



Office of the
Chief Scientist
& Engineer

NSW Bushfire Response Mission

Round 2 - Bushfire Technology Pilots Program

Guidelines for Applicants

October 2022

1. Program Purpose

- 1.1. The [NSW Bushfire Response Research & Development \(R&D\) Mission \(the Mission\)](#) is the first NSW R&D Mission recommended by the Turning ideas into jobs: Accelerating research & development in NSW Action Plan (the Action Plan).
- 1.2. The Action Plan recommends that the Mission should focus on improving planning, preparations for and responses to bushfires – aligning with recommendation five of the [NSW Bushfire Inquiry](#).
- 1.3. The Mission provides \$28 million over four years to accelerate the development, commercialisation and adoption of bushfire technologies and services to better prepare the state for future bushfires.
- 1.4. The Mission has four programs:
 - The Bushfire Commercialisation Fund (BCF) to enable SMEs to develop and commercialise products related to bushfire technologies.
 - The Bushfire Technology Pilot Program (BTPP) to enable both existing commercial and new technologies to be fielded and evaluated by frontline bushfire services.
 - A STEM Outreach and Engagement Program to provide education and skills training for school children focused on technologies of immediate relevance to bushfire response, to inspire and enable a new generation of technologists.
 - Support the development of a Bushfire Technology Ecosystem.
- 1.5. The BTPP is a competitive grant funded by the NSW Government through the Mission, administered by the Office of the NSW Chief Scientist & Engineer (OCSE) within the NSW Department of Enterprise, Investment and Trade (NSW DEIT).
- 1.6. The objectives of the BTPP are to:
 - Provide funding that assists businesses to test or pilot bushfire technology in an operational environment
 - Enable end-user agencies to trial new technology and contribute to technology innovation in bushfire management and operations.
- 1.7. The second round of the BTPP is open to eligible entities with technologies that are ready to be trialled or piloted in an operational environment.
- 1.8. Grants will be awarded on a competitive basis after applications are assessed by an independent Expert Panel comprised of senior leaders with expertise in bushfire management, operations, and venture capital. Only applications that are supported by end-user NSW government agencies will be recommended for funding.

2. Minderoo Foundation

- 2.1. The Minderoo Foundation is a modern, philanthropic organisation that tackles tough, persistent issues with the aim of driving systemic change.
- 2.2. Minderoo established the Fire and Flood Resilience Initiative (the Initiative) in response to the 2019/20 Bushfires. More information on the Initiative and priorities are outlined [here](#).
- 2.3. There are strong strategic alignments between the Initiative and the Mission.
- 2.4. NSW DEIT has signed a letter of intent with Minderoo to explore opportunities for co-investment into third-party projects that align with both parties' strategic objectives.
- 2.5. NSW DEIT has entered an observership agreement with Minderoo. The observership agreement is aligned with the objectives and intent of the Initiative and the Mission. Minderoo will act as observers during the BTPP assessment process. For consenting applicants and only after the BTPP assessment process has concluded, Minderoo will be granted full access to all BTPP

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applications only for the purpose of allowing Minderoo to decide on funding to those applicants independent of the BTPP funding. Any offer of funding directly from Minderoo is separate to NSW DEIT funding through the BTPP.

- 2.6. After the BTPP assessment process has concluded, Minderoo will undertake its own internal review (separate to the BTPP assessment process) and may contact applicants directly if they wish to discuss potential funding directly from Minderoo.
 - 2.7. Controls will be implemented with the purpose of ensuring that any review or outcomes by Minderoo will not have any bearing or consideration on the BTPP assessment process and/or recommendations on BTPP projects recommended for funding by NSW Government and will adhere to probity principles and controls to ensure funding offered through the BTPP and any funding offered by Minderoo are mutually exclusive and both processes remain independent.
- 3. BTPP funding**
- 3.1. BTPP funding will be awarded to applications based on merit-based assessment and will depend on the overall quality and quantity of applications received, and end-user NSW government agency support of the pilot/trial.
 - 3.2. Applicants may apply for up to a maximum of \$250,000 (excluding GST) per grant application. A total grant pool of up to \$2.6 million (excluding GST) is available for Round 2.
 - 3.3. Each successful applicant will receive funding up to the total amount of the project budget, and recommendations will be made at the discretion of the Expert Panel and informed by the application and review by end-user NSW government agencies. Not all projects will be funded as the funding cannot exceed the total allocated pool.
- 4. Use of grant funds**
- 4.1. Funding will take the form of a single cash payment following the execution of a funding agreement between the applicant and NSW DEIT. Note: the funding agreement will include a Project Charter, that oversees the delivery of the trial/pilot and reporting requirements.
 - 4.2. Grant funding must only be used on activities undertaken within NSW. Proposals that propose spending grant funding on partners, activities, or items outside of NSW will not be eligible (other than the purchase of equipment to bring to NSW).
 - 4.3. 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.
 - 4.4. Eligible expenditure includes:
 - capital expenditure (for example, to build and provide extra units of the technology)
 - specific professional expertise (for example, a drone pilot, technical specialist, business development or commercialisation expert)
 - training of NSW Government personnel as part of the trial/pilot
 - licence fees incurred as part of the trial/pilot
 - data analysis and/or management costs.
- 5. Eligibility criteria**
- 5.1. To be eligible for BTPP support, the organisation/s applying must:
 - Have a current Australian Business Number (ABN).
 - Be one of the following legal entities:
 - a financially viable commercial enterprise based in NSW that is an Australian registered company or that will become a NSW business entity prior into entering legally binding funding agreement with the Department; or

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- an individual who agrees to form such an entity so that NSW DEIT (the Department) can enter into a legally binding funding agreement; or
 - 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 the Department.
- Be based in NSW and demonstrate that the project activities will take place in NSW.
 - Seek to test or pilot bushfire technology that is field-ready. The technology must have reached a minimum Technology Readiness Level (TRL) of 6. Refer to Appendix A for further detail on TRL. The Expert Panel will assess your TRL against the TRL model used in this program and the information provided in each application.
 - Hold the Intellectual Property or the rights to commercialise the device/system.
- 5.2. NSW DEIT at its sole discretion, can take other factors into account that may cause a business to be ineligible for support, such as any personnel or business activities that could cause reputational damage or other risk to the NSW Government.
- 5.3. NSW DEIT reserves the right to assess the applicant's management, its Directors, Officers and entities or individuals that exercise control over an applicant against a fit and proper persons eligibility criterion.
- 5.4. Where an application is identified as not meeting the above eligibility criteria, the application may be set aside from further consideration at the absolute discretion of NSW DEIT.
- 5.5. NSW DEIT may seek clarification from any applicant in relation to its application, including seeking further information on the eligibility or assessment criteria.
- 6.1. The application must outline answers to the questions related to the threshold and assessment criterion to enable the application to be assessed. Failure to provide this information may result in the application being set aside from further consideration at DEIT's absolute discretion.
- 6.2. As this is a competitive grants process, the assessment will be a comparative assessment of the application against all other eligible applications.
- 6.3. The BTPP application form seeks responses to criteria listed in Table 1.

6. Assessment criteria

Table 1: BTPP Criteria

Criteria	Description
Threshold Criteria	
Feasibility of proposal to meet a need in bushfire management or operations	<ul style="list-style-type: none">• Does the technology have the potential to meet a current NSW Government end-user agency need in relation to bushfire management or operations?• Is there an appropriate end-user agency (or agencies) who can work with the applicant on the project?• Can the resources, data and environments required in the proposal be made available to enable the project?

Assessment Criteria	
Technical feasibility and benefits to bushfire management and operations in NSW	<ul style="list-style-type: none"> • Is the proposed application of the technology technically sound? • Is the technology easily scalable? • Is it clear how the technology will provide economic, environmental and/or social benefits to NSW?
Commercial viability of technology	<ul style="list-style-type: none"> • Does the technology have commercial potential?
Capability of project team	<ul style="list-style-type: none"> • Does the project team have sufficient expertise and capability to deliver on the proposal's objectives?
Budget and financial information	<ul style="list-style-type: none"> • Is it clear how the grant funding will be used to conduct the project? • Does the applicant have a demonstrated financial need for the funding?

- 6.4. The assessment criteria (Table 1) have equal weighting.
- 6.5. The responses to these criteria will be used by NSW DEIT to determine whether to recommend funding to the applicant, and how much funding to recommend.
- 6.6. NSW DEIT will make recommendations regarding funding allocations to applicants.
- 6.7. NSW DEIT may choose not to award or recommend funding under this program.

7. Application process

- 7.1. The BTPP application form is available from both the:
- NSW Grants and Funding Finder <https://www.nsw.gov.au/grants-and-funding>
 - NSW Bushfire R&D Mission website <https://www.chiefscientist.nsw.gov.au/rdns/bushfire-response-rd-mission/>.
- 7.2. Applications for BTPP Round 2 must be submitted to Smarty Grants by 5:00 pm on 14 December 2022.
- 7.3. Requests for an extension may be considered at OCSE's absolute discretion.
- 7.4. Applicants should clearly identify in their application (including attachments) any information that the applicant requests be treated as confidential.
- 7.5. All questions in the application form must be answered. If they are not applicable, please indicate.
- 7.6. The application must be authorised by at least one of the core participants (i.e. by the head of the organisation or their authorised delegate).

8. Assessment process

- 8.1. The role of the OCSE is to administer the BTPP, including:
- a. assessing the eligibility of BTPP applications;
 - b. entering into funding deeds with successful applicants;
 - c. making grant payments; and
 - d. monitoring grant recipients' use of funds.
- 8.2. The Program Committee Working Group, representing NSW Government end-user agencies will review all eligible applications to determine which applications they would support, informed by a review of the applications against the threshold criteria (Table 1) and viewing the video pitch.

- 8.3. The Expert Panel will:
- a. Review the recommendations from the Program Committee Working Group on their support of each eligible applicant and agree, by consensus, on the applications which sufficiently meet the threshold criteria to proceed to the detailed assessment.
 - b. Individually assess each eligible application that sufficiently meets the threshold criteria against the assessment criterion (Table 1).
 - c. Deliberate, and agree, by consensus, on the final score for each application, and their rank.
 - d. Make recommendations on which applicants, if any, should receive grants and the amount of those grants.
- 8.4. The Expert Panel will assess each application on a competitive basis relative to the criteria and other applications.
- 8.5. When making their recommendations, the Expert Panel will consider:
- The total funding available.
 - The assessment criteria outlined in the Application Guidelines and whether the application will be supported by end-user agencies.
 - The requested amount against the scope of the project i.e. could the applicant effectively deliver the proposed project with less funding. Advice may be sought from applicants to understand the potential impact if a decision was made to award less funding than was applied for.
 - Whether the requested funding amount is too large compared to the project.
 - Whether a reduction could pose significant risks to the success of a project.
 - Whether applicants have sufficient or additional resources or avenues available to raise capital other than this grant that could assist with the success of their project.
 - Whether a decrease of funding will impact achieving the overall aim of the BTPP.
- 8.6. The Expert Panel has discretion to recommend that an applicant receive a smaller amount of funding than they originally asked for.
- 8.7. The Expert Panel will provide advice on the most appropriate portion of the BTPP Round 2 funding to be allocated to best deliver the objectives of the program.
- 8.8. All applicants will be informed of the outcome of the decision on their applications, whether they are successful or not.
- 8.9. NSW DEIT, at its discretion, may choose not to award or recommend funding under this program.
- 8.10. The timetable for the assessment process is as follows:

Wednesday 26 October 2022 BTPP applications open.

Wednesday 14 December 2022 BTPP applications close.

April 2023 Applicants are informed of the outcome.

Please note that dates are subject to change.

- 9. Funding agreements & reporting requirements**
- 9.1. Successful applicants who accept the offer of a grant will be required to enter into a funding agreement with NSW DEIT. 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.
- 9.2. The full funding amount will be paid in a single cash payment after the funding agreement is signed by the recipient and returned to OCSE.
- 9.3. 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 the OCSE, otherwise the grant offer will lapse.
- 9.4. The NSW Government may choose to publicly announce funding for individual applications. It may also use information provided to create case studies
- 9.5. All recipients of NSW Government funding should acknowledge this financial support in accordance with the Funding Acknowledgement Guidelines for Recipients of NSW Government Grants available at www.nsw.gov.au/branding/sponsorship-and-funding-acknowledgment-guidelines
- 10. Probity Advice**
- 10.1. The OCSE will make sure that the grant opportunity process is fair according to the published guidelines, incorporates appropriate safeguards against fraud, unlawful activities, and other inappropriate conduct.
- 10.2. An independent probity advisor will be engaged as part of this Program to provide guidance to the OCSE on any issues concerning integrity, fairness and accountability that may arise throughout the application, assessment, and decision-making process. This will ensure decisions are made with integrity, fairness, and accountability, while delivering value for money for NSW.
- 11. Government Information (Public Access) Act 2009 (NSW)**
- 11.1. Applicants should be aware that information submitted in applications and all related correspondence, attachments and other documents may be made publicly available under the Government Information (Public Access) Act 2009 (NSW). Information that is deemed to be commercially sensitive may be withheld. The Government Information (Public Access) Act 2009 (NSW) makes government information accessible to the public by:
- requiring government agencies to make certain sorts of information freely available
 - encouraging government agencies to release as much other information as possible
 - giving the public an enforceable right to make access applications for government information
 - restricting access to information only when there is an overriding public interest against disclosure.
- 12. Conflicts of interest**
- 12.1. Conflicts of interest for NSW DEIT will be handled as set out in the Investment NSW Code of Ethics and Conduct.

13. Privacy

13.1. We treat your personal information according to the NSW DEIT Privacy Management Plan available at investment.nsw.gov.au/privacy and the Privacy and Personal Information Protection Act 1998 (NSW).

This includes letting you know:

- what personal information we collect
- why we collect your personal information
- who we give your personal information to.

13.2. Your personal information can only be disclosed to someone for the primary purpose for which it was collected unless an exemption applies.

14. Disclaimer

14.1. NSW DEIT does not guarantee or warrant and accepts no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained in this publication. Information in this publication is provided as general information only and is not intended as a substitute for advice from a qualified professional.

14.2. NSW DEIT recommends that users exercise care and use their own skill and judgment in using information from this publication and that users carefully evaluate the accuracy, currency, completeness, and relevance of such information. Users should take steps to independently verify the information in this publication and, where appropriate, seek professional advice.

14.3. The guidelines are subject to change at any time at the sole discretion of NSW DEIT.

15. Contact

15.1. For any further questions regarding the BTPP Round 2, contact us through investment.nsw.gov.au/contact-us/

Appendix A: Technology Readiness Levels

The Technology Readiness Level (TRL) index is a globally accepted benchmarking tool for tracking progress and supporting development of a specific technology through the early stages of the innovation chain, from blue sky research (TRL 1) to actual system demonstration over the full range of expected conditions (TRL 9).

To assist the BTPP Expert Panel you are required to estimate the TRL of your device/system using the table below. The BTPP considers projects for trial or pilot of technologies that are at a minimum **TRL of 6**.

Source: [Technology Readiness Levels | FrontierSI](#)

TRL	TRL Description	Evidence of Achievement
1	Basic research principles observed and reported	Published research that identifies the principles that underlie the idea.
2	Technical device/system concept formulated	Practical applications of the basic principles of the research can be identified. The step from TR1 to TRL2 moves the ideas from basic to applied research, with experimental work designed to corroborate the basic scientific observations made during TRL1 work.
3	Technical proof of concept demonstration	The basic performance of the concept is demonstrated to work as expected.
4	Technology (Alpha prototype) validated in lab research/local environment	A simple prototype is developed, and its performance is demonstrated in a relevant environment. TRL 4-6 represent the bridge from scientific research to engineering, from development to demonstration.
5	Technology validated in relevant 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. The major difference between TRL 4 and 5 is the increase in the fidelity of the system and environment to the actual application.
6	Final Device/System design validation with pilot study (beta-prototype system)	Engineering-scale models or prototypes are tested in a relevant environment with a pilot study report prepared showing the results, representing a major step up in the technology's demonstrated readiness. The major difference between TRL 5 and 6 is the step up from laboratory scale to engineering scale and identifying the design factors necessary for the final system. Examples include fabrication of the device on an engineering pilot line. Supporting information includes results from the engineering scale testing and analysis of the differences between the engineering scale, prototypical system/environment, and analysis of what the experimental results mean for the eventual operating system/environment.
7	Device/System trialled in multiple geographical locations	A larger sample of devices/systems are manufactured and sent to multiple sites in different geographical locations for trialling.

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		TRL7 represents a major step up from TRL 6, requiring demonstration of an actual system prototype in a relevant environment.
8	Device/System is incorporated into commercial use	The device/system is proven to work in its final form and under expected conditions.
9	Actual system/ device proven in operational environment	The device/system is approved and is in commercial use worldwide