



Building Organisational Resilience:

A New Zealand Approach

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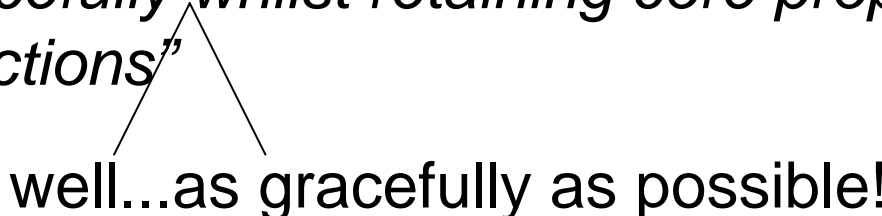
John Vargo

The context

*To understand and reduce the impact of hazard events, we need to be able to **evaluate** how **key organisations** are going to **perform** during and after these events.*

Resilience

Definitions:

- recovering easily and quickly from adversity
- ability to rebound to original shape/form after deformation that does not exceed its elastic limit
- *“the ability of a system or material to absorb change gracefully whilst retaining core properties or functions”*


well...as gracefully as possible!

Focus on Implementation

- How do we translate these concepts into a framework that is relevant and can be applied by organisations wanting to become more resilient?

Organisational Resilience is a function of:

- vulnerability,
- adaptive capacity and
- situation awareness

within a complex, dynamic and interdependent system

Organisational Resilience

= fn (vulnerability, adaptive capacity,
situation awareness)

Vulnerability

- The likelihood of failure
- Criticality of any failure

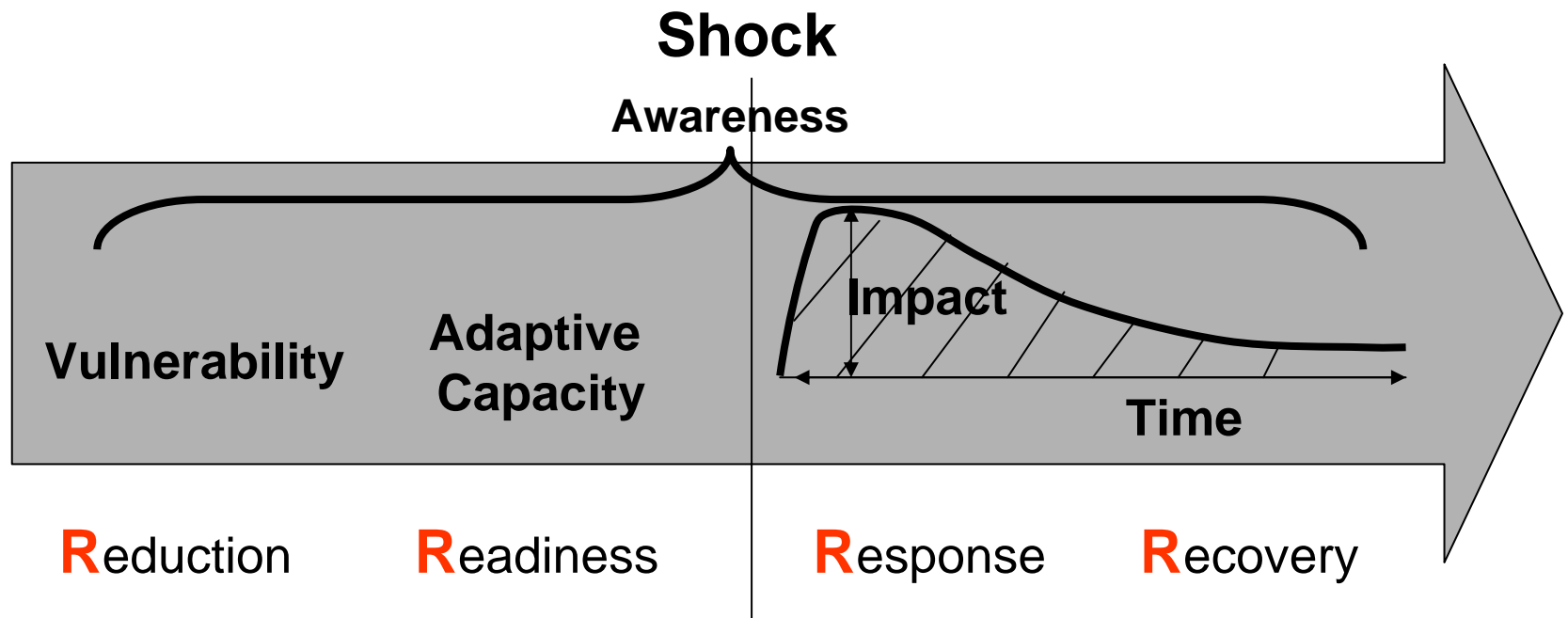
Adaptive Capacity

- Capacity to apply existing responses to problems
- Capacity to generate innovative responses to new problems

Situation Awareness

- Understanding the interdependencies and complexities within the system
- Knowing when environments are changing and system response needs to change

Resilience Management



Resilient Organisations

6 year FRST funded research programme that is a collaboration between the University of Canterbury, University of Auckland, and Kestrel Group, New Zealand

The programme has three main objectives

1. Organisational planning for hazard events
2. Prioritisation and deployment of resources
3. Legal and contractual frameworks

Objective 1:

Organisational Planning

- **Goal:** To understand and improve the resilience of NZ organisations, and to facilitate integrated hazard planning between organisations.
- **Approach:**
 - 10 in-depth case studies to develop a methodology for evaluating and improving resilience for individual organisations
 - Identify common issues, across sectors and organisation types, and define strategies for addressing these issues

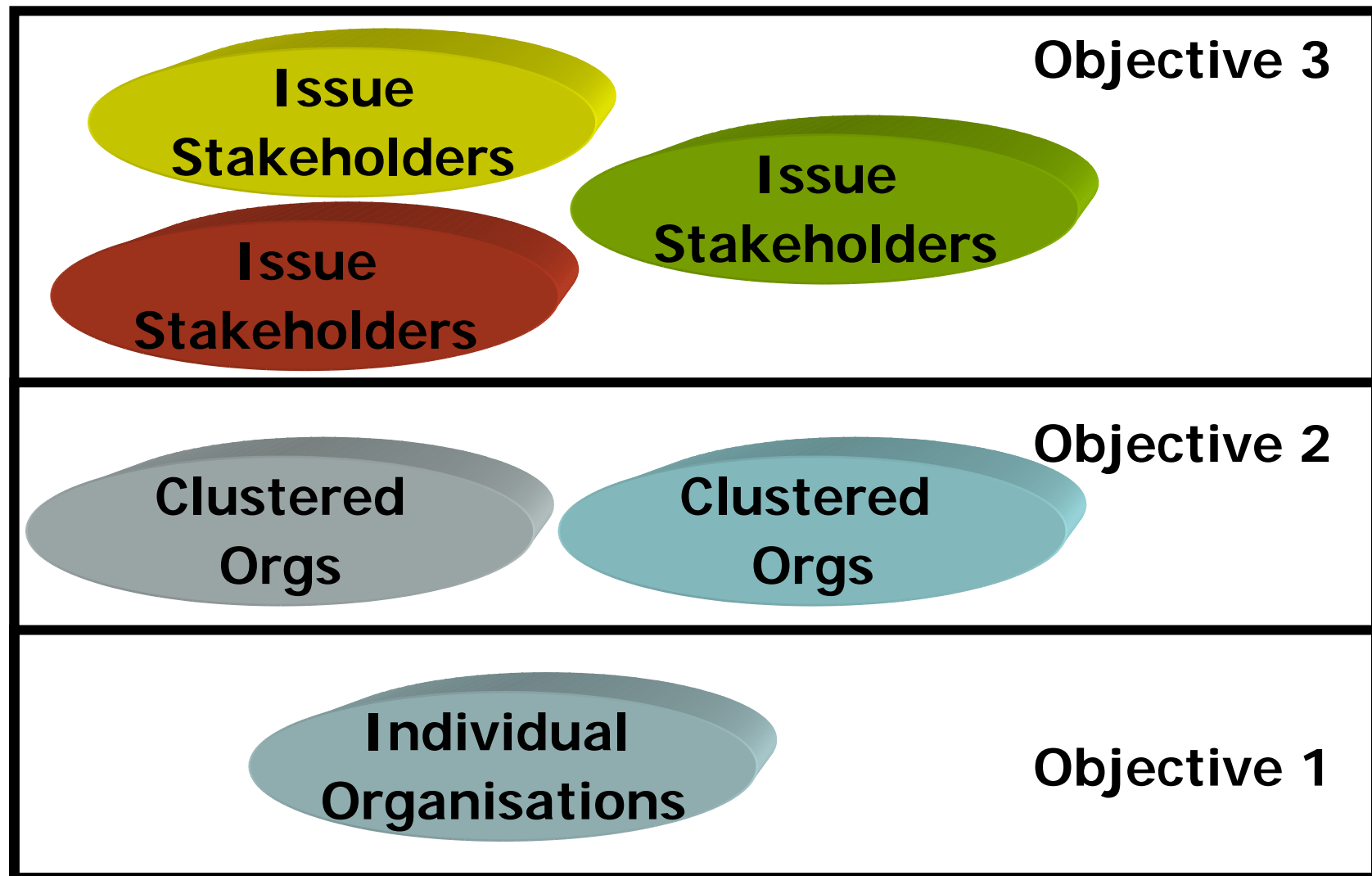
Objective 2: Prioritisation and Deployment of Resources

- **Goal:** Develop a GIS based tool that can be used following a hazard event for prioritising physical response and recovery of networked systems.
- **Approach:**
 - Analyse the dynamic flow of information and information priorities during response and recovery
 - Develop a GIS tool for capturing damage data as it is collected and for sharing information between organisations
 - Develop an test an integrated tool that could be used by road network managers in real-time events

Objective 3: Legal and Contractual Frameworks

- **Goal:** To establish a comprehensive procurement framework and programme management plan for reconstruction in the event of a national natural disaster.
- **Approach:**
 - Analysis of subcontracting arrangements
 - Relevance of current legal frameworks for construction to post-disaster reconstruction
 - Effectiveness of different types of procurement mechanisms to facilitate rapid reconstruction

Layers of Resilience



Key lessons thus far...

1. Finding a balance between 'what is possible' and 'what is practical'

- Implementation Science: we have to take advantage of current and potential technologies, but to also be pragmatic in developing tools that are acceptable to end-users.
- Research results need to be communicated quite differently to academic and end-user audiences.

2. Painting a shared vision of what needs to be achieved

- The need to communicate and get buy-in from key decision makers as to where the organisation is trying to go, or what it is that should be achieved.
- Self-evident? In many organisations even this basic requirement is missing

Key lessons thus far...

3. Overcoming differences in paradigms and motivations

- The construction sector views post-disaster reconstruction as a building boom to be responded to after a disaster occurs, rather than to be planned for in advance.
- Policy on response and recovery has a tendency to be aspirational, creating a divide between the policies and practicalities of recovery.

4. Difficulty in ensuring ongoing commitment

- 'This won't happen on my watch' syndrome
- The first (and usually elusive) step towards obtaining commitment is engagement, from which comes understanding

Key lessons thus far...

5. The influence of organisational culture

- Resilience issues often relate more to the softer, less tangible aspects of an organisation such as its culture, leadership, and vision.
- Few organisations consider resilience issues in their day-to-day business or invest nearly enough in building that resilience

6. Reputation and privacy issues

- The need to protect individual organisation's reputations in the midst of a disaster can sometimes inhibit effective risk communication
- Resistance to inter-organisational cooperation caused by reputation and privacy concerns, and a reluctance to share potential vulnerabilities



Thank you,

www.resorgs.org.nz