

Bushfire and Natural Hazards CRC

Shaping a Research Centre

Dr Richard Thornton

CEO



bushfire&natural
HAZARDSCRC

- o 10 years of co-ordinated research.
- o Many successes
- o Commonwealth funding finished in July 2013 – commitment to continue until July 2014
- o Focus on delivery to end-users in remaining 10 months

A large, semi-transparent watermark of the bushfire CRC logo is positioned diagonally across the right side of the slide. The logo features a stylized flame icon with a teal left side and a red right side, above the text "bushfire CRC" in a dark blue, sans-serif font.

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Bushfire and Natural Hazards CRC

- Research to build a disaster resilient Australia
- Building upon a decade of Bushfire CRC achievements
- From 1 July 2013 under Australian Government CRC Program



Expanded focus

Bushfire research focus expanded into:

- o Flood
- o Storm
- o Cyclone
- o Tsunami
- o Earthquake
- o Other natural hazards



A national partnership

- Cooperative Research Centre Program funds - \$47m over 8 years
- Total funds \$130M (cash and in-kind)
- Fire, Emergency service, policy and land management agencies from all states and territories
- Research partners including Universities, BOM and GA.



Research

- Coordinated
 - Cooperative
 - Interdisciplinary
-
- To support emergency services, government.
 - To prevent, prepare for, respond to, and recover from natural disasters.



Working with communities

- o To improve disaster resilience
- o To reduce the human, social, economic and environmental costs of bushfires and other natural hazards



Guiding principles

- o National focus
- o Large scale of problem
- o Multi hazard
- o Filling a gap in knowledge
- o Sizable impact
- o Likelihood of adoption



195 proposals 35 shortlisted \$47m over 8 years

1. PM Announcement (13 Feb)
2. Problem statements
3. Call for proposals
4. Proposal evaluation
5. Workshop (23 May)
6. CRC began (1 July)
7. Planning in detail – August-October



Board and Staff

o Board

- o Dr Laurie Hammond (Independent Chairman)
- o Tony Sheehan (AGD)
- o David Place (SAFECOM)
- o Stuart Ellis (AFAC)

o Staff

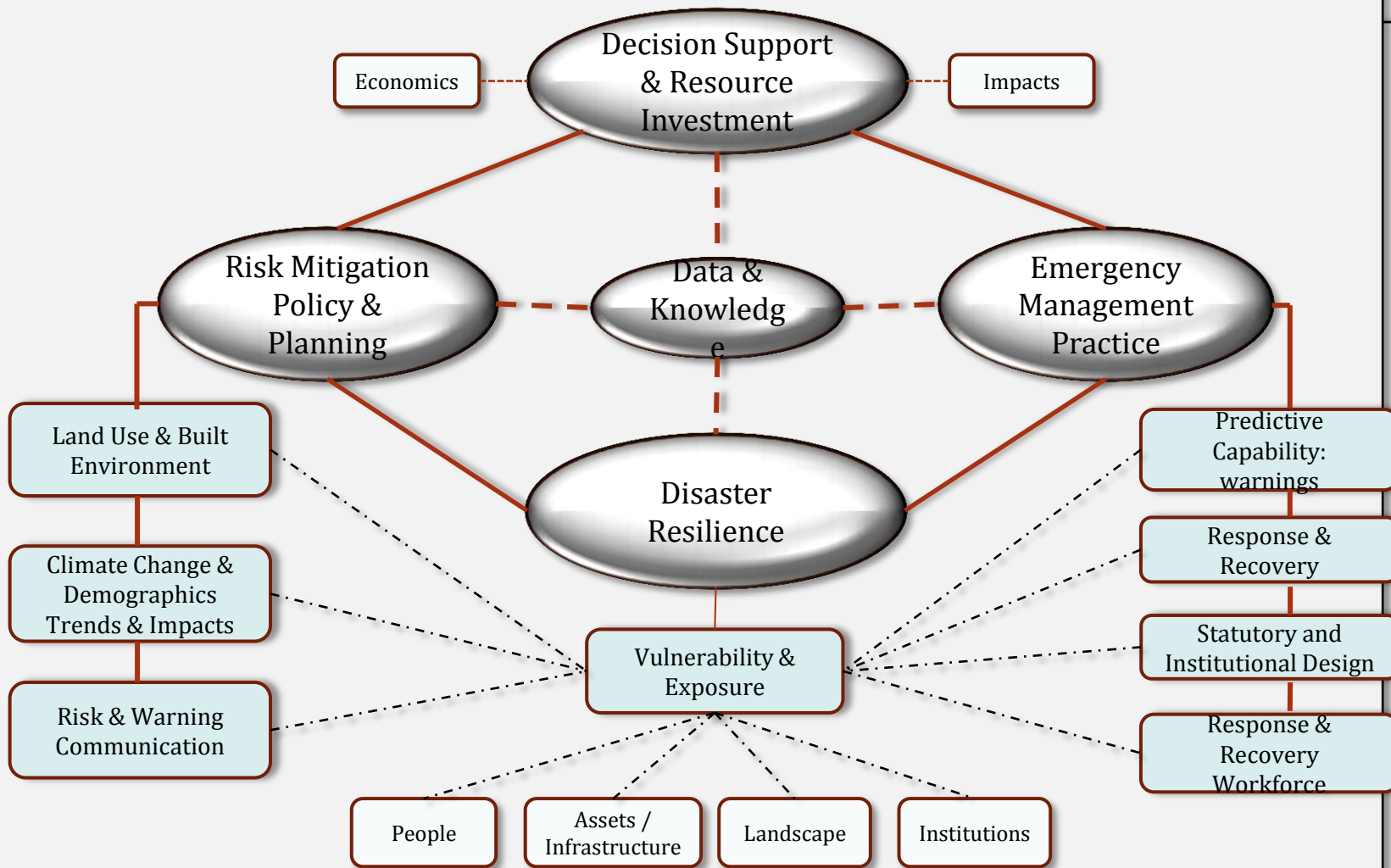
- o Dr Richard Thornton – CEO
- o David Bruce – Communications Manager
- o Leanne Beattie – Executive Assistant
- o TBA – Research Manager



Implementation team

- o Research Planning team
 - o Martine Woolf (GA)
 - o Jill Edwards (AFAC)
 - o Simon Heemstra (NSW RFS)
- o Establishment phase
 - o Naomi Brown (Interim Chair)
 - o Neil Head (AGD)
 - o John Schauble (Vic Emergency Services Commissioner)
 - o Alex Rofe (AGD)





Bushfire

Flood Storm Cyclone

Tsunami Earthquake

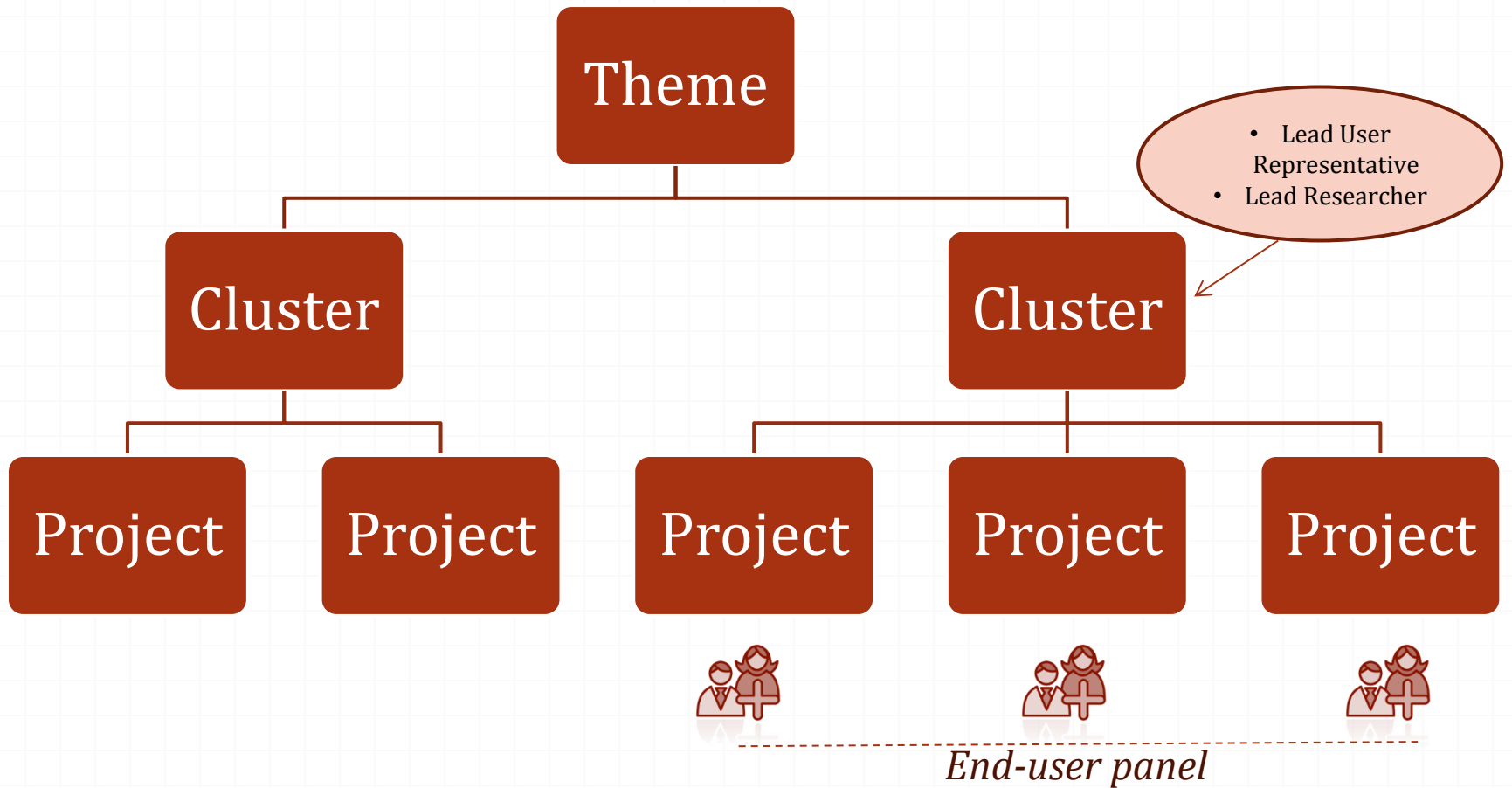
Other Hazards



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Research Program - themes





Theme

Economics, Policy and Decision-making

Governance and institutional knowledge

Economics and strategic decisions

Scenarios and loss analysis

Resilient People, Infrastructure and Institutions

Communication and warnings

Emergency management capability

Sustainable volunteering

Understanding and measuring social resilience

Hardening buildings and infrastructure

Bushfire and Natural Hazard Risks

Monitoring and prediction

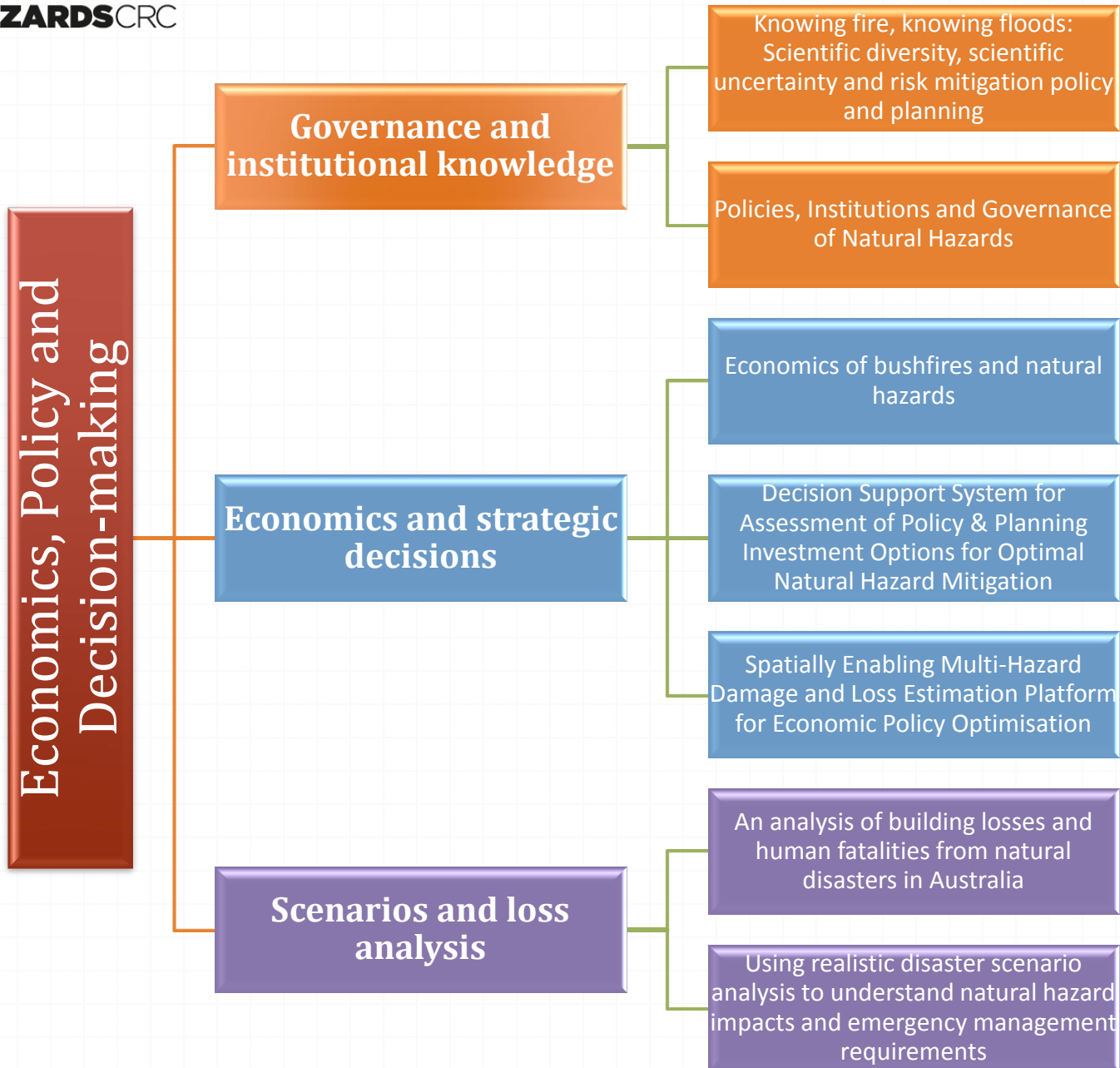
Next generation fire modelling

Prescribed burning and catchment management

Coastal management



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Resilient People, Infrastructure and Institutions

Communication and warnings

Building best-practice in child-centred disaster risk reduction

Improving the role of hazard communications in increasing residents' preparedness and response planning for recurring natural hazards

Building resilient communities: Creating effective multi-channel communication during disaster response and recovery

Managing animals in disasters

Emergency management capability

Capability needs for emergency and disaster management organisations

Practical decision tools for improved decision-making in complex time-constrained and multi-team environments

Sustainable volunteering

Out of uniform: building resilience through non-traditional emergency management

Improving retention and engagement of volunteers in emergency service agencies

Understanding and measuring social resilience

Mapping and Understanding Bushfire and Natural Hazard Vulnerability and Risks

The Australian natural disaster resilience index

Building community resilience in Northern Australia

Hardening buildings and infrastructure

Natural Hazard Exposure Information Modelling Framework

Wind, Flood, earthquake, roads and infrastructure



Bushfire and Natural Hazard Risks

Monitoring and prediction

- Bushfire and flooding: landscape condition information for risk assessments and forecasts
- Disaster landscape attribution: thermal anomaly surveillance and mapping, data scaling and validation
- Mitigating the effects of severe fires, floods and heatwaves through the improvements of land dryness measures and forecasts
- Improved Predictions of severe weather to reduce community impact
- Improving flood forecast skill using remote sensing data
- Improving data integration, interoperability, accessibility and utility for natural hazards risk and response management in northern Australia

Next generation fire modelling

- Fire Spread and Building Exposure Predictions Across Fuel Types and Communities
- Fire Danger Rating Project

Prescribed burning and catchment management

- Does size matter? Cost-effective prescribed burning
- Precision catchment management: protecting water and carbon assets
- Bushfire management and Environmental Services opportunities for building remote community resilience
- Allocation to address 'GAPS'

Coastal management

- Resilience to clustered disaster events on the coast- storm surge
- Develop better predictions and forecasts for extreme water levels

www.bnhcrc.com.au

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