NSW Bushfire Response Mission

Bushfire Technology Pilots Program

Guidelines for Applicants

Round 1

DECEMBER 2021

1. **Program Purpose**

   a. The NSW Government has established the Bushfire Technology Pilots Program (BTPP) under the NSW Bushfire Response Mission to support trials and pilots of field ready[1] bushfire technology developed by eligible entities.

   b. The BTPP is administered by the Office of the NSW Chief Scientist & Engineer within Investment NSW ('the Department').

   c. The objectives of the BTPP are to:

      i. enable NSW businesses to commercialise field ready technology for bushfire-related applications through the trial or pilot of technology with end-user agencies in NSW.

      ii. improve end-user agencies awareness of innovation possibilities in bushfire management and operations through exposure to new technology

   d. The BTPP supports bushfire technology trials and pilots in an operational environment.[2] Funding to support projects is provided on a competitive basis.

      i. **Trials** – successful applicants will have access to fire agency data, facilities, or environments required to perform technology tests and produce validation data or case studies.

      ii. **Pilots** – successful applicants will assist fire agencies to evaluate how they may successfully operationalise the technology through workforce capability development and integration into existing systems and procedures.

2. **Access to data, test facilities and environments**

   a. Access to agency data and/or sites will be negotiated on a project-by-project basis, dependent on the project proposal of each successful applicant.

   b. Grant recipients may be required to sign agreements and/or apply for permissions with the relevant agency (or agencies) in order to access some datasets and/or sites for the duration of the project.

   c. Access to commercially sensitive datasets may be negotiated through end-user agencies but may incur additional license fees.

   d. Grant recipients may be required to provide data generated through the course of the project in the format of an open data standard, with the data to be made accessible and discoverable in alignment with the NSW Government Open Data Policy for the benefit of NSW government agencies and the public.

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[1] For the purposes of the BTPP, 'field ready' means technology that has reached a minimum Technology Readiness Level (TRL) of 6. See Appendix A for an explanation of the TRL concept.

[2] For the purposes of the BTPP, 'operational environment' means an environment in which the trial or pilot conditions are, or closely replicate, the real conditions that would be present in the bushfire management and operations of the end user agency. Examples of such conditions include extreme high temperatures, poor visibility, uneven terrain, end user capability and existing agency information and communication systems.

e. Access to test sites and environments will be subject to end-user agency frameworks, which govern how access will be managed under changing risk profiles (e.g., in the event a site is declared an active fireground).

3. Funding

a. Applicants may apply for up to a maximum of $100,000 per grant application. A total grant pool of $1.5 million is available for Round 1.

b. Each successful applicant will receive funding up to the total amount of the project budget, determined at the discretion of the assessment panel and informed by the application. Not all projects will be funded as the funding cannot exceed the total allocated pool.

c. If your application is successful, funding will take the form of a single cash payment following the signing of an agreement between the applicant and the Department.

d. Funds may be expended on activities to support the delivery of technology in the field, that is, to conduct the trial or pilot as outlined in the Application Form and project budget. Eligible expenditure includes:

   i. capital expenditure (for example, to build and provide extra units of the technology)
   ii. specific professional expertise (for example, a drone pilot, technical specialist, business development or commercialisation expert)
   iii. data analysis and/or management costs

4. Eligibility Criteria

a. The applicant must:

   i. Have an Australian Business Number.
   ii. Be one of the following entities:
      1. A company, or
      2. An individual or partnership, provided they agree to form a company incorporated in Australia to enter into a grant agreement, or
      3. A NSW public research organisation applying through its appropriate technology transfer office, provided they agree to form a company incorporated in Australia to enter into a grant agreement.
   iii. Meet one of the following criteria:
      1. Be headquartered in NSW, or
      2. Conduct the majority of business research and development and production operations in NSW.
   iv. Hold the Intellectual Property or the rights to commercialise the proposed solution.
   v. If successful, undertake to conduct the project-related research and development work in NSW.

b. The proposed technology to be trialled or piloted must be field ready. The technology must have reached a minimum TRL of 6. Refer to Appendix A for further detail on TRL.

c. The applicant must complete all sections of the application form and provide the required attachments.

5. Joint Applications

   a. Joint applications between a business entity and research-based research organisations (including universities) are encouraged. However, the business entity must lead the project and submit the grant application.

   b. The lead applicant (the business) must outline clearly in their application who the project partners are and how each partner will contribute to achieving the objectives of the project proposal (e.g. technical or commercial expertise, co-funding).

6. Assessment Criteria and Process

   a. R&D NSW will assess all submitted applications for eligibility and collate eligible applications for further assessment.

   b. Eligible applications will be assessed against the following assessment criteria:

   i. Feasibility of project proposal
   ii. Ability to fulfil a need in relation to bushfire management and operations
   iii. Technical feasibility of the proposed technology application
   iv. Commercial viability of technology
   v. Capability of project team
   vi. Benefits of technology to bushfire management and operations in NSW
   vii. Need for funding, demonstrated through a budget breakdown and company financial position.

   c. Eligible applications will first be assessed by a committee of representatives from NSW government agencies involved in bushfire and natural hazard disaster management and response including, but not limited to, NSW Rural Fire Service, NSW Fire & Rescue, NSW National Parks and Wildlife Service and NSW State Emergency Service.

   d. Final assessment of applications will be conducted by an independent Expert Panel, comprised of experts in technology commercialisation and venture capital.

   e. All applicants will be notified of their application outcome and will have the opportunity to request feedback.

7. Application Process

   a. The BTPP application form is available at: https://www.chiefscientist.nsw.gov.au/rdnsw/bushfire-response-rd-mission/.

   b. Applications are due by 5:00 pm (AEDST), **07 February 2022.**

   c. All applications must be submitted electronically through Smarty Grants. Forms submitted by any other means will not be accepted.

   d. The application form must be completed in its entirety to be eligible for consideration. Clearly mark any information that should be treated confidentially.

e. If requested, the applicant agrees to provide further information to support assessment of the application.

f. The application must be signed by the project lead or a representative of the lead organisation for the project.

g. No late applications will be accepted.

8. Important Dates

20 December 2021:   Round opens
07 February 2022:   Round closes
April 2022:   Applicants will be notified of outcome

Dates may be subject to change.

9. Funding Agreements

a. Successful applicants who accept the offer of a grant will be required to enter into a funding agreement with the Department. The agreement will specify obligations, including use of the grant for activities occurring in NSW, the management of data generated during the project, return of any unspent grant funds and reporting requirements.

b. The full funding amount will be paid in a single cash payment after the funding agreement is signed by the recipient and returned to Investment NSW.

c. The agreement must be signed by the project lead or a relevant representative from the lead organisation for the project within 10 business days of receiving the grant from Investment NSW, otherwise the grant offer will lapse.

d. Funds from lapsed grant funding offers from Round 1 will become unavailable.

10. Discretionary funding

a. Funding is provided at the discretion of Investment NSW, with final discretion for funding decisions held by the Chief Executive Officer, Investment NSW. Funding is conditional on responses provided in the Application Form that the project will be able to meet the assessment criteria and meet the BTPP objectives regarding delivering benefits to bushfire management and response in NSW.

11. Probity

a. Investment NSW will ensure that the assessment process is fair and incorporates safeguards against fraud, unlawful activity, and inappropriate conduct.

b. Investment NSW will manage actual, potential or perceived conflicts of interest identified by applicants, assessors and administrators of the BTPP program. All applicants and assessors will be asked to declare any actual, potential or perceived conflicts of interests, or confirm that there are no conflicts of interest.

c. All information provided to the NSW Government will be collected and stored in accordance with *Privacy and Personal Information Protection Act 1998 (NSW)*.

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d. The NSW Government will treat information provided in applications as confidential and only use the information for the purposes of assessing the application, evaluating the performance of a grant awarded under the BTPP program and evaluating the performance of the BTPP program.

e. The NSW Government may disclose non-commercially sensitive information provided in applications, including business names and a basic summary of the proposed solution, to announce the awarding of grants.

f. The NSW Government may disclose confidential information provided in applications if required under law, for example under the *Government Information (Public Access) Act 2009 (NSW)*. https://www.investment.nsw.gov.au/about-investment-nsw/accessing-investment-nsw-information/

g. Investment NSW will engage a probity advisor to oversee the BTPP processes and activities.

12. Impacts from COVID-19

a. Investment NSW is committed to responsible management of COVID-19.

b. Your project must comply with any COVID-19 guidelines and public health orders in place at the time your project is active. Please refer to official health advice provided by the health authorities in the relevant jurisdiction.

Appendix A: Technology Readiness Levels

Technologies that have reached a minimum Technology Readiness Level (TRL) of 6 are eligible to apply for the BTPP.

1	2	3	4	5	6	7	8	9
Basic principles observed	Technology concept formulated	Experimental proof of concept	Technology validation in lab	Technology valid in relevant environment	Demonstration in relevant environment	Demonstration in operational environment	System complete and qualified	Successful operations

Source: AusIndustry, see https://business.gov.au/-/media/grants-and-programs/crcp/round-11/crcp-fact-sheet-on-round-11-docx.ashx?sc_lang=en&hash=18E96C5C99D2A2CDA228313C0BC4582D

TRL scales are a method for assessing the maturity level of a particular technology based on the stage of its development. The TRL concept was developed by NASA in the 1970s and is now in widespread use, having since been adapted and adopted by many R&D organisations worldwide. **Table 1***Error! Not a valid bookmark self-reference.* below provides detail on the nine TRLs and the parameters required to achieve them.

Table 1 Description of Technology Readiness Levels

TRL	TRL Description	Evidence of Achievement
1	Basic principles observed and reported	Published research that identifies the principles that underlie this technology
2	Technical Device/System concept formulated	Practical applications (e.g. devices) of the basic principles of the invention
3	Technical proof of concept demonstration	The basic performance of the invention is demonstrated in a laboratory setting
4	Alpha prototype validation in laboratory environment	A simple prototype is developed, and its performance is demonstrated in a laboratory environment. The performance indicates its potential for solving a community need
5	Beta prototype validation in clinical environment	A more advanced prototype is developed, and its performance is demonstrated in a community environment and further end-user feedback is gained for the final design phase
6	Final Device/System design validation with clinical pilot study	The design of the device or system is frozen, and a small number of devices/systems are manufactured, and a pilot study is conducted by a key opinion leader. A pilot study report is prepared showing the results of the study
7	Device/System from pilot manufacturing line is being trialled in multiple geographical locations	A larger sample of devices/systems are manufactured and sent to multiple sites in different geographical locations for trialling. The reports from these trials will be used for submissions to regulatory authorities
8	Device/System is partially approved and in commercial use	The device/system has been approved in limited geographical regions and is in commercial use in those regions
9	Device/System is fully approved and in commercial use worldwide	The device/system is approved for use worldwide and is in commercial use worldwide