able to measure how effectively diversity and inclusion is working within organisations.
- To understand where opportunities, barriers and levers for effective diversity and inclusion lie in EMOs.
- To be able to present more effectively the case for diversity to a broad stakeholder group by identifying improved service delivery (what are the benefits) in economic terms (added value and increasing returns), to support more active understanding and uptake.

In the initial project scoping phase, the project team worked in collaboration with end-users to identify the following specific areas for development:

- To clarify what constituted effective D&I management in the EMS context.
- To understand the value of the benefits derived from D&I, and how to measure these, to support the development of business plans for investment.
- To develop evidence-based pathways for the effective integration of inclusive practice into organisations to increase their diversity of people, approaches and activities.
- To change the existing narrative and move beyond notions of diversity being simply about 'quotas and gender'.

The project aim was to develop a practical framework for the implementation of D&I tailored to the EMO context using a strengths-based approach that would support organisations and D&I practitioners, and improve practice and outcomes.

Using case studies, we examined D&I systemically through a values, narratives and decision-making context across organisational, community and economic themes. Aspects of diversity examined were: culture and ethnicity, gender, demographic status (age and education), and disability (physical). These were considered in the context of the key drivers outlined above. The project had three phases:

1. Understanding the context in which D&I exists in EMOs and the community.
2. Development of a D&I framework suitable for the EMS.
3. Testing and utilisation of the framework.

It addressed three interrelating themes: (1) organisational; (2) community; and (3) economic.

The framework and supporting materials were developed collaboratively with our end-user group as part of our research process. Two end-user groups – a working group with a core team of D&I practitioners and a larger group of end-users – were established to guide and inform the project's activities.



UNDERSTANDING THE CONTEXT FOR D&I IN EMOs

A systemic literature review was undertaken that focused on what had been effective D&I in practice across organisational and economic areas, and the context for inclusion in the community.

ORGANISATIONAL

The literature pertaining to this area is large and diverse, and there is considerable variation in relation to the definitions of D&I that are context-dependent. Types of diversity covered in the literature include race, gender, culture, age, faith and thought. Areas of the D&I literature that were investigated included organisational, workforce/human resources, community, society, business, innovation and change.

Diversity can also be viewed through a number of lenses, such as visible/invisible or surface/deep, moral/instrumental, macro (large, top-down/small bottom-up) and fairness and equity values (inclusion, exclusion) and economic value (cost-benefit). Expanding on some of these:

- Visible (surface) diversity covers obvious characteristics such as gender, skin colour and age, compared to invisible (deep) characteristics such as educational status, values and beliefs (Cox Jr, 1994; Clair et al, 2005; Casper et al, 2013; Mor Barak et al, 2016). Basically, this separates what a person is (taxonomic) from who a person is (behavioural, social, cultural).
- The moral/instrumental distinction opens up the is/ought problem – the moral aspect is where *how things* become conflated with *how they should be* (Elqayam and Evans, 2011), and the instrumental with *how they could be* (Watkins and Mohr, 2001).
- Systemic approaches combine two or more of these lenses and focus on factors such as relationships and behaviour. They also integrate temporal factors, bringing in strategy and planning, maturity, aims, goals and outcomes (Cox Jr, 1994; Cao et al, 1999; Dass and Parker, 1999; Mor Barak, 2000).
- As the literature has evolved, the emphasis has moved from diversity towards inclusion, from characteristics towards relationships, and to aspects of diversity embedded in individuals (human diversity) to D&I in groups (social, cultural, organisational diversity; Mor Barak, 2000; Miller and Katz, 2002; Ferdman 2014). These have been represented as reactive and proactive approaches (Mor Barak, 2015, Figure 1).

The D&I literature contributing to organisational and workforce development is increasingly using the terms 'diversity management' and 'inclusive climate' (Mor Barak et al., 2016). This study had the following qualifiers:

- The effect was stronger for invisible characteristics than visible characteristics.
- Only a few variables were used due to data limitations (e.g., tenure, education, age, gender and ethnicity).
- The effect was not consistent across different types of organisation (e.g., public, private, mixed), but restricted to human service organisations.

Psychosocial theories provide some insight into the dynamics of D&I. These include (Mor Barak et al., 2016):

- Social comparison theory – people from diverse groups identify with others who share their characteristics, manifests in how inclusion and exclusion affect personal standing (Festinger, 1954).
- Social identify theory – the connection between self and groups that mutually reinforce identity (Tajfel, 1982).
- Optimal distinctive theory – building on the link between belonging through social identity while being appreciated for unique individual characteristics (Brewer, 1991; Shore et al, 2011).
- Relative deprivation theory – the discrepancy between one's own group's social status and the status of other groups (Merton, 1938).
- Intersectionality – the multidimensional aspects of diversity, and how it intersects with ethnicity, gender, class and other social identifiers (Crenshaw, 1989).

These theories are complementary, with some having evolved from others. The interactions between them produce much of the variation between positive and negative outcomes seen in the literature. Much of the remaining variation is due to differences in context and the simple truism that the product of interactions between diverse groups is diverse.

EMS ORGANISATIONS

The origins and structure of the workforce, organisations and institution of the EMS are essential to its context with respect to D&I. The EMS combines government organisations and service delivery agencies that have a hierarchical, para-military structure (Brauer, 2016; Hulett et al, 2008; Baigent, 2005). The fire services, in particular, have strong formal and informal rules and structures that require new arrivals to 'fit in' (Baigent, 2005). This has shaped the organisational structures, traditions and culture of these organisations and the expectations of the communities they serve. This is further 'complicated by historically and culturally-specific patriarchal structures within emergency services' (Eriksen et al, 2010, p337).

Investigation of reports and policies suggest that the sector is still largely in the reactive stage, particularly given the number of recent (to early 2017) inquiries into the negative aspects of these structures and the need for reform. This is despite national and state policies for D&I that point to the benefits of proactive management.

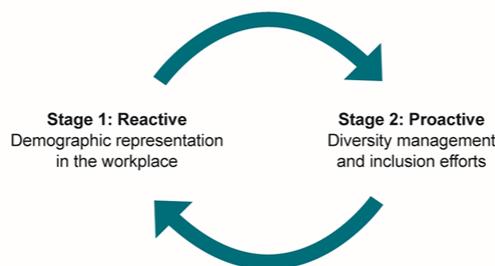


FIGURE 1: THE TWO-STAGE REACTIVE AND PROACTIVE INTERACTION (MOR BARAK, 2015)



The following definitions were selected as being relevant to the EMS:

'Diversity is the way we all differ, and how those differences enable, enhance or inhibit the ability of individuals, groups and organisations to achieve individual, collective and/or organisational goals and objectives' (Davidson and Fielden, 2004, p60).

'Inclusion represents a person's ability to contribute fully and effectively to an organisation' (Roberson, 2006, p215).

'An inclusive workplace values and uses individual and intergroup differences within its workforce, cooperates with and contributes to its surrounding community, alleviates the needs of disadvantaged groups in its wider environment, collaborates with individuals, groups, and organizations across national and cultural boundaries' (Mor Barak, 2000, p339).

Effectiveness is defined as 'the degree to which something is successful in producing a desired result; success' (Oxford Online Dictionary).

The literature in relation to systemic and organisational change was summarised where it pertained to directed social change in complex settings. Cameron and Green (2012) identify the four theoretical areas underpinning change models:

- Behavioural – using rewards and punishment (Pavlov, 1928)
- Cognitive – emotions and problems are based on the way we think (Ellis Grieger, 1997; Argyris, 1976)
- Psychodynamic – understanding reactions experienced during the change process (Satir et al., 1991; Worden, 2008; Kübler-Ross and Kessler, 2014).
- Humanistic – increasing resilience to managing change and life transitions through personal growth (Perls, 1976; Maslow and Lewis, 1987).

The following aspects were discussed with the view to incorporating them in a systemic framework:

- Innovation – the introduction of new values and ways of doing things through the development of solutions that meet emerging or existing needs (Rogers, 2010). Areas of innovation discussed included social, service, systemic and adoption and diffusion.
- Appreciative inquiry – is a form of organisational development that has a philosophy of social construction: "AI becomes not a methodology, but a way of seeing and being in the world ... we do not see problems and solutions as separate, but rather a coherent whole made up of our wishes for the future and our path toward that future" (Watkins and Mohr, 2001).
- Organisational culture – the recognition that organisations develop their own culture from a variety of influences such as values, rituals, heroes and symbols that shape practice (Hofstede, 2010). Visible surface and invisible deep cultural characteristics are also ascribed (Dadfar and Gustavsson, 1992, p84).
- Failure of change management programs – many programs fail for many reasons (Todnem By, 2005; Beer and Nohiar, 2000; Burnes, 2004), and indicated a need to take a systems-based approach with sufficient



planning. Also, to proactively manage the uncertain and unexpected (e.g., Armenakis et al., 1993; Holt 2007).

Value-based approaches, consistent with Schwartz (2012) where personal values are considered to be motivationally-based were seen as likely to be more successful over the longer term. Aligning these with organisational values provides a means to amplify positive outcomes consistent with the results from Mor Barak et al (2016). However, some values are also in conflict with each other, so the negotiation of those areas of conflict as part of D&I practice is essential. The major conclusion of the organisational change literature is: where the values embedded in D&I and its practice is consistent with an organisation's values and purpose, proactive diversity management produces more positive outcomes.

An example that combines the above components in an organisational context is the HEAD (Higher Education Awareness for Diversity) wheel, which contains personal and organisational values, governance, learning and diversity (Gaisch and Aichinger, 2016). This embraces the complex nature of D&I, and shows the need for a range of models and approaches when addressing diversity at the organisational and sectoral scale.

The more recent literature is moving from addressing diversity towards a more proactive focus on inclusion. However, the D&I literature in general is fragmented and has stagnated in some areas, and the emergency services are poorly represented, with little research being carried out beyond reports and inquiries. This leaves considerable gaps in the evidence needed to support effective practice and how this can be achieved.

COMMUNITY

Increasing diversity of Australian communities and the relationship between diverse cohorts in those communities and EMS were both important. Pyke (2018a) discusses community diversity through the lens of multiculturalism, as changing diversity in Australia in the 20th and 21st century has been dominated by waves of immigration. Diversity policy at the government level has been informed by the capabilities approach of Sen (1985), where capabilities underutilised by structural inequities are considered as a loss (economic, wellbeing, etc.).

'Community' refers broadly to shared territory or space (physical or virtual), common life, collective actions, and shared identity (Theodori, 2005, p662). Communities are commonly delineated via place, interest and identity (Willmott, 1986). The common understanding of community, with respect to emergency services, is place-based,

The main aspect of community diversity explored was through social inclusion, which originated as policy in Europe and was introduced into Australia from 2007 (Kurzak, 2013). Social inclusion refers to the capacity of individuals to participate in work, education, communities and decision making. As a process, it is context-specific, relative and embedded in social relations. As a policy framework, inclusion is widely considered to be a necessary pre-condition of social cohesion and in turn, social and economic wellbeing (Papillon, 2002).

When applied to the EMS context, community social D&I covers the broad themes of the needs and vulnerabilities of specific communities; population



vulnerability; better communication between communities and the EMS; critiques of how the EMS approaches the topic of diversity, community and inclusion, and how the use the capacities present in diverse communities (Pyke, 2018a). Cohorts examined as important for assessing changing communities included multiculturalism and new migration, including those on temporary visas, women and gender, people with disabilities, and Aboriginal and Torres Strait Islander people. All will have different relationships with the EMS.

For community D&I, social inclusion is largely measured through exclusion. Seven dimensions of social inclusion (summarised for Fair Work Australia), were framed as exclusion from labour markets, adequate resources, social support and networks, services, being located in a particular area, from decision-making, poor health or wellbeing (Nelms and Tsingas, 2010). The Australian government social indicators consist of a larger set of 33 indicators from six domains (Saunders, 2015). These are essentially determinants of social vulnerability.

ECONOMIC

A key focus of the economics was to understand the value of benefits of greater D&I, and to measure these to support capability and business planning within EMOs.

To assess benefits, the outcomes of evolving D&I needed to be measured and go beyond simple measurements of diversity. Assessing their effectiveness requires taking account of tangible and intangible costs and benefits, and also the less visible aspects associated with inclusion.

The empirical research on the benefits of diversity suggests they can be many and widespread. Arguments for diversity that potentially provide benefits have been recognised in four main areas (Kapila et al., 2016):

- The moral case – societies should be diverse, inclusive, and equitable, as should the organisations that provide a social service.
- The economic case – discrimination is seen as an economic inefficiency and is associated with a variety of costs (Trennery et al, 2012). Elias and Paradies (2016) estimate the mental health and welfare costs (in disability life years) of discrimination in Australia 2001–11 as being equivalent to 3% of GDP.
- The market case – in the non-profit sector, clients want to see themselves represented in the organisations that serve them. Donors are also customers, and organisations can benefit from the resources of different groups.
- The results case – diverse teams lead to better outputs. Positive outcomes have been seen for complex problem solving (Cooke and Kemeny, 2017) and service industries (Singal, 2014), but elsewhere have been mixed (Joshi and Roh, 2009; Shore et al, 2009).

A meta-analysis of workforce studies addressing D&I in human service organisations found that where diversity management promoted a climate of inclusion, positive outcomes were realised (correlation 0.42, 95% confidence intervals = 0.29, 0.54, n = 290,854; Mor Barak et al, 2016).



Other literature offers strong evidence that richer diversity is associated with higher wages and productivity of the existing population (Ottaviano and Peri, 2005, 2006; Ottaviano et al, 2007; Manacorda et al, 2007; Nathan, 2011; Prarolo et al, 2009; Bellini et al, 2008, 2013; Cooke and Kemmeny, 2016). There are also further suggestions in the literature that these labour market impacts are due to the increases in innovation, entrepreneurship and trade.

The economic theme, however, had difficulty in assessing the specific benefits of diversity from the literature that pertained to D&I in the emergency services.

Most of the work conducted by economists has been at the macroeconomic level – focusing on the impact of diversity on the overall level of wages, productivity and innovation. Understanding the benefits of inclusion in the emergency management context requires developing a set of measures that adequately describe positive and negative outcomes relevant to emergency management. There was little in the literature to guide this.

IMPLICATIONS FOR PRACTICE

Testing whether D&I management is effective can be done in two ways. One is to undertake meta-analyses of the literature (as described above), and to analyse national workforce surveys where present. The other is to integrate ongoing monitoring and measurement as part of D&I programs. The latter was the path taken by this project.

The gap between theory and practice and particular outcomes, means that D&I practice needs to lead in order to inform the literature, but also to ensure that the investment in D&I is producing positive results. The following definition of effective D&I was developed for the project to guide activities:

The result of interactions between organisations and individuals that leverage, value and build upon characteristics and attributes within and beyond their organisations to increase D&I, resulting in benefits that support joint personal and organisational objectives and goals over a sustained period of time (Young et al, 2018a, p19).

The following areas were selected for further investigation to support the development of the practitioner-based framework:

- Diversity and organisational attributes and characteristics within the EMS and more broadly.
- Phases of the implementation process: priming, implementation, evaluation and adjustment.
- Actors and interactions: individual, group, organisation, networks, communities and institutions.
- Tasks related to creating, managing, valuing and leveraging.
- Temporal and strategic aspects of the implementation process: long-term, medium-term, and short-term. Aims, goals and outcomes over these timescales.
- The key components of the broader diversity system for EMOs, community and government.
- Cost/investment: fiscal, organisational and human resources.



- Benefits: tangible (monetary costs and benefits), intangible (wellbeing, reputational) and mixed: effectiveness of service, innovation (service, technological, social).
- Measurement of organisational maturity with respect to D&I.
- The development and integration of diversity measurements into human resources, quality assurance, and/or business improvement and budgetary reporting processes.

PROJECT METHODOLOGY

The challenge for the project was to integrate research into D&I practice within the EMS, to understand current practice, what was working and what was not, and where additional support for decision making was needed. The method used to do this is called 'working from the inside out', which was initially developed in 2006 to provide a basis for a behaviour change program in a private organisation (Young, 2008). Since this time, it has been further developed and applied in multiple areas of research and practice (Young et al, 2018).

The 'Working from the inside out' methodology is a transdisciplinary approach that aims to develop workable solutions to seemingly intractable problems through participatory research. It starts with end-user needs and the context in which the issues exist. Utilising the methodology, we survey available knowledge from a wide range of sources, and bring these together into workable formats that can be used by decision makers.

A key feature of this iterative process is the use of systemic analysis, which integrates research into decision making – in this case, at the organisational scale. Defining aspects are ongoing communication, translation, reflection and socialisation of research findings throughout the process and continuous learning. The process is collaborative, where researchers and end-users co-design and develop the research and its outputs to ensure that they are fit-for-purpose and useable. Key phases of this process are shown in Figure 1.

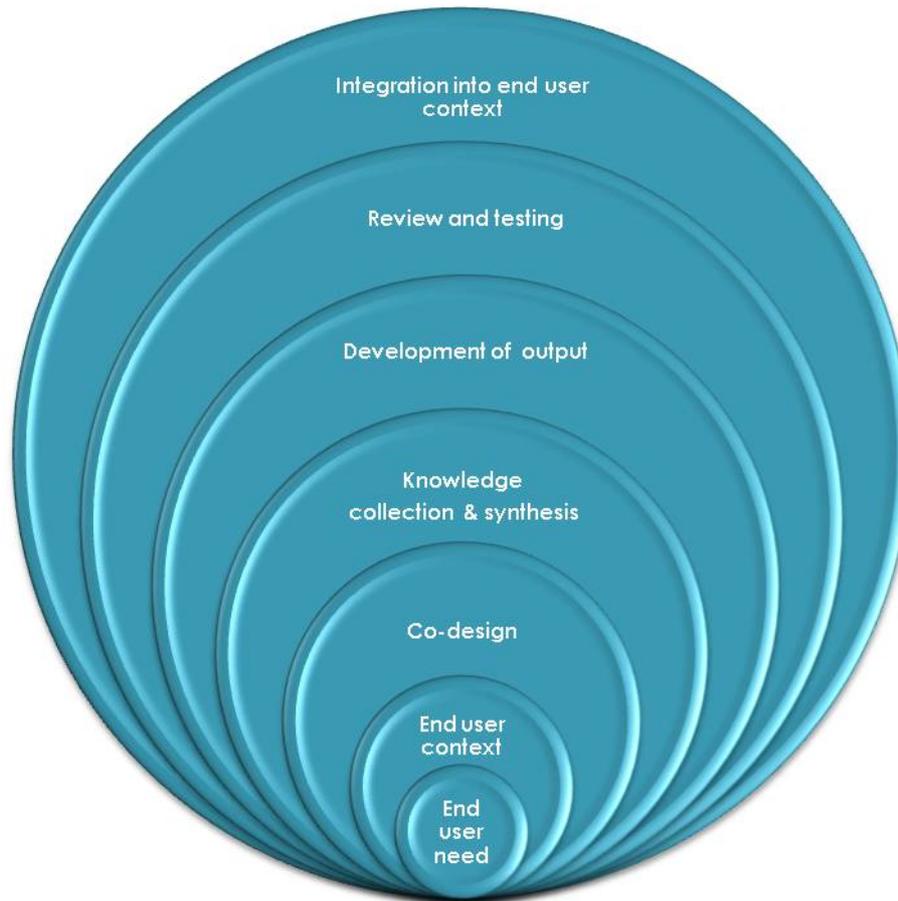


FIGURE 1: IMPLEMENTATION PHASES OF END-USER-BASED RESEARCH (YOUNG, 2016)

This way of undertaking research differs from conventional research, in that it is not hypothesis-driven, nor does it propose a theoretical framework for testing and application in a controlled environment. Instead, it seeks a process capable of developing solutions to complex problems in open environments, capable of transformative change, and provides practical evidence-based solutions that can be used to support decision making and practice in specific contexts.

Transdisciplinary approaches are non-hierarchical, combining a wide range of academic disciplines with end-user knowledge and expertise. The overall context and end-user needs determine what academic methodologies, processes and content will be used. The collation and integration of end-user knowledge is a key component. Outputs are tailored to be integrated and used within the end-users' decision making context. Their input and feedback is a key part of the peer-review process.



ORGANISATIONAL RESEARCH STREAM SUMMARY

The organisational research stream had three key phases: (1) understanding the assessment context; (2) development, testing and refinement of the framework; and (3) development of support materials.

PHASE ONE: UNDERSTANDING THE CONTEXT

The purpose of phase one was to ascertain the current context of D&I practice in different EMOs and to identify key components that would form the basis of the draft framework.

METHODOLOGY

To understand past and present contexts with respect to D&I, case studies were undertaken in three organisations: FRNSW, QFES, and the SASES. Thirty-three semi-structured interviews were undertaken with representatives across different areas of each organisation (professional, operational, frontline and technical services), focusing on managers from upper, middle and unit or brigade levels. Participants presented a mixture of demographics of gender, age and cultural backgrounds. The purpose of the interview was to assess awareness and gaps and barriers in decision making across different areas of the workforce in relation to capabilities and skills that might be needed for the future. We also sought to understand the drivers for decision making, and how D&I was currently understood, perceived and responded to.

The interviews were transcribed and broken down into key themes. Themes addressed qualitatively included understandings of D&I: governance, policy and strategy context; communication; monitoring and evaluation; organisational strengths and future vision. The interviews were then assessed and coded across four areas using thematic analysis (Sandelowski, 1995) and simple statistical analysis across the areas of barriers, needs, benefits and opportunities. Questions examined included understandings of D&I and its relationship to work and perceptions of the future.

A desktop review of documents examining previous D&I activities and reporting of D&I policy was also undertaken for each organisation. This extended to online documentation covering history, key Acts of Parliament and regulations, government inquiries and archived reports. The aim was to reflect the history of reported diversity in each organisation and compare it with the current state of play. The above areas of inquiry were then collated into three individual confidential reports for each organisation (Young et al, 2018d, 2018e, 2018f) These reports were then sent to end-users in the participating organisations for review to ensure that this was a truthful representation of their context. The data within these reports was then synthesised and aggregated for the final public report (Young et al, 2018b). Great care was taken to not identify the sources of specific participants, and consent was obtained for first-person quotes used within the reports.



Interviews with Gloucestershire Fire and Rescue Service in England and D&I practitioners in EMOs were also undertaken to gain a broader perspective. Data from all the interviews were then analysed and synthesised into a single report, which also contained an initial draft of the proposed framework (Young et al., 2018b). This was reviewed by the end-user project group, who provided feedback and approved the content of the report. This ensured that the analysis was consistent with their experience, that the reports they did not contain content that could cause harm to the participating organisations, and that the analysis was robust.

KEY FINDINGS

The key findings from the organisational case study reviews were:

- (a) As communities are becoming more diverse, and are more exposed to natural hazards that are becoming more severe. The relationship between EMOs and community is evolving to working *with* communities rather than *for* them. This creates a demand for EMOs to be more representative of their communities, and to build a new social contract with them based on partnership.
- (b) D&I are systemic issues that span the EMS and wider society. The changing risk profiles faced by communities are also systemic, requiring a more strategic approach to risk management. Both require transformation at the organisational and sector scale, requiring a high level of innovation, which itself is risky, requiring ongoing monitoring and measurement as part of proactive risk management.
- (c) Despite the widely expressed need for greater D&I in the EMS, progress has been fitful. At the organisational scale, this is expressed by a legacy of short-term programs and often discontinuous funding, and is reflected by a poorly-documented history of D&I. While individuals have knowledge and experience of D&I, this does not generally translate to the organisational scale.
- (d) The benefits of D&I were not well understood, and often seen as a cost. It has also resulted in D&I skills and expertise not being acknowledged or rewarded in the same way as other more technically-based skills.
- (e) Measurement and practice were generally still evolving. For organisations to progress, they needed to go beyond the measurement of diversity and build the capability to manage and measure inclusion, the lived experience of those in their organisations, and the benefits of effective inclusion.
- (f) D&I is present in all organisations, but was not currently well integrated into organisational systems and processes, nor connected to day-to-day decision making.

D&I was not well established, despite the widespread recognition by the industry that it was needed. It was often seen as separate to other areas of business rather than part of it, and programs were identified as being predominantly short-term and often reactive. This resulted in a lack of visibility or understanding of the



benefits of D&I across organisations. A key gap was the lack of an overarching framework to provide a structure to support the long-term, strategic approach needed to ensure that implementation has positive outcomes.

The assessment also revealed a number of themes that can be grouped under two main headings: those concerning the broader environment that EMOs work in, and those within the organisations themselves. The main findings are summarised in Table 1.

TABLE 1: SUMMARY OF MAJOR THEMES FOUND DURING PHASE ONE WITH THEIR POSITIVE AND NEGATIVE CHARACTERISTICS

Theme	Positive	Negative
Broader Environment		
Change	The need to change being widely recognised and implemented.	D&I generally not part of overall change process. D&I and change poorly understood.
Culture (societal)	Society is changing and communities are becoming more diverse. Movements such as 'me too' and 'black lives matter' are changing societal norms and social norms.	Changing community expectations and social contract not always positive, disengagement.
The current narrative	New narratives in diverse communities starting to become part of the EMS.	Hero narrative dominates, and public image not reflecting people and what they do accurately.
Past to future	Broader role in society being recognised.	Vision for the future not well-recognised, acknowledgement of the past (good and bad) needed.
Community	Community's depth, diversity, and skills being recognised, examples of successful partnerships.	Limited understanding within community of the EMS and vice versa.
External stakeholders	Opportunity for broad collation with common goals.	Untapped potential, some negative influences.
Organisational		
Governance and policy	Some organisations with clear policy, responsibility and accountability.	Complex governance and policy environment with little connection to general staff and volunteers.
Culture (organisational)	Fit in and fix it cultures hierarchical and traditional and hieratical.	Low cultural diversity, with command-and-control culture not conducive to attributes needed to implement D&I.
Leadership	Identify and recognise leadership potential at all levels. Authentic leadership is critical	Not all leaders invested in D&I or fostering change in their area of leadership. Tokenistic leadership breaks trust.
Management	Fostering organic growth of inclusion throughout the organisation through management skills and leadership.	Poorly skilled management who feel unable to respond effectively to challenging situations presented with diverse cohorts resulting in under-confidence and fear of acting.
Recruitment, retention and career development	Positive recruitment and retention strategies boost D&I.	Low turnover of employees in some areas of the EMS can impede the change process. Challenges attracting and retaining diverse employees in many organisations.
Competencies, skills and training	Equal recognition of the skills and attributes needed for successful D&I as traditional skills.	'Soft' skills not valued and rewarded, more strategic skills needed, skills for D&I and strategy not identified within areas of organisations.
Communication	Use of digital media, sharing experiences, revamping online presence, and proactive communication strategies are all opportunities.	Miscommunication, lack of training and awareness, and reactive communication were common in response to challenging or perverse outcomes.



Data, monitoring and evaluation	Building D&I monitoring into ongoing business activities and strategic plans.	Only basic data on diversity kept, limited understanding of inclusion benefits or monitoring of programs using innovation models.
Implementation	Build D&I into ongoing strategic change processes, have broad discussions before measures taken, use D&I skills more widely.	Measures limited, are not well-understood or valued, lack of understanding as to what D&I is, the benefits and legacy of previous programs are largely unknown.

In terms of barriers, needs, opportunities and benefits, 213 barriers identified were divided into 11 groups and 221 needs divided into eight groups. The largest group of barriers was 'culture', followed by 'implementation' and 'management'. The largest group of needs was 'management' followed by 'implementation' and 'organisation'.

Ninety opportunities were identified across eight groups and 67 benefits across six groups. Opportunities were identified in the areas of community and volunteers, culture, monitoring and evaluation. The largest group of benefits was grouped under 'culture', with 85% of benefits directed to the organisation, and 15% to the community. These results confirmed that D&I was still at the early stages of implementation. The largest barrier for D&I was the culture within organisations, and the largest need is in the area of management.

A number of areas were identified as needing improvement. Many activities had not been well socialised or communicated, resulting in confusion, fear, resistance and difficult behaviours. There was a lack of awareness of appropriate language use and behaviours in relation to diverse communities and individuals. Some people described programs where they felt the issues between men and women across EMOs had become polarised. This was attributed to the lack of socialisation of the programs and appropriate knowledge and skills to manage their implementation. Comments highlighted that diversity was more than just 'obtaining quotas', and it was important to create inclusive environments to ensure the retention of diverse cohorts.

The strongly traditional and complex culture in these organisations was found to result in a management style that was predominantly response-based, tactical and hierarchical. The decision-making structures that had evolved were often at odds with the more strategic-based softer skills required for D&I. Each organisation contained multiple cultures (e.g., management, operations, planning, HR, R&D), and there were gaps between these, particularly between upper management and brigades and units, seen to create an 'us and them' attitude. There were also deeply entrenched organisational and personal identities that were often linked to heroism and response, which could also give rise to individual notions of who should be a firefighter and who should not. This complexity can potentially result in an unpredictable mix of positive and negative outcomes, so needs to be proactively managed when implementing programs.

Effective inclusion requires the creation of an environment that is safe for diverse individuals to be their 'authentic selves', and the cultural and organisational structures that have grown historically require long-term and sustained action to achieve effective outcomes. A key aspect of this is identifying, building, valuing and rewarding specific D&I capability, skills and attributes. This also reinforces the



need for strategic approaches, and for D&I to be understood and framed as a business imperative that enhances organisational performance, as well as a moral imperative so that it is seen as an investment in the future workforce rather than a cost to the organisation.

THE DRAFT FRAMEWORK

For D&I to be effective in organisations, it needs to be seen as part of the overall transformation that is occurring across the emergency services. This requires a systemic approach that interconnects systems both inside and outside organisations. An overarching transformation process was developed that combined established models of change consistent with attaining a diverse and inclusive culture. The components were brought together to give practitioners an overarching 'roadmap' of key aspects that were identified during the context assessment. The roadmap describes a continuous improvement process aimed to help them identify where they were in the process so they could better understand what behaviours they were encountering and form strategies for managing these.

The models applied were:

- The Satir model of change (Satir et al., 1991) that helps individuals and groups to move from one state to a new state.
- The Kübler-Ross model covering the different stages for grief (Kübler-Ross, 1993).
- Everett Rogers' innovation models that look at the adoption and diffusion of innovation (Rogers, 2010).
- The dimensions of diversity model whose central point is identity (Gardenswartz and Rowe, 2003).

These are a hybrid of change, innovation, identity and grief components. This process outlines the key phases needed to transform into diverse and inclusive organisations over the long term by helping managers understand what they might encounter and manage it pro-actively rather than reactively (Figure 2).

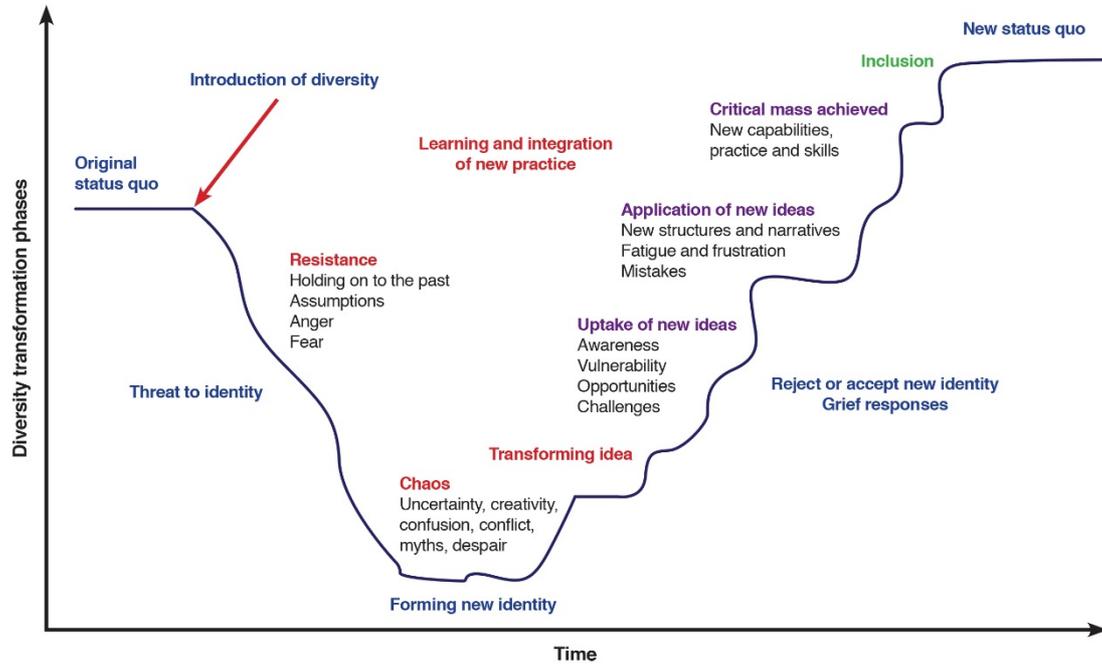


FIGURE 2: PHASES OF THE DIVERSITY AND INCLUSION TRANSFORMATION PROCESS (ADAPTED FROM SATIR ET AL, 1991; KÜBLER-ROSS, 1970 GARDENSWARTZ AND ROWE, 2003; ROGERS, 2010)

The draft framework also outlined the major levels of D&I management and who was responsible (Table 2). Each level requires distinct styles of management, implementation and monitoring, but bottom-up and top-down processes are also needed to integrate them. Eight components for D&I practice identified from the literature and the different change processes identified to date: social transformation, values, inclusive environment and culture, lifelong learning, complex decision making, change, systems and innovation. These are discussed in greater detail in Young et al (2019).

TABLE 2: DIFFERENT LEVELS AT WHICH DIVERSITY AND INCLUSION WORK (YOUNG ET AL., 2019)

Levels	Definitions	Actors
Institutional	Formal or informal structures and arrangements that provide 'the rules of the game' (North, 1990) that govern and shape behaviour of a common set of groups and individuals.	Community, state, local and federal government, boundary organisations, business and industry.
Organisational	Groups of individuals who share a common interest or purpose. A particular community, organisation, agency or network (this can also be a virtual community).	A particular community, organisation, agency or network.
Teams	Smaller groups that exist within organisations who work together to achieve specific tasks or goals.	Units, brigades, work teams (e.g., communication or diversity team).
Individuals	Individual person or legal entity.	Employee, community member or volunteer.

Wheeler's (2010) model for effective leadership in managing diversity, which features creating, managing, valuing and leveraging, was also identified as being of value, requiring further testing for applicability and useability. Additionally, a maturity matrix (Wheeler, 2010, p69) presented as an



organisational readiness matrix, was illustrated as an example of how to map the progress of different organisational characteristics in the D&I transformation process. This is especially useful for showing uneven rates of change within an organisation, and its strengths and weaknesses.

PHASE TWO: REFINING THE D&I FRAMEWORK AND TESTING COMPONENTS

This phase tested, further developed and refined the draft framework. Supporting research was undertaken concentrating on the following key research need identified in phase one – to understand how D&I practice related to day-to-day tasks in different EMOs.

Methodology

The draft framework's components were refined through a series of consultations with working group members and key stakeholders via presentations, focus groups and meetings. This feedback was then incorporated into the framework.

Focus groups of five to six participants were undertaken with frontline employees from units and brigades in the EMS to understand how D&I is understood and is linked to their day-to-day tasks. These interviews were analysed using a thematic analysis and mapped to task, using a similar method to that in phase one.

A scenario workshop (held in December 2018), was attended by twenty-one D&I practitioners from ten emergency management, community, research and D&I-related industry bodies and agencies.

The workshop aimed to understand:

- The attributes, skills and capabilities needed to support D&I practice and implementation of activities.
- How these might change in the future.
- How D&I related to current tasks at the service delivery level.

Participants went through a structured process using three scenarios representing D&I 'shocks':

- Scenario 1 involved a large influx of climate refugees from different cultures into a high-risk environment.
- Scenario 2 outlined a social media storm due to a lack of cultural awareness in a local brigade.
- Scenario 3 posed a policy reversal on D&I that required a sector-wide response in relation to the benefits.

Participants were asked to propose interventions, list their benefits, and prioritise the most important attributes, capabilities and skills needed to support those interventions. This was analysed using thematic and basic statistical analysis. The risks were combined with those elicited during phase one. Because the shocks were large enough to affect the sustainability of any organisation, when analysing the outputs from the workshop, to get a deeper understanding of the



many possible impacts, we applied the five capitals of the sustainable livelihoods framework (social, human, financial, built, natural; DFID 1999). These are used to identify tangible and intangible economic impacts and vulnerability in social-ecological systems affected by complex and systemic risks. They have previously been used for mapping the economic impacts of extreme events (Jones et al, 2013), in allocating risk ownership due to complex risks (Young et al, 2017c) and vulnerability to climate change of the rural sector (Nelson et al, 2010).

RESEARCH FINDINGS

The areas of capital identified as being most at risk in the D&I context were human and social:

- Human capital is ‘... the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic wellbeing’ (OECD, 2016, p29). This includes employees, volunteers, and being able to draw on human capital in the community.
- Social capital is pivotal to social cohesion and equity. Effective relationships are generated by interactions between different networks and groups within and between organisations and communities. Social capital is critical for the delivery of effective services and organisational development.

Types of risks include external and internal, chronic and acute, direct and indirect, often producing compound risks that can have lasting effects. These can result in substantial costs to organisations and communities, reducing their ability to prepare and recover from natural hazard events.

Managing these risks is consistent with the overall definition of risk in the ISO Risk Management Standard 31000:2018, being ‘the effect of uncertainty on objectives’ (ISO, 2018), where positive and negative outcomes are considered. This allows risks associated with achieving positive outcomes, such as successful innovation, to be considered alongside those associated with D&I shocks and natural hazard risk. The major areas of risk identified are listed in Table 3.

This was a major turning point in the project because it provided a focus for the different approaches being brought together in the framework. The main role of the EMS is risk management of emergencies, and they are tasked with covering the whole PRR spectrum, which expands their focus from tactical to cover strategic risk. Risk management provides the foundation principle for embedding D&I into organisational structures and a rationale for how and why it is core business for EMOs. Its practice links the overarching strategic landscape to on-ground activities and day-to-day tasks.

The identification of the risks that need to be managed also allows for the identification and planning of current and future workforce capabilities needed to build and manage the implementation and management of D&I across organisations. The inclusive growth area provides key activities needed to support implementation. A matrix was developed that mapped risks, key tasks and attributes, capabilities and skills as part of a risk management process.



Although there is a general literature on the business case for D&I (Thomas, 1990; Herring, 2009; Singal, 2014), van Dijk et al. (2012) critiqued both the business and moral cases for diversity, saying that business utility and doing the right thing were incompatible, instead proposing a values and virtues approach based on virtue ethics. This is broadly the approach we take and aligns with the EMS context, which aims to achieve public good outcomes in a cost-effective manner. Risk management is capable of incorporating tangible and intangible values in expanded business cases for implementing D&I in the EMS.

TABLE 3: D&I-RELATED RISK CATEGORIES, WHETHER THEY ARE DIRECT OR INDIRECT, THE MAJOR CAPITALS AT RISK AND RISK EXAMPLES (YOUNG AND JONES, 2019)

Risk category	Impact type	Primary capital at risk	Risk example
OHS	Direct	Human	Decreased wellbeing of workforce due to lack of inclusion
Reputational	Indirect	Social	Poor public perception of organisation, loss of social licence with community
Operational (service delivery)	Direct	Human	Reduced service and response capability
Regulatory and Legal	Direct and indirect	Human	Legal action for discrimination
Innovation	Direct	Human	Reputational damage and disengagement due to perverse outcomes
Programmatic risk (D&I program implementation)	Direct	Social	Inability to fulfil future community needs due resistance to programs
Strategic	Direct	Human	Inability to transform and secure organisational sustainability due to lack of strategic vision
Political	Direct and indirect	Social	Disruption of D&I programs and strategies due to changing political agenda
Social (community livelihoods)	Indirect	Social	Reduction in community safety and increased vulnerability in diverse cohorts
Economic	Indirect	Financial	Unforeseen liabilities from D&I failure (e.g., increased costs of insurance premiums due to discrimination claims)
Cultural	Indirect	Social	Breakage of trust, cultural values at risk
Environmental	Indirect	Natural	Increase in community risk due to loss and degraded natural environment

The following conclusions were developed regarding the current status of D&I risk and possible future directions (Young and Jones, 2019):

- **The core purpose of D&I practice is to mitigate the associated human, social and innovation risks with practice and emergency management generally.** This includes essential functions such as the provision of a safe workplace, in developing effective diversity and having a safe and secure workforce and community safety. This provides the business imperative for organisations to undertake such work.
- **Risks associated with D&I are not new, but are generally and informally unrecognised.** This is a contributing factor to skills and capabilities



associated with D&I practice being less valued and rewarded in EMOs than the more established and accepted risks.

- **D&I risks associated with D&I were found to negatively impact EMOs' ability to perform their functions effectively if left unmanaged.** The primary points of origin for these risks were:
 - from within a community
 - from within an organisation
 - between an organisation and the community
 - from an external influence, such as government.
- **Established risk management and planning frameworks and processes can be adapted in order to embed D&I practice** within organisations and link it to day-to-day tasks.
- Development of attributes, skills and capabilities can be undertaken as part of **short- and long-term (strategic) planning processes.**

PHASE THREE: FINALISING THE FRAMEWORK AND SYNTHESIS

This phase evaluated and consolidated key findings from the research, and synthesised the elements into the final framework. Guidance for practitioners and case studies were also prepared.

Methodology

The framework was adjusted in response to feedback from policy makers and practitioners, integrating the various mapping exercises and key findings collected over the course of the project. Fifteen case studies of best practice were developed from semi-structured interviews with program leaders whose programs had been identified as illustrating key processes, achievements or insights. These were collated and analysed for key themes and lessons learned, and triangulated with previous findings from phases one and two to support the framework.

Guidance support materials in relation to building inclusive relationships with CALD communities and young people were developed using previous findings, and current literature and publicly available resources.

THE FINALISED FRAMEWORK

A primary goal of the project was to build a framework that could be used by practitioners to plan, implement and measure effective D&I in EMOs. It needed to be flexible enough to aid decision making in a range of different contexts, and to be useful in full or in parts, depending on the situation an organisation may encounter. Its basic structure is shown in Figure 3. The strategic and programmatic processes are supported by guidance that outlines the key phases and question-focused considerations for practitioners. It contains four key components needed to support development and implementation of D&I in organisations. It contains four elements:

- Strategic – transformational change.
- Programmatic – continuous improvement.
- Inclusive growth – bottom-up engagement.
- The management of human and social risk.

Each area is associated with a process (presented in phase three). Two areas – the strategic process of transformation and programmatic continuous improvement – were subject to extensive review by practitioners and policy makers to ensure robustness and useability of the framework components.



FIGURE 3: KEY AREAS OF PRACTICE FOR THE D&I FRAMEWORK (YOUNG AND JONES, 2019)

Programmatic continuous improvement

The strategic change process is summarised above. The continuous improvement process sits within the strategic change process, as a cycle that supports implementation of activities, programs and projects (Young and Jones, 2019). It continues until the desired changed state is achieved. It is iterative and reflexive, involving ongoing monitoring, measurement and improvement. Key questions that help practitioners are provided for each phase to assist practitioners to navigate the process.

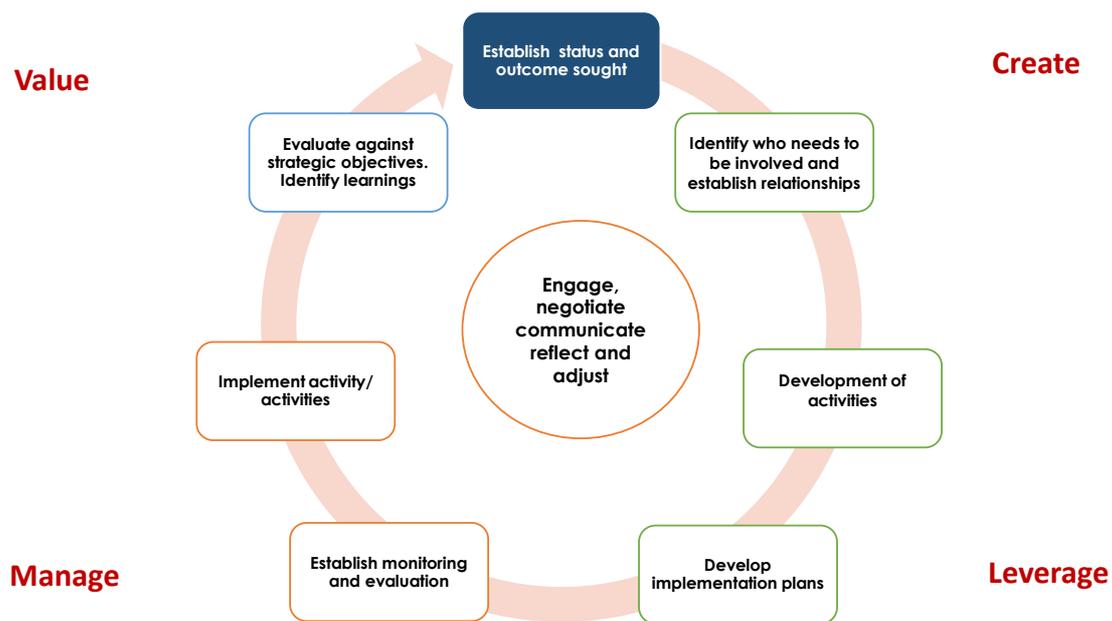


FIGURE 4: THE PROGRAMMATIC CONTINUOUS IMPROVEMENT PROCESS (YOUNG AND JONES, 2019)

Four additional activities are necessary throughout this process; create, leverage, manage and value (Wheeler, 2010, p82) for integration into organisational systems and culture. These are critical to ensuring that emerging D&I needs are identified and addressed, and become part of organisational frameworks and everyday work practice.

Questions that support these activities are:

- What needs to be created (culture, structures, systems, processes, communication), why does it need to be created, and how can it be created?
- What is valued, what needs to be valued, and how does it need to be valued?
- What new learnings need to be integrated, and where can it be integrated into current systems and practice?
- What can be leveraged in our organisation, and how can it be leveraged to support implementation?

Bottom-up inclusive growth

Bottom-up inclusive growth builds on a socialised understanding of a strategic vision and planned activities, as teams become more diverse and learn how to work together more productively. It includes the key activity areas of:

- Connect and understand.
- Develop trusted relationships.
- Collaborate and empower actions.
- Celebrate and share.

Managing D&I risk

A framework for embedding D&I throughout organisations using risk management as an organising principle is also provided. Four areas of activity that support integration are illustrated in Figure 5:

- Risk ownership – taking responsibility and carriage of D&I.
- Risk literacy – an awareness of the different areas of risk where D&I is a factor.
- Capability and capacity – ensuring that these are present in the workforce and supported by strategy and resources.
- Systems and structure – ensuring the physical, cultural, social and organisational structures are in place to support D&I and its implementation.

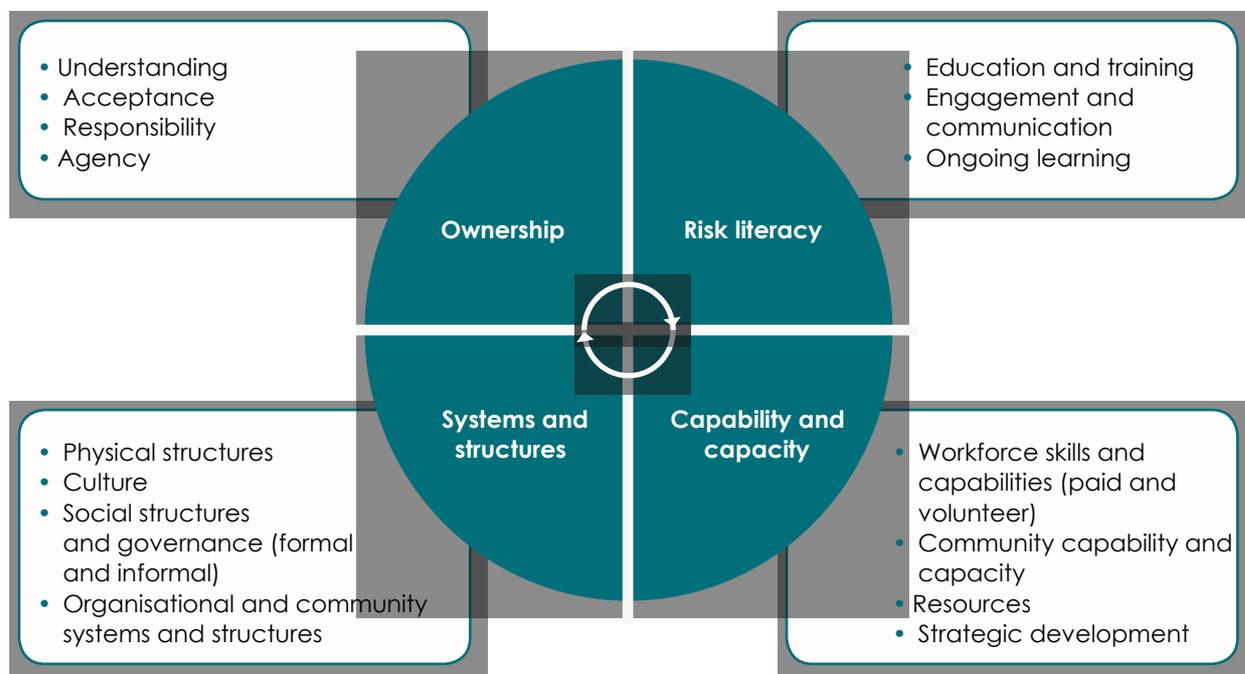


FIGURE 5: KEY ACTIVITIES THAT SUPPORT EMBEDDING DIVERSITY AND INCLUSION RISK INTO EXISTING SYSTEMS (YOUNG AND JONES, 2019)

The framework also includes the concept of statements of inclusion, where those who need to be included determine the terms of their inclusion, enabling them to negotiate from a position of empowerment within the broader inclusion process. It also contains resources and tools such as basic guidance on measurement and a maturity matrix.

KEY FINDINGS

Considerable progress has been made over the last three years to better understand D&I practice. While most organisations have people with expertise, few are utilising that in organisation-wide strategies, or formally recognising and rewarding it in a meaningful way. This also means that skills and capabilities elsewhere in organisations are being underutilised. To support resilience-building and enhance service delivery, a more comprehensive approach is needed.



Management of D&I occurs at all levels of an organisation – from upper-level leadership to frontline workers – and has both short-term and strategic applications. It is systemic and is applied at an institutional, organisational and individual level. It has two major goals:

- To manage and mitigate human, social and innovation risk associated with increasing or decreasing diversity.
- Harnessing the skills, attributes and capabilities of effective D&I within EMOs and in partnership with the community to increase service delivery, resilience, and community safety and security.

These goals also contain the following aspects:

- D&I is an imperative for all EMOs if they are to mitigate and manage the human and social risk associated with the changing risk landscape organisations and communities increasingly occupy.
- D&I provides a tangible way to build robust and resilient social infrastructure in communities and organisations prior to events or implementation of activities. Communities with stronger bonds and networks can undertake more effective disaster planning and preparation.
- The social and human risks associated with D&I have, for the most part, been seen as secondary to more technical and tangible risks, and their value is not well understood.
- Effective D&I is not a fixed-point destination to arrive at. It is a series of objectives that organisations and communities work through as they move towards the desired inclusive outcome. The dynamic nature of systemic change means that long-term goals are likely to be redefined with new information. It is a long-term undertaking.
- The choice to be inclusive happens at the individual level, but the development of this more broadly requires the organisational and institutional structures that support the development of inclusive cultures and practice to support them.
- Organisations need an authorising environment and a mandate to operate if programs are to be effective.
- Change needs to occur at institutional, structural and individual level, and developing an inclusive organisational culture is critical to this.
- Inclusion is not about being permissive. It is about understanding the formation of new boundaries and who should decide those boundaries. The diversity conversation is also not one conversation. It is about many different voices negotiating a collaborative outcome.

Common features found to support effective programs include:

- Ensuring there are safe spaces where difference is welcomed and accepted, and where the terms of inclusion can be negotiated and concerns can be addressed.



- Ensuring that people who are undertaking and leading activities have the appropriate skills and knowledge to manage proactively and effectively.
- Looking beyond the organisation itself and understanding where the interactions between the community, EMOs and other institutions (such as government), need to be managed and who needs to manage these.
- Upper-level advocacy support and commitment to the D&I agenda over the longer term.
- A pragmatic and flexible approach where organisational champions and leaders are able to respond to, capitalise on, and leverage opportunities as they arise.
- The development of individual and collaborative narratives that take the conversation ‘beyond the numbers and quotas’ to tell stories that connect people to each other, and humanise risk so that it is understood and valued.



COMMUNITY RESEARCH STREAM SUMMARY

The community research stream concentrated on relationship building between EMOs and communities as a key focus of D&I strategies. It was carried out in two phases:

1. Phase one focused on case studies in three locations – Bordertown (South Australia), Bendigo (Victoria) and Parramatta (NSW) and conducted a community values survey.
2. Phase two undertook two case studies – one of the Karen community in Bendigo, and the other of young people 20–25 years in age.

EMOs are working with communities that are becoming increasingly diverse. Community diversity presents new challenges; for example, understanding and addressing the risk literacy of different groups and their varying skills, attitudes and capabilities. Most community-oriented research has focused on investigating the openness of EMOs to understand and work with communities, and strategies addressing community diversity are less well developed.

How aware diverse communities are of Australia's natural hazard risks and the roles they could play in managing those risks is not well understood. This theme explored this issue by investigating the experiences and understandings of diverse communities through case studies and survey.

PHASE ONE

Phase one focused on case studies in three locations – Bordertown (South Australia, rural), Bendigo (Victoria, regional) and Parramatta (NSW, urban).

METHODOLOGY

A case study approach was employed to gain a multifaceted understanding of the subject's context, as well as to generate insights to inform responses to similar events at other locations (Flyvbjerg, 2006). A detailed literature review was also conducted.

Twenty-five interviews were conducted with eight to ten people in each location. Participants were selected for their knowledge of the community, and their demographic, political, social and economic dynamics. Participants included principals, local government officers and councillors, managers of settlement services, employers and employer and community leaders, human services professionals, and non-government organisations (NGOs) engaged in advocacy and service provision for particular groups (such as CALD communities, Aboriginal and Torres Strait Islander people, and disability services). Employer representatives were all long-term residents, and were engaged in community organisations and through familial networks.

Interviewees were asked a series of open-ended questions related to community background and characteristics, community aspirations and needs, levels of inclusion/exclusion, vulnerability to risk, and perceptions of and potential for engagement with the EMS. The selection of interviewees was initially guided by relevant EMS stakeholders, and snowballed by asking each interviewee to



identify relevant representatives who could inform the study. Interview transcripts were analysed using the qualitative data analysis computer software Nvivo 1, and coded and analysed to identify themes related to the study objectives.

The community values survey polled 539 community members from South Australia, Queensland, Victoria and New South Wales, sourced through an independent community survey panel. The key purpose was to ascertain values and attitudes in relation to the EMOs. The survey used Schwartz's (2012) measurement of values, which is comprised of ten different values based around four key areas – openness to change, self-transcendence, conservation and self-enhancement. Questions from the Schwartz values study were amalgamated with the World Values Survey 2014 (Inglehart et al, 2014). The demographic varied across age, gender and cultural spectrums.

The findings from these case studies are presented in the report *Building capability in emergency services: diversity and inclusion in communities* (Pyke, 2018a), and a values and attitudes survey titled *Survey of community values* (Cormick, 2018).

FINDINGS FROM COMMUNITY CASE STUDIES

The key findings from the community case studies conducted by Pyke (2018a) were:

Communities are changing. Each of the case study areas was impacted by global trends including economic transformation, increasing population and greater population mobility, diversity and settlement patterns. Social inequality continues to widen, and systemic disadvantage faced by groups within the community remains entrenched. The impacts of these changes have major implications for social inclusion and cohesion. One is that the risk and resilience profile of communities is changing and increasingly diverse.

Perceptions of EMOs. As the diversity of communities increases, so too does the diversity of perceptions of the role of EMOs. For those who are established and have generational connections within communities, EMOs are seen as part of the fabric of the community infrastructure and are highly regarded or taken for granted. For others, particularly newly arrived communities, EMS operations may be unknown or an object of fear. While some EMOs are seen to be increasingly inclusive of women, others are seen to be hostile and intimidating. People who identify with a disability also believe that there are few opportunities for participation. CALD communities report feeling misunderstood, and that there is little appreciation of diverse languages, cultures and practices. A wide perception is that EMOs are a 'closed shop' with few opportunities for engagement.

Barriers to community inclusion. Participants identified multiple barriers to community engagement. One theme was the perception that EMOs have limited understanding or awareness of the cultures, practices and experiences of newly-arrived communities, creating a disconnection between them EMOs and these communities. The perceived projection of a 'heroic' and predominantly male image is particularly intimidating for women and those from culturally diverse backgrounds. Ineffective communications by EMOs is a



related barrier, particularly for humanitarian entrants who bring diverse forms of language and literacy, as well as utilise diverse modes of communication.

Place-based services may become less effective as greater mobility within communities diminishes the importance of physical space and virtual, diasporic or identity networks become a more important source of community and belonging. Community organisations also struggle for resources in the context of competitive funding and continuous changes to social policy and funding arrangements. Community capacity to engage with the EMS on an ongoing basis is therefore tenuous.

Examples of community inclusion. Examples of community inclusion included: the participation of the EMS in migrant settlement services was regarded as an important activity designed to increase awareness of new arrivals of local risks, risk management and response; collaborative project development between the EMS and community agencies was seen as effective in combining the EMS and community expertise with the outcome of minimising risk to community members; proactive efforts by the EMS to encourage the participation of women and people from CALD backgrounds had reaped results in some areas; and the appointment of community liaison officers to engage between communities and the EMS greatly facilitated communications between communities and EMS agencies. Overall, those strategies that were based on long-term relationship building, mutual understanding and combined expertise, were regarded as the most sustainable and productive.

Opportunities for inclusion. A number of general and specific opportunities for greater inclusion were highlighted. The visible representation of women and men from diverse backgrounds was important to shift the image of the EMS and provide aspirational role models for young people. The development of targets, whereby diverse community members are supported over the long-term to enter career path positions within the EMS. Expanding the modes and means of communication channels to diverse communities was also suggested, as was the need to more clearly articulate the possibilities for employment and engagement by all community members. More broadly, the need for closer understanding and connections between the EMS and community sectors was emphasised.

Communities welcome EMS engagement. While the perceived relevance of the EMS and community inclusion varied throughout the case studies, overall, there was an expressed willingness to support and facilitate closer community/EMS operations. This was particularly emphasised by the relatively vulnerable, such as humanitarian entrants, Aboriginal and Torres Strait Islander people and people who identify with a disability, where social inclusion across all aspects of community life is a major priority. Greater engagement was seen as important for managing stretched resources and increasing demands on those resources, not only to improve the safety and opportunities of community members, but also to improve the effectiveness of the EMS by harnessing the skills and knowledge embedded within diverse communities.



COMMUNITY VALUES AND ATTITUDE SURVEY

The survey data provided a baseline for the range of values across diverse communities (Cormick, 2018). Key findings were:

- Twenty-four percent of survey respondents spoke a language other than English at home. Twenty-seven different languages were cited as being used, with the three most common being Chinese, Hindi and Italian.
- Trust in the emergency services and emergency personnel is high, with ambulance 90%, fire fighters 75% and police 65%.
- A percentage of some responses indicated some strongly ingrained gender stereotypes that exist amongst men and women. Further research is needed to understand their origin, who holds these, and whether they are a barrier to greater inclusion.
- Findings from younger people did not reveal vast differences between general community values across the study, indicating that studying the nuances in responses will be important, and relying on over-simplified stereotypes of 'millennials' may be misleading and unreliable.
- Perceptions of risk were highest for terrorist attack, compared to other risks (losing a job, war, children's education and government spying on citizens). This indicates that perceptions of risk compared with their known likelihood and severity may be uneven throughout the community. The risks surveyed did not include climate change or other emerging risks.
- Just over 50% of respondents believed their community faces 'some' to 'a lot' of risk from natural disasters, but 85% considered they would be able to recover.

How the community viewed emergency services workers and their expectations of skills needed at different times relating to an emergency, was of significant interest.

Comparing this baseline of community values with those of EMOs and their staff may help discern whether there are any differences of attitudes and perceptions of diversity, and the values that motivate decision making between EMOs and the wider community (Young et al., 2018c).

PHASE TWO AND THREE

The project reference group determined that the phase two case studies should build on the phase one community work and other project findings (Cormick, 2018; Pyke, 2018a; Young et al., 2018b; Young and Jones, 2019). The case studies were identified for their diversity and neither had a strong affiliation with the EMS. A targeted approach to recruitment and data collection was developed for each case study that acknowledged the complex nature of diversity.

METHODOLOGY

The first case study involved fifteen face-to-face interviews of 30–45 minutes with members of the Karen community (newly arrived humanitarian refugees), from



the Bendigo area. The Bendigo Community Health Services identified the participants and organised bilingual workers who translated the open-ended interview questions and responses with each participant. Eight identified as female and seven as male, were aged from eighteen to sixty-five, and arrived in Australia between 2005 and 2018. All had spent more than seven years in refugee camps prior to settling Australia. Four reported having no formal education, and four reported having attained a level equivalent to Year 4 in Australian primary schools.

The second case study was undertaken with young people aged 20–25 years from Victoria, Tasmania and New South Wales. The researcher's own networks were used to invite young people to participate, and a snowball effect determined the location and gender of participants. Eight face-to-face or telephone interviews of 30–45 minutes were conducted. Recruitment proved to be difficult, resulting in a gender imbalance, with six interviewees who identified as female and two as male. Seven were born in Australia and one in New Zealand. All had achieved a Year 12 level of education, with four pursuing, or had completed, tertiary study.

The interviews were audio recorded, and participants invited to describe their understanding of D&I including knowledge of the EMS and the role it plays in the community, the skills, attributes and capabilities that they would bring to building a relationship with the EMS; their work experience and level of education, demographic information, including age, gender, birthplace, and for the Karen case study, the date of their arrival in Australia and length of time spent in refugee camps.

The interviews were professionally transcribed and analysed concurrently for emerging themes, as well as for evidence of the attributes, skills and capabilities of the two communities. The disparate nature of the two case studies determined that there was a considerable level of divergence in the analysis and findings were specific to each group. The following themes were identified for both groups:

- Risk literacy
- Attributes, skills and capabilities
- Education and learning.

The sample size for both case studies was small and is acknowledged as a limitation of the research. However, the findings are presented as early investigation of these diverse communities and not as a representative sample of either.

Support materials for inclusive engagement with CALD communities and young people were developed as described on p33.

FINDINGS

- **Understanding Australia's natural hazard risks.** The research reveals how little some participants understand natural hazard risks and the role they could play in reducing the impact of future events. This was particularly evident within the Karen case study. Many participants had spent the majority of their



lives in refugee camps in Thailand, with their knowledge of Australia attained through initial settlement education. For young people, their life experiences contributed to their understanding of risk, with those growing up in regional or rural areas more aware of bushfire risk than those living in urban areas.

- **Culture and life experience.** Understanding the significance of culture and life experiences is vital, including an acknowledgement that culture, experience and understanding can be specific to a community or an individual's understanding of risk, the EMS, or the possibility of building relationships.
- **Community is not always place-based.** Social cohesion and a sense of belonging do not automatically denote connection to a place-based community. Within the EMS, the term 'community' is, by necessity, strongly defined by place and identity. However, a sense of community can be achieved through other means (e.g., online, school, work, common interest), and is not always bounded within a spatial context.
- **Language and communication.** This is vital to developing relationships and understanding. Language barriers extending beyond simple words and meaning can be significant, influencing the confidence of recent arrivals who may fear being perceived as incompetent. Determining appropriate ways of communicating with diverse communities is vital to understanding.
- **Barriers to understanding.** There are many barriers to understanding, so conveying a message or instruction should not be assumed as establishing a shared understanding.
- **Skills, attributes and capabilities.** These underpin the drive for new programs and policies to build resilience between the EMS and communities. The result is a strengths-based approach that understands communities bring relevant attributes, skills and capabilities to a working relationship. For some groups, the extent of these attributes, skills and capabilities will be considerable.
- **Strengths and deficit factors.** Measuring the attributes, skills and capabilities of a community requires a framework that is flexible enough to interpret the disparate skills of diverse groups. The final project framework should enable the EMS to identify relevant attributes, skills and capabilities from the lived experiences of diverse communities, as well as deficit factors.



ECONOMIC RESEARCH STREAM SUMMARY

The major economic objective was to assess the value of increasing the emergency management workforce diversity, traditionally recruited from a predominantly male and Anglo-Celtic background.

Case studies evaluated two training programs that sought to improve the diversity of their organisation's workforces from two perspectives: (1) the Fire and Rescue NSW Indigenous Fire and Rescue Employment Strategy (IFARES), which recruited people from Aboriginal and Torres Strait Islander backgrounds; and (2) Life Saving Victoria (LSV) training lifesavers from CALD communities.

METHODOLOGY

A literature review of the economics of diversity, EMOs and their workforces was conducted, and data collected from the agencies involved in the case studies. The review covered the three organisations assessed in the organisational stream (FRNSW, QFES and SASES) and the broader literature.

A cost-benefit analysis framework was used to compare costs of the training programs, where the benefits included the lifetime benefits of more secure employment, higher earnings and improved health due to the fitness standards required of the occupations. For the first case study, additional benefits were compared with health and employment outcomes for Indigenous people using comprehensive studies on population health. The cost estimates are based on data provided by FRNSW. Data on the intangible benefits of the program are gleaned from a number of other sources, such as interviews with people involved with the program and media reports.

Reliable cost-benefit analysis requires comprehensive data about the specific program being investigated and also data from a group of non-participants of similar make-up (a control group). This data was available for Aboriginal and Torres Strait Islander communities but not for the CALD communities in the second case study.

IFARES CASE STUDY

IFARES was initiated in 2013 by FRNSW to help break down longstanding barriers to Indigenous recruitment to the fire services. It was also seen as a way of promoting greater engagement with Indigenous communities, improving fire safety within these communities, and learning from traditional knowledge about fire management. Overall, 49 participants have been employed from the program as firefighters, and one in administration.

The tangible and intangible benefits of the program considered the reduced unemployment benefits arising from the program, working-life returns after leaving the program, health benefits to the recruited firefighters, and the community health benefits that graduates brought to their communities by increasing their awareness of health issues and making healthier choices. The benefit-cost ratio was calculated by dividing total benefits by the program costs. The total benefits of the program were approximately \$8 million, yielding a benefit-cost ratio of \$20.00 for every dollar invested in the program.



Evidence was also presented that the recruits worked more effectively with members of their own community, improving community trust and safety. For IFARES, these benefits were estimated to be many times the relatively modest costs of a 6–12 month training program.

KEY FINDINGS

The literature review assessed the economic support for the argument that the extensive changes in the demographic and social characteristics of the community should be reflected in the workforces of EMOs, finding that it would improve the effectiveness of the services provided in various ways (Rasmussen and Maharaj, 2018).

Communities and particular demographic groups (who tended to experience more communication difficulties), are more vulnerable to emergency events (Productivity Commission, 2016). To serve these communities better, EMOs needed to broaden their capabilities. While increasingly diverse organisations require more active management (Sabharwal, 2014; Hur, 2013; Kramar, 2008), they tend to be more energetic, innovative and successful in meeting the requirements of their customers (Singal, 2014).

The difficulty the project had in obtaining reliable data for the measurement of benefits has been noted more widely. According to the Productivity Commission (2020), obtaining the data and other information necessary to measure the complex interaction between increasing workforce diversity and improved outcomes is not available for EMOs. Given the current state of existing data, it was not clear how this could be related to improved productivity (Productivity Commission, 2020).

Case study 2 that examined the benefits of lifesaving and water safety programs for CALD communities (particularly groups of African migrants), had the same issue. While anecdotal evidence was available for improvements in skill, numbers attending, and subsequent paid and volunteer employment, a lack of control data on the relevant CALD communities prevented any benefits being quantified.

When this is extended to the benefits of improved outcomes in terms of community safety, and improved resilience and recovery after events, quantifying these benefits is extremely difficult. As risks, populations and their exposure are all changing, and there is no stationary baseline against which to measure benefits, making analysis difficult but not impossible.

This points to the importance of measurement being designed into strategies and programs from the outset, and therefore, this is an important part of the final D&I framework. In the design of monitoring programs, it is important to measure benefits and costs and ensure that the appropriate controls are in place. The optimum strategy would be to gather specific data appropriate for in-depth case studies, and more general longitudinal data that can be used to measure change over time.



SUMMARY

This project has examined D&I practice, its strengths and capabilities and how it operates in the EMS by looking through economic, community and organisational lenses.

The final output of the project is the decision-making framework, which has been developed to support better management and measurement of D&I. Our aim was to identify the major drivers and areas of decision making for D&I, and build the framework around those, tailoring it for the organisational context of EMOs and the surrounding environment they operate in. The desired outcome of the project for EMOs is that this framework will improve D&I practice throughout the EMS. How this is achieved and its level of success will need to be assessed over the longer term.

The D&I context is multilayered, where the different parts in the system interact and inform each other. Progress is not a predetermined pathway, but one that must be continuously assessed, adjusted and negotiated. Outcomes are highly uncertain, and require continuous learning and consistency of commitment over the longer term.

There is great potential to further identify and capitalise on the existing capabilities and skills within the community and EMOs. However, substantial work is needed to more deeply understand these capabilities, who possesses them, and where they can be best applied.

Practice and overall understanding have increased during this study due to its industry-wide focus. However, considerable work is still needed to build the social, economic, institutional and organisational structures that will fully enable diversity to realise its full potential and inclusive practice to flourish. Measurement is one area where substantial improvement is needed.

The development of the framework has been a journey of discovery. It has not only clearly revealed why D&I is core business for EMOs, but also the vital role it plays in ensuring community and organisational wellbeing, safety and resilience building. D&I have been seen as add-ons to the main purpose of emergency services, but this narrative is starting to change. The perception as to how it influences organisations and their activities through risk is also changing.

The D&I framework for policy makers and practitioners provides a way of understanding and organising this complex area of practice, and is informed by the deep and diverse knowledge of those within the industry. Its development marks the end point for the project and starting point of the future pathway for those who are striving to create more diverse and inclusive organisations throughout the EMS.



KEY MILESTONES

This project has had some slippage in its final stages due to the unprecedented fires on the east coast of Australia in 2019/2020 and the COVID-19 pandemic. As a result, we amended the delivery of our final outputs. All deliverables have now been completed (Table 4).

TABLE 4: DELIVERABLES SCHEDULE

Milestone	Deliverable	Status
1.1.1	Complete values and attitudes survey development	Completed
1.1.2	Poster for BNHCRC conference	Completed
1.1.3	Quarterly reporting	Completed
1.2.1	Complete diversity maps (community)	Completed
1.2.2	Complete values and attitudes surveys	Completed
1.2.4	Quarterly reporting	Completed
1.3.1	Complete initial economic, organisational and community assessment	Completed
1.3.2	Deliver draft reports organisational, economic and community assessments	Completed
1.3.3	Quarterly reporting	Completed
1.4.1	Deliver final report organisational, economic, community assessments	Completed
1.4.2	Complete review of phase 1	Completed
1.4.3	Quarterly reporting	Completed
2.2.1	Delivery of workshops completed (U 2.2.11)	Completed
2.2.2	Draft workshop summary report	Completed
2.3.1	Delivery final workshop summary research report	Completed
2.4.1	Delivery of draft framework	Completed
2.4.2	Research review phase 2	Completed
2.4.3	Quarterly reporting, annual report, self-assessment matrix	Completed
3.1.1	Poster for BNHCRC conference	Completed
3.1.2	Quarterly reporting	Completed
3.2.1	Complete testing components of framework, adjust and amend framework document	Completed
3.2.2	Quarterly reporting	Completed
3.3.1	Deliver final framework	Completed
3.3.2	Deliver policy brief	Completed
3.3.3	Deliver draft research report (to contain a summary of synergies between volunteer and diversity project)	Completed
3.3.4	Quarterly reporting	Completed
3.4.2	Deliver final research report (to contain a summary of synergies between volunteer and diversity project)	Completed
3.3.5	Quarterly reporting, annual report, self-assessment matrix	Completed
3.4.1	Deliver professional development workshop	Completed
3.4.3	Quarterly reporting, final report, self-assessment matrix	Completed



UTILISATION AND IMPACT

As the project has evolved, we have multiple outputs that have resulted in utilisation and cumulative impact during each phase of the research. In relation to utilisation and impact, we provide evidence of the different phases and the cumulative effect below. Due to the project having just been finalised, the impacts and use of the framework and practitioner support tools cannot yet be ascertained, but the research team will continue to monitor their use. From previous projects we know that impact and usage builds over time, and that the initial impact is not always the largest or the most influential.

USE AND IMPACT OF PHASE ONE

- Individual case study assessments used by the organisations circulated internally and reported as being used as a tool for discussion upon and determining possible actions (reported in stakeholder meetings and documented in meeting notes August 2018).
- Literature review circulated through Executive Team at QFES (personal email correspondence QFES representative September 2018).
- An internal document for AFAC Male Champions of Change was produced, which integrates key concepts, findings and models from the 'Risky business' and 'The long road' reports, and mapped aspects of the work into the AFAC framework that was presented to the Male Champions of Change in 2019 (AFAC website and reported by an Emergency Management Victoria [EMV] end-user who presented the paper, and also documented in meeting notes).
- Research diagrams and key findings from all reports presented in numerous public and conference presentations and posters (see presentations and posters, p61–62).
- Reports shared on ResearchGate (Table 5, p52) and the literature review have had 2,927 views since they were uploaded in July 2018.
- Findings from the research published in the *Australian Journal of Emergency Management* (AJEM; see publications, p47).
- Article in *Fire Australia* and also published as a BNHCRC Hazard Note.

USE AND IMPACT OF PHASE TWO

- The Cumbria Fire and Rescue examined the mapping of D&I risk and capability into the risk process in the 'Risky Business' report for applicability (email correspondence with Cumbria Fire and Rescue, September 2019).
- Risk and assessment criteria applied to work undertaken for the public transport sector (Young and Parry, 2020). *Reimagining the workforce: organisational context assessment of inclusion and innovation in the Victorian rolling stock sector* (With contributions from Heenetigala, K., Rail Manufacturing Cooperative Research Centre, Melbourne).



- The criteria for capability were applied to *Building resilience: understanding the capabilities of diverse communities* (cited).
- Key concepts of 'Risky Business' report have been integrated and used in the NSW Public Sector Capability Framework document (private correspondence with NSW Resilience Agency representative, August 2020).
- The role of inclusion in managing human and social risk from the 'Risky Business' report have been reported as useful and useable by our stakeholders and some of them are reporting using this within their organisations (Project Meeting Notes from Second Phase Review, August 2019).
- An internal document for AFAC Male Champions of Change that has been presented to them and has been produced, integrates key concepts, findings and models from the 'Risky Business' and 'Long Road' reports, and into key findings of the AFAC framework that was presented to the Male Champions of Change (AFAC website)
- Use of scenarios contained in the report used by EMV to support discussions and planning (Project Meeting Notes from Second Phase Review, August 2019).
- Use of the 'Shaping the New Norm' report to leverage and build awareness of the importance of D&I, and also to articulate the value of the Wafa network (see p10 for testimonial).
- The economic assessment of the IFARES Program report has been used by FRNSW to support further development of the program for another cultural cohort (private communication with FRNSW end-user, August 2020).

USE AND IMPACT OF PHASE THREE

It is not possible to determine the use or impact of these support documents as the majority were in the process of being released at the time of writing. However, the following was reported in the final meeting held in October 2020 for the project and documented in the meeting notes:

- Addition of D&I risk into risk registers (QFES).
- Commitment to testing the framework with the D&I team (CFRS, UK).
- Research to be discussed and circulated through diversity network by Kelly Martin USA (the Women in Fire Training Exchange (WTREX)).

We understand that aspects from the framework are being used, as we have been testing them through phase two. Specific impacts during this phase are as follows:

- The VU research unit was awarded a contract by the Victorian Government based on the quality of work developed for the BNHCRC.
- The strategic process of change developed for the draft framework contained in 'The Long Road' report (Young et al, 2018b) was included in



presentations for Victoria's Lead Scientist, and also used in an industry workshop as part of the above study.

- Components of the framework included in a policy brief (see Hazard Notes and policy papers, p60).
- **The organisational assessment methodology developed in phase one was adapted and applied in a Victorian State Government Study.** The VU team have also been awarded an internal Planetary Health Grant by VU and additional funding from the BNHCRC to undertake a study to examine the recovery capabilities of diverse Gippsland communities following the recent bushfires in that region – building on the previous work undertaken with this project (documented <https://www.vu.edu.au/planetary-health/projects-programs/research-with-impact/changing-environments>).

Potential use of the framework and support documents is to inform practice as reference material by policy makers and D&I practitioners in EMOs and throughout the EMS.

THE CUMULATIVE IMPACT OF THE PROJECT TO DATE

This project has had cumulative impact due to the process taken. A major impact reported by end-users has been to change the narrative from one about 'men and women' and 'the right thing to do to', to have D&I as a risk-based business imperative that requires inclusive practice to be effective. For our stakeholders, it has also provided a consolidation of practitioner knowledge that has been reported as useful, and assisted in practitioners being able to articulate and provide evidence of the value of the work they do. Research developed has also been used across a number of organisations and agencies in decision making, and to inform the development frameworks and programs.

It has broadened out the conversation and provided a national picture across the EMS. In particular, the need to humanise risk using D&I (Celeste Young, VU, Steve O'Malley, BRV and Janine Taylor QFES. Emergency Management Conference, October 2020, <https://youtu.be/T-h0Mi50tw>).

The collaborative process has also been raised as useful in supporting the development of practice and new insights throughout the duration of the project (documented in annual reviews, end-user testimonials, see p10–12). The participation of end-users as valued team members throughout the research has also been reported in the annual reviews as creating a better understanding of research and how it can be of use (see end-user statements and testimonials, p10–12).

It has also resulted in building research capability of members of the working group. Two stakeholders have undertaken research-focused activities with the support of the project and their organisations, with both stating that the project gave them the confidence to be able to do this. A FRNSW representative was awarded a Churchill Fellowship with the support of the project, and a QFES representative has commenced a masters degree focused on leadership.



It was not possible to ascertain the full social media impact from the project as we do not have access to the statistics where outputs are housed on external sites, such as PreventionWeb and the BNHCRC websites. However, Table 5 shows that the output that has had the largest impact is the *Diversity and inclusion building strength and capability literature review*, with 2,927 reads.

TABLE 5: SOCIAL MEDIA IMPACT FOR BNHCRC DIVERSITY AND INCLUSION PROJECT (October 31 2020)

Platform	Content	Impact
BNHCRC YouTube	Practitioner videos	
	Steve O'Malley (MFB)	151 views
	Colin Thomson (MFB)	98 views
	Janine Taylor (QFES)	118 views
	Malcolm Connellan (Ex NSWFRS)	41 views
	Diversity and inclusion: building strength and capacity research update	141 views
Podcasts	The story of UK's first female firefighter – failure wasn't an option for this trailblazer	124 listens
ResearchGate	Diversity and inclusion: building strength and capability literature review, report	2927 reads
	The long road: building effective diversity and inclusion in emergency management, report	658 reads
	Effective diversity in emergency management organisations: the long road, AJEM article	153 reads
	Shaping the new norm: WAFA Conference 2018 Evaluation and QFES Workshop Synthesis, WAFA	88 reads
	Risky business: why diversity and inclusion matter – into the future building skills and capabilities for diverse and inclusive workforce, report	211 reads
	Transforming through diversity and inclusion capability – the pathway to achieving diversity benefits, AJEM monograph series 2020	96 reads
LinkedIn	Transforming through diversity and inclusion capability – the pathway to achieving diversity benefits, AJEM monograph series 2020	229 views of post
	Building resilience: understanding the capabilities of diverse communities, report	656 views of post
	Risky business: why diversity and inclusion matter – into the future building skills and capabilities for diverse and inclusive workforce, report	561 views of post
	Shaping the new norm: WAFA Conference 2018 Evaluation and QFES Workshop Synthesis, WAFA	645 views of post



SUMMARY OF RESEARCH OUTPUTS

RESEARCH OUTPUTS FOR PHASE ONE

Diversity and inclusion: building strength and capability literature review
(Young, C., Pyke, J., Maharaj, N., Rasmussen, B. and Jones, R. N. 2018)

This literature review surveyed the theory and practice relevant to D&I in the EMS as a foundation for the research project, addressing D&I implementation as a systemic change issue. It is presented in three parts covering organisations, community and economics. Its aim was to identify key areas of literature for further investigation and to look for commonalities and differences across the three research themes to inform the project's direction. Each theme examines the changing social, environmental and economic drivers of change within the EMS with respect to D&I, the need to build resilience in response to these drivers and the emerging needs for EMOs, government and communities.

The long road: building effective diversity and inclusion in emergency management organisations. Case study synthesis and draft framework
(Young, C., Jones R N., and Kumnick, M. 2018)

This report provided an assessment of the current context in which D&I exist in three case study organisations in Australia (FRNSW, QFES and SASES) through identifying barriers, needs, challenges and opportunities. It synthesised the three individual case study interviews, website audits and literature reviews, presenting key themes along with identified needs, barriers, opportunities and benefits. The draft framework for effective management and measurement of D&I provides the foundation for further development of the decision-making framework to support practitioners and policy makers.

Survey of community values
(Cormick, C. 2018)

This study was undertaken to support better management and understanding of communities by emergency services workers in relation to natural disasters. The survey was designed to create better understanding of the diversity of community values that exist, to help them work more effectively, and better mirror the diversity of the communities in which they work. The online survey conducted included participants from Queensland, NSW, Victoria and South Australia, with a total sample size of 539.

Changing capabilities of emergency service organisations: case study summary
(Rasmussen, B. and Maharaj, N. 2018)

The purpose of this report was to focus on changing capabilities and tasks through a desktop review of strategic documents and annual reports of the case study organisations (QFES, FRNSW and SASES) to document their changing capabilities over the last decade. The aim was to identify the following:

- Intended changes in capabilities that respond to the changing context in which these organisations operate.



- Actual changes that have been described in annual reports.
- Changes in tasks and the way in which these are a response to the changing context.

Building capability in emergency services: diversity and inclusion in the community
(Pyke, J. 2018)

This report provides findings from three case studies to gain a multifaceted understanding of how specific communities viewed different aspects of D&I in the EMS. The three case studies, Bordertown (SA), Bendigo (Vic.) and Western Sydney (NSW), were considered typical of rural, regional and metropolitan locations. A detailed literature review informed the case studies, and secondary data from the Australian Bureau of Statistics and similar sources relevant to each area was also used.

Three organisational assessment reports (confidential) – QFES, FRNSW and SASES
(Young, C., and Jones, R N., Maharaj, N., Rasmussen, B. 2018)

These organisational assessments were undertaken to provide the basis for the organisational report. The individual reports provided a whole-of-organisation overview of areas of strength, barriers and opportunities related to D&I. This was assessed through semi-structured interviews, review of organisational documents and a visual audit of the organisations' websites. Due to the sensitive nature of these reports, they are confidential.

RESEARCH OUTPUTS PHASE TWO

The economic benefits of the Indigenous Fire and Rescue Employment Strategy (IFARES) program: Fire and Rescue New South Wales
(Rasmussen, B. and Maharaj, N. 2019)

This study details the costs and benefits (tangible and intangible) of the IFARES program. It provides an economic estimate of these by modelling different cost and benefit components. It found the total benefits of the program to be around \$8 million and estimates a benefit-cost ratio of 20, meaning that for every dollar invested in the program, the benefits to the community are approximately 20 times the amount invested. The intangible benefits are gleaned from multiple sources, such as interviews with people involved with the program and media reports. The estimates of costs are largely based on data provided by FRNSW.

Shaping the new norm, WAFA Conference 2018 evaluation and QFES workshop synthesis
(Young, C., Taylor, J. and Cramer, Q. 2019)

This report was undertaken to provide insights and outcomes in relation to aspects of the Women and Firefighting Australasia (WAFA) Conference, 'Looking Forward, Looking Backwards: Shaping the New Norm', in Wellington New Zealand 26–28 September 2018. It includes:

- A summary of responses from the online survey undertaken with participants who attended the conference.



- Synthesis of outputs from the QFES 'Diversity more than the eye can see: challenging how we look at diversity' workshop curated and facilitated by Janine Taylor, Quinn Cramer and Michelle Young.
- Reflections from board members who have been long-term members of WAFA as to the past, the present, and the future of WAFA.

Risky business: why diversity and inclusion matter. Into the future: building skills and capabilities for a diverse and inclusive workforce, workshop synthesis and key research findings
(Young, C. and Jones, R N. 2019)

This report summarises findings from a workshop held on 5 December 2018 at Victoria University. It introduces and describes D&I-related risks as they apply to EMOs, and links attributes, capabilities and skills to the management of these risks and day-to-day activities. It also examines how these might change in the future, and how they relate to current tasks at the service delivery level. The report provides some of the groundwork for understanding what these risks are and how they manifest in an organisational context. Its aim is to provide a starting point for EMOs to think about how to incorporate D&I risk more formally into their operational frameworks.

RESEARCH OUTPUTS FOR PHASE THREE

Diversity and inclusion framework for emergency management policy and practice
(Young, C. and Jones, R N. 2020)

This framework provides an overarching structure for decision makers and practitioners to more effectively manage and measure D&I practice within their organisations.

- The levels which D&I needs to be managed and measured – strategic, programmatic and bottom-up inclusive growth
- Overarching principles and processes
- Statements of inclusion as a tool to clarify and assist negotiations between diverse parties, including members of the community
- A process for integrating D&I through emergency management and organisational planning and risk frameworks, to support improved management of social, human and innovation risk
- Risk mapping to identify capability and skills needed to assist workforce planning.

Learning as we go: support for diversity and inclusion practitioners and decision makers
(Young, C., Cormick, C. and Jones R N. 2020)

As practice is complex, although having common principles that guide how it is enacted, effective application depends on a range of factors. 'What works for



one organisation will not necessarily work for another, and what works one year will not necessarily work the next' (Young et al, 2020a p6). This means that practice is determined by need, but shaped by specific context. As a result, practice is fluid and constantly evolving. This report provides fifteen summary case studies and a synthesis of management practices that have been identified during this research project to provide a point of reference for practitioners. It also provides key reference materials for practitioners.

Building resilience: understanding the capabilities of diverse communities (MacDonald, F. 2020)

This report describes from a community perspective, the role the community could play, its capabilities and readiness to work with the EMS to build resilience and be prepared for potential natural disasters. It focuses on two diverse communities – a CALD community and young people aged between 18–25.

Young people and the emergency services: working towards inclusive partnerships (MacDonald, F. 2020)

This resource summarises what is important to young people, their areas of interest, and motivation to engage in their community. It provides an overview of how to engage with this age group online. It also provides strategies for finding ways to work together, and the skills, attributes and capabilities young people bring to an organisation. The resource has a practical focus, and presents links to organisations that have developed effective strategies to engage young people. Links to existing resources with checklists and more information about how to work with young people in an organisation are also provided.

Building partnerships with culturally and linguistically diverse (CALD) communities (Ooi, D. 2020)

This guidance document aims to assist emergency services practitioners to build inclusive partnerships with CALD communities. It provides a summary of what is important for these partnerships and why they are important. It includes case studies and key considerations for practitioners wanting to engage with these communities.



CONCLUSION

This project started with the objective of addressing the following needs:

- The need to provide an evidence-based framework that would support improved measurement and management of D&I across the EMS.
- To change the existing narrative.
- To improve understanding of the value and benefits associated with D&I practice.
- To understand what is effective in relation to practice in this area.

Over the last three years, the project has been able to develop a foundation to assist the sector with these needs.

Overall, the research has contributed to progressing the agenda and the following has been observed and documented in relation to improved understanding in the following areas:

- What D&I practice is and its function in relation to EMOs' core activities.
- The value of and the challenges associated with valuing D&I.
- The critical role inclusion plays in management and mitigation of social and human risk.
- The long-term nature of implementation and key challenges associated with this.
- The capability, skills and needs that support practice and knowledge gaps in this area.
- Identification of the different levels at which D&I needs to be managed and measured.
- A potential pathway for integrating D&I practice through risk frameworks that link it to day-to-day tasks within EMOs.

This project has been able to achieve the outcomes it has due to the active engagement and participation of its end-users. Throughout this project, they have contributed directly to research outputs, and promoted understanding and use of outputs. It is also notable that the project has maintained a strong core of the same stakeholders throughout the three years' duration. The outputs provide an evidence base for practitioners to build upon as practice continues to evolve.

NEXT STEPS

Further research across all areas of the program have been identified, including:

- Further mapping of capabilities and skills in organisations and communities of diverse cohorts.
- Further development of economic models to support better valuation of benefits and return on investment of programs to support business case development.



- Further assessment within organisations in relation to effective measurements, particularly in relation to inclusion.

In terms of utilisation there is the potential for the following:

- To work with the participating organisations to support further understanding, uptake and use of aspects of the framework by practitioners.
- To use the economic work to develop a specific model for nominated diverse groups to support more accurate valuing of the costs and benefits associated with D&I programs and risks.
- To further develop inclusion indicators in collaboration with D&I practitioners.



PUBLICATIONS LIST

PEER-REVIEWED JOURNAL ARTICLES

2019

- Young, C. and Jones, R N. (2019). Effective diversity in emergency management organisations: the long road, *Australian Journal of Emergency Management*, 34, 38–45.

EXTENDED ABSTRACTS

2019

- Young, C. (2019). *Transforming through diversity and inclusion capability: the pathway to achieving diversity benefits*. Abstract of presentation to AFAC19, Melbourne, 27–30 August.

2018

- Young, C. (2018). *Working from the inside out to improve utilisation of research in decision making*. Proceedings of the CRC and AFAC Conference, Perth, 5–8 September.
- Young, C., Pyke, J., Maharaj, N., Cormick, C., Rasmussen, B. and Jones, R N. (2018). *Diversity and inclusion: building strength and capability*. Proceedings of the CRC and AFAC Conference, Perth, 5–8 September.

TECHNICAL REPORTS

2020

- Young, C. and Jones, R N. (2020). *Diversity and inclusion framework for emergency management policy and practice*. Bushfire and Natural Hazards CRC (BNHCRC), Melbourne.
- Ooi, D. (2020). *Building partnerships with culturally and linguistically diverse (CALD) communities*. BNHCRC, Melbourne.
- MacDonald, F. (2020). *Young people and the emergency services: working towards inclusive partnerships*. BNHCRC, Melbourne.
- Young, C., Cormick, C. and Jones, R N. (2020). *Learning as we go: Support for diversity and inclusion practitioners and decision makers*. BNHCRC, Melbourne.
- MacDonald, F. (2020). *Building resilience: understanding the capabilities of diverse communities*. BNHCRC, Melbourne.
- Young, C. (2020). *Diversity and inclusion: building strength and capability – annual report 2019*. BNHCRC, Melbourne.
- Young, C. and Jones, R N. (2020). *Diversity and inclusion framework for emergency management policy and practice*. BNHCRC, Melbourne.



2019

- Young, C. and Jones, R N. (2019). *Risky business: why diversity and inclusion matter*. Melbourne: Into the future: building skills and capabilities for a diverse and inclusive workforce, workshop synthesis and key research findings. BNHCRC, Melbourne.
- Rasmussen, B. and Maharaj, N. (2019). *The economic benefits of the Indigenous Fire and Rescue Employment Strategy (IFARES) program: Fire and Rescue New South Wales*. BNHCRC, Melbourne.
- Young, C., Taylor, J. and Cramer, Q. (2019). *Shaping the new norm*. WFA Conference 2018 Evaluation and QFES Workshop Synthesis. Women and Fire Fighting Australasia, Nowra.

2018

- Cormick, C. (2018). *Survey of community values*. BNHCRC, Melbourne.
- Pyke, J. (2018). *Building capability in emergency services: diversity and inclusion in communities*. BNHCRC, Melbourne.
- Rasmussen, B. and Maharaj, N. (2018). *Changing capabilities of emergency service organisations: case study summary*. BNHCRC, Melbourne.
- Young, C., Jones, R N. and Kumnick, M. (2018). *The long road: building effective diversity and inclusion in emergency management organisations*. Case Study Synthesis and Draft Framework. BNHCRC, Melbourne.
- Young, C., Pyke, J., Maharaj, N., Rasmussen, B. and Jones, R N. (2018). *Diversity and inclusion: building strength and capability literature review*. BNHCRC, Melbourne.

CONFIDENTIAL REPORTS

- Young, C., Jones, R.N., Maharaj, N. and Rasmussen, B. (2018). Diversity and Inclusion Organisational Context Scan, Fire and Rescue New South Wales (Confidential Report).
- Young, C., Maharaj, N., Rasmussen, B. and Jones, R. N. (2018) Diversity and Inclusion Organisational Context Scan, South Australian State Emergency Service (Confidential Report)
- Young, C., Jones, R.N., Maharaj, N. and Rasmussen, B. (2018) Organisational Context for Diversity and Inclusion: Queensland Fire and Emergency Services (Confidential Report).

ANNUAL REPORTS

- Young C (2019) Diversity and inclusion: Building strength and capability Annual Report 2019, Bushfire and Natural Hazards CRC, Melbourne.
- Young C (2019) Diversity and inclusion: Building strength and capability Annual Report 2019, Bushfire and Natural Hazards CRC, Melbourne.
- Young C (2019) Diversity and inclusion: Building strength and capability Annual Report 2019, Bushfire and Natural Hazards CRC, Melbourne.



HAZARD NOTES AND POLICY PAPERS

2020

- Young, C., and Jones, R N. (2020). *Diversity and inclusion framework for emergency management policy and practice*. BNHCRC, Melbourne.

2019

- Young, C., and Jones, R N. (2019). *Hazard Note 60: making diversity and inclusion the new normal in emergency services*. BNHCRC, Melbourne.

BLOGS

2020

- Young, C. (2020, 2 September). *Valuing each other: why diversity and inclusion matters*. BNHCRC, Melbourne.
<https://www.bnhcrc.com.au/news/blogpost/cyoung/2020/valuing-each-other-why-diversity-and-inclusion-matters>

2019

- Young, C. (2017, 7 November). *The evolution of diversity and inclusion as a business imperative for emergency services*. BNHCRC, Melbourne.
<https://www.bnhcrc.com.au/news/blogpost/cyoung/2019/evolution-diversity-and-inclusion-business-imperative-emergency-services>



OUTREACH AND ENGAGEMENT ACTIVITIES

PROFESSIONAL DEVELOPMENT

- Diversity and Inclusion in Emergency Management: From policy to practice online forum, 2 December 2020. Delivered in partnership with Women and Firefighting Australasia, Victoria University, Queensland Fire and Emergency Services and Fire and Emergency New Zealand and the Bushfire and Natural Hazards CRC,

PRESENTATIONS

2020

- Young, C., Taylor, J. and O'Malley, S. (2020). Beyond party planning; making diversity and inclusion a business imperative. Emergency Management Conference 2020, October 7, online.

2019

- Young, C. (2019). Transforming through diversity and inclusion capability: the pathway to achieving diversity benefits. Presentation to AFAC19, 27–30 August, Melbourne.
- Taylor, J., O'Malley, S. and Young, C. (2019). Diversity more than the eye can see: challenging the way we look at diversity. Presentation to AFAC19, , 27–30 August, Melbourne.
- Taylor, J., O'Malley, S. and Young, C. (2019). Diversity and inclusion: innovation stage. Presentation to AFAC19, 27–30 August, Melbourne.
- Young, C. (2019). Effective diversity and inclusion in Australian emergency management organisations and its role in building resilience. Presentation to European Climate Change Adaptation Conference, 26–29 May, Lisbon.
- Young, C. (2019). Report findings QFES/WAFA workshop, stories from the past, stories for our future. Video presentation to Emergency Management Conference, 29 May, Melbourne.
- Young, C. (2019). Diversity and inclusion: building strength and capability. Presentation and workshop at BNHCRC Research Advisory Forum, 8 May, Melbourne.
- Young, C. (2019). Six research project update presentations. NSW, VIC and SA end-user organisations.

2018

- Young, C. (2018). Diversity and inclusion: Building strength and capability. Workshop. Institute of Sustainable Industries and Liveable Cities, 19 November, Victoria University, Melbourne.
- Young, C. (2018). Invited presentation of work to date to the AFAC Diversity and Inclusion Group, 19 September, Melbourne.
- Young, C. and Cormick, C. (2018). *Diversity and inclusion: building strength and capability*. In: Proceedings of the CRC and AFAC



Conference, 5–8 September, Perth.

- Young, C. (2018). Diversity and inclusion: building strength and capability. Presentation and workshop to BNHCRC Research Advisory Forum, 12–13 April, Sydney.
- Young, C. (2018). Diversity and inclusion: building strength and capability – unpacking complexity. Invited representation to workshop: The Social Science of Emergencies, Disasters and Resilience. Jointly QuakeCORE, BNHCRC Australia, and Fire and Emergency New Zealand, 25 May.

2017

- Young, C. (2017). Invited lightning presentation, *Diversity: building strength and capability*. BNHCRC Showcase, 4–5 July, Adelaide.
- Young, C. (2018). Presentation and workshop, Diversity and inclusion: building strength and capability. BNHCRC Research Advisory Forum, 12–13 April, Sydney.
- Young, C. (2017). Presentation and workshop, Diversity: building strength and capability, BNHCRC Research Advisory Forum, 5 April, Perth.

POSTERS

- Young, C., Jones, R N., Rasmussen, B., Maharaj, N. and Macdonald, F. (2019). *Diversity and inclusion building strength and capability*. BNHCRC, Melbourne.
- Young, C. (2019). Managing risk through diversity and inclusion. Presentation to AFAC 2019 Annual Conference, 4–7 August, Melbourne.
- Young, C., and Rasmussen, B. (2018). *Diversity and inclusion: building strength and capability*. Poster presented to AFAC 2018 Annual Conference, 4–7 September, Perth.
- Young, C., and Rasmussen, B. (2017). *Diversity and inclusion: building strength and capability*. Poster presented at BNHCRC Showcase, 4–5 July, Adelaide.
- Young, C., Rasmussen, B. (2017). *Diversity and inclusion: building strength and capability*. Poster presented at AFAC 2017 Annual Conference, 4–7 September, Sydney.

ARTICLES

- Harista, C. (2019). Understanding of the diversity of those in need. *Fire Australia*, 1.



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RESEARCH TEAM

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- Dr Joanne Pyke, Victoria University

PARTICIPATING END-USER ORGANISATIONS

- ACT Parks and Conservation Service
- Country Fire Authority, Victoria
- Cumbria Fire and Rescue Service, UK
- Department of Environment, Land, Water and Planning, Victoria
- Department of Environment, Water and Natural Resources, South Australia
- Emergency Management Victoria
- Fire and Rescue New South Wales
- Gloucestershire, Fire and Rescue Service, UK
- Inspector-General of Emergency Management, Victoria
- Metropolitan Fire and Emergency Service Board
- Northern Territory Fire and Rescue Service
- Queensland Fire and Emergency Services
- Rural Fire Service New South Wales
- South Australia State Emergency Service
- South Australia Metropolitan Fire Service
- Tasmania Fire Service

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- Kelly Martin, formerly of Yosemite National Park, USA
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- John Beard, Deputy Chief Fire Officer, Cumbria Fire and Rescue Service, UK
- Women and Firefighting Australasia
- Lifesaving Victoria



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