

NSW Decarbonisation Innovation Hub

An Overview of Hub Establishment

Resources, Energy & Industry Innovation Forum 2023

Office of NSW Chief Scientist & Engineer

June 2023

About Office of NSW Chief Scientist & Engineer



The Office of NSW Chief Scientist & Engineer (OCSE) has four distinct functions:

- **1. Independent Advice** - delivering evidence-based scientific advice to government on a range of difficult challenges.
- **2. Research Support** - manages a range of research support programs to ensure that NSW attracts and retains researchers and research infrastructure.
- **3. Industry Development** - brings academia, government and industry together to drive the commercialisation of research excellence, with the aim of producing prosperous outcomes for the state. Advice is provided to government to assist in the development of new high-tech precincts and in new industries, particularly advanced manufacturing.
- **4. Science Outreach and Education** - ensuring that both students and the general public are given the opportunity to engage with science and scientists.

OCSE Decarbonisation Innovation Projects



OCSE has projects across functional areas supporting NSW decarbonisation

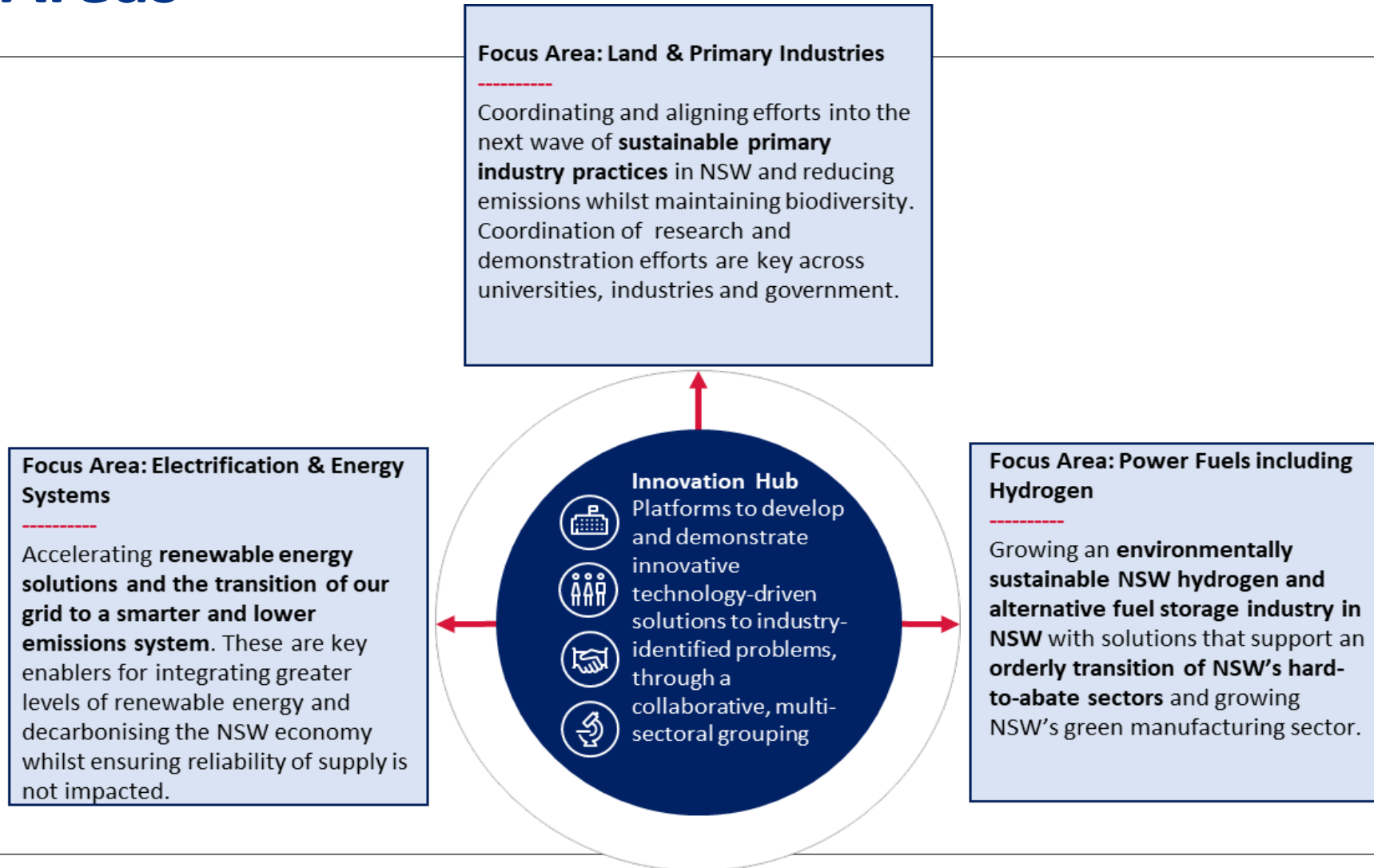
- **1. Independent Advice**
- NSW Decarbonisation Innovation Studies.
- **2. Research Support**
- NSW Decarbonisation Innovation Hub and three Networks.
- Research Attraction & Acceleration Program (RAAP) co-invest Australian Government programs in climate research infrastructure, technology and skills.
- **3. Industry Development** - NSW Power-to-X Studies.

NSW Decarbonisation Innovation 2020 Study



- In September 2019, the (former) NSW Minister for Energy and Environment requested the NSW Chief Scientist & Engineer (CSE) to undertake a study to
 - Assess the challenges and opportunities in meeting emissions targets while generating economic growth
 - Provide biennial review on the development and commercialisation of new and emerging clean technology under the Net Zero Plan
 - Support the design of priority areas for the NSW Clean Technology Innovation Program
- In August 2020, the first study 2020 Decarbonisation Innovation Report titled *Opportunities for prosperity in a decarbonised and resilient NSW* was released. The 2020 study:
 - Presented 65 opportunities on innovative technologies and services that would deliver greater environmental economic benefit to NSW
 - Suggested next steps for each opportunity for NSW Government to consider in realising their potential
 - One opportunity and next step is to establish **NSW Decarbonisation Innovation Hub and Networks** to coordinate efforts from research, government and industry.

NSW Decarbonisation Innovation Hub Priority Areas



NSW Decarbonisation Innovation Hub

Vision, Principles and Objectives



- Hub Vision - *a mature and collaborative decarbonisation innovation community in NSW for net zero and economic benefits*
- Hub Guiding Principles - Decarbonisation, Policy, Cost-Effective, Net Benefit and Collaboration
- Hub Objective - RD&D of cleantech and service, Foster partnership and projects, Attract investment to NSW and Support skills and workforce

NSW Decarbonisation Innovation Hub Establishment Process and Role of NSW Govt



- Hub Establishment Process

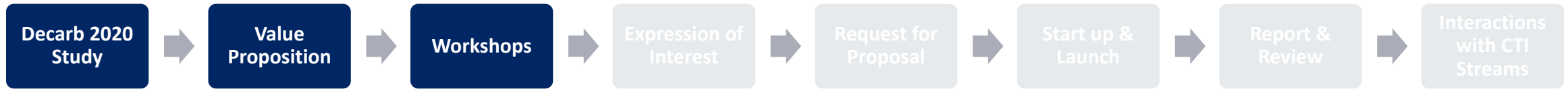


- Role of NSW Government

- Office of NSW Chief Scientist – Identification of priority areas for Networks based on findings from the NSW Decarbonisation Innovation Study and Hub establishment with successful ‘innovation network model’
- Office of Energy and Climate Change – Interactions with other four streams under Clean Technology Innovation Program and broader programs under the NSW Net Zero Plan
- Environmental Trust - Funding Management and guidance on Hub strategic plans and Networks working plans
- Other government departments and agencies – Hub partners, Network co-lead and members

NSW Decarbonisation Innovation Hub Establishment Process

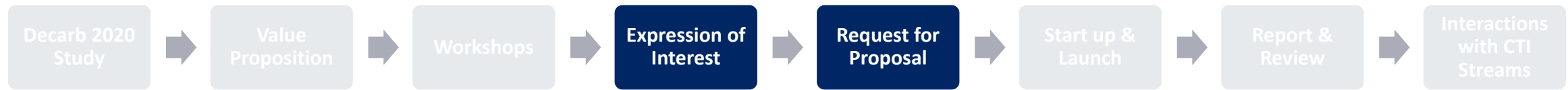
- Hub Establishment Process



- Decarbonisation Innovation 2020 Study – Offering 65 economic opportunities to explore
- Value Proposition – Alignment with industry & research strengths; emerging and new industries of strategic performance; opportunity for growth; socio-economic or environmental benefits
- Workshops - Test proposition with wider group of stakeholders, explore potential scope, roles and deliverables; interdependencies; leveraging opportunities; critical success and failure factors; primary and secondary objectives; metrics of success

NSW Decarbonisation Innovation Hub Establishment Process

- Hub Establishment Process



- Two stage processes involve an initial call for Expressions of Interest (EOI) followed by a Request for Proposal (RFP), Independent Assessment Panel for criteria development and EOIs/RFPs assessment
- EOI - Eliciting targeted responses and facilitating consortia where multiple bids received
- RFP – RFP call require description of the proposed Networks; expected roles of the host; potential objectives; leadership and governance structures

NSW Decarbonisation Innovation Hub Establishment Process

- Hub Establishment Process



- Start up & Launch - Management team setup, governance structure establishment and official launch
- Report & Review – Not ‘set and forget’ model for OCSE, streamlining report & review process with NSW Govt, regular ‘check-in’ with Hub and Network, and assist workprogram delivery
- Interactions with CTI - Grants opportunities, strategic directions and collaboration projects

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- 2022 Study key findings
 - **Foundational Elements.** Eight essential components for the accelerated the adoption of climate technologies
 - **Sector Interactions.** Five areas of strongest interdependencies among different sectors
 - **Sector Decarbonisation Innovation Readiness Level.** A new framework to assess current capability
 - **Sector Clusters and Opportunities.** 28 economic opportunities grouped under 13 sectorial clusters for most potentials
 - 2022 Study key messages:
 - Dynamic landscape since 2020 Study, competitive but NSW has competitive advantages to lead clean economy transition
 - Collaboration and Leadership are critical for the success
 - Next steps were proposed for all opportunities for NSW Government, Decarbonisation Innovation Hub/Networks and stakeholders to consider