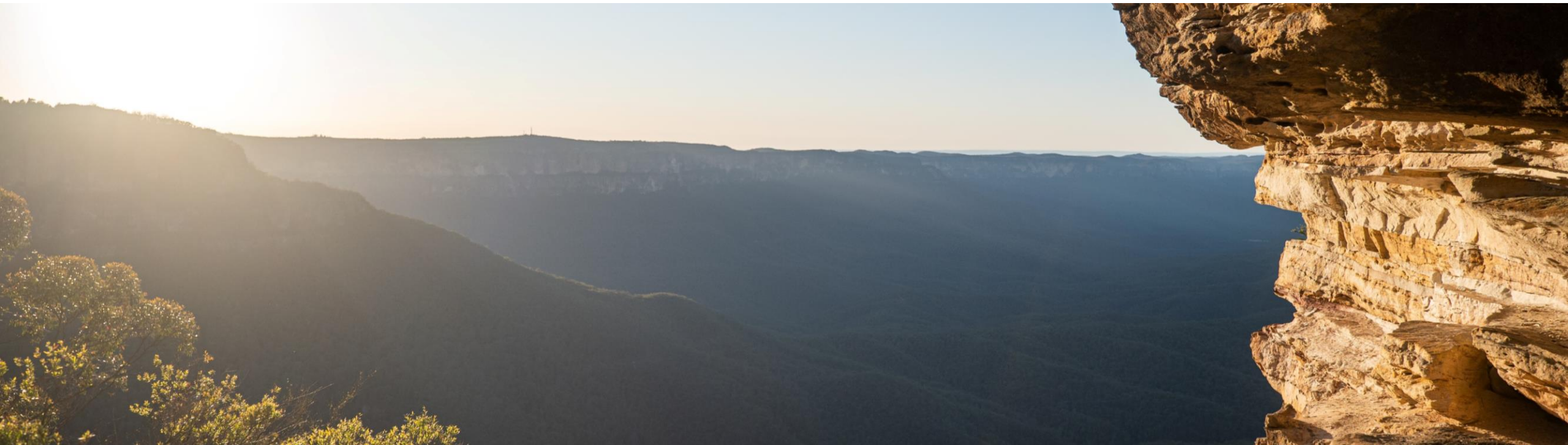
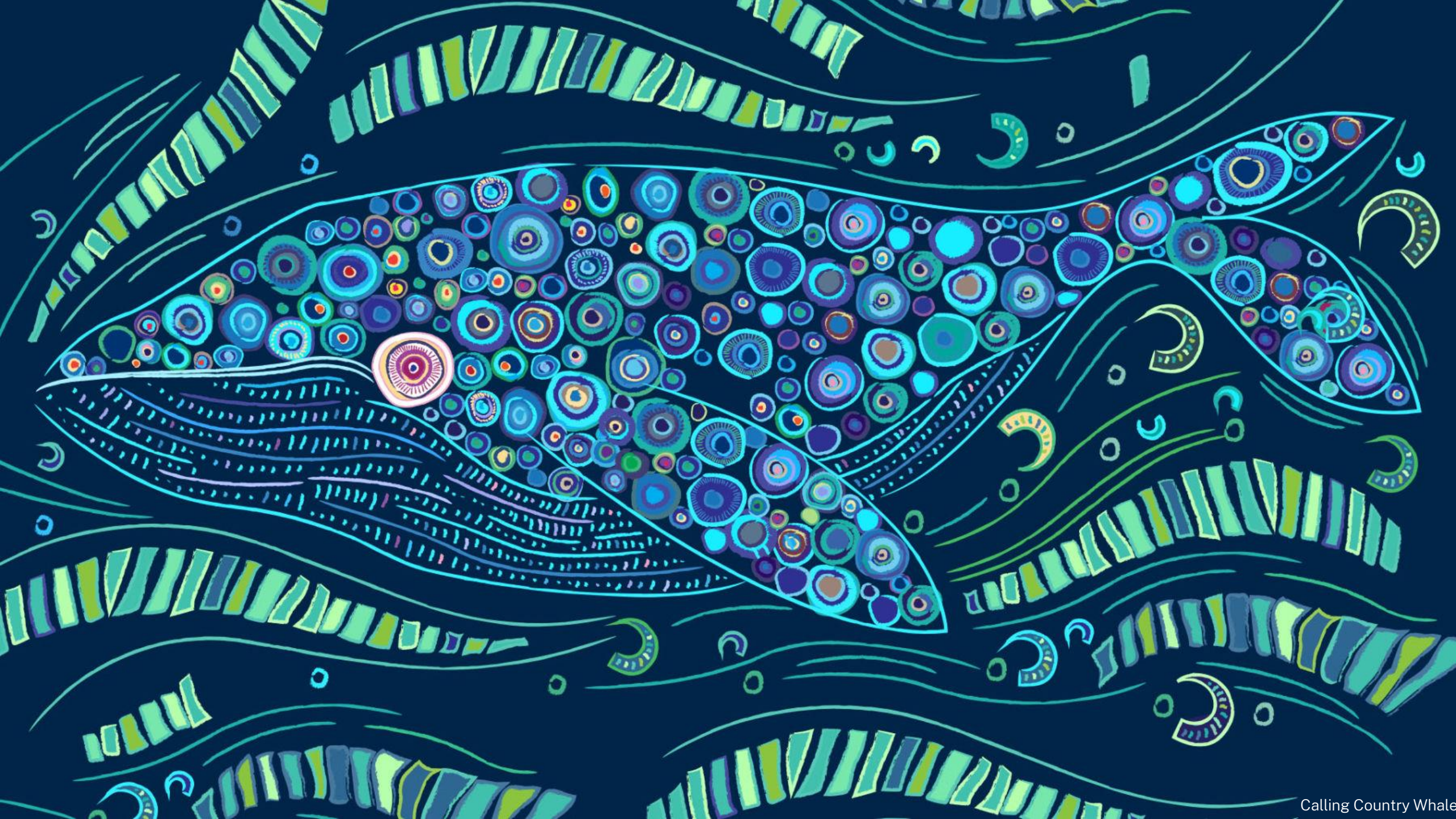


# Natural Hazards Technology Program Webinar

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Caroline Residovic,  
Senior Manager, Office of the Chief Scientist & Engineer



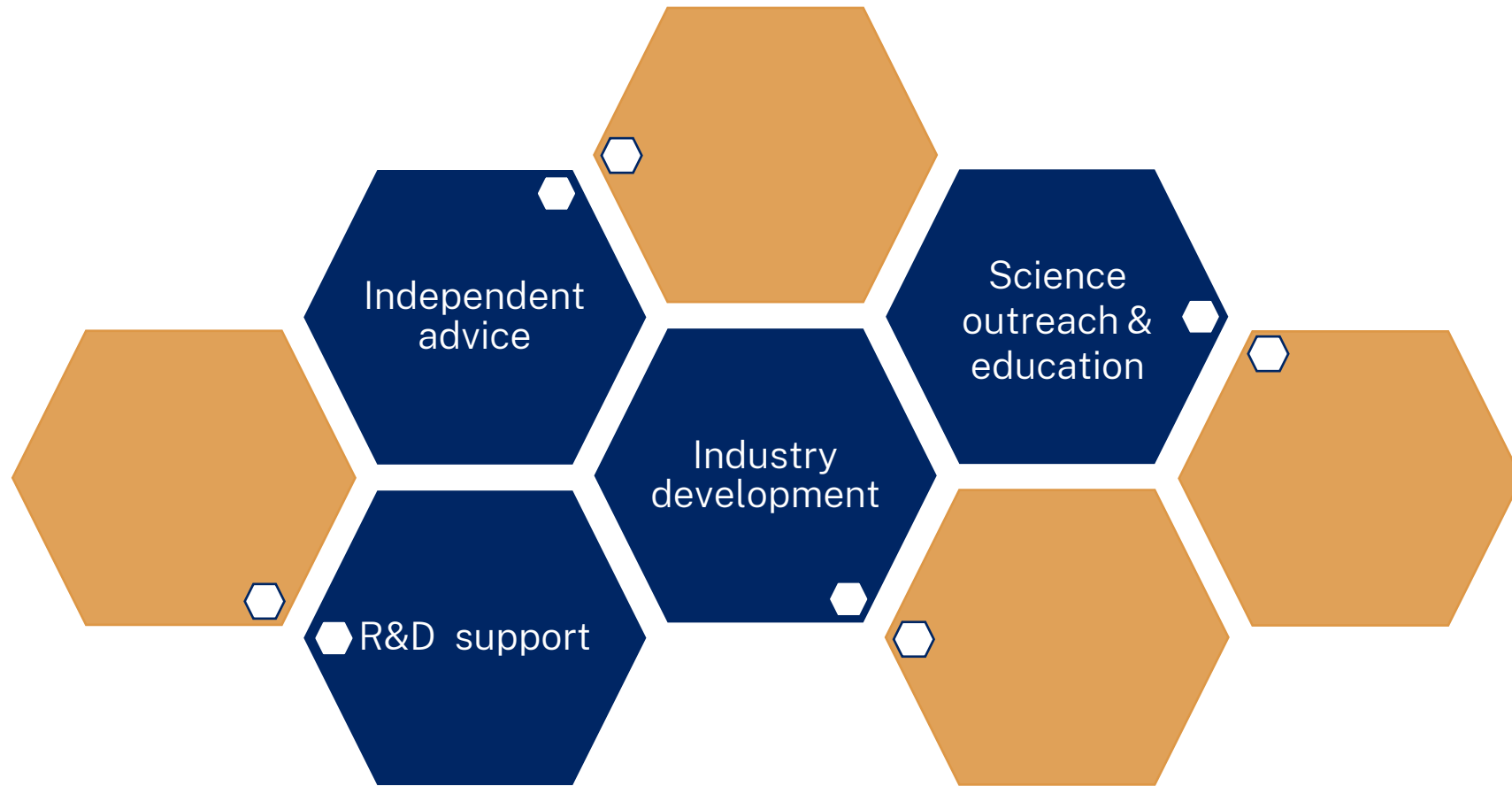


# Housekeeping

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- For the duration of the presentation and to assist with connection stability, please turn off your camera and mute your microphone.
- Please post your questions in the chat function. There will be an opportunity to discuss specific questions following the presentation.

# Office of the NSW Chief Scientist & Engineer (OCSE)



# Purpose of today

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- Provide an overview of the Natural Hazards Technology Program.
- Run through the application process, including the assessment criteria, and information required, and how applications will be assessed.
- *Note: As this is a competitive process, no further information regarding the challenges or their requirements will be provided.*

# Agenda

- 1 Program overview
- 2 Timeframes
- 3 Eligibility criteria and activities
- 4 Assessment Criteria
- 5 Assessment Process
- 6 How to apply
- 7 Questions





# Natural Hazards Technology Program



- New \$1.89 million competitive grants program to accelerate technology innovation and adoption to better prepare for and respond to natural hazards by trialling field-ready technology with NSW agencies.
- Provides up to \$250,000 in funding for businesses to field-test their technology solutions over a 12-month period with partnering NSW agencies
- Builds on success of Bushfire Technology Pilots Program, expanding remit to provide tangible assistance in overcoming challenges from natural hazards.

## Objectives:

1. Find technology solutions to challenges faced by NSW agencies in the response and management of natural hazards
2. Support innovative NSW businesses field-test their technologies with NSW agencies to:
  - refine and improve their product for market
  - build relationships with agencies to increase opportunities for future collaborations
3. Build and improve NSW agency awareness of innovation possibilities in natural hazards management and operations through exposure to new technology.

# Natural Hazard Challenges

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- **25 End-User Agency Challenges** – a challenge set by end-user NSW agencies requiring an innovative solution (applications can align to more than one challenge). Each challenge outlines a capability that the agency doesn't currently possess and for which it is willing to explore solutions over the next 12 months.
- **'Big Ideas' Challenge** – a cutting-edge or emerging technology/innovation in its application to natural hazards that could deliver a significant impact. Please note the technology will need end-user agency support before it can go through the assessment process.



# 25 End-User Agency Challenges



Number	Agency/ies	Name
1	Water NSW	Improved modelling for flood prediction and incident management
2	TfNSW	Maintaining transport routes impacted by natural hazards
3	FCNSW	Heavy plant construction models
4	RFS, RA	Understanding evacuation behaviours
5	NPWS	Managing rockfall and landslide risk
6	RFS	Airborne intelligence processing
7	RFS	Command-and-control interface
8	FRNSW, RFS	Intelligence creation
9	RA, DCCEEW	Visualisation of natural hazards impacts
10	FRNSW	Firefighter respiratory protection
11	FRNSW	Water alternatives for firefighting operations
12	FCNSW, NPWS	Bushfire fuel moisture monitoring
13	NPWS	Remote ignition detection and suppression
14	RFS	Hazardous tree identification
15	FCNSW, DCCEEW, RA, NPWS	Rapid asset condition and damage assessment
16	FRNSW	Delivery of emergency supplies to isolated locations
17	DCCEEW	Tracking seabed, beach and dune change over time
18	DCCEEW, Water NSW	Measuring water flow and bathymetry in rivers
19	DCCEEW, Water NSW	Water quality monitoring and predictive capabilities
20	DCCEEW	Monitoring and maintenance of dissolved oxygen in rivers
21	DCS, RFS, SES	Multilingual emergency warnings
22	DCS, RFS, SES	Auslan presentation of warnings
23	DCS, RFS, SES	Connectivity to the Hazards Near Me app
24	TfNSW	Voice connectivity and vehicle tracking for regional and remote staff
25	NPWS	Hearing aids for firefighters



+



NSW businesses can apply for more than one challenge

1

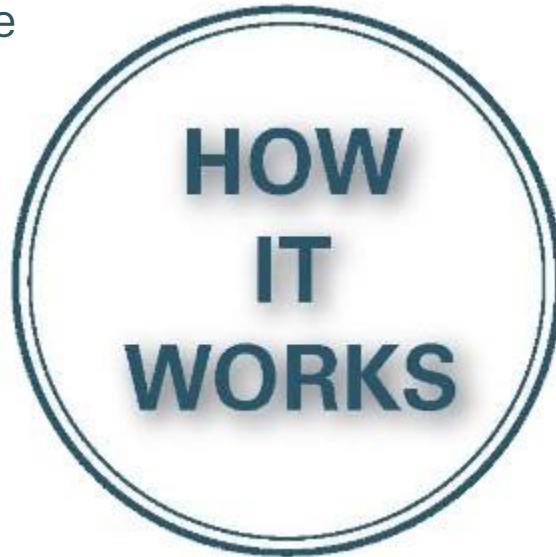
### Natural Hazard Challenges Set

25 NSW agency challenges

Big ideas challenge

2

### Open to NSW head-quartered businesses



3

### Assessment

Eligibility assessment & Panel assessment

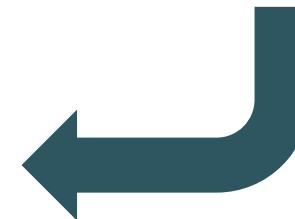


5

### 12-month funded pilot with NSW Agency

4

### Decision & contracting



# Timeframes

Activity	Timeframe
Applications close	10:00 AEDT Thursday, 14 March 2024
Assessment by Panel	March and April
Notification of outcome	May 2024
Earliest start date of pilot (grant activity)	July 2024
End of pilot (grant activity)	June 2025

# Eligibility Criteria

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Applicants must:

- Have an Australian Business Number (ABN)
- Be non-tax exempt
- Have an account with an Australian financial institution
- **Be headquartered in NSW**
- Hold the Intellectual Property or the rights to commercialise the technology
- Demonstrate the technology is ready to be trialled
- Demonstrate any funding from the NSW Physical Sciences Fund (PSF), Small Business Innovation and Research (SBIR) Program and other NSW or other state or federal government grant programs do not duplicate activities requested under the Program.

# Eligibility Criteria (entity types)

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Applicants must be one of the following entity types:

- A company incorporated under the Corporations Act (including a company limited by guarantee)
- An Aboriginal and Torres Strait Islander Corporation registered under the Corporations (Aboriginal and Torres Strait Islander) Act 2006
- A NSW public research organisation applying through its appropriate technology transfer office or the Chief Executive Officer (or equivalent) of the research organisation that will become a separate entity before entering into a legally binding funding agreement with DEIT.
- An individual who agrees to form such an entity so that DEIT can enter into a legally binding funding agreement.
- Ineligible applicants include consortia or partnerships with businesses that are insolvent.

# Eligible grant activities and costs

To be eligible, grant activities and costs must:

- Be directly relate to the project
- Be incurred within the project period
- Reflect competitive market rates
- Be a true and accurate reflection of costs required to deliver the activity.

Eligible activities/costs include, but are not limited to:

- Capital costs
- Building and providing extra units of the technology
- Specific professional expertise (e.g. drone pilot)
- Training of NSW Govt personnel as part of the trial
- Costs incurred by NSW Agency supporting the trial (e.g. travel to sites, supporting infrastructure, etc.)
- Costs to integrate technology with NSW ICT platforms
- Labour expenditure for temporary employment
- Licence fees incurred as part of the project
- Data analysis and/or management costs.

# 4. Assessment Criteria

Note: Applicants can apply for one or more challenges



Criteria	Assessment Questions	Points
<b>Solution</b> – <i>assessed by Agencies</i>	<ul style="list-style-type: none"><li>• <b>Suitability</b> (10 points): To what extent does your solution address the challenge statement, including any solution requirements?</li><li>• <b>Readiness</b> (10 points): Is your proposed solution ready to be field trialled?</li><li>• <b>Innovation</b> (10 points): How is your solution innovative and/or superior to what is currently on the market?</li></ul>	30 points
<b>Delivery</b> – <i>assessed by Agencies</i>	<ul style="list-style-type: none"><li>• <b>Skills and experience</b> (10 points): Does your company and project team have the appropriate skills and experience to carry out the project?</li><li>• <b>Resourcing</b> (10 points): Does your team have access to the equipment, technology, infrastructure needed to carry out the project? Have you considered agency requirements to conduct the trial?</li><li>• <b>Project plan and budget</b> (10 points): Does the application provide a reasonable project plan, including a budget, risk management plan and performance measures to ensure value for money for NSW citizens?</li></ul>	30 points
<b>Commercial</b> – <i>assessed by business experts</i>	<ul style="list-style-type: none"><li>• <b>Potential</b> (10 points): Does the application provide a reasonable plan on the next steps to be commercially scalable, in the future, including identifying potential barriers and how these will be mitigated? Commercially scalability could include how you service one or more agencies or grow nationally/internationally.</li><li>• <b>Financial stability</b> (10 points): Is the company financially sound and have the financial resources needed to carry out the project? (10 points)</li></ul>	20 points

# Assessment Panel

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The Panel is made up of:

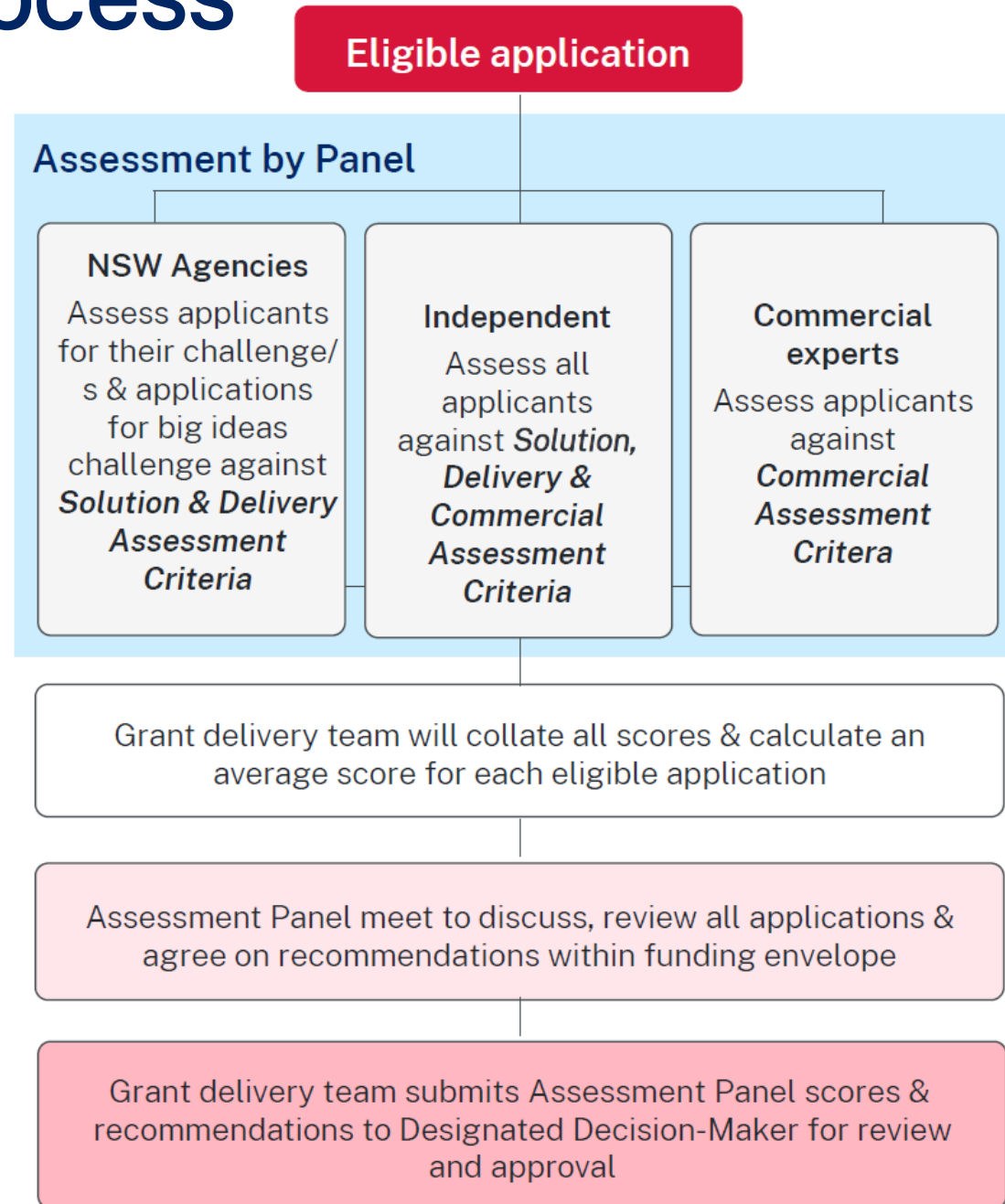
1. Agency representatives for each of the 25 challenge statements
2. Commercialisation/business experts
3. Independent Assessor from OCSE.

The Panel recommends the applications for approval and award within the funding envelope to the Secretary for the Department of Enterprise, Investment and Trade.

Note – the Panel has discretion to recommend partial funding of proposals if there is insufficient funding available for the whole proposal or where only a component of the proposal is considered suitable/eligible.



# Assessment Process



# How to apply (via SmartyGrants)

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<https://chiefscientist.smartygrants.com.au/NaturalHazardsTechnologyProgram>

## NSW Natural Hazards Technology Program



Start a submission



Preview the form



Download preview form

Submissions are now being accepted. Submissions close at 10:00AM 14 March 2024 (AEDT).

### Notes:

- You can apply for more than one challenge. You will just need to complete a separate application for each challenge.
- Important your technology is ready to be trialled with the partnering NSW Agency/ies from 1 July 2024.

# NSW Natural Hazards Technology Program



Fill Out Now

This is a preview of the NSW Natural Hazards Technology Program Application Form form. When you're ready to apply, click **Fill Out Now** to begin.

Previous Page

Close

Next Page

## Applicant Information

\* indicates a required field.

### 5.1 Organisation Contact Details

Applicant \*

Applicant ABN \*

Lookup

The ABN provided will be used to look up the following information. Click Lookup above to check that you have entered the ABN correctly.

Information from the Australian Business Register	
ABN	
Entity name	
ABN status	
Entity type	
Goods & Services Tax (GST)	
DGR Endorsed	
ATO Charity Type	<a href="#">More information</a>
ACNC Registration	

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8. Specific Criteria Questions
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## Project Information

\* indicates a required field.

### 6.1 Project Details

Please select the challenge from the list that your project addresses. To be eligible for funding your project must address one challenge. If you technology can address more than one challenge please submit a second application and select the additional challenge it addresses. \*

- 1. Improved modelling for flood prediction and incident management
- 2. Maintaining transport routes impacted by natural hazards
- 3. Heavy plant construction models
- 4. Understanding evacuation behaviours
- 5. Managing rockfall and landslide risk
- 6. Airborne intelligence processing
- 7. Command-and-control interface
- 8. Intelligence creation
- 9. Visualisation of natural hazards impacts
- 10. Firefighter respiratory protection
- 11. Water alternatives for firefighting operations
- 12. Bushfire fuel moisture monitoring
- 13. Remote ignition detection and suppression
- 14. Hazardous tree identification
- 15. Rapid asset condition and damage assessment
- 16. Delivery of emergency supplies to isolated locations
- 17. Tracking seabed, beach and dune change over time
- 18. Measuring water flow and bathymetry in rivers
- 19. Water quality monitoring and predictive capabilities
- 20. Monitoring and maintenance of dissolved oxygen in rivers
- 21. Multilingual emergency warnings
- 22. Auslan presentation of warnings
- 23. Connectivity to the Hazards Near Me app
- 24. Voice connectivity and vehicle tracking for regional and remote staff
- 25. Hearing aids for firefighters
- 'Big Ideas' Challenge

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Project Title \*

Brief project description \*

Detailed project scope \*

# NSW Natural Hazards Technology Program



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## Specific Criteria Questions

\* indicates a required field.

### 7.1 Solution (30 points)

1. Suitability of the proposed solution (10 points) - Describe your proposed solution and how it addresses the challenge. Ensure you describe the main technical deliverables of the solution, and what might be achieved by trialling/deploying the solution to address the challenge. Ensure you address how your solution meets the technical and functional requirements of the challenge. This question will be scored against this assessment criterion: 'To what extent would the proposed solution address the challenge statement, including the solution requirements?' \*

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# Specific Assessment Criteria: Solution (30 points)

Sub-Criteria	Assessment Criteria	What we're looking for
<b>1. Suitability</b> (10 points)	Describe your proposed solution and how it addresses the challenge. Ensure you describe the main technical deliverables of the solution, and what might be achieved by trialling/deploying the solution to address the challenge. Ensure you address how your solution meets the technical and functional requirements of the challenge.  Max 500 words.	<ul style="list-style-type: none"> <li>• An effective end-to-end solution that meets Agency requirements and is practical.</li> <li>• Important to provide a clear description of your solution, how it works and all the limitations and practical considerations of applying your solution to address the challenge.</li> </ul>
<b>2. Readiness</b> (10 points)	Is your proposed solution ready to be field trialled?  Max 500 words. Can attach documentation/ technical specifications to demonstrate readiness	<ul style="list-style-type: none"> <li>• Important to describe/demonstrate the practical viability of your proposed solution in a field-testing context.</li> </ul>
<b>3. Innovation</b> (10 points)	Describe how your proposed solution is innovative and superior to what is currently available on the market. Ensure you describe other competing solutions on the market and how your solution differentiates itself from them. Note any relevant IP rights.  Max 500 words. Can attach diagrams/pictures to support your response.	<ul style="list-style-type: none"> <li>• Important to clearly differentiate between your solution and any existing approaches.</li> </ul>

# Specific Assessment Criteria: Delivery (30 points)

Sub-Criteria	Assessment Criteria	What we're looking for
<b>1. Skills &amp; experience</b> (10 points)	Describe your organisation's capability to deliver the solution. Ensure you describe your organisations and project team members' relevant skills and experience.  Max 500 words. Attach any CVs/bios.	<ul style="list-style-type: none"> <li>• Relevant technical, business, and operational capabilities on the project team to deliver the pilot, or where you have gaps in experience/skills, you bring in staff or partners to provide these.</li> <li>• Experience in delivering solutions of this scale and complexity and understand the resourcing capacity requirements necessary.</li> </ul>
<b>2. Resourcing</b> (10 points)	Describe the equipment and facilities required to undertake the trial and what are the requirements needed from the NSW agency?  Max 500 words. Can attach supporting documents.	<ul style="list-style-type: none"> <li>• Demonstrate you have considered all the facilities, equipment, and personnel needed to deliver the pilot.</li> </ul>
<b>3. Project plan &amp; budget</b> (10 points)	Provide a detailed project plan and budget for the trial.  Max 500 words. <i>Complete budget template and attach.</i>	<ul style="list-style-type: none"> <li>• The main milestones and deliverables</li> <li>• When and how key stakeholders/ agencies and resources will be engaged, and any resources required from partner agencies</li> <li>• The project management processes to achieve the milestones</li> <li>• Main technical, commercial and environmental risks and their mitigation</li> <li>• How any IP issues which might arise during the project will be handled.</li> </ul>

# Specific Assessment Criteria: Commercial (20 points)

Sub-Criteria	Assessment Criteria	What we're looking for
<b>1. Commercialisation</b> (10 points)	Describe your plan for commercialisation, adoption and scaling of your product or service.  Max 500 words.	<ul style="list-style-type: none"> <li>Ability to meet the needs of the Challenge as you scale up, and identification of any other NSW agencies or potential customers. Ensure you identify potential barriers and mitigation approaches.</li> </ul>
<b>2. Financial</b> (10 points)	Demonstrate that you are financially sound and have the financial resources needed to carry out the project.  Max 200 words.  <i>Attach your Profit &amp; Loss statements and Balance Sheets from the last two financial years (FY2021/22 and 2022/23 or equivalent).</i>	<ul style="list-style-type: none"> <li>Clear outline of how your company is financially sound and has the financial resources needed to carry out the project and achieve commercial success.</li> <li>If you are not yet incorporated, attach evidence of:               <ul style="list-style-type: none"> <li>Sufficient financial resources to undertake the project and commercialise the solution, and</li> <li>Your intention to incorporate a business if you are successful in receiving funding.</li> </ul> </li> </ul>



# Video Presentation

- Must include a video presentation no longer than three minutes.
- Your video must:
  - Describe the solution, what it does and how it works
  - Describe how your technology will help to solve one or more of the challenges
  - Describe your pilot and what you would like to achieve from the trial.
- Either provide a link to your video presentation or attach the file.

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# Review & Submit

- Review your application, ensure you meet eligibility criteria and selected a challenge
- NOTE: Once you have submitted your application you cannot make any changes
- Ensure you have attached:
  - Profit-and-loss statements (FY 22-23 and FY 21-23)
  - Balance sheets (FY 22-23 and FY 21-23)
  - Video (of no longer than 3 minutes) explaining your solution
  - Completed budget template
  - Any documentation to demonstrate your trial readiness, innovation or personnel experience (CVs or Bios).
- Read through the applicant declaration carefully
- Submit your application.

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# Questions

# Contact Us

E: [grants@chiefscientist.nsw.gov.au](mailto:grants@chiefscientist.nsw.gov.au)

T: 02 9228 5765

[www.chiefscientist.nsw.gov.au/rd-action-plan/natural-hazards-technology-program](http://www.chiefscientist.nsw.gov.au/rd-action-plan/natural-hazards-technology-program)

To apply: <https://chiefscientist.smartygrants.com.au/NaturalHazardsTechnologyProgram>