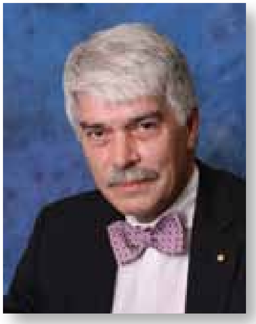
Research Paper 1:

CEO PERSPECTIVES ON ORGANISATIONAL RESILIENCE

Australian Government

ISBN: 978-1-922032-04-1

Foreword



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A key strategic imperative of the Australian Government's Critical Infrastructure Resilience Strategy is the development and promotion of an organisational resilience body of knowledge and a common understanding of organisational resilience.

Organisational resilience is still a relatively new concept in empirical terms and as such, building and implementing a research agenda to develop a substantive and rigorous evidence base is vitally important as a firm foundation for both government and private sector policy.

Research paper 1: CEO perspectives on organisational resilience is the first in a series of research papers on organisational resilience being developed by the Attorney-General's Department to contribute to this strategic imperative.

The Australian Government strongly supports the concept of organisational resilience, particularly for critical infrastructure, as this approach assists owners and operators to manage unforeseen or unexpected risks. Many organisations are realising that traditional corporate strategies are not protecting them from an unexpected crisis. Organisations need to be resilient, they need to be able to absorb an event that necessitates change, to adapt and continue to maintain their competitive edge.

While organisational resilience means different things to different people, this paper, for the first time, presents an important discussion on the perspectives and understanding that the CEOs of some of Australia's largest companies have with regard to organisational resilience and how this concept is applied in their organisations.

Not only will this research paper help to build a value proposition for organisational resilience, it is also a further step in developing and promoting a body of knowledge and a common understanding of organisational resilience.

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CEO perspectives on organisational resilience

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Introduction

This paper summarises the results of interviews conducted with more than 50 CEOs from critical infrastructure and non-critical infrastructure organisations in Australia. The purpose of the research was to support the development of a research agenda on organisational resilience and therefore the research approach was designed to raise questions rather than provide definitive answers regarding CEO perspectives on organisational resilience (OR). Sample organisations ranged in size, ownership structure and purpose (a list of participating organisations is provided at page 27). This paper represents a synopsis of the CEOs' views on what OR is; why they think about it that way; and the value proposition for pursuing resilience in their organisations.

Different concepts of resilience

Within the literature and in practice, the term OR carries a range of different meanings about what resilience is and its scope. Consequently there are multiple legitimate definitions of resilience depending on the specific organisational context that is under study. As such, we will not attempt to define what resilience is in this paper, but rather present the spread of perspectives provided by the CEOs.

The first distinction made by the CEOs was between short term and long term resilience. This distinction was neatly summarised by one CEO:

> *...when we talk short term resilience it's about an organisation that's fit for purpose, that's adapting and is evolving as the global market is evolving; is able to respond to short term shocks, whether that be natural disasters or significant changes in market dynamics. And longer term it's more about the strategic direction that the company takes and where we're positioning ourselves so that we can be successful for the next 100 years.*

Typically short term disruptions or shocks take the form of natural disasters, such as storms, earthquakes, and floods. However, they could also be of a non-physical nature, for example reputational damage through a media scandal. Long term disruptions take the form of 'slow-burn' events like fundamental changes in market trends, climate change, regulatory environments etc. The tools, structures and behavioural attributes the organisations employed to deal with these different forms of change and disruption differed significantly with the environment or type of organisation.

Whilst the distinction between short and long term resilience was fairly consistent across the sample, there were distinctly different concepts in terms of what OR, as a capability, actually involved. Broadly there were three concepts of OR the CEOs described:

- an *effective business as usual* capability
- the ability to *change and adapt*, and
- the ability to actively *shape the environment* of the organisation.

We would suggest there is something approximating an OR maturity model in the way these concepts relate to each other. By maturity we mean maturity of the organisation's capability to engage in activities that support these different concepts of OR. Figure 1 depicts the relationship between these concepts and while they are described in more detail below, it is worth noting that they are broadly compatible with the concepts of resilience described in the Resilience Expert Advisory Group's *Organisational resilience: position paper for critical infrastructure (April 2011)* (the REAG Position Paper) as 'survive', 'bounce back' and 'bounce forward'.

The model has three layers represented through concentric circles. The inner circles provide a foundation for the outer circles and the focus for resilience transitions from short term in the middle through to long term on the outside. Organisations with a mature approach to resilience will be undertaking all elements of the model at the same time.

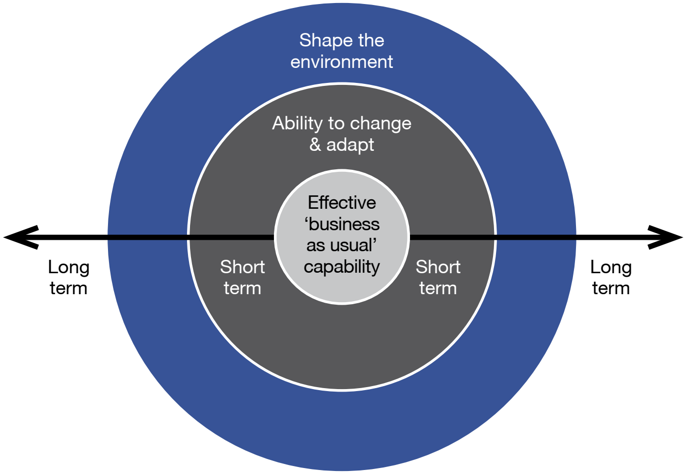

Figure 1:
Concepts of organisational resilience

Effective business as usual

Effective business as usual refers to the efficiency and effectiveness with which the organisation undertakes its 'business as usual' (BAU) activities under normal conditions. Put simply, if the organisation isn't good at BAU during the good times, it will be less able to cope when it needs to deal with unexpected disruptions. As one CEO noted:

> *... if you've got a strong core, your ability to have strength in other areas is probably enhanced ... by core, organisationally, I mean your ability to do business as usual.*

None of the CEOs advocated this concept of resilience as an ideal. Rather, the vast majority saw it as a necessary first step towards OR. Taken to extremes and in the absence of the development of the other concepts of resilience described below, a focus on BAU can be detrimental. Management techniques such as lean supply chains, cost-constrained models, and highly leveraged debt-to-equity ratios provide improvements to BAU operations, but can limit the organisation's ability to *change and adapt* to shocks. A business that has finely tuned its BAU operations to existing stable operating conditions may therefore be highly vulnerable to disruption.

Change and adapt

For the CEOs in the sample, *change and adapt* was about proactively responding to disruptions. Every CEO saw this ability as fundamental. In the resilience literature, the ability to *change and adapt* has dimensions of risk and opportunity to it. However, the way it was described by the CEOs in the sample was largely risk based. The emphasis was on the development of cultures that could adapt to changing circumstances and activities that supported preparedness for shocks or disruptions. For example:

> *… my understanding of resilience is all about the culture of the business and how adaptable you are, and how much you look at the changing face of the business, and it's not just strictly natural disasters that can occur, as I would see it. It's … a much broader category. It's talking about the resilience of the business to continue on in the future, given the way the business environment is changing.*

The reactive stance (i.e. responding to changes in the environment) implied in the interviews is not an indication that CEOs did not include innovation and the pursuit of opportunity within their broader notion of resilience – they did. However, it was described in a responsive way for the vast majority (90%) of those interviewed, in helping their organisations respond to changes in the environment.

This is distinct from the perspective described by approximately 10% of the sample, whose views formed the third concept of resilience.

Shape the environment

Here the focus of the organisation is to actively create the environment it operates in, either through the innovation of new categories of products and services, the influence of regulation, or fundamental reinvention of the industry in which it operates. All the CEOs who described this stance came from long established, global firms. Furthermore, it was not the ability to *shape the environment* once that constituted resilience, but the organisation's track record of having done it multiple times, such that it actually represented a capability in itself:

> *… so if you look at a lot of companies they tend to have phenomenal success in a short period of time, and then it's whether or not they can actually be adaptive and resilient as they go forward … you question their resilience long term as to whether or not they can actually reinvent themselves again.*

The ability to 'reinvent', particularly in the areas of technology, is clearly a source of competitive advantage and resilience. However in some other contexts, such as the utilities organisations in the sample, it moves beyond their stated purpose. The purpose of those organisations is to provide stability of service, and their objectives are designed to encourage that outcome. To *shape the environment* involves higher levels of risk taking that could be incompatible with this goal. This raises an interesting question regarding how an organisation can assess the appropriate level and style of resilience it pursues.

As noted, only 10% of those interviewed described OR in terms of the characteristics we have called *shape the environment*. The remainder discussed resilience in terms of the concepts associated with *change and adapt*, which is inclusive of *effective BAU*. This should not be interpreted as an assessment of the status of the organisations where interviews were conducted, but a reflection of the way in which the CEOs in the sample thought about and described OR.

Activities that support resilience

In driving towards the different concepts of resilience described in Figure 1, the CEOs identified a number of characteristics. Broadly speaking these factors fell into two main forms – those that supported preparedness and those that related to culture. The CEOs identified a number of activities that they supported in encouraging resilience in their organisations, directed primarily at supporting the preparedness of the organisation for shocks but also at positioning the organisation in the long term. Figure 2 shows activities related to preparedness in order of frequency with which they were mentioned.

The use of scenarios, simulations and exercises to support preparedness was very common across the interviews and specific to dealing with short term shocks. Discussions of communication and training, however, were broader in focus and whilst some focus was on the short term, a considerable amount of energy was directed at the long term, in particular the development of the cultural characteristics the CEOs felt were important. The other significant activity identified by the CEOs was the development of, and engagement by, the organisation in the organisational strategy. This last point had two related meanings that the CEOs emphasised. For some the strategy was more about the direction of resources to help deal with a changing environment, whilst for others the emphasis was on creating clarity around the organisational purpose, to which staff could engage and commit.

It is important to note that in undertaking the interviews we did not ask the CEOs to prioritise a pre-constructed list of activities. We assume that they mentioned what they considered to be important and didn't mention things that weren't at the forefront of their thinking about resilience.

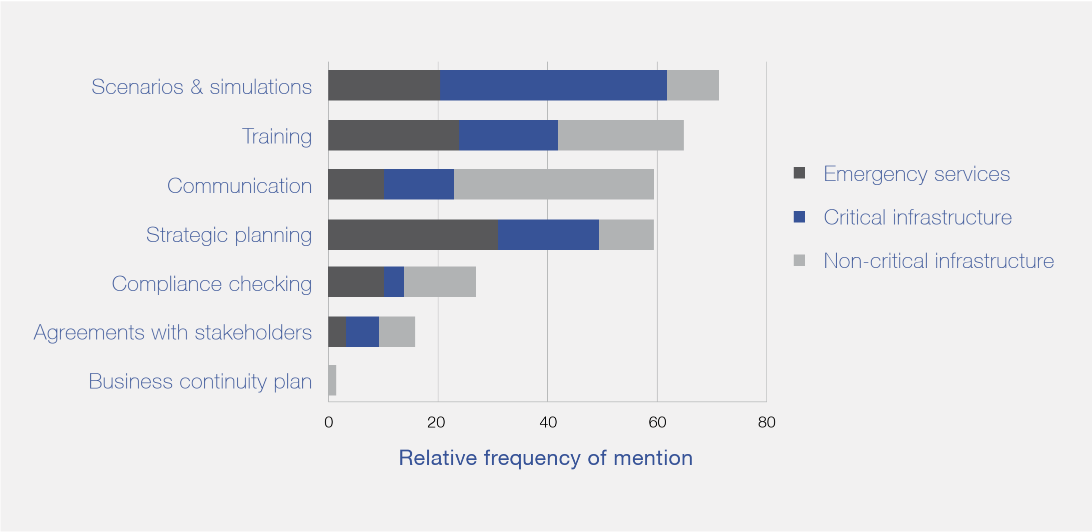

Figure 2:
Activities that support preparedness

The relatively low mention of agreements with stakeholders is interesting when taken into account with previous discussions on the concepts of organisational resilience. In an increasingly complex and interconnected operating environment, the lean supply chains and just-in-time service delivery model depends on strong stakeholder relationships and effective agreements to minimise disruption. In the event of a disruption to an organisation's operating environment, these relationships and agreements may minimise this disruption to ensure the continuity of supplies and services to an organisation. This is particularly the case where, as outlined earlier, an organisation that has a fine tuned BAU approach may be highly vulnerable to disruption.

The single figure attributed to business continuity plans does not indicate the number of organisations that had a business continuity plan – they all did. It is an indication of the relative importance CEOs placed upon it. Business continuity related activities were generally viewed as important to supporting the organisation's ability to respond to shocks or disruptions, but ultimately not the source of OR. Further evidence of this view can be found when we consider the key internal stakeholders within organisations that CEOs turned to in support of OR.

Key internal stakeholders

Who do CEOs engage with to support resilience in their organisations? Besides acknowledging that ultimate responsibility for organisational resilience rested with themselves and their immediate leadership team (who then delegated activities down throughout the organisation), the CEOs identified a number of organisational functions they saw as important to OR.

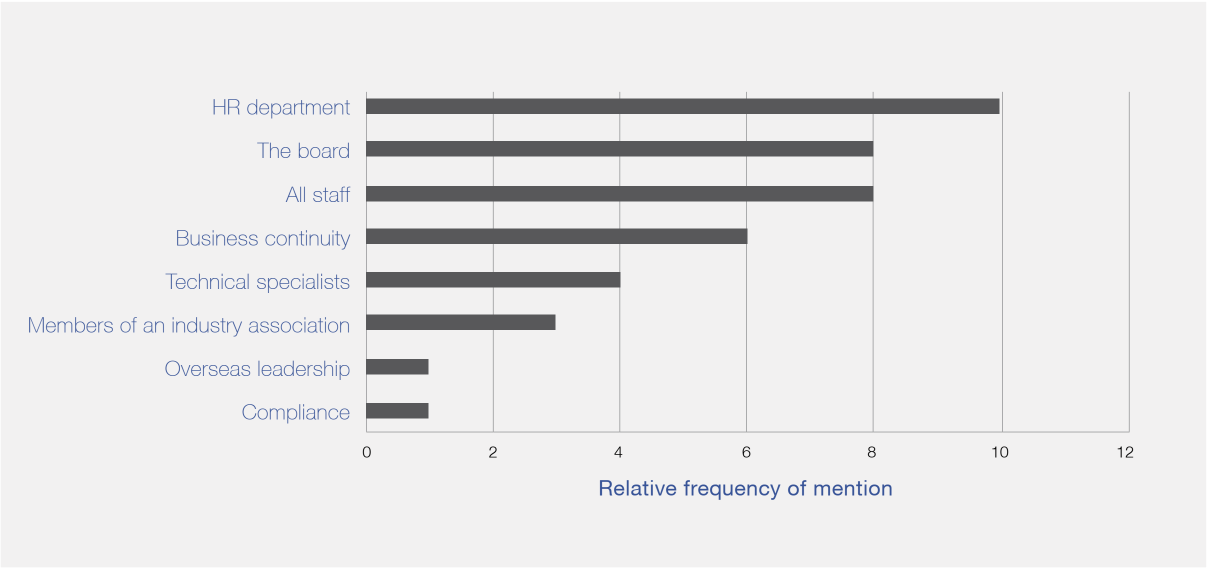

Figure 3:
Key internal stakeholders

Figure 3 shows the relative importance the CEOs gave to different internal stakeholders – indicated by the frequency with which they were mentioned. It is interesting that the human resource functions of their organisations rated more highly than the board or the business continuity function. This reflected a popularly held view of the CEOs that OR is above all else a cultural challenge and culture is the domain of HR.

The relatively low score for the board is interesting given the board's corporate governance role and indeed their role in appointing the CEO. More research is required on the role of the board in this context as there is some evidence from the sample that for organisations working towards a *shape the environment* concept of resilience, the board had a greater role in the definition of the vision and purpose of the organisation, though this is too small a sample to be definitive.

The middle level rating for business continuity managers hides the reality that relatively few had achieved effective engagement with their CEOs. Those in business continuity or similar roles with strong CEO engagement were an exception rather than the rule.

These findings also suggest that CEOs generally view resilience through an organic approach, where support is sought from a wide range of internal stakeholders, and is not limited to business continuity or compliance specialists. In addition, the ranking of an organisation's staff as being equal to the board, indicates that CEOs recognise the important role staff have in ensuring a resilient approach to the operating environment.

Cultural characteristics of organisational resilience

As described in the REAG's Position Paper and by all the CEOs in this study, the organisation's culture plays a critical role in its resilience. Figure 4 shows the cultural characteristics the CEOs described and their relative importance. To get beyond simplistic or generalised statements about culture it is important to recognise that some cultural factors are emergent properties of individual behaviours or elements of the organisational environment. In the interviews, the CEOs rarely distinguished these relationships and so the cultural factors shown in Figure 4 are a combination of behaviours and their associated cultural outcomes. Clearly identifying the causal relationships between these factors is an area for further research.

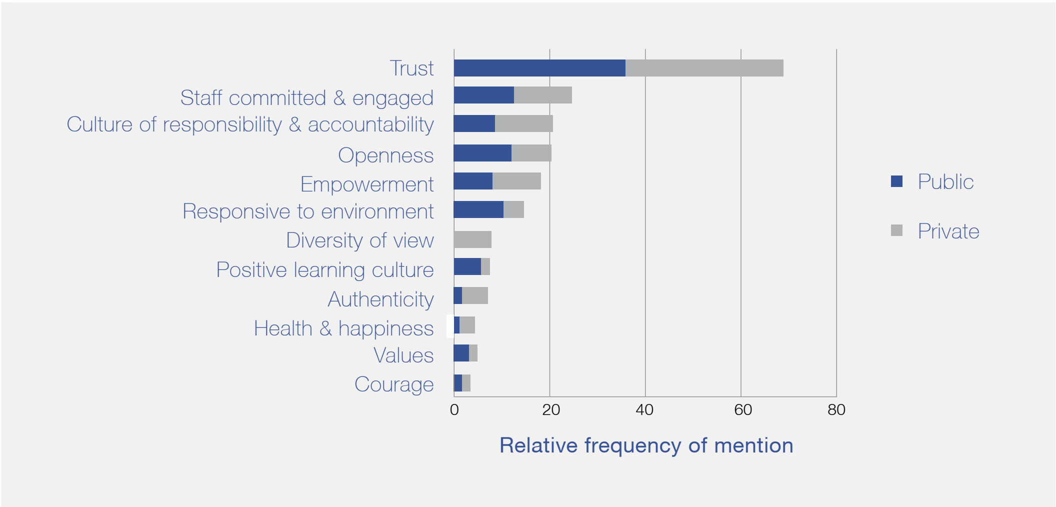

Figure 4:
Cultural characteristics important to organisational resilience

In analysing the results we have attempted to distinguish the cultural characteristics in three ways:

- characteristics of a resilience culture
- characteristics of the organisational environment that support the emergence of key behavioural attributes, and
- behavioural attributes that support resilience.

Characteristics of a resilience culture

There were five key characteristics of a resilience culture (see Figure 5). Significantly, the emphasis placed on these cultural characteristics changed depending upon whether the CEOs were talking about resilience in the short term or long term. A larger data set is required to undertake a more detailed analysis of these differences. However, Figure 5 serves to illustrate that there is a significant difference in emphasis between the cultural characteristics identified by the CEOs. Future research should explore and validate this further. Each of the cultural characteristics will now be discussed in more detail.

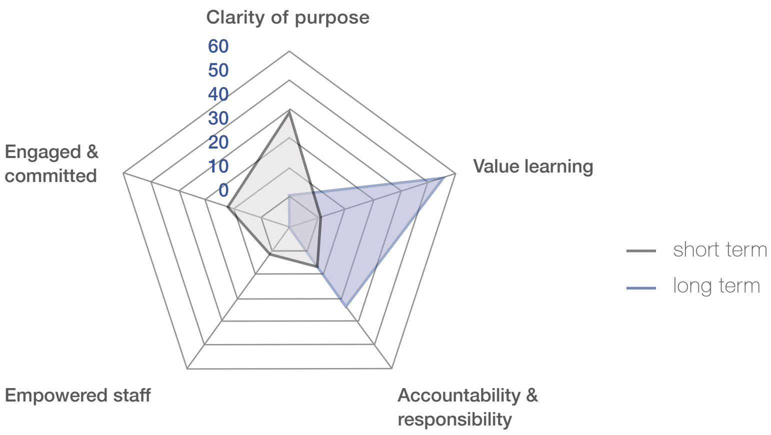

Figure 5:
Differences in emphasis between short and long term resilience

Clarity of purpose

A clear understanding and belief in the organisation's purpose was the most important feature identified by the CEOs. In a resilient organisation, the organisation's purpose will have such clarity for its employees that it is a key source of motivation for its staff. Simply knowing the purpose is not the same as believing in it, and in times of stress it is the belief that makes the difference. Several CEOs intimated the importance of this during a crisis.

Engaged and committed

This refers to the extent to which the individual links their personal identity with the purpose of the organisation, as opposed to other concepts. Often individuals will draw their motivation from other sources, such as identification with their profession, or their nationality, as well as personal interests and values. These sources may not always align with the organisation's interests or with those the organisation supports, such as customers or the wider community. Where this is the case, the organisation represents a convenient place to work but not something to which the individual has any particular loyalty.

Empowerment

Staff must feel that they are empowered to act without fear of repercussion from management. They must trust that management supports their ability to make decisions within the boundaries of their role, as described by the purpose, short term imperatives and values of the organisation:

> *… you're clear about what you've got no choice on, and you're clear about where you've got freedom to do what you would like. That's how we work. So as a result, I feel clear about what I need to deliver and highly empowered in how I can do it ... and that makes me feel, as an individual, very resilient and very enthusiastic about coming to work every day.*

The CEOs highlighted that staff who do not feel empowered will not seek to suggest improvements to organisational processes, highlight risks to the organisation's operations, or actively do anything about these observations. Instead, issues affecting the resilience of the organisation will be viewed as 'someone else's problem'.

Responsible and accountable

For many CEOs empowerment was discussed in combination with accountability and responsibility. A culture of responsibility where people understand what they are responsible for, and what others are responsible for, is important for cohesion. Clearly defined responsibility and accountability helps keep the organisation within a 'safe' range of operations, ensuring consistency in operations is maintained. Equally important is that staff choose to act responsibly – to do the right thing. This desire to do the right thing can be displaced by approaches to accountability that encourage a blame based sense of responsibility:

> *… so the guy on the ground has to understand that they're accountable for it, not me. I'm not telling them to do it, they have to own it … and if you have someone who owns an outcome, if they are accountable for an outcome, that's the best way of having resilience. They will be thinking about it entirely differently if they're thinking about it or looking after it for somebody else. You know, there's nothing like skin in the game, life in the game, their future in the game. This is their baby and there's no better way of making people sensible than actually making sure they recognise it's theirs.*

Value learning

The CEOs talked about learning in a relatively specific way. They were concerned with the ability to learn as opposed to the content that was learned. This included continually drawing lessons from experience in order to drive improvement. For the CEOs, the concept of learning included being comfortable with ambiguity (the ability to make choices where there aren't any clear guidelines), making meaning from experience and acting on the basis of the resulting interpretations, being creative and persisting in finding solutions to unfamiliar situations:

> *At any time we have an event we always circle back around and see what we could have done better. And even when things on the surface look as if they've been managed very well, when you get digging around in it you always find that you can learn something.*

In some cases, the CEOs' concepts of learning extended beyond their organisations. The establishment of partnerships and collaboration with other organisations was seen as important:

> *The other advantage the partnership brings is it accelerates your learning process, because when you truly enter into a partnership, then you start sharing. And if I've got an organisation that's built then around soaking up that sharing and putting those learnings back into the organisation, now I've got accelerated learning. I'm not just simply doing my own work, I'm learning from others and they're bringing that knowledge from somewhere else. And so I can get multiplier effects very quickly in my business by simply being in five partnerships, or five joint ventures ... but in those five joint ventures, I may have five people who are common across all of them, and I may have another five who are not. Well, now, guess what? Now I've got ten people that I can learn from.*

Characteristics of the organisational environment

System redundancy

The role of system redundancy tended to fall into three main categories:

- redundancy from an engineering perspective being most prominent in telecommunications and utilities based industries. For the CEOs this concept was more often about the design and architecture of the systems, than their capacity (though it could involve this as well)
- redundancy of skills, with CEOs rotating key personnel across a range of positions to expand their range of experience. This increased the organisation's flexibility, and
- a smaller number of CEOs discussed the role of financial redundancy in addition to the above categories.

The way in which redundancy was built into the operation of the organisation was very dependent upon the organisational purpose. Often this involved a risk reward trade-off in terms of investment. For-profit organisations considered this trade-off differently to government owned utilities and not-for-profit organisations. Decision making about this factor is therefore impacted by ownership structure, and the needs of the different stakeholders associated with that structure. For example, shareholders in listed for-profit enterprises seek returns in the short term that can conflict with the investment needs for long term system redundancy. The ways in which this tension was managed presented a constant challenge for CEOs.

Procedures, plans and exercises

The use of procedures, plans and exercises varied considerably across the sample and reflected the complexity of the organisation's operations. The importance of these plans and procedures was very much directed towards the maintenance of short term resilience, and the ability to deal with short term shocks. As noted above, the CEOs made extensive use of these activities to support an environment of preparedness.

Reward and incentive structures

Most organisations have appraisal and reward systems designed to drive desired behaviours, but often they can act to distort OR outcomes rather than support them. For example, decision making based entirely on short term objectives with little respect for the long term strategic goals of an organisation may lead to bad operational decisions, similar to the 'tyranny of small decisions' phenomenon. The central issue in relation to this was the link between behaviours and outcomes. In particular this meant long term incentives, so that the implications of decisions with long term consequences were linked to the reward:

> *So we realised that we'd previously set up with the organisation that our achievement plans were based on achieving certain initiatives, and nothing related to how you went about that, and how resilient the organisation was, and how you interface with people, and how you form links with communicators. So we had this long discussion that was through the board, me and the team, and we changed over all of our achievement plans. So 40% of my achievement plan is now related to four key behaviours for the organisation, and I get measured on that.*

Leadership

From the CEOs point of view, leadership is a behaviour. But from the point of view of those not in leadership positions, it forms an important element of their organisational environment and a driver of the culture. Taken from this perspective, CEO tenure becomes an important issue. The average tenure of CEOs in the sample was 4.4 years[1]. Many CEOs felt that this was too short with the optimum tenure being around 7-8 years. The reason for this was articulated by one CEO:

> *I always believe the culture comes from the top and the CEO plays a very, very big role in creating, maintaining and nourishing the culture. If you change CEOs every three or five years that means you change the culture, and it easily takes two years to bend the new culture in. So you've really sort of got two years effective culture because for two years everyone's going through this change and they're seeing where they fit and then you've got two years of it and then you change the CEO. Unless the culture is so strong that it doesn't matter who the CEO is, so the CEO doesn't influence the culture. I don't understand how companies can say well, you'll be the CEO for three years and then go, or five years, and then you have to go. I'm not too sure how that works. Unless they're really big, big companies that are super strong and it doesn't matter.*

It is interesting to compare this view of the CEO as a custodian of culture rather than seeing culture as a short term aspect of an organisation, which could be continually chopped and changed in response to a short term agenda.

The ability to attract and retain

Consistent with the broader view that people are the key source of an organisation's resilience, the ability to attract and retain the best people was for many CEOs a crucial element. In this context, investment in comfortable work environments, ensuring good work-life balance, and providing challenging work experiences all contributed to the resilience of the organisation. In some cases, these factors were formally known within the organisation as OR strategies.

[1] Study undertaken by the Business Council of Australia in conjunction with Booz Allen Hamilton of tenure in ASX200 companies found a mean length of tenure of just 4.4 years in 2002 and 5.6 years in 2003

Behaviours that support resilience

Open communication

A recurring theme in the CEOs' stories and their approach to the development of culture was to communicate as openly and regularly as possible with all concerned stakeholders:

> *… short, sharp, accurate messages and keeping them in the loop on a regular basis … don't waste their time, but really make sure that you're getting the information.*

This approach covered both internal and external stakeholders and all levels of the organisation. This could even include over-communicating with some stakeholders, such as sending regular updates to the media whether they requested them or not. This way, stakeholders know that the information is available and nothing is being hidden. The media also plays a significant role in this respect, as they can often be the conduit through which the information is received.

Honesty

Staff need to know that when they receive information it is truthful. Some CEOs noted that without this, cynicism grows rapidly and a commensurate loss of empowerment and commitment follows. When dealing externally, a history of honesty means that a small disruption is less likely to grow into a larger one. Numerous CEOs told stories of media-based disruptions to the organisations they led. One CEO had a particularly clear view on how to deal with this:

> *I know that in private lives people get into all manner of complexity, but in professional lives you just must be truthful, and it might sound simplistic and foolish, but I think it is the bedrock of organisational resilience … people know you and trust you, and they can work with you and know that you will tell them straight, and if you can't tell them you will explain why.*

Authenticity

In its simplest terms the CEOs described authenticity as an alignment between what the organisation's leaders say the purpose and values of the organisation are, and what they actually do. If the leadership of the organisation doesn't act in an authentic way, there are a number of potentially negative outcomes:

- staff are unsure what the leadership really believes and therefore their ability to predict how they will respond in different circumstances (trust) is reduced
- staff become disengaged from the organisational purpose because they lose faith that the leadership also share that higher purpose. Furthermore, staff will then begin to fill in their own interpretation of the leader's purpose, based upon the behaviours/decisions they are observing
- lastly, staff are less likely to commit to a change process as they will question the motivation behind it.

In many ways authenticity and honesty are closely related. The difference is that with authenticity comes belief. This becomes an enabler for the cultural characteristics already described, in particular being engaged and committed. One CEO described the relationship between resilience, authenticity and the emergence of belief:

> *… people will travel with you because they understand the reason and they've been through a narrative and they're living a narrative. I personally think that it's very important that companies live their story, that the story is commonly owned by everyone who works in the company and that they live the process of change and evolution … which is something that is much discussed and talked about and celebrated. And when you make bad, bad mistakes, and hopefully you do from time to time because you're not taking risks if you're not making mistakes, and if you're not taking risks you're not really trying to make the thing durable, you celebrate that too and you ensure that people understand that it was a real [mistake].*

Deep knowledge and expertise

This was supported by extensive training and exercises, so when a shock occurred the organisation knew what to do, as opposed to having to work it out on the run:

> *… in an emergency you're always reactive but how prepared are you to react, versus the organisation that just reacts? Think okay, I've got an emergency, what do I do, how do I do it … you know, have the people been trained, are they cross-skilled, did you know what the risks were, have you got them in your risk matrix, have you given some thought to how you would actually reduce those risks, and how you would eliminate them?*

This view is consistent with the tendency towards preparedness in many of the activities described in Figure 2. Another important element of this organisational behavior was succession planning around key roles, which was particularly important in the more engineering based utilities.

The central role of trust

As made clear in Figure 4, all of the cultural and behavioural characteristics described above appeared to come together for the CEOs under the single unifying concept of trust. Trust is often discussed as a moral concept but that was not the case in these interviews. In relation to OR, trust was broadly described as a prediction by an individual about how others (including organisations) are likely to act:

> *… if I pick up the phone, and conversely, if they pick up the phone and ask for something, you don't have to worry about "why do you need it … what have you been through?". You know what their background programs are, and you know that they wouldn't be asking for it unless they need it.*

The reason for trust being so important is that without it the key behaviours the CEOs identified, that were also described in the REAG's Position Paper, are unable to emerge. As a result, the organisational outcomes needed in times of stress are less likely to arise.

The most important feature of trust that needs to be emphasised is its emergent nature. It arises through a complex interplay of the different cultural factors described above. Thought of as 'patterns of prediction' that are shared across the organisation, and by clients and suppliers, it is both a result and an enabler of the cultures the CEOs described. In the short term, staff who are engaged, committed, responsible and empowered will go to lengths well outside their job descriptions and roles, collaborate effectively with people they don't like, and essentially 'dig deep', in order to help the organisation respond and recover.

Organisations whose staff view their job as nothing more than 'just a job' are more likely to walk away and look after themselves or the aspects of their life with which they identify more closely.

The issue of trust also applies in the context of inter-organisational relationships, where for many of the CEOs it was equally important:

> *… for any organisation that's in business for any period of time, there will be periods where the business is stressed for one reason or another. It may be stressed because of a situation in its balance sheet … so you need trust with your suppliers or buyers or your banks that you'll be able to work through it … and they'll give you some leeway to help you through it. It may be that your business has had an external impact or a public impact in some way … then you've got to work through that credibility issue in the public space and in the political and regulatory space as well. And if you start from a position of credibility and you maintain credibility, then throughout that process, people are very willing to move away from a 'blame' to a 'help' situation. They move very quickly. If you become inwardly focused and deny, then blame builds very quickly and you'll never get help. It just won't happen. That option just passes you by.*

Depending on how they are managed, all of the behaviours and characteristics of the organisational environment described above play a role in building, maintaining and/or destroying the 'patterns of prediction' that exist in the organisation. At its most simplistic, if you can't predict what other people will do under stress, then you can't trust them, which leads people to focus more on their own wellbeing, potentially at the expense of the organisation and those around them. For OR to exist in a crisis, people need to be able to trust that those around them will do the right thing.

The value proposition for resilience

There was no single value proposition for resilience described by the CEOs. The value proposition, like OR itself, is context dependent and changes over time and circumstances. When considered in the context of Figure 1 and the different concepts of resilience that the CEOs described, it is possible to see how the value proposition changes, as the purpose of what is trying to be achieved changes.

Effective business as usual

For organisations operating within an effective BAU concept of resilience, the value proposition for resilience will link to improvements in efficiency and productivity:

> *... businesses that are having to play, you know, for short term survival, that are really struggling with cash flow ... businesses that have high turnover of staff, that tend to have poor cultures ... they're looking very much in the short term trying to survive in the short term.*

Organisations that operate in highly commoditised markets can operate on extremely small margins that, by definition, are beyond their control to influence. The reason they cannot be controlled comes down to a lack of financial redundancy in the organisation's operating dynamic. Without this financial redundancy, the organisation is unable to invest in the development of the capabilities that underpin the ability to *change and adapt*, or *shape the environment*. As a consequence, its OR approach is more likely to be limited to improvements in BAU capabilities that help to maintain or increase its margin. Organisations in these circumstances simply don't have the resources available to engage in the development of higher levels of resilience. They don't have the cash reserves to invest or the human resources to apply.

Change and adapt

The pursuit of opportunity and innovation received little attention from the CEOs that described resilience in this way. Based upon the data from this study, organisations where the CEO is focused on a *change and adapt* concept of resilience are more likely to aspire to a value proposition that links to cultural development and risk management. This group formed the vast majority of the sample for this research. It is important to emphasise that the *change and adapt* focus, as described by the CEOs, was reactive in stance and therefore the value proposition is that the organisation will be best able to survive and bounce back from unexpected shocks through the development of an adaptive culture.

Shape the environment

The small number of CEOs who looked to *shape the environment* included operations with significant research and development functions. For this group, resilience was far more proactive in terms of the way they considered and interacted with their operating environments. They aimed to be the disruptor rather than the disrupted. To a far greater degree than the other organisations, value propositions that link to the future strategy of the organisation and support the organisation's ability to innovate are relevant to this group. Value propositions that appeal to the opportunity for the organisation, as opposed to the risks, are more likely to be considered within this concept of resilience.

It should also be emphasized that due to these different concepts forming an apparent maturity model for resilience, those working in an organisation that looks to *shape the environment* should have a greater choice of value propositions to make, as there will be a wider range of activities to support resilience.

What does this mean for resources?

When considering the value proposition, it is interesting to consider the level of resources the CEOs felt should be applied to resilience. Figure 6 gives a breakdown of the responses. Obviously these figures are not precise and although the CEOs generally gave careful consideration to their answers, many felt they were unable to specify an amount. This was for a range of reasons, for example, being unsure how to measure it, or thinking it couldn't be separated adequately from other aspects of the organisation.

Of those CEOs who did give a percentage, the greatest number considered a figure somewhere between 10 and 20% of the organisation's resources. It is interesting to note that of the four CEOs who nominated a figure of 30% or more, three of them also described resilience in terms of *shape the environment*. The other CEOs who discussed *shape the environment* were in the unspecified group.

One possible hypothesis that could be drawn from this observation is a relationship between the resources required and the rate of change in the operating environment of the organisation. All the CEOs who described *shape the environment* came from industries where the market landscape was continuously changing. To wait and see where the market would go would mean you were left behind, *change and adapt* would not be enough. As a consequence, as the levels of uncertainty rise, greater resources are required to deal with it, hence the higher proportions of resources suggested by the *shape the environment* CEOs.

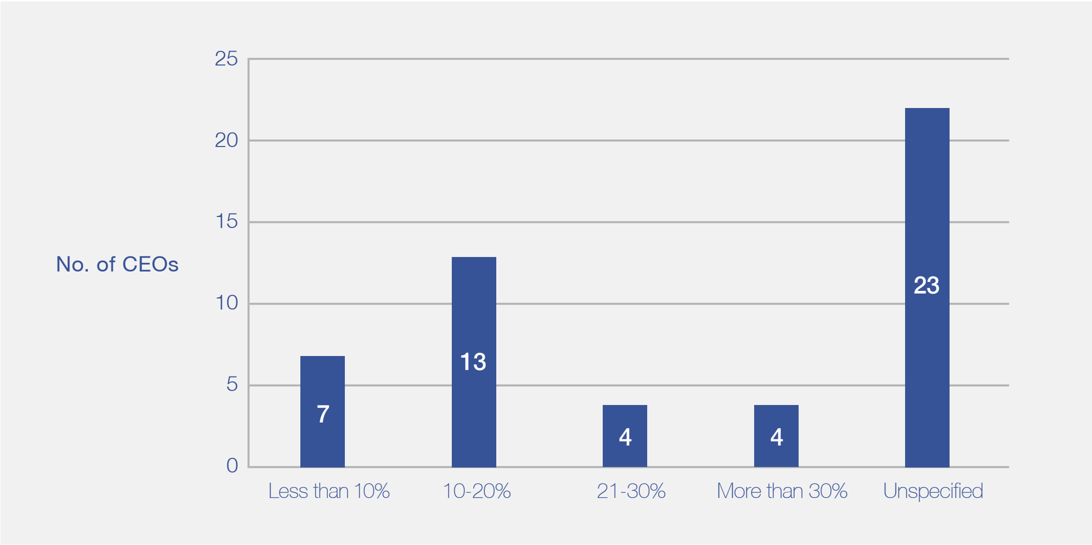

Figure 6:
Proportion of organisational resources that should be dedicated to organisational resilience

Final observations

CEOs' perspectives on OR is something that has not been collected before and presents an important perspective on the topic. It also raises a number of areas for future research in order to further understand how to support OR in critical and non-critical infrastructure organisations. The CEOs had well developed views on the topic, distinguishing between challenges of resilience in the short term and challenges to the long term resilience of their organisations.

For CEOs, the single most important source of resilience was the culture of the organisation. The culture underpinned the organisation's ability to *change and adapt*, and *shape the environment*. A number of activities were also identified that helped to support the development of the cultural characteristics the CEOs identified, including the extensive use of scenarios, exercises, training, communication and strategic planning. The success of these activities both supported and resulted from the cultures that developed – central to this was the notion of trust. Trust in this context was described in terms of 'patterns of prediction' that were shared across the organisation and extended to suppliers and customers.

Lastly, the results of the research emphasise the contextually specific nature of resilience – one size does not fit all – and indeed depending upon the industry, quite different concepts of resilience may be appropriate. Further research is needed to assess the degree to which this is the case.

List of participating organisations

ACT Department of Health
Allergan Australia Pty Ltd
AMP
Ariadne Australia Limited
Australian Chamber of Commerce
Australian Energy Market Operator (AEMO)
Australian Food and Grocery Council (AFGC)
Australian Hotels Association (AHA)
Australian Prudential Regulatory Authority (APRA)
BAE Systems
Baxter Healthcare Pty Ltd
BD Australia New Zealand
Bush Heritage Australia
Clearview Financial Services
ComfortDelGro Cabcharge
Dairy Australia
DHL
Essential Energy
Fairfax Media
Fonterra Australia Pty Ltd.
Foxtel
Gippsland Water
GlaxoSmithKline
Hunter Water Corporation
IAG
IBM Australia New Zealand
Integrated Research
Macquarie Group
Metcash
Microsoft
NSW Fire & Rescue
NSW State Emergency Services
NSW Police
OnePath
Optus Telecommunications
Perth Airport Corporation
Port of Melbourne Corporation
Queensland Urban Utilities
Rio Tinto
Royal Children's Hospital (Melbourne)
Siemens Australia Pty Ltd.
St John Ambulance Australia
Sugar Australia Pty Ltd
Surf Life Saving Australia
Sydney Catchment Authority
Sydney Water Corporation
Telstra
TransGrid
Westralian Water Corporation
Woodside
3M Australia New Zealand