

Enabling Resilience Investment

The Enabling Resilience Investment (ERI) framework is a new investment approach in readiness for a climate adapted and disaster resilient future.

ERI is an assessment and decision-making framework to inform choices/interventions which reduce climate and disaster risks.

The approach increases capacities to cope and adapt to disruptions or disasters, and generates new value and community benefit through resilience.

October 2021

Delivery leads:

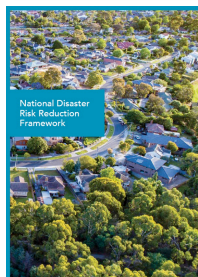
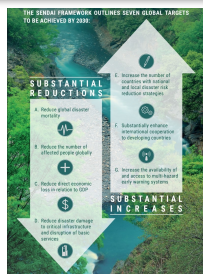


The focus and need for enabling resilience investments



Australia's alignment to international goals

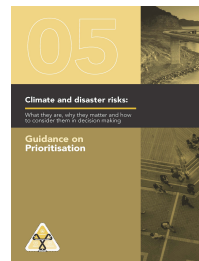
The Enabling Resilience Investment (ERI) Framework is aligned to implementation of the National Disaster Risk Reduction Framework (Australian Government 2018), the United Nations Sendai Framework for Disaster Risk Reduction (UNDRR 2015), and the UN Sustainable Development Goals.



NDRRF and National regulatory requirements

The National Disaster Risk Reduction Framework (NDRRF) highlighted opportunities and needs for enhanced investment in disaster risk reduction and climate adaptation as critical priorities of Government, achieved through enhancing:

- understanding of disaster risks
- accountable decision making
- governance arrangements that clarify and incentivise risk ownership and shared responsibility



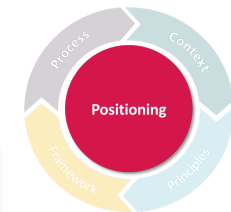
Australia's resilience approach

Agencies and initiatives to build Australia's capabilities and capacity in climate and disaster resilience and risk reduction include:

- National Recovery & Resilience Agency
 - Preparing Australia Programme
 - Disaster Risk Reduction Funding Package
 - The National Action Plan
- Emergency Management Australia
- Department of Agriculture, Water and Environment
 - National Climate Resilience and Adaptation Strategy
 - The Future Drought Fund
- Australian Climate Services
- Australian Institute for Disaster Resilience
- The National Environmental Science Program (NESP)
- Natural Hazards and Disaster Research Centre
- CSIRO's Climate Resilient Enterprise
- Infrastructure Australia: Pathway to Infrastructure Resilience

To enable the innovation and development of new capabilities, processes and methods for resilience investment, a framework and guidance was developed to enable inspiring, progressive narratives and with governance mechanisms that enhance collaboration across sectors, scales and levels.

Building Australia's resilience investment environment



Enabling Resilience Investment position

The Enabling Resilience Investment approach provides a framework to:

- better understand and assess climate and disaster risks and resilience;
- fund risk mitigation and resilience building;
- collaborate and coordinate assessments across government, the community and private sectors
- mitigate risks and build resilience, create value, and provide returns (monetary and non-monetary) to investors.

Guide to the presentation

Process

Page 9: Example study providing illustrative user journeys

Page 10: Developing a Resilience Investment Case using an iterative approach to realising benefits via adaptation and risk reduction

Page 11: Investment case outcomes and metrics

Framework

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Page 8: ERI phases and modules to support engagement, assessment and delivery

Page 9: Attributes and benefits of the ERI Framework

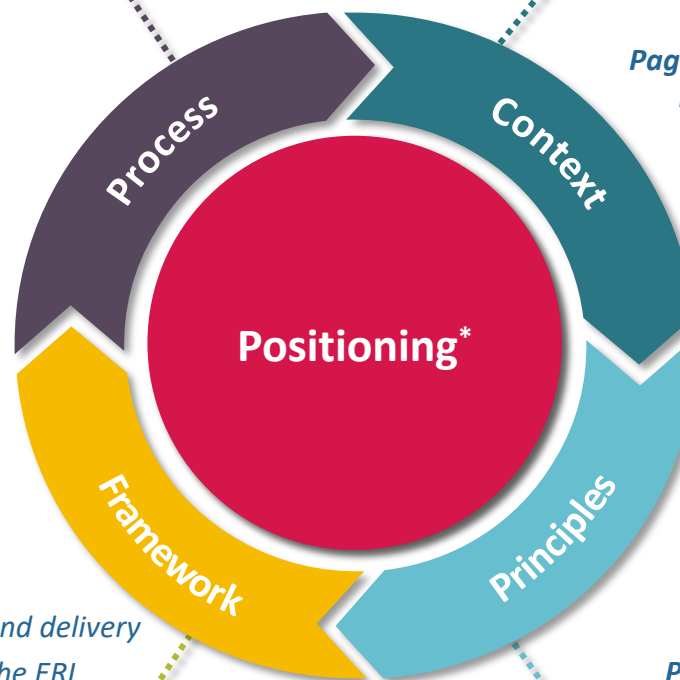
Context

Page 4: Why assessments and decision making need to be done differently

Page 5: The time horizon for all resilience investments are interdependent and need to be coordinated

Principles

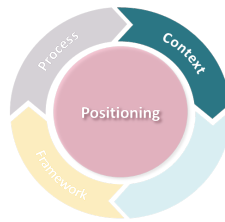
Page 6: Three interdependent levels of decision making to enable coordination



Outputs from the ERI are resilience investment cases that account for a broader range of government and non-government stakeholders; wider benefits and beneficiaries (including financial and non-financial benefits); vulnerabilities and disaster risk reduction; the social, economic and environmental values that can be created; and public and private funding and financing options. ERI considers all these elements under a changing climate and development trajectories.

* ISO 31000 Risk Management Guidelines

Limitations to Australia's resilience investment environment today



Why assessments and decision making need to be done differently

- There is limited understanding of the scale and urgency of the need to reduce risks associated with weather-related disasters and climate change and what is required to create well-adapted futures.
- There has been limited success in enabling funding in mitigation, adaptation and resilience-building measures.
- The challenges remain widespread and include infrastructure investment, land-use planning, conservation, natural resource management, health, and emergency management.
- Regions are on trajectories that have poor outcomes unless they begin to make decisions that account for potentially large and highly uncertain changes in climate, hazards, ecosystems and associated human values and social and economic activities.

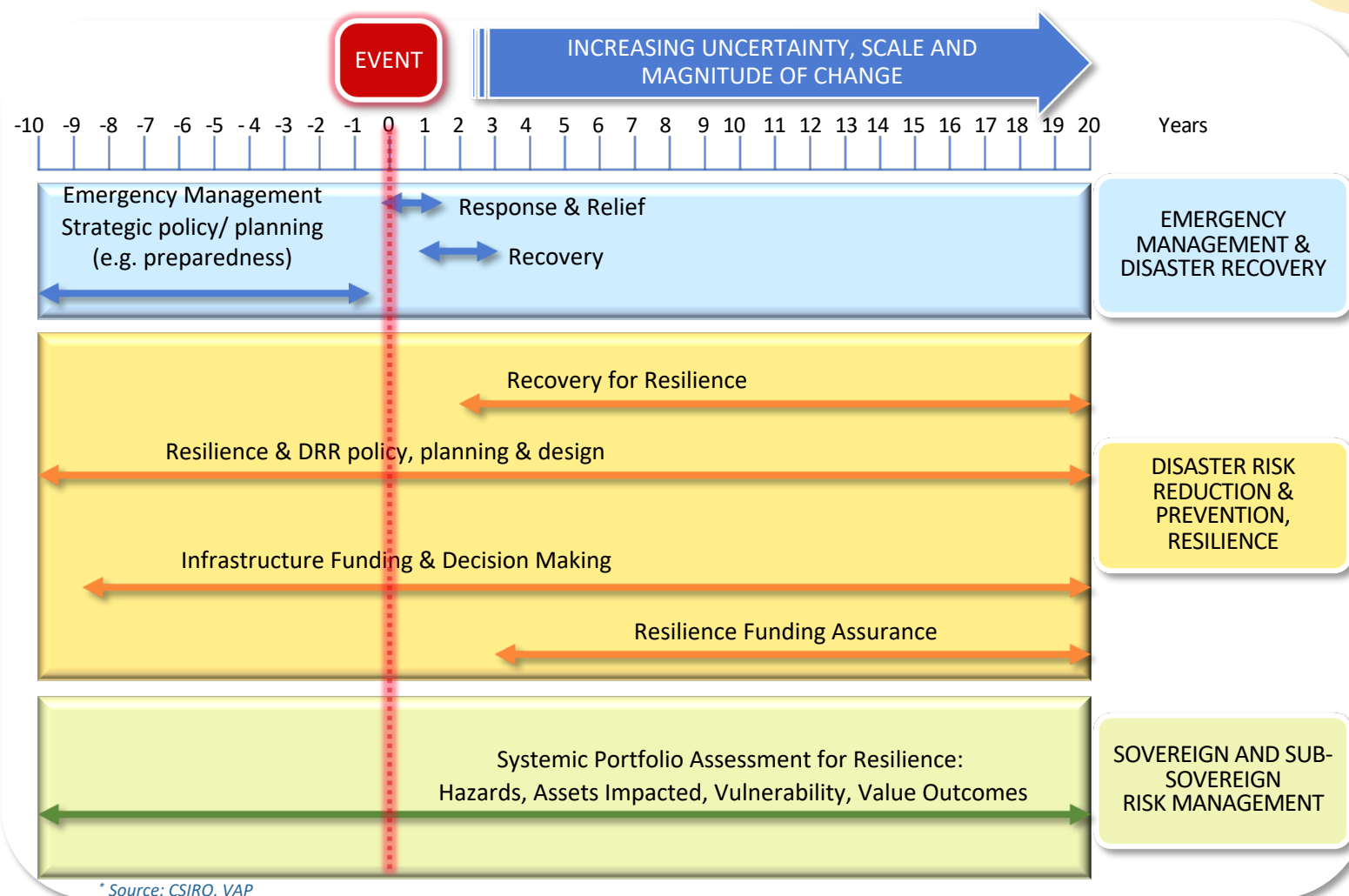


The focus and need for enabling resilience investments

The time horizon for all resilience investments are interdependent and need to be coordinated

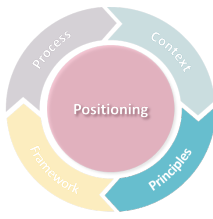
Resilience investment approaches should not be confused with the event-based decisions of Emergency Management planning, response, relief and recovery.

Efforts to inform and deliver resilient infrastructure – built, social or natural – need to have a long-term lens to enable disaster risk reduction (DRR) and prevention efforts.



Many studies have demonstrated deficits in public and private sector funding into pre-emptive and long-term disaster risk reduction. These studies point to fundamental challenges constraining investments and soundly argue for coordinated system-wide solutions to be created and delivered by government, business and communities.

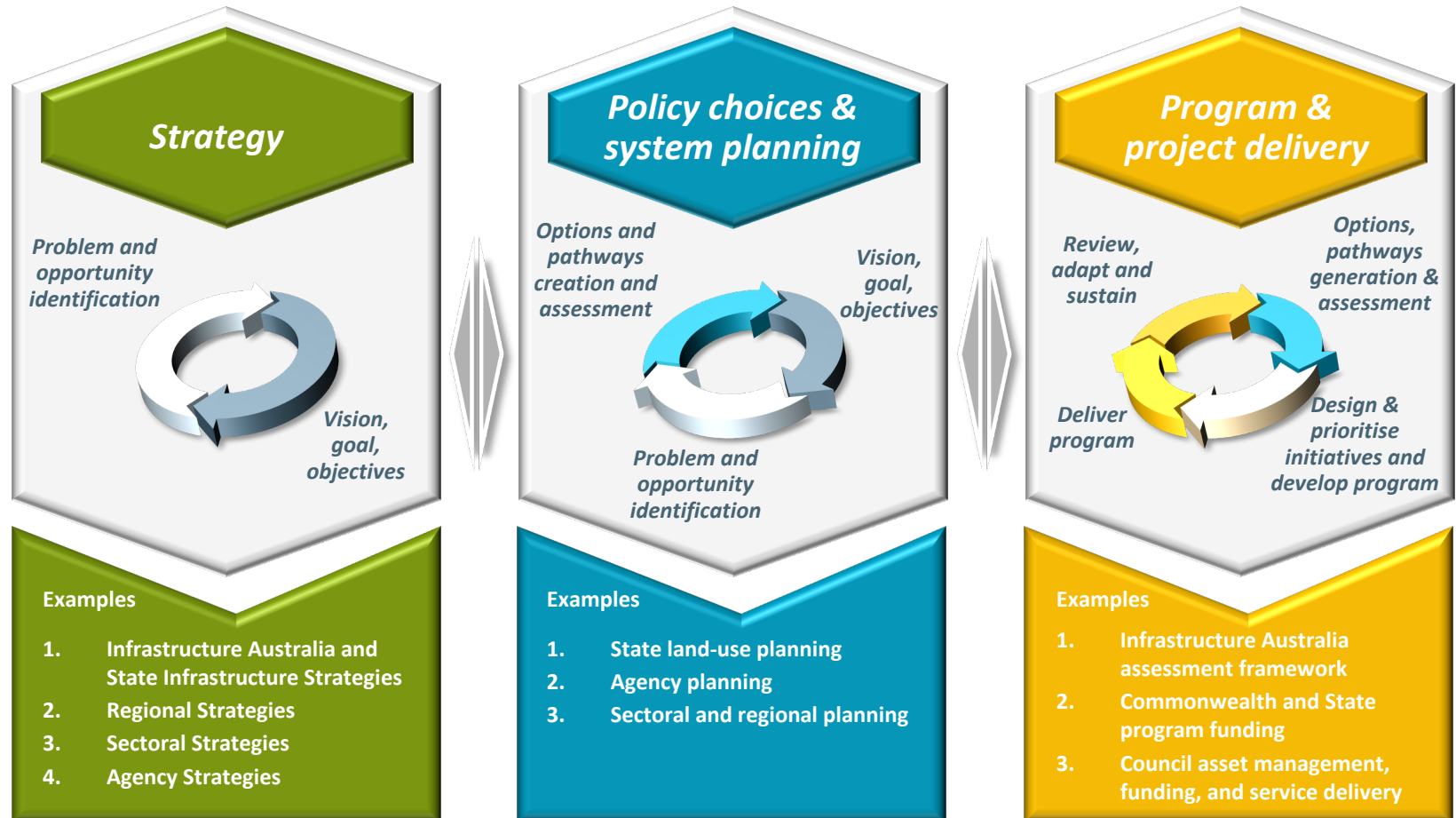
Understanding what is needed to enable and scale resilience investments



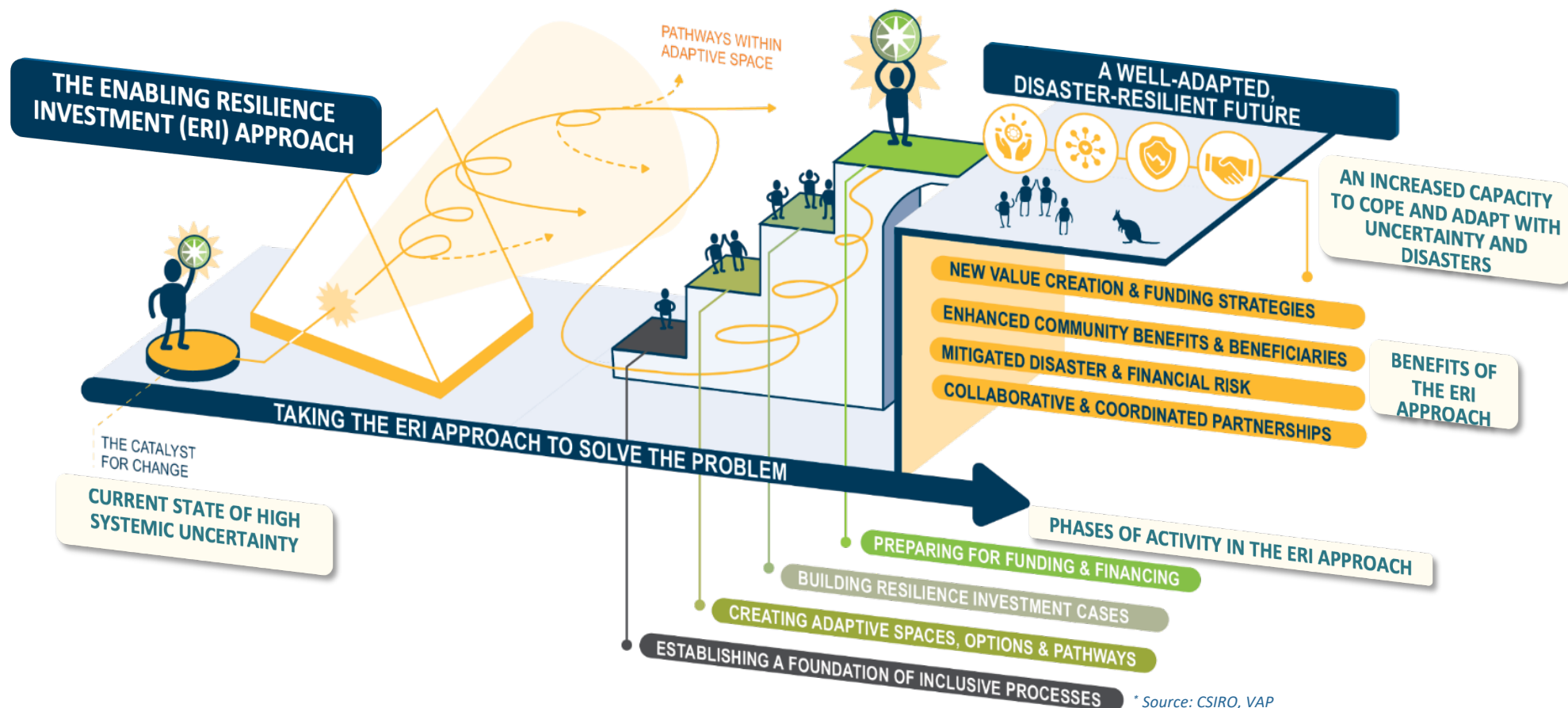
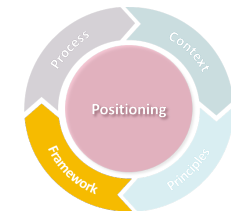
To address these systemic issues requires individuals and organisations to enhance their existing assessment and decision-making approaches and processes – at all levels and phases of their decision making – to account for:

- inclusive engagement
- community benefits
- uncertainty
- opportunities for value creation
- resilience outcomes
- adaptability
- learning.

Three interdependent levels of decision making to enable coordination



The Enabling Resilience Investment (ERI) approach for building Australia's resilience investment environment



The Enabling Resilience Investment (ERI) approach:

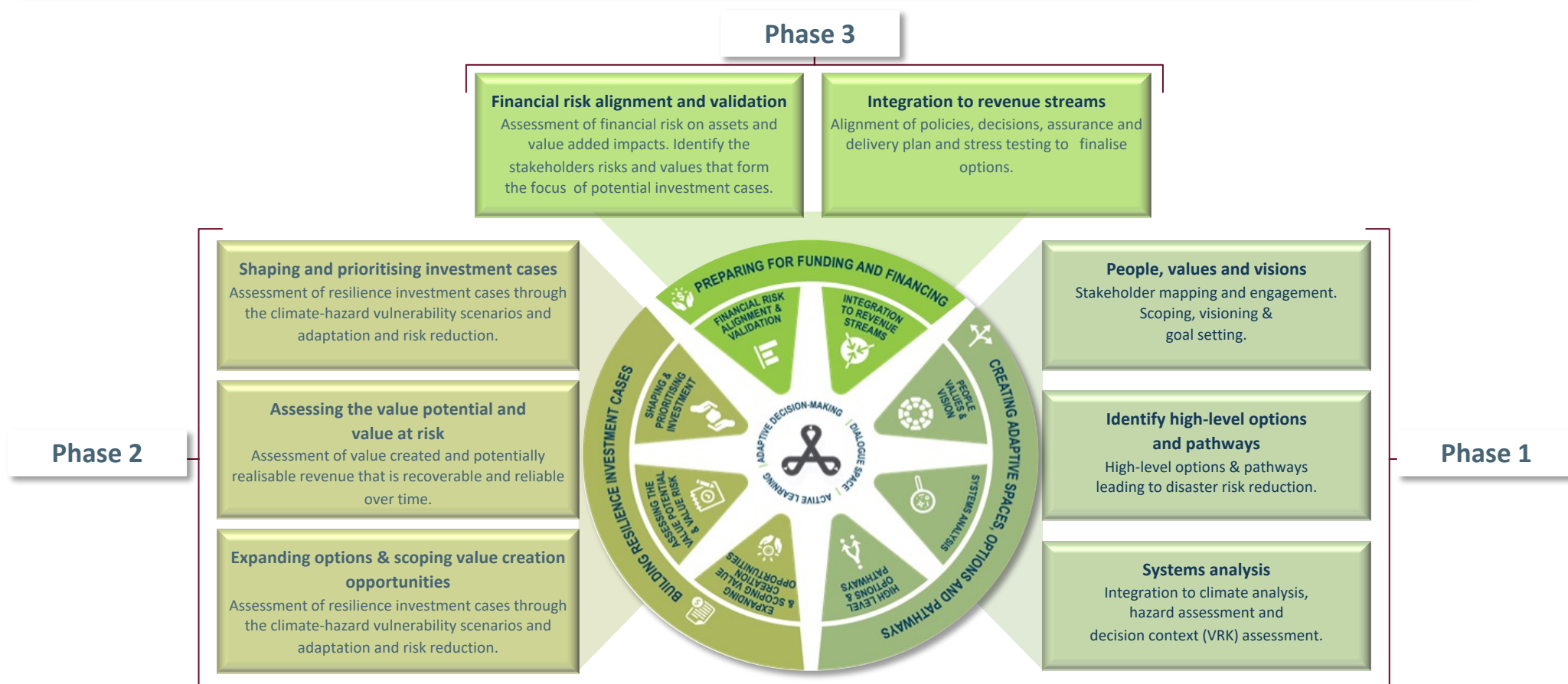
- provides the frameworks, assessment methods, guidance, tools and processes to support individuals at the strategy, planning, policy, project levels
- explores scenarios of what could happen to inform and develop low regrets and robust options and pathways that adaptively steer towards the desired futures
- creates adaptive spaces, options and pathways – including the development of a vision(s) for what a well-adapted and disaster resilient future looks like
- builds resilience investment cases and has developed methods to integrate and continually assess investment cases for public and private funding and financing
- enables stakeholders to establish the foundations of inclusive processes

The ERI Framework - supporting implementation of the ERI approach



ERI phases and modules to support engagement, assessment and delivery

- The ERI framework is supported by a guidance document describing the phases, modules and components of activities and assessments to generate options and pathways, build resilience investment cases, and deliver funding and financing.
- The Phases describe three domains of activity and communicate the scope of capabilities involved.
- The Modules specify broad functions that need to be performed to deliver fundable resilience investment cases. This level of description is aimed at identifying the complete set of critical functions that need to be performed.



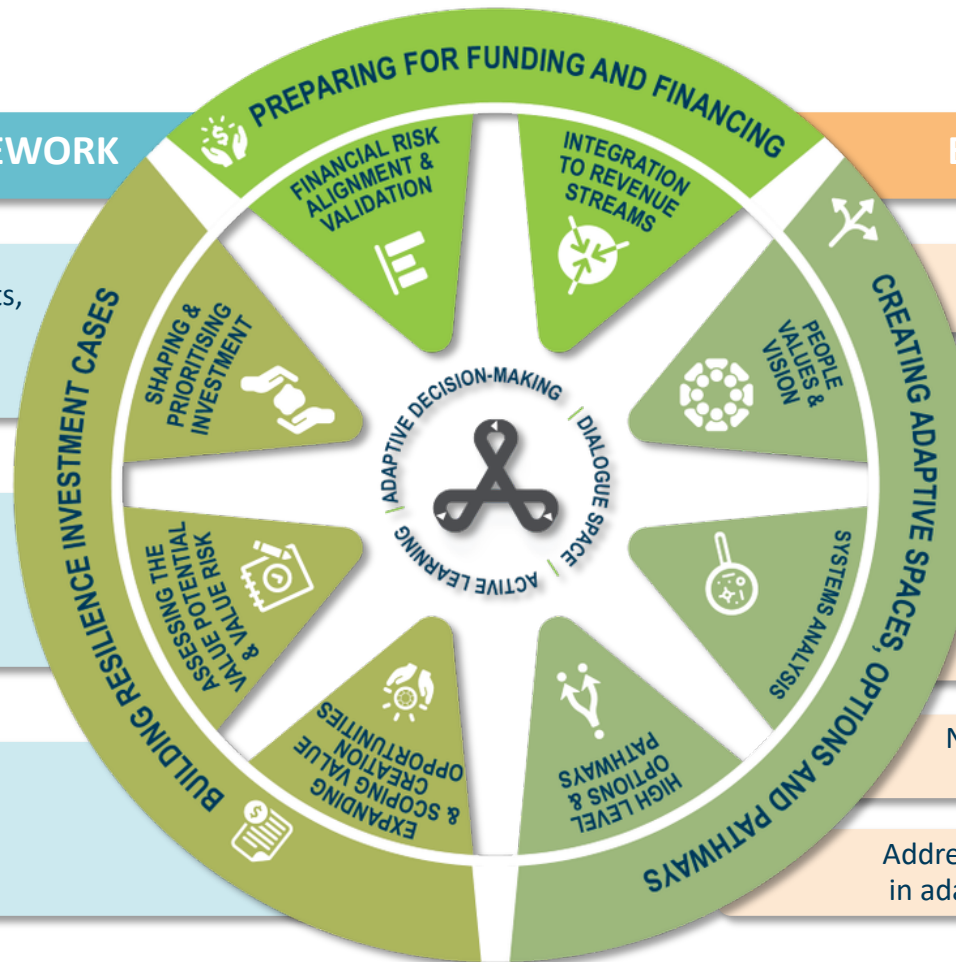
Attributes and Benefits of the ERI Framework

ATTRIBUTES OF THE ERI FRAMEWORK

Outlines the phases, modules, components, and processes required for disaster risk reduction

Enables the creation of adaptive spaces, options and pathways for increased capacity to cope with disasters

Helps create value for communities, build resilience investment cases, and prepare for funding and financing



BENEFITS OF THE ERI FRAMEWORK

Inclusive and systems-based framework providing quantifiable outcomes

Develops collaborative & coordinated partnerships

Assesses mitigated disaster & financial risk

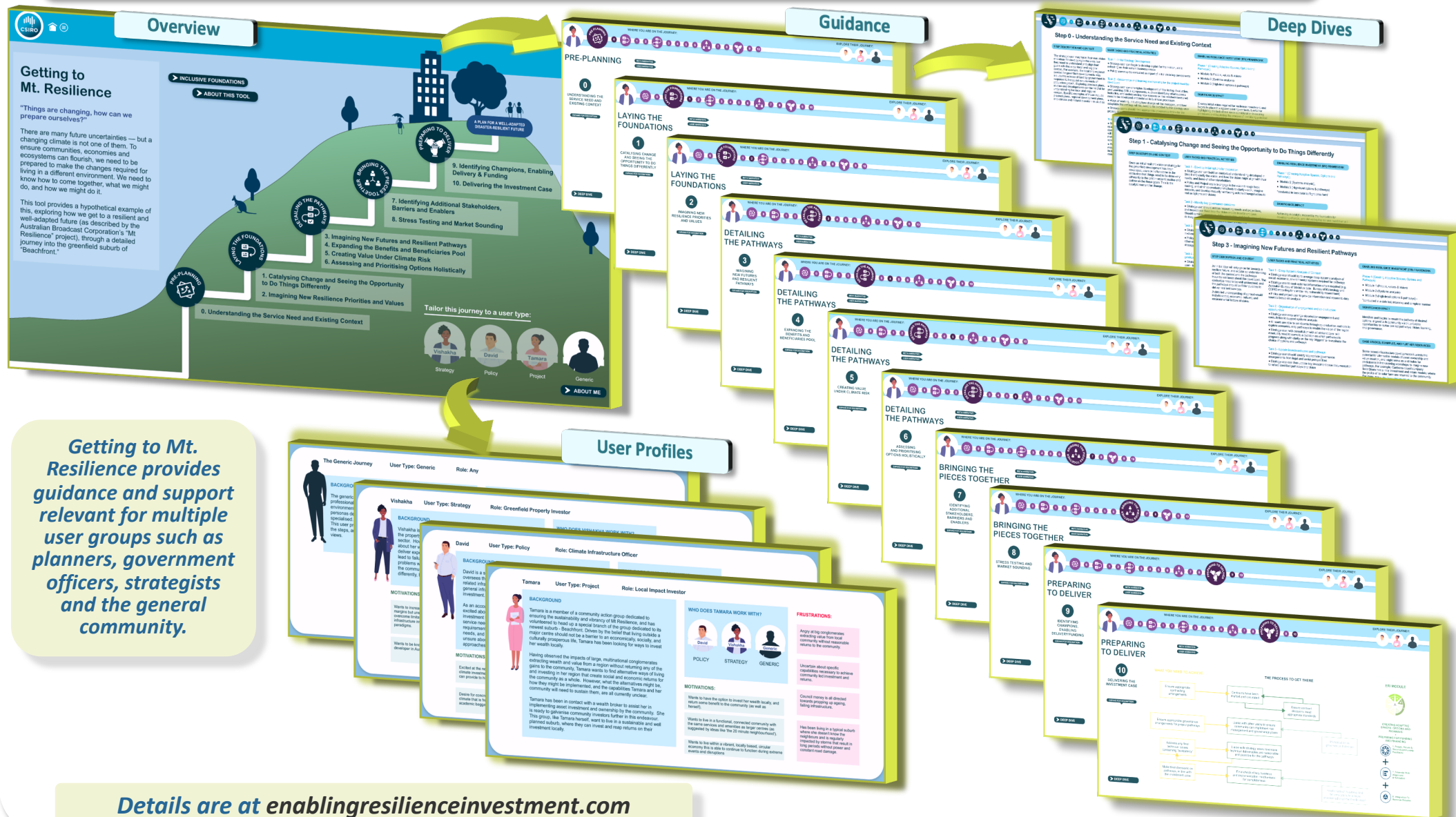
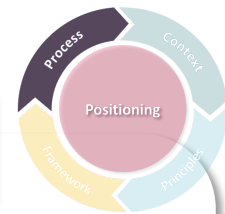
Delivers enhanced community benefits & beneficiaries

New value creation & funding strategies to fund well-adapted and disaster-resilient futures

Addresses the economic assessment of investments in adaptation, disaster risk reduction and resilience

Guidance on a Resilience Investment approach

Example: Getting To Mt. Resilience – a hypothetical study providing illustrative user journeys



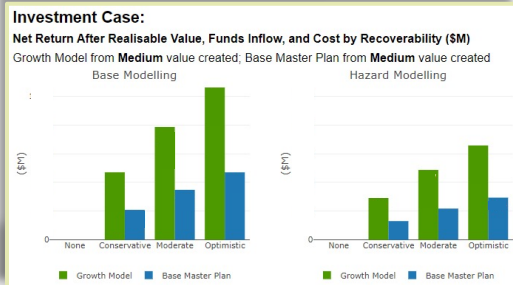
Assessment and prioritisation of options to develop a Resilience Investment Case: an iterative approach to realising benefits via adaptation and risk reduction

Expanding options & scoping value creation opportunities

Assessment of value created and potentially realisable revenue that is recoverable over time due to DRR, adaptation or resilience

Prioritise and sequence pathways for maximum benefit

Financial risk alignment and validation



Resilience Prioritisation Assessment by hazards, vulnerability

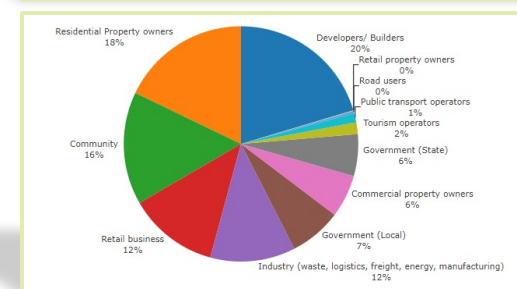
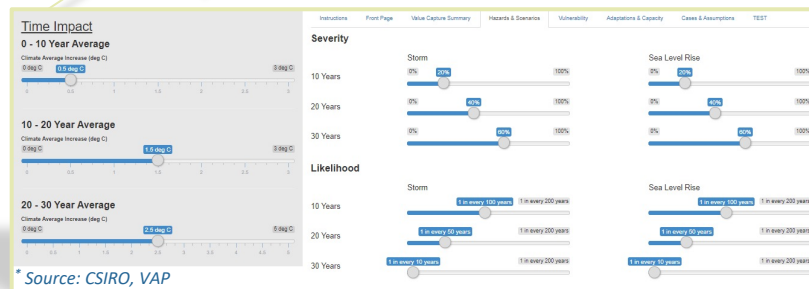
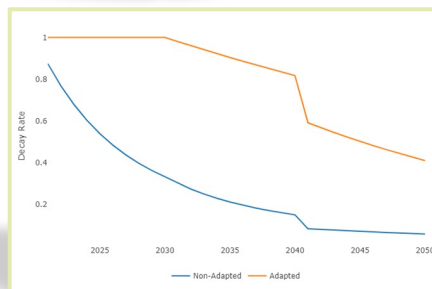
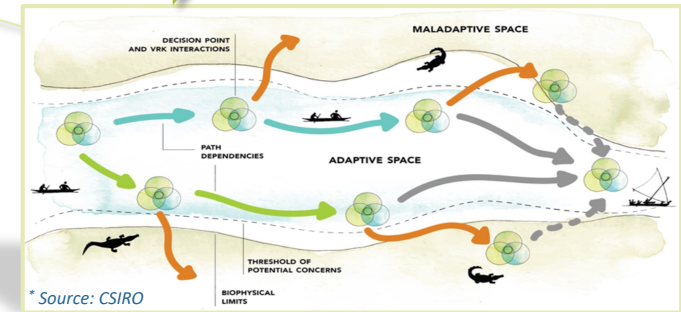
Risk Assessment by hazards and climate scenarios

Impact assessment on value and metrics via damage curves for hazards and climate scenarios

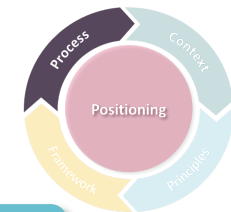
Integrated opportunity assessment

Value Creation Analysis for opportunities, beneficiaries and benefits

Value Realisation Analysis for opportunities, beneficiaries and benefits



Outcomes are developed for each project and area



Metrics



Key Metric outputs of analyses:

- Value created
- Jobs created and ongoing
- Realisable value
- Recoverable revenue
- Community outcomes
- Social capital
- Natural capital



Investment case outcomes



Investment case outcomes:

- Integrated results incorporate costs, funding and revenue to provide cash flows, net present value (NPV) of investment case comparisons, beneficiaries, enhanced community benefits and funding serviceability



New Value Creation and Funding Strategies



- Place-based resilience investment case dashboards (user interface) with scenario outcomes for different value creation, investment pathways and local climate-hazard-vulnerability scenarios



Delivering resilient strategies and risk mitigation

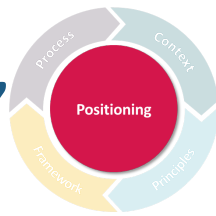


Detailed reporting:

- Synthesis report – framing, approach, and enabling resilient, flexible and agile investment cases which adapt for uncertainty and mitigating risks



The ERI engagement strategy: aligned to government and business needs, accessible to all and enhancing communities across all Australia



Aligned to Australia's resilience approach:

- National Disaster Risk Reduction Framework
- National Recovery and Resilience Agency
- Australian Climate Service
- Infrastructure Australia Investment Case approach

Supported by:

- Profiling Australia's Vulnerability
- Strategic guidance on climate and disaster risks – resilience prioritisation
- AIDR Systemic Disaster Resilience Handbook

We can plan for our places to be liveable, sustainable and resilient in the future

ENHANCING OUR CITIES



ENHANCING OUR SUBURBS



ENHANCING RURAL & REGIONAL AUSTRALIA



* Source: CSIRO, VAP

Enabling Resilience Investment delivery:

The ERI approach is delivered through the multi-year collaborations of:



CSIRO,
the Australian Government's
Scientific Agency,
which is a leading climate
resilience and adaptation
assessment group.



**Value Advisory
Partners,**
a boutique advisory
firm specialising in
value analysis for
investment cases.

**Partnering with universities,
private sector companies,
community and governments
to deliver this approach**

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