

National Climate Beacon Centre

Proposal for identifying priorities and directing research effort and funding at the intersection of the net zero transition and climate adaptation.

Developed by Griffith University and CSIRO

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What is the challenge

The mitigation-adaptation nexus: Net Zero Emissions + Climate Risk.

We need to adapt to a rapidly changing climate while at the same time decarbonising the economy, yet these problems are typically treated in isolation (i.e. Integrated Mitigation & Adaptation; IMA). The mitigation and adaptation gaps are growing so new knowledge, tools, approaches and decision support needed

Resilience is important : How we address these challenges has importance for the resilience of our systems and economy and impacts equity considerations. Opportunities to avoid unintended consequences and promote synergies

Places matter: a lot of the upside opportunities and many social risks and vulnerabilities come together in places. We need to identify knowledge gaps, feasible options and strategies, design decision support tools, and build capacity to unlock place-based action yet we limited capacity to progress these opportunities.

Information is diffuse and siloed: much relevant information exists but is not accessible. Professional groups are looking for guidance on risks and standards. Community groups are looking for information of how change will impact the things they value. Businesses need cost-effective solutions, and it is not easy to obtain trusted and comprehensive information.



How do we address the challenge

Intertwined challenges: build strong networks between government, community, academia and industry sectors to:

- mobilise legitimised information to accelerate coordinated mitigation and adaptation actions
- Identify knowledge gaps and prioritise targeted R&D activities

Resilience is important: strengthen capacity for participatory processes to support climate justice and build processes and capabilities for incorporation of climate risk into decision making and planning.

Places matter: Fostering collaboration and supporting inclusive local leadership to tackle problems and capture opportunities and using value chain decarbonisation to unlock place-based opportunities

Information is diffuse and rapidly updating: Sectors and stakeholders have the capacity and capability to access the necessary tools and trusted source of information needed for navigating new regulatory environments and for understanding and responding to rapidly changing risk environments.

How will the Centre fill these gaps*

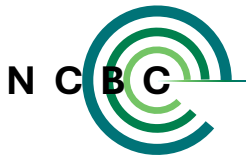
- **Convening networks** across community, policy, industry, R&D to prioritise action, direct R&D and investment and build action groups in emerging issues such as housing, infrastructure, at the intersection of these challenges
- **Mobilising Information and anticipatory modelling** to support collective actions ensure that mitigation and decarbonisation actions are not vulnerable to maladaptive choices
- **R&D priorities:** The convened networks of community, business and government identify the new knowledge, tools, approaches and decision support needed to advance IMA

- **Integrate knowledge on risks and adaptation/mitigation responses** to support community action, financial investment for resilience action, and insurability.
- Employ communications, innovative uses of data **to ensure that socio-economic vulnerabilities are well-understood and are factored into transition policy and planning**

- **Direct resources and conduct place-based regional experiments** to pilot approaches and build evidence for action and work with tiers of govt to establish community sensitive planning, recovery and relocation processes
- **Co-designed, place-based approaches** enable a broad range of stakeholders to identify pathways and actions that secure their futures.
- **Analysis of trends and risk**, including socio-economic vulnerabilities informs industry standards, actions and transition policy and planning

- **Build trusted and reliable information and tools** to support a capable services sector to assist transition needs, including connecting with locally led training programs e.g. Indigenous land management.
- **Facilitate knowledge sharing to support strategic planning and implementation** using co-designed participatory approaches that consider the needs of vulnerable groups.
- Collaborate with **learning institutions to embed climate literacy** into university curricular as a core unit, including short courses to support literacy, capability and capacity building.

* A fuller list was included in the information pack



Steering Committee



Bringing expertise from across Australia, and leading parties in adaptation research, the Steering Committee will guide the strategic direction of the NCBC in delivering its mission and activities under each focus area.

The National Climate Beacon Centre

A national hub for identifying and directing funding, coordinating and advancing collaborative climate action research, sharing best practices and policies & building the collective capability and capacity across government, sectors and society to support climate transition planning and implementation through research and practice-based learning and application.

Industry
Community
Government
Research Inst.

The NCBC focuses on 3 key areas

Discourse and Discovery	Piloting and Activating Pathways to Climate Action	Mobilising Climate Action Knowledge
Coordinated and forward-looking research and engagement approaches	Place-based case studies where climate action strategies and options can be piloted and validated	A learning hub to identify, translate and implement climate action knowledge

Implementation Network

R&D providers

Industry/ government community/ service providers

Other emerging networks

Leveraging existing and emerging network groups composed of diverse system stakeholders representing the perspectives of industry, government and community. This 'network of networks' will ensure the NCBC's activities are firmly grounded in the needs and challenges of diverse stakeholders, forming a valuable feedback loop between research and practice.

Vision

The risks and opportunities of a low-carbon future are understood, communities, industries and organisations are equipped to take necessary climate action, all sectors have the capacity to adapt to, and advance just and inclusive outcomes

A better connected, coordinated and informed innovation system building Australia's capability and capacity towards climate resilience, adaptation and mitigation.

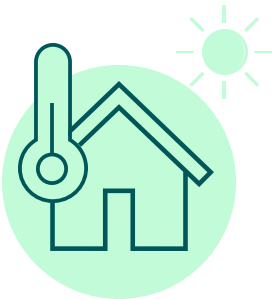
Use Case 1

Climate Resilient and Low-Carbon Housing

The Problem

Australian housing crisis

- Housing policies are fragmented, and current responses do not consider long term needs or impacts and risks of climate change on housing
- There is an undersupply of dwellings, underinvestment in social and affordable housing and barriers to home ownership
- Proposed new housing developments are reliant on industries experiencing skill shortages, instability and affordability issues



The Solution

Climate-resilient and low-carbon housing

Interventions:

- Appropriate and considered building codes that also consider a large range of environmental conditions
- Retrofitting of existing homes and the re-design of suitable dwellings
- Public-private partnerships to supply suitable housing
- Broadening the housing policy focus from urban and suburban areas to consider regional and remote Australia and community needs.
- Coherent housing policies that consider longer term needs and climate resilience
- Responding to skills and workforce shortage in regional and remote areas

NCBC's role in driving climate capability

Address the fragmentation in knowledge, action and policy by coordinating action among research, industry and policy, informed by the community's emerging needs, including both private and public sector practitioners, by:

- Leading dialogue, discussion and outcomes on integrating climate considerations into housing standards and policies.
- Convening of roundtables with an evidence-base – bringing together major players including community voices to identifying what needs to be done.
- Catalysing public private and community partnerships to pilot and deliver resilient infrastructure and housing
- Providing innovation spaces and evidence, analysis and tools for climate futures pathway planning.
- Supporting and evaluating placed- and system-based responses.
- Brokering the necessary expertise.
- Identifying and presenting positive policy options and activating place-based pathways.

Next steps for impact:

- Support ongoing efforts by connecting for example, agricultural to remote housing, or anticipating the impact of industrial and sector decarbonisation and infrastructure build on local housing supply
- Learn from existing initiatives to inform further actions
- Identify where we can integrate adaptation and mitigation pathways to enable remote Australia to flourish in a climate-changing world

Use Case 2

Micro-credentials and Job Skilling for Climate Action

The Problem

A critical need for climate capability to adapt and mitigate

- Businesses, government and communities are facing increasing climate related risks but struggle to be proactive due to lack of knowledge, skills, resources and tools
- Increased vulnerability and lost opportunities for climate adaptation and net zero transition.

The Solution

Micro-Credentials and Executive Leadership for capacity building

- Scalable, flexible, accessible and affordable short courses
- Strengthening executive e capability to support strategic and operational resilience, financial and investment stability, reputation and legal protection.
- Upskilling of workforce to build climate resilience and leverage net zero transition opportunities

Case Study

Becoming Climate Ready – Micro-credential

- 10-week online [BCR course](#) to build local government capability to manage climate risk and take advantage of opportunities
- 8 topic areas, 2 compulsory online workshops
- A range of topics and learnings, applied to local context
- Diverse participation: NSW, SA, QLD, VIC and State

● NCBC's role in driving climate capability

Facilitate industry dialogue (via the Alliance of Peaks) and broader engagement with key groups, identifying needs and establishing a forum connected to education providers through the Centre to:

- Promote stronger industry engagement
- Support needs-based education and training
- Encourage collaboration and knowledge sharing
- Embed systemic change
- Align with policy and strategy

Contribute to development of co-designed, sector relevant, short duration, high-impact practical capability building programs

Next steps for Impact

- Priority sectors: government, private, industry, non-profits and community
- Aligned to emerging challenges, to embed systemic climate resilience and leverage NCBC's network to foster cross-sector collaboration for sustainable transformation

What would it take to bring this to life?

A core body willing to take this to the next phase: we have an alliance of peaks keen to provide expertise and guidance, but we would like to shape this with government

A block of core funding to provide coordination, governance and house knowledge infrastructure

Limited resources to take this to a broader body of partners to build an alliance across the innovation system and develop a more detail prospectus

Place-based and challenge fund activity to target prioritised areas developed in concert with a reference committee bought together from government, industry and community
(CRC scale funding)



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