



Frequently Asked Questions

Moon to Mars Trailblazer

1. How do I apply for funding?

The grant opportunity application can only be submitted through the online portal. Go to business.gov.au for information on how to apply.

2. Program timing?

Applications opened from 9.00am Wednesday 6 December 2021 and will close 5.00pm AEDT Monday 28 February 2022.

The earliest start date for your project will be 1 May 2022. Your project must be completed by 31 July 2023.

3. What funding is available?

\$8 million is available for the Stage 1 grant. Two successful applicants can receive up to a maximum of \$4 million each. You must provide a minimum co-contribution of \$1 million. Your contribution must be cash.

4. I am a research organisation with a project that has a clear commercialisation pathway, can I apply?

Publicly and privately funded research organisations (PFRO) are eligible. If you are applying as a PFRO, your application must be a joint application including at least one eligible Australian trading corporation.

5. How will the Commonwealth Scientific and Industrial Research Organisation (CSIRO) be involved in the Trailblazer Program?

The CSIRO has provided scientific and technical support to the Australian Space Agency (the Agency) for the development of the Trailblazer program (the Program). The Agency and CSIRO are also in discussion about CSIRO providing future support for the Program.

CSIRO will also be able to provide inputs to the successful Applicant's proposals as a

subcontractor. This may involve CSIRO entering into a commercial arrangement with one or both of the successful applicants to provide access to specific CSIRO services and capability on commercial terms.

Applicants will not be able to engage with CSIRO as a project partner or as a member of an Applicant's consortium. CSIRO will also not be entering into any exclusive arrangements with any applicant.

If you do intend to engage CSIRO as a subcontractor, we recommend that you provide details of CSIRO's proposed role and expected involvement as part of your grant application. CSIRO has nominated contact personnel to whom enquiries regarding your grant application should be directed. Please contact them via space@csiro.au.

If your application is successful, grant funding can be used to engage CSIRO as a subcontractor.

The Department and CSIRO will put in place arrangements to ensure appropriate management of probity issues to ensure the grant process is undertaken in a fair and equitable manner. CSIRO will not be involved in the assessments of the applications.

We may also provide further guidance to the successful grantees regarding engagement with CSIRO.

6. What is an acceptable cash contribution to match the grant?

Your contribution to the project must be cash, not in-kind. Eligible contributions are:

- cash to be spent by the applicant or a project partner on eligible expenditure for the purpose of undertaking an eligible project activity; and
- labour costs of employees directly employed by the applicant or a project partner on eligible project activities. Eligible labour costs must be within the limits specified in the Moon to Mars Trailblazer Grant Opportunity Guidelines.

The Commonwealth consider in-kind to be non-monetary inputs such as facilities, equipment and services provided by the grantee or a project partner from its own resources.

Examples of in-kind are:

- equipment, technology, software or hardware;
- service fees or of discounted service fees;
- discounted rent/loan of facilities and equipment;
- access to intellectual property.

If there is no exchange of money (either by cash or bank transaction) by the applicant or a project partner, then it is considered to be in-kind.

Your cash contributions can come from any source except the Commonwealth.

7. Will post project reporting be mandatory for all projects?

Yes. Post project reporting will be included on all projects so the Commonwealth can track project progress beyond the end of the project.

8. What are the character limits for my application?

The online form includes character limits for each question. If you are drafting content in Microsoft Word please be aware that Word does not consider a return to be a character but the application form does. This may result in a slight difference in word count across Word and the online form.

9. Can I include a letter of support from another space agency as part of my application?

Certain overseas agencies have advised that it is their policy not to influence foreign governments' internal selection processes. Letters received as part of an application where this applies will not be considered during the grant assessment process. However, you may include information detailing existing collaborations in your application.

10. Can I discuss the trailblazer program with the National Aeronautics and Space Administration (NASA)?

The Commonwealth would ask that all questions about the Trailblazer be directed to

Spacegrants@industry.gov.au and in consultation with the Agency a response will be provided. Any discussions with NASA that are not about the Trailblazer program can continue.

11. Can I have a meeting to discuss the eligibility and suitability of my project activities with the Australian Space Agency and/or AusIndustry?

No. The Australian Space Agency and AusIndustry cannot make any specific recommendations regarding the suitability of your project for the Trailblazer Stage 1 grant opportunity beyond what is already publicly outlined in the Grant Opportunity Guidelines.

AusIndustry can provide guidance on the application process.

12. Are the clauses in the Sample Grant Agreement negotiable?

The Sample Grant Agreement is available to view at business.gov.au. The clauses in the agreement are not negotiable and no new clauses can be added. You are strongly encouraged to review the Sample Grant Agreement to confirm you can accept the funding conditions before you apply.

13. What is considered best-practice for project plan and milestone deliverables?

The grantee should define the acceptance criteria for the completion of each milestone and the overall project, determining what constitutes successful delivery of the project. Milestones should be measurable, with:

- agreed deliverables
- success criteria
- how this criteria will be assessed (for example, review panel, compliance matrix, signed off test report/results etc.).

Ideally, the indication that a criteria has been reached should come from either a separate or independent entity.

14. When can I start my project?

You must not start any Moon to Mars Trailblazer Grant activities until a grant agreement is executed. We are not responsible for any expenditure you incur until a grant agreement is executed. Program timing information is at Question 2 of this document. Grant agreements will be in place with

successful applicants approximately one month after the announcement date.

15. How can I find out if my proposed project costs are eligible?

You should review the Grant Opportunity Guidelines 5.2 – Eligible expenditure and 5.3 – Ineligible expenditure for information on eligible project costs.

Ineligible projects include:

- business as usual expenses, or maintenance costs
- routine operational expenses, including communications, accommodation, office computing facilities, printing and stationery, postage, legal and accounting fees and bank charges, not directly related to the project
- non project-related costs, or costs associated with ineligible activities
- capital expenditure for the purchase of assets such as office furniture and equipment, motor vehicles, computers, printers or photocopiers and the construction, renovation or extension of facilities such as buildings and laboratories not directly related to the project
- activities that have previously received funding from other Commonwealth, State, Territory or local government grants.

16. Milestones dates for Phases C to F.

An issue with entering milestones dates for Phases C to F has been identified. The online application form will not allow dates further than 31 July 2023. Please enter 31 July 2023 as an end date for milestones Phases C to F in the online application form, but specify their true expected date in the associated description field (see section [E5 description](#) in the sample application form).

17. How much Australian industry content must my project have?

The Commonwealth acknowledges that it may not be possible for all aspects of your space project to be carried out in Australia. The Commonwealth expects that large majority of funding (for example, 80% excluding launch costs) to be spent in Australia subject to the strength of the case to build Australian capability and capacity. Your proposal should

articulate the geographic allocation of your project work to allow assessment of this percentage along with outlining the benefit to project and Australia for any funds spent overseas.

18. What level of risk is acceptable for the mission?

The guidelines recommend you consider NASA standards for your mission design. This is not mandatory. You should propose a mission with a risk profile that is deemed acceptable to you within the cost and budget available. Your proposal will be assessed only according to the assessment criteria.

In Appendix C of the *Moon to Mars initiative: Trailblazer Stage 1 Guidelines*, the requirement TBR-MIS-3210 also provides a requirement on the probability of loss of mission. If you consider this requirement is too stringent, then you should propose a reasonable alternative value and/or approach along with a detailed justification.

19. The schedule is very compact in the later phases of the mission development. It is difficult to propose a mission compliant to the schedule. What is the best way forward?

We acknowledge that the schedule is challenging, however the mission concept review (MCR) and system requirements review (SRR) dates are required in order to meet the intended launch timeframe. There may be future changes to the intended launch date, which would occur in consultation with successful Stage 1 recipients.

If you foresee key issues and risks with the schedule, you should provide a detailed description and any proposed solutions in your proposal.

20. Which priority is more important for the Mission: automation or regolith collection?

Both automation and regolith collection are important priorities for the Mission. These are set with equal priority to best prepare Australia for a future leading role in lunar foundation services.

If you consider achieving both automation and regolith collection requirements is too demanding within schedule and budget constraints, then you should detail your concerns and provide high level mission concept options, accompanied by respective proposed reduction of requirements. You should also articulate how these may be traded off in the course of Stage 1 activities.

21. Must the proposal be compliant to all mission and interface requirements?

No. The requirements are a first baseline to start the early design process. Typically high level requirements are set at system requirements review (SRR). Between the start of Stage 1 and the SRR successful applicants may challenge and propose trade-off or adaptations to requirements to ensure a feasible design solution is possible. Any changes to requirements through this process or otherwise will be decided by the Agency in consultation with successful Stage 1 recipients.

22. Is the flight to the lunar surface guaranteed?

Australia has formed a partnership with NASA to give Australian businesses and researchers the opportunity to showcase their knowledge and capabilities in a project that can support NASA's Artemis program.

As a part of this partnership, NASA has offered the possibility of a free flight to the lunar surface in 2026 for an Australian foundation services rover that can pick up and transfer lunar regolith to a NASA-operated in-situ resource utilisation unit (ISRU).

The Agency has signed an agreement with NASA to enable discussions leading up to a mission concept review (MCR), followed by system requirements review (SRR) for the foundation services rover.

These responsibilities must be met for NASA to transport the foundation services rover to the lunar surface no earlier than 2026. Cooperative activities taking place following the SRR, including building, testing, ground preparation activities, delivery of hardware, and launch will be covered in a separate arrangement with NASA.

It is expected that this separate arrangement would be finalised prior to the commencement

of Stage 2 activities. Consultations will occur with the Stage 1 recipients on these future arrangements.

23. What is the driving reason to deliver 2kg of lunar regolith to the ISRU facility?

The delivery of 2kg of lunar regolith to the ISRU facility is the expected maximum amount of lunar regolith required to prove the ISRU facility concept. The value of 2kg is to be confirmed (TBC) and may be changed after your Stage 1 proposal is submitted.

If you consider this amount of regolith is infeasible or undesirable, you should provide in the proposal, a clear justification of any recommended changes, along with feasible alternative design options.

24. Could you please explain the rationale around TBR-MIS-1220 and TBR-MIS-1230 (located in Appendix C of the Moon to Mars initiative: Trailblazer Stage 1 Guidelines)?

The rationale for these requirements is to provide the potential range of digging rates that the rover may be expected to perform. Note that these digging rates are to be confirmed (TBC) and may be specified or refined by the Agency, in consultation with successful applicants, over the course of the Mission.

25. Can the requirements be challenged and changed through the mission development process?

Yes. The program has key budgetary, schedule and interface constraints under which the mission must be realised. An assessment of the driving and critical requirements is expected in your proposal.

Proposed changes to requirements based on this assessment are acceptable in your proposal, and in the course of the mission development process further adaptations may be proposed to ensure a feasible solution is found.

26. Does a prototype have to be developed by preliminary design review (PDR)?

Yes. In section 5.1 of the *Moon to Mars initiative: Trailblazer Stage 1 Guidelines* an eligible activity must include the following: *design, develop and build a functioning rover prototype that mitigates program risk.*

Stage 1 recipients are able to choose to what extent their prototype represents their planned flight model, and how it mitigates risk.

27. Who determines the regolith acquisition zones (RAZ) for the rover?

Who specifies the regolith acquisition zones (RAZ) for the rover is still to be determined. To support the mission concept development, your proposal should clearly state your assumptions. These will be discussed and clarified over the course of the Mission.

28. Will there be any requirements under regolith minerology?

Presently requirements for regolith minerology are to be determined. To support the mission concept development, your proposal should clearly state your assumptions. These will be discussed and clarified over the course of the Mission.

29. Does the contamination of the regolith by the lander rocket plume matter?

Requirements on the regolith contamination are still to be determined. To support the mission concept development, your proposal should clearly state your assumptions. These will be discussed and clarified over the course of the Mission.

30. What if I have a technical question about the program, who do I contact?

Any questions relating to the Trailblazer program can be sent to AusIndustry at Spacegrants@industry.gov.au.

31. Need more information?

For more information, visit business.gov.au or call 13 28 46.

We may update this document from time to time to add further information, where required.